

AGENDA
JEFFERSON COUNTY COMMISSION
THURSDAY, MAY 3, 2012
9:30 A.M.

County Commission Meeting Room
located at the Old Charles Town Library
200 E. Washington Street, Charles Town, WV

CALL TO ORDER

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES

APPROVAL OF PURCHASE ORDERS

APPROVAL OF ACCOUNTS PAYABLE

PUBLIC COMMENT

PRESENTATIONS:

1. 9:45 a.m. Roger Goodwin and Michelle Mason, Chief County Engineer and Office of Impact Fees
- Presentation of FY2013 Capital Improvement Plan for the Impact Fee Program - Discussion/Action
2. 10:00 a.m. Mike Wiley, Jefferson County Citizens for Economic Preservation
- Request from Jefferson County Citizens for Economic Preservation for the County Commission's consideration of an amendment to the Subdivision Regulations for revision of the sunset date for extension of plan approvals from July 1, 2012 to July 1, 2015 - Discussion/Action
3. 10:15 a.m. Paul Shroyer, Financial Director
- Approval of Internal Budget Revision #1012 - Discussion/Action
4. 10:30 a.m. Break
5. 10:45 a.m. Jennifer Brockman, Director of Planning and Zoning
- Approval of Contract with Temporary Agency - Discussion/Action
- Recommendation of Planning Commission to the County Commission on the landowner-initiated petition to amend the County Zoning Map for a 8.98 acre property owner by Gene Capriotti, designated as Tax District: Harpers Ferry, Map: 9-2, Parcel: 58, south of Route 340 (William L. Wilson Freeway) and east of Route 27/2 (Allstadt's Hill Road) for the purpose of setting a public hearing to be held by the County Commission - Discussion/Action

NEW BUSINESS:

6. Priorities for the upcoming quarter - Discussion/Action
7. Request to add five individuals as volunteers to the Jefferson County Deputy Sheriff Reserves - Discussion/Action
8. Request for Compensation During Temporary Assignment for Debbie Keyser from Human Resource Manager to Interim County Administrator effective April 30, 2012 - Discussion/Action
9. Decision on upcoming meeting schedule during weeks of a Holiday for the months of May, June and July 2012 - Discussion/Action

DEPARTMENTS, BOARDS, COMMISSIONS AND AGENCY REPORTS

- Jefferson County Commission
- Harpers Ferry-Bolivar PSD
- Jefferson County Health Department

COUNTY ADMINISTRATOR REPORTS

- ▶ Drug and Alcohol Policy
- ▶ Employee/Volunteer Background checks
- ▶ Discuss County Administrator job description

COUNTY COMMISSION REPORTS

10. 11:45 a.m. LUNCH BREAK

~~~~~ AFTERNOON SESSION ~~~~~

11. 1:30 p.m. Presentation on Water Budget Study - Roger Goodwin, Chief County Engineer and Analytical Services, Inc - Discussion/Action

ADJOURN

CORRESPONDENCE:

Notice that County Offices will be closed on Tuesday, May 8, 2012 for the Primary Election Day.

Letter received from George Cornwell concerning his interest in an appointment to the Eastern Regional Airport Authority.

Eastern Panhandle HOME Consortium of West Virginia Program update received.

Minutes received from the Harpers Ferry/Bolivar Public Service District.

West Virginia Election Calendar Overview 2012 Primary Election - Jefferson County received from Voter's Registration.

Weekly Settlement for Hollywood Casinos at Charles Town Races and Slot received for week ending April 21, 2012 received from the West Virginia Lottery.

Registration and agenda received for the Spring Board Meeting of the West Virginia Association of Counties.

At all times the County Commission reserves the right to rearrange agenda times because of time constraints and to accommodate the Commission schedule or the public.

Minutes
Jefferson County Commission
Thursday, April 26, 2012

A meeting of the Jefferson County Commission was held on Thursday, April 26, in the County Commission meeting room at the Old Charles Town Library located at 200 E. Washington Street, Charles Town, WV 25414. Present were Commissioners Patricia Noland, Dale Manuel, Lyn Widmyer, Walt Pellish and Frances Morgan. Also present were Sandy Slusher McDonald, Interim County Administrator, Debbie Stellato, Administrative Assistant and Jimmy Eddy, Bailiff. (An audio tape of the April 26, 2012 meeting is available through the Jefferson County Commission Office.)

PLEDGE OF ALLEGIANCE

Commissioner Pellish led the Pledge of Allegiance.

Commissioner Widmyer spoke to a third grade class at T. A. Lowrey last week and promised them that she would say hello for all the Commissioners and anyone who wants to chime in. I forgot to do that and in one of the thank you notes from Jayden said "P.S. How come you never say hello to us on Thursday?" I would like to correct that mistake and say hello the Mrs. Milirons third grade class at T. J. Lowrey. The Commissioners all said hello.

Commissioner Manuel said a special hello to his grandchild, Bella, who is in that class and just wanted to let her know that Grandpa's at work enjoying his job.

APPROVAL OF MINUTES

Motion by Mr. Manuel to approve the Minutes of the April 17, 2012 Special Session as presented. Motion seconded by Mr. Pellish and unanimously approved.

Motion by Ms. Morgan to approve the Minutes of the April 19, 2012 regular meeting as amended. Motion seconded by Mr. Pellish and unanimously approved.

APPROVAL OF PURCHASE ORDERS,

Motion by Mr. Manuel to approve Purchase Orders in the amount of \$65,268.31, being purchase order numbers 50687, 50898, 51147, 51148, 51149, 51150, 51151, 51152, 51155, 53294, 53297, 51053, 51054, 51192, 51018, 51020, 51021, 51022, 51023, 51190, 51194, 51195, 50704, 50745, 50896, 50899, 50900, 50901 and 50897. Motion seconded by Mr. Pellish and unanimously approved.

APPROVAL OF ACCOUNTS PAYABLE

Motion by Ms. Morgan to approve the accounts payable in the amount of \$528,306.33. Motion seconded by Ms. Widmyer and unanimously approved.

CHCKNO	DEPT	VENDOR	PONUM	POAMT	NOAMT	CHECK AMOUNT
067047	PAYROLL	AMERICAN FAMILY LIFE ICU		\$ -	\$ 4,549.73	\$ 4,549.73
067048	425	COMCAST		\$ -	\$ 137.27	\$ 137.27

067049	712	AT&T/GA		\$ -	\$ 375.26	\$ 375.26
067050	425	ABH SERVICES, INC.	51191	\$ 90.00	\$ -	\$ 90.00
067051	424	AUDITHEAD, LLC	51182	\$ 1,155.50	\$ -	\$ 1,155.50
067052	405	ADC LEGAL SYSTEMS, INC.	49612	\$ 1,074.00	\$ -	\$ 1,074.00
067053	PAYROLL	AMERICAN GENERAL FINANCE		\$ -	\$ 100.00	\$ 100.00
067054	424	B-K OFFICE SUPPLY INC	51184	\$ 928.00	\$ -	\$ 928.00
067055	425	BOLAND SERVICES	51187	\$ 380.00	\$ -	\$ 380.00
067056	PAYROLL	BUREAU F/CHILD SUPPORT		\$ -	\$ 49.85	\$ 49.85
067057	PAYROLL	BUREAU F/CHILD SPRT ENF		\$ -	\$ 212.31	\$ 212.31
067058	PAYROLL	BUREAU OF CHILD SUPPORT		\$ -	\$ 461.54	\$ 461.54
067059	404	CASTO & HARRIS INC	50788	\$ 475.75	\$ -	\$ 475.75
067060	712	FRONTIER WV, INC		\$ -	\$ 380.00	\$ 380.00
067061	PAYROLL	CHILD SUPPORT ENFORCE AG		\$ -	\$ 27.69	\$ 27.69
067062	PAYROLL	COLONIAL LIFE		\$ -	\$ 1,161.08	\$ 1,161.08
067063	PAYROLL	DIVERSIFIED COLLECTION		\$ -	\$ 154.83	\$ 154.83
067064	405	CYNDI DANNER		\$ -	\$ 55.78	\$ 55.78
067065	PAYROLL	DOUG EVANS		\$ -	\$ 212.49	\$ 212.49
067066	425	FIRE SAFETY EQUIP	51186	\$ 225.00	\$ -	\$ 225.00
067067	PAYROLL	GUARDIAN - APPLETON		\$ -	\$ 7,660.21	\$ 7,660.21
067067	PAYROLL	GUARDIAN - APPLETON		\$ -	\$ 1,689.50	\$ 1,689.50
067068	424	GUTTMAN OIL CO		\$ -	\$ 19,283.65	\$ 19,283.65
067069	PAYROLL	ING NATIONAL TRUST		\$ -	\$ 1,110.00	\$ 1,110.00
067070	439	JEFFERSON PUBLISH CO INC	50702	\$ 146.84	\$ -	\$ 146.84
067071	425	JEFFERSON COUNTY SOLID	53045	\$ 59.35	\$ -	\$ 59.35
067072	425	JEFFERSON RENTAL	51188	\$ 137.76	\$ -	\$ 137.76
067073	712	DR ROBERT JONES		\$ -	\$ 1,000.00	\$ 1,000.00
067074	PAYROLL	JEFFERSON SECURITY BANK		\$ -	\$ 4,295.48	\$ 4,295.48
067074	PAYROLL	JEFFERSON SECURITY BANK		\$ -	\$ 40.00	\$ 40.00
067075	PAYROLL	COMPTROLLER OF MARYLAND		\$ -	\$ 755.34	\$ 755.34
067076	700	RONALD J. MOLTERE		\$ -	\$ 14.03	\$ 14.03
067077	PAYROLL	MD CHILD SUPPORT ACCOUNT		\$ -	\$ 18.46	\$ 18.46
067078	PAYROLL	HIGHMARK WV		\$ -	\$ 140,988.35	\$ 140,988.35
067079	PAYROLL	HELEN M. MORRIS, TRUSTEE		\$ -	\$ 150.00	\$ 150.00
067080	406	N.A.D.A. APPRAISAL GUIDE	53298	\$ 75.00	\$ -	\$ 75.00
067081	PAYROLL	NATIONWIDE RETIREMENT		\$ -	\$ 774.00	\$ 774.00
067082	712	NORTON EMBROIDERY INC	50997	\$ 656.00	\$ -	\$ 656.00
067083	425	POTOMAC EDISON		\$ -	\$ 8,448.25	\$ 8,448.25
067084	700	ROMULO QUEZADA		\$ -	\$ 10.85	\$ 10.85
067085	425	RCS SECURITY	51185	\$ 357.60	\$ -	\$ 357.60
067086	425	RCS SECURITY		\$ -	\$ 846.00	\$ 846.00
067087	405	STAPLES CREDIT PLAN	49613	\$ 31.46	\$ -	\$ 31.46

067088	PAYROLL	STATE DPT O/TAX & REVENU		\$ -	\$ 103.40	\$ 103.40
067088	PAYROLL	STATE DPT O/TAX & REVENU		\$ -	\$ 28,355.06	\$ 28,355.06
067088	PAYROLL	STATE DPT O/TAX & REVENU		\$ -	\$ 1.29	\$ 1.29
067089	704	ST/WV REGIONAL JAIL &	51009	\$ 91,451.20	\$ -	\$ 91,451.20
067090	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 9,479.14	\$ 9,479.14
067090	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 3.02	\$ 3.02
067090	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 0.84	\$ 0.84
067090	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 33,993.69	\$ 33,993.69
067090	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 23.78	\$ 23.78
067090	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 85.26	\$ 85.26
067091	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 118.84	\$ 118.84
067091	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 2.48	\$ 2.48
067091	PAYROLL	SHERIFF OF JEFFERSON CO		\$ -	\$ 38,335.63	\$ 38,335.63
067092	PAYROLL	WV DEPUTY SHRF RETIREMEN		\$ -	\$ 8,617.64	\$ 8,617.64
067093	PAYROLL	WV DEPUTY SHRF RETIREMEN		\$ -	\$ 13,179.87	\$ 13,179.87
067094	712	TELTRONIC	49108	\$ 150.00	\$ -	\$ 150.00
067095	700	CLIFFORD E. TAYLOR		\$ -	\$ 9.93	\$ 9.93
067096	425	TRI STATE TIRES	51189	\$ 22.00	\$ -	\$ 22.00
067097	405	WEST PAYMENT CENTER	50419	\$ 1,234.71	\$ -	\$ 1,234.71
067098	PAYROLL	WV PUB EMP RETIRE SYS		\$ -	\$ 1.31	\$ 1.31
067098	PAYROLL	WV PUB EMP RETIRE SYS		\$ -	\$ 24,192.38	\$ 24,192.38
067099	PAYROLL	WV PUB EMP RETIRE SYS		\$ -	\$ 4.22	\$ 4.22
067099	PAYROLL	WV PUB EMP RETIRE SYS		\$ -	\$ 77,953.23	\$ 77,953.23
067100	PAYROLL	WV CPRB/LOAN DIVISION		\$ -	\$ 133.20	\$ 133.20
067101	413	REVA MICKEY		\$ -	\$ 50.00	\$ 50.00
067102	413	GARY DUNGAN		\$ -	\$ 50.00	\$ 50.00
TOTAL						\$ 528,306.33
TOTAL				\$ 98,650.17	\$ 429,656.16	\$ 528,306.33

PUBLIC COMMENT:

Eleanor Finn – commented on the proposed deadline for applicants and those wishing to be reappointed to Boards and Commissions to submit their Resumes and background information to the Commission before their interview.

David Tabb – commented on various items, including his relationship with members of the Supreme Court, his dog and the Rt. 340 corridor.

PRESENTATIONS:

1. **Jennifer Brockman, Director of the Planning and Zoning Department**, submitted the Third Quarter report of the Planning and Zoning Departments, Planning Commission and Board of Zoning Appeals Report and discussed the Department's FY2012 Work Plan.

2. **Jennifer Maghan, County Clerk**, requested that the Commission approve a plan to convert the former mail room located in the County Courthouse into a break room/ kitchen area for the County Clerk's Office.

The request is being reviewed by the Courthouse Committee to see if the conversion is feasible. They will advise the Commission who will then make a decision. No decision will be made until the Commission receives the report from the Courthouse Committee.

3. **Mike Wiley of Beallair Homes, LLC** requested that the County Commission consider and approve the First Amendment to the Agreement Regarding Bonding Obligations and Declaration of Covenants, Conditions and Restrictions for Beallair Phase 2 Subdivision.

Motion by Ms. Widmyer to have Staff review the current policy on tolling and releasing of property and submit their suggestions to the Commission for consideration. Motion seconded by Mr. Pellish and carried 4 to 1 with Ms. Morgan voting against.

COUNTY ADMINISTRATOR REPORTS:

Interim County Commissioner Sandra Slusher McDonald:

- Reminder of the Maintenance Department's Open House at the new facility on May 2, 2012 from 11:00 a.m. to 3:00 p.m.
- Advised that the Election Calendar is in the Agenda Packets.

Commissioner Widmyer:

- Attended the APUS Solar Array Ribbon Cutting.
- Participated in the Council of Governments Roundtable.

Commissioner Manuel:

- Visited the Charles Town Farmers' Market.
- Attended an Eastern Panhandle Transportation Authority meeting.
- Attended the NAACP forum for State Legislators.
- Participated in the Council of Governments Roundtable.

Commissioner Morgan:

- Visited the Charles Town Farmers' Market.
- Attended the NAACP forum for State Legislators.
- Attended the APUS Solar Array Ribbon Cutting.
- Meeting with Berkeley/Jefferson Day Report Center Board.
- Participated in the Council of Governments Roundtable.
- Attended the 10th Anniversary Celebration of the Children First Child Development Center.
- Meeting with Congresswoman Capito.

Commissioner Pellish:

- Participated in the Council of Governments Roundtable.

- Attended the APUS Solar Array Ribbon Cutting.
- Meeting with Congresswoman Capito.

Commissioner Noland:

- Attended the 10th Anniversary Celebration of the Children First Child Development Center.
- Attended the APUS Solar Array Ribbon Cutting.
- Participated in the Council of Governments Roundtable.

4. Randy Hilton and Robin Thomas of Friends of Happy Retreat request for funding in the amount of \$5,000.00. Ms. Thomas provided a brief history of the annual Homes Tour and described ways in which it helps tourism and business in Jefferson County.

Motion by Ms. Morgan to allocate \$5,000.00 to Friends of Happy Retreat from the County's Coal Severance Fund. Motion seconded by Mr. Pellish and unanimously approved.

Motion by Mr. Manuel to amend the original motion and delay action on the motion until the 2.5% monies are considered at the end of July, 2012. Motion seconded by Ms. Noland. Mr. Manuel withdrew his amendment and Ms. Noland withdrew her second.

Motion amended by Mr. Manuel to take the \$5,000.00 off the top of the 2.5% monies in July, 2012. Mr. Pellish seconded the motion. Motion carried 4 to 1 with Ms. Morgan voting against.

5. Paul Shroyer, Director of Financial Management, presented several items for discussion/action:

- **IT Help Desk Policy and Transition Plan for the IT Department:** Mr. Shroyer provided details of the proposed IT Help Desk Policy and Transition Plan for the IT Department. He proposed that an intern should handle the It Help Desk.

Motion by Ms. Morgan to approve the IT Help Desk and the IT Staff Policy as recommended by Mr. Shroyer subject to review by the Legal Department and Human Resources Manager. Mr. Manuel seconded the motion and it was unanimously approved.

- **Capital Project Evaluation and Cost Sheet Packet (forms):**

Discussion regarding streamlining the forms, adding wording and sending the packet to Department Heads, Electeds, Stakeholders, Circuit Judges and Magistrates for review and comment.

- **Budget Revisions:**

- IBR #1009: Motion by Mr. Manuel to approve IBR #1009 as presented. Motion seconded by Ms. Widmyer and unanimously approved.

- IBR #1010: Motion by Mr. Widmyer to approve IBR #1010 as presented. Motion seconded by Mr. Manuel and unanimously approved.

- IBR #1011: Motion by Ms. Morgan to approve IBR #1011 as presented. Motion seconded by Mr. Manuel and unanimously approved.

- **Unclaimed Property:**

Request by Mr. Shroyer that the Commissioners sign a Resolution authorizing the Interim County Commissioner, Sandra Slusher McDonald, to retrieve the unclaimed property as the authorized representative for Jefferson County.

Motion by Ms. Noland that the Commissioners sign a Resolution authorizing the Interim County Commissioner, Sandra Slusher McDonald, to retrieve the unclaimed property as the authorized representative for Jefferson County. Motion seconded by Ms. Morgan and unanimously approved.

6. John Reisenweber, Director of the Jefferson County Development Authority, request that the Commission approve the 2009 Ag Development Grant.

Motion by Ms. Pellish to approve the 2009 Ag Development Grant. Motion seconded by Mr. Manuel and unanimously approved.

John Reisenweber request to reconfigure and renovate the Jefferson County Development Authority Office. Mr. Shroyer was directed to forward forms to Mr. Reisenweber to fill out with regard to capital improvement projects. He should complete the forms and return them to the Commission for review so that the Commission can make a decision based on the information contained in the form.

7. Stacie Rohn, FOCUS, request that the Commission ratify and approve the West Virginia Justice Assistance Grant.

Motion by Ms. Morgan to ratify and approve the West Virginia Justice Assistance Grant. Motion seconded by Mr. Pellish and unanimously approved.

8. John Skoglin of CBRE, Inc. request that the Commissioners visit the Kodak facility in Middleway, West Virginia and consider a possible purchase. He described the potential benefits for the surrounding community.

Motion by Mr. Pellish to authorize John Reisenweber, Director of the Jefferson County Development Authority, to sign a non-disclosure statement, work with Mr. Skoglin to thoroughly investigate the property and environmental conditions. Motion seconded by Ms. Morgan and unanimously approved.

NEW BUSINESS:

9. Stephanie Grove, Assistant Prosecuting Attorney, request for an Executive Session to discuss personnel issues.

Motion by Ms. Morgan to enter into an Executive Session for the purpose of discussing personnel issues pursuant to WV Code §6-9A-4. Motion seconded by Mr. Pellish and unanimously approved.

Upon adjournment of the Executive Session the Commission reconvened its regular meeting.

Motion by Ms. Widmyer to appoint Debbie Keyser, Human Resources Manager, as Acting County Administrator, effective Monday, April 30, 2012. Motion seconded by Mr. Pellish and unanimously approved.

Motion by Ms. Morgan to adjourn the Commission meeting. Motion seconded by Mr. Pellish and adjourned by Ms. Noland at 1:18 p.m.

Upon rising the Commission recessed until Thursday, May 3, 2012 at 9:30 a.m.

PATSY A. NOLAND, PRESIDENT

:



PURCHASE ORDERS TO BE APPROVED
May 3, 2012

DEPARTMENT	PURCHASE ORDER	AMOUNT	VENDOR	DESCRIPTION
ADDRESSING	50845	\$ 8,100.00	ESRI, Inc	Install Arc GIS Server
CIRCUIT CLERK	50882	\$ 390.94	Pifer Office Supply	Black stamp, Rubber stamp, signature stamp
	50881	\$ 420.00	Coast to Coast Computer Products	HP Laserlet
COMMISSION	51014	\$ 200.00	Teen Court Account	Loan to open Teen Court Account
COURTHOUSE	51207	\$ 432.81	CT Carpet Floor & Home	Charges for install County Clerk Office
MAINTENANCE Lot 18	51196	\$ 379.18	CDW-G	Cisco dual band access point
OTHER BUILDINGS	51197	\$ 673.78	Allegheny Power	Payment for damage caused by dig on 11/15/11
	51198	\$ 113.75	RCS Security	VGA Cable, keyboard & mouse
	51199	\$ 441.60	Granger	Slow moving vehicle sign, air filters, rod extensions
	51201	\$ 481.73	Winchester Equipment Co.	Repair leak on genie lift
	51203	\$ 177.45	Battery Mart	Batteries

	51204	\$ 1,567.50	Ralala Technologies	Server, network, wirelless network install
	51205	\$ 678.00	BK Office Supply	Copy Paper
SHERIFF	51200	\$ 290.58	Thomassen	Drive Shaft assembly
VARIOUS	50701	\$ 235.94	Jefferson Publishing Co.	Public Hearing Ads
	51208	\$ 265.00	Creamers Wrecker Service	Towing
ZONING	51202	\$ 150.00	WV Divison of Labor	Elevator/lift device certificate of operation
GRAND TOTAL		\$ 14,998.26	Printed at 11:50 a.m. on 4/30/12	

<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: Roger Goodwin and Michelle Mason

Department or Entity: Engineering Department/Office of Impact Fees

Estimation of amount of time needed for appointment: 15 minutes

Date Requested – 1st Choice: 3 May 2012

Date Requested – 2nd Choice: 10 May 2012

If a specific date is needed, please provide reason for specific date:

Subject: Presentation of FY 2013 Capital Improvement Plan for the Impact Fee Program

Please provide the County Commission with a description of your request or presentation, including any background information: This presentation is to review the Capital Improvement Plan requests from all Impact Fee Entities for FY 2013 which include the Board of Education, Law Enforcement, Parks and Recreation Commission, and Fire and EMS Entities as submitted. The approval of this report is time sensitive due to being implemented 1 July 2012 and imperative to forward to all Impact Fee Entities promptly for their review and expectations of funding; which may require other funding sources depending on available Impact Fee monies from the respective Impact Fee Accounts.

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve): Approval of FY 2013 Capital Improvement Plan for all Impact Fee Entities as collected by the Impact Fee Program.

Attachments: (7) Copies of the FY 2013 Impact Fee Program CIP to be Distributed to the County Commission, Interim County Administrator, and Chief Financial Director.

FY 2013 Capital Improvement Plan

Schools

Law Enforcement

Parks & Recreation

Fire/EMS

Jefferson County Commission

Engineering Department/Office of Impact Fees

24 April 2012

FY 2013 Impact Fee Program Capital Improvement Plan

Contents

	Page
Overview	2
Overview of Funding Options	3
Direct County Support	3
General Obligation/Construction Bonds	3
State Support	4
Federal Support	4
Summary of Priority One Projects	5
Summary of Impact Fee Fundable Projects	5
Impact Fee Program Specialist's Notes	12
Overview	12
Authority	12
Cash Flow Analyses	13

Tables

Table 1. FY 2013 Priority 1 Projects - All Funding Sources	6
Table 2. FY 2013 Priority 1 Projects - Impact Fee Fundable	8
Table 3. FY 2013 Impact Fee Fundable Projects - All Priorities	10
Table 4. School Cash Flow Analysis	13
Table 5. Law Enforcement Cash Flow Analysis	14
Table 6. Parks & Recreation Cash Flow Analysis	14
Table 7. Fire & EMS Cash Flow Analysis	15

FY 2013 Capital Improvement Plan Submissions **Divider**

Board of Education	1
Sheriff of Jefferson County	2
Jefferson County Parks & Recreation Commission	3
Blue Ridge Fire Company	4
Citizens Fire Company	4
Friendship Fire Company	4
Independent Fire Company	4
Middleway Fire Company	4

Overview

This document constitutes the Jefferson County Impact Fee Program Capital Improvement Plan for Fiscal Year 2013. It consists broadly of two categories, those eligible for capital funding as it relates to Impact Fees and those ineligible for such funding. For the entities in the former group, their names and their associated impact fee category are indicated below (impact fee categories noted in square brackets):

- Jefferson County Board of Education [School]
- Sheriff of Jefferson County [Law Enforcement]
- Jefferson County Parks & Recreation Commission [Parks and Recreation]
- Bakerton Fire Company [Fire & EMS]
- Citizens Fire Company [Fire & EMS]
- Friendship Fire Company [Fire & EMS]
- Independent Fire Company [Fire & EMS]
- Jefferson County Emergency Services Agency [Fire & EMS]
- Jefferson County Fire and Rescue Association [Fire & EMS]
- Middleway Fire Company [Fire & EMS]
- Shepherdstown Fire Company [Fire & EMS]

(The latter 8 entities are presented in alphabetical order)

The total funding request for all projects over the upcoming fiscal year as well as the next five outlying years is \$98,345,444 (down from \$105,385,204 in FY 2012). Of this amount, \$13,114,620 represents the funding requests for FY 2013 (in FY 2012 the amount was \$10,910,054).

The divided sections which follow include the submitted *CIP Form 1* (Agency/Department/Office Summary) for each entity as well as the individual *CIP Form 2* documents (Annual and Five Year Project Request and Justification) which detail each project listed on an entity's *CIP Form 1*. Any supplementary documentation is included with the appropriate *CIP Form 2*. Proposed projects that directly impact the County Budget also require *Form 2B – Budget Impact Analysis*; however, the projects submitted for FY 2013 do not require funding from the County's General or Capital Outlay Funds.

With the exception of the Jefferson County Board of Education, each entity's submission is entered into the Capital Improvement Plan database, which permits comments from the Impact Fee Program Specialist to be included with *CIP Form 1*. In the case of the Board of Education, *CIP Form 2* documents are not required. Thus, the BOE forms are presented in their original format without discussion or comment from the Impact Fee Program Specialist. The original submissions received from all entities are on file within the Engineering Department/Office of Impact Fees.

Overview of Funding Options

This document lists planned capital projects within the Jefferson County Impact Fee Program of which some entities have several options for funding available to them. In general, revenues available to fund capital projects may be classed into one of the following categories:

- Direct County support (General and Coal Severance Funds, etc.).
- General Obligation/Construction Bonds (currently only one such bond is in effect for the taxpayers of Jefferson County – a school construction bond). Loans mediated through banks to the county Building Commission also fall into this category.
- State support (usually as School Building Authority grants, or similar grants through other state agencies).
- Federal grants.
- Impact fees (see the discussion on page 12 for details).
- Entity-specific user fees (for example Park & Recreation or Fire/Ambulance fees).
- Donations and gifts (bequeathments, corporate partnerships, etc.).

The major funding mechanisms will be briefly discussed in the following section.

Direct County Support

County Commissions have broad leeway in the types of projects they may fund using monies from the General and/or Coal Severance Fund. Previously, several dedicated funds have been established for this purpose and have been endowed using General Fund revenue: Fund 245 – Emergency Services/Communications Capital Outlay, Fund 246 – Capital Outlay Fund (also referred to as the Building Fund), Fund 247 – Parks & Recreation Land Fund, and Fund 248 – Shepherdstown Battlefield Park/Riverfront Park Fund. In prior years, Fund 246 was used to build the Community Center at Sam Michael's Park, to purchase and renovate structures for the new Emergency Communications Center and the Sheriff's Department, and to renovate the Old Jail in downtown Charles Town. Presently the mortgage payments for the new Emergency Services Agency building are funded from Fund 246. Fund 247 was recently used to purchase an existing building in the Bardane Industrial Park for a new county maintenance facility. The renovation of that space was funded in part from Fund 247 and from other departments in the General Fund. As a revenue stream, this category is highly dependent upon the general financial state of the County.

General Obligation/Construction Bonds

Only the County Commission and the Board of Education may propose special levies to fund capital projects. In both cases the question of a levy must be placed before the County's voters and must receive a minimum of 60% of the vote.

Because levy rates vary in reverse proportion to total property values, the State Auditor's Office recommends that excess levies contain wording to make clear that the actual levy rate may vary to ensure that the levying body only raises the funds required for the stated project. Such language, if left out, may result in excess funds being collected during times of rising property valuations.

This type of funding mechanism is rarely used in Jefferson County. The Board of Education has floated several construction bonds and one is currently in effect (it funded expansion and renovation projects at Jefferson High School and funded part of the construction costs at Washington High School). It appears that the County Commission has not managed a general obligation bond anytime within the past 60 years¹.

Jefferson County has an appointed Building Commission. The County Commission, through its Building Commission, may borrow money from any type of lending financial institution or issue general obligation bonds. If the loan is to acquire land or construct a building, the deed to the property is transferred from the County Commission (or other entity) to the Building Commission. Generally, the County Commission funds the Building Commission to provide revenue to satisfy the terms of the loan. Building Commissions were specifically granted this authority in order to prevent County Commissions of obligating future Commissions via the issuance of bonds or by securing mortgages or loans². As an example, through the authority of the Building Commission, secure funding for the New Bus Facility for the Board of Education requested for FY 2013 may be obtained.

State Support

The only significant source of state-supplied capital funding for the County comes from the State School Building Authority (SBA). This entity sets school construction standards and releases funds, generally for entities that bring significant cash matches. In the past few funding cycles the Jefferson County Board of Education has used collected impact fee monies as a monetary match. The SBA has responded favorably by providing monies for several construction and school expansion projects. No other entity, including the County Commission, has an equivalent state funding agency.

Federal Support

Unfortunately Federal monies have not been a predictable or reliable revenue stream to fund capital projects in Jefferson County. The Sheriff's Department has in the past received some Federal monies for capital projects but historically the funding amounts have been relatively small and random in nature. Federal monies are also available to fund capital projects for Fire/EMS entities.

¹ Information previously provided by the former Prosecuting Attorney Michael Thompson.

² See WV Code §8-30 *et seq.*

Summary of Priority One Projects

Table 1 lists all *priority 1* projects (described as Urgent/Mandatory on *CIP Form 2*) as requested by each entity without regard to the possible funding source. Not all of these projects are eligible for funding by impact fees, but it is important to note that these projects have been described by their respective entities as having Urgent/Mandatory funding needs.

Summary of Impact Fee Fundable Projects

Table 2 identifies only those projects in Table 1 that are **impact fee-fundable** *priority 1* projects which are eligible for funding by impact fees, either in whole or in part. Table 3 lists projects which are also fundable by impact fees, either in whole or in part, but includes all priorities.

Table 1. FY 2013 Priority 1 Projects - All Funding Sources

#	Pri	Project	Estimated Total	Prior Allocation	Current Allocation	Current Request	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Sheriff of Jefferson County											
1	1	Purchase of Police Cruisers x (18)	\$940,000	\$0	\$0	\$150,000	\$150,000	\$160,000	\$160,000	\$160,000	\$160,000
TOTALS			\$940,000	\$0	\$0	\$150,000	\$150,000	\$160,000	\$160,000	\$160,000	\$160,000
Blue Ridge Fire Company											
1	1	Generator	\$65,000	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0
2	1	Sub Station Generator	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0
TOTALS			\$105,000	\$0	\$0	\$105,000	\$0	\$0	\$0	\$0	\$0
Citizens Fire Company											
1	1	Transport Unit (Ambulance, ALS Capable)	\$200,000	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0
TOTALS			\$200,000	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0
Friendship Fire Company											
2	1	New Primary Station	\$1,500,000	\$0	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$0
TOTALS			\$1,500,000	\$0	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$0
Independent Fire Company											
1	1	Building Project	\$2,500,000	\$750,000	\$1,000,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
TOTALS			\$2,500,000	\$750,000	\$1,000,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Middleway Fire Company											
1	1	Stand By Generator	\$50,000	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0
2	1	Auto Pulse	\$15,000	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0
TOTALS			\$65,000	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0
Jefferson County Parks & Recreation Commission											
1	1	System Wide Needs Assessment Survey	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0
6	1	Leetown Park Improvements	\$150,030	\$0	\$0	\$10,200	\$14,290	\$15,290	\$16,650	\$0	\$93,600
9	1	Sam Michaels Park Improvements	\$120,712	\$0	\$0	\$15,000	\$21,600	\$0	\$35,910	\$23,750	\$24,462

Table 1. FY 2013 Priority 1 Projects - All Funding Sources

#	Pri	Project	Estimated Total	Prior Allocation	Current Allocation	Current Request	Yr 1 FY 2014	Yr 2 FY 2015	Yr 3 FY 2016	Yr 4 FY 2017	Yr 5 FY 2018
Jefferson County Parks & Recreation Commission											
11	1	Hite Road Park Improvements	\$5,902,157	\$0	\$0	\$618,120	\$356,321	\$1,594,070	\$1,654,255	\$1,679,391	\$0
13	1	Mowing Equipment	\$81,000	\$0	\$0	\$15,300	\$31,500	\$0	\$0	\$34,200	\$0
14	1	Park System Master Plan	\$70,000	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$0
TOTALS			\$6,363,899	\$0	\$0	\$698,620	\$493,711	\$1,609,360	\$1,706,815	\$1,737,341	\$118,062
Jefferson County Board of Education											
1	1	Blue Ridge Primary	\$8,500,000	\$0	\$4,000,000	\$1,000,000	\$3,500,000	\$0	\$0	\$0	\$0
2	1	Harpers Ferry Middle School Addition	\$7,100,000	\$0	\$0	\$1,500,000	\$6,000,000	\$0	\$0	\$0	\$0
3	1	New Bus and Food Service Facility	\$7,500,000	\$0	\$0	\$7,500,000	\$0	\$0	\$0	\$0	\$0
4	1	New Elementary School	\$13,500,000	\$0	\$0	\$0	\$0	\$10,000,000	\$0	\$0	\$0
5	1	County-Wide Expansion of School Facilities	\$6,500,000	\$0	\$0	\$1,000,000	\$1,000,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,500,000
6	1	New Middle School	\$16,000,000	\$0	\$0	\$0	\$0	\$0	\$10,000,000	\$6,000,000	\$0
7	1	New Elementary School - South	\$14,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500,000	\$3,000,000
TOTALS			\$73,600,000	\$0	\$4,000,000	\$11,000,000	\$10,500,000	\$11,000,000	\$11,250,000	\$18,750,000	\$4,500,000

Table 2. FY 2013 Priority 1 Projects - Impact Fee Fundable

#	Pri	Project	Estimated Total	Prior Allocation	Current Allocation	Current Request	Yr 1 FY 2014	Yr 2 FY 2015	Yr 3 FY 2016	Yr 4 FY 2017	Yr 5 FY 2018
Sheriff of Jefferson County											
1	1	Purchase of Police Cruisers x (18)	\$940,000	\$0	\$0	\$150,000	\$150,000	\$160,000	\$160,000	\$160,000	\$160,000
TOTALS			\$940,000	\$0	\$0	\$150,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000
Blue Ridge Fire Company											
1	1	Generator	\$65,000	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0
2	1	Sub Station Generator	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0
TOTALS			\$105,000	\$0	\$0	\$105,000	\$0	\$0	\$0	\$0	\$0
Citizens Fire Company											
1	1	Transport Unit (Ambulance, ALS Capable)	\$200,000	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0
TOTALS			\$200,000	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0
Friendship Fire Company											
2	1	New Primary Station	\$1,500,000	\$0	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$0
TOTALS			\$1,500,000	\$0	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$0
Independent Fire Company											
1	1	Building Project	\$2,500,000	\$750,000	\$1,000,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
TOTALS			\$2,500,000	\$750,000	\$1,000,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Middleway Fire Company											
1	1	Stand By Generator	\$50,000	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0
2	1	Auto Pulse	\$15,000	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0
TOTALS			\$65,000	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0

Table 2. FY 2013 Priority 1 Projects - Impact Fee Fundable

#	Pri	Project	Estimated Total	Prior Allocation	Current Allocation	Current Request	Yr 1 FY 2014	Yr 2 FY 2015	Yr 3 FY 2016	Yr 4 FY 2017	Yr 5 FY 2018
Jefferson County Parks & Recreation Commission											
1	1	System Wide Needs Assessment Survey	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0
9	1	Sam Michaels Park Improvements	\$120,712	\$0	\$0	\$15,000	\$21,600	\$0	\$35,910	\$23,750	\$24,462
11	1	Hife Road Park Improvements	\$5,902,157	\$0	\$0	\$618,120	\$356,321	\$1,594,070	\$1,654,255	\$1,679,391	\$0
13	1	Mowing Equipment	\$81,000	\$0	\$0	\$15,300	\$31,500	\$0	\$0	\$34,200	\$0
TOTALS			\$6,143,869	\$0	\$0	\$688,420	\$409,421	\$1,594,070	\$1,690,165	\$1,737,341	\$24,462
Jefferson County Board of Education											
1	1	Blue Ridge Primary	\$8,500,000	\$0	\$4,000,000	\$1,000,000	\$3,500,000	\$0	\$0	\$0	\$0
2	1	Harpers Ferry Middle School Addition	\$7,100,000	\$0	\$0	\$1,500,000	\$6,000,000	\$0	\$0	\$0	\$0
3	1	New Bus and Food Service Facility	\$7,500,000	\$0	\$0	\$7,500,000	\$0	\$0	\$0	\$0	\$0
5	1	County-Wide Expansion of School Facilities	\$6,500,000	\$0	\$0	\$1,000,000	\$1,000,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,500,000
TOTALS			\$29,600,000	\$0	\$4,000,000	\$11,000,000	\$10,500,000	\$1,000,000	\$1,250,000	\$1,250,000	\$1,500,000
GRAND TOTALS			\$41,053,869	\$750,000	\$5,000,000	\$12,558,420	\$11,409,421	\$3,104,070	\$3,450,165	\$3,497,341	\$1,794,462

Table 3. FY 2013 Impact Fundable Projects - All Priorities

# Pri	Project	Estimated Total	Prior Allocation	Current Allocation	Current Request	Yr 1 FY 2014	Yr 2 FY 2015	Yr 3 FY 2016	Yr 4 FY 2017	Yr 5 FY 2018
Sheriff of Jefferson County										
1	1	Purchase of Police Cruisers x (18)	\$940,000	\$0	\$150,000	\$150,000	\$160,000	\$160,000	\$160,000	\$160,000
2	0	Weapons training qualifications range	\$50,000	\$0	\$20,000	\$10,000	\$5,000	\$5,000	\$5,000	\$5,000
4	2	Mobile Data Terminal System	\$364,000	\$0	\$26,500	\$32,500	\$214,500	\$26,000	\$32,500	\$32,500
TOTALS		\$1,354,000	\$0	\$0	\$196,000	\$192,500	\$379,500	\$191,000	\$197,500	\$197,500
Blue Ridge Fire Company										
1	1	Generator	\$65,000	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0
2	1	Sub Station Generator	\$40,000	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0
TOTALS		\$105,000	\$0	\$0	\$105,000	\$0	\$0	\$0	\$0	\$0
Citizens Fire Company										
1	1	Transport Unit (Ambulance, ALS Capable)	\$200,000	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0
TOTALS		\$200,000	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0
Friendship Fire Company										
1	2	Generator for Building	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0
2	1	New Primary Station	\$1,500,000	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$0
4	2	Additional Thermal Imagers	\$20,000	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0
TOTALS		\$1,595,000	\$0	\$0	\$395,000	\$300,000	\$300,000	\$300,000	\$300,000	\$0
Independent Fire Company										
1	1	Building Project	\$2,500,000	\$750,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
2	2	Equipment Utility Pickup Truck	\$50,000	\$20,000	\$30,000	\$0	\$0	\$0	\$0	\$0
TOTALS		\$2,550,000	\$770,000	\$1,000,000	\$80,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000

Table 3. FY 2013 Impact Fundable Projects - All Priorities

#	Pri	Project	Estimated Total	Prior Allocation	Current Allocation	Current Request	Yr 1 FY 2014	Yr 2 FY 2015	Yr 3 FY 2016	Yr 4 FY 2017	Yr 5 FY 2018
Middleway Fire Company											
1	1	Stand By Generator	\$50,000	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0
2	1	Auto Pulse	\$15,000	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0
TOTALS			\$65,000	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0
Jefferson County Parks & Recreation Commission											
1	1	System Wide Needs Assessment Survey	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0
9	1	Sam Michaels Park Improvements	\$120,712	\$0	\$0	\$15,000	\$21,600	\$0	\$35,910	\$23,750	\$24,462
11	1	Hite Road Park Improvements	\$5,902,157	\$0	\$0	\$618,120	\$356,321	\$1,594,070	\$1,654,255	\$1,679,391	\$0
13	1	Mowing Equipment	\$81,000	\$0	\$0	\$15,300	\$31,500	\$0	\$0	\$34,200	\$0
TOTALS			\$6,143,869	\$0	\$0	\$688,420	\$409,421	\$1,594,070	\$1,690,165	\$1,737,341	\$24,462
Jefferson County Board of Education											
1	1	Blue Ridge Primary	\$8,500,000	\$0	\$4,000,000	\$1,000,000	\$3,500,000	\$0	\$0	\$0	\$0
2	1	Harpers Ferry Middle School Addition	\$7,100,000	\$0	\$0	\$1,500,000	\$6,000,000	\$0	\$0	\$0	\$0
3	1	New Bus and Food Service Facility	\$7,500,000	\$0	\$0	\$7,500,000	\$0	\$0	\$0	\$0	\$0
5	1	County-Wide Expansion of School Facilities	\$6,500,000	\$0	\$0	\$1,000,000	\$1,000,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,500,000
TOTALS			\$29,600,000	\$0	\$4,000,000	\$11,000,000	\$10,500,000	\$1,000,000	\$1,250,000	\$1,250,000	\$1,500,000
GRAND TOTALS			\$98,345,444	\$770,000	\$5,000,000	\$13,114,620	\$12,214,836	\$14,818,420	\$16,554,765	\$21,330,001	\$11,582,812

Impact Fee Program Specialist's Notes

Overview

One role of the Impact Fee Program Specialist in preparing the Capital Improvement Plan is to indicate which projects, within each category for which impact fees are collected, are eligible for funding by impact fees. There are two important decision points made when considering each project:

1. Does the project represent expansion of an acknowledged capital category?
 - a. If the answer is *no* (in other words the project may represent maintenance or replacement, or an effort to increase the *standard of service*), then the project is ineligible for funding using impact fees. However, it is important to note that such projects **may be** eligible for funding by other revenue sources.
 - b. If the answer is *yes*, then the project is eligible, and the second decision point applies.
2. Is the requested project necessary only because of new growth?
 - a. If the answer is *yes*, then the project is potentially **fully impact fee-fundable**.
 - b. If the answer is *no* (generally because there is a repair, replacement, or increase in the standard of service component), then the project is usually only **partially fundable** by impact fees.

In cases where a project may be funded using impact fees, the Impact Fee Program Specialist examines the current cash flow analysis to determine how much in collected funds is attributed to the relevant capital category. The cash flow analysis also tracks fee disbursement over time, so it is a useful tool for providing guidance on overall spending trends. The cash flow analyses for each of the fee categories are presented on the following pages.

Authority

Pursuant to West Virginia State Code, Chapter 7, Article 20, Section 6 (§7-20-6) counties which have enabled impact fees must maintain a Impact Fee Program Capital Improvement Plan. Only the projects listed on this CIP are eligible for funding by impact fees (either in whole or in part). Whether a project may be wholly or only partially funded depends upon whether the project is exclusively needed due to new growth or is only partially required due to conditions of new growth (see §7-20-3 (h) and (i) for definitions of "proportionate share" and "reasonable benefit").

The requirement for a yearly Impact Fee Program Capital Improvement Plan, and the identification of **impact fee fundable** projects, is outlined in Jefferson County Impact Fee Procedures Ordinance 2003-1 Section 3(C) *et seq.*

One of the tasks of the Impact Fee Program Specialist is to identify projects from the Impact Fee Program Capital Improvement Plan which are eligible for funding by Impact Fees (Ordinance 2003-1 Section 6(A)(2)(b)).

Cash Flow Analyses

The following 4 tables constitute the official cash flow analyses for each of the 4 impact fee categories. The financial data are cumulative from the beginning of the respective fee collection start date through February 1, 2012 (58% of FY 2012). The projected balance runs through the end of FY 2012. For the purposes of projecting the cash flow analysis from 1 February 2012 through 30 June 2012 (the beginning of FY 2013), it was assumed that the County growth rate for the period of 1 February 2012 through 30 June 2012, will be constant and equal to the same time period last year. This period saw 41 new single family detached structures and 24 new townhouse/duplex structures. The amount of commercial development during this period was negligible. Higher or lower growth rates will affect the projected data accordingly.

Table 4. School Cash Flow Analysis

Balance as of 01 February 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Buildings - Elementary School	30%	\$4,891,872	\$6,186,810	-\$1,294,938
Buildings - Middle/High School	63%	\$10,272,931	\$9,400,000	\$872,931
Buildings Admin/Support	7%	\$1,141,437		\$1,141,437
Total for Schools	100%	\$16,306,240	\$15,586,810	\$719,430
Balance projected through 30 June 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Buildings - Elementary School	30%	\$5,093,207	\$6,186,810	-\$1,093,603
Buildings - Middle/High School	63%	\$10,695,736	\$9,400,000	\$1,295,736
Buildings Admin/Support	7%	\$1,188,415		\$1,188,415
Total for Schools	100%	\$16,977,358	\$15,586,810	\$1,390,548

Table 5. Law Enforcement Cash Flow Analysis

Balance as of 01 February 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Vehicles	28%	\$64,782	\$177,557	-\$112,775
Buildings	72%	\$166,583	\$0	\$166,583
Total for Law Enforcement	100%	\$231,365	\$177,557	\$53,808
Balance projected to 30 June 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Vehicles	28%	\$69,134	\$177,557	-\$108,423
Buildings	72%	\$177,773	\$0	\$177,773
Total for Law Enforcement	100%	\$246,907	\$177,557	\$69,350

Table 6. Parks & Recreation Cash Flow Analysis

Balance as of 01 February 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Land	40%	\$338,379	\$300,000	\$38,379
Improvements	56%	\$473,731	\$286,768	\$186,963
Vehicles & Equipment	4%	\$33,838	\$52,072	-\$18,234
Total for Parks & Recreation	100%	\$845,948	\$638,840	\$207,109
Balance projected to 30 June 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Land	40%	\$356,232	\$300,000	\$56,232
Improvements	56%	\$498,725	\$286,768	\$211,957
Vehicles & Equipment	4%	\$35,623	\$52,072	-\$16,449
Total for Parks & Recreation	100%	\$890,580	\$638,840	\$251,741

Table 7. Fire & EMS Cash Flow Analysis

Balance as of 01 February 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Buildings and Land	32%	\$340,571	\$248,500	\$92,071
Vehicles and Equipment	68%	\$723,713	\$652,153	\$71,560
Total for Fire and EMS	100%	\$1,064,284	\$900,653	\$163,631
Balance projected to 30 June 2012				
Capital Category	Allocation	Total Collected	Total Expended	Available
Buildings and Land	32%	\$353,822	\$248,500	\$105,322
Vehicles and Equipment	68%	\$751,872	\$652,153	\$99,718
Total for Fire and EMS	100%	\$1,105,694	\$900,653	\$205,041

Divider 1

CIP

FORM 1

Jefferson County Government

Agency/Department/Office Summary

Name of Agency, Department or Office: Jefferson County Board of Education

Page: 1 Fiscal Year 2013

(1) Pri No	(2) PROJECT NAME & DESCRIPTION	(3) ESTD TOTAL COST	(4) PRIOR ALLOC, SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC, OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS				
						2014	2015	2016	2017	2018
1	Blue Ridge Primary	\$8,500,000	\$0	\$1,000,000	\$4,000,000	\$3,500,000	\$0	\$0	\$0	\$0
1	Harpers Ferry Middle School Addition	\$7,100,000	\$0	\$1,500,000	\$0	\$6,000,000	\$0	\$0	\$0	\$0
1	New Bus and Food Service Facility	\$7,500,000	\$0	\$7,500,000	\$0	\$0	\$0	\$0	\$0	\$0
1	New Elementary School	\$13,500,000	\$0	\$0	\$0	\$0	\$10,000,000	\$0	\$0	\$0
1	County-Wide Expansion of School Facilities	\$6,500,000	\$0	\$1,000,000	\$0	\$1,000,000	\$1,000,000	\$1,250,000	\$1,250,000	\$1,500,000
1	New Middle School	\$16,000,000	\$0	\$0	\$0	\$0	\$0	\$10,000,000	\$6,000,000	\$0
1	New Elementary School - South	\$14,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500,000	\$3,000,000

Submitted: 1/6/2012 11:23:00 AM

Final version: NO

Instance Name: FY 2013 CIP - Jefferson County BOE

NOTES:

1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
2. Comments regarding funding eligibility for the noted projects appear on the next page.

Impact Fee Coordinator Comments: Jefferson County Board of Education

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	Blue Ridge Primary	Full	Expansion of existing facility. [1/6/2012 9:48:00 AM]
2	Harpers Ferry Middle School Addition	Full	Expansion of existing facility. [1/6/2012 9:49:00 AM]
3	New Bus and Food Service Facility	Partial	Expansion of existing facility. Insufficient funds for full request. [1/6/2012 9:49:00 AM]
5	County-Wide Expansion of School Facilities	Full	Expansion of existing facilities. [1/6/2012 9:50:00 AM]

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Board of Education

Project Title: Blue Ridge Primary

Project Type: Construction

Date this form prepared: 12/5/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Estimated Total Cost of Project (\$): \$8,500,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$): \$1,000,000.00

\$3,500,000.00

\$0.00

\$0.00

\$0.00

\$0.00

**(2013) Current
Request**

(2014) Out Year 1

(2015) Out Year 2

(2016) Out Year 3

(2017) Out Year 4

(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

 Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Jefferson County Board of Education

Project Title: Harpers Ferry Middle School Addition

Project Type: Construction

Date this form prepared: 12/5/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See instructions for Form 2 - attach additional pages as needed).

Estimated Total Cost of Project (\$): \$7,100,000.00

Prior Allocation (\$): \$0.00

		(2013) Current Request
Funding Request Breakdown by Year (\$):	<u>\$1,500,000.00</u>	
	<u>\$6,000,000.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See instructions)

 Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Jefferson County Board of Education

Project Title: New Bus and Food Service Facility

Project Type: Construction

Date this form prepared: 12/5/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Estimated Total Cost of Project (\$): \$7,500,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$7,500,000.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

 Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Board of Education

Project Title: New Elementary School

Project Type: Construction

Date this form
prepared: 12/5/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

.

Estimated Total Cost of Project (\$): \$13,500,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):

<u>\$0.00</u>	(2013) Current Request
<u>\$0.00</u>	(2014) Out Year 1
<u>\$10,000,000.00</u>	(2015) Out Year 2
<u>\$0.00</u>	(2016) Out Year 3
<u>\$0.00</u>	(2017) Out Year 4
<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government
ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION

Agency/Department: Jefferson County Board of Education

Project Title: County-Wide Expansion of School Facilities

Project Type: Construction

Date this form
prepared: 12/5/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

.

Estimated Total Cost of Project (\$): \$6,500,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$1,000,000.00</u>	(2013) Current Request
	<u>\$1,000,000.00</u>	(2014) Out Year 1
	<u>\$1,000,000.00</u>	(2015) Out Year 2
	<u>\$1,250,000.00</u>	(2016) Out Year 3
	<u>\$1,250,000.00</u>	(2017) Out Year 4
	<u>\$1,500,000.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Jefferson County Board of Education

Project Title: New Middle School

Project Type: Construction

Date this form prepared: 12/5/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Estimated Total Cost of Project (\$): \$16,000,000.00

Prior Allocation (\$): \$0.00

	<u>\$0.00</u>	(2013) Current Request
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$10,000,000.00</u>	(2017) Out Year 4
	<u>\$6,000,000.00</u>	(2018) Out Year 5
	<u>\$0.00</u>	

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

 Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Jefferson County Board of Education

Project Title: New Elementary School - South

Project Type: Construction

Date this form prepared: 12/5/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Estimated Total Cost of Project (\$): \$14,500,000.00

Prior Allocation (\$): \$0.00

	<u>\$0.00</u>	(2013) Current Request
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$11,500,000.00</u>	(2017) Out Year 4
	<u>\$3,000,000.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

 Additional pages attached.

Divider 2

CIP FORM 1

Jefferson County Government Agency/Department/Office Summary

Name of Agency, Department or Office:

Sheriff of Jefferson County

Page: 1 Fiscal Year 2013

(1) Pri No	(2) PROJECT NAME & DESCRIPTION	(3) EST'D TOTAL COST	(4) PRIOR ALLOC. SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC. OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS				
						2014	2015	2016	2017	2018
1	Purchase of Police Cruisers x (18)	\$940,000	\$0	\$150,000	\$0	\$150,000	\$160,000	\$160,000	\$160,000	\$160,000
0	Weapons training qualifications range	\$50,000	\$0	\$20,000	\$0	\$10,000	\$5,000	\$5,000	\$5,000	\$5,000
3	Route 230 Uvilla Sub-station	\$700,000	\$0	\$0	\$0	\$300,000	\$400,000	\$0	\$0	\$0
2	Mobile Data Terminal System	\$364,000	\$0	\$26,000	\$0	\$32,500	\$214,500	\$26,000	\$32,500	\$32,500

Submitted: 1/6/2012 1:03:00 PM

Final version: NO

Instance Name: FY 2013 CIP - Sheriff of Jefferson County

NOTES:

1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
2. Comments regarding funding eligibility for the noted projects appear on the next page.

Impact Fee Coordinator Comments: Sheriff of Jefferson County

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	Purchase of Police Cruisers x (18)	Partial	Traditionally some new vehicles are replacements for high-mileage cruisers. The Sheriff's office has in the past justified at minimum one new vehicle as being due to increased patrol needs. For the interim, the IFC would recommend one vehicle being purchased by impact fee funds. [1/6/2012 12:55:00 PM]
2	Weapons training qualifications range	Partial	The existing range has not had a capacity increase in years. Part of this project can be funded using impact fees since there has been substantial growth since the last upgrade to this facility. [1/6/2012 12:57:00 PM]
4	Mobile Data Terminal System	Full	Some of these devices are recorded in the current fee inventory for this category (price included in total replacement cost). Thus some of this overall project can be funded by impact fees. [1/6/2012 12:59:00 PM]

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Sheriff of Jefferson County
 Project Title: Purchase of Police Cruisers x (18)
 Acquisition of Major _____ Date this form
 Project Type: Equipment prepared: 12/30/2011
 Project Location: Jefferson County Sheriffs Office
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Purchase of eighteen (18) new fully equipped police cruisers to replace high mileage nearly expired vehicles within the Departments fleet of vehicles and to enable the Sheriffs Office the ability to assign this equipment to newly hired personnel. Several of the cruisers in use have reached the end of their serviceability and could become a safety liability if utilized beyond their vehicular life expectation.

Estimated Total Cost of Project (\$): \$940,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$150,000.00</u>	(2013) Current Request
	<u>\$150,000.00</u>	(2014) Out Year 1
	<u>\$160,000.00</u>	(2015) Out Year 2
	<u>\$160,000.00</u>	(2016) Out Year 3
	<u>\$160,000.00</u>	(2017) Out Year 4
	<u>\$160,000.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Based upon FY 2010 purchase prices on like items and provided estimates. Current purchase price of fully equipped police vehicles.

____ Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Sheriff of Jefferson County
 Project Title: Weapons training qualifications range
 Acquisition of Major _____ Date this form prepared: 12/30/2011
 Project Type: Equipment
 Project Location: Jefferson County
 Project Rank: Not Ranked
 Project Need: Project DOES NOT benefit new growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This is for the modernization of the existing firearms range to include the erection of a shooting pavilion.

Estimated Total Cost of Project (\$):	<u>\$50,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$20,000.00</u>	(2013) Current Request
	<u>\$10,000.00</u>	(2014) Out Year 1
	<u>\$5,000.00</u>	(2015) Out Year 2
	<u>\$5,000.00</u>	(2016) Out Year 3
	<u>\$5,000.00</u>	(2017) Out Year 4
	<u>\$5,000.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

.

____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Sheriff of Jefferson County
 Project Title: Route 230 Uvilla Sub-station
 Project Type: Land Acquisition Date this form prepared: 12/30/2011
 Project Location: Jefferson County Sheriffs Office
 Project Rank: Optional/Deferrable
 Project Need: Project DOES NOT benefit new growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

In an effort to improve upon our responses for the public's calls for service and provide the Harpers Ferry Shepherdstown communities with the level of police services that they deserve a police facility (sub-station) should be placed in close proximity to these communities. In positioning such a facility along the Route 230 and Bakerton corridor would allow on duty deputies who are assigned to this area the ability to greatly reduce response time to calls for service and allow for directed patrol activities whenever time allows. Having deputies assigned to this facility will allow for familiarity of the environment and its citizens thereby creating an atmosphere of partnership and ownership between the community and the sheriff's office. Additionally this facility would provide both an immediate safe haven for those persons in immediate critical need of assistance and a location by which citizens and victims alike may meet with law enforcement to address issues concerns and to work on investigative matters and to file police reports.

Estimated Total Cost of Project (\$):	<u>\$700,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$300,000.00</u>	(2014) Out Year 1
	<u>\$400,000.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Based upon FY 2010 purchase prices on like items and provided estimates. Architectural plan and design projections not yet obtained.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Sheriff of Jefferson County
 Project Title: Mobile Data Terminal System for police vehicle - communications
 Project Type: Acquisition of Major Equipment Date this form prepared: 12/30/2011
 Project Location: Jefferson County Sheriffs Office
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Purchase of mobile data terminals for all sheriff office police cruisers. In order to enhance our already taxed and limited radio communication networking systems and reduce the volume of audible transmitted radio trafficking each vehicle should be equipped with a computer over which calls can be dispatched record and traffic checks performed and other networking capabilities could be performed from the police vehicle. Police reports could be prepared and directly forwarded to the police facility allowing deputies to remain in specific assigned areas for longer periods of time.

Estimated Total Cost of Project (\$): \$364,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$26,000.00</u>	(2013) Current Request
	<u>\$32,500.00</u>	(2014) Out Year 1
	<u>\$214,500.00</u>	(2015) Out Year 2
	<u>\$26,000.00</u>	(2016) Out Year 3
	<u>\$32,500.00</u>	(2017) Out Year 4
	<u>\$32,500.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Based upon FY 2005 purchase prices on like items and provided estimates. Cost based upon current projection of \$6500 per computer unit.

____ Additional pages attached.

6

Divider 3

()

(

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Utility Vehicle
 Acquisition of Major _____ Date this form
 Project Type: Equipment prepared: 11/14/2011
 Project Location: All Locations
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Along with additional parks, trails and the plan for future development and events, department staff is experiencing difficulty accessing areas of the parks using trucks. Providing staff with a utility vehicle will allow easier access to the areas and will result in less disturbance of the turf and impact on park amenities (paved paths, ballfields, etc.). Additional benefits include reduction in operational hours of tractors and trucks, reduced environmental impact, and an extension in the service life or larger equipment. In addition, a utility vehicle would assist staff with special events and provide the opportunity to sell concessions during events.

Estimated Total Cost of Project (\$): \$10,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$10,000.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on quotes and research.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Equipment
 Acquisition of Major _____ Date this form
 Project Type: Equipment prepared: 11/14/2011
 Project Location: All Locations
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

The JCPRC staff has set high standards for the maintenance of the park system and strives to ensure they are safe and enjoyable for Jefferson County Residents. Due to continued growth and expansion, the JCPRC staff is having difficulty maintaining these standards without proper equipment. Currently, the only equipment the department has and uses are tractors, mowers, and trucks. With the addition of a Bobcat, the department will be able to easily clear land for expansion, push/remove trees and undergrowth, grade, and remove snow from the Jefferson County Community Center.

Estimated Total Cost of Project (\$):	<u>\$15,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$15,000.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on quotes and research.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission

Project Title: Park System Master Plan

Project Type: Services

Date this form prepared: 11/14/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This would be Jefferson County's first Parks & Recreation Master Plan and it is intended to guide the JCPRC over the next 10 years. This policy document will guide the County's parks and recreation planning, development, programs and services through 2024. The Parks and Recreation Master Plan should address all aspects of the department including: recreation and human services; children's programs; adult & senior programs, community centers; park development; partnerships; maintenance and tree planting; park operations and maintenance; marketing and special events; and department-wide administrative services. The Parks & Recreation Commission would initiate the Master Plan by appointing a committee to work with staff, the Commission, other city parks & recreation departments, and a consultant to ensure a complete process. The update will involve significant public participation. Recommendations will be scheduled into the parks & recreation commission's capital improvement planning process.

Estimated Total Cost of Project (\$): \$70,000.00

Prior Allocation (\$): \$0.00

	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$70,000.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures.

 Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Mowing Equipment
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 11/14/2011
 Stored at JCPRC Maintenance Building to be used
 Project Location: throughout the county.
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Due to increased park usage and development, the JCPRC is mowing more acreage and more often therefore, necessitates the need for additional mowing equipment and replacement of old mowers. The JCPRC estimates that we are currently mowing 175 acres of grass; which includes playing fields, playgrounds, pavilions, and open green space. In addition, the JCPRC is mowing 5 acres in Bardane at the Jefferson County Public Services Center. In 2012, the JCPRC is planning to expand its mowing to include an additional 30 acres at Sam Michael's Park, which will be used by youth organizations such as soccer and football for practice space.

Estimated Total Cost of Project (\$):	\$81,000.00	
Prior Allocation (\$):	\$0.00	
Funding Request Breakdown by Year (\$):	\$15,300.00	(2013) Current Request
	\$31,500.00	(2014) Out Year 1
	\$0.00	(2015) Out Year 2
	\$0.00	(2016) Out Year 3
	\$34,200.00	(2017) Out Year 4
	\$0.00	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Department Vehicle
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 11/14/2011
 Stored at JCPRC Maintenance Building to be used
 Project Location: throughout the county.
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

The JCPRC has several vehicles that are over 5 years of age, with high mileage that will need to be replaced over the next several years. The JCPRC currently owns the following:

1999 Dodge Dump Truck - Mileage 85,817
 2001 GMC Truck - Mileage 94,513
 2004 GMC Truck - Mileage 84,401
 2010 GMC Truck - Mileage 25,056

In addition JCPRC acquired new parks within the past three years and will need additional vehicles to help maintain these parks.

Estimated Total Cost of Project (\$):	<u>\$109,200.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$33,600.00</u>	(2014) Out Year 1
	<u>\$34,560.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$41,040.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

 Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Hite Road Park Improvements
 Date this form prepared: 11/14/2011
 Project Type: Construction
 Project Location: Hite Road Park
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This represents a long-term ongoing project targeted at alleviating deficiencies noted in the 2006 survey of parks and recreation needs conducted by the department. The project involves construction and improvements at Hite Road Park. Improvements may include but are not limited to: access roads, utilities, restrooms, concession stands, soccer fields, football fields, baseball fields, picnic pavilions, dog park, and lighting.

Development will proceed in 3 phases developed in conjunction with the firm that produced the Master Plan. The time period included in this CIP encompasses Phase I and II of construction. It is anticipated that multiple components of this improvement will involve partnership initiatives with local user groups assuring their continuous input and cementing their vested interest in the project. Thus department resources will be used in conjunction with grant money and matching monies from user groups to achieve these goals. It must be noted that cost reflected in this CIP reflect total expected costs were the department to assume the entire cost with no input from grant or partnership funding. It is expected that actual cost to the department will be significantly lower as a result of alternative funding streams.

Estimated Total Cost of Project (\$): \$5,902,157.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$618,120.00</u>	(2013) Current Request
	<u>\$356,321.00</u>	(2014) Out Year 1
	<u>\$1,594,070.00</u>	(2015) Out Year 2
	<u>\$1,654,255.00</u>	(2016) Out Year 3
	<u>\$1,679,391.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission

Project Title: Bolivar Nature Park Improvements

Project Type: Construction

Date this form
prepared: 11/14/2011

Project Location: Bolivar Nature Park

Project Rank: Necessary/Needed

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This project funds repair of the gravel road and bridge that is currently deteriorating due to heavy rains and construction of a paved access road and parking area for patrons of Bolivar Nature Park.

Estimated Total Cost of Project (\$):	<u>\$51,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$30,000.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$21,000.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

 Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Sam Michaels Park Improvements
 Project Type: Construction Date this form prepared: 11/14/2011
 Project Location: Sam Michaels Park
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Construct a storage room adjacent to the Jefferson County Community Center to expand our useable interior space to house additional equipment and program supplies; such as soccer goals, game tables, and gymnastics equipment which would aid the department in developing new programs and for expansion of current offerings. (\$15,000)

Construct Pavilion by Playground at the JCCC (TOTAL COST: \$21,600): This project involves building a picnic pavilion adjacent to the JCCC Playground. The pavilion would include a restroom facility for patrons to use and could be used by individuals or groups for birthday parties, reunions, and special events.

Extend Walking Trail by ½ mile (TOTAL COST: \$47,500): This project involves extending the current half mile walking trail that surrounds the JCCC to one mile. The trail will be paved so it may be utilized by all.

Complete Installation of Perimeter Fencing (TOTAL COST: \$35,910): This project encompasses completion of a three-board fence around the perimeter of the park property to help protect park property from vehicular traffic.

Estimated Total Cost of Project (\$): \$120,712.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$15,000.00</u> <u>\$21,600.00</u> <u>\$0.00</u> <u>\$35,910.00</u> <u>\$23,750.00</u> <u>\$24,462.00</u>	(2013) Current Request (2014) Out Year 1 (2015) Out Year 2 (2016) Out Year 3 (2017) Out Year 4 (2018) Out Year 5
---	---	---

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: South Jefferson Park Improvements
 Project Type: Construction Date this form prepared: 11/14/2011
 Project Location: South Jefferson Park
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Install Handicap Parking & Addition of ADA Equipment (TOTAL COST: \$11,025.00): This project includes adding a handicap parking area and a piece of ADA equipment to the current play system as none currently exist.

Pave Access Road and Parking Areas (TOTAL COST: \$90,950.00): This project includes paving the access road and parking areas.

Install New Play System (TOTAL COST: \$74,120.00): The current play system at South Jefferson Park was installed in 1996. The structure should be updated to meet ADA accessibility standards and provide more recreational opportunities for patrons of the park.

Construct Walking Trail (TOTAL COST:\$83,250.00): This Project includes fees associated with the design and construction of a walking trail at South Jefferson Park.

Estimated Total Cost of Project (\$):	<u>\$259,345.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$11,025.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$90,950.00</u>	(2016) Out Year 3
	<u>\$74,120.00</u>	(2017) Out Year 4
	<u>\$83,250.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission

Project Title: Mount Mission Park Improvements

Project Type: Construction

Date this form prepared: 11/14/2011

Project Location: Mount Mission Park

Project Rank: Necessary/Needed

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This project addresses the need to make Mount Mission Park more ADA accessible. We will widen entrance gates, install handicap parking and signs, construct access ramp to play area, install a piece of ADA accessible equipment and build a concrete pad and ramp at pavilion for easy access. Currently there is no handicap accessible equipment at Mount Mission Park.

Estimated Total Cost of Project (\$): \$14,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$14,000.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

 Additional pages attached.

____ Additional pages attached.



CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Leetown Park Improvements
 Date this form prepared: 11/14/2011
 Project Type: Renovation
 Project Location: Leetown Park
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Due to heavy rains, current road and parking at Leetown Park have been washed out and are in need of major repair. JCPRC will construct drainage ditches, re-grade and gravel existing roads and parking areas. (TOTAL COST: \$10,200.00)

Renovate Concession-Restroom Facility Phase I Building & Electrical (Total Cost \$14,290.00): The current restroom and concession stand facility at Leetown Park needs to be renovated to meet ADA requirements and current usage at the park. With the addition of a new playground in 2009 the park has seen an increase in use by small children and families as well as continued use from Softball, baseball, and football leagues. This project would include replacement of stalls, toilets, urinals, sinks, etc. and bring the facility up to code. In addition, this will include bringing electrical applications up to date and new exhaust and lighting in the kitchen.

Renovate Concession-Restroom Facility Phase II (Total Cost \$15,290.00): This project addresses the need to continue renovations on the concession stand-restroom facility to include renovations to the roof, sidewalk, drainage and floors.

Install Safety Netting (Total Cost \$16,650.00): Install Safety netting on the slow-pitch field at Leetown Park would be beneficial to residents of Jefferson County that drive Leetown Road as the current netting is in disrepair and not adequate. Installing the netting would reduce the risk of property damage and personal injury. Replace ball field lighting on the fast-pitch and slow-pitch softball fields.

Estimated Total Cost of Project (\$): \$150,030.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$): \$10,200.00

\$14,290.00

\$15,290.00

\$16,650.00

\$0.00

\$93,600.00

(2013) Current

Request

(2014) Out Year 1

(2015) Out Year 2

(2016) Out Year 3

(2017) Out Year 4

(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures, bids received, and with input from the County's Capital Project Coordinator. (Kirk Davis)

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission

Project Title: Moulton Park Improvements

Project Type: Construction

Date this form
prepared: 11/14/2011

Project Location: Moulton Park

Project Rank: Necessary/Needed

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Moulton Park is unique in the Jefferson County Park System in that it offers public river access to the Shenandoah River. The mile of river frontage is used by individuals, groups, and businesses. The park is an ideal location to enjoy a picnic lunch, fish, camp, or just sit and enjoy nature. In 2009, the JCPRC developed a concept plan for Moulton Park that included the following improvements: Barrier fencing to protect the park grounds from vehicular traffic as well as to protect patrons to the park. In addition, the plan accounts for campsites and additional parking as well as green space. These improvements will formalize distinct areas for all types of recreational use and provide needed recreational opportunities. The JCPRC was awarded a LWCF grant in 2010, which was matched with Impact Fee Funding to complete these improvements, which are currently underway. The JCPRC plans to continue to develop Moulton Park to include a restroom facility.

Estimated Total Cost of Project (\$): \$45,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$45,000.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and quotes received.

____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission
 Project Title: Land Acquisition for Parks
 Date this form prepared: 11/14/2011
 Project Type: Land Acquisition
 Project Location: TBD
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This project identifies capital expenditures and appropriations for local parkland acquisitions including related costs for surveys and appraisals. Local parks include urban and rural areas. Acquisitions may include new parkland in areas of the county that are currently lacking parkland as well as additional acreage to existing parks. According to the 2004 Comprehensive Plan adopted by the Jefferson County Commission, Jefferson County is currently in a deficit of parkland. National standards recommend that to serve local needs the ration of parks and recreation space should be approximately ten to twenty acres of land for each 1000 residents. Jefferson County has 373 acres of park land to serve the estimated 50,000 residents. Land will ever be any less expensive than it is now and the amount of undeveloped land in the county is decreasing. The county currently owns nine parks, which include Bolivar Nature Park, Leetown Park, Mount Mission Park, Moulton Park, Sam Michaels' Park, Harvest Hills Park, Heather Marriott Park, and Hite Road Park.

Estimated Total Cost of Project (\$):	<u>\$1,250,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$700,000.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$550,000.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on current land prices obtained from local realtors and the cost of Hite Road Park, which was purchased in 2009.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Jefferson County Parks & Recreation Commission

Project Title: Indoor Swimming Pool

Project Type: Construction

Date this form prepared: 11/14/2011

Project Location: Sam Michael's Park

Project Rank: Necessary/Needed

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

In 2006 the Jefferson County Commission funded a professional recreation assessment survey. The citizens of Jefferson County ranked an indoor swimming pool as a priority recreational need for the county.

Estimated Total Cost of Project (\$):	<u>\$6,084,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$6,084,000.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and estimates from other Parks & Recreation Departments and from estimates from the County's Capital Project Coordinator. (Kirk Davis)

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission

Project Title: Community Center Phase II

Project Type: Construction

Date this form prepared: 11/14/2011

Project Location: Sam Michael's Park

Project Rank: Necessary/Needed

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

To accommodate for future growth in population the JCPRC is requesting funding for Phase II of the Jefferson County Community Center, located at Sam Michaels' Park. Currently, the facility is comprised of one gymnasium, one activity room, a preschool room, fitness room, concession stand, office space, and storage. This project encompasses construction of additional square footage of the Jefferson County Community Center and includes related costs for site and construction documents. It is anticipated that Phase II of the JCCC would include an additional gymnasium, activity rooms, dance room, offices, and more storage. Phase II of the JCCC will allow for the JCPRC staff to offer additional programs and expand existing programs.

Estimated Total Cost of Project (\$): \$2,775,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$2,775,000.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

The Jefferson County Parks & Recreation Commission estimated costs based on past expenditures and estimates.

 Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Jefferson County Parks & Recreation Commission

Project Title: System Wide Needs Assessment Survey

Project Type: Services

Date this form
prepared: 11/14/2011

Project Location: Jefferson County

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

An updated needs assessment survey should be conducted to measure opinions and attitudes from Jefferson County Residents about parks and recreation programs, facilities, and activities. The last needs assessment was conducted in 2005 and growth in the county as well as needs have changed. The findings will help guide the future development of the parks and recreation commission and a Parks Master Plan. The survey should be designed with questions to determine the use of existing parks, programs, and facilities as well as future needs and funding options.

Estimated Total Cost of Project (\$): \$40,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$): \$40,000.00

(2013) Current
Request

(2014) Out Year 1

(2015) Out Year 2

(2016) Out Year 3

(2017) Out Year 4

(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

.

_____ Additional pages attached.

Impact Fee Coordinator Comments: Jefferson County Parks & Recreation Commission

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	System Wide Needs Assessment Survey	Partial	Part of this study is justifiable as being required due to new growth. The IFC is estimating that 25% of the project would be eligible. If the P&R Commission can justify a higher percentage this value could change. [1/6/2012 9:53:00 AM]
9	Sam Michaels Park Improvements	Partial	The majority of projects listed are clear expansion of existing facilities and may be funded by impact fees. The fence extension project is probably not justifiable due to new growth and the IFC opinion would be to not fund that project using fee monies. [1/6/2012 9:56:00 AM]
11	Hite Road Park Improvements	Partial	Hite Road Park is a new addition to the park inventory and is justifiable as being due to new growth. The proposed structures and offerings are all available elsewhere and therefore also represent expansion of existing facilities. The funding limit is due to projected total available impact fee monies for FY 2013. [1/6/2012 9:57:00 AM]
13	Mowing Equipment	Full	As long as the P&C commission is clear on which of the proposed mowers is due to increased mowing acreage this purchase may be funded by impact fees. The IFC has noted that some planned purchases are due to replacement however and these may not be funded by impact fees. [1/6/2012 10:01:00 AM]

CIP FORM 1

Jefferson County Government Agency/Department/Office Summary

Name of Agency, Department or Office:

Jefferson County Parks & Recreation Commission

Page: 2 Fiscal Year 2013

(1) P# No	(2) PROJECT NAME & DESCRIPTION	(3) ESTD TOTAL COST	(4) PRIOR ALLOC. SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC. OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS				
						2014	2015	2016	2017	2018
2	Bolivar Nature Park Improvements	\$51,000	\$0	\$0	\$0	\$30,000	\$0	\$21,000	\$0	\$0
1	Hite Road Park Improvements	\$5,902,157	\$0	\$618,120	\$0	\$356,321	\$1,594,070	\$1,654,255	\$1,679,391	\$0
2	Department Vehicle	\$109,200	\$0	\$0	\$0	\$33,600	\$34,560	\$0	\$41,040	\$0
1	Mowing Equipment	\$81,000	\$0	\$15,300	\$0	\$31,500	\$0	\$0	\$34,200	\$0
1	Park System Master Plan	\$70,000	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$0
2	Equipment	\$15,000	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0
2	Utility Vehicle	\$10,000	\$0	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0

Submitted: 1/6/2012 11:23:00 AM

Final version: NO

Instance Name: FY 2013 CIP - Parks and Recreation Commission

NOTES:

1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
2. Comments regarding funding eligibility for the noted projects appear on the next page.

CIP FORM 1

Jefferson County Government

Agency/Department/Office Summary

Name of Agency, Department or Office:

Jefferson County Parks & Recreation Commission

Page: 1 Fiscal Year 2013

(1) Prj No	(2) PROJECT NAME & DESCRIPTION	(3) EST'D TOTAL COST	(4) PRIOR ALLOC, SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC, OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS				
						2014	2015	2016	2017	2018
1	System Wide Needs Assessment Survey	\$40,000	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0
2	Community Center Phase II	\$2,775,000	\$0	\$0	\$0	\$0	\$0	\$2,775,000	\$0	\$0
2	Indoor Swimming Pool	\$6,084,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,084,000
2	Land Acquisition for Parks	\$1,250,000	\$0	\$0	\$0	\$0	\$700,000	\$0	\$0	\$550,000
2	Moulton Park Improvements	\$45,000	\$0	\$0	\$0	\$0	\$45,000	\$0	\$0	\$0
1	Leetown Park Improvements	\$150,030	\$0	\$10,200	\$0	\$0	\$14,290	\$15,290	\$16,650	\$93,600
2	Mount Mission Park Improvements	\$14,000	\$0	\$0	\$0	\$0	\$14,000	\$0	\$0	\$0
2	South Jefferson Park Improvements	\$259,345	\$0	\$0	\$0	\$0	\$11,025	\$0	\$90,950	\$74,120
1	Sam Michaels Park Improvements	\$120,712	\$0	\$15,000	\$0	\$0	\$21,600	\$0	\$35,910	\$23,750
										\$24,462

Divider 4

CIP FORM 1

Jefferson County Government
Agency/Department/Office Summary

Name of Agency, Department or Office: Blue Ridge Fire Company Page: 1 Fiscal Year 2013

(1) PI No	(2) PROJECT NAME & DESCRIPTION	(3) EST'D TOTAL COST	(4) PRIOR ALLOC, SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC, OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS				
						2014	2015	2016	2017	2018
1	Generator	\$65,000	\$0	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0
1	Sub Station Generator	\$40,000	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0
2	Cascade Unit and New Breathing Apparatus	\$160,000	\$0	\$0	\$0	\$40,000	\$40,000	\$40,000	\$40,000	\$0
2	Urban Interface 4 x 4 Pumper	\$400,000	\$0	\$0	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$0
3	New Duty Car	\$60,000	\$0	\$0	\$0	\$30,000	\$30,000	\$0	\$0	\$0

Submitted: 1/6/2012 11:23:00 AM Final version: NO Instance Name: FY 2013 CIP - Blue Ridge Mountain Fire Company

NOTES:
 1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
 2. Comments regarding funding eligibility for the noted projects appear on the next page.

Impact Fee Coordinator Comments: Blue Ridge Fire Company

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	Generator	Full	There are several emergency generators in county facilities. This represents an expansion of that inventory. [1/6/2012 11:16:00 AM]
2	Sub Station Generator	Full	There are several emergency generators in county facilities. This represents an expansion of that inventory. [1/6/2012 11:17:00 AM]

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Blue Ridge Fire Company
 Project Title: Generator
 Acquisition of Major _____ Date this form
 Project Type: Equipment prepared: 11/30/2011
 181 Keyes Gap Road, Blue Ridge Mtn, Harpers Ferry, WV
 Project Location: 25425
 Project Rank: Urgent/Mandatory
 Project Need: Project DOES NOT benefit new growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This generator will allow us to maintain the station and keep our equipment charged at full capacity in case of an extended power outage. The generator will increase the number of facilities in the county that provide emergency shelter to the public.

Estimated Total Cost of Project (\$):	<u>\$65,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$65,000.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost reflects current market values of equipment.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Blue Ridge Fire Company
 Project Title: Sub Station Generator
 Acquisition of Major Equipment Date this form prepared: 11/30/2011
 Project Type: Equipment
 Project Location: 100 Mission Road, Blue Ridge Mtn, Harpers Ferry, WV 25425
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This generator will allow us to maintain the sub-station and keep our equipment charged at full capacity in case of an extended power outage. The generator will increase the number of facilities in the county that provide emergency shelter to the public.

Estimated Total Cost of Project (\$):	<u>\$40,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$40,000.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost reflects current market values of equipment.

____ Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Blue Ridge Fire Company
 Project Title: Cascade Unit and New Breathing Apparatus
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 11/30/2011
 181 Keyes Gap Road, Blue Ridge Mtn, Harpers Ferry, WV
 Project Location: 25425
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

The cascade unit and new breathing apparatus will allow us to maintain the standard of fire fighting and rescue that is expected of any fire company in the county.

Estimated Total Cost of Project (\$):	\$160,000.00	
Prior Allocation (\$):	\$0.00	
Funding Request Breakdown by Year (\$):	\$0.00	(2013) Current Request
	\$40,000.00	(2014) Out Year 1
	\$40,000.00	(2015) Out Year 2
	\$40,000.00	(2016) Out Year 3
	\$40,000.00	(2017) Out Year 4
	\$0.00	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost reflects current market values of equipment.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Blue Ridge Fire Company
 Project Title: Urban Interface 4 x 4 Pumper
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 11/30/2011
 181 Keyes Gap Road, Blue Ridge Mtn, Harpers Ferry, WV
 Project Location: 25425
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This fire engine will allow us to maintain/increase our response times regardless of weather and/or road conditions. It will allow us to better serve the public in their time of need.

Estimated Total Cost of Project (\$):	<u>\$400,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$100,000.00</u>	(2014) Out Year 1
	<u>\$100,000.00</u>	(2015) Out Year 2
	<u>\$100,000.00</u>	(2016) Out Year 3
	<u>\$100,000.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost reflects current market values of equipment.

 Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Blue Ridge Fire Company
 Project Title: New Duty Car
 Acquisition of Major _____ Date this form
 Project Type: Equipment prepared: 11/30/2011
 181 Keyes Gap Road, Blue Ridge Mtn, Harpers Ferry, WV
 Project Location: 25425
 Project Rank: Optional/Deferrable
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This vehicle will allow us to better serve the community by the rapid response of key personnel to the particular incident scene. It will enable a quicker size-up of the incident, therefore, making sure the proper equipment is en-route to handle the situation whether it be a fire or ambulance call.

Estimated Total Cost of Project (\$):	<u>\$60,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$0.00</u>	(2013) Current Request
	<u>\$30,000.00</u>	(2014) Out Year 1
	<u>\$30,000.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost reflects current market values of equipment.

_____ Additional pages attached.

CIP FORM 1

Jefferson County Government
Agency/Department/Office Summary

Name of Agency, Department or Office:

Citizens Fire Company

Page: 1 Fiscal Year 2013

(1) Prj No	(2) PROJECT NAME & DESCRIPTION	(3) EST'D TOTAL COST	(4) PRIOR ALLOC. SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC. OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS				
						2014	2015	2016	2017	2018
1	Transport Unit (Ambulance, ALS Capable)	\$200,000	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
2	Air Conditioner for Engine Bay	\$100,000	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0

Submitted: 1/6/2012 12:54:00 PM Final version: NO Instance Name: FY 2013 CIP - Citizens Fire Company

NOTES:
 1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
 2. Comments regarding funding eligibility for the noted projects appear on the next page.

Impact Fee Coordinator Comments: Citizens Fire Company

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	Transport Unit (Ambulance, ALS Capable)	Full	This project represents an expansion of the EMS vehicle inventory across the county and may be funded by impact fees. [1/6/2012 12:52:00 PM]

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Citizens Fire Company
Emergency Medical Services - Transport Unit (Ambulance,
Project Title: ALS Capable)
Acquisition of Major Date this form
Project Type: Equipment prepared: 12/14/2011
Project Location: Citizens Fire Company
Project Rank: Urgent/Mandatory
Project Need: Project benefits BOTH new and existing growth
Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

According to the 2010 census, Jefferson County covers an area of 212 square miles and has a population of 53,498 (approximately 252 people per square mile). Currently, the Emergency Medical Services in Jefferson County is comprised of five volunteer companies and the Jefferson County Emergency Services Agency. Combined, these companies equip 8 ambulances and 1 reserve ambulance.

The first due response area of Citizens Fire Company is 43.3 square miles or 21% of the land area in Jefferson County and has 3,807 addressable structures. It currently consists of two schools, Page Jackson Elementary and Washington High School and has four major roadways, Rt. 340, Rt. 9, Rt.115 and the new Rt. 9, which is currently under construction.

Services currently provided by Citizens Fire Company do not include EMS transport, therefore, the first due response area of Company 2 (Citizens) is covered by Company 4 (Independent), which houses 2 ambulances and responds to approximately 80 square miles or 38% of the land area in Jefferson County (approximately 20,329 people based on the 2010 census). On average, Company 4 responds to approximately 2,236 emergency medical calls for service a year, which represents over half of the EMS calls for Jefferson County.

An ambulance at Company 2 would drastically increase the service delivery to the residents of Jefferson County, while greatly decreasing the demand on Company 4's first due emergency medical services. At a moment when seconds count, this transport unit would decrease the on-scene response times for residents within the Company 2 response area. In addition to first due calls, an ambulance at Company 2 would also run as a second due resource to response areas covered by Company 4, Company 5 (Blue Ridge), Company 1 (Friendship) and mutual aid jurisdictions, which would also greatly reduce the on-scene response times for emergency medical incidents in those areas.

Further justification for a transport unit at Citizens Fire Company references the recently adopted Jefferson County Emergency Services Agency EMS/Fire and Rescue Five-Year Strategic Plan (January 24, 2011). As listed in Table 7: Recommended JCESA Staffing Model (page 21), it is recommended that Citizens Fire Company receive one FF/EMT from 7a-7p, 5 days a week, in Fiscal Year 2012. Placing an EMS transport unit at Company 2 would allow this position to be utilized in either a fire or EMS role.

Estimated Total Cost of Project (\$): \$200,000.00
Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$200,000.00</u> <u>\$0.00</u> <u>\$0.00</u> <u>\$0.00</u> <u>\$0.00</u> <u>\$0.00</u>	(2013) Current Request (2014) Out Year 1 (2015) Out Year 2 (2016) Out Year 3 (2017) Out Year 4 (2018) Out Year 5
--	--	---

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Based on estimates from recent Jefferson County ambulance and supply purchases.

Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Citizens Fire Company

Project Title: Air Conditioner for Engine Bay

Project Type: Renovation

Date this form prepared: 12/14/2011

Project Location: Citizens Fire Company

Project Rank: Necessary/Needed

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Citizens Fire Company is the evacuation facility for Charles Town Middle School, located on High Street in Charles Town. If an emergency were to force the middle school to evacuate, an air conditioned facility would provide comfort and maintain safety of the students and faculty.

Estimated Total Cost of Project (\$): \$100,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	(2013) Current Request
<u>\$100,000.00</u>	
<u>\$0.00</u>	(2014) Out Year 1
<u>\$0.00</u>	(2015) Out Year 2
<u>\$0.00</u>	(2016) Out Year 3
<u>\$0.00</u>	(2017) Out Year 4
<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Based on manufacturers suggested retail price and installation hour estimates.

_____ Additional pages attached.

CIP FORM 1

Name of Agency, Department or Office:

Friendship Fire Company

Page: 1 Fiscal Year 2013

(1) Pri No	(2) PROJECT NAME & DESCRIPTION	(3) EST'D TOTAL COST	(4) PRIOR ALLOC, SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC, OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS			
						2014	2015	2016	2017
2	Generator for Building	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0
1	NEW PRIMARY STATION	\$1,500,000	\$0	\$300,000	\$0	\$300,000	\$300,000	\$300,000	\$0
2	URBAN INTERFACE PUMPER	\$360,000	\$0	\$120,000	\$0	\$120,000	\$120,000	\$0	\$0
2	2 ADDITIONAL THERMAL IMAGERS	\$20,000	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0

Submitted: 1/6/2012 11:34:00 AM Final version: NO Instance Name: FY 2013 CIP - Friendship Fire Company

NOTES:
 1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
 2. Comments regarding funding eligibility for the noted projects appear on the next page.

Impact Fee Coordinator Comments: Friendship Fire Company

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	Generator for Building	Full	There are several emergency generators in county facilities. This represents an expansion of that inventory. [1/6/2012 11:24:00 AM]
2	NEW PRIMARY STATION	Partial	This represents an expansion in the square footage owned by the company. A full determination of the amount of impact fees which could be expended on this project must await the cash flow analysis which is conducted in February. [1/6/2012.11:26:00 AM]
4	2 ADDITIONAL THERMAL IMAGERS	Full	This represents an increase in the total inventory of these devices and can be justified due to increased fire calls. [1/6/2012 11:32:00 AM]

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Friendship Fire Company
 Project Title: Generator for Building
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 9/19/2011
 Project Location: Friendship Fire Company
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

This generator would allow us to maintain the station and keep our equipment charged at full capacity in case of extended power outage for extended time. The generator will increase the number of facilities in the county that provide emergency shelter to the public.

Estimated Total Cost of Project (\$):	<u>\$75,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$75,000.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Friendship Fire Company

Project Title: NEW PRIMARY STATION

Project Type: Construction

Date this form
prepared: 10/21/2011

Project Location: HARPERS FERRY/BOLIVAR

Project Rank: Urgent/Mandatory

Project Need: Project benefits BOTH new and existing growth

Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Company is desperately in need of replacing its current facility to accommodate county growth, safety and NFPA compliance.

Company is in process of obtaining land for 2nd station site. Company intent is to construct 2nd fire station in more central location to accommodate growth.

Current station would remain active and used as a substation.

Estimated Total Cost of Project (\$): \$1,500,000.00

Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$): \$300,000.00

(2013) Current Request
(2014) Out Year 1
(2015) Out Year 2
(2016) Out Year 3
(2017) Out Year 4
(2018) Out Year 5

\$300,000.00

\$300,000.00

\$300,000.00

\$300,000.00

\$0.00

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost estimates reflect proposals received from qualified general contractor to include, but not limited to..architectural drawings, permits, labor, and materials.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Friendship Fire Company
 Project Title: URBAN INTERFACE PUMPER
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 10/21/2011
 Project Location: HARPERS FERRY/BOLIVAR
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Additional piece of equipment which is a more versatile urban interface pumper (1000 gal.)

Seeking smaller unit to access smaller streets and hard to reach areas. Unit to be equipped with rescue tools and 1,000 gallon water tank.

Estimated Total Cost of Project (\$):	<u>\$360,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$120,000.00</u>	(2013) Current Request
	<u>\$120,000.00</u>	(2014) Out Year 1
	<u>\$120,000.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost reflects current market value of equipment.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Friendship Fire Company
 Project Title: 2 ADDITIONAL THERMAL IMAGERS
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 10/21/2011
 Project Location: HARPERS FERRY/BOLIVAR
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

Additional Thermal Imagers are needed on equipment to help us better serve the community in times of search and rescue and hazardous conditions during fire. This equipment will always be very beneficial in determining that a fire is completely out.

Estimated Total Cost of Project (\$):	<u>\$20,000.00</u>	
Prior Allocation (\$):	<u>\$0.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$20,000.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Cost reflects current market value of equipment.

____ Additional pages attached.

CIP FORM 1

Jefferson County Government Agency/Department/Office Summary

Name of Agency, Department or Office: Independent Fire Company Page: 1 Fiscal Year 2013

(1) PI No	(2) PROJECT NAME & DESCRIPTION	(3) EST'D TOTAL COST	(4) PRIOR ALLOC, SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC, OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS				
						2014	2015	2016	2017	2018
1	Building Project	\$2,500,000	\$750,000	\$50,000	\$1,000,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
2	Equipment Utility Pickup Truck	\$50,000	\$20,000	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0

Submitted: 1/6/2012 12:07:00 PM Final version: NO Instance Name: FY 2013 CIP - Independent Fire Company

NOTES:
 1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
 2. Comments regarding funding eligibility for the noted projects appear on the next page.

Impact Fee Coordinator Comments: Independent Fire Company

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	Building Project	Full	This represents expansion of existing inventory and is fee fundable. The initial design component or preparatory work for this project would be eligible for impact fee funding. [1/6/2012 11:47:00 AM]
2	Equipment Utility Pickup Truck	Partial	This project is a partial replacement/partial upgrade and additional vehicle. The IFC feels that the differential between the value of the current vehicle and the new vehicle would represent the expansion component. That amount can be funded by impact fees. Due to the complexity of this situation however, the IFC also suggests that other funding sources would be the cleanest route to fund this project. [1/6/2012 12:05:00 PM]

CIP FORM 2

Jefferson County Government
**ANNUAL and FIVE YEAR PROJECT REQUEST
and JUSTIFICATION**

Agency/Department: Independent Fire Company
 Project Title: Building Project
 Date this form prepared: 12/14/2011
 Project Type: Renovation
 Project Location: Independent Fire Company
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

The scope of the project is to renovate our facility to accommodate around the clock career staffing provided by the Jefferson County Emergency Services Agency. We have down scaled our project from a complete replacement of our existing structure to adding on and gutting the interior and completely redoing.

Estimated Total Cost of Project (\$):	<u>\$2,500,000.00</u>	
Prior Allocation (\$):	<u>\$750,000.00</u>	
Funding Request Breakdown by Year (\$):	<u>\$50,000.00</u>	(2013) Current Request
	<u>\$50,000.00</u>	(2014) Out Year 1
	<u>\$50,000.00</u>	(2015) Out Year 2
	<u>\$50,000.00</u>	(2016) Out Year 3
	<u>\$50,000.00</u>	(2017) Out Year 4
	<u>\$50,000.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Our current method is based on calculation provided by an architect to include every step of the project from beginning to end. These are available for review if requested. Based on our scaling down of the total project we are still in meting with architects and contractors.

_____ Additional pages attached.

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Independent Fire Company
 Project Title: Equipment Utility Pickup Truck
 Acquisition of Major Date this form
 Project Type: Equipment prepared: 12/14/2011
 Project Location: Independent Fire Company
 Project Rank: Necessary/Needed
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

The company is in need of a vehicle to safely pull our boat trailer. Independent is the only provider in Jefferson County for swift water rescue. Our current utility is suited more as a staffing transporter as well as necessary for assisting our EMS functions during the winter snow storms. Our current utility is to be retained for these reasons. We have found it necessary to obtain a pickup type vehicle to not only pull our boat, but to transport portable equipment during large incidents. With the large diameter hose used in the fire service today it is next to impossible to repack on the scene as well as transport back to the station. In addition there are other types of portable equipment that this type of vehicle would benefit from.

Estimated Total Cost of Project (\$): \$50,000.00

Prior Allocation (\$): \$20,000.00

Funding Request Breakdown by Year (\$):	<u>\$30,000.00</u>	(2013) Current Request
	<u>\$0.00</u>	(2014) Out Year 1
	<u>\$0.00</u>	(2015) Out Year 2
	<u>\$0.00</u>	(2016) Out Year 3
	<u>\$0.00</u>	(2017) Out Year 4
	<u>\$0.00</u>	(2018) Out Year 5

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

Total cost of equipment utility is approximately \$50,000 with Independent supplying \$20,000 leaving a total of \$30,000 requested.

_____ Additional pages attached.

CIP FORM 1

Jefferson County Government
Agency/Department/Office Summary

Name of Agency, Department or Office: Middleway Fire Company Page: 1 Fiscal Year 2013

(1) PI No	(2) PROJECT NAME & DESCRIPTION	(3) EST'D TOTAL COST	(4) PRIOR ALLOC, SOURCE	(5) CURRENT REQUEST FY 2013	(6) CURRENT ALLOC, OTHER SOURCES	(7) EXPECTED FIVE-YEAR FUTURE PROGRAM REQUESTS			
						2014	2015	2016	2017
1	Stand By Generator	\$50,000	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0
1	Auto Pulse	\$15,000	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0

Submitted: 1/6/2012 11:36:00 AM Final version: NO Instance Name: FY 2013 CIP - Middleway Fire Company

NOTES:
 1. Items shaded in the *Priority* column represent projects which may potentially be funded by Impact Fees.
 2. Comments regarding funding eligibility for the noted projects appear on the next page.

Impact Fee Coordinator Comments: Middleway Fire Company

LINE #	PROJECT	FEE FUNDING POTENTIAL	COMMENTS
1	Stand By Generator	Full	The IFC would only recommend this equipment following completion of the building. Otherwise it does represent an expansion of the current inventory of generators within the emergency services realm. [1/6/2012 11:34:00 AM]
2	Auto Pulse	Full	This represents an expansion of existing inventory and is justifiable due to increasing EMS calls. [1/6/2012 11:35:00 AM]

CIP FORM 2

Jefferson County Government ANNUAL and FIVE YEAR PROJECT REQUEST and JUSTIFICATION

Agency/Department: Middleway Fire Company
 Project Title: Auto Pulse
 Acquisition of Major _____ Date this form
 Project Type: Equipment prepared: 12/7/2011
 Project Location: Middleway Volunteer Fire Company
 Project Rank: Urgent/Mandatory
 Project Need: Project benefits BOTH new and existing growth
 Budget Impact: No

DESCRIPTION AND JUSTIFICATION (See Instructions for Form 2 - attach additional pages as needed).

An auto pulse is a tool used during CPR to provide chest compressions which will free up manpower to provide other life saving medications as well as provide a more effective and consistent chest compression rate which helps improve the chance of surviving a heart attack.

Estimated Total Cost of Project (\$): \$15,000.00
 Prior Allocation (\$): \$0.00

Funding Request Breakdown by Year (\$):	<u>\$15,000.00</u> <u>\$0.00</u> <u>\$0.00</u> <u>\$0.00</u> <u>\$0.00</u> <u>\$0.00</u>	(2013) Current Request (2014) Out Year 1 (2015) Out Year 2 (2016) Out Year 3 (2017) Out Year 4 (2018) Out Year 5
---	---	---

DESCRIBE METHOD OF CALCULATING ESTIMATED COST OF PROJECT: (See Instructions)

recent purchase price of same item in our county in 2012 FY.

_____ Additional pages attached.

<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: Mike Wiley

Department or Entity: Jefferson County Citizens for Economic Preservation

Estimation of amount of time needed for appointment: 10 Minutes

Date Requested – 1st Choice: May 3, 2012

Date Requested – 2nd Choice: May 10, 2012

If a specific date is needed, please provide reason for specific date:

Subject: **Request from Jefferson County Citizens for Economic Preservation for the County Commission’s consideration of an amendment to the Subdivision Regulations for revision of the sunset date for extension of plan approvals from July 1, 2012 to July 1, 2015.**

Please provide the County Commission with a description of your request or presentation, including any background information: **See attached letter.**

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve):

“I hereby direct staff to set a date and time meeting the minimum required advertisement notice, for the Jefferson County Commission to hold a Public Hearing in order to consider an amendment to the Subdivision Regulations Article 20, Section 20.105 D.1 & 2 regarding changing the sunset date for extension of plan approvals from July 1, 2012 to July 1, 2015.”

Attachments: **Request letter**

jefferson county citizens for economic preservation
J C C E P
JCCEP, 301 North Mildred Street, Suite 1, Charles Town, WV 25414

April 12, 2012

Patsy Noland, President
Jefferson County Commission
P.O. Box 250
124 East Washington Street
Charles Town, WV 25414

Dear President Noland:

On behalf of Jefferson County Citizens for Economic Preservation (JCCEP), we are writing to request the Jefferson County Commission's consideration and passage of an amendment to the Jefferson County *Subdivision Regulations*.

For your information, JCCEP's Mission Statement is:

"Established August 3, 1992, Jefferson County Citizens for Economic Preservation (JCCEP) is a forward-thinking, nonprofit corporation comprised of residential and commercial land developers, builders, and related service providers to the industry. JCCEP exists to improve the quality of life in Jefferson County through the promotion of our core values consisting of:

- 1. Economic growth;*
- 2. Responsible and quality land development and construction; and*
- 3. Reasonable regulations.*

JCCEP represents its members in achieving these basic core values by upholding the following business practices:

- To inform the public to understand and appreciate the importance of residential, office and commercial land development and construction, its positive benefit on the local economy, and those who provide these services;*
- To advocate professional, ethical, and best business practices of our membership when interacting with the public and regulatory agencies;*
- To strive for a balance between local legislative, regulatory, and judicial public policy and our membership's needs by fostering reasonable and just regulations;*
- To establish and maintain a harmonious relationship and understanding among our membership, the general public, regulatory agencies, and consumers of our members' services, while aiming to mutually resolve problems affecting the general welfare of our industry.*

(emphasis added).

Several of JCCEP's members are land developers and builders of quality developments within Jefferson County. However, given the continued severe economic downturn in the Country which continues to adversely affect many of our members in the development and building industry, we are continually faced with hardships in our businesses that we must overcome to

stay financially sound, so that we may continue to provide quality products and services to the good citizens of Jefferson County. One of the most prevalent issues several of our members face is the expiration of land development entitlement approvals, primarily related to Preliminary Plans, Site Plans, etc. The expiration of plan approvals will cause dramatic financial hardship in the event of their expiration, due to the need to re-process plans, possibly causing increased costs, time, and efforts to achieve new plan approvals that will likely require significant design changes to comply with changed regulations enacted since the date of prior approvals under previous regulations. These changes can range from total development character design and layout changes caused by the adoption of the current *Subdivision Regulations* that have significantly and detrimentally changed since the time of many prior approvals, advanced environmental permitting requirements, and other State and Federal regulatory requirements. This is not to say the prior approvals are "more lax" than current regulations; one must understand current approvals fully meet the approval and permitting requirements at the time of their approval, and should be allowed to continue under prior approvals. This is a basic tenet of obtaining an entitlement for land development, and should not be minimized.

It is important to understand that although land developers, like any other businesses, strive for a profit from their efforts; however, they also routinely incur significant financial risks in their business. Therefore, an assurance for maintenance of approvals is monumentally important to assure the financial viability and success of the business, as well as provide a needed public service: that of business development and growth through land development and construction opportunities. Some comments reinforcing this importance from our members concerned about the expiration of approvals include the following anecdotes:

"...the economic conditions which gave rise to this legislation in 2010 have persisted, if not worsened, especially in Jefferson County. For example, we only sold 3 new homes in the last 5 years in our project there.

Extending the sunset date helps those who have expended thousands (if not millions in our case) of dollars to obtain entitlements, especially for all activities leading up to and including obtaining approvals for Preliminary Plats, to assure their efforts won't be "extinguished" if the date expires in 2012. The consequences of not changing the date would be to start the entitlement process all over again at great time and expense, to only achieve the same result, or worse, be subjected to more stringent and costly regulations."

And also:

"...we have been involved in real estate development for 23 years. Personally, I have been involved in development for 40 years. During that period, I have not experienced a period with such financially devastating effects on the value of real estate, nor have I seen demand for real estate fall so far for such a lengthy period. We are not yet starting a healthy real estate recovery, especially in the West Virginia panhandle!

We need assistance to extend our project approvals, and the State needs to encourage investments in real estate by professionals. Our project (in Jefferson County) has required us to invest millions of dollars to get to our current point. If we do not vest our approvals, much of this will be at risk. Whatever the State of West Virginia can do to assist will be helpful."

To assist the County Commission's consideration of this request, we note the following:

- The enabling legislation for the County Commission's authority to deliberate and approve amendments to the Subdivision Regulations is within West Virginia State Code §8A-4-3:

§8A-4-3. Enactment of subdivision and land development ordinance.
(a) Before a governing body enacts a subdivision and land development ordinance, the governing body shall hold at least one public hearing and give public notice.

(b) The public notice of the date, time and place of the public hearing must be published in a local newspaper of general circulation in the area as a Class I legal advertisement, in accordance with the provisions of article three, chapter fifty-nine of this code, at least thirty days prior to the public hearing. The public notice must contain a brief summary of the principal provisions of the proposed subdivision and land development ordinance and a reference to the place or places where copies of the proposed subdivision and land development ordinance may be examined.

(c) After the public hearing, if the governing body makes other than technical amendments to the proposed subdivision and land development ordinance prior to voting on it, the governing body shall hold another public hearing and give public notice. The public notice shall be as provided in subsection (b) of this section, and must contain a brief summary of the amendments.

(emphasis added).

- The current provisions for plan approval expirations appear in two codified locations:

1. West Virginia State Code §8A-5-12 (f):

(f) Any subdivision or land development plan or plat, whether recorded or not yet recorded, valid under West Virginia law and outstanding as of January 1, 2010, shall remain valid until July 1, 2012, or such later date provided for by the terms of the planning commission or county commission's local ordinance or for a longer period as agreed to by the planning commission or county commission. Any other plan or permit associated with the subdivision or land development plan or plat shall also be extended for the same time period: Provided, That the land development plan or plat has received at least preliminary approval by the planning commission or county commission by March 1, 2010.

and also in:

2. The Subdivision Regulations, Article 20, Section 20.105 D.1 & 2:

1. All requirements, for the vesting of property rights contained in an ordinance enacted pursuant to WV Code Section 8A-4-2 that require the performance of any action within a certain time period for any subdivision or land development plan or plat valid under West Virginia law and outstanding as of January 1, 2010, shall be extended until July 1, 2012, or longer as agreed to by the municipality, county commission or planning commission. The provisions of this subsection also apply to any requirement that a use authorized pursuant to

a special exception, special use permit, conditional use permit or other agreement or zoning action be terminated or ended by a certain date or within a certain number of years.

2. Any subdivision or land development plan or plat, whether recorded or not yet recorded, valid under West Virginia law and outstanding as of January 1, 2010, shall remain valid until July 1, 2012, or such later date provided for by the terms of the Planning Commission or County Commission's local ordinance or for a longer period as agreed to by the Planning Commission or County Commission. Any other plan or permit associated with the subdivision or land development plan or plat shall also be extended for the same time period. Provided, that the land development plan or plat has received at least preliminary approval by the Planning Commission or County Commission by March 1, 2010.

(emphasis added).

Note that although both codes contain a provision "...or for a longer period as agreed to by the Planning Commission or County Commission...", under §8A-4-3, the enabling legislation clearly directs the County Commissioners as the County's "governing body" and therefore the decision-makers in this process.

Recently, several members of JCCEP were actively engaged in the attempts for passage of Senate Bill 540, which would have extended the approvals in §8A-5-12 (f) to July 1, 2015. Because the legislative session ran out of time, we now must seek relief of the current "sunset" expiration date of July 1, 2012, via the County Commissioners through a simple amendment to the current *Subdivision Regulations*, Article 20, Section 20.105 D.1 & 2 as highlighted below:

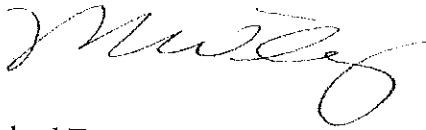
1. All requirements, for the vesting of property rights contained in an ordinance enacted pursuant to WV Code Section 8A-4-2 that require the performance of any action within a certain time period for any subdivision or land development plan or plat valid under West Virginia law and outstanding as of January 1, 2010, shall be extended until July 1, 201215, or longer as agreed to by the municipality, county commission or planning commission. The provisions of this subsection also apply to any requirement that a use authorized pursuant to a special exception, special use permit, conditional use permit or other agreement or zoning action be terminated or ended by a certain date or within a certain number of years.

2. Any subdivision or land development plan or plat, whether recorded or not yet recorded, valid under West Virginia law and outstanding as of January 1, 2010, shall remain valid until July 1, 201215, or such later date provided for by the terms of the Planning Commission or County Commission's local ordinance or for a longer period as agreed to by the Planning Commission or County Commission. Any other plan or permit associated with the subdivision or land development plan or plat shall also be extended for the same time period. Provided, that the land development plan or plat has received at least preliminary approval by the Planning Commission or County Commission by March 1, 2010.

President Patsy Noland
April 12, 2012
Page 5 of 5

Based on the preceding, we respectfully request the County Commission approve JCCEP's request to amend the *Subdivision Regulations* as identified above, in an expeditious fashion prior to the July 1, 2012 sunset expiration. Please feel free to call me at (301) 695-6614 x204 or email mike.wiley@wormald.com anytime if you have any questions or concerns, and we look forward to your support.

Sincerely,
JCCEP



Michael T. Wiley
President

MTW/mtw/W:\EMPLOYEES\Mike\JCCEP\LTR - Noland Subdiv Reg Amendment 04-10-2012.docx

cc: Jefferson County Commissioners:
Dale Manuel, Vice President
Walt Pellish, Commissioner
Frances Morgan, Commissioner
Lyn Widmyer, Commissioner
Stephanie Grove, Esq.
JCCEP Board of Directors
EPHBA Board of Directors

<p>Commission Office Use Only</p> <p>Date on Agenda: _____</p> <p>Appt Time or New Business: _____</p>
--

AGENDA REQUEST FORM

Name: Paul Shroyer

Department or Entity: County Commission

Estimation of amount of time needed for appointment: _____

Date Requested – 1st Choice: May 3, 2012

Date Requested – 2nd Choice: _____

If a specific date is needed, please provide reason for specific date:

Subject: Approval of Internal Budget Revision 1012

Please provide the County Commission with a description of your request or presentation, including any background information:

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve):

Attachments:

Topic: Budget Revision, IBR 1012

Requested by: Jefferson County Tax Office

Processed by: Paul Shroyer

Presented to County Commission: 5/3/2012

Change requested: Realign Current Funding

The Sheriff's Tax Office is requesting to Increase the Departments Overtime Line by \$3,000. To fund that change they are requesting to reduce funding for Travel by \$1,000 and reduce funding for Contractual Service by \$2,000. This is an adjustment within the current budget funding, no additional funding is required.



<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: Jennifer Brockman

Department or Entity: Planning and Zoning

Estimation of amount of time needed for appointment: 5 minutes

Date Requested – 1st Choice: May 3, 2012

Date Requested – 2nd Choice: May 10, 2012

If a specific date is needed, please provide reason for specific date:

Subject: **Approval of Contract with Temp Agency**

Please provide the County Commission with a description of your request or presentation, including any background information:

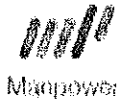
The Departments of Planning and Zoning have been working to update a database that provides critical information about all project files in a concise manner for easy reference by all staff. We have utilized Job Corps assistance but have determined that we need experienced administrative support to complete this task. Toward that end, we have contacted Manpower, an agency that places trained temporary staff. The attached contract with Manpower would allow the possibility of hiring a temp to complete this task within the Professional Services Line Item of the Department of Planning budget.

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve):

I move approval of the contract with Manpower for the purposes of hiring a temporary administrative support person by the Departments of Planning and Zoning to complete the task described above.

Attachments:

- **Manpower Contract**
-



PRICING TERMS

Jefferson County Planning & Zoning

April 23, 2012

The following rates are being offered to Jefferson County Planning & Zoning:

Traditional Temporary Help / "Temp-To-Perm"

Manpower's mark-up rates for your Research/Data Entry position will be 35.72% above the agreed upon pay rate. For example:

JOB CLASSIFICATION	PAY RATE	BILL RATE
Research / Data Entry	\$10.00	\$13.57

Hiring Policies for Traditional Staffing:

Temp-to-Hire Program

If you choose to hire our temporary associate while on assignment or within six months after the completion of the assignment, the Conversion Fee will be based on the number of hours worked on Manpower's payroll at the time of hire:

Less than 180 hours.....	14% of annual salary
181- 360 hours.....	9% of annual salary
361-520 hours.....	5% of annual salary
521-560 hours	3% of annual salary
560+ hours.....	\$250.00

Invoicing will occur upon the date of hire and will be payable upon receipt.

Wagemaster Services (Payrolling):

Manpower's mark-up rates for Wagemaster positions will be 34% above the agreed upon pay rate. There is no Conversion Fee for Wagemaster candidates.

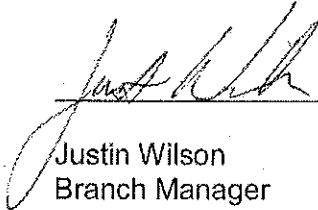
The above bill rates include all deductions required by State and Federal legislation including employer's contributions for FICA taxes, providing Unemployment and Workers' Compensation, liability insurance and fidelity bonding, as well as all other deductions and benefits paid to our employees. Additionally, all administrative charges are covered, including preparation of W-2 forms at the end of the year.

Invoices are generated weekly (Thursday's) and payment is due **net 10 days** upon receipt of invoice. Any questions can be directed to the Manpower office at **304-263-3900** or emailed to Justin.wilson@manpower.com.

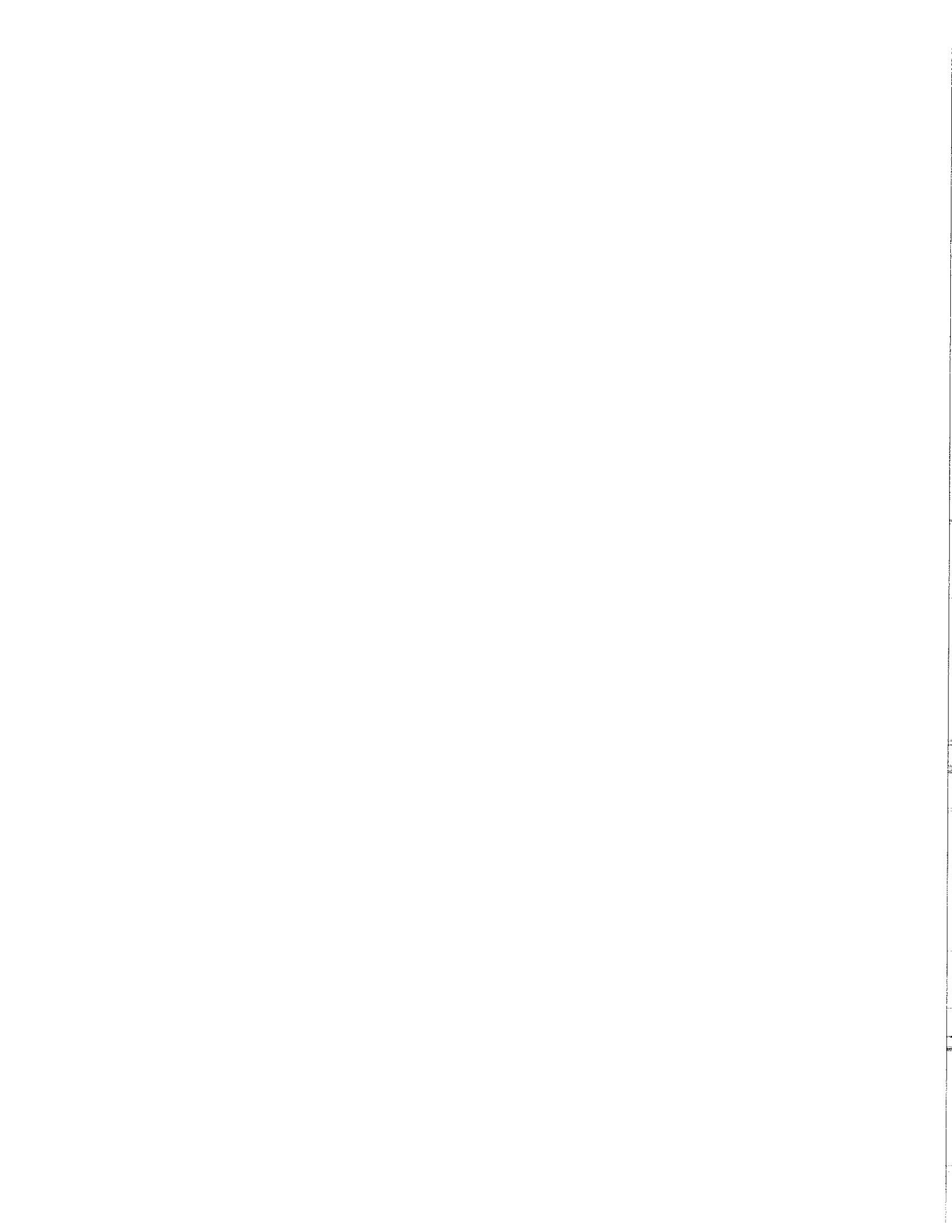
*Manpower may, from time to time, increase the rates set forth in proportion to any legislatively-mandated new or increased cost which may be associated with the passage of federal or state legislation mandating increased employee benefits.



PRICING TERMS
Jefferson County Planning & Zoning
April 23, 2012

 4-23-12
Justin Wilson Date
Branch Manager

Client Signature Date



Commission Office Use Only

Date on Agenda:

Appt Time or New Business:

AGENDA REQUEST FORM

Name: Jennifer Brockman

Department or Entity: Planning and Zoning

Estimation of amount of time needed for appointment: 15 minutes

Date Requested – 1st Choice: May 3, 2012

Date Requested – 2nd Choice: May 10, 2012

If a specific date is needed, please provide reason for specific date:

Subject: **Recommendation of Planning Commission to the County Commission on the landowner-initiated petition to amend the County Zoning Map for a 8.98 acre property owned by Gene Capriotti, designated as Tax District: Harpers Ferry, Map: 9-2, Parcel: 58, located south of Route 340 (William L. Wilson Freeway) and east of Route 27/2 (Allstadt's Hill Road) for the purpose of setting a public hearing to be held by the County Commission**

Please provide the County Commission with a description of your request or presentation, including any background information:

On April 24, 2012, the Jefferson County Planning Commission held a Public Hearing for the purpose of receiving public input regarding a landowner-initiated petition to rezone a 8.98 acre property owned by Gene Capriotti, designated as Tax District: Harpers Ferry, Map: 9-2, Parcel: 58, located south of Route 340 (William L. Wilson Freeway) and east of Route 27/2 (Allstadt's Hill Road) currently occupied an access easement for lots to the east of the property. The rezoning request is from the Residential-Growth zoning classification to the Residential-Light Industrial-Commercial zoning classification. Pursuant to state law, WV Code 8A-7-9(c), the County Commission must receive the advice of the Planning Commission regarding whether such a request is consistent with the County's adopted Comprehensive Plan.

To this end, the Planning Commission held a Public Hearing, reviewed the applicant's application (attached), the staff's report on the consistency with the Comprehensive Plan (attached), received public input (attached), and attempted to make a determination regarding consistency with the Comprehensive Plan. Based on a review of the 2004 Comprehensive Plan and consideration of the facts and opinions presented, the Planning Commission moved to forward the petition to the County Commission with a finding that the application was consistent with the Comprehensive Plan. This motion passed with a vote of 5-0.

In accordance with Section 12.2(C) of the Jefferson County Zoning Ordinance, subsequent to the recommendation received from the Planning Commission, all recommended map amendments require a Public Hearing before the County Commission prior to a final determination.

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve):

I move to schedule a Public Hearing on the Proposed Zoning Map Amendment for 8.98 acre property owned by Gene Capriotti, designated as Tax District: Harpers Ferry, Map: 9-2, Parcel: 58, located south of Route 340 (William L. Wilson Freeway) and east of Route 27/2 (Allstadt's Hill Road) on _____, 2012 at _____ pm.

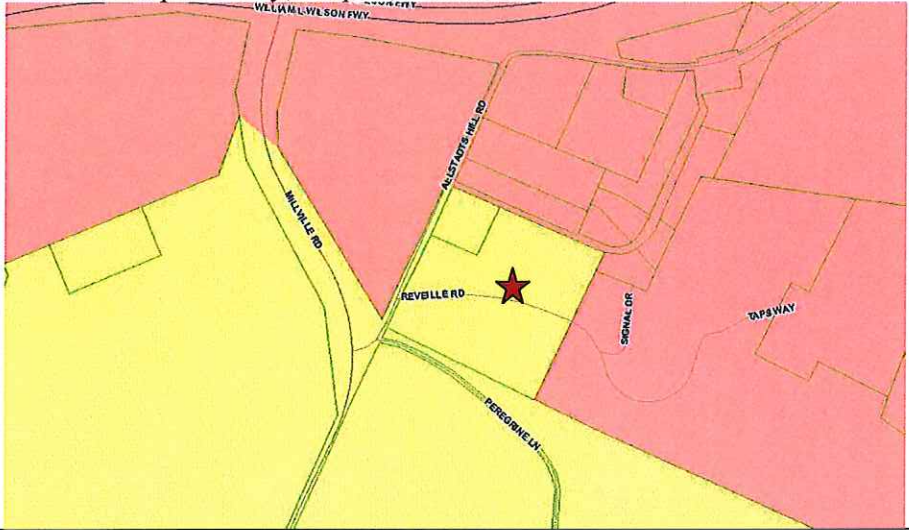
Attachments:

- **Staff Report regarding the Capriotti Rezoning Application to Planning Commission/County Commission (by Seth Rivard date April 24, 2012)**
- **Summary of Public Testimony Received at the April 24, 2012 Planning Commission Hearing and Public Comments received in writing**
- **Rezoning Application**

Staff Report
 Jefferson County Planning Commission Meeting
 April 24, 2012

Capriotti Rezoning PC File # Z12-01

Item #5: Request by Gene Capriotti for a zoning map amendment for property designated as Tax District: Harpers Ferry, Map: 9; Parcel, 58. Requested zoning map amendment from Residential-Growth to Residential-Light Industrial-Commercial.

APPLICANT:	Gene Caprotti
OWNER:	Same as above
DEVELOPER:	Same as above
SURVEYOR/ENGINEER:	N/A
PROPERTY LOCATION:	The property is located on the east side of Route 27/2 (Allstadt's Hill Road), near the intersection with Route 27 (Millville Road).
LEGAL DESCRIPTION:	District: Harpers Ferry; Map: 9; Parcel: 58 
ZONING DISTRICT:	2011 Zoning Map Designation: Residential Growth
SURROUNDING PROPERTIES:	2011 Zoning Map: North: R/LI/C and Rural East: R/LI/C South: RG West: R/LI/C
LOT AREA:	8.98 acres
PROPOSED ACTIVITY:	To rezone this Residential Growth property to a designation of Residential/Light Industrial/Commercial
Planning Commission Responsibility:	To advise the County Commission as to whether the requested Zoning Map Amendment is consistent with the 2004 Comprehensive Plan

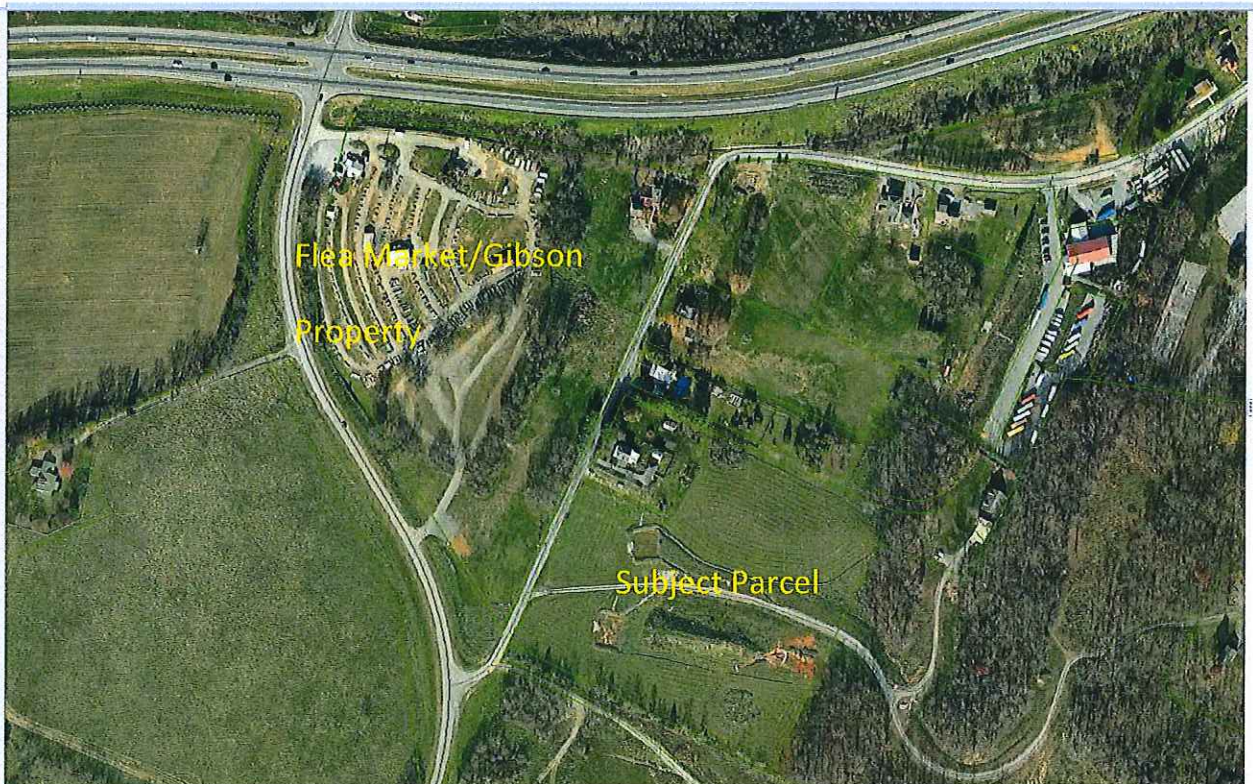
Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

Staff Finding:	In this report Staff presents the various factors related to this property based on the Comprehensive Plan. Staff does not find the plan to be consistent with the 2004 Comprehensive Plan and also finds there have been changes of major changes of an economic, physical or social nature that do not support the request. The recommendation section of this report is critical in understanding the Staff recommendation.
----------------	--

Background

The property on Alstadts Hill Road, Harpers Ferry, WV, is a vacant parcel located near the intersection of Alstadts Hill Road and Millville Road and north of Old Standard Quarry. Image 1, is a location map showing the parcel requested for rezoning.

Image 1



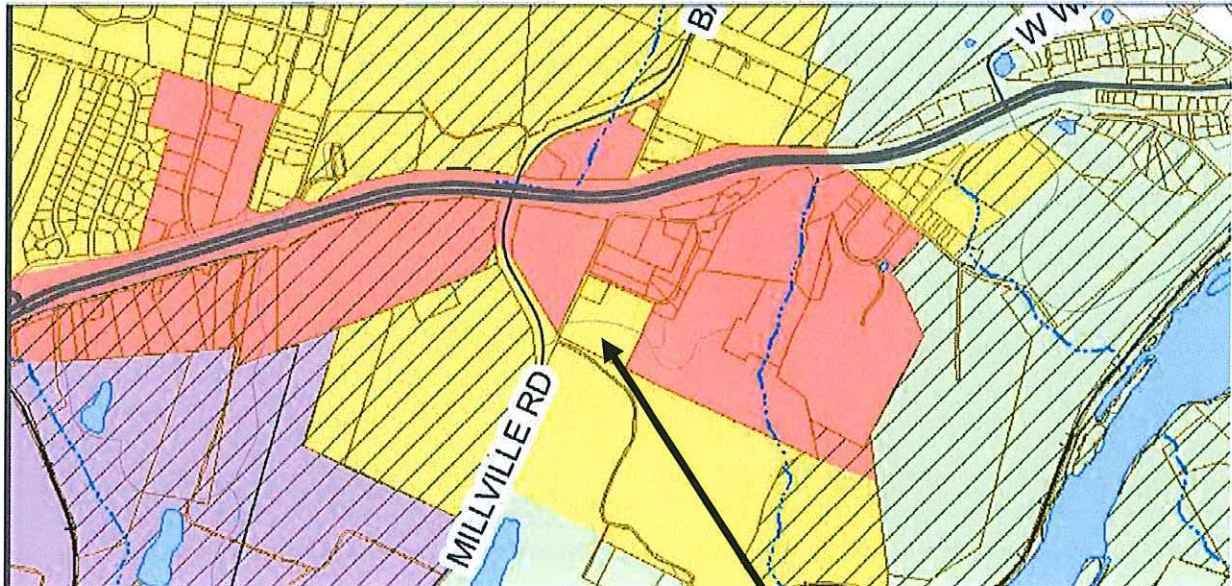
Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

Introduction and Purpose

The applicant has requested rezoning the 8.98 acre property from Residential-Growth to Residential-Light Industrial-Commercial. Access to the property is from Alstadts Hill Road. Surrounding the subject parcel, the properties to the east and west are zoned Residential-Light Industrial-Commercial, properties to the north are zoned both Residential Growth and Residential-Light Industrial-Commercial, and the property to the south is zoned Residential Growth. Image 2 below shows the current zoning for surrounding parcels and Image 3 and 4 shows the National Park Service Property (Images 3 and 4 are at end of document).

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

Image 2



Legend

Urban Growth Boundary

Parcels

Tax District Boundary

Public/Quasi-Public Land

Appalachian Trail

Zoning District

Incorporated Town

Industrial-Commercial

Residential-Growth

Residential-Light Industrial-Commercial

Rural

Village

Subject Property

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

The applicant has requested rezoning of the entire subject parcel from Residential Growth to Residential-Light Industrial-Commercial. The following report has been prepared to assist the Jefferson County Planning Commission and Jefferson County Commission in making findings regarding the consistency of the proposed rezoning with the 2004 Jefferson County Comprehensive Plan, in accordance with West Virginia State Code requirements.

Statutory Authority and Requirements

The West Virginia State Code, Section 12.1(a) provides that the boundaries of zoning districts may be amended by the County Commission with the advice of the Planning Commission. The County Zoning Ordinance also requires that the *“procedure for amendment [by petition] shall be as dictated in Section 8A-1-1 et seq of the West Virginia State Code as amended.”* As concerns amendments by petition, State statute provides that, *“Before amending the zoning ordinance, the governing body with the advice of the planning commission must find that the amendment is consistent with the adopted comprehensive plan.”* [See WVC 8A-7-9(c)] This subsection of the State Code also states that, *“If the amendment is inconsistent, then the governing body with the advice of the planning commission, must find that there have been major changes of an economic, physical or social nature within the area involved, which were not anticipated when the comprehensive plan was adopted and those changes have substantially altered the basic characteristics of the area.”*

Scope of this Assessment

This report focuses on whether or not the rezoning application is consistent with the Comprehensive Plan. It concludes that the request is not consistent with Comprehensive Plan and notes that while there are major changes of an economic, physical or social nature, within the area involved, have occurred that were not anticipated when the comprehensive plan was adopted, such that they would “substantially” alter the basic characteristics of the area, these changes do not support the rezoning request. This assumption is also limited to the proposal to rezone the subject site. Additionally, there has been a detailed study of the US 340 east corridor that has an impact on this request. This will be addressed in the recommendation.

The format for this assessment includes quotes from specific provisions of the Comprehensive Plan, which are identified by page number citation at the end of the sentence where it is quoted. Staff has used these notations and quotations in order to address sections of the Comprehensive Plan as it relates to the proposed rezoning. Identification of the specific page numbers where these provisions can be found in the Plan permits the Planning Commission and/or County Commission to easily locate the particular provision and personally evaluate the

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

provision in the context of the larger Plan document. When available or appropriate, map references are provided with maps located in the Appendix to this report.

It should also be noted that the Comprehensive Plan states, *"Its recommendations are (by their nature and intent) general and, as such, sometimes conflicting. It will not be difficult to find two that individually justify and conflict with many land use proposals."* In that sense, there are many plan references that are identified in this report that can or may appear to support or fail to support a finding of consistency between the proposed rezoning and the Comprehensive Plan. In the final analysis, each member of the Planning Commission and the County Commission will need to weigh the degree to which various plan provisions are of greater or less importance, in establishing their respective findings regarding the application.

Finally, this report provides a recommendation concerning the proposed rezoning based on review of the various plan sections and elements. The recommendations should be considered the professional opinion of staff; no more and no less. Since the Planning and Zoning staff has no statutory authority to make decisions in this regard, we defer to the Planning Commission and subsequently the County Commission for any final recommendation or decision that may be forthcoming with respect to the subject application.

Relevant Comprehensive Plan Elements and Commentary

Existing Zoning District:

The Comprehensive Plan notes that *"This district (Residential Growth) and the 'Residential-Light-Industrial-Commercial' Zoning District, are co-mingled and comprise a strong majority of the 'Designated Growth Area.'"* This statement acknowledges that the Residential Growth district is a growth oriented district. In addition to a broad range of urban density residential uses, the district permits day care centers, hospital, nursing home, and churches. This zoning district should not be considered a limited use district.

Proposed Zoning District:

The Comprehensive Plan provides the following perspective on Residential-Light Industrial-Commercial zoning district, which the applicant is requesting, is:

- *"...commonly referred to as the "mixed use" zone, permits uses of a light industrial and commercial nature, as well as a spectrum of residential and institutional uses ranging from single-family dwelling units to multi-family apartments and group homes. Residential uses must conform to the standards set forth in the Residential Growth*

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

District, but industrial and commercial uses are required to conform to a set of specific performance criteria, which include numerical measurements of several factors for uses that may have nuisance effects on adjacent uses.

- *There are two issues regarding this district that should be studied as part of planned amendments to the Zoning Ordinance. First, most ordinances that have "mixed use" zones require certain minimum percentages of land usage in residential, commercial and dedicated open space. Jefferson County's Ordinance doesn't. Land in this district can be developed entirely for commercial or residential use or any combination thereof.*

The Plan does detail some of the potential benefits of the Residential-Light Industrial-Commercial District and a number of concerns with the district. While this district is defined as mixed used, it does not require any mixing of uses, it merely allows for the possibility. The district allows two vague uses as permitted by right, "Commercial Uses" or "Uses of light industrial." "Uses of light industrial" is essentially defined by uses that are not defined as heavy industrial and commercial uses. There is wide latitude for the ability to interpret what qualifies as light industrial use. These two terms allow for some interpretation of what they mean and what is permitted. As such, there are a variety of uses that could be proposed on the subject property, each of which could have very different impacts.

It should be noted that the broadness of this zoning category often raises concerns and is one of the primary reasons that new commercial zoning categories are currently under consideration.

Natural Resources:

As a broad outline the Comprehensive Plan notes that:

- *"Ironically, the natural beauty and rural setting of Jefferson County, the qualities that are so attractive to new residents, are the very qualities that are most threatened by a rapid pace of growth. With houses coming at a far faster pace than jobs, Jefferson County is facing a future as just another bedroom community in the larger metropolitan area. The intent of this plan is not to recreate or recapture the past but to shape future growth in a manner that preserves the most important features of Jefferson County: the rural landscape, the natural beauty of the rivers, the rolling terrain and the strong sense of community (pg. 8)."*

This vision for the document illustrates that the historic and scenic viewsheds of Jefferson County are threatened by the rate of growth occurring within the County. The intent is to shape growth in a manner that preserves these important features, while allowing for growth

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

where appropriate. Outlined on page 14 is the US 340 Corridor East Gateway Plan which provides methods to achieved the balance between development and natural resources.

Historic Resources:

The Comprehensive Plan discusses the natural, environmental and historical resources along the US 340 Corridor and this analysis would not be whole if this important component is not addressed.

- *“In terms of environmental resources, Jefferson County suffers from an embarrassment of riches. If we are not careful, we could squander these resources. Effective planning is essential to preserving these resources for use and enjoyment of future generations (pg. 48).”* Additionally the plan notes *“Caves, scenic vistas, wildlife corridors and cliff areas are just several examples of additional forms of natural resources that contribute to the environmental and cultural mix that is Jefferson County. The topography, geology, hydrology, and biological diversity of the environment is one of the hallmarks that makes Jefferson County the beautiful environment that it is. Unfortunately, not every form of natural resource can be discussed in detail within the context of a Comprehensive Plan. The protection of scenic vistas has been the subject of public comment during this process. The County should identify the protection of scenic vistas as an issue to address, this is best done through the adoption of standards within the ordinances, so that all parties are aware of their rights and responsibilities in this regard (pg. 52).”*

In addition to the natural resources of the community, the 2004 Plan discusses the County's historic resources in depth. It is summarized here but is of importance to this rezoning request in the total evaluation:

- *Jefferson County is an area rich in historical and archaeological interest. It has arguably been referred to as the most historic rural county in America. As part of our country's first western frontier, it was settled by Europeans before 1720 and was inhabited by Native Americans for several thousand years before.*
- *Surveyed by a young George Washington and host to seven Washington family homes*
- *The site of the John Brown Insurrection*
- *County's place at one of the crossroads of the Civil War forever links it to many of the important events that occurred during our Nation's greatest test of endurance.*

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

- *Given its size and population, Jefferson County has been fortunate in the amount of historic preservation projects that have been implemented around the County. From Harpers Ferry National Historical Park to the historic districts of Shepherdstown and Middleway, Jefferson Countians can be proud of the number of historic resources that have been preserved here.*
- *History tourism is a significant element of Jefferson County's economy. Harpers Ferry, the Appalachian Trail, Shepherdstown, Antietam and the C&O Canal all serve to draw visitors to the County and surrounding area.*
- *Regardless of the successes of the past, as an increasing number of tracts are developed for residential, commercial or industrial uses, existing unprotected historic resources become endangered. Existing processes should be evaluated for their ability to address this growing issue (pgs. 55-56)."*

Historic and natural features are given a significant priority in the 2004 Comprehensive Plan. This section of the Plan underscores the importance of heritage tourism to the economy and notes the cultural and scenic features that drive locally based tourism's economic engine. The text substantially supports the need to protect the "scenic vistas" both in this plan and in the 1994 Comprehensive Plan.

It is important to note that recreational tourism, heritage tourism, scenic tourism, and eco-tourism are part of Jefferson County's pro-business and pro-economic development ventures. Potentially impacting that significant, valuable and irreplaceable part of the county and the affected economic generators is unsystematic.

Staff notes that care should be taken when reviewing rezonings that might jeopardize the efforts to nurture the tourism economy or reduce interest in visitation to tourist offerings. The subject property is an element of a historic battlefield as shown on Image 5.

Transportation Impacts:

The Comprehensive Plan discusses the critical role of the transportation routes, noting:

- *"With the increase in population in the last three decades, Jefferson County's roads have had to bear the combined burden of increased traffic volume and heavier commercial vehicles. As a result, the deficiencies of the highway and road systems have become more critical. Inadequate funding and increases in transportation demand are*

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

conditions which probably will be facing the people of Jefferson County indefinitely (pg. 26)."

As many people are aware, the fact that inadequate funding and increased transportation demands are conditions the County is likely to continue to face indefinitely is ominous. The staff acknowledges that there is an existing bottleneck along US 340, which is a major transportation route through the County.

Rezoning this parcel of land to Residential-Light Industrial-Commercial use may aggravate this condition. While this development by itself may or may not generate a lot of traffic, without a coordinated transportation planning tool, the cumulative effect will hinder the transportation grid beyond its current condition. It is certainly possible that the intersection of Bakerton/Millville and US 340 would see an increase in traffic pressure from this rezoning, other rezoning's and accumulated development pressures. In this instance, the unsignalized intersection has significant safety issues.

Without a coordinated traffic analysis for this property and surrounding parcels, the dangers of this intersection are difficult to anticipate. Without adequate review and implementation of required improvements, the increased activity in this area will result in a negative decline in safe and convenient access at this intersection.

The Comprehensive Plan reflects the growth in traffic volumes, along the Route 340 Corridor, from 1996 to 2002. It is clearly the most heavily travelled route in the County. The 2008 West Virginia Department of Transportation traffic counts show 38,000 average daily trips (ADT) at WV 26 (Keys Ferry Road) and 29,400 near Bakerton Rd.

The Comprehensive Plan states that:

- *"A comprehensive and systematic approach to transportation planning is needed to meet the future transportation of the County (pg. 26)."* The plan further delineates the following general goals:
 1. *Reduce the occurrence and severity of roadway traffic accidents by encouraging the West Virginia Department of Transportation, Division of Highways to reduce or eliminate conditions which cause them.*
 2. *Encourage the West Virginia Department of Transportation, Division of Highways to take measures to provide for and maintain efficient roadway traffic flow.*
 3. *Find creative solutions to both funding and legislative limitations, in order to solve transportation problems.*

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

4. *Seek a coordinated transportation plan among all levels of government that provides for coordinated transportation planning and funding of highways, streets, commuter rail service, public transit, car/van pooling, park & ride facilities, bike paths, pedestrian access, and technological improvements to the transportation system in the County.*
 5. *Encourage alternate forms of transportation within the County, such as pedestrian trails and bike paths, provided they are feasible and prove beneficial.*
 6. *Encourage the State and Federal government to increase public transit service to the County, provided it is feasible and proves beneficial.*
- *“During the Comprehensive Plan process, citizens have expressed concerns with some of the roads in the County. The County has reached a critical turning point as undeveloped land is becoming committed to new subdivision and development. As more and more land is developed future transportation improvements may become more difficult and more costly. Therefore, it is prudent for the State and County to plan for the future needs now, while the land is available and the improvements can be more easily made, or at least the land can be reserved during the development process for future improvements (pg. 27).”*

In the past year Staff has undertaken a detailed study of the US 340 East Gateway corridor and the study is addressing the 6 points listed above and providing long term options to address the concerns raised in the Comprehensive Plan. The US 340 study has been done in collaboration with the West Virginia Department of Highways and Hagerstown Eastern Panhandle Metropolitan Planning Organization. Both organizations have the jurisdiction to address these elements and funding mechanisms. More recently, the State of West Virginia has announced a plan to study the traffic movements along the corridor from Charles Town, WV to Frederick, MD. Again, while road improvements may not be in the near future, a study of the traffic is a positive move in the right direction and will begin a priority for future funding.

The new Route 9 is not expected to solve the traffic concerns on Route 340, as the traffic on Rt. 9 has a different commuting pattern and direction than that of Route 340. Again, while the proposed development alone may or may not have a significant negative effect on Route 340, the County needs to consider the potential accumulation of these effects. Without a detailed site plan for a specific use, the impact is hard to predict.

Water and Sewer Proximity:

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

Water and sewer is located near this property. The Comprehensive Plan encourages urban level developments, such as the current zoning of this property, to be on a central water and sewer system, whether public or privately owned.

Implications of National Park Service Property:

Since 2004, there have substantial acquisitions by the National Park Service surrounding this property that were not anticipated in 2004. If the Commission determines the proposed rezoning is not consistent with the 2004 Comprehensive Plan, it must find that *"...there have been major changes of an economic, physical or social nature within the area involved, which were not anticipated when the comprehensive plan was adopted and those changes have substantially altered the basic characteristics of the area."* in order to recommend approval of the request. There have been major changes to the US Route 340 Corridor area that were not anticipated when the Comprehensive Plan was written. The acquisitions by the National Park Service have had major economic, physical or social change in this specific corridor. The amount of property purchased has limited the size of physical development in the area and by extension the amount of traditional economic activity at this intersection. The social change is from development to preservation and a community expectation of historic and open space preservation.

As the Planning Commission determines the merits of this rezoning, the amount of land protected by the NPS in this area, which was not anticipated in the Plan when it was written in 2004 is a factor for consideration, but does not support the rezoning request.

Changes elsewhere on US 340:

Any discussion about new development that has occurred along the US 340 corridor toward Charles Town needs to acknowledge that the existing zoning was in place when those areas developed. There were no rezonings along the corridor. As this zoning existed for those properties, the Comprehensive Plan recognized the potential development in those locations and made no recommendations for change in the corridor. On the other hand, the Comprehensive Plan discussed the area surrounding the battlefield as an important County and State resource worthy of protection. Navigating these conflicting values, the US 340 corridor study provided a path from which to provide a balance. If adopted as an amendment to the 2004 Plan, the draft document provides a planning process that would permit the rezoning based on future land use map and along with other considerations in the plan.

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

Development Implications:

The *"...plan encourages new development patterns that foster mixed-use neighborhoods, so that a sense of community begins at the subdivision level (pg. 8)."* The plan further *"...recommends that Jefferson County's natural features, particularly stream valleys, be conserved as green space and that significant natural features be afforded protection as development proceeds (pg. 8)."*

Staff concurs with the need for mixed development to provide for a variety of uses when possible. The Comprehensive Plan emphasizes that employment centers can be provided in a number of alternative County locations, where it is appropriate for more intense uses. While providing economic opportunities, the plan recognizes the importance to protect natural resources. There are a variety of permitted uses in the proposed zoning category which allows for more intense uses. The draft US 340 Plan addresses these two elements, economic growth and the natural features that should be retained. The US 340 plan outlines ways to achieve both features when balanced and provide some picturesque vistas that attract people to Jefferson County.

It is possible to view the requested rezoning as an extension of the existing zoning in the area. Without standards in the current ordinances or regulations for building design standards, there is no assurance that the rezoning will result in structures that appropriately designed for the area and protection of existing natural and historic features on the property. The study undertaken along the corridor in the past year has provided mechanisms for balancing scenic views and economic development. While typically viewed as only able to promote one feature and lose the other feature, there are ways to blend the two and result in a positive development. These goals have been unchanged for over 20 years; there is a common held vision that these elements are important to the County.

Below is a partial *"...list of general goals was adopted as guidelines for the preparation of the 1986 Comprehensive Plan. These goals were readopted, unchanged and incorporated into the 1994 Comprehensive Plan (pg. 19)."* These goals have been adopted in the 2004 Comprehensive Plan as well.

- *Promote growth and development that are both economically and environmentally sound.*
- *Encourage and support commercial, industrial, and agriculture activities to provide a diversified and sound local economy.*

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

- *Promote the conservation of the natural, cultural, and historical resources and the preservation of its scenic beauty.*
- *Advocate the maintenance and improvements of transportation systems so that people and goods can move safely and efficiently throughout the County.*
- *Promote pedestrian friendly, livable communities.*

One of the goals mentioned above is to *“Encourage and support commercial, industrial, and agriculture activities to provide a diversified and sound local economy.”* It is important to remember that tourism is a real and vital component of Jefferson County’s economy which brings in real revenues just as other businesses do in the County. Jefferson County is number one in tourist dollars captured by any county in the State of West Virginia, capturing in \$729,000,000 for the 2008 year (Source 1). The proposed rezoning is within the area that visitors to the State and County acquire their first impression of the scenic views. Visitors do not enter the state to see suburban sprawl, rather the open vistas that welcome vacationers to Jefferson County and the State of West Virginia. Protecting our resources is pro-economic development that provides *“...a diversified and sound local economy.”*

A well-developed site could fit into the goals of the Comprehensive Plan, particularly for this location. A development that addresses natural features, such as adding concentrated landscaping, would result in some protection of the scenic as well as providing economic opportunities in the County.

US 340 Corridor East Gateway Plan:

This segment of US 340 is undergoing a comprehensive and systematic study to address the current and future transportation and land use needs of the corridor. This study is near completion and should be allowed to finalize in the process before land use decisions are pre-determined. There are real implications to land use decisions, such as this rezoning, that affects the transportation network. In this analysis, it is not only the rezoning and the possible uses that could be built that could cause a negative impact upon the traffic conditions, but the potential for transportation improvements or right of way dedication to be set aside on the parcel to improve the Corridor. Such transportation improvements are difficult if buildings are being constructed or are built. The West Virginia Department of Highways noted this concern to staff in another area of the County. With a detailed traffic analysis, each development that occurs in the area could assist in improving the intersection without a disproportionate burden

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

to anyone applicant or project. The goal is to develop a unified solution to the transportation problems, not limit land use decisions.

The current East US 340 Corridor Plan recommends necessary corridor improvements and land use (zoning districts) changes along the corridor. The corridor study is discussed here and in the recommendation below. There is significant land mass along US 340 that could potentially be developed. There are a number of large parcels, totaling approximately 894 acres that are potentially developable (Image 6). That acreage does not include the numerous lots that are 7 to 20 acres in size that could be assembled for development, adding presumably an additional 100 to 200 acres of conceivable development. For reference, a square mile is 640 acres of land.

While a single more intense non-residential development may not have a significant negative impact on US 340, setting a precedent for allowing this type of development without a comprehensive corridor management plan in this area, sets the stage for an accumulation of minor negative effects that could result in a major problem. The goal of this Plan is not to predetermine what is going to occur along the corridor, so much as to plan how components of corridor mesh as a unit. Based on the draft future land use for the study, the rezoning is in keeping with the 340 Plan. It is important to remember the goal of the Plan is more than just allow an increase in zoning, but to plan for transportation improvements and possible design standards for structures. If the US 340 Corridor East Gateway Plan were to be adopted as an amendment to the 2004 Plan, it could play a role in this analysis.

When the US 340 plan was initiated, there were no predetermined findings. As the planning process has unfolded, the future land use map shows support for the requested rezoning. In an area where agreement is often difficult, the planning process shown positive results. This process has shown agreement for property owners to exercise their rights with less controversy that would not benefit anyone. A project built on mutual agreement is more productive than one on disagreement.

Summary:

Finally, the Comprehensive Plan accurately and clearly describes the 340 corridor that this rezoning could affect, as noted below:

- *"The US 340 corridor from the Shenandoah River bridge to the Charles Town bypass serves many purposes. It is the major transportation spine in the eastern part of the County. It is from this road that one views the panorama of the rest of the County from Alstadt's Hill. It serves as a collector for several secondary State highways which serve*

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

significant numbers of houses and businesses, and it serves as the eastern gateway to West Virginia. Traffic is ever increasing on this road, as are development pressures.

- *This segment of US 340 is the most identifiable and visible artery in the County. Without effective study and management, this corridor could deteriorate into a strip of housing developments indistinguishable in character, and commercial development rivaling "strips" in nearby larger cities.*

- *US 340 is the main transportation spine through the County. As such, the purpose of this study is not to turn US 340 into an undeveloped parkway. Rather, it is stated here that the purpose of this study is to identify ways to ensure that the residential and commercial development that occurs along this corridor is designed and constructed in such a way where the development does not cause visual blight and major traffic problems along the eastern entrance corridor to the State. Buffers, landscaping requirements, traffic and access design, sign regulation and aesthetic highway improvements are all examples of issues that could be discussed as part of this study (pg. 72)."*

Again, while this rezoning is for 8.98 acres of property, the expansion and potential for traffic and visual blight is possible without careful consideration of the Corridor as a whole. It is imperative that the activity on this Corridor be reviewed very closely due it being the "most identifiable and visible artery in the County."

Staff Recommendation

Staff does not find the proposed rezoning to be consistent with the 2004 Comprehensive Plan. It also finds there have been changes of major changes of an economic, physical or social nature; however these changes do not support the rezoning. The major changes as it pertains to this request is delineated in greater detail on page 12 (Implications of the National Parks Service Property).

Non-conformance with the 2004 Comprehensive Plan:

Since the 2004 Comprehensive Plan is the only adopted document permitted by state law to assess the requested rezoning, a review of policies, objectives and recommendations provided in the plan, when taken together, provide a compelling argument for denial of this rezoning application. They include:

- The existing zoning, Residential Growth, for the property is growth oriented. This land use designation for the property is in keeping with the Comprehensive Plan. The

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

Comprehensive Plan for the 340 corridor does not discuss any need for additional zoning changes along the corridor. The Plan does go into detail that the growth in the corridor should not be "...indistinguishable in character..." from other communities (pg. 73).

- The Comprehensive Plan acknowledges the problems of the transportation network and the possible efforts to amend those problem areas. This intersection is a location that has a high number of traffic counts, is dangerous and there is no coordinated Plan for this to be improved. Each development may only add a limited amount of vehicle trips as a single development, but as a collective of all the developments possible at this intersection, it is a significant impact. If this site were used for light industrial uses, the associated truck traffic would probably overload the capacity of the roads in that location.
- The Comprehensive Plan does discuss that while the Residential-Light Industrial-Commercial District is considered mixed use, it does not require an appropriate mix of uses. The light industrial use is not compatible with residential uses and as such makes it difficult to classify the district as mixed use. While it allows for the option of mixed use, it is generally developed as a single use. There is no assurance that the permitted zoning district will not be used for light industrial uses. Since this eastern most section of 340 is described in detail in the Plan for its natural, historic, and cultural resources, the possibility of light industrial uses, fast food, strip centers or franchise businesses are not in conformance with those elements of the Comprehensive Plan or that specific area of the corridor.
- Page 72 of the Comprehensive Plan identifies the Route 340 Corridor as an area that should be targeted for special study. The Comprehensive Plan notes that the corridor serves as a collector for several secondary state highways which serve significant numbers of houses and businesses and it serves as the eastern gateway to West Virginia. Traffic is ever increasing on this route. This segment of US 340 is the most identifiable and visible artery in the County. Without effective study and management, this corridor could deteriorate into a strip of housing developments indistinguishable in character and commercial development rivaling "strips" in nearby larger cities. The Plan recommends study of the US 340 corridor, including land use, viewscapes, economic development, traffic design and management in order to create an effective strategy for a long term plan of this important Corridor. The Plan notes that buffers, landscaping requirements, traffic and access design, sign regulation and aesthetic highway

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

improvements are all examples of issues that could be discussed as part of the study. Staff agrees with the Comprehensive Plan recommendations, and believes such a study should precede any rezoning with the corridor.

Unanticipated Changes:

As noted above, State statute provides that "Before amending the zoning ordinance, the governing body with the advice of the planning commission must find that the amendment is consistent with the adopted comprehensive plan." [See *WVC 8A-7-9(c)*] This subsection of the State Code goes onto state that, "If the amendment is inconsistent, then the governing body with the advice of the planning commission, must find that there have been major changes of an economic, physical or social nature within the area involved, which were not anticipated when the comprehensive plan was adopted and those changes have substantially altered the basic characteristics of the area."

There have been major changes of an economic, physical or social nature within the area that were not anticipated when the current Comprehensive Plan was written in 2004. However, these changes do not support the rezoning. Since 2004 the area has experienced a significant shift toward acquisition of historic properties by the National Parks Service. The acquisition has resulted in an economic change in that location where more land will be preserved than developed. While these properties have long been a place of historical significance, the land was not open to the public. With this fundamental change, property that is now near lands that are in public holdings should be reviewed in a different fashion.

US 340 Corridor East Gateway Study:

In March 2011, the Jefferson County Planning Commission and County Commission undertook the 340 corridor plan as recommended in the Comprehensive Plan. As this study nears completion, a community social shift has occurred that has resulted in a proactive development plan for the corridor and growth in this specific area with the guidelines for development standards.

The US 340 East Gateway Study is the result of a highly involved and detailed review of that particular area, whereas the Comprehensive Plan is a broader plan that is now dated. The methodical review of the corridor in the study has resulted in a draft land use map that creates a unified corridor plan and a level of buy in from the community.

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

In this specific are the corridor study has provided an opportunity to promote growth in a location that finds itself conflicted by the goals of the Comprehensive Plan. Those goals are to both promote economic opportunities and protect the natural, historic and cultural resources of County.

The US 340 study has addressed this corridor with meticulousness and will allow for land use decisions based on an overall plan, not an ad hoc basis. It is a possibility that the corridor study may have an overlay zone, in this area that allows the applicant more flexibility in uses. In this case it would allow the applicant to garner staffs support. Additionally, the requested land use change may further garner public support and allow the applicant a less contentious path.

The new opportunities on the horizon provide Staff, the applicant, the decision makers and the public with an ability for a better decision. Currently planning in the corridor is ad hoc. In the past year, this has been Staff's position on the requests in this area, and this request is similar in that respect and with the right mechanism in place, could provide for better planning in this area.

New Zoning Categories:

Historically, in Jefferson County, the lack of assurance has been a limiting factor in rezoning requests. Unfortunately, that is not productive and quality planning that a community should strive for in developing a predictable land use system. While the Residential-Light-Industrial-Commercial District has been referred to in the past as the "mixed use" district, Staff has always added a caution to this statement. The caution is that the district does not require any mixing of uses, only the possibility of mixing uses. Further, the uses are so broad as to be incompatible if the least and most intense uses of the district were to be mixed. Currently, the County is developing new commercial zoning districts that will provide and facilitate a better planning process.

Final Recommendation:

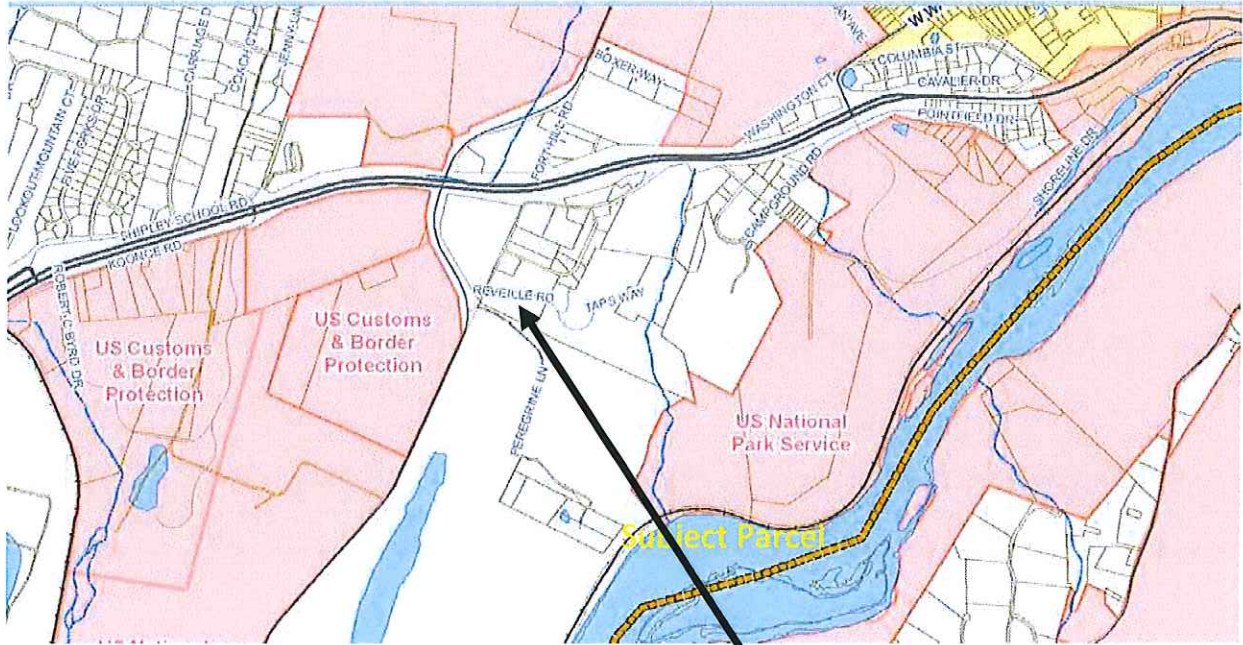
Staff recommends that the applicant wait 6 months. This would allow for the US 340 East Gateway Corridor study to be finalized and provide at a minimum recommendations regarding land use (possible rezoning options) and traffic impacts. Additionally, the new zoning categories currently under underway will provide another option for a more precise and predictable planning tool. This recommendation is not unreasonable. At best, the applicant is able to market the property in a manner that the

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

end user can be assured less intense scrutiny and assure a smoother process or approval. At worse, the applicant is in the same position that they are in currently.

Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

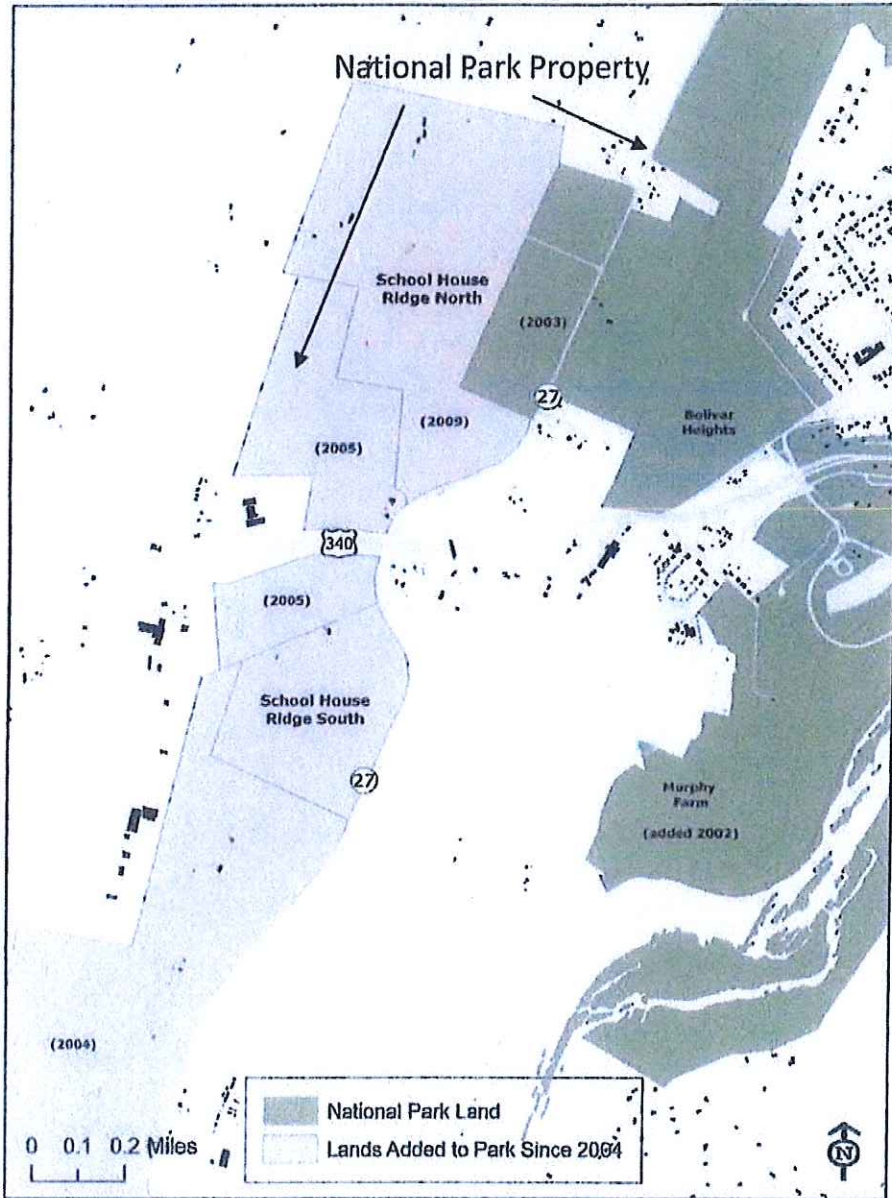
Image 3



Subject Property

Image 4

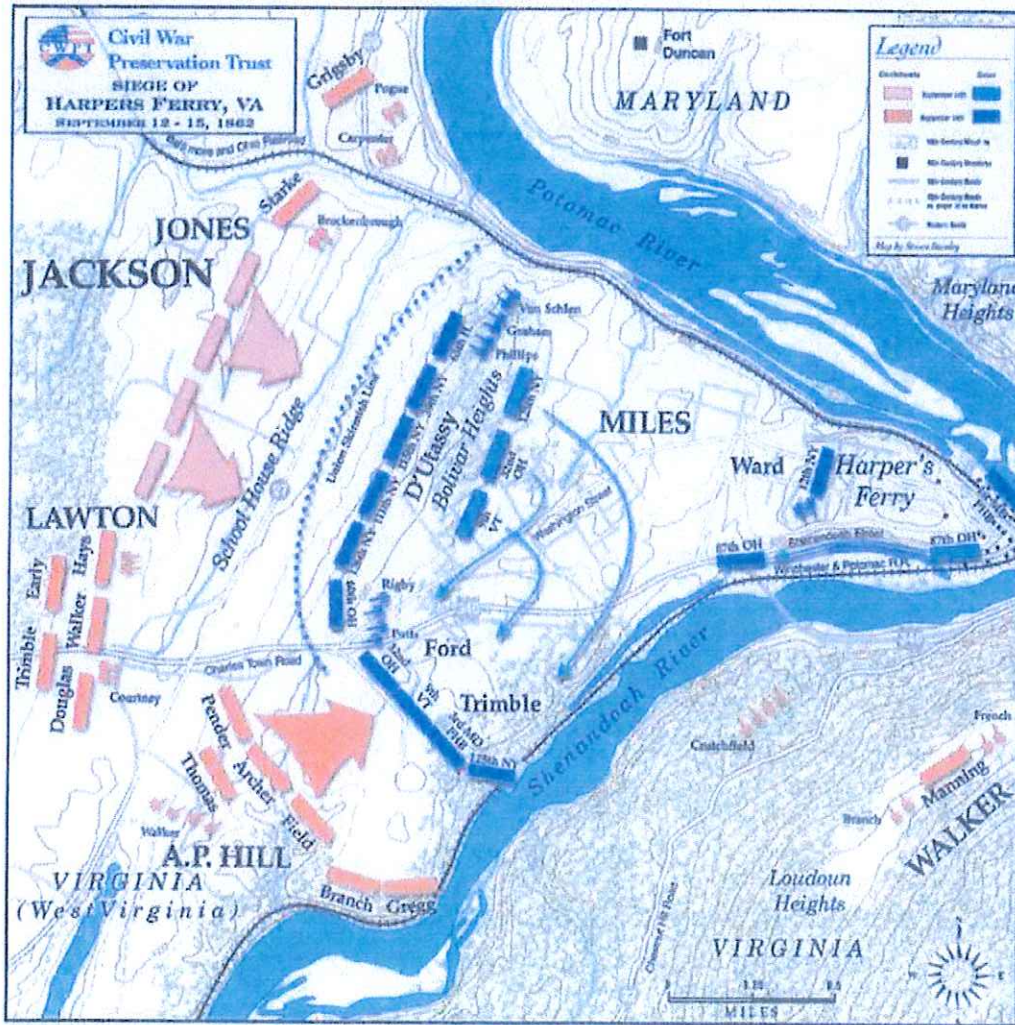
Growth of Harpers Ferry NHP Since 2004



Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

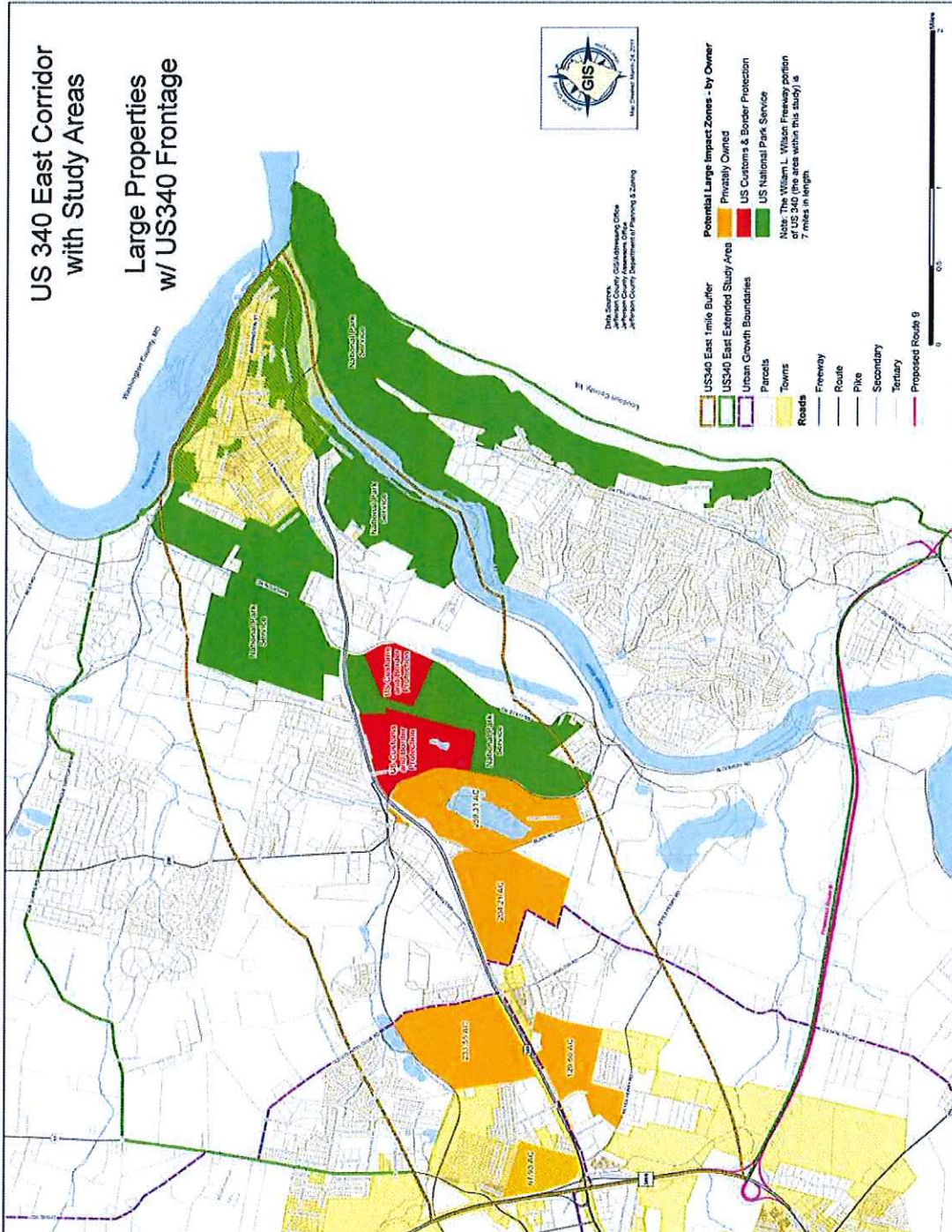
Image 5

School House Ridge and Bolivar Heights



Staff Report
 Jefferson County Planning Commission Meeting
 April 24, 2012

Image 6



Staff Report
Jefferson County Planning Commission Meeting
April 24, 2012

Source 1

Economic Impact of Travel on West Virginia 2000-2008 Detailed State and County Estimates
Prepared for West Virginia Division of Tourism South Charleston, West Virginia

**Public Comments Received at April 24, 2012 Planning Commission Public Hearing
Regarding the Rezoning Request for the Capriotti Property**

Name	Concerns	Developer's Representative's Response	PC Comments
Beth Marrone, adjoining property owner	<ul style="list-style-type: none"> - Spoke in opposition of rezoning the property. - Believed that area would stay residential when she purchased her home 16 years ago. - Concerned that traffic would potentially become much worse dependent upon the use that would be placed on the property. This is especially important to her since the access to her home is an easement through the Capriotti property. - Concerned that additional traffic could exacerbate already hazardous traffic situations. 	Annette Van Hilst, Consultant, responded that any Light Industrial uses would be limited by regulations and standards. She commented that the area is not within the park boundaries. She assured Ms. Marrone that the easement to her home would remain in place. She informed the Planning Commission that traffic will continue to be a problem even if the property is not rezoned. She explained that, even under the current zoning, the property could consist of many housing units which would lead to more traffic than a business.	Mr. Pellish asked Ms. Van Hilst to confer with her client and draw up a proposal to compensate for Ms. Marrone's inconveniences.
Dr. James Gibson, owner of Alstadt property	<ul style="list-style-type: none"> - Spoke in support of rezoning the property. - Believes the area had been used for many years for commercial uses and that commercial uses make sense for that area. 		
Eric Sokol, adjoining property owner	<ul style="list-style-type: none"> - Spoke in support of rezoning the property. - Confirmed the traffic issues in the area. - Believes the area should be rezoned as an opportunity to allow for outdoor tourism. 		
Mary McGreevy, adjoining property owner	<ul style="list-style-type: none"> - Spoke in opposition of rezoning the property. - Concerned that there is no specific plan for the use that will be on the property. - She stated she would like to know what is going in next to her house. - Stated that traffic is a concern. - Does not want River Riders to use the property to expand the business. - Concerned of the aesthetics of the area to visitors and protection of the viewshed. 		
Matt Knott, area property owner <i>(Via email)</i>	<ul style="list-style-type: none"> - Wrote in support of rezoning the property. - Commented that the mixed use request is a common zoning category to the surrounding properties. 		
Rebecca L. Harriett, Superintendent of the NPS <i>(Via letter)</i>	<ul style="list-style-type: none"> - Wrote in opposition of rezoning the property. - Believes the request is overly broad and would allow uses that may be out of context with the character of the area and that there will be a negative impact on historic values and uniqueness. - Believes that the request is not in conformance with the Comprehensive Plan. 		

712-01

PETITION FOR MAP AMENDMENT
Gene P. Capriotti
January 10, 2012

Owner/Applicant:

Gene P. Capriotti
P.O. Box 335
Harpers Ferry, WV 25425

Ordinance Citation:

Article 12 of the Jefferson County Zoning and Development Review Ordinance as amended on November 10, 2011. Also, the newly adopted amendment to the definitions in Article 2, Section 2.2 defines a map amendment as:

“An amendment to the Zoning Map which is adopted by reference in the Zoning Ordinance that consists of a change that only applies to a specific property, changing from one existing zoning designation to another existing zoning designation. A map amendment does not permit changes, conditions or alterations to uses permitted within an existing zoning designation as all zoning designations must be uniformly applied to all property which are subject to said designation.”

Substantiation for the Request:

1. The property is currently zoned Residential Growth and the Applicant is seeking a map amendment for the Residential/Light Industrial/Commercial District. The Applicant believes that this change is consistent and compatible with the 2004 Jefferson County Comprehensive Plan, as illustrated in this application; and,
2. There has been a significant change in the neighborhood, since the Jefferson County Zoning Ordinance was adopted in 1988 (most notably in the past 4 years), as explained in this application.

Tax District, Map and Parcel Number:

Harpers Ferry Tax District, Map 9, Parcel 58

Deed Book Reference:

Deed Book 584 at Page 587

RECEIVED
FEB 14 2012
JEFFERSON COUNTY
PLANNING, ZONING AND ENGINEERING

Sketch Plat:

Attached

Tract Size:

8.98 Acres

Discussion on:

Comprehensive Plan compatibility of the proposed change: Included.

Any Change of transportation characteristics and neighborhood from when the original ordinance was adopted: Included.

A. Comprehensive Plan Compatibility

The 2004 Comprehensive Plan includes many recommendations. However, only a few address items that can be helpful when dealing with a rezoning.

These recommendations include the following:

Recommendation 3.18 on Page 64:

“The County should continue to pursue new industrial and commercial development in order to diversify its economy, increase the tax base and thereby mitigate the problems of increasing residential growth, and provide quality employment opportunities in the workforce.”

Commentary:

Currently this property is zoned Residential Growth. As such the applicant could design a project that included many apartments, townhouses and condominiums without a commercial component to offset what is raised in this recommendation. If the property were rezoned to the ‘mixed-use’ zone, then it could develop a commercial component that would lessen the residential impact and provide services to the residential traffic created by only a housing development.

Also, due to the recent expansion of River Riders, this property would be a natural expansion to River Riders, or an opportunity to provide commercial services to the patrons of the successful business. This property contains the access to a good portion of the property owned by River Riders.

Recommendation 3.25 on Page 73:

“The County should study the US 340 corridor, including the land use, viewscape, economic development and traffic design and management in order to create an effective strategy for the long term management of this important mixed-use corridor”.

Commentary:

This study is underway with its original attempt to address economic development and traffic characteristics as the Comprehensive Plan suggests. In the implementation section of the Plan (page 106, attached), to implement Recommendation 3.25, it mandates a ‘cooperative planning effort with the WV DOT to improve the US 340 corridor.’ As the study progressed several interested findings were presented by the Hagerstown Eastern Panhandle Metropolitan Planning Organization (HEPMPO) and the consultant working on the Route 340 East Corridor Study. First, this study did not address where the traffic on Route 340 originated or where the traffic was going. So, the question remains how much of the traffic on Route 340 is ‘pass through’ traffic versus local traffic. It should be estimated that quite a bit of the Route 340 traffic is pass through traffic, since Route 340 is a major east/west connection to Interstate 81 from the Baltimore/Washington metropolitan area. If so, there may be other alternatives to address the traffic on Route 340 in Jefferson County. These alternatives could include bypasses and improved routes outside the 340 corridor. The second remarkable item was that the Bakerton/Route 340 intersection didn’t appear to be included in HEPMPO’s prioritization of needed improvements in the Eastern Panhandle.

The applicant believes that the 340 study should identify a large portion of the 340 Corridor as key to economic development by proposing to rezone the area to as much commercial, industrial and mixed-use land as possible. This would maximize the land use in an already defined mixed-use area. This area is already indicated as the major ‘growth area’ of Jefferson County in the 2004 Comprehensive Plan. The Federal Government certainly recognized the value of the location with the ongoing construction of the massive U.S. Customs and Border Patrol operation.

Finally, this property is already surrounded by River Riders, the Old Standard Quarry and the Flea Market. All three of these properties are either zoned Residential/Light Industrial/Commercial or already approved by the State for a large commercial and office development. The Route 340 East Corridor Study should recognize this location, as the County Commission has in its recent rezoning actions.

Based on the above, the Applicant believes that this rezoning is consistent with Recommendation 3.25 in the Comprehensive Plan as it relates to the study contemplated by the County Commission in its desire to enhance economic development along this corridor.

Recommendation 4.01 on Page 78:

“It is the vision of this Comprehensive Plan that development will be concentrated within the designated growth areas”.

Commentary:

The map that shows the designated growth area is found on page 75 of the Comprehensive Plan. This map is included with this petition. The subject parcel is shown within the designated growth area on that map. On page 70 of the Comprehensive Plan, it states that the strong majority of this area is designated as the Residential Growth District and the Residential/Light Industrial/Commercial District. Page 71 goes on to say that there is a need to maximize the ‘potential for commercial development to offset the demands of residential development’ because every property developed entirely for residential use is a lost opportunity for much needed commercial development.

Since the subject property is already zoned Residential Growth and it is located within the designated growth area, the rezoning of this property to mixed use is a perfect opportunity to realize this need for commercial development. As such, this rezoning application is in perfect conformity with the 2004 Comprehensive Plan.

The applicant believes that this rezoning is very much consistent and compatible with the 2004 Jefferson County Comprehensive Plan based on the above recommendations.

B. Change of Neighborhood

The zoning designations and changes in use and intensity of uses have significantly changed the neighborhood in the very recent past. Furthermore, the availability of water and wastewater infrastructure has also changed since the original zoning ordinance was adopted in 1988.

The zoning changes and the changes in uses that have recently occurred in the area include:

1. The County Commission rezoned several properties in the immediate area of the subject property. Last year, the County rezoned the property on the north side of Route 340 in this area (Shenandoah Development) from Residential Growth to Residential/Light Industrial/Commercial for most of the same reasons found in this petition. Also, in January 2012, the County Commission rezoned the Gibson Property, which is directly across the road from this property to the 'mixed-use' zone, as well. The Gibson property almost entirely fronts the property in this petition.
2. River Riders has expanded considerably in the recent years and most recently purchased the property that shares most of the eastern property line and some of the northern property line with the Applicant's property. These properties are also already zoned Residential/Light Industrial/Commercial.
3. The Old Standard Quarry shares the entire southern boundary with the subject property. This land has recently been subdivided and effectively rezoned by the State for approximately 40 commercial/office/institutional/industrial lots.

These recent changes almost completely surround this property, which would certainly make it an appropriate candidate to share the zoning designation requested.

Another significant change of use in the neighborhood includes the ongoing development of the U.S. Customs and Border Patrol property along Route 340. The development is not only good for the County, but it is huge and there appears to be no limit to what all will be developed on that site.

There have been other changes in the neighborhood, since the adoption of the zoning ordinance, which would support the requested change from Residential Growth to the Residential/Light Industrial/Commercial District. These include the following:

1. **Availability of Public Utilities:**

Public Water and Wastewater facilities are now available in this neighborhood. In fact, both central utilities are already available to this subject parcel. One of the major goals of the Comprehensive Plan states that the Plan should:

'Encourage growth and development in areas where sewer, water, schools, and other public facilities are available or can be provided without unreasonable costs to the community'.

Also, since the property is already zoned Residential Growth, any added commercial portion to the development would lessen any school impact. Plus, since the property already has public water and sewer services, the public would have no costs regarding these utilities.

2. Growth in the Corridor:

There have been many commercial additions to this neighborhood, and the Route 340 Corridor in general, since the adoption of the zoning ordinance. These include: the addition of the Casino and table games; the Customs and Border Patrol Development; the funeral home; several landscaping business; the expansion of River Riders; the redevelopment of the Quality Inn; the Shenandoah Professional Building; Windmill Crossing including the Sheetz, Aldi and Tractor Supply Company; and the Sears Professional Building to name a few. This is proof that the Route 340 Corridor is destined to continue to provide economic growth for the County. These commercial projects, along with the also approved residential developments along this corridor is evidence that the corridor's mixed use is consistent with the Comprehensive Plan, since they have been developed under the current Plan. The subject property is a perfect fit to 'square-off' the already zoned adjacent properties for commercial or mixed-use development.

C. Change of Transportation Characteristics:

There have been significant changes in the transportation and traffic characteristics since the original zoning ordinance was adopted. The Route 340 Bridge was replaced and widened. New signals were added and lane adjustments were made at the Route 230 and Route 24 intersections with Route 340. The school bus improvements were also made at the Shipley School intersection. Also, an entire new intersection with a signal is planned for the U.S. Customs and Border Patrol access to Route 340. All of these intersection improvements have made a significant positive change to the transportation patterns for the betterment of the area:

The Harpers Ferry National Park also contributed to the improvements to traffic in the area by constructing their Parking and Bus Transportation Center near Bolivar. This facility has eliminated a lot of conflicting vehicle movements by providing a centralized mass transit operation.

The Planning Staff also announced during the Route 340 Corridor Study that a new cooperative effort between Maryland, Virginia and West Virginia has begun to address the bottleneck 'between the bridges'. Furthermore, some of the commuter traffic was already addressed when the commuter rail station and parking lot at Duffields were built sometime after the original zoning ordinance was adopted.

These improvements to the transportation network have had a positive effect on the traffic flow in the Route 340 Corridor. More needs to be done, but a traffic signal at the Bakerton/340 intersection would help the situation. It is important that the Comprehensive Plan and the HEPMPO prioritize the upgrade of this intersection.

Please note that this property is already zoned Residential Growth. As such, there should be little significant difference in traffic from this property if it is rezoned to mixed-use. A mixed-use development would have a more favorable outcome regarding traffic since some of the local residents could utilize the commercial services available if the property is rezoned.

D. Policy and Goal Statement in the Comprehensive Plan

The Comprehensive Plan contains narrative that supports the rezoning request, but it is most evident in the following policies and goals found in the Plan:

'This Plan encourages new development patterns that foster mixed-use neighborhoods so that a sense of community begins at the subdivision level';

'This Plan encourages economic development so that residents can live and work in the County';

(The Plan should) 'Encourage growth and development in areas where sewer, water, schools, and other public facilities are available or can be provided without unreasonable costs to the community'; and,

(The Plan should) 'Encourage and support commercial, industrial, and agricultural activities to provide a diversified and sound local economy'.

Regarding land use policy, the Growth Area Map appears to be the only land use policy map in the Comprehensive Plan. Therefore, this map should be the biggest key in making the decision to rezone the subject property.

E. Conclusion:

The Applicant is requesting that the County Commission approve a map amendment to the Jefferson County Zoning Map. The 2004 Comprehensive Plan; the recent actions of the County Commission regarding rezoning in this area and adjacent to the site; and, the changes in the neighborhood from when the original zoning ordinance was adopted, all support the requested map amendment. This map amendment will change the zoning classification on the applicant's property from the Residential Growth District to the Residential/Light Industrial/Commercial District.

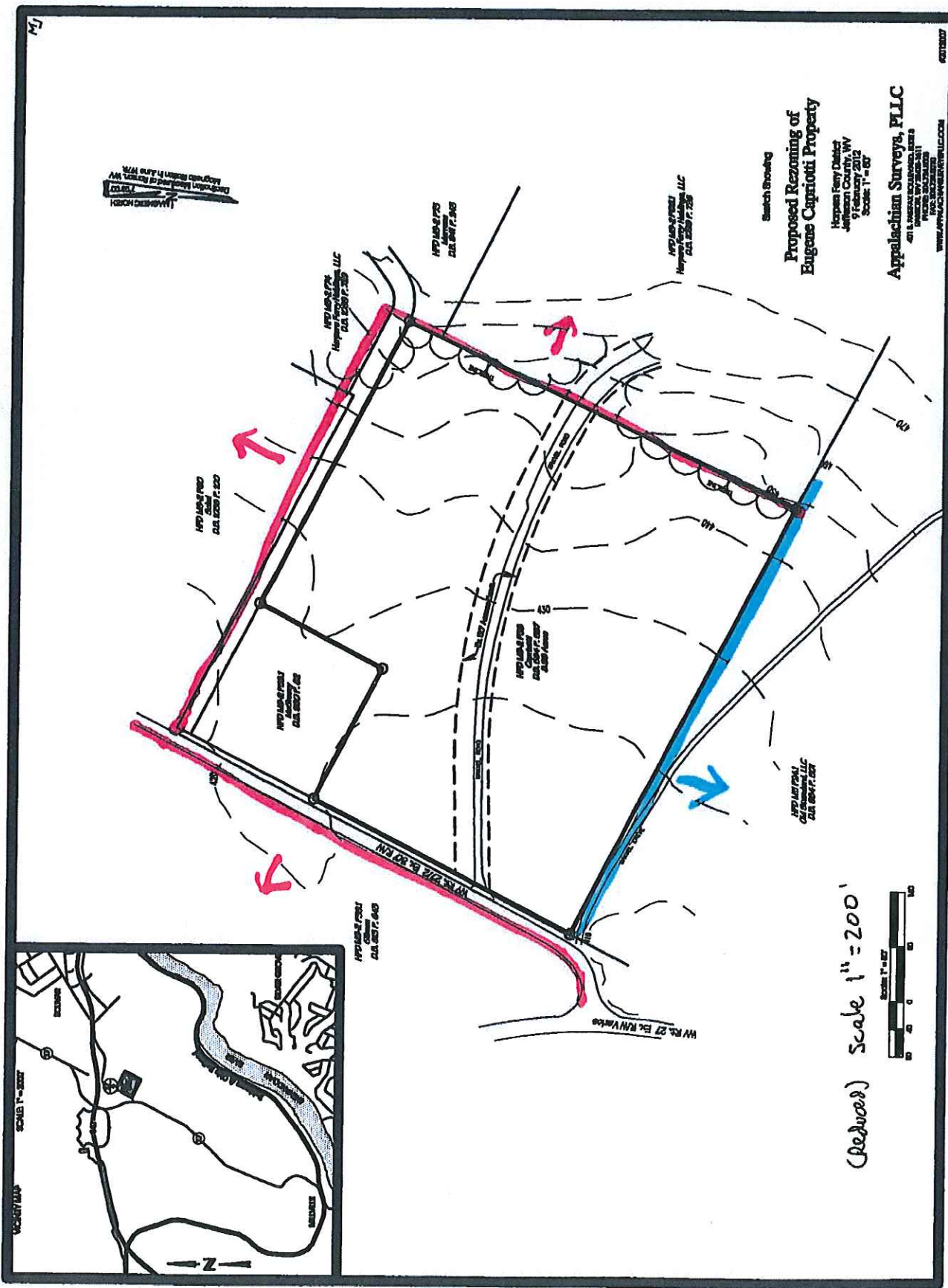


Gene P. Capriotti

17 Feb 2012

Date

Z12-01

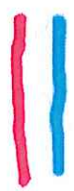


Approved Blenkins, LLC
 401 S. AVENUE, SUITE 200
 HAYDEN, WY 82401
 PHONE: 307.486.1111
 WWW.APPALACHIANSURVEYS.COM

Search Showing
**Proposed Rezoning of
 Eugene Capriotti Property**
 Haystack Ferry District
 Jefferson County, WY
 February 2012
 Scale: 1" = 60'

Appalachian Surveys, PLLC
 401 S. AVENUE, SUITE 200
 HAYDEN, WY 82401
 PHONE: 307.486.1111
 WWW.APPALACHIANSURVEYS.COM

Residential / Light Industrial / Commercial District
 Old Standard Quarry (Approved State) Commercial (Industrial 1)



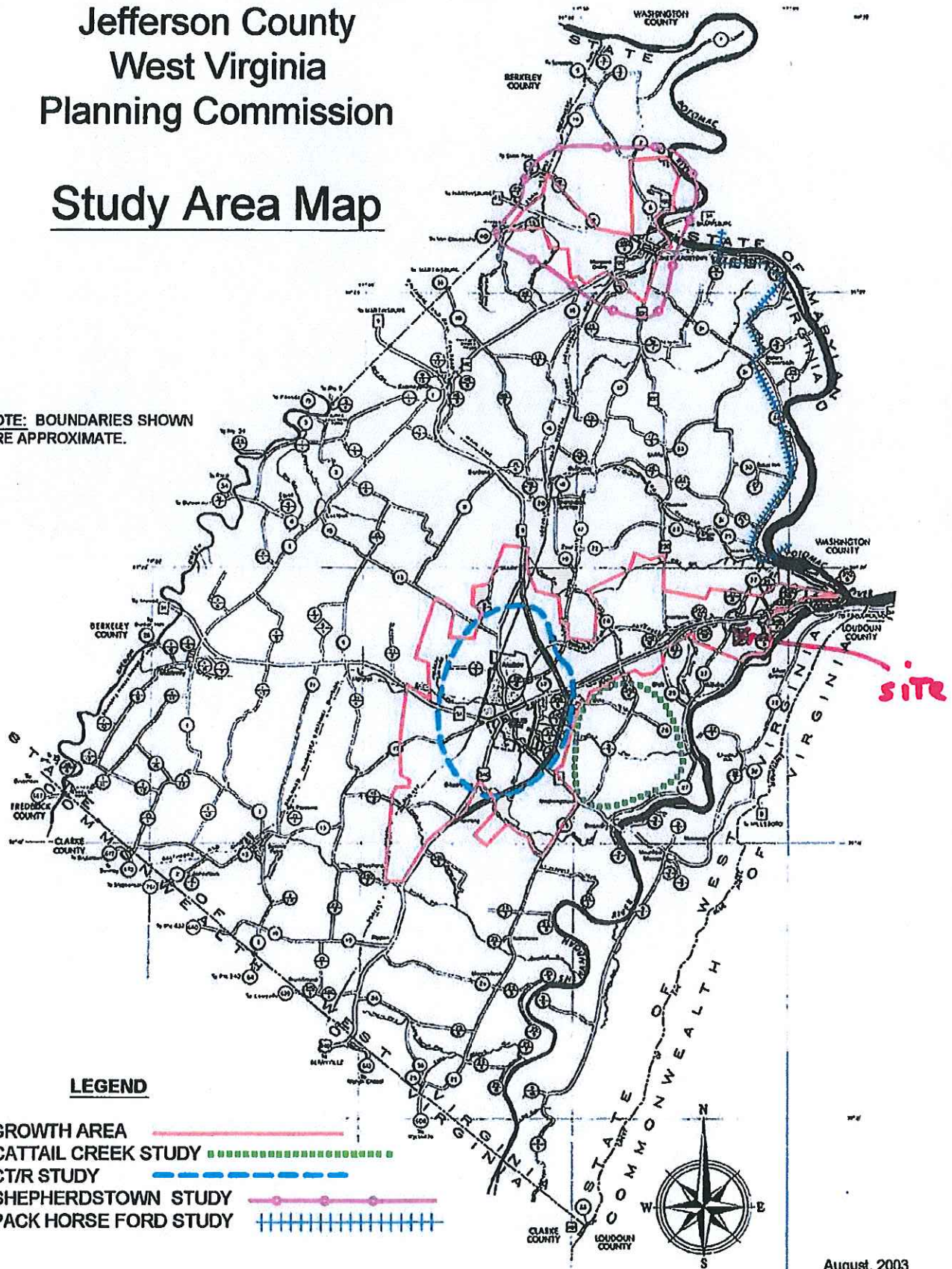
(Reduced) Scale 1" = 200'

Scale 1" = 200'

Jefferson County West Virginia Planning Commission

Study Area Map

NOTE: BOUNDARIES SHOWN ARE APPROXIMATE.



LEGEND

- 1. GROWTH AREA —————
- 2. CATTAIL CREEK STUDY - - - - -
- 3. CTR STUDY - - - - -
- 4. SHEPHERDSTOWN STUDY - - - - -
- 5. PACK HORSE FORD STUDY |||||



August, 2003
NOT TO SCALE

712-01

<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: County Commission

Department or Entity: _____

Estimation of amount of time needed for appointment: _____

Date Requested – 1st Choice: April 26, 2012

Date Requested – 2nd Choice: _____

If a specific date is needed, please provide reason for specific date:

Subject: **Priorities for the upcoming quarter**

Please provide the County Commission with a description of your request or presentation, including any background information: **Discuss and list the priorities of the County Commission for the next quarter**

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve):

Attachments:

2nd Quarter Priorities

Patsy	Comments	Priorities Numbered
Resolve IT issues.		
Purchase CAD System.		
Resolve county space issues (Assessor, Tax & Commission, Build Judicial Center to house Circuit Clerk.		
Lyn		
Public Hearing and adoption of CIP priorities.		
Meeting with Development Authority Board.		
Completion of space needs study for County Offices.		
Advertising RFP and OPEB actuarial study.		
Approval of time line to make decision on whether IT is in-house or contracted.		
Impact Fee discussion: approval of changes related to affordable housing and changing structure to fees for housing types.		
Publish public friendly version of budget with explanations of key services being provided.		
Frances		
Hire a County Administrator.		
Ensure that a plan is in place to protect Impact Fees, their collection, administration, ect.		
Run various scenarios to deal with the budget, should TG/MLT revenues fall, say, two years from now, by 20-25% with the advent of the MD. Casino.		
Plan the complete restoration of the Courthouse form the top down with input from Historic Landmarks; and how to fund it.		
Plan scenarios to place fire/amb. On a sustainable footing with adequate funding.		
St. Margaret's railing needs attention again.		

Color Codes

Red - CAD system

Yellow - IT related

Green - space needs

Orange - Co. Admin

Blue - Budget

Grey - Maintenance

Inventory of all square footage of office space owned/leased/occupied by county government and affiliated agencies; ensure that plan is made for the next several years as to who occupies what; ensure that all space is being utilized fully and efficiently and if not, take steps to do so.

Date		
Completion of Judicial Center/Purchase Briel Building		
CAD		
Renovate Animal Control Building.		
Walt		
Resolve IT issues		
Impact Fee Analysis		
Resolve Judicial Center needs		
Hire a County Administrator		
Purchase of the Briel Building		

Color Codes

- Red - CAD system
- Yellow - IT related
- Green - space needs
- Orange - Co. Admin
- Blue - Budget
- Grey - Maintenance

<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: **Sheriff**

Department or Entity: **Sheriff's Office**

Estimation of amount of time needed for appointment: **5 minutes**

Date Requested – 1st Choice: **May 3, 2012**

Date Requested – 2nd Choice:

If a specific date is needed, please provide reason for specific date:

Subject: Request to add five individuals as volunteers to the Jefferson County Deputy Sheriff Reserves

Please provide the County Commission with a description of your request or presentation, including any background information:

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve): **move to approve the hiring of _____ to the Jefferson County Deputy Sheriff Reserve**

Attachments:



SHERIFF and TREASURER of Jefferson County

Robert E. Shirley
P.O. Box 9
Charles Town, WV 25414

April 5, 2012

MEMORANDUM

To: Jefferson County Commission
From: Sheriff Robert E. Shirley *RES*
Re: Approval of new appointments

The Jefferson County Deputy Sheriff Reserves is a volunteer organization and invaluable part of the Jefferson County Sheriff's Office. The members assist the Sheriff's Office in ways too numerous to list, but a few of the ways they bring additional support to the office is thru traffic control, serving process and aiding in security at events like the Jefferson County Fair and Arts and Crafts Festival.

This organization has grown tremendously and is continuing to have an extraordinary interest. Today I am pleased to present you with five candidates whom would like to join the Deputy Reserve Program. I am seeking favorable consideration in the appointment of **Dakota White, Wayne Gambrell, Allen Frazee, Glen Kincaid and Paul Hale** to the Jefferson County Deputy Reserve Program.

All of these individuals have undergone background investigations and have been deemed suitable for appointment.

If you have any questions or are in need of additional information, please feel free to contact me.

<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: **Nichelle Hosby**

Department or Entity: **County Commission**

Estimation of amount of time needed for appointment: **5-10 minutes**

Date Requested – 1st Choice: **May 3, 2012**

Date Requested – 2nd Choice:

If a specific date is needed, please provide reason for specific date:

Subject: Request for Compensation During Temporary Assignment for Debbie Keyser from Human Resource Manager to Interim County Administrator effective April 30, 2012 and return Sandy Slusher McDonald to the Deputy County Administrator to her previous Step and Grade

Please provide the County Commission with a description of your request or presentation, including any background information: **move Debbie Keyser from Grade VII, Step B to Grade VIII, Step A and return Sandy Slusher McDonald from a Grade VIII, Step A to a Grade V, Step C**

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve): **move to approve Debbie Keyser from Human Resource Manager to Acting County Administrator with a change from Grade VII, Step B to Grade VIII, Step A and return Sandy Slusher McDonald, Acting County Administrator to Deputy County Administrator with a change from Grade VIII, Step A to Grade V, Step C**

Attachments:

Bi-Weekly/Annual Salaries for Jefferson County Government

Grade	Pay Rate	Percentage Increase	Bi-Weekly Hours	Step A	Step B	Step C	Step D	Step E	Step F	Step G	Step H
I	11.26	4.25%	70	20,500.00	21,371.25	22,279.53	23,226.41	24,213.53	25,242.61	26,315.42	27,433.82
			80	23,420.80	24,416.18	25,453.87	26,535.66	27,663.43	28,839.12	30,064.79	31,342.54
II	14.08	3.75%	70	25,625.00	26,585.94	27,582.91	28,617.27	29,690.42	30,803.81	31,958.95	33,157.41
			80	29,286.46	30,384.70	31,524.13	32,706.28	33,932.77	35,205.25	36,525.44	37,895.15
III	16.9	3.25%	70	30,750.00	31,749.38	32,781.23	33,846.62	34,946.63	36,082.40	37,255.08	38,465.87
			80	35,152.00	36,294.44	37,474.01	38,691.91	39,949.40	41,247.76	42,588.31	43,972.43
IV	19.71	2.90%	70	35,875.00	36,915.38	37,985.92	39,087.51	40,221.05	41,387.46	42,587.70	43,822.74
			80	40,996.80	42,185.71	43,409.09	44,667.96	45,963.33	47,296.26	48,667.86	50,079.22
V	28.16	2.50%	70	51,250.00	52,531.25	53,844.53	55,190.64	56,570.41	57,984.67	59,434.29	60,920.14
			80	58,572.80	60,037.12	61,538.05	63,076.50	64,653.41	66,269.75	67,926.49	69,624.65
VI	36.6	2.25%		66,625.00	68,124.06	69,656.85	71,224.13	72,826.68	74,465.28	76,140.75	77,853.91
VII	42.24	2.25%		76,875.00	78,604.69	80,373.29	82,181.69	84,030.78	85,921.47	87,854.71	89,831.44
VIII	53.5	1.45%		97,375.00	98,786.94	100,219.35	101,672.53	103,146.78	104,642.41	106,159.72	107,699.04

<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: Nichelle Hosby

Department or Entity: County Commission

Estimation of amount of time needed for appointment: 10-15 minutes

Date Requested – 1st Choice: May 3, 2012

Date Requested – 2nd Choice: _____

If a specific date is needed, please provide reason for specific date:

Subject: **Decision on upcoming Holiday weeks meeting schedule for May, June and July**

Please provide the County Commission with a description of your request or presentation, including any background information:

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve):

Attachments: **Calendars**

May 2012

May 2012							June 2012						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
6	7	8	9	10	11	12	3	4	5	6	7	8	9
13	14	15	16	17	18	19	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28	29	30

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Apr 29	30	May 1	2	3	4	5
		Primary Election Day				
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	Jun 1	2
	Memorial Day					

May 27 - Jun 2

May 20 - 26

May 13 - 19

May 6 - 12

Apr 29 - May 5

June 2012

June 2012							July 2012						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
3	4	5	6	7	8	9	1	2	3	4	5	6	7
10	11	12	13	14	15	16	8	9	10	11	12	13	14
17	18	19	20	21	22	23	15	16	17	18	19	20	21
24	25	26	27	28	29	30	22	23	24	25	26	27	28
							29	30	31				

May 27	May 28	May 29	May 30	May 31	Jun 1	Jun 2
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20 West Virginia Day	21	22	23
24	25	26	27	28	29	30

July 2012

July 2012							August 2012						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7	5	6	7	8	9	10	11
8	9	10	11	12	13	14	12	13	14	15	16	17	18
15	16	17	18	19	20	21	19	20	21	22	23	24	25
22	23	24	25	26	27	28	26	27	28	29	30	31	1
29	30	31											2

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jul 1	2	3	4 Independence Day	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	Aug 1	2	3	4

<p>Commission Office Use Only</p> <p>Date on Agenda:</p> <p>Appt Time or New Business:</p>
--

AGENDA REQUEST FORM

Name: Roger Goodwin

Department or Entity: Department of Engineering

Estimation of amount of time needed for appointment: 1 hour

Date Requested – 1st Choice: May 3, 2012

Date Requested – 2nd Choice: _____

If a specific date is needed, please provide reason for specific date: Michael Maloy, Senior Geologist from Analytical Services, Inc. is traveling from Culpeper, Virginia to make the presentation to the Commission.

Subject: County-Wide Groundwater Assessment Final Report (Water Budget Study Presentation)

Please provide the County Commission with a description of your request or presentation, including any background information: Presentation of the Water Budget Study by Analytical Services, Inc.

Recommended motion (Please type out the wording of the motion that you would like the Commission to approve): A motion is not necessary unless the Commission desires.

Attachments: Disk containing County-Wide Groundwater Assessment Final Report

County-Wide Groundwater Assessment

Jefferson County, West Virginia

Prepared for

**Jefferson County Commission
124 E. Washington Street
Charles Town, West Virginia 25414**

Prepared on:
April 2, 2012

Michael Maloy, CPG
Senior Geologist, Principal

Andrew Carter
Senior Environmental Scientist

Analytical Services, Incorporated
402 N West Street
Culpeper, Virginia 22701

Table of Contents

1.0	Background.....	1
2.0	Jefferson County Geology and Groundwater	1
2.1	Geologic Setting.....	1
2.2	Geologic and Geomorphic Features that Affect Groundwater.....	2
3.0	Hydrogeologic Units.....	3
3.1	Western Fault-Dominated “Western Unit”	3
3.2	Central Valley - Folded Carbonates “Central Unit”.....	4
3.3	Eastern Metamorphic “Eastern Unit”.....	5
4.0	Groundwater Resource Features	6
4.1	Fracture Trace Analysis	6
4.2	Correlation of Groundwater Features with High Yield Wells	7
5.0	County-wide Groundwater Well Database	8
5.1	Database Development.....	8
5.2	Well Statistics.....	8
6.0	County-wide Water Budget Analysis	11
6.1	Estimate of Groundwater Resources	11
6.1.1	Recharge Zones.....	11
6.1.2	Effective Recharge Rate	12
6.2	Estimate of Groundwater Usage	13
6.2.1	Public Supply	14
6.2.2	Domestic	15
6.2.3	Industrial	15
6.2.4	Irrigation	15
6.2.5	Commercial.....	16
6.2.6	Mining.....	16
6.3	Calculated Estimate of Groundwater Availability	16
7.0	Review of Groundwater Quality.....	18
7.1	Central Valley-Folded Carbonates “Central Unit”	18
7.2	Western Fault-Dominated “Western Unit”	19
7.3	Eastern Metamorphic “Eastern Unit”.....	20
7.4	Common Contaminants and Treatment Methods.....	20
7.5	Groundwater Protection	21
8.0	Factors that May Affect Utilization of Groundwater.....	22
8.1	Regulatory Considerations	22
8.2	Water Law	23
8.3	Environmental Considerations	24
9.0	Findings and Conclusions	24

Figures

- Figure 1. Jefferson County Map
- Figure 2. Geology Map
- Figure 3. Faults and Fracture Traces Map
- Figure 4. Surface Water Features
- Figure 5. Hydrogeologic Units Map
- Figure 6. High Yield Wells
- Figure 7. Well Locations & Reported Yields
- Figure 8. Recharge & Discharge Zones

Tables

- Table 1. Descriptive Statistics of County Well Data
- Table 2. Well Yield and Depth Statistics by Bedrock Geology
- Table 3. Descriptive Statistics of Well Data by Hydrogeologic Unit
- Table 4. Estimated Areas of Recharge Zones within Hydrogeologic Units
- Table 5. Estimates of Recharge Rates Reported in the Literature
- Table 6. Assigned Recharge Rates by Hydrogeologic Unit
- Table 7. Jefferson County Groundwater Use Estimates
- Table 8. Common Groundwater Contaminants in Jefferson County
- Table 9. Information Summary

Appendices

- Appendix A. Applicable Standards for Well Data
 - A-1. Development of Well Database
 - A-2. Statistical Analysis of Well Data
- Appendix B. Applicable Standards for Recharge Estimates
 - B-1. Recharge Calculations
 - B-2. Literature Search Results for Local Recharge Rates
- Appendix C. Applicable Standards for Water Usage Estimates
- Appendix D. Copy of West Virginia Water Resources Protection and Management Act
- Appendix E. Draft Groundwater Assessment Standards
- Appendix F. References

Executive Summary

This groundwater water budget study has identified a theoretical surplus of available groundwater resources across Jefferson County. The availability of groundwater is controlled by the county's underlying hydrogeology, which is variable in character. Three areas deemed to have unique hydrogeologic properties were identified during this study. High yield wells have been documented from all three areas; however, the central area of the county identified as the "folded carbonates of the central valley" possesses the greatest number of higher yielding wells. This area, which covers nearly 60% of the county and includes the county's Industrial Park, would be expected to have the greatest potential for groundwater development. Regardless of a well's location within the county, the presence of secondary porosity features that include fractures, joints, bedding planes, and faults, are generally necessary to accommodate a high yield. A review of geospatially located well data along with mapped fracture traces (lineaments) and faults suggests a correlation between the presence of clusters of high yielding wells and nearby mapped lineaments and faults (Figure 7). Site-specific evaluation, including a review of available well data, mapped groundwater features and underlying geology, is recommended to better assess the potential for groundwater development at the site scale.

Conditions that enhance groundwater availability, such as secondary porosity features, can also have the potential to enhance the susceptibility of the groundwater aquifer to contamination, particularly in karst areas that contain dissolution channels and may have direct connection with surficial drainage patterns. Contaminants have been documented within groundwater across the county, some being more common within unique hydrogeologic settings. A summary of information pertaining to general bedrock geology, groundwater controls, well statistics, and common contaminants for each defined hydrogeologic unit has been provided in Table 10.

The identification of contaminant threats through source water area protection planning, both for existing water systems and for future water demand growth, along with ongoing monitoring of groundwater quality is important to promote long term groundwater protection. To provide further long term protection of the County's groundwater resources, additional assessment of planned high yield withdrawals should be conducted to evaluate well yield and if possible to determine potential for offsite impact from the planned well use. Recommended groundwater assessment standards are presented for review and consideration.

1.0 Background

The Jefferson County Commissioners sought to have a county-wide groundwater resources water budget study completed with the intent of identifying the extent of groundwater resources available for residential and commercial use within the county. Analytical Services, Inc. (ASI) prepared a proposal with a detailed scope of work designed to achieve the Commission's goal. Several technical groundwater studies have previously been conducted that have focused on groundwater supply and quality within Jefferson County. ASI's objective was to use available data from these studies and, combined with the findings generated from this study, provide a report which is an informative and effective tool that can be used to promote the long term management and protection of the county's groundwater.

The project workscope addressed required tasks within the county's request for proposal and further included the development of a county-wide well database. ASI's experience with the development of geo-referenced well databases within other county-wide studies was valuable towards maximizing the use of available data towards better understanding groundwater resources within Jefferson County. To promote a cost savings to the county, certain portions of this project were completed with assistance from the county GIS Department, including the assembly of the well database and the construction of GIS graphics. The County's existing GIS information provided an excellent set of tools toward completing this study in an efficient manner. An overview map of the county is provided as Figure 1.

This study included a review of available published literature, delineation of hydrogeologic units, identification and analysis of groundwater features, review of groundwater quality and a review of regulations that affect utilization of groundwater. To further promote the protection of the county's groundwater resources, ASI has prepared and included a draft set of groundwater assessment standards for the client's consideration within this report Appendix E.

2.0 Jefferson County Geology and Groundwater

Geologic processes over eons of time have determined the nature of the rocks that underlie today's landscape in Jefferson County. The rocks and their geologic structures have, in turn, determined the courses of rivers and streams, and locations of springs we see at the surface. The rocks are also key to understanding groundwater recharge, flow and availability in different areas of the county. A geologic map of the county is provided as Figure 2.

2.1 Geologic Setting

Jefferson County straddles two major physiographic provinces, Blue Ridge and Valley and Ridge. These are defined on the basis of distinctive geologic character and topographic landforms.

The portion of Jefferson County east of the Shenandoah River is situated within the Blue Ridge province, on the western flank of a regional fold called the Blue Ridge anticlinorium. The Blue Ridge of Jefferson County contains metamorphosed igneous and sedimentary rocks ranging in age from Neoproterozoic (about 600 million years old) to Early Paleozoic (about 550 million years old). These include metamorphosed mudstone, siltstone, sandstone, conglomerate and

basalt (phyllite, metasiltstone and quartzite, metaconglomerate and metabasalt or greenstone, respectively). These rocks formed during extensional tectonics as an ocean basin opened on the margin of North America, in a location similar to the present Atlantic Ocean. The rocks were subsequently folded and faulted, along with rocks to the west, during continental collision tectonics in the Late Paleozoic Alleghanian orogeny.

The western and central portions of Jefferson County are part of what is commonly referred to as the Great Valley section of the Valley and Ridge physiographic province. This is a belt of Paleozoic-age (about 570 to 300 million years old) clastic and carbonate sedimentary rocks that extends for many hundreds of miles through eastern North America. At the latitude of Jefferson County, the Great Valley is underlain predominantly by carbonate sedimentary rocks (limestone and dolostone), situated within a regional geologic fold called the Massanutten synclinorium. Clastic sedimentary rocks (shale, siltstone and sandstone) are present at the surface in some areas of western Jefferson County. The carbonate rocks were deposited in shallow paleo-ocean waters adjacent to North America; clastic sediments were shed westward from tectonic highlands created during continental collision. The rocks of the Great Valley have also been deformed by folding and faulting. (Evans, 2011)

Comprehensive regional geologic mapping (1:100,000-scale) and discussion pertaining to Jefferson County are presented in Southworth and others (2007) and references therein. Detailed (1:24,000-scale) geologic mapping covering the county has been published by Dean and others, 1987 (Keedysville, Martinsburg and Shepherdstown quadrangles); Dean and others, 1990 (Berryville, Charles Town, Harpers Ferry, Middleway and Round Hill quadrangles); and Dean and others, 1994 (Inwood and Stephenson quadrangles).

2.2 Geologic and Geomorphic Features that Affect Groundwater

The rocks that underlie the county do not contain significant space between individual mineral grains (primary porosity), through which groundwater may flow. Instead, groundwater flows through openings created by geologic structural and geomorphic processes, that have affected the rocks over geologic time (Kozar and others, 2007). These secondary porosity features include:

Bedding Planes (*planar surfaces that separate successive layers of stratified rocks*): Bedding planes originate as horizontal surfaces between layers of unconsolidated sediment. In Jefferson County these have been folded and are inclined (dip) at various angles across the county, but most commonly dip in a southeasterly or northwesterly direction.

Joints (*partings or fractures in the rocks*):

Joints form in solid rock as a response to tectonic stress; commonly joints occur in “sets” that have a consistent geometric orientation in a given area relative to the orientation of geologic folds. The county contains numerous folds and joints that formed in association with the regional Massanutten and Blue Ridge structures.

Faults (*fractures in which there has been displacement of rock bodies on either side relative to one another*):

Faults occur throughout the county, with a variety of orientations. Many are *thrust faults*, which commonly dip to the southeast, and where the top plate has moved to the

northwest. *Cross faults* cut across other structures at a high angle; within Jefferson County these commonly trend west or northwest, and have steep or nearly vertical dips. Several thrust faults and a smaller number of cross faults have been mapped in the western part of the county, as shown in Figure 3. The eastern part of the county contains one prominent thrust fault, the Keedysville Detachment Fault, which separates the Antietam Formation of the Blue Ridge province from the Tomstown Formation of the Great Valley.

Karst (underground caves, solution cavities and channels):

Karst features are common in carbonate rocks of the Great Valley. Formed by dissolution of calcium carbonate rock by slightly acidic rainwater, these features are apt to form along preexisting structural features in limestone that serve as conduits for groundwater. Karst can lead to accelerated rates of groundwater flow, and to increased sensitivity to groundwater contamination due to rapid influx of surface water.

Incision by major rivers:

The Potomac and Shenandoah Rivers in the northern part of the county have cut channels that are several hundred feet below the average topographic surface of the Great Valley to the south (See Figure 4). This has resulted in local lowering of the water table in some areas within about a half mile of those rivers, relative to water table depths in the central and southern parts of the county. This potentially affects the static (unpumped) water levels - herein defined as the distance from water to top of well casing - in local wells.

3.0 Hydrogeologic Units

Analysis of available geologic mapping and hydrogeologic research data were performed to identify and delineate three (3) hydrogeologic units in Jefferson County. Each unit was deemed to have unique hydrogeologic characteristics that affect groundwater availability. The hydrogeologic units are depicted on Figure 5 and further described below. Information from a well database assembled for this report (see Section 5.0) were also used to describe well characteristics within each of the delineated units.

3.1 Western Fault-Dominated "Western Unit"

Definition: the western portion of the county, to include a series of mapped faults portrayed on regional geologic maps (Southworth and others, 2007).

Topography

The western Fault-dominated unit is characterized by gently rolling topography with approximately 50 feet of relief between hill tops and valley bottoms. Incision by Opequon Creek and its tributaries has resulted locally in relief of 120 feet or more.

Stratigraphy

Martinsburg Formation (Upper and Middle Ordovician): shale, calcareous shale and siltstone; thin to medium beds of sandstone and metagraywacke in the upper part; argillaceous limestone at base.

St Paul Group; Chambersburg limestone (Middle Ordovician): thick bedded micritic limestone; bioclastic limestone with chert nodules; argillaceous nodular limestone.

Beekmantown Group--Rockdale Run Formation, Pinesburg Station Dolomite (Middle and Lower Ordovician): thick bedded dolostone with chert nodules; thin to medium bedded fossiliferous limestone and dolostone.

Structure

This part of the county is situated near the core of the regional Massanutten Syncline. In map pattern and outcrop, bedrock units display a series of open to tight folds along northeast-trending axes; numerous faults, including southeast-dipping reverse (thrust) faults and steeply-dipping ENE-trending cross faults are present. Dolomite units are heavily jointed, with characteristic butcher block weathering; paleokarst collapse breccias and sink holes are present locally, dominantly within limestone bedrock.

Hydrogeology

Groundwater flow is significantly influenced by structural controls: thrust faults, cross-strike faults, joints, and by lower permeability units such as the Martinsburg Formation. Karst solution cavities and caves are locally significant in controlling groundwater movement. Karst features are commonly developed along structural features such as bedding planes, joints and faults.

Water well characteristics

The well database compiled for this report contains 263 wells located in the Western Unit. The mean and median yields of these wells are 19 gallons per minute (gpm) and 10 gpm, respectively. The significant difference between the mean and median values here reflects the wide range of reported yield values. Over half of the wells in this unit have yields of less than 10 gpm. This unit has the lowest maximum reported well yield (200 gpm) of the three units.

Both bedrock depth and water table appears to be shallowest in the Western Unit. The wells in this unit have the shallowest average static depth-to-water (DTW) of the three units (46 feet) and the shallowest average casing length (52 feet), which may be regarded as an approximation of the depth of competent bedrock in the area of the well. In addition, only 11% of the wells in the faulted shale unit had static water levels deeper than 80 feet (in contrast to 22% and 53% in the Central Valley Folded Carbonates and the Eastern Metamorphic Units, respectively).

3.2 Central Valley - Folded Carbonates "Central Unit"

Definition: the central portion of the county, west of the Keedysville fault (Southworth and others, 2007) and east of the Western Unit.

Topography

This central portion of Jefferson County is characterized by gently rolling topography with approximately 50 feet of relief between ridge crests and valley bottoms. In the northern portion, incision by the Potomac and Shenandoah Rivers and their tributaries has resulted in topographic relief of 150 feet or more.

Stratigraphy

Beekmantown Group (Stonhenge Limestone; Lower Ordovician): thick bedded fossiliferous limestone with black chert nodules.

Conococheague Limestone (Lower Ordovician and Upper Cambrian): interbedded laminated limestone, dolostone and sandstone.

Elbrook Limestone (Upper and Middle Cambrian): interbedded limestone, dolostone, calcareous shale and shaly dolostone.

Waynesboro Formation (Lower Cambrian): interbedded shale, sandstone, dolomitic limestone and dolostone.

Tomstown Formation (Lower Cambrian): limestone, dolostone and marble.

Structure

This unit is situated on the eastern limb of the Massanutten Syncline. There are numerous northeast-trending bedrock folds displayed in map pattern and in outcrop. Folds are open to tight and asymmetric, with steeply dipping or overturned southeast limbs and gently-dipping northwest limbs. A small number of northwest-trending cross faults have been mapped.

Two prominent joint sets are widespread in the carbonate rocks, both at high angles to bedding. *Longitudinal joints* are commonly parallel to fold axes (commonly trend northeast - southwest); *cross joints* are commonly perpendicular to fold axes.

Hydrogeology

Groundwater flow is significantly influenced by joints, bedding planes, and cross faults where present. Karst solution cavities are locally significant in controlling groundwater movement. Karst features are most commonly developed within limestone bedrock, along structural features such as bedding planes, joints and faults.

Water well characteristics

The Central Unit, with georeferenced 559 wells, has the highest mean well yield (32 gpm) of the three units, as well as the highest maximum reported yield (2,000 gpm). The median well yield is at least twice that of the other two units. Approximately 3% (17 of 559) of the wells in this unit have well yields higher than 100 gpm, a much higher percentage than the other units. The mean depth-to-bedrock (as inferred from casing length) and mean static depth-to-water are both deeper than the Western Unit, but shallower than the Eastern Unit.

3.3 Eastern Metamorphic "Eastern Unit"

Definition: the portion of Jefferson County southeast of the Keedysville fault (Southworth and others, 2007).

Topography

This part of the county is situated on the west flank of the Blue Ridge mountains. Topographic relief between the county line, at the crest of the ridge, and the Potomac River at Harpers Ferry, is about 1000 feet. The topography is generally steep.

Stratigraphy

Chilhowee Group, Antietam Formation (Lower Cambrian): ferruginous sandstone.

Chilhowee Group, Harpers Formation (Lower Cambrian): phyllite and metasiltstone.

Weaverton Formation (Lower Cambrian): quartzite, conglomerate and metasiltstone.

Loudoun Formation (Lower Cambrian): tuffaceous phyllite and conglomerate.

Catoctin Formation (Neoproterozoic): greenstone metabasalt.

Structure

This hydrogeologic unit is situated on the overturned northwest limb of the regional Blue Ridge anticlinal fold. The rocks have been subjected to low-grade metamorphic recrystallization resulting in a pervasive northeast-trending schistosity that dips southeast at moderate angles. Blue Ridge rocks are in contact with younger rocks to the west at the Keedysville fault.

Hydrogeology

The pervasive metamorphic schistosity in metasiltstone and phyllite bedrock has overprinted primary bedding planes, and does not generally serve as a good conduit for groundwater. Sandstone, conglomerate and quartzite locally retain primary bedding structures, and contain joint sets that are conducive to groundwater flow.

Water Well Characteristics

The Eastern Unit has the lowest mean and median well yields of the three units. Additionally, the means of total well depth, static depth-to-water, and casing length were all significantly deeper than the other two units, although the median casing length is actually slightly shallower than the Central Unit. Over half of the wells in the Eastern Unit had water levels deeper than 80 feet from the surface. Over 60% of the wells in the Eastern Unit had yields less than ten gpm. Over 17% of the wells were deeper than 500 feet.

4.0 Groundwater Resource Features

4.1 Fracture Trace Analysis

Within a bedrock aquifer system, groundwater flow is largely controlled by secondary porosity features such as zones of fracture concentration, jointing and fault planes. Extensive work has been completed in Jefferson County by others to map prominent fracture traces, often referred to as lineaments, which are surficial expressions of fracture concentrations within the underlying bedrock (McCoy and others, 2005). Preferential weathering along such zones can result in very linear surface features. ASI geologists performed stereoscopic analysis of aerial photography and mapped prominent fracture traces in the eastern portion of the county. This mapping was used to supplement existing mapped features already included in the county's GIS system to produce a county-wide map illustrating prominent fracture traces (Figure 3).

Stereo pairs of aerial photography (1:24,000 scale) covering the eastern portion of the county were obtained from Air Photographics in Martinsburg, West Virginia. The photos were analyzed with a mirror stereo-scope using both the regular and 6x magnifying oculars. McCoy and others (2005), which primarily focused on the area of the county underlain by the carbonate and shale geology, documented two prominent trends in mapped fracture traces: strike-parallel fractures and cross-strike fractures. The strike-parallel fracture were found to be most abundant; however, the cross-strike fractures were noted to perhaps be more important from a hydrogeologic standpoint as they document fracture zones that cut across bedding. This fracturing may enhance secondary porosity allowing groundwater flow through rocks with generally low primary porosity. McCoy and others (2005) also depicts bedrock geology mapping, including mapped faults. This geologic mapping references work most recently prepared by Southworth and others (2002). Both thrust faults and cross-strike faults are identified on the mapping. Figure 3 depicts mapped fracture traces which are considered to be prominent features along with mapped geologic faults as depicted on Jefferson County's GIS mapping.

The strike of the bedrock geology within the county is oriented in a slightly east of north orientation. Upon review of Figure 3, a pattern of recurring cross-strike trace features can be identified extending across the central (carbonate) portion of the county.

4.2 Correlation of Groundwater Features with High Yield Wells

To evaluate the occurrence of high yielding wells in proximity to mapped groundwater resource features, a map that included wells from the assembled database possessing only yields of 20 gpm and higher was produced as Figure 6. Color codes for yield were given to identify well yields ranging from 26-50 gpm, 51-75 gpm, and ≥ 76 gpm. Clusters of higher yielding wells that appeared to have good correlation with nearby mapped groundwater resource features (i.e. fracture trace lineaments and faults) were identified. Figure 6 depicts examples of three such clusters. One of the clusters consists of several high yielding wells that lie in close proximity to several cross-strike lineaments that, when viewed from a regional perspective, extend in a linear fashion in a general east-west orientation across the county. As discussed in Section 4.1, these cross-strike features generally extend across the carbonate geology (central portion of the county). Interestingly, additional recurring groups of cross-strike lineaments are mapped extending across the central portion of the county in a general east west orientation; however, little to no well database information exists within those areas. Such areas would be expected to have favorable potential for groundwater development.

Two other examples of high yield well clusters have also been depicted on Figure 6, both of which had a smaller areal extent than the previous discussed cross-strike feature. One cluster example along the western portion of the county is situated near geologic faulting, while another is located in the north central area of the county near mapped fracture traces.

These three clusters of high yield wells provide good examples of how a geo-referenced database can be used to aid in identifying areas that may have favorable groundwater development potential. It is important to note that while the database was assembled with 1,124 well completion reports, the spatial distribution of those wells is limited. Therefore large areas

within the county, which could have favorable potential for groundwater development, again have little to no representative well data. Certainly, lower yielding wells are located in proximity to high yield well clusters (Figure 6), illustrating the need for site specific investigation toward identifying high yield wells near apparent groundwater resource features.

5.0 County-wide Groundwater Well Database

5.1 Database Development

The goal of developing a groundwater well database was to utilize existing well information in a geo-referenced format to enable assessment of well data spatially across the county. A challenge associated with development of the database was obtaining and identifying well records that provided both useful well construction data and adequate physical location data to enable assignment of georeferenced locations for each of the wells. In an effort to aid in reducing costs to the county, the Jefferson County GIS Department tasked their personnel to assist with the database assembly. ASI developed an outline of desired well construction information to the GIS Department and met with Department staff regularly to track progress and to give direction, if needed. The primary source of well completion information was the Jefferson County Health Department, which had kept records in electronic format for an extended period of time. The Applicable standards of the methods used to develop the database have been provided in Appendix A.

5.2 Well Statistics

Data from the newly assembled groundwater well database were statistically analyzed to obtain descriptive statistics of well yield, well depth, casing depth, and water level data from the available well records. Well records with available data were used from the database for each parameter analyzed. A total of 1,106 wells were evaluated for depth, 1,122 wells were evaluated for yield, 1,019 wells evaluated for static water level, and 1,100 wells evaluated for casing length. A summary of descriptive statistics of the database is provided below in Table 1.

	Depth (ft)	Yield (gpm)	Static DTW (ft)*	Casing length (ft)
<i>Mean</i>	300	24	69	72
<i>Standard Deviation</i>	146	72	42	50
<i>Median</i>	276	12	64	61
<i>Maximum</i>	900	2000	300	504
<i>Minimum</i>	29	0	2	3

<i>Count**</i>	1106	1122	1019	1037
----------------	------	------	------	------

Notes: *(ft) = feet below top of casing; gpm = gallons per minute; ** number of database well records with available data.

The applicable standards of the methods of the statistical analysis of the yield, casing length, depth, and static water level data have been provided in Appendix A.

Geologic mapping was obtained from the Jefferson County GIS Department and used to perform a statistical analysis of the parameters for yield and depth from geo-referenced well data within each mapped geologic unit. It is important to note that some geologic units were represented by more well records than others with the most records occurring in the OCc (Conococheague) Formation (265) and the least occurring in the Om (Martinsburg) formation (6). The number, or well count, should be carefully considered when comparing these data. A summary of the well statistic findings for geologic units has been provided below in Table 3.

Bedrock	Count (yield)	Mean Yield (gpm)	Median Yield (gpm)	Count (depth)	Mean Depth (feet)	Median Depth (feet)
<i>Ca</i>	20	13.70	10.00	20	337.10	325.00
<i>Ce</i>	231	26.10	20.00	228	237.68	225.00
<i>Ch</i>	232	14.85	8.50	228	344.92	308.00
<i>Ct</i>	64	20.34	18.00	63	294.16	245.00
<i>Cw</i>	47	22.83	20.00	47	294.62	240.00
<i>Cwl</i>	34	8.88	6.00	34	421.59	392.50
<i>OCc</i>	265	40.78	15.00	259	302.82	285.00
<i>Om</i>	6	20.67	8.00	6	233.17	227.50
<i>Omu</i>	49	17.84	10.00	49	322.00	305.00
<i>Opr</i>	99	21.32	14.00	98	285.99	222.50
<i>Os</i>	61	10.75	6.00	60	264.45	270.00
<i>Zc</i>	16	7.13	5.00	16	412.81	352.50

Additional analysis was performed on each of the three defined hydrogeologic units within this study. Well yield, well depth, static water level, and casing depth were analyzed. A summary of the statistical results is provided below in Table 4. Supporting statistical data has been included as Appendix A.

A comparison of the statistical data generated from the individual hydrogeologic units further supports the unique characteristics within each of the delineated units. Assessing yield, wells in the Central Unit possesses a mean yield of 32 gpm which far exceeds the mean values for either the Western Unit (19 gpm) or the Eastern Unit (14 gpm). The Central Unit also possesses the shallowest mean total depth (278 ft) which is likely due to encountering adequate water supplies from more shallow depths without the need for deeper well construction.

Assessing total well depth, the Eastern Unit has the greatest mean well depth (355 feet), the lowest mean yield (14 gpm), and the greatest mean static depth-to-water (94 ft). These parameters may be influenced by higher elevations within the Eastern Unit. Similar to the

Eastern Unit, the Western Unit also possesses a lower mean yield (19 gpm) than the Central Unit, but interestingly has the shallowest mean casing depth (57 ft) and the shallowest mean depth-to-water (46 ft).

Table 3				
Descriptive Statistics Well Data by Hydrogeologic Unit				
<i>Western Fault-Dominated "Western Unit"</i>				
	Depth (ft)	Yield (gpm)	Static DTW (ft)*	Casing length (ft)
<i>Mean</i>	281	19	46	57
<i>Median</i>	260	10	40.41	42
<i>Maximum</i>	800	200	224	286
<i>Minimum</i>	29	0	1.96	6
<i>Central Valley Folded Carbonates "Central Unit"</i>				
	Depth (ft)	Yield (gpm)	Static DTW (ft)*	Casing length (ft)
<i>Mean</i>	278	32	66	74
<i>Median</i>	245	20	64	63
<i>Maximum</i>	900	2000	300	283
<i>Minimum</i>	42	0	4.8	16
<i>Eastern Metamorphic "Eastern Unit"</i>				
	Depth (ft)	Yield (gpm)	Static DTW (ft)*	Casing length (ft)
<i>Mean</i>	355	14	94	83
<i>Median</i>	319	8	85	62
<i>Maximum</i>	800	300	300	504
<i>Minimum</i>	107	0	7	3

Note: Static DTW = Depth to unpumped water level below top of well casing.

6.0 County-wide Water Budget Analysis

6.1 Estimate of Groundwater Resources

ASI prepared a groundwater budget that assesses effective groundwater recharge from precipitation which would be expected to be available to the underlying groundwater aquifers. The theoretical volume of groundwater available for consumption in the county is assumed for this report to be equal to the volume of effective recharge minus the annual volume required to sustain critical base flow in county streams. Lateral subsurface inflows and outflows of groundwater are ignored, as well as potential recharge from “losing” stream segments. It is important to note that this analysis is theoretical and is based on certain assumptions.

The theoretical annual recharge volume of an area may be estimated by multiplying the annual effective recharge (as depth) by the areal extent over which it occurs. Extensive hydrological research in and around Jefferson County has yielded several estimates of effective recharge for the various rock types found in the county.

6.1.1 Recharge Zones

A large portion of precipitation drains into topographic lows, frequently occupied by streams, rivers, or wetlands. These areas, including all or part of stream floodplains and riparian wetlands, are considered to be areas of groundwater discharge and do not contribute water for aquifer recharge. The total proportion of discharge area within a watershed can vary between precipitation events depending on climatic conditions, especially antecedent soil moisture (Callaghan and others, 1998). Freeze and Cheery (1981) estimated that five to thirty per cent of a watershed area typically acts as zones of groundwater discharge. These discharge zones are excluded from the calculation of the county’s total area to obtain an estimate of the area of the county that receives recharge.

For this study, all 100-year flood plains within the county, perennial stream channels, and recorded wetland areas are assumed to be areas of groundwater discharge. The estimated zones of discharge in the county are shown in Figure 8. Using GIS methods, the combined aerial extents of the FEMA 100-year flood plain and the county’s existing delineations of perennial stream channels and wetlands were subtracted from the total acreage of each of the Hydrogeologic Units, identified in Section 5.0 above, to obtain the acreage of each groundwater recharge zone. The total acreages and identified recharge acreage of each zone are listed below.

Hydrogeologic Unit	Total Acreage	Recharge Acreage	Percentage of Total
“Western Unit”	40,820.40	36,733.85	90%
“Central Unit”	78,470.19	70,683.77	90%
“Eastern Unit”	16,029.86	12,330.61	77%
Total	135,320.50	119,748.23	85.66% (Average)

6.1.2 *Effective Recharge Rate*

To obtain an estimate of effective recharge that would be appropriate for each of the identified hydrogeologic units, ASI reviewed recharge estimates reported in published and unpublished research papers. The primary source of these estimates were obtained from the United States Geological Survey (USGS) publications from research that used a variety of graphical and statistical methods with data collected within, or in the vicinity of, the county area. Estimates from other government and academic publications were also reviewed. The estimates of recharge deemed most appropriate were obtained from research conducted either within the hydrogeologic units or in the same geologic formations located nearby. Table 5 below summarizes recharges rates found within the literature. Additional information on the literature search for the recharge rates assigned to each hydrogeologic unit has been provided in Appendix B.

Table 5. Recharge Rate Estimates Reported in the Literature		
Publication	Reported Rates (in/yr)	Geologic Region
Kozar and others (1990) ("Geohydrology")	7.1, 11.0	South-Central (Folded Carbonate Central Unit)
Kozar and others (1990)	10.0 (probable)	Fault-Dominated Western
Kozar and Weary (2009)	11.02 in carbonate rocks; 5.9 in Martinsburg	Opequon Creek near Berryville, VA (faulted carbonate and shale)
Yager and others (2008)	9.05 (metamorphic); 9.72 (carbonate) 5.47 (clastic)	By linear regressions for different rock units in Shen. Valley
Yager and others (2008)	7.4	Shen. River at Milleville, WV
Kozar and Mathes (2001) ("Aq. Characteristics")	9.8	Opequon Creek near Martinsburg, WV
Nelms and others (1997)	Range: 0.7 – 20.55 Median: 8.38	Valley and Ridge (North)
Nelms and others (1997)	Range: 6.31 – 33.07 Median: 11.07	Blue Ridge (North)
Kozar and others (2007) ("Hydrogeologic Setting, Leetown")	5.69; 8.3	Drought year est. for Opequon Creek and Hopewell Run
Vinciguerra (2008)	2.52 in/yr (Rock Gap); 6.57 in/yr (Breakneck Run); 13.31 in/yr (Sir John's Run)	Morgan County

The recharge values for years of normal precipitation assigned to the hydrogeologic units are 9.9 in/yr, 9.3 in/yr, and 9.1 in/yr for the Western, Central, and Eastern Units, respectively. Recharge rates during drought years are assumed to be 60% of recharge rates during normal years; therefore, the recharge rate for drought years assigned to each unit is 5.9 in/yr, 5.6 in/yr, and 5.5 in/yr for the Western, Central, and Eastern Units, respectively.

Applying these recharge rates for normal and drought years to the respective areas of the three hydrogeologic units yields, the estimated annual recharge volumes are summarized in Table 6 below. The applicable standards for the recharge calculations are provided in Appendix B.

Table 6. Assigned Recharge Rates								
	Western Unit		Central Unit		Eastern Unit		County Total	
	Normal	Drought	Normal	Drought	Normal	Drought	Normal	Drought
Recharge Rate (in/yr)	9.9	5.9	9.3	5.6	9.1	5.5	-	-
Recharge Volume (mgy)	9,875	5,885	17,850	10,749	3,047	1,842	30,772	18,475

Note: in/yr = inches per year; mgy = millions of gallons per year.

6.2 Estimate of Groundwater Usage

Methods for estimating annual groundwater consumption in Jefferson County were modeled after the approach taken by Atkins (2004) in the USGS publication “*Water-Use Estimates for West Virginia, 2004*”. This approach breaks down water use into multiple categories so that each type, or classification, of water usage can be analyzed and estimated separately. The water usage rates of all categories are then summed to estimate the overall water consumption across the county.

The six water-use categories which were used to estimate groundwater usage included: public, domestic, industrial, irrigation, commercial, and mining. Atkins included seven categories in his 2004 statewide West Virginia study; however, to our knowledge his seventh category (thermoelectric power) does not apply to Jefferson County.

Both groundwater and surface water resources are utilized within Jefferson County. Estimates from the 2004 USGS report indicate a daily groundwater usage of 4.014 million gallons per day (Mgal/day) and a surface water usage of 10.958 Mgal/day. This following estimate of water usage pertains only to groundwater withdrawal. Table 7 below provides the estimated values of groundwater usage determined during this study for Jefferson County. The values have been provided in million gallons per day (Mgal/day) and million gallons per year (Mgal/yr). For comparison purposes daily and yearly usage values determined by the USGS Report (Atkins 2004) have also been provided. Calculations for all groundwater usage estimates have been provided in Appendix C.

Table 7. Jefferson County Groundwater Use Estimates				
<i>2011 Data</i>			<i>2004 Report</i>	
Usage Category	Mgal/day	Mgal/yr	Mgal/day	Mgal/yr
Public Supply	1.24	452.6	1.043	380.70
Domestic	1.86	678.9	1.512	551.88
Industrial	2.27	827.03	1.265	461.73
Irrigation	0.18	65.2	0.00636	2.3214
Commercial	0.1	36.1	0.088	32.12
Mining	0.1	36.5	0.1	36.5
Total	5.75*	2,096.33	4.0144	1,465.25

Note: * = Daily values are rounded and should be considered more approximate than estimated yearly values.

6.2.1 Public Supply

The public supply category includes water that is withdrawn by public or private suppliers and provided to users for a number of purposes including domestic, industrial, commercial, and other uses. Public supply data were obtained from the Data Management Unit of the Engineering Division of the Jefferson County Office of Environmental Health. The information provided by the Office of Environmental Health included a list of all public water supply systems (PWSs) in the county with source information (groundwater or surface water), population served, number of service connections, service connection types, and monthly operational reports (MORs) for select systems, documenting the total daily pumpage for reported months. ASI used the MORs as a guide to determine the best approach to calculate water usage in the public supply category.

As the historical extent of data (MORs) obtained for the public water supplies was limited, sufficient data were not available to simply sum up historical usage numbers. In Jefferson County there are 22 public supply systems, 18 of which are groundwater-sourced. ASI adopted the following regression model, as used in Atkins (2004), along with available Jefferson County public water supply data, to estimate a total groundwater withdrawal for public water supply of **1.24 Mgal/day** or **452.6 Mgal/yr**.

$$G_m = 13,987C_r - 7,816C_c$$

Where:

G_m is the total water usage, in gallons per month,
 C_r is the number of residential connections, and
 C_c is the number of commercial connections.

6.2.2 Domestic

The domestic category includes water that is used for normal household purposes by residences withdrawing groundwater from private wells. This estimate was based on United States Census data and records of the public water supply population provided by the Data Management Unit of the Jefferson County Environmental Engineering Division. The total public supply population (30,295) was subtracted from the total county population (53,498) as reported in the 2010 United States Census to determine the domestic supply population (23,203). A previously published water-use coefficient of 80 gal/day/person (Atkins, 2004) was then applied to the remaining “domestic” population to obtain an estimate of **1.86 Mgal/day**, or **678.9 Mgal/yr** of groundwater withdrawal for domestic supply.

6.2.3 Industrial

The industrial category includes groundwater that is withdrawn by self-supplied businesses for industrial uses including fabrication, processing, washing, cooling and aquaculture. ASI obtained water usage data for industrial users from Mr. Brian Carr of the West Virginia Department of Environmental Protection, Division of Water and Waste Management. Using the sum of these reports, ASI prepared an estimate of the total groundwater withdrawal for industrial use. A total of 827,024,998 gallons (827.025 Mg/y) of annual water usage was reported, which equates to approximately 2.27 Mg/d for industrial purposes in Jefferson County; however, the accuracy of estimates in this category is limited by the information available. Industrial uses of less than 750,000 gallons per month are excluded from State of West Virginia reporting requirements; therefore, it is likely that some large quantity users who withdraw less than 750,000 gallons per month have gone unaccounted for in this water usage estimate. As documented in the footnotes of the summation calculations, two large users of water are aquaculture facilities. These facilities use a large volume of water but actual consumptive use is believed to be much less. Discussions with other users suggest that their water usage originates from a combination of surface water and groundwater. In an attempt to account for smaller (undocumented) volumes of industrial water usage, all reported uses have been considered consumptive in this groundwater usage analysis. The sum of reported industrial usage totaled **827.02 Mgal/yr**.

6.2.4 Irrigation

The Irrigation category includes all groundwater used for irrigation of crops and farmland, and golf course turf grass. On October 6, 2011, ASI spoke with a representative from the WVU Agriculture Extension Service – Jefferson County Office, who grew up farming in Jefferson County and currently lives on a working farm within the county. She stated that she knows of only one farmer in the county who has a center pivot irrigation system and that he no longer uses it. She informed ASI that very little crop irrigation occurs in Jefferson County as the costs associated with setting up and implementing an irrigation system are often too high to economically outweigh the benefits of using natural rainfall for nourishment and hydration of cropland. For the purposes of this water budget study, ASI has assumed that the only significant groundwater use application in the irrigation category is for golf course irrigation. Three golf courses were identified within the county. Water use information for two of the three golf courses was provided by Mr. Brian Carr with the West Virginia Department of Environmental Protection, Division of Water and Waste Management. Water use for the third golf course was estimated using a previously published coefficient of 5.37 gallons per day per hole (Atkins,

2004). ASI has estimated a total of **0.18 Mgal/day** of groundwater use in Jefferson County in the irrigation category which equates to an annual usage estimate of **65.2 Mgal/yr**.

6.2.5 Commercial

Commercial groundwater use includes all groundwater that is withdrawn for use at commercial facilities including restaurants, gas stations and hotels. Water use at institutions such as schools and churches is also included within this category. Many of the establishments that would fall under the commercial category in this study are likely also accounted for under the public supply category which complicates the ability to determine an estimate of commercial use without duplication. The value for commercial water supply was taken directly from the 2004 USGS report and adjusted proportional to population growth since 2004. In 2004 Atkins reported an estimate of 88,000 gallons per day of groundwater usage in Jefferson County in the commercial category. ASI adjusted this number proportional to the reported population growth from 2004 to 2010 (12.25% population increase) to obtain an estimate of **0.099 Mgal/day**, or **36.1 Mgal/year**, for commercial water use in Jefferson County.

6.2.6 Mining

The mining category includes all groundwater that is used at quarries and mines for any application associated with mining activities and mining facilities. Only one quarry, Millville Quarry, operated by Aggregate Industries, was identified in Jefferson County. Millville quarry is located on the western bank of the Shenandoah River. During a phone interview with Millville Quarry staff in August of 2011 the waters of the Shenandoah River were reported to occasionally breach a levee on the edge of the quarry pit resulting in the need for surface water to be removed from the pit. An estimate of groundwater usage for the pit was not obtained as water removed from the pit was reported to likely be due to surface water infiltration. Since mining activity in the county is not believed to have changed since 2004, and since no additional data for water volume use was identified, ASI utilized the previously determined value of 0.1 Mgal/day from Atkins (2004) for groundwater withdrawal associated with mining in Jefferson County. This daily value equates to an annual usage of **36.5 Mgal/year** for mining water use in Jefferson County.

6.3 Calculated Estimate of Groundwater Availability

An estimate of groundwater availability has been made considering groundwater recharge, groundwater usage, and the component of groundwater recharge that would be necessary to maintain sufficient baseflow to streams. The highest risk of adequate water supply occurs during drought conditions; therefore, a recharge volume has been estimated within this report assuming severe drought conditions (defined as 60 % of normal annual precipitation). The total volume of annual groundwater recharge in drought conditions within Jefferson County has been estimated to be 18,475,000,000 gallons as determined in Section 6.1 above.

The component of effective recharge that would be expected to be necessary for the maintenance of baseflow to streams in Jefferson County has been estimated with the use of available hydrograph data from a similar geologic setting in a neighboring County. The Maryland Department of the Environment (MDE) has developed effective recharge data for various

watersheds via hydrograph separation analyses. These effective recharge data are representative of both drought conditions (a drought occurring at a frequency of 1 in every 10 years) and also of 7Q10 conditions. 7Q10 is the lowest flow expected to occur on a particular stream for seven consecutive days once every ten years. Water balance criteria adopted by the MDE use the drought condition recharge value to determine available recharge, then reduce the resulting drought recharge volume by the 7Q10 volume to account for maintenance of stream base flow (Hammond, 2007). This calculation method is adopted for the availability estimates in this study.

While specific effective recharge values for a 10-year drought and 7Q10 data were not readily available for the study area, data from a similar hydrogeologic setting within a neighboring county are useful towards estimating the volume of water that may be required to maintain baseflow to streams. The watershed for Antietam Creek includes Washington County, Maryland, which adjoins Jefferson County to the north. This watershed lies within the Valley and Ridge Province and is largely underlain by carbonate geology. The drought condition recharge value estimated by the MDE for Antietam Creek is 7.0 inches per year, which approximates the estimates determined for the three hydrogeologic units defined during this study within Jefferson County. The 7Q10 effective recharge value for the Antietam Creek watershed is 2.8 inches which equates to 40% of the drought recharge value.

The 7Q10 value (2.8 inches year) mentioned above represents 50% of the effective recharge rate (5.6 inches per year) selected for the Jefferson County "Central Unit" during this study. A reduction of the theoretically available recharge volume by 50% would be expected to provide sufficient groundwater for the maintenance of baseflow to streams.

Theoretical Effective Recharge Volume:	18,475,000,000 gallons
Volume Necessary to Support Base Flow: (-50% Recharge)	9,237,500,000 gallons

Estimate of Groundwater Available

18,475,000,000 gal – 9,237,500,000 gal = **9,237,500,000 gallons**

Percentage of Estimated Groundwater Available Currently Used

1,465,250,000 gal groundwater used / 9,237,500,000 gals available = **15.86 percent**

Based on the assumptions herein, the percentage of theoretically available groundwater currently being utilized within Jefferson County is approximately 16 percent. While this estimation suggests an excess supply of available groundwater within the county, it is important to understand that hydrogeologic conditions across the county are variable. Site specific assessment should be made to understand the compatibility of a planned use with the existing hydrogeologic conditions.

7.0 Review of Groundwater Quality

The bedrock geology underlying Jefferson County is variable in character as represented by the three defined hydrogeologic units. Because the chemical signature of groundwater depends so much on the existence, abundance, and solubility of naturally occurring minerals, the geologic setting greatly affects groundwater chemistry. Generally water becomes more mineralized and bacteria content decreases with increasing depth below land surface (Hobba, 1981).

Groundwater underlying Jefferson County has been studied extensively with numerous investigations being conducted by the United States Geological Survey (USGS) since the 1960s. These investigations have primarily focused on the karst bedrock aquifer existing within the carbonate lithology across the county. Attention to the karst aquifer has likely been due to the large yields of available water and the susceptibility of the aquifer to contamination. Also carbonate rocks underlie approximately 86% of the county (Kozar, Hobba and Macy in 1991). The following summary on water quality include a discussion of each of the three identified hydrogeologic units referenced in Section 2.0 of this study.

7.1 Central Valley-Folded Carbonates "Central Unit"

Numerous Investigations of the karst region of Jefferson County have been conducted by USGS beginning with an initial study in 1961 (Paul P. Bieber) that described the hydrogeologic setting of Jefferson and neighboring Berkley Counties. Two additional studies were conducted by William A. Hobba (1976 and 1981) on the same counties with an emphasis on Ordovician age limestones and dolomites of the Great Valley. Hobba's work focused on assessing quality of the karst aquifer system and determining whether agriculture use was impacting water quality. Later work performed by Kozar, Hobba and Macy in 1991 involved assessment of water quality to determine if conditions had changed since the 1981 study. Findings from these studies indicate that water quality from the area of the county underlain by carbonates is often characterized by high levels of hardness, high nitrate concentration, and, in some cases, the presence of both fecal coliform and fecal streptococcal bacteria (Kozar, 2002).

Bieber (1961) documented overall good quality water from the carbonate aquifers, noting the exception that many wells produced hard to very hard water. Hobba's county-wide investigation of Jefferson County also documented high concentrations of nitrates (Hobba, 1981). Of 192 well water samples, 27 were found to have nitrate concentrations exceeding the 10 mg/L maximum contaminant level (MCL) drinking water standard. A second county-wide study included dye tracer testing to evaluate flow rates and directions within the karst bedrock aquifer. Sixty two (62) water samples collected from wells and springs were analyzed with 26% containing nitrates in excess of the MCL. Fecal coliform bacteria were found in 53% of the samples and fecal streptococcal bacteria were detected in 70% of the samples (Kozar and others, 1991).

The Central Unit is underlain by folded carbonate rocks with minor occurrences of shale bedrock. The carbonates consist of limestone and dolostone, which are made up of minerals that are relatively soluble when in contact with the natural acidity of infiltrating precipitation and

groundwater. Groundwater from a bedrock aquifer contains dissolved ions representative of the composition of the bedrock. These ions slowly dissolve as the water comes into and maintains contact with mineral surfaces in the pore spaces of bedrock. The total mass of these dissolved ions in a water sample is referred to as total dissolved solids (TDS), which is closely related to hardness. TDS and hardness differ in that hardness is made up of mostly calcium and magnesium ions, while TDS is made up of all dissolved solids in solution. Calcium and Magnesium are two of the most abundant elements in the groundwater of Jefferson County and are important because they contribute to lime-scaling and soap consumption. The solubility of the carbonate bedrock results in higher concentrations of calcium and magnesium ions (higher hardness) compared to other bedrock aquifer settings.

Because of its relatively high solubility, the carbonate bedrock in Jefferson County has undergone varying degrees of karstification. Dissolution channels formed within the bedrock of karst terrain can provide conditions for preferential flow pathways, enabling rapid spread of groundwater contamination. Such conditions can have the potential to quickly transport contaminants from surface or near surface conditions to the underlying bedrock aquifer. In most geologic settings, thick soil overburden acts as nature's water purification system, filtering recharge water as it percolates downward to the water table; but in karst areas this natural filter can sometimes be bypassed by preferential rapid flow paths and drainage features such as sinkholes. Consequently, the carbonate aquifer underlying the Central Unit area is susceptible to groundwater contamination from non-point sources. This susceptibility can be enhanced by surface drainage patterns characteristic of karst aquifer systems.

Much of the carbonate terrain in Jefferson County is used as farmland, with common fertilizer and manure applications to provide nutrients to the landscape, and with large areas of pastureland occupied by livestock. Nitrate, coliform, and streptococcal bacteria are among the most common contaminants that have been detected in the county's carbonate aquifers; all are constituents of biological waste. Based on the ratio of coliform to streptococcal bacteria, Kozar and others (1991) concluded that the vast majority of this contamination in Jefferson County is derived from animal waste.

7.2 Western Fault-Dominated "Western Unit"

The western portion of Jefferson County is underlain by carbonates along with shales and sandstones of the Martinsburg formation. The groundwater from this unit has hardness values similar in range with those observed within the folded carbonates of the Central Unit aquifers. Naturally occurring ions of concern in areas underlain by the Martinsburg shale that can affect water quality are iron, manganese, sulfate, and possibly hydrogen sulfide as well as calcium and magnesium to a lesser degree, (Hobba, 1981). Water quality problems encountered in groundwater withdrawn from shale bedrock can typically be alleviated by the implementation of a common water softening system, with the exception of high sulfate concentrations, which may require additional treatment methods.

As supported by casing length data within the newly assembled groundwater database, the depth to bedrock associated with the Western Unit is typically less than observed in the Central Unit

terrain resulting in relatively thin overburden (soil and saprolite) to act as a natural filter mechanism. The occurrence of numerous faults and karst drainage features also presents opportunities for the formation of preferential flow paths which could enhance the spread of groundwater contamination.

7.3 Eastern Metamorphic “Eastern Unit”

The eastern portion of Jefferson County is underlain by metasedimentary rocks of the Chilhowee group (Harpers, Weverton-Loudoun, and Antietam formations), with a minor occurrence of Catoctin greenstone in the southeast corner of the county. The rocks that comprise this unit are much less soluble than those found in the Central and Western Units and the groundwater gradient is steeper: both factors contribute to lower hardness and lower average pH (higher acidity) than in the other two units. Iron, manganese, and radionuclide issues can arise in wells completed in any formation within the Eastern Unit, with high manganese concentrations being typical of wells completed in the Harpers Shale.

Nitrate and bacterial contamination in the Eastern Unit is most likely indicative of borehole contamination from the wellhead or potentially from malfunctioning septic systems in shallow bedrock conditions. There is much less impact from non-point contaminant sources such as animal wastes, fertilizers and pesticides within the Eastern Unit than in the other two areas described above. This is due to the lower density of such activities and the lack of karst drainage conditions and associated preferential flow pathways.

Dunn Engineers (2008) reported radium exceedances in a number of public water supply wells along the western flank of the Blue Ridge within the Eastern Unit. The West Virginia Bureau for Public Health MCL for Gross Alpha Particle Activity is 15 pCi/l, and the MCL for Radium 228 (combined with Radium 226) is 5 pCi/l. Most reported exceedances in the Eastern Unit of Jefferson County do not fall significantly above the MCLs. As with any drinking water contamination, specifications for radionuclide treatment should be determined on a case-by-case basis.

7.4 Common Contaminants and Treatment Methods

The following table summarizes common contaminants identified in Jefferson County and includes a listing of typical treatment technologies used to improve water quality.

Table 8. Common Groundwater Contaminants in Jefferson County			
Contaminant	Potential Effect	Common Treatment Methods	More Susceptible Areas*
Iron & Manganese	Forms hard reddish brown to black stains on appliances, stains laundry, objectionable taste	<u>polyphosphate treatment</u> <u>ion exchange</u> <u>greensand</u> <u>chlorination (oxidation) plus filtration</u>	Eastern Unit
Sulfate	Bitter taste, can have laxative effect, corrosive to plumbing	<u>reverse osmosis</u> <u>ion exchange</u>	Western Unit
Nitrate	Occasional odor, methemoglobiniemia in infants	<u>Microfiltration</u> <u>reverse osmosis</u>	Central Unit, Western Unit
Bacterial Contamination	Bacteria, viruses and parasites can cause cholera, typhoid fever, dysentery and hepatitis, among other diseases.	<u>uv radiation</u> <u>ozonation</u> <u>Chemical Disinfection-chlorination</u>	Central Unit, Western Unit
Hardness Ca and Mg Ions	Forms precipitate scale in plumbing and appliances, also consumes soap.	<u>ion exchange</u> <u>Lime-soda treatment</u>	Central Unit, Western Unit
Radionuclides	Health risk at elevated levels	<u>precipitation/floculation</u> <u>filtration</u> <u>ion exchange</u>	Eastern Unit

Notes: *The contaminants listed above can occur throughout the county, but are identified more often in certain areas due to either unique hydrogeology or predominant land uses.

7.5 Groundwater Protection

The bedrock aquifer within any area of the county can be vulnerable to groundwater contamination from both point and non-point contamination sources. The type of land use can also affect the potential for contaminant impact. Leaking underground petroleum storage tanks, residential septic systems, and landfills represent a few examples of contaminant point sources. Common non-point sources result from agricultural activities, including animal waste and broadcast applications of fertilizer and pesticide. The introduction and migration rate of contaminants to groundwater within the bedrock aquifer can be enhanced by geologic conditions such as karst topography, but can also occur in any geologic setting. Shallow or improperly

grouted wells can provide conduits or preferential pathways for contaminant migration to groundwater. Exposed or shallow bedrock can also provide ready access for contaminants into secondary porosity features, enabling contaminant migration downward to groundwater.

The identification of contaminant threats through source water area protection planning, both for existing water systems and for future water demand growth, along with ongoing monitoring of groundwater quality, is important for long-term groundwater protection. Such plans typically identify potential contaminant threats and specify best management practices to reduce the potential for contaminant exposure to the defined water source area. Groundwater quality monitoring results can be used to identify contaminants and, where present, establish any trends in contaminant concentrations or migration patterns. Likewise, groundwater protection should be incorporated into long term planning to identify and put protection measures in place for source water areas that are valuable for the development of future groundwater supplies.

8.0 Factors that May Affect Utilization of Groundwater

8.1 Regulatory Considerations

West Virginia's Public Water Supply Regulations contain specific state requirements and adopt federal regulations under CFR 141. Also, all states must comply with the U.S. Environmental Protection Agency (EPA) Groundwater Rule which requires states to monitor public wells for bacteriological contamination. A public well is defined in West Virginia as one that serves 25 people for at least 60 days per year or has 15 connections.

In Jefferson County, three state agencies maintain regulatory oversight of water wells of various purposes:

1. Office of Environmental Health Services, Environmental Engineering Division (OEHS) – The OEHS enforces compliance of Title 64 Series 19 “Water Well Regulations” as well as Series 45 “Water Well Design Standards.” This office oversees public water supply wells, exploratory /observation/test wells for community supply purposes, oversees the source water protection program, and certifies well drillers. West Virginia adopts the federal drinking water standards.
2. Jefferson County Environmental Health Department – The county health department permits private water wells, industrial & commercial use wells, and exploratory/test wells for development of community water supply.
3. West Virginia Department of Environmental Protection, Office of Water Supply (DEP) – DEP oversees the installation and use of groundwater monitoring wells, recovery wells for remediation of contaminated sites, and industrial supply wells.

The 1990 amendments to the federal Safe Drinking Water Act required states to develop a Source Water Assessment and Protection Program (SWAP) with the objective of evaluating and minimizing threats to public drinking water supplies from contamination. West Virginia passed the Water Resources Protection Act (WRPA) in 2004 and its amendment, the Water Resources

Protection and Management Act (WRPMA), in 2008. These acts established the right of the state to regulate its waters and to require the Department of Environmental Protection (DEP) to prepare a water resources plan. Wellhead protection is included in West Virginia's Source Water Assessment and Protection Program. Part of the regulation and planning by the DEP is to "quantify" both the water resources and the water usage within the state.

One of the provisions of the WRPMA is that each facility withdrawing over 750,000 gallons per month must register with the DEP as a large quantity user. Large quantity users must provide estimates of water withdrawals to the state, but there is no permitting program. The DEP is not currently authorized to establish limits on the amount of groundwater that a facility can withdraw (English and Arthur, 2010).

The WRPMA encourages the quantitative or semi-quantitative inventory of groundwater in the state by requiring "a plan for the development of the infrastructure necessary to identify the groundwater resources" of West Virginia. The language does not call for a physical assessment, but a "plan" to develop only the means and methods to obtain such as assessment.

The WRPMA requires DEP to identify "critical planning areas" where increasing demand for water could potentially cause water shortages. According to a recent planning study (English and Arthur, 2010), karst areas in the eastern portion of the state (for example, Jefferson County) were noted as likely to be critical areas. These critical planning areas have not yet been established and potential policy changes under consideration for those areas were not discussed in the report.

8.2 Water Law

With the exception of public water supply wells, no formal permit requirements have been identified for groundwater withdrawals from the State of West Virginia. As documented in Section 8.1 above, reporting requirements have been established for large quantity users (750,000 gallons per month) but no limits on withdrawal volume appear to have been established. A summary of groundwater law prepared by the National Agricultural Law Center (Water Law Nutshell. Dean David H. Getches, Water Law, 3rd. ed. 1997) suggests that some states, including, West Virginia have adopted a form of the doctrine of reasonable use or the American Rule, which typically requires the water to be put to a reasonable use on the overlying tract of land and does not permit water to be taken to another tract.

The Water Resources Protection and Management Act (WRPMA) (West Virginia Code Chapter 22, Article 26) includes the following findings:

- (1) *"The West Virginia Legislature finds that it is the public policy of the State of West Virginia to protect and conserve the water resources for the state and to provide for the public welfare. The state's water resources are vital natural resources of the state that are essential to maintain, preserve, and promote quality of life and economic vitality of the state"*
- (2) *"The West Virginia Legislature further finds that it is the public policy of the state that the water resources of the state be available for the benefit of the citizens of West Virginia,*

consistent with and preserving all other existing rights and remedies recognized in common law or by statute, while also preserving the resources within its sovereign powers for the common good”.

The following definition of beneficial use is also provided within WVC 22-26-2 (b).

(b) “Beneficial use” means uses that include, but are not limited to, public or private water supplies, agriculture, tourism, commercial, industrial, coal, oil and gas and other mineral extraction, preservation of fish and wildlife habitat, maintenance of waste assimilation, recreation, navigation and preservation of cultural values.”

While language and definitions within the WRPMA suggest that the beneficial use of water can potentially cover a wide variety of uses, it is recommended that any planned groundwater withdrawal be consulted with applicable local, state and federal agencies. A copy of WRPMA WV Code Chapter 22, Article 26 has been provided in Appendix D.

8.3 Environmental Considerations

During the development of a groundwater supply, consideration should be given to the likely source area of the groundwater that will be utilized, particularly in areas underlain by karst terrain. A quantitative assessment of the baseline groundwater quality may be critical in evaluating subsequent monitoring data and could provide necessary information for the design of any treatment strategies, if deemed necessary.

Long term use of a groundwater well system can be promoted by employing wellhead protection measures, and by pumping at a carefully planned rate and schedule that efficiently provides needed water while minimally impacting water levels in the surrounding bedrock aquifer.

The recent use of hydraulic fracturing technology associated with extraction of natural gas, represents a potential risk to groundwater quality in many West Virginia localities. In contrast with most of West Virginia, the Marcellus shale does not underlie Jefferson County; therefore, groundwater issues related to natural gas extraction may be less prominent for the Jefferson County Commission as it would be for other West Virginia counties.

9.0 Findings and Conclusions

This groundwater water budget study has identified a theoretical surplus of available groundwater resources across Jefferson County. During the water budget analysis three areas deemed to have unique hydrogeologic properties were identified across the county. High yield wells have been documented in all three areas; however, the central area of the county identified as the “folded carbonates of the central valley” possesses the greatest number of higher yielding wells and this area (which covers nearly 60% of the county) would be expected to have the greatest potential for groundwater development. Regardless of a well’s location within the county, the presence and connection of secondary porosity features that include fractures, joints, bedding planes, and faults, are generally necessary to accommodate a high yield. A review of

geospatially located well data along with mapped fracture traces (lineaments) suggests a correlation between the presence of clusters of high yielding wells and nearby mapped lineaments and/or faults (Figure 6.) Site-specific evaluation, including a review of available well data, mapped lineaments and underlying geology, is recommended to better assess the potential for groundwater development at the site scale.

The Hydrogeology within Jefferson County is variable due to unique conditions of underlying lithology and landscape position across the county area. To enable a better assessment of groundwater availability across the county, three distinct areas, or hydrogeologic units, were delineated. These units are identified as: the Western Fault-Dominated "Western Unit", the Central Valley-Folded Carbonates "Central Unit", and the Eastern Metamorphic "Eastern Unit". The well database developed during this study was used to query well individual well data from each of the defined hydrogeologic units. Statistical analysis of the well data was performed to evaluate parameters of well yield, well depth, casing depth, and static water level. While all of these parameters are considered valuable toward understanding the underlying hydrogeology, well yield may be best indicator of groundwater availability. The highest calculated median well yield from the three units was 20 gpm determined from the Central Unit. Median yields of 10 gpm and 8 gpm were determined from the Western Unit and the Unit, respectively. Certainly, higher yielding wells occur across the county within all three of the defined areas. Well log data indicate maximum well yields of 2000 gpm, 200 gpm, and 300 gpm from the Central, Western, and Eastern units, respectively.

Groundwater availability is primarily determined by conditions present within the underlying bedrock aquifer including the presence and connection of secondary porosity features. The occurrence and connectivity of such secondary porosity features appear to be most prevalent in the "Central Unit". Secondary porosity, which can potentially support high yield wells, exists to a lesser extent in all the other two identified hydrogeologic units.

The Industrial Park (Burr Business Park) is located near Kearneysville within the defined "Central" Unit. The Industrial Park is underlain by carbonate bedrock with the Conococheague limestone formation underlying the eastern portion and the Stonehenge limestone of the Beekmantown Group underlying the western portion of the site. The Conococheague formation possesses groundwater wells with the highest mean well yield (40.78 gpm) of any geologic formation across the county. The bedrock is folded beneath the site as several overturned fold axes are mapped in the general site area. Both strike-parallel and cross-strike fracture trace lineaments have also been mapped in the general area suggesting that secondary porosity features likely exist. Review of the groundwater well database indicates the presence of some existing high yielding wells in proximity to the site area. Based on the findings of this study, the location of the Industrial Park would be expected to have good potential for groundwater development; however, performing additional "site-scale" investigation would be recommended to identify and locate optimal drilling targets.

Clusters of high yield wells have been identified in select locations in proximity to prominent lineaments depicted in fracture trace mapping of the county (Figure 6). One such cluster is located in an area where multiple lineaments were mapped in a general east-west orientation. When looking at lineament mapping at the county-scale, a recognizable pattern of recurring

east-west trending lineaments is apparent. These east-west trending lineaments are roughly oriented perpendicular to strike of the underlying bedrock and lie within the central portion of the county. While sufficient well data do not exist to evaluate high-yield well correlation on all prominent lineaments mapped, the data available suggest that review of prominent lineaments should be considered when evaluating areas for the development of large volumes of groundwater.

Conditions that enhance groundwater availability can also have the potential to enhance the susceptibility of the groundwater aquifer to contamination, particularly in karst areas that contain dissolution channels and may have direct connection with surficial drainage patterns (e.g., sinkholes). The carbonate bedrock's dissolution can also cause elevated hardness concentrations in groundwater. Characteristic of the lower median well yields, the bedrock aquifer within portions of the Western Unit (more "shaley" areas) and within the Eastern Unit are typically less vulnerable to surficial contaminants and contaminant migration in the subsurface; however, other quality concerns such as iron, manganese, sulfate concentrations, and occasional radon can be present within the bedrock aquifers of these areas.

The following table summarizes the unique characteristics of each defined hydrogeologic unit with respect to general lithology, features influencing groundwater, well data, and common contaminants.

Table 9 Informational Summary for Hydrogeologic Units			
Unit	Hydrogeology	Well Data*	Common Contaminants
Western Unit (Fault-Dominated)	<p><u>Dominant Lithology:</u> Limestone, dolostone, and shale</p> <p><u>Ground Water Influences:</u> Faulting, joints, lower permeability shales, and karst conditions where present</p>	<p><u>Yield</u> 19 gpm</p> <p><u>Well Depth</u> 281 feet</p> <p><u>Well Casing</u> 57 feet</p> <p><u>Depth to Water</u> 46 feet</p>	Sulfate, Nitrate, Bacterial, and Hardness
Central Unit (Folded Carbonates)	<p><u>Dominant Lithology:</u> Limestone and dolostone</p> <p><u>Ground Water Influences:</u> Joints, bedding planes, cross faults and karst conditions where present</p>	<p><u>Yield</u> 32 gpm</p> <p><u>Well Depth</u> 278 feet</p> <p><u>Well Casing</u> 74 feet</p> <p><u>Depth to Water</u> 66 feet</p>	Nitrate, Bacteria, Hardness
Eastern Unit (Metamorphics)	<p><u>Dominant Lithology:</u> Metamorphic rock; phyllite, metasiltstone,</p>	<p><u>Yield</u> 14 gpm</p> <p><u>Well Depth</u> 355 feet</p>	Iron, Manganese, Radionuclides

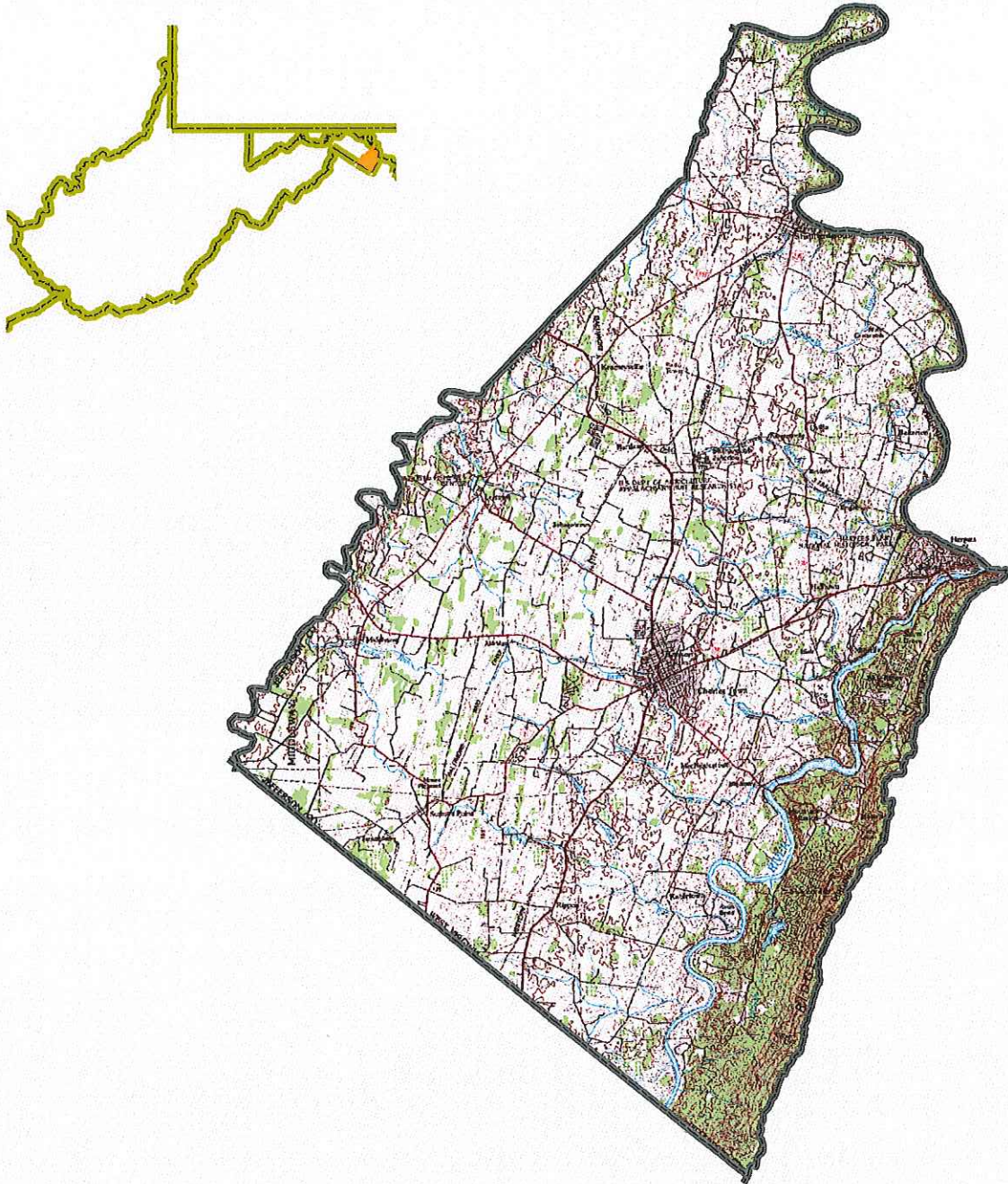
	metaconglomerate <u>Ground Water Influences:</u> Joint sets and primary bedding structures within metaconglomerates and quartzites. Metasiltstone and phyllite lack primary bedding structures and may be more impermeable.	<u>Well Casing</u> 83 feet <u>Depth to Water</u> 94 feet	
--	---	---	--

**Mean data value obtained from groundwater well database, see Table 3*

While surplus county-wide groundwater resources are believed to exist for further utilization, the occurrence of groundwater is controlled by underlying hydrogeology which is variable in character. Three areas deemed to have unique hydrogeologic properties were identified in this study. High yield wells have been documented in all three areas; however, the central area of the county, identified as the “folded carbonates of the central valley,” possesses the greatest number of higher yielding wells. This area (which covers nearly 60% of the county) would be expected to have the greatest potential for groundwater development.

To promote the sustainability and long term protection of the county’s groundwater resources, assessment of planned high yield withdrawals should be conducted to evaluate well yield and, if possible, to determine potential for offsite impact from the planned well use. Existing West Virginia Bureau of Public Health regulations address permitting and pump testing of public water supply wells. While plans for groundwater management are reported to be under development by the State of West Virginia, no specific guidelines were identified during this study to readily assess groundwater withdrawal for uses other than public water supply. While not intended to supersede existing State regulations, recommended draft groundwater assessment standards have been developed and presented in Appendix E. These draft standards are intended to provide a framework for the county’s review and consideration. It is important that the groundwater assessment standards match the needs of the county and ultimately promote sustainability and protection of the county’s groundwater. To achieve this, the development of a groundwater committee, formed of community stakeholders, is recommended so that the task of reviewing and refining necessary portions of the standards is performed in a manner that best fits the needs of the Jefferson County community. Groundwater protection should be incorporated into long term planning to identify and establish measures in place to protect source water areas valuable to the county’s economic future.

FIGURES



Jefferson County Site Location Map Figure 1

Legend

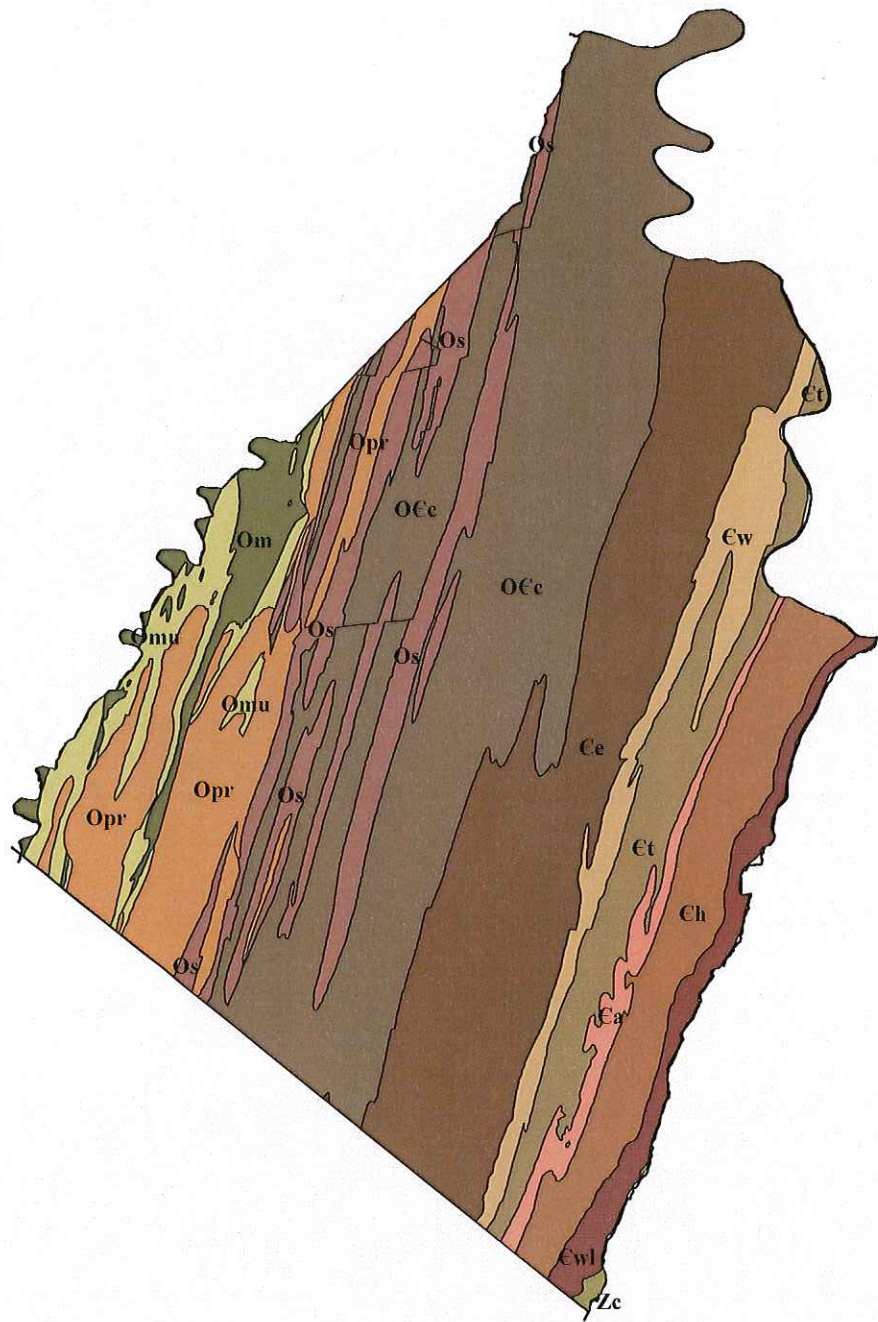
-  County Boundary
-  State Boundary
-  Jefferson County



0 1.25 2.5 5 Miles

Base Map Source: Jefferson County DRG <http://pubs.usgs.gov/of/2005/1407/>

 ANALYTICAL SERVICES, INC.
 402 N West Street
 Culpeper, Virginia 22701
 Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com



Jefferson County Bedrock Geology Map Figure 2

Legend

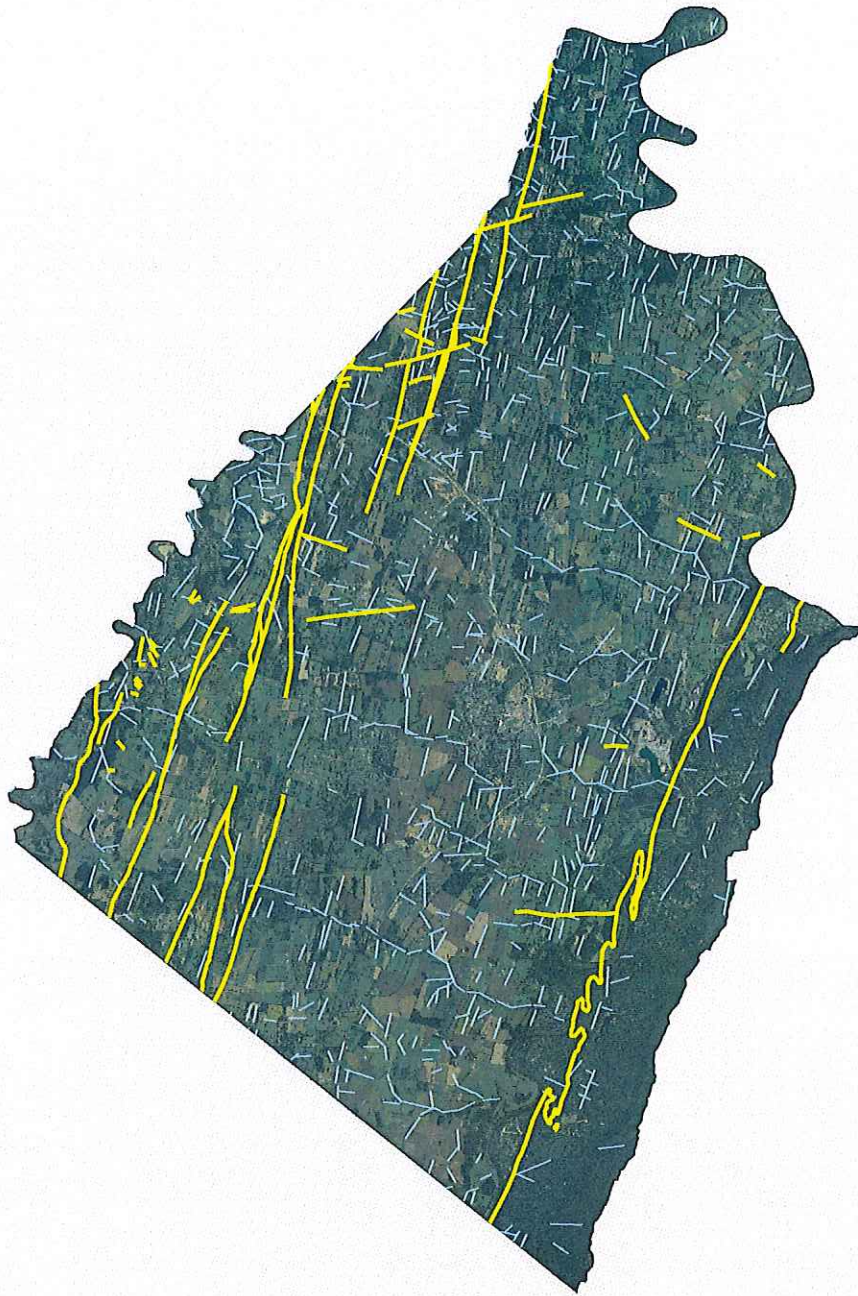
- Om Martinsburg Formation – shale with minor interbedded sandstone and siltstone
- Omu Middle Ordovician Limestones – limestone with interbedded limestone and calcareous shale
- Opr Pineburg Station Dolomite and Rockdale Run Formation – limestone and dolostone
- Os Stonehenge Limestone – fossiliferous limestone with minor black chert and dolomite
- OEc Conococheague Limestone – interbedded limestone, dolostone and sandstone
- Ce Elbrook Formation – interbedded limestone, dolostone and shale
- Ew Waynesboro Formation – dolomite and dolomitic limestone with interbedded shale, mudstone and sandstone
- Ct Tomstown Formation – dolomite and dolomitic marble
- Ca Antietam Formation – metasandstone
- Ch Harpers Formation – phyllitic metasiltstone
- Ewl Weverton and Loudoun Formations – metasandstone, conglomerate and phyllite
- Zc Catoctin Formation – metabasalt

0 1.25 2.5 5
Miles

Base Map Source: <http://pubs.usgs.gov/of/2005/1407/>







ANALYTICAL SERVICES, INC.
 402 N West Street
 Culpeper, Virginia 22701
 Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com



Faults and Fracture Traces Map Figure 3

Legend

-  Faults
-  Fracture Traces
-  County Boundary



0 1.25 2.5 5 Miles

Base Map Source: USDA-FSA Aerial Photography Field Office



ANALYTICAL SERVICES, INC.
402 N West Street
Culpeper, Virginia 22701
Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com



Surface Water Features Figure 4

Legend

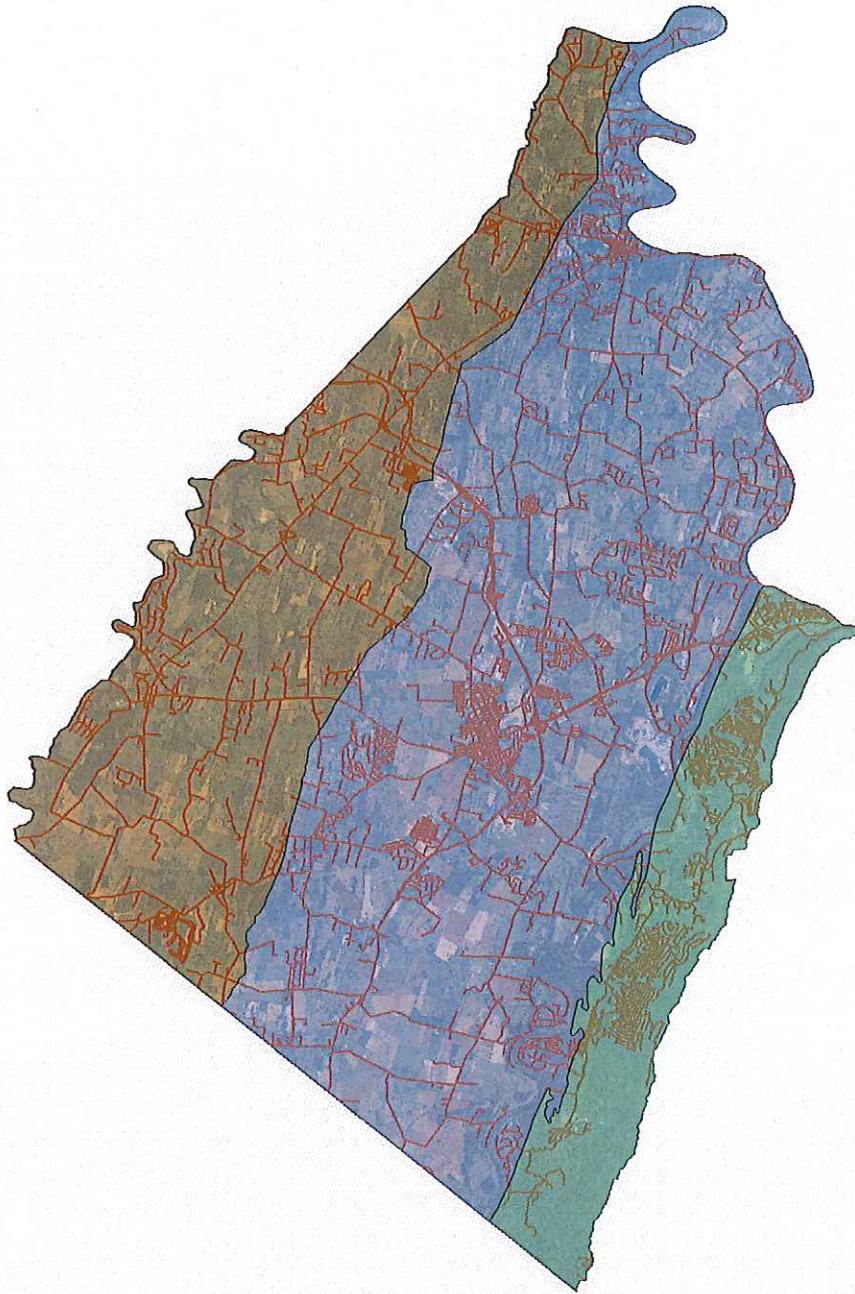
- County Boundary
- Streams
- Rivers/Lakes

0 1.25 2.5 5 Miles

Base Map Source: USDA-FSA Aerial Photography Field Office







 ANALYTICAL SERVICES, INC.
402 N West Street
Culpeper, Virginia 22701
Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com



Hydrogeologic Units

Figure 5

Legend

-  Metamorphic Eastern
-  Folded Carbonate Central
-  Faulted Western
-  Roads



ANALYTICAL SERVICES, INC.
 402 N West Street
 Culpeper, Virginia 22701
 Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com

0 1.25 2.5 5 Miles

Base Map Source: USDA-FSA Aerial Photography Field Office



Legend

Bedrock	Yield gpm
Om	• 26-50
Omu	• 51-75
Opr	• 76+
Os	— Faults
OEc	— Fracture Traces
Ce	— County Boundary
Ew	Examples of High Yield Clusters
Et	
Ca	
Ch	
Ewl	
Zc	

High Yield Wells and Geologic Features

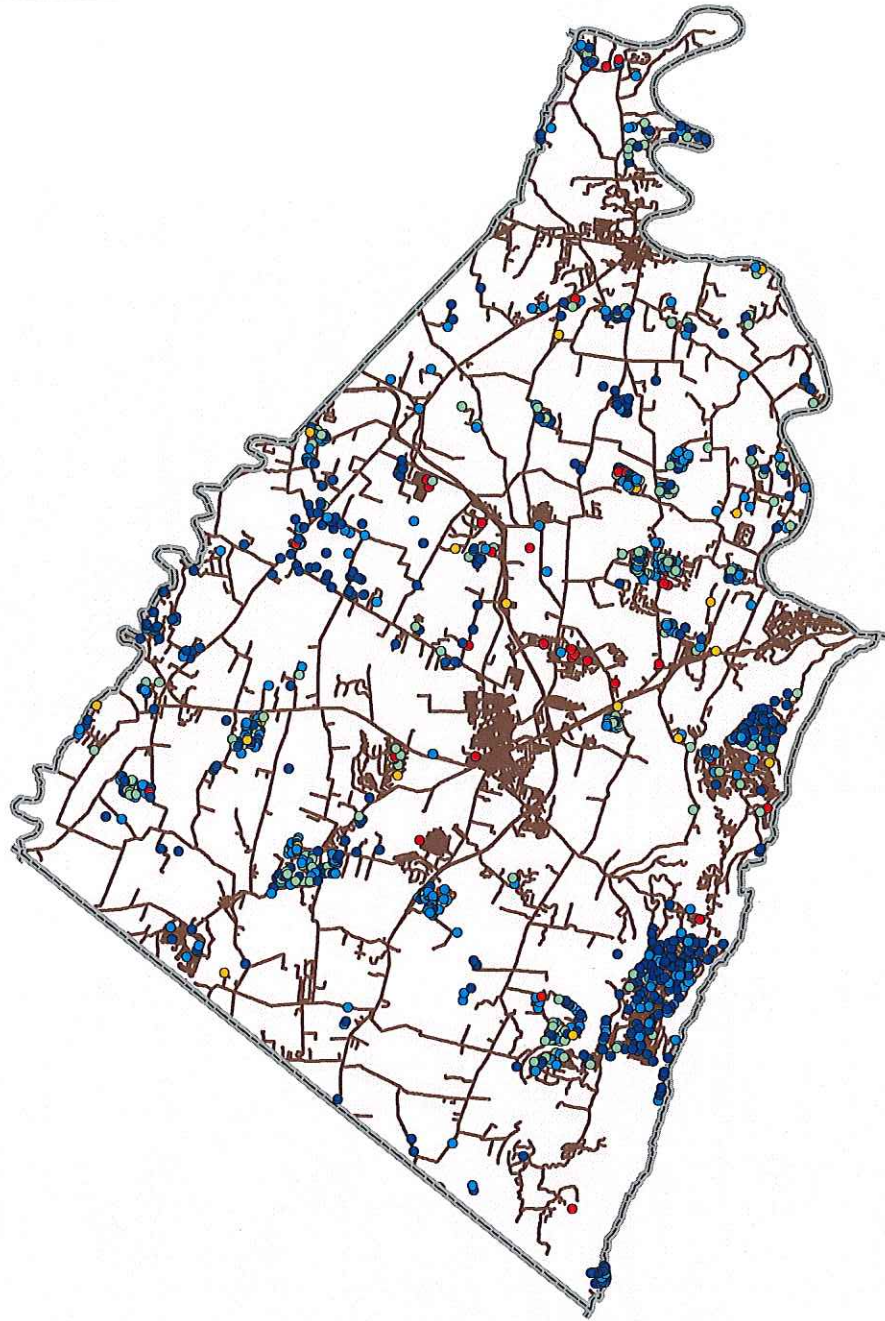
Figure 6




ANALYTICAL SERVICES, INC.
 402 N West Street
 Culpeper, Virginia 22701
 Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com

0 1.25 2.5 5 Miles

Base Map Source: <http://pubs.usgs.gov/of/2005/1407/>



Legend

- Yield gpm — County Boundary
- 0-10 — Roads
- 11-25
- 26-50
- 51-75
- 76+

Well Locations and Reported Yields

Figure 7



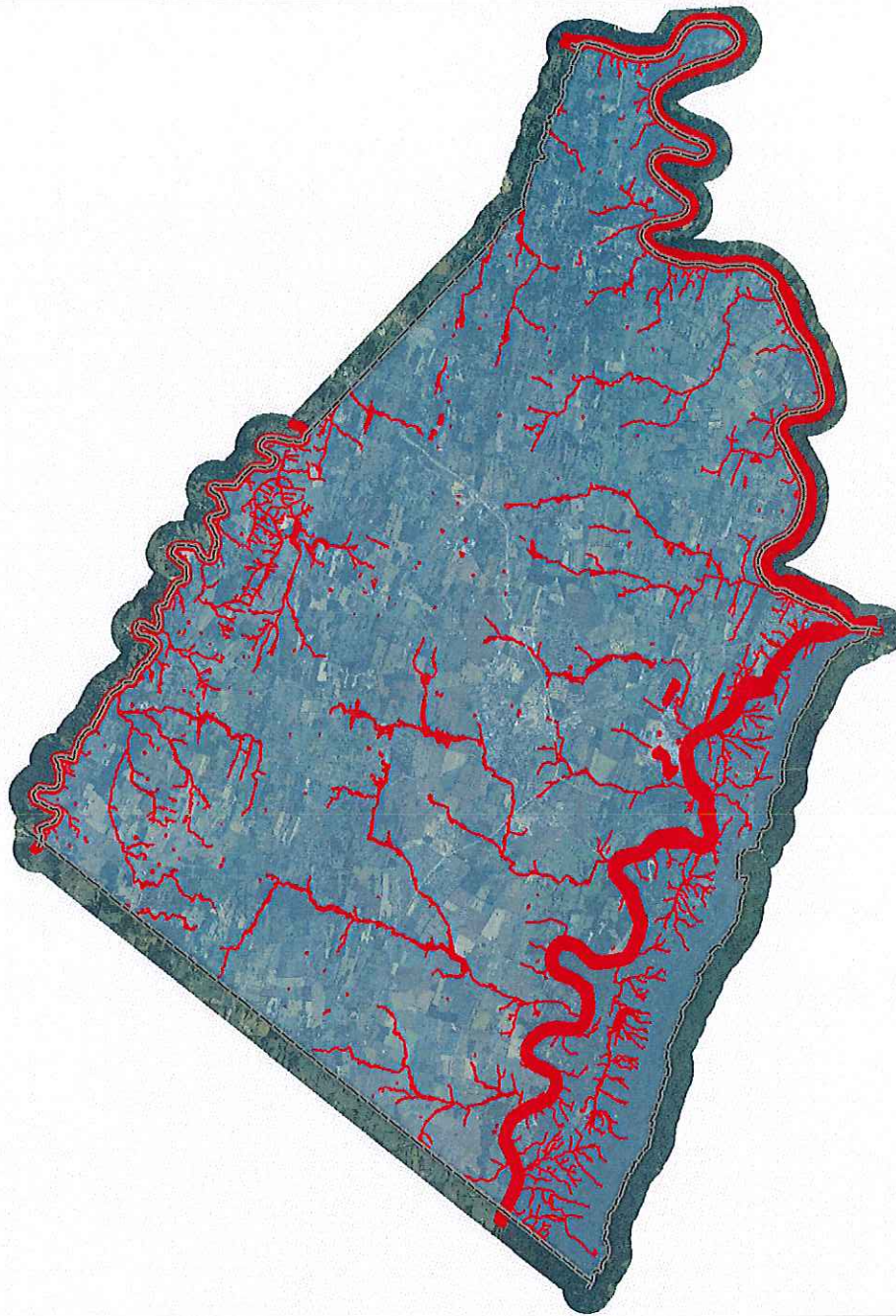
N



ANALYTICAL SERVICES, INC.
 402 N West Street
 Culpeper, Virginia 22701
 Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com






Base Map Source: Jefferson County GIS/Addressing Office



Recharge and Discharge Zone Mapping Figure 8

Legend

-  County Boundary
-  Discharge Zone
-  Recharge Zone

0 1.25 2.5 5
Miles

Base Map Source: USDA-FSA Aerial Photography Field Office



ANALYTICAL SERVICES, INC.
402 N West Street
Culpeper, Virginia 22701
Telephone: (540) 829-5640 * Fax: (540) 829-5641
www.asincorp.com

APPENDICES

APPENDIX A.

Summary of Statistical Analysis of Well Data

Appendix A-1. Methods of Well Database Development

Available well record information from the County Health Department had been previously entered into a Microsoft Access database format. On the initial review, there were 15,553 entries of wells and/or septic systems within their database; however, there were no addresses listed for any of the entries. Entry location had been designated by the following six fields: Location, Section, Lot, District, Tax Map, and Parcel. There were a series of inconsistencies noted in the syntax of various location fields (i.e., hyphens present or absent, parcel and subparcel being combined, backslashes present, etc.). A series of queries were done and new location fields created to aid in achieving a geospatial location assignment for each well. The 15,553 entries were initially reduced to 1,652 and the newly created dbase file was added to ArcMap. The process resulted in a match of 1,276 parcels between the database information and the map parcel layer. In an attempt to conduct a quality analysis of the database, a 5% random sampling of the 1,276 entries (75) hard copies of the well completion forms were reviewed for accuracy of data entry, and accuracy of section, lot, location, and legal description. Five (5) of the 75 physical records could not be found. There were some inconsistencies found in mismatched parcels or those listed as routes. It was decided to move forward only with records that had a direct match between the section, lot, and location to the legal address. The total number of records that matched was 955.

The new database was assembled after review of physical well completion reports. Information within the new table was cross checked with physical records and corrections were made within the database if inaccurate information was found. If there was no information found for a particular field a hyphen (-) was inserted to show that no information was found as text. A zero (0) was inserted in the number fields to show that no information was found. Only the yield (pump test rate) field was initially found to have values of zero entered. While, this process may increase the number of wells with zero reported yields beyond the actual number of wells that did have zero yields, it is entirely possible that a driller may have not identified any yield value for a dry well. Based on the inability to identify exactly how many wells were dry, or had a yield of zero, all zero values of pump rate "yield" within the database were considered dry wells.

The 955 entries were then matched with parcels resulting in 921 entries being joined with parcel data. Some of the address points were deemed to have a poor match with the parcel map data. In those instances the address of the parcel owner was used in conjunction with the address point to refine the well point location. For some of the mapped parcels two points were found to exist. These "dual" points were likely the result of inaccuracies with the address points and parcel polygons. To identify a point that was deemed to be correct, aerial photos were reviewed to see which point was located on, or near, a building within the parcel. During this process some site locations were in doubt resulting in a total of 911 entries which were ultimately matched with address points.

Additional well data was obtained from the USGS 2005 Open File Report that included 181 wells along with useful well attribute information. The physical well locations had been previously been determined by others and a shapefile was downloaded from USGS. After including these wells into the database it was determined that two of them were duplicates resulting in a total number of 1,090 entries, or wells. Additional wells records were obtained

from public well systems within the county via the State of West Virginia Bureau of Health. Location coordinates were also provided with this data. These public well records resulted in an additional 34 wells that were added to the database for a total of 1,124 well entries. Figure 7 depicts the locations of the wells within the database on a county basemap.

Well records were assigned geo-referenced locations based on GIS address points and parcel data shapefiles. In addition some points were obtained from prior research reports and from the West Virginia Bureau of Health. While the process used to assign locations for the wells within the database may not represent the exact well locations, the results are deemed to be adequate for assessment of well data on a county-wide scale. It should be noted that while well records were identified across Jefferson County, many of them were found to be situated near to roads and subdivisions. Wide areas of the county are not represented by well data.

Appendix A-2. Methods of Statistical Analysis of Well Database

The bin number is the upper value of an arbitrary range that was selected to identify what percentages of the total wells fell within that range. For example, 44.65% of the wells had reported yields that fell between zero and ten gpm. While 1.87% of the wells had reported yields greater than 100 gpm.

The results of frequency analyses for all the wells in the county database are presented as histograms below in Table A-1. Descriptive statistics and results of frequency analyses of well data by Hydrogeologic Unit are presented on the following page.

**Table A-1
Frequency Analysis of County Well Data**

Yields			Casing Length		
<i>Bin</i>	<i>Frequency</i>		<i>Bin</i>	<i>Frequency</i>	
10	501	44.65%	40	260	25.07%
25	348	31.02%	60	252	24.30%
50	195	17.38%	100	300	28.93%
100	57	5.08%	150	165	15.91%
More	21	1.87%	More	60	5.79%
1122			1037		

Depth			Static		
<i>Bin</i>	<i>Frequency</i>		<i>Bin</i>	<i>Frequency</i>	
100	49	4.43%	10	24	2.36%
200	228	20.61%	20	72	7.07%
300	365	33.00%	30	64	6.28%
400	237	21.43%	40	83	8.15%
500	114	10.31%	60	241	23.65%
More	113	10.22%	80	246	24.14%
1106			1019		

Appendix A-2 Well Data Statistics by Hydrogeologic Unit

Western Unit				Central Unit				Eastern Unit			
Depth (ft)	Yield (gpm)	Static DTW (ft)	Casing Length (ft)	Depth (ft)	Yield (gpm)	Static DTW (ft)	Casing Length (ft)	Depth (ft)	Yield (gpm)	Static DTW (ft)	Casing Length (ft)
Mean	278	19	46	52	273	66	69	351	14	94	83
Std. Dev.	163	25	33	41	137	32	44	143	22	49	68
Median	260	10	40.41	42	245	64	63	316	8	85	61.5
Max	800	200	224	286	900	300	283	800	300	300	504
Min	0	0	1.96	0	0	4.8	0	0	0	7	0
Histograms											
Yield (gpm)				Yield (gpm)				Yield (gpm)			
Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent	
10	134	50.95%		10	175	31.31%		10	192	64.00%	
25	73	27.76%		25	202	36.14%		25	73	24.33%	
50	38	14.45%		50	130	23.26%		50	27	9.00%	
100	15	5.70%		100	35	6.26%		100	7	2.33%	
More	3	1.14%		More	17	3.04%		More	1	0.33%	
Count	263			Count	559			Count	300		
Depth (ft)				Depth (ft)				Depth (ft)			
Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent	
100	32	12.26%		100	27	4.83%		100	4	1.33%	
200	62	23.75%		200	145	25.94%		200	21	7.00%	
300	61	23.37%		300	210	37.57%		300	94	31.33%	
400	52	19.92%		400	93	16.64%		400	92	30.67%	
500	32	12.26%		500	45	8.05%		500	37	12.33%	
More	22	8.43%		More	39	6.98%		More	52	17.33%	
Count	261			Count	559			Count	300		
Casing Length (ft)				Casing Length (ft)				Casing Length (ft)			
Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent	
25	56	23.43%		40	160	29.04%		40	64	21.40%	
40	32	13.39%		60	101	18.53%		60	88	29.43%	
60	63	26.36%		100	168	30.49%		100	71	23.75%	
100	61	25.52%		150	103	18.69%		180	53	17.73%	
150	22	9.21%		More	19	3.45%		More	23	7.69%	
More	5	2.09%		Count	551			Count	299		
Count	239			Count	551			Count	299		
Static DTW (ft)				Static DTW (ft)				Static DTW (ft)			
Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent		Upper Range	Frequency	Per Cent	
10	16	6.30%		10	6	1.25%		10	2	0.70%	
20	49	19.29%		20	19	3.97%		20	4	1.40%	
30	33	12.99%		30	25	5.22%		30	6	2.10%	
40	28	11.02%		40	39	8.14%		40	16	5.59%	
60	69	27.17%		60	133	27.77%		60	39	13.64%	
80	31	12.20%		80	149	31.11%		80	66	23.08%	
More	28	11.02%		More	108	22.55%		More	153	53.50%	
Count	254			Count	479			Count	286		

Analysis of Variance (Single Factor)

This report calculated different mean values for well yield, static DTW, depth and casing length for the Western, Central, and Eastern Hydrogeologic Units. A single factor analysis of variance (ANOVA) was used to verify that the differences between the means of each variable are statistically significant. The analysis was completed using commercial spreadsheet software. A single factor ANOVA was run for each of the four variables. The null hypothesis was that the means of the four variables (yield, static DTW, depth, and casing length) for each hydrologic unit are equal to each other. The null hypothesis is rejected at the 95% confidence level for P values less than 0.05.

The ANOVA test results on the following page indicate that the P value for each of the four tests is below 0.05; therefore, the mean yield, mean static DTW, mean depth, and mean casing length for each of the three units are probably significantly different from each other.

Single Factor Analyses of Variance (ANOVA)

1. Well Yield

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Western	263	4910	18.6692	604.0466
Central	559	18066	32.31843	9624.662
Eastern	300	4118	13.72667	486.7612

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	77792.31	2	38896.16	7.670429	0.000491	3.003767
Within Groups	5674363	1119	5070.923			
Total	5752155	1121				

2. Well Depth

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Western	261	73221	280.5402	26048.15
Central	549	152849	278.4135	17850.24
Eastern	296	105198	355.3986	18971.22

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	1262829	2	631414.6	31.44109	5.25E-14	3.003883
Within Groups	22150957	1103	20082.46			
Total	23413786	1105				

3. Static Depth-to-Water

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Western	254	11631.31	45.79256	1087.471
Central	479	31464.61	65.68812	1024.918
Eastern	286	26816.16	93.7628	2432.916

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	317272.5	2	158636.3	110.5129	3.75E-44	3.004583
Within Groups	1458422	1016	1435.455			
Total	1775694	1018				

4. Casing Length

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Western	239	13640	57.07113	1561.444
Central	513	37760	73.60624	1665.243
Eastern	285	23666	83.0386	4582.763

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	89161.34	2	44580.67	18.25071	1.62E-08	3.004428
Within Groups	2525733	1034	2442.682			
Total	2614894	1036				

APPENDIX B.

Methods of Recharge Estimation

Appendix B-1. Recharge Calculations

Appendix B-1. Recharge Calculations

	Western Unit	Central Unit	Eastern Unit
Total Area	1,778,143,870.50 ft2 40,820.40 acres 30.17%	3,418,175,335 ft2 78,470 acres 57.99%	698,263,447 ft2 16,030 acres 11.85%
Recharge Zone	1,600,132,767.81 ft2 36,733.85 acres 90.0%	3,078,997,494 ft2 70,683.78 acres 90.1%	537,123,371 ft2 12,330.61 acres 76.9%
Per Cent of Total			
Recharge Rate	Normal (in/yr) 9.9 Drought (in/yr) 5.9 Normal (ft/yr) 0.825 Drought (ft/yr) 0.492	Normal (in/yr) 9.3 Drought (in/yr) 5.6 Normal (ft/yr) 0.775 Drought (ft/yr) 0.467	Normal (in/yr) 9.1 Drought (in/yr) 5.5 Normal (ft/yr) 0.758 Drought (ft/yr) 0.458
Recharge Volume	Normal (ft3/yr) 1,320,109,533 Drought (ft3/yr) 786,731,944 Normal (gal/yr) 9,875,079,365 Drought (gal/yr) 5,885,148,308	Normal (ft3/yr) 2,386,223,058 Drought (ft3/yr) 1,436,865,497 Normal (gal/yr) 17,850,141,585 Drought (gal/yr) 10,748,472,352	Normal (ft3/yr) 407,318,556 Drought (ft3/yr) 246,181,545 Normal (gal/yr) 3,046,946,461 Drought (gal/yr) 1,841,561,048

	County Total
Total Area	135,320 acres
Recharge Zone	119,748.23 acres
Per Cent of Total	88.5%
Recharge Volume	Normal (gal/yr) 30,772,167,410.50 Drought (gal/yr) 18,475,181,708.25

Appendix B-2. Local Recharge Rates in the Literature

Recharge estimates are typically obtained from field data using several methods. Kozar and others (1990) utilized a “gradient method” which uses as its factors (1) the hydraulic gradient of shallow groundwater over a large area that supports baseflow to a stream segment and (2) the discharge volume of the stream. More common methods are known as hydrograph separation techniques, in which the storm event-related component (“quick flow or direct flow”) of stream discharge are graphically or chemically identified and separated from the component provided by groundwater seepage (“baseflow”).

Applying the gradient method to discharges and drainage areas of the North Fork of Long Marsh Run and an upper reach of Bullskin Run in southern Jefferson County (both in the Folded Carbonate Central Unit), Kozar and others (1990a) reported calculated recharge rates of 11.1 inches per year and 7.1 inches per year, respectively, for these carbonate rocks. Applying the same method to another portion of Bullskin Run, Kozar and others (1990) suggested a “most probable” annual recharge rate of 10 inches. This estimated rate was lower than the method’s result because of site conditions that probably led to overestimates in the calculated recharge.

Yager and others (2008) developed a flow model for the entire Shenandoah Valley, in which it reported a mean recharge rate for the whole valley to be 7.5 in/yr; however, the authors noted that recharge rates vary significantly between locations. Using statistical methods, Yager and others (2008) reported estimated recharge rates for the various rock types ranging from 5.47 in/yr in clastic rocks (i.e., shale), and 9.05 in/yr in metamorphic rocks (i.e., siltstones, sandstones, and metabasalt), to 9.72 in/yr in carbonate rocks (p. 14). Vinciguerra (2008) reported highly variable recharge estimates using hydrograph separation techniques on stream data from a mountain watershed in the eastern panhandle of West Virginia that is underlain by sandstone aquifers in the higher elevations and limestone in the lower elevations.

The Harpers Ferry Source Area Protection Plan (SWAP), prepared by the West Virginia Rural Water Association in 2006, used 9.5 inches of annual recharge to apply to the associated source area which is located predominantly in the Folded Carbonate Central Unit. Largely based on the SWAP, the Groundwater Resource Analysis of the Jefferson Utilities Valley Water System (2010) used 9 inches as a conservative estimate for normal annual effective recharge.

Kozar and Weary (2009) developed a flow model for the Opequon Creek watershed, which includes most of the major rock types found in Jefferson County. Analyzing stream hydrographs from six USGS stream gauges in the Opequon Creek watershed, the authors assigned a recharge rate for carbonate and shale areas in their flow model to be 11.02 in/yr and 5.9 in/yr, respectively. To model drought conditions, these recharge rates were reduced by 40 per cent (the reduction in annual precipitation that would define a drought). Accordingly, Kozar and Weary (2009) assigned drought recharge rates to carbonate and shale aquifers to be 6.6 in/yr and 3.54 in/yr.

To obtain an effective recharge rate for the Western Unit, estimates in the literature from studies done within the unit were reviewed. For example, Kozar and others (2007), using hydrograph

separation techniques, reported a recharge rate estimate of 16.5 inches per year for the Hopewell Run watershed near Leetown, which is located within the Western Unit; however, it is noted in Evaldi and others (2009) that this result is probably not representative of the area because the highly faulted karst geology is likely to cause inter-basin transfer of groundwater into the Hopewell Run watershed. For example, Evaldi and others (2009) reported an adjacent watershed to Hopewell Run has no stream runoff. Hopewell Run is underlain mostly by densely faulted karst systems (Conococheague and Stonehenge) in its upper reaches. To obtain a more representative recharge estimate, the estimated recharge rate of 9.9 for the Opequon Creek watershed reported in Evaldi and others (2009) will be assigned to the Western Unit, which is located in the Opequon Creek watershed.

Recharge rates for study sites (“gradient method”) in the Central Unit were reported in Kozar and others (1990) to be 7.1 in/yr and 11.0 in/yr. Yager and others (2008) reported an estimate of 9.72 in/yr for purely carbonate rocks in the Shenandoah Valley. The average of these values from the literature is 9.3 in/yr, which is the recharge rate assigned to the Central Unit.

While no recharge values in the literature were found that appeared to be associated with study sites within the Eastern Unit, other nearby sites in similar metamorphic rocks provide applicable results. Yager and others (2008) identified three USGS gaging stations in the Shenandoah Valley whose drainage basins were predominantly underlain by metamorphic rocks, such as those that make up the Eastern Unit. These were Back Creek (Lyndhurst, VA), White Oak Run (near Grottoes, VA), and Happy Creek (Front Royal, VA). The data from the Back Creek site were not used by the authors because baseflow per area was anomalously high. White Oak Run and Happy Creek had measured recharge rates of 9.01 in/yr and 9.17 in/yr, respectively (Table 3, pp. 12-13). These numbers appear to support the statistical estimate for a recharge rate in metamorphic rocks (9.05 in/yr) in the same report. Nelms and others (1997) reported highly variable recharge rates for the “Northern Blue Ridge” Physiographic Province in Virginia, ranging from 6.31 in/yr to a maximum of 33.07 in/yr; however, most of the gaging stations analyzed in Nelms and others (1997) were not located near the Jefferson County region, and likely to have some differences in topography and precipitation, and therefore were not utilized for the Eastern Unit. Based on the applicable data in the literature, a recharge value of 9.08 is assigned to the Eastern Unit which represents an average of the three identified recharge rates identified above (9.01, 9.05, and 9.17 inches per year).

APPENDIX C.

Applicable Standards of Water Usage Estimates

Public Groundwater Usage

$$G_m = 13,987C_r - 7,816C_c$$

Where:

G_m is the total water usage, in gallons per month,
 C_r is the number of residential connections, and
 C_c is the number of commercial connections.

Given: $C_r = 3,748$ and $C_c = 154$

Then:

$$G_m = 13,987(3,748) - 7,816(154)$$

$$G_m = 51,219,612$$

$$\text{Daily usage} = G_m / 30 = 1.24 \text{ Mgal/day}$$

$$\text{Annual usage} = 1.24 \text{ Mgal/day or } 452.6 \text{ Mgal/yr}$$

Domestic groundwater usage

Given:

Total county population = 53,498;

Total Public Water Supply Population = 30,295

Then:

$$\text{Domestic Supply Population} = \text{County} - \text{PWS} = 53,498 - 30,295 = 23,203$$

$$\text{Water use coefficient} = 80 \text{ gal/day/person}$$

$$\text{Domestic Supply Use} = 80 \text{ gal/day/person} * 23,203 \text{ persons} = 1.86 \text{ Mgal/day or } 678.9 \text{ Mgal/yr}$$

Industrial groundwater usage

Reported Annual Average Water Use for Industrial Facilities

Industrial User	Mgal/yr
National Center for Cool & Cold Water Aquaculture*	446,273,059
Ox Paperboard**	36,611,033
The Conservation Fund Freshwater Institute*	337,141,000
UFP Atlantic Division, LLC	6,999,906
Total Estimate (Mgal/yr)	827,024,998

* aquaculture sites understood to have low consumption

** Site use understood to consist of both surface water and groundwater

Irrigation Groundwater Usage

Reported Usage Volumes

Cress Creek: 13,735,000 gal/yr

Locust Hill: 51,398,666 gal/yr

Total 65,133,666 gal/yr

Sleepy Hollow Golf Course: 18 holes

Assume 5.37 gallons/hole/day * 365 days/yr

5.37*18 holes/day *365 days/yr = 35,280.90 gal/yr

Total Estimated Irrigation Usage

13,735,000 + 51,398,666 + 35,281 = **65,168,947 gal/yr**

Estimate of Commerical Groundwater Usage

2004 population = 47,663

2010 population = 53,498

12.25% increase in population since 2004

2004 commercial use = 88,000 gpd

2010 commercial use (assume 88,000 gpd)

88,000 gpd * (1.1225) = 98,773 gpd *365 days/yr = **36,052,194.8 gal/yr**

Mining Groundwater Usage

Utilized previous published values (Atkins, 2004)

36.5 Mgal/year for mining water use in Jefferson County.

APPENDIX D.

Copy of West Virginia Water Resources Protection and Management Act

WEST VIRGINIA CODE
CHAPTER 22. ENVIRONMENTAL RESOURCES.
ARTICLE 26. WATER RESOURCES PROTECTION ACT.

§22-26-1. Short title; legislative findings.

(a) Short title. -- This article may be known and cited as the Water Resources Protection and Management Act.

(b) Legislative findings. --

(1) The West Virginia Legislature finds that it is the public policy of the State of West Virginia to protect and conserve the water resources for the state and to provide for the public welfare. The state's water resources are vital natural resources of the state that are essential to maintain, preserve and promote quality of life and economic vitality of the state.

(2) The West Virginia Legislature further finds that it is the public policy of the state that the water resources of the state be available for the benefit of the citizens of West Virginia, consistent with and preserving all other existing rights and remedies recognized in common law or by statute, while also preserving the resources within its sovereign powers for the common good.

(3) The West Virginia Legislature further finds that the water use survey conducted by the Department of Environmental Protection is a valuable tool for water resources assessment, protection and management.

(4) The West Virginia Legislature further finds that the water resources of this state have not been fully measured or assessed and that a program to accurately measure and assess the state's water resources is necessary to protect, conserve and better utilize the water resources of this state.

(5) The West Virginia Legislature further finds that the survey information collected and analyzed by the Department of Environmental Protection has identified the need for a statewide water resources management plan.

(6) The West Virginia Legislature further finds that the development of a state water resources management plan is in the best interest of the state and its citizens and will promote the protection of this valuable natural resource; promote its use for the public good; and enhance its use and development for tourism, industry and other economic development for the benefit of the state and its citizens.

(7) The West Virginia Legislature further finds that incomplete data collection from an inadequate groundwater monitoring system continues to hamper efforts to study, develop and protect the state's water resources and will be a major obstacle in the development of a water resources management plan.

§22-26-2. Definitions.

For purposes of this article, the following words have the meanings assigned unless the context indicates otherwise:

- (a) "Baseline average" means the average amount of water withdrawn by a large quantity user over a representative historical time period as defined by the secretary.
- (b) "Beneficial use" means uses that include, but are not limited to, public or private water supplies, agriculture, tourism, commercial, industrial, coal, oil and gas and other mineral extraction, preservation of fish and wildlife habitat, maintenance of waste assimilation, recreation, navigation and preservation of cultural values.
- (c) "Commercial well" means a well that serves small businesses and facilities in which water is the prime ingredient of the service rendered.
- (d) "Community water system" means a public water system that pipes water for human consumption to at least fifteen service connections used by year-round residents or one that regularly serves at least twenty-five residents.
- (e) "Consumptive withdrawal" means any withdrawal of water which returns less water to the water body than is withdrawn.
- (f) "Farm use" means irrigation of any land used for general farming, forage, aquaculture, pasture, orchards, nurseries, the provision of water supply for farm animals, poultry farming or any other activity conducted in the course of a farming operation.
- (g) "Industrial well" means a well used in industrial processing, fire protection, washing, packing or manufacturing of a product excluding food and beverages or similar nonpotable uses.
- (h) "Interbasin transfer" means the permanent removal of water from the watershed from which it is withdrawn.
- (i) "Large quantity user" means any person who withdraws over seven hundred fifty thousand gallons of water in a calendar month from the state's waters and any person who bottles water for resale regardless of quantity withdrawn.
- (j) "Maximum potential" means the maximum designed capacity of a facility to withdraw water under its physical and operational design.
- (k) "Noncommunity nontransient water system" means a public water system that serves at least twenty-five of the same persons over six months per year. (l) "Nonconsumptive withdrawal" means any withdrawal of water which is not a consumptive withdrawal as defined in this section.
- (m) "Person", "persons" or "people" means an individual, public and private business or industry, public or private water service and governmental entity.

(n) "Secretary" means the Secretary of the Department of Environmental Protection or his or her designee.

(o) "Transient water system" means a public water system that serves at least twenty-five transient people at least sixty days a year."

(p) "Test well" means a well that is used to obtain information on groundwater quantity, quality, aquifer characteristics and availability of production water supply for manufacturing, commercial and industrial facilities.

(q) "Water resources", "water" or "waters" means any and all water on or beneath the surface of the ground, whether percolating, standing, diffused or flowing, wholly or partially within this state, or bordering this state and within its jurisdiction and includes, without limiting the generality of the foregoing, natural or artificial lakes, rivers, streams, creeks, branches, brooks, ponds, impounding reservoirs, springs, wells, watercourses and wetlands: Provided, That farm ponds, industrial settling basins and ponds and waste treatment facilities are excluded from the waters of the state.

(r) "Watershed" means a hydrologic unit utilized by the United States Department of Interior's geological survey, adopted in one thousand nine hundred seventy-four, as a framework for detailed water and related land-resources planning.

(s) "Withdrawal" means the removal or capture of water from water resources of the state regardless of whether it is consumptive or nonconsumptive: Provided, That water encountered during coal, oil, gas, water well drilling and initial testing of water wells, or other mineral extraction and diverted, but not used for any purpose and not a factor in low-flow conditions for any surface water or groundwater, is not deemed a withdrawal.

§22-26-3. Waters claimed by state; water resources protection survey; registration requirements; agency cooperation; information gathering.

(a) The waters of the State of West Virginia are hereby claimed as valuable public natural resources held by the state for the use and benefit of its citizens. The state shall manage the quantity of its waters effectively for present and future use and enjoyment and for the protection of the environment. Therefore, it is necessary for the state to determine the nature and extent of its water resources, the quantity of water being withdrawn or otherwise used and the nature of the withdrawals or other uses: Provided, That no provisions of this article may be construed to amend or limit any other rights and remedies created by statute or common law in existence on the date of the enactment of this article.

(b) The secretary shall conduct an ongoing water resources survey of consumptive and nonconsumptive surface water and groundwater withdrawals by large quantity users in this state. The secretary shall determine the form and format of the information submitted, including the use of electronic submissions. The secretary shall establish and maintain a statewide registration program to monitor large quantity users of water resources of this state beginning in two thousand six.

(c) Large quantity users, except those who purchase water from a public or private water utility or other service that is reporting its total withdrawal, shall register with the Department of Environmental Protection and provide all requested survey information regarding withdrawals of the water resources. Multiple withdrawals from state water resources that are made or controlled by a single person and used at one facility or location shall be considered a single withdrawal of water. Water withdrawals for self-supplied farm use and private households will be estimated. Water utilities regulated by the Public Service Commission pursuant to article two, chapter twenty-four of this code are exempted from providing information on interbasin transfers to the extent those transfers are necessary to provide water utility services within the state.

(d) Except as provided in subsection (f) of this section, large quantity users who withdraw water from a West Virginia water resource shall comply with the survey and registration requirements of this article. Registration shall be maintained by every large quantity user by certifying, on forms and in a manner prescribed by the secretary, that the amount withdrawn in the previous calendar year varies by no more than ten percent from the users' baseline average or by certifying the change in usage.

(e) The secretary shall maintain a listing of all large quantity users and each such user's baseline average water withdrawal.

(f) The secretary shall make a good faith effort to obtain survey and registration information from persons who are withdrawing water from in-state water resources, but who are located outside the state borders.

(g) All state agencies and local governmental entities that have a regulatory, research, planning or other function relating to water resources, including, but not limited to, the State Geological and Economic Survey, the Division of Natural Resources, the Public Service Commission, the Bureau for Public Health, the Commissioner of the Department of Agriculture, the Division of Homeland Security and Emergency Management, Marshall University, West Virginia University and regional, county and municipal planning authorities may enter into interagency agreements with the secretary and shall cooperate by: (i) Providing information relating to the water resources of the state; (ii) providing any necessary assistance to the secretary in effectuating the purposes of this article; and (iii) assisting in the development of a state water resources management plan. The secretary shall determine the form and format of the information submitted by these agencies.

(h) Persons required to participate in the survey and registration shall provide any reasonably available information on stream flow conditions that impact withdrawal rates.

(i) Persons required to participate in the survey and registration shall provide the most accurate information available on water withdrawal during seasonal conditions and future potential maximum withdrawals or other information that the secretary determines is necessary for the completion of the survey or registration: Provided, That a coal-fired electric generating facility shall also report the nominal design capacity of the facility, which is the quantity of water withdrawn by the facility's intake pumps necessary to operate the facility during a calendar day.

(j) The secretary shall, to the extent reliable water withdrawal data is reasonably available from sources other than persons required to provide data and participate in the survey and registration, utilize that data to fulfill the requirements of this section. If the data is not reasonably available to the secretary, persons required to participate in the survey and registration are required to provide the data. Altering locations of intakes and discharge points that result in an impact to the withdrawal of the water resources by an amount of ten percent or more from the consecutive baseline average shall also be reported.

(k) The secretary shall report annually to the Joint Legislative Oversight Commission on State Water Resources on the survey results. The secretary shall make a progress report every three years on the development of the state water resources management plan and any significant changes that may have occurred since the survey report was submitted in two thousand six.

(l) In addition to any requirements for completion of the survey established by the secretary, the survey must accurately reflect both actual and maximum potential water withdrawal. Actual withdrawal shall be established through metering, measuring or alternative accepted scientific methods to obtain a reasonable estimate or indirect calculation of actual use.

(m) The secretary shall make recommendations to the joint legislative oversight commission created in section five of this article relating to the implementation of a water quantity management strategy for the state or regions of the state where the quantity of water resources are found to be currently stressed or likely to be stressed due to emerging beneficial or other uses, ecological conditions or other factors requiring the development of a strategy for management of these water resources.

(n) The secretary may propose rules pursuant to article three, chapter twenty-nine-a of this code as necessary to implement the survey registration or plan requirements of this article.

(o) The secretary is authorized to enter into cooperative agreements with local, state and federal agencies and private policy or research groups to obtain federal matching funds, conduct research and analyze survey and registration data and other agreements as may be necessary to carry out his or her duties under this article.

§22-26-4. Confidentiality.

(a) Information required to be submitted by a person as part of the water withdrawal survey and registration that may be a trade secret, contain protected information relating to homeland security or be subject to another exemption provided by the state freedom of information act may be deemed confidential. Each such document shall be identified by that person as confidential information. The person claiming confidentiality shall provide written justification to the secretary at the time the information is submitted stating the reasons for confidentiality and why the information should not be released or made public. The secretary has the discretion to approve or deny requests for confidentiality as prescribed by this section.

(b) In addition to records or documents that may be considered confidential under article one, chapter twenty-nine-b of this code, confidential information means records, reports or information, or a particular portion thereof, that if made public would:

(1) Divulge production or sales figures or methods, processes or production unique to the submitting person;

(2) Otherwise tend to adversely affect the competitive position of a person by revealing trade secrets, including intellectual property rights; or

(3) Present a threat to the safety and security of any water supply, including information concerning water supply vulnerability assessments.

(c) Information designated as confidential and the written justification shall be maintained in a file separate from the general records related to the person.

(d) Information designated as confidential may be released when the information is contained in a report in which the identity of the person has been removed and the confidential information is aggregated by hydrologic unit or region.

(e) Information designated as confidential may be released to governmental entities, their employees and agents when compiling and analyzing survey and registration information and as may be necessary to develop the legislative report required by this section or to develop water resources plans. Any governmental entity or person receiving information designated confidential shall protect the information as confidential.

(f) Upon receipt of a request for information that has been designated confidential and prior to making a determination to grant or deny the request, the secretary shall notify the person claiming confidentiality of the request and may allow the person an opportunity to respond to the request in writing within five days.

(g) All requests to inspect or copy documents shall state with reasonable specificity the documents or type of documents sought to be inspected or copied. Within ten business days of the receipt of a request, the secretary shall: (1) Advise the person making the request in writing of the time and place where the person may inspect and copy the documents which, if the request addresses information claimed as confidential, may not be sooner than twenty days following the date of the determination to disclose, unless an earlier disclosure date is agreed to by the person claiming confidentiality; or (2) deny the request, stating in writing the reasons for denial. If the request addresses information claimed as confidential, then notice of the action taken pursuant to this subsection shall also be provided to the person asserting the claim of confidentiality.

(h) Any person adversely affected by a determination regarding confidential information under this article may appeal the determination to the appropriate circuit court pursuant to the provisions of article five, chapter twenty-nine-a of this code. The filing of a timely notice of appeal shall stay any determination to disclose confidential information pending a final decision on appeal. The scope of review is limited to the question of whether the portion of the records, reports, data or other information sought to be deemed confidential, inspected or copied is entitled to be treated as confidential under this section. The secretary shall afford evidentiary

protection in appeals as necessary to protect the confidentiality of the information at issue, including the use of in camera proceedings and the sealing of records when appropriate.

§22-26-5. Joint Legislative Oversight Commission on State Water Resources.

(a) The President of the Senate and the Speaker of the House of Delegates shall each designate five members of their respective houses, at least one of whom shall be a member of the minority party, to serve on a joint legislative oversight commission charged with immediate and ongoing oversight of the water resources survey, registration and development of a state water resources management plan. This commission shall be known as the Joint Legislative Oversight Commission on State Water Resources and shall regularly investigate and monitor all matters relating to the water resources survey and plan.

(b) The expenses of the commission, including the cost of conducting the survey and monitoring any subsequent strategy and those incurred in the employment of legal, technical, investigative, clerical, stenographic, advisory and other personnel, are to be approved by the Joint Committee on Government and Finance and paid from legislative appropriations.

§22-26-6. Mandatory survey and registration compliance.

(a) The water resources survey and subsequent registry will provide critical information for protection of the state's water resources and, thus, mandatory compliance with the survey and registry is necessary.

(b) All large quantity users who withdraw water from a West Virginia water resource shall complete the survey and register such use with the Department of Environmental Protection. Any person who fails to complete the survey or register, provides false or misleading information on the survey or registration, or fails to provide other information as required by this article may be subject to a civil administrative penalty not to exceed five thousand dollars to be collected by the secretary consistent with the secretary's authority pursuant to this chapter. Every thirty days after the initial imposition of the civil administrative penalty, another penalty may be assessed if the information is not provided. The secretary shall provide written notice of failure to comply with this section thirty days prior to assessing the first administrative penalty.

§22-26-7. Secretary authorized to log wells; collect data.

In order to obtain important information about the state's surface and groundwater, the secretary is authorized to collect scientific data on surface and groundwater and to enter into agreements with local and state agencies, the federal government and private entities to obtain this information.

(1) Any person who installs a community water system, noncommunity nontransient water system, transient water system, commercial well, industrial or test well, shall notify the secretary of his or her intent to drill a water well no less than ten days prior to commencement of drilling. The ten-day notice is the responsibility of the owner, but may be given by the drilling contractor.

(2) The secretary has the authority to gather data, including driller and geologist logs, run electric and other remote-sensing logs and devices and perform physical characteristics tests on nonresidential and multifamily water wells.

(3) The drilling contractor shall submit to the secretary a copy of the well completion forms submitted to the Division of Health for a community water system, noncommunity nontransient water system, transient water system, commercial well, industrial or test well. The drilling contractor shall provide the well GPS location on the well report.

(4) Any person who fails to notify the secretary prior to drilling a well or impedes collection of information by the secretary under this section is in violation of the Water Resources Protection and Management Act and is subject to the civil administrative penalty authorized by section six of this article.

(5) Any well contracted for construction by the secretary for groundwater or geological testing must be constructed at a minimum to well design standards as promulgated by the Division of Health. Any wells contracted for construction by the secretary for groundwater or geological testing that would at a later date be converted to a public use water well must be constructed to comport to state public water design standards.

§22-26-8. State Water Resources Management Plan; powers and duty of secretary.

(a) The Secretary of the Department of Environmental Protection shall oversee the development of a State Water Resources Management Plan to be completed no later than the thirtieth day of November, two thousand thirteen. The plan shall be reviewed and revised as needed after its initial adoption. The plan shall be developed with the cooperation and involvement of local and state agencies with regulatory, research or other functions relating to water resources including, but not limited to, those agencies and institutions of higher education set forth in section three of this article and a representative of large quantity users. The State Water Resources Management Plan shall be developed utilizing the information obtained pursuant to said section and any other relevant information available to the secretary.

(b) The secretary shall develop definitions for use in the State Water Resources Management Plan for terms that are defined differently by various state and federal governmental entities as well as other terms necessary for implementation of this article.

(c) The secretary shall continue to develop and obtain the following:

(1) An inventory of the surface water resources of each region of this state, including an identification of the boundaries of significant watersheds and an estimate of the safe yield of such sources for consumptive and nonconsumptive uses during periods of normal conditions and drought.

(2) A listing of each consumptive or nonconsumptive withdrawal by a large quantity user, including the amount of water used, location of the water resources, the nature of the use, location of each intake and discharge point by longitude and latitude where available and, if the use involves more than one watershed or basin, the watersheds or basins involved and the amount transferred.

- (3) A plan for the development of the infrastructure necessary to identify the groundwater resources of each region of this state, including an identification of aquifers and groundwater basins and an assessment of their safe yield, prime recharge areas, recharge capacity, consumptive limits and relationship to stream base flows.
- (4) After consulting with the appropriate state and federal agencies, assess and project the existing and future nonconsumptive use needs of the water resources required to serve areas with important or unique natural, scenic, environmental or recreational values of national, regional, local or statewide significance, including national and state parks; designated wild, scenic and recreational rivers; national and state wildlife refuges; and the habitats of federal and state endangered or threatened species.
- (5) Assessment and projection of existing and future consumptive use demands.
- (6) Identification of potential problems with water availability or conflicts among water uses and users including, but not limited to, the following:
 - (A) A discussion of any area of concern regarding historical or current conditions that indicate a low-flow condition or where a drought or flood has occurred or is likely to occur that threatens the beneficial use of the surface water or groundwater in the area; and
 - (B) Current or potential in-stream or off-stream uses that contribute to or are likely to exacerbate natural low-flow conditions to the detriment of the water resources.
- (7) Establish criteria for designation of critical water planning areas comprising any significant hydrologic unit where existing or future demands exceed or threaten to exceed the safe yield of available water resources.
- (8) An assessment of the current and future capabilities of public water supply agencies and private water supply companies to provide an adequate quantity and quality of water to their service areas.
- (9) An assessment of flood plain and stormwater management problems.
- (10) Efforts to improve data collection, reporting and water monitoring where prior reports have found deficiencies.
- (11) A process for identifying projects and practices that are being, or have been, implemented by water users that reduce the amount of consumptive use, improve efficiency in water use, provide for reuse and recycling of water, increase the supply or storage of water or preserve or increase groundwater recharge and a recommended process for providing appropriate positive recognition of such projects or practices in actions, programs, policies, projects or management activities.
- (12) An assessment of both structural and nonstructural alternatives to address identified water availability problems, adverse impacts on water uses or conflicts between water users, including

potential actions to develop additional or alternative supplies, conservation measures and management techniques.

(13) A review and evaluation of statutes, rules, policies and institutional arrangements for the development, conservation, distribution and emergency management of water resources.

(14) A review and evaluation of water resources management alternatives and recommended programs, policies, institutional arrangements, projects and other provisions to meet the water resources needs of each region and of this state.

(15) Proposed methods of implementing various recommended actions, programs, policies, projects or management activities.

(d) The State Water Resources Management Plan shall consider:

(1) The interconnections and relationships between groundwater and surface water as components of a single hydrologic resource.

(2) Regional or watershed water resources needs, objectives and priorities.

(3) Federal, state and interstate water resource policies, plans, objectives and priorities, including those identified in statutes, rules, regulations, compacts, interstate agreements or comprehensive plans adopted by federal and state agencies and compact basin commissions.

(4) The needs and priorities reflected in comprehensive plans and zoning ordinances adopted by a county or municipal government.

(5) The water quantity and quality necessary to support reasonable and beneficial uses.

(6) A balancing and encouragement of multiple uses of water resources, recognizing that all water resources of this state are capable of serving multiple uses and human needs, including multiple uses of water resources for reasonable and beneficial uses.

(7) The distinctions between short-term and long-term conditions, impacts, needs and solutions to ensure appropriate and cost-effective responses to water resources issues.

(8) Application of the principle of equal and uniform treatment of all water users that are similarly situated without regard to established political boundaries.

(e) In November of each year, the secretary shall report to the Joint Legislative Oversight Commission on State Water Resources on the State water Resources Management Plan. The report on the water resources plan shall include benchmarks for achieving the plan's goals and time frames for meeting them.

(f) Upon adoption of the State Water Resources Management Plan by the Legislature, the report requirements of this article shall be superseded by the plan and subsequent reports shall be on the

survey results and the water resources plan. If the plan is not adopted a detailed report discussing the provisions of this section as well as progress reports on the development of the plan shall be submitted every three years.

§22-26-9. Regional water resources management plans; critical planning areas.

(a) As part of the State Water Resources Management Plan, the secretary may designate areas of the state as regional or critical water planning areas for the development of regional or critical area water resources management plans.

(b) The secretary shall establish a timetable for completion of regional and critical area plans which may be developed.

(c) The secretary shall identify all federal and state agencies, county commissions, municipal governments and watershed associations that should be involved in the planning process and any compacts or interstate agreements that may be applicable to the development of a regional or critical area water resource management plan.

(d) The secretary shall establish the minimum requirements for any issues to be addressed by regional and critical area plans within twelve months of the amendment and reenactment of this article during the two thousand eight regular session of the Legislature. The plan requirements and issues to be addressed by regional and critical area plans shall be consistent with the state plan requirements of this article.

(e) The secretary shall establish timetables for the completion of tasks or phases in the development of regional and critical area plans. County commissions and municipal governments may recommend changes in the order in which the tasks and phases must be completed. The secretary shall have final authority to determine the schedule for development of a plan.

(f) Any county or municipal government may enter into an agreement with the secretary to designate a local planning area and develop a local plan which may include all or part of a region. The secretary shall assist in development of any such plan to the extent practicable with existing staff and funding.

(g) Plans developed by a county or municipal government shall comply with the secretary's requirements and shall be filed as part of the State Water Resources Management Plan.

Note: WV Code updated with legislation passed through the 2011 4th Special Session

APPENDIX E.

Draft Groundwater Assessment Standards

DRAFT GROUNDWATER ASSESSMENT STANDARDS

1.0 Water Well Systems

The following draft groundwater assessment standards are being submitted for the county commissioner's review and consideration. These standards are not intended to supersede existing West Virginia Bureau for Public Health regulatory guidelines, but are to generate supplemental but useful information concerning planned uses of groundwater with the goal of promoting sustainable groundwater utilization and long term groundwater protection.

1.1 Private Individual Wells

A well completion report prepared by the well driller, including latitude and longitude coordinates, will be submitted to the Jefferson County Engineering Department in addition to the Jefferson County Health Department for all private individual wells. Submittal of the well completion report is a recommended prerequisite for the issuance of a building permit.

1.2 Public Water System Wells and Large Quantity Users

A water supply well that serves a public or community water system (as defined in Title 64 of the West Virginia Bureau of Public Health Series 19 "Water Well Regulations") and a facility that withdrawals more than 750,000 gallons of groundwater per month must complete a Hydrogeologic Study and Report as described in Section 2.0 below.

2.0 Hydrogeologic Study

1.0 Preliminary Hydrogeologic Report

The planned water user (applicant) shall submit a preliminary hydrogeologic report to the Jefferson County Engineering Department for review and approval. Preliminary hydrogeologic reports must be certified by either a Professional Geologist (PG) or Professional Engineer (PE) who has demonstrated an adequate knowledge and understanding of hydrogeology in the study area. The report will be prepared so as to include the following:

- 1) A base map should be prepared utilizing United States Geological Survey (USGS) quadrangle mapping or digital equivalent, 1:24,000 scale or larger.
- 2) Property plats including plans for each proposed lot.
- 3) Geologic map showing unit contacts and major structural features on the site and surrounding areas.
- 4) Summary of available well data (yield, casing length, total depth...etc.) for private and public water supply wells located within ½ mile of the subject site.
- 5) Fracture fabric analysis including the completion of fracture trace mapping on the site. While the completion of high resolution geophysical resistivity surveys is not mandated by the assessment standards, completion of such surveys is highly recommended.

- 6) A map illustrating the proposed production well targets and proposed monitor well location(s).
- 7) Anticipated withdrawal rates and usage (consumptive or non-consumptive, industrial, community, etc.)

2.0 Aquifer Testing

Each production well:

- 1) Shall be placed, drilled, and constructed in accordance with all West Virginia Bureau of Health regulations for public water supply wells.
- 2) A geologist will log the well and collect at a minimum one (1) rock cutting sample from each geologic formation, and a minimum of one sample per twenty (20) feet depth interval. The geologist will also document the yield of each water-bearing zone (e.g., by air lift) encountered during the completion of the well. The well log will be certified by a Professional Geologist.
- 3) Drillers should conduct a one (1) hour air lift yield test following the completion of the well. Well yield measurements (gallons per minute) should be collected at fifteen (15) minute intervals.
- 4) A copy of the well completion report, including latitude and longitude coordinates (WGS84 coordinate system), submitted to the West Virginia Bureau of Health and Jefferson County Health Department must also be submitted to the Jefferson County Engineering Department.
- 5) A minimum forty-eight (48) hour constant rate pump test should be performed on the production well. If more than one (1) production well is completed at the site, all wells should be tested simultaneously. The protocol for the 48-hour test should be as follows:
 - a) For each production well, static (background) water levels should be measured and documented at one-hour intervals at least 12 hours prior to the initiation of testing.
 - b) Near steady state conditions should be achieved for a minimal period of twelve (12) hours prior to the cessation of testing. Steady state conditions are defined as a static pumping water level that varies by less than 5% and a pumping rate that varies by no more than 10%.
 - c) The recommended minimal pumping rate for the production well(s) should be equal to one (1) gallon per minute per proposed connection. Actual connections approved for public supply will be determined by West Virginia Bureau of Health.
 - d) During the pumping phase of the test, the water level should not encroach within ten (10) feet of any water-bearing zone that contributes twenty-five (25) percent or more to the total well yield.
 - e) A recommended guideline for monitoring frequency has been provided in Appendix A. Water levels should be obtained via an electronic water level meter or a down well data logger capable of measuring to 0.01 feet of accuracy.

- f) Recovery measurements should be collected until such time as ninety (90) percent of the original static water level is reached.

Each observation well:

- 1) A minimum of one (1) bedrock observation well will be required per production well. Observation well locations will be proposed in the preliminary report and shall also be located in close proximity to pumping wells with a recommended distance not to exceed 250 feet. Proposed locations will be reviewed/approved by the Jefferson County Engineering Department.
- 2) Existing wells, in most cases, may be used as observation wells during the aquifer test; however, specific well attribute data (yield, casing length, total depth, etc.) should be obtained and reported for the proposed monitoring point, if available.
- 3) Water levels should be obtained via an electronic water level meter or down well data logger capable of measuring to 0.01 feet of accuracy. Static water level measurements should be collected at least 12 hours prior to the initiation of the test and at a minimum every four (4) hours during the test, and until ninety (90) percent of recovery to the original static water level is achieved following the test.

IV. Water Quality Analyses

- 1) All public water supply wells must be sampled in accordance with West Virginia Bureau for Public Health requirements. Sampling and analysis of other wells for parameters included within the US EPA secondary contaminant list is recommended (see Section 1.5 General Information).

3.0 Hydrogeologic Report

A Hydrogeologic Report, including documentation and analysis of the aquifer testing, and the relevant findings of the preliminary report, will be submitted to the Jefferson County Engineering Department. Reports will either be reviewed by designated County staff or by a third party consultant contracted by the County to provide a professional review. The County will have sixty (60) days to review the report in order to assess the submission for completeness and technical content. Should additional information be required, the applicant shall receive written notification of the delinquencies. Upon acceptance of the report, a letter acknowledging approval of the report will be provided by the County. This approval does not imply sustainable water supply or favorable water quality, but rather documents the completion of the report requirements.

- 1) The report should contain a graphic lithology of each well completed, including all pertinent well information such as yield, casing length, total depth, etc.
- 2) The report shall include a map, or set of maps, at a scale not greater than 1:6,000 (1"=500') which should cover the entire proposed development or subdivision. The map(s) should include such information such as completed/proposed water

- supply wells, planimetric features, topography, proposed roads, lot lines, domestic structures, surface water features, and proposed septic drainfield locations.
- 3) A discussion of the following information (including appropriate calculations and supporting documentation) shall be included in the report:
- a) Documentation of theoretical groundwater mass balance and recharge estimates for the study area. This evaluation should include estimates of average recharge for the subject site during normal and extreme drought (estimated as 60% of average annual precipitation value) conditions and include an estimate of the projected net daily water consumption of the facility.
 - b) Values for specific capacity, transmissivity, and storativity (if adequate observation well data is available) should be calculated and results compared to published data for similar geologic settings.
 - c) Graphics depicting drawdown and recovery of water levels in each testing and monitoring well should be included.
 - d) Presentation of results of the water quality analyses.
 - e) Contingency plan for water supply should public supply wells not provide adequate yield.

Appendix A.

Recommended Water Level Monitoring Schedule

A guideline providing recommended monitoring intervals (both drawdown and recovery phases) for aquifer pump testing has been provided in the table below:

Frequency, One Measurement Every:	Elapsed Time, For the First:
30 Seconds	3 Minutes
1 Minute	3-15 Minutes
5 Minutes	15-60 Minutes
10 Minutes	60-120 Minutes
20 Minutes	2-3 Hours
1 Hour	3+ Hours

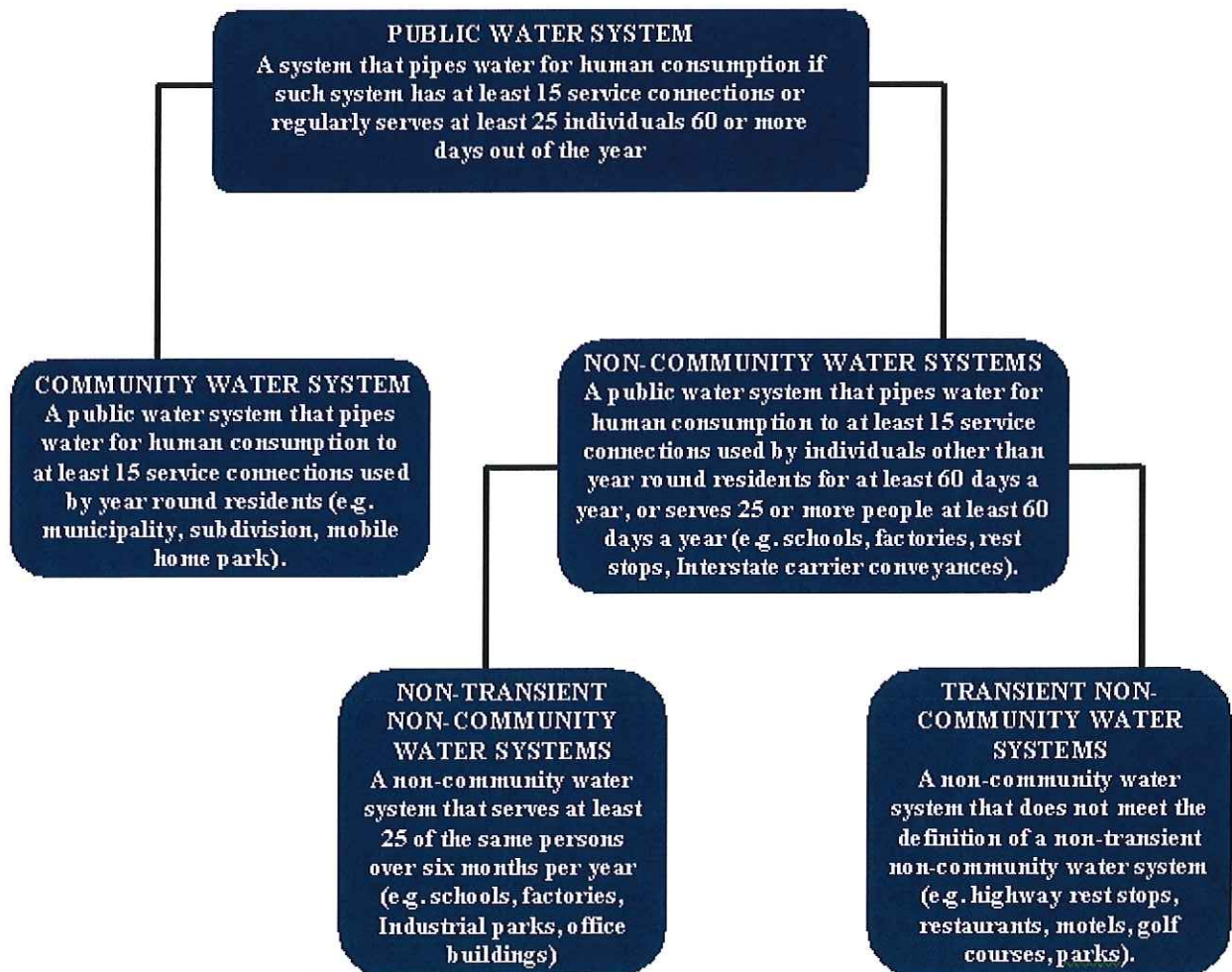
Appendix B.

West Virginia Bureau of Health Definitions

The following definition of a public water system has been provided by the West Virginia Bureau of Health.

What is a Public Water System?

A "public water system" has 15 or more service connections or regularly serves at least 25 people 60 or more days a year. A system that serves water 60 or more days a year is considered to "regularly serve" water. Public water systems can be publicly or privately owned. Public water systems are subdivided by regulation into two major categories: community and non-community water systems. This division is based on the type of consumer served and the frequency the consumer uses the water. Basically, a community system serves water to a residential population, whereas a non-community system serves water to a non-residential population. The non-community category is further broken down into two categories: non-transient non-community water system and transient non-community water systems.



Appendix C.

USEPA Secondary Drinking Water Regulations

<u>Contaminant</u>	<u>Secondary Standard</u>
Aluminum	0.05 to 0.2 mg/L
Chloride	250 mg/L
Color	15 (color units)
Copper	1.0 mg/L
Corrosivity	noncorrosive
Fluoride	2.0 mg/L
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 threshold odor number
pH	6.5-8.5
Silver	0.10 mg/L
Sulfate	250 mg/L
Total Dissolved Solids	500 mg/L
Zinc	5 mg/L

APPENDIX F.

References

References

- Atkins, John T. Water-Use Estimates for West Virginia, 2004. Open-File Report 2007-1038. 2007.
- Bieber, P.P. Ground-Water Features of Berkeley and Jefferson Counties, West Virginia. WV Geological and Economic Survey : B-21. 1961.
- Callaghan, Thomas, Gary M. Fleeger, Scott Barnes, Al Deberto. Groundwater Flow on the Appalachian Plateau of Pennsylvania. In Coal Mine Drainage Prediction and Pollution Prevention in Pennsylvania. Keith B.C. Brady, Michael W. Smith, and Joseph Schueck (Editors). The Pennsylvania Department of Environmental Protection. Harrisburg, PA. 1998.
- Dean, S.L., B.R. Kulander, and P. Lessing. Geology of the Hedgesville, Keedysville, Martinsburg, Shepherdstown, and Williamsport Quadrangles, Berkeley and Jefferson Counties, WV, West Virginia Geological and Economic Survey: MAP-WV31. 1987.
- Dean, S.L., B.R. Kulander, and P. Lessing. Geology of the Berryville, Charles Town, Harpers Ferry, Middleway, and Round Hill Quadrangles, Jefferson County, WV. WV Geological and Economic Survey:MAP-WV35. 1990.
- Dean, S.L., P. Lessing, and B.R. Kulander. Geology of the Inwood and Stephenson Quadrangles, Berkeley and Jefferson Counties, WV. WV Geological and Economic Survey: OF9405. 1994.
- Dunn Engineers, Inc., Mountain Communities Water System Improvements: Preliminary Engineering Report. 2008.
- English, Mary R., and Roy Arthur. State-Wide Water Resources Planning: A Nine-State Study. Institute for a Secure and Sustainable Environment. University of Tennessee. 2010.
- Evaldi, Ronald D., Katherine S. Paybins, and Mark D. Kozar. Hydrogeologic Factors Affecting Base-Flow Yields in the Jefferson County Area, WV, October–November 2007. U.SGS Scientific Investigations Report 2009-5145. 2009.
- Evans, Nicholas H., Ph.D. Contributing Consultant. 2011.
- Freeze, R Allan, and John A Cherry. Groundwater. Prentiss Hall. 1979
- Groundwater Resource Evaluation of Jefferson Utilities Valley Water System. Golder Associates Inc.. 2009.
- Hammond, Patrick. Fractured Rock (Crystalline) Hydrogeologic Investigation Procedures (memo to applicant). Maryland Department of the Environment. 2001 (Revised 2007).
- Hobba, Jr., W. A. Ground-Water Hydrology of Berkeley County, WV. Geological and Economic Survey EGB-13. 1976.
- Hobba, Jr., W. A. Ground-Water Hydrology of Jefferson County, West Virginia. WV Geological and Economic Survey EGB-16. 1981.
- Kozar, M.D. Synopsis of Karst Investigations Conducted in Jefferson and Berkeley Counties, West Virginia. U.S.Geological Survey. Water-Resources Investigations Report 02-4174. 2002.
- Kozar, Mark D., W. A. Hobba, Jr., and J. A. Macy. Geohydrology, Water Availability, and Water Quality of Jefferson County, West Virginia, with Emphasis on the Carbonate Area. USGS Water Resources Investigation Report 90-4118. 1991.

Kozar, Mark D. and Melvin V. Mathes. Aquifer-Characteristics Data for West Virginia. USGS Water-Resources Investigations Report 01-4036. 2001.

Kozar, M.D., D.J. Weary, K.S. Paybins, and H.A. Pierce. Hydrogeologic Setting and Ground-Water Flow in the Leetown Area, West Virginia. USGS Scientific Investigations Report 2007-5066. 1990.

Kozar, Mark D. and David J. Weary. Hydrogeology and Ground-Water Flow in the Opequon Creek Watershed area, Virginia and West Virginia USGS Scientific Investigations Report 2009-5153. 2009.

Kozar, Mark D., Kurt J. McCoy, David J. Weary, Malcolm S. Field, Herbert A. Pierce, William B. Schill, and John A. Young. Hydrogeology and Water Quality of the Leetown Area, West Virginia USGS Open File Report 2007-1358. 2007.

McCoy, K.J., M.H. Podwysocki, E.A. Crider, and D.J. Weary. Fracture Trace Map and Single-Well Aquifer Test Results in a Carbonate Aquifer in Jefferson County, West Virginia. USGS Open File Report 2005-1407.

Nelms, David L., George E. Harlow, JR., and Donald C. Hayes. Base-Flow Characteristics of Streams in the Valley and Ridge, the Blue Ridge, and the Piedmont Physiographic Provinces of Virginia. USGS Water-Supply Paper 2457. 1997.

Source Water Assessment and Protection Plan for Harpers Ferry Water Works, Jefferson County. Dalip Sarin. West Virginia Rural Water Association. 2006.

Southworth, Scott, D.K. Brezinski, A.A. Jr. Drake, W.C. Burton, R.C. Orndorff, A.J. Froelich, J.E. Reddy, and Danielle Denenny. Geologic Map of the Frederick 30 x 60 minute quadrangle, Maryland, Virginia, and West Virginia. USGS Scientific Investigations Map 2889. 2007.

Vinciguerra, Christine M. Recharge Processes within the Cacapon Mountain Aquifer, Valley and Ridge Province, West Virginia. University of West Virginia. Master's Thesis. 2008.

Yager, Richard M., Scott Southworth, and Clifford I. Voss. Simulation of Ground-Water Flow in the Shenandoah Valley, Virginia and West Virginia, Using Variable-Direction Anisotropy in Hydraulic Conductivity to Represent Bedrock Structure. USGS Scientific Investigations Report 2008-5002. 2008.

**JEFFERSON COUNTY
DEPARTMENTAL MEMORANDUM**

TO: Jefferson County Commission

FROM: Sandy Slusher McDonald, Acting County Administrator

DATE: April 24, 2012

SUBJECT: Jefferson County Commission Quarterly Update Report

- 1. PROJECTS UNDERTAKEN: (in alphabetical order)**
 - a. Budget Analysis Reporting
 - b. AS/400 Move
 - c. Budget Planning worksheets and Budget Preparation
 - d. Computer Security Control Plan
 - e. Planning for Capital Projects & Evaluation
 - f. Detail Accounting for Computer Related Cost
 - g. Hire Human Resource Manager
 - h. ESA Fire/Ems Fee – held community informational meeting
 - i. Health Insurance Package
 - j. Transition Plan – Reorganization
 - k. Renovation of County Commission meeting room
 - l. Purchase of iPads
 - m. Document Management Scanning
 - n. Wi-Fi for County Commission meeting room
 - o. Hire of County Administrator

- 2. PROJECTS COMPLETED:**
 - a. Budget Analysis Reporting
 - b. Budget Preparation
 - c. Computer Security Controls
 - d. Capital Projects & Evaluation ready for Commission to review
 - e. Detailing Accounting for Computer related Cost-Accounting Numbers are being set up
 - f. Hire of Human Resource Manager
 - g. Renovation of County Commission meeting room
 - h. Health Insurance Package

- 3. PROJECTS PROPOSED/UNDERWAY:**
 - a. Implement Capital Projects Planning Procedures
 - b. Implement Detail Accounting for Computer Related cost
 - c. Hire new County Administrator
 - d. ESA fire/ems fee
 - e. Need iPad training
 - f. Document Management Scanning
 - g. Wi-Fi for County Commission meeting room

- 4. ITEMS REQUIRING COMMISSION ATTENTION:**
 - a. E-911 Fees Charges – department cost exceeds revenues
 - b. Hire of County Administrator

(FORM)
JEFFERSON COUNTY
DEPARTMENTAL MEMORANDUM

TO: Jefferson County Commission
Tim Boyde, County Administrator

FROM: Harpers Ferry - Bolivar PSD

DATE: 4-16-12

SUBJECT: (Insert Department) Quarterly Update Report

1. PROJECTS UNDERTAKEN: (in alphabetical order)

- a. N/A
- i. _____

2. PROJECTS COMPLETED:

- a. Belt filter press phase I
- i. _____

3. PROJECTS PROPOSED/UNDERWAY:

- a. Phase II plant improvements C4PH
- i. replace blowers, new diffusers, chemical feed improvements
- _____

4. ITEMS REQUIRING COMMISSION ATTENTION:

- a. N/A
- i. _____

(FORM)
JEFFERSON COUNTY
DEPARTMENTAL MEMORANDUM

TO: Jefferson County Commission

FROM: Amy Jones

DATE: 4-20-12

SUBJECT: (Insert Department) Quarterly Update Report
Jefferson County Health Department

1. PROJECTS UNDERTAKEN: (in alphabetical order)

a. Medical, Environmental and Threat Prep.

- i. Family Planning, BCCSP, Immunization, STD, Tuberculosis clinics; Hotel/Motel, School, B&B, Mobile home, Campground, Restaurant, Well and Septic Inspections, Disease Investigations, Rabies and Animal Bite Investigations; Threat Preparedness (TP) and LEPC meeting and planning, Drills and exercise planning, TP policy and plan development**

2. PROJECTS COMPLETED:

a. Medical, Environmental and Threat Prep.

- i. 12 Family Planning clinics completed, 8 BCCSP clinics completed, 4 Immunizations Clinics, 3 Tuberculosis Clinics, 1055 TB tests given, 64 STD pts. seen, 26 disease investigations, total of 3322 pts. seen, 79 restaurant inspections, numerous animal bite and rabies investigations, many schools and day-care inspections, completed one large county wide TP drill**

3. PROJECTS PROPOSED/UNDERWAY:

a. Medical, Environmental and Threat Prep.

- i. Continue all programs and begin research to complete a health dept. human resource dept. and merit system and well as research transferring all medical records to an electronic format.**

4. ITEMS REQUIRING COMMISSION ATTENTION:

a. NA

- i. _____**





**COUNTY COMMISSION OFFICES
WILL BE CLOSED ON TUESDAY,
MAY 8, 2012 FOR ELECTIONS.**

George Cornwell
198 Huntfield Lane, Eastland
Charles Town, WV 25414

304-728-4527 home
703-869-4483 work

Patsy Noland, President
Jefferson County Commission
P.O. Box 250
Charles Town, WV 25414

April 23, 2012

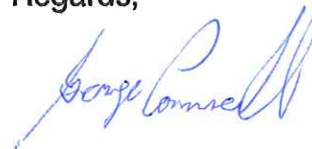
Dear Mrs. Noland,

I am writing to express my interest in the Jefferson County appointment to the Eastern Regional Airport Authority. I have 23 years of educational and professional experience in the aviation industry as an airline pilot and feel I could represent the county's interests with proficiency.

Airports serve their region as a major job generator, and now is a perfect time for the county to take advantage of an opportunity to be involved with the affairs of the airport.

Please call me with any questions, and I look forward to meeting with the entire Commission.

Regards,



George Cornwell

RECEIVED

APR 25 2012

Jefferson County Commission

**EASTERN PANHANDLE HOME CONSORTIUM OF WEST VIRGINIA
PROGRAM UPDATE APRIL 2012**

The Eastern Panhandle HOME Consortium of West Virginia is in its fifth year of program operations for the use of HOME Investment Partnership Program funds through HUD. The HOME Consortium consists of four major jurisdictions and a total of twelve members including the City of Martinsburg, Berkeley County, Town of Hedgesville, Jefferson County, Town of Bolivar, City of Charles Town, Town of Harpers Ferry, City of Ranson, City of Shepherdstown, Morgan County, Town of Bath and Town of Paw Paw. The cooperation of the individual jurisdictions has enabled us to secure the HOME funding to help address local housing needs. The City of Martinsburg is the grantee and serves as HOME administrator.

Through FY 2011 we received **\$2,902,683 in HOME funding**, including \$108,139 in local funds. Our allocation for **FY 2011 is \$506,805** and is included in the \$2.9 million.

Most of the funding has been used for a **Homebuyer Assistance Program (HAP)** with the following results:

131 first time homebuyers assisted	\$1,991,280 HOME (incl. \$66,000 CDBG)
Berkeley County	64
Martinsburg	23
Jefferson County	29
Morgan County	15

Average amount of assistance is \$15,368. Median house price is \$130,000; Median mortgage is \$117,000.

As of April 24, 2012 HOME funds had leveraged **\$16,839,415 in home sales** and buyers had obtained **\$15,183,753 in mortgage loans** – a ratio of \$7.63 in mortgage funding for each HAP dollar expended.

In addition to the Homebuyer Assistance Program, we are required to set aside 15% of our annual allocation for use by **Community Housing Development Organizations (CHDO)**. To date, \$260,007 has been reserved for Habitat for Humanity of the Eastern Panhandle to build five houses for low income households. Four houses have been completed and construction will begin on the fifth home this summer.

Morgan County has also reserved \$12,987 of its past allocations for a **Tenant Assistance Program** providing security deposits and first month's rent. Six families have been assisted so far, with an average of \$902 assistance per household.

Funding Distributions are:

Jurisdiction/Project	FY 2010	FY 2011
City of Martinsburg	\$ 63,467	\$ 56,141
Berkeley County	\$182,496	\$161,430
Jefferson County	\$138,708	\$122,698
Morgan County	\$ 45,033	\$ 39,835
CHDO funds*	\$ 85,941	\$ 76,021
Administration (10%)	<u>\$ 57,294</u>	<u>\$ 50,581</u>
TOTAL	\$572,939	\$506,805

*15% required set-aside

Harpers Ferry/ Bolivar PSD
P. O. BOX 235
192 LAKE QUIGLEY DRIVE
HARPERS FERRY, WEST VIRGINIA 25425
(304)-535-2390 FAX (304)-535-2524

THE HARPERS FERRY-BOLIVAR PUBLIC SERVICE DISTRICT CONDUCTED THE JANUARY MEETING AT THE BOLIVAR TOWN HALL, LOCATED AT 60 PANAMA STREET, BOLIVAR WEST VIRGINIA. THE MEETING WAS HELD ON JANUARY 11, 2012.

The meeting was called to order at 8:30 a.m.

Those in attendance were:

James A. Addy-Chairman
Robert Hardy-Treasurer

James Williams-Operations Manager
David Tennant-Plant Operator
Richard Klein-Alpha & Associates

Motion by Mr. Hardy, seconded by Mr. Addy to approve the December minutes, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the December regular checking account financial statement, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the December construction account financial statement, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the December security deposit account financial statement, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the December capital replacement account financial statement, approved.

Mr. Klein discussed general invoices #20 for Alpha in the amount of \$467.50.

Motion by Mr. Hardy, seconded by Mr. Addy to approve Alpha general invoice #20 for the amount of \$467.50, approved.

Mr. Klein also discussed final payment, to hold money until we receive more information from contractor on Buy American issues, Seimans, Corle building and Seepex equipment, where they were made until we are told by the Bond Company to do so. We received our final inspection report from WV DEP on our project.

Motion by Mr. Hardy, seconded by Mr. Donadio for Mr. Klein to send a letter to the Bond Company to try and recover our accrued expenses due to the contractor bankruptcy issues, approved.

Mr. Klein discussed that the WV DEP wants us to do a certificate of performance letter. Also WV DEP wants us to use January 20, 2012 as a final date for this project. This date is not going to be enough time, we will write a letter asking for an extension.

Mr. Klein will also be discussing the asset management plan with the plant staff. To review the draft and to go over any issues.

Motion by Mr. Hardy, seconded by Mr. Donadio to go ahead with plan to update plant equipment, approved.

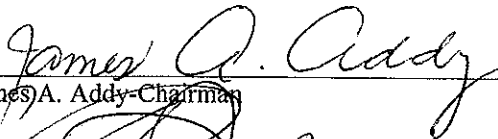
Motion by Mr. Hardy, seconded by Mr. donadio to write a letter to the Harpers Ferry Water Works, to get

billing cycles out on a consistent basis, in order to provide a consistent billing and pay schedule, approved.

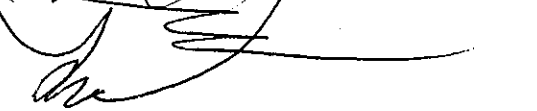
Motion by Mr. Hardy, seconded by Mr. Addy to give COLA pay increases to staff, when the billing cycles are under control and steady revenue is coming in, approved.

Mr. Tennant gave the Board the 2011 annual audit report from J.C. Kunkle.

Meeting adjourned at 9:07 a.m.


James A. Addy-Chairman


Robert Hardy-Treasurer


Frank Donadio-Secretary

Harpers Ferry/ Bolivar PSD
P. O. BOX 235
192 LAKE QUIGLEY DRIVE
HARPERS FERRY, WEST VIRGINIA 25425
(304)-535-2390 FAX (304)-535-2524

THE HARPERS FERRY-BOLIVAR PUBLIC SERVICE DISTRICT CONDUCTED THE FEBRUARY MEETING AT THE BOLIVAR TOWN HALL, LOCATED AT 60 PANAMA STREET, BOLIVAR WEST VIRGINIA. THE MEETING WAS HELD ON FEBRUARY 1, 2012.

The meeting was called to order at 8:30 a.m.

Those in attendance were:

James A. Addy-Chairman
Robert Hardy-Treasurer
Frank Donadio-Secretary

James Williams-Operations Manager
David Tennant-Plant Operator
Richard Klein-Alpha & Associates

Motion by Mr. Hardy, seconded by Mr. Addy to approve the January minutes, approved.

The financial statements for all accounts were not available due to the meeting date change. This will be addressed at the next meeting.

Mr. Williams discussed the CUP\$\$ asset management plan has been reviewed by Chairman Addy and Mr. Williams, there were some small changes made.

Mr. Klein discussed the DEP deadline of February 28th for all asset management paperwork, to receive any SRF low interest loans for phase II improvements to waste water plant.

Motion by Mr. Addy, seconded by Mr. Donadio to move forward with phase II improvements to waste water plant, approved.

Mr. Klein discussed paperwork for us getting an accountant retained to process the SRF applications to get the process started.

Motion by Mr. Donadio, seconded by Mr. Addy to have J.C. Kunkle & Associates, A.C. move forward with SRF financial paperwork, approved.

Motion by Mr. Addy, seconded by Mr. Donadio to retain Alpha and Associates as engineer for the project, approved.

Mr. Klein also discussed that we have no new general invoices for Alpha. We are to make no payments to the contractor until further notice. The ARRA audit has accepted all of our information except for the air compressor, because it was made in Italy. The auditor is saying that we should pay back the cost of that piece of equipment. We have protested this issue, and are waiting on the EPA for their response. The Bond company knows if we are turned down on our protest, this money will come out of their money. Lastly we received the DEP final inspection report, and substantial completion paperwork sent back to the DEP.

The meeting adjourned at 9:05 a.m.

James A. Addy
James A. Addy-Chairman

Robert Hardy
Robert Hardy-Treasurer

Frank Donadio
Frank Donadio-Secretary

Harpers Ferry/ Bolivar PSD
P. O. BOX 235
192 LAKE QUIGLEY DRIVE
HARPERS FERRY, WEST VIRGINIA 25425
(304)-535-2390 FAX (304)-535-2524

THE HARPERS FERRY-BOLIVAR PUBLIC SERVICE DISTRICT CONDUCTED THE MARCH MEETING AT THE BOLIVAR TOWN HALL, LOCATED AT 60 PANAMA STREET, BOLIVAR WEST VIRGINIA. THE MEETING WAS HELD ON MARCH 14, 2012.

The meeting was called to order at 8:30 a.m.

Those in attendance were:

James A. Addy-Chairman
Robert Hardy-Treasurer
Frank Donadio-Secretary

James Williams-Operations Manager
David Tennant-Plant Operator
Richard Klein-Alpha & Associates

Motion by Mr. Hardy, seconded by Mr. Addy to approve the February minutes, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the January and February regular checking account financial statement, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the January and February construction account financial statement, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the January and February security deposit account financial statement, approved.

Motion by Mr. Hardy, seconded by Mr. Addy to approve the January and February capital replacement account financial statement, approved.

Mr. Klein discussed general invoices #22 for Alpha in the amount of \$187.00. It is recommended to charge against the contractor and add to the liquidated damages.

Motion by Mr. Hardy, seconded by Mr. Addy to approve Alpha general invoice #22 for the amount of \$187.00, approved.

Mr. Klein discussed phase II invoice #1 in the amount of \$1080.50. Also to seek a rate increase tied into phase II program.

Motion by Mr. Addy, seconded by Mr. Donadio to approve phase II invoice #1 in the amount of \$1080.50, approved.

Motion by Mr. Donadio, seconded by Mr. Addy to approve seeking a rate increase tied into phase II project, approved.

Mr. Klein also discussed final pay request invoice #55 in the amount of \$2236.61.

Motion by Mr. Hardy, seconded by Mr. Addy to approve final pay request invoice #55 in the amount of \$2236.61, approved.

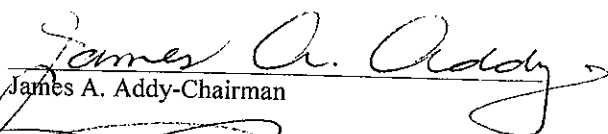
Mr. Klein discussed that the Asset Management financial plan was sent in on 3/1/2012 for priority list application for phase II.

Mr. Addy discussed drafting a letter to Capito and our Congressman about the problem we are having with EPA and DEP with getting the final decision on the air compressor if it needs to be replaced or not to meet the ARRA requirements.

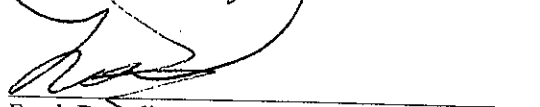
The Board Discussed the financial status of the District and the possibility of an emergency increase. Also discussed setting down with the Harpers Ferry Water Board about billing cycles to try and ensure a steady stream of revenue coming in. The Board would like to have Mr. Kunkle our Auditor, and Mr. Anderson the Mayor of Harpers Ferry here at our next meeting.

Mr. Tennant discussed sewer adjustments for:
Deborah De Maris in the amount of \$163.08.
Catilynn Grubb c/o Timothy Oden Jr. in the amount of \$763.89.
Both where approved.

The meeting adjourned at 9:23


James A. Addy-Chairman


Robert Hardy-Treasurer


Frank Donadio-Secretary

HARPERS FERRY-BOLIVAR PUBLIC SERVICE DISTRICT
CASH FLOW ANALYSIS

	FY11	FY12 thru 3/14/2012	Rule 42
Cash received from customers	\$ 372,575	\$ 285,272	\$ 372,929
Other income	7,356	502	5,344
	379,931	285,774	378,273
Operation and maintenance expenses	304,166	243,460	255,185
Taxes other than income taxes	9,311	6,532	9,807
	313,477	249,992	264,992
Cash flow available for debt service	66,454	35,782	113,281
Debt service	53,896	54,717	96,106
Cash surplus/deficit	\$ 12,558	\$ (18,935)	\$ 17,175
Coverage ratio	123%	65%	118%

Notes

Revenues are stable and consistent with Rule 42 rate analysis.

Operating expenses are approximately \$70K greater than Rule 42 rate analysis.

Collecting	6K
Pumping	16K
Treatment	10K
Billing	7K
Admin	31K
	70K

Expenses with most significant increase.

Collecting maintenance	5K
Pumping maintenance	8K
Treatment maintenance	5K
Billing fees	7K
Professional fees	20K
Employee benefits	10K
Other	15K
	70K

Harpers Ferry-Bolivar PSD Asset Management Plan

Prepared for:

HARPERS FERRY-BOLIVAR PSD
HARPERS FERRY, WESTVIRGINIA

Prepared by:

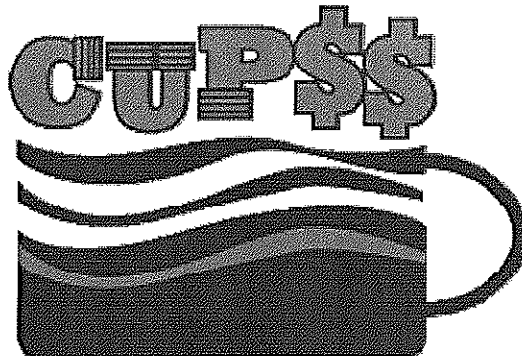
Alpha Associates, Inc.

ENGINEER

Last Created Date:

1/19/2012

Prepared using:



Contents

Executive Summary	5
Table E-1. Levels of Service	5
Table E-2. Action Plan.....	5
1 Introduction	7
1.1 Mission Statement.....	7
1.2 Asset Management Team	7
Table 1-1. Harpers Ferry-Bolivar PSD Asset Management Team.....	7
2 Utility Overview	8
Table 2-1. Harpers Ferry-Bolivar PSD Utility Overview	8
Figure 2-1. Harpers Ferry-Bolivar PSD Age Profile	9
Figure 2-2. Harpers Ferry-Bolivar PSD Treatment Plant Schematic	11
Figure 2-3. Harpers Ferry-Bolivar PSD Pump Station Locations.....	13
3 Level of Service Agreement	15
Table 3-1. Level of Service Goals	15
4 Critical Assets	16
Table 4-1. Harpers Ferry-Bolivar PSD Critical Asset Inventory	16
5 Operation and Maintenance (O&M) Strategy	18
5.1 Preventive Maintenance.....	18
Table 5-1. Harpers Ferry-Bolivar PSD Preventive Maintenance Schedule for 2011	19
5.2 Emergency/Reactive Maintenance	21
Table 5-2. Harpers Ferry-Bolivar PSD Emergency/Reactive Maintenance Expenses for 2011.....	21
5.3 Deferred Maintenance.....	21
6 Water Quality	22
Total Maximum Daily Loads (TMDLs).....	22
6.1 Implementation Strategy to Protect Watersheds	22
Water Quality Monitoring Strategy	22
Water and Energy Efficiency	22
Best Management Practices (BMPs)	22
7 Capital Improvement Program (CIP)	24
Table 7-1. Harpers Ferry-Bolivar PSD Capital Improvement Projects (20-year Outlook)	25
8 Financial Management Strategy	29
8.1 Total Expenditure	29

Executive Summary

This Asset Management Plan is for the Harpers Ferry-Bolivar PSD'S 0.3 mgd waste water collection system and treatment plant and describes how the utility will manage the infrastructure assets. The Harpers Ferry-Bolivar PSD has a staff of 2 full-time equivalents (FTEs) who perform day-to-day functions to keep the utility functioning properly. Maps of the utility are maintained by the utility at the treatment plant. The PSD does not anticipate any significant growth for capacity expansion. However, a Capital Improvement Plan (CIP) will be required for renewal of assets to include the latest technological advancements in wastewater treatment that will result in improved efficiency and assurance of meeting NPDES Limitations

The Harpers Ferry-Bolivar PSD has considered a range of service levels the utility could establish. These include the following:

Table E-1. Levels of Service

Goal	Levels of Service	
	Performance Targets	Achieved
Meet all State and Federal regulations and standards	NPDES Limitations	Meets all performance objectives
Limit infiltration in the wastewater collection system	Reduce infiltration to 8.85%	Considerable performance deficiencies
Reduce customer complaints regarding the collection system	Respond within 2 days	Minor performance deficiencies
Provide customer information regarding the collection system	Notify customers annually how well the system is meeting LOS criteria	Meets all performance objectives

To support the above Level of Service goals the utility has identified the following costs to help improve overall service to the community:

- Implementing the O&M will require an additional \$10,000 annually, for an approximate total of \$314,000 per year.
- It is estimated that the utility will spend a total of \$1,052,850 on various wastewater system improvement projects over the next 4 years. A partial financial summary is presented in Table 8-1, as it is unknown at this time if loans or grants will be available.
- Costs for water are funded through general rates (100%).
- External financing for capital expenses exceeding \$25,000 will be financed through infrastructure loans paid for by rate increases or grants if available.
- The average annual surplus/deficit over the next 10 years will be \$10,000.

The utility's action plan for improving the overall management of this utility and supporting the above Level of Service goals (including addressing the financial management, environmental management and specific issues) is shown in Table E-2.

Table E-2. Action Plan

1 Introduction

This Asset Management Plan is for the Harpers Ferry-Bolivar PSD's 0.3 mgd collection system and wastewater treatment facility and describes how the utility will manage the infrastructure assets. Customer service demands and regulations require the PSD to actively manage wastewater assets through careful maintenance, repair and replacement decisions. This plan is an effective tool for combining technical, management and financial practices to ensure that the level of service required by the community is provided at the appropriate cost. The plan has the following purposes:

1. To demonstrate responsible management of the wastewater assets
2. To communicate and justify funding requirements indicated by the plan
3. To provide a management roadmap for the utility
4. To serve as a link between the Harpers Ferry-Bolivar PSD and its customers

The Asset Management Plan contains a mission statement, an overview of the utility (Section 2 - page 6), level of service agreement (Section 3 - page 9), critical asset list (Section 4 - page 10), operation and maintenance strategy, capital investment program, and financial strategies.

1.1 Mission Statement

The mission statement defines the goals of the Harpers Ferry-Bolivar PSD and is the guide for level of service agreements discussed in section 3. The Harpers Ferry-Bolivar PSD mission statement is as follows:

We commit to improving and maintaining the public health protection and performance of our wastewater plant and collection utility assets, while minimizing the long-term cost of operating those assets. We strive to make the most cost-effective renewal and replacement investments and provide the highest-quality customer service possible.

1.2 Asset Management Team

The Harpers Ferry-Bolivar PSD has a staff of 2 FTEs who perform day-to-day functions to keep the utility functioning properly. Together, these individuals have volunteered as members of the "the asset management team. The head operator will perform asset management planning responsibilities and is assisted by the assistant operator in preparing, implementing, and updating this plan.

Table 1-1. Harpers Ferry-Bolivar PSD Asset Management Team

Name	Title	Organization	Role / Responsibility on Project
Jimmy Williams	Head Operator	Harpers Ferry-Bolivar PSD	Head Operator
Ed Tennant	Assistant Operator	Harpers Ferry-Bolivar PSD	Operator/Facility Staff

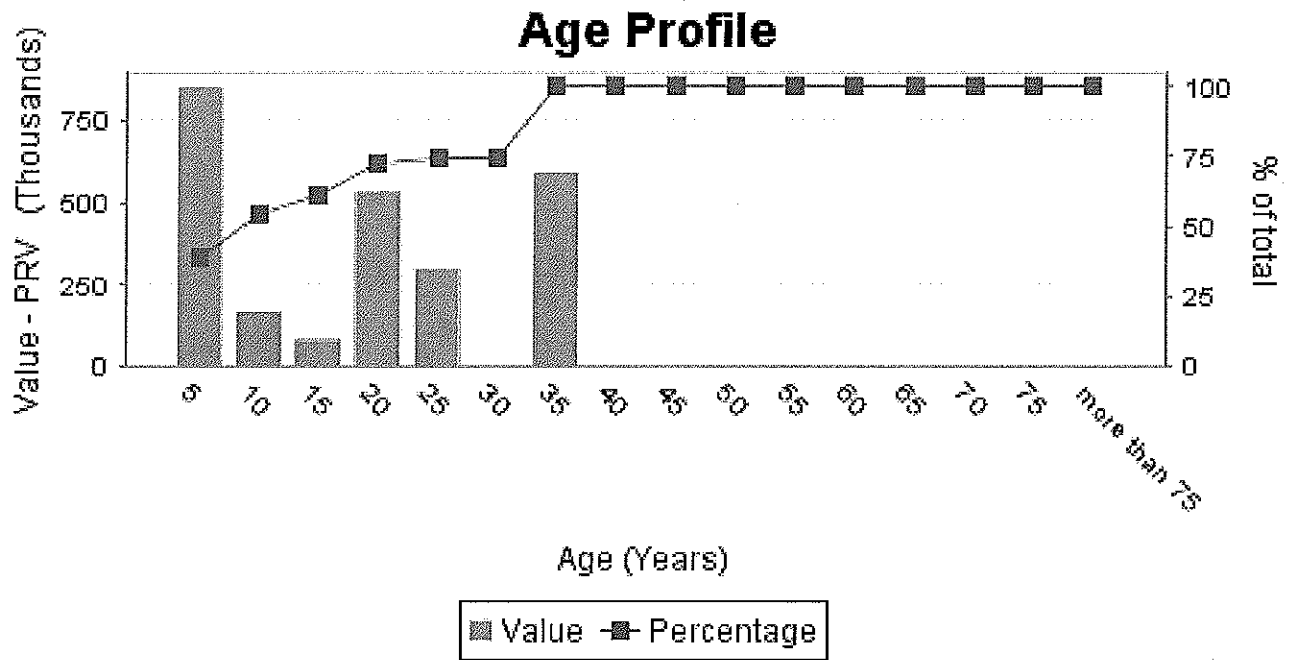
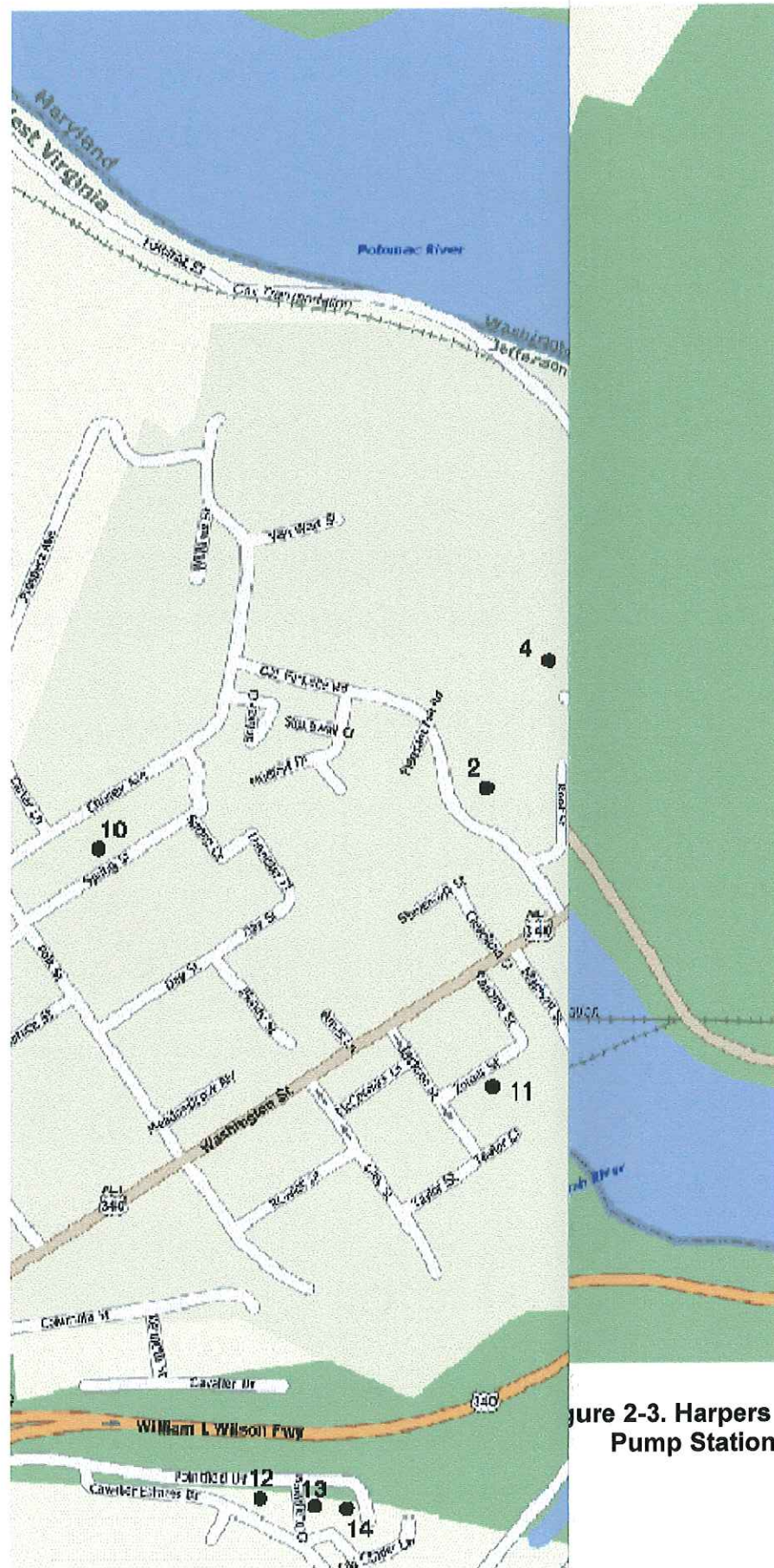


Figure 2-1. Harpers Ferry-Bolivar PSD Age Profile



PUMP STATIONS	
NUMBER	LOCATION
1	BI-RIVER LIFT STATION
2	OLD FURNACE
3	HILLTOP HOUSE
4	POTNAM ON THE POTOMAC
5	WASHINGTON ST.
6	HOUGH STATION
7	E. RIDGE ST.
8	E. RIDGE ST.
9	E. RIDGE ST.
10	SPRING ST.
11	ZORGER ST.
12	CAVALIER DR. #1
13	CAVALIER DR. #2
14	CAVALIER DR. #3

Figure 2-3. Harpers Ferry-Bolivar PSD Pump Station Locations

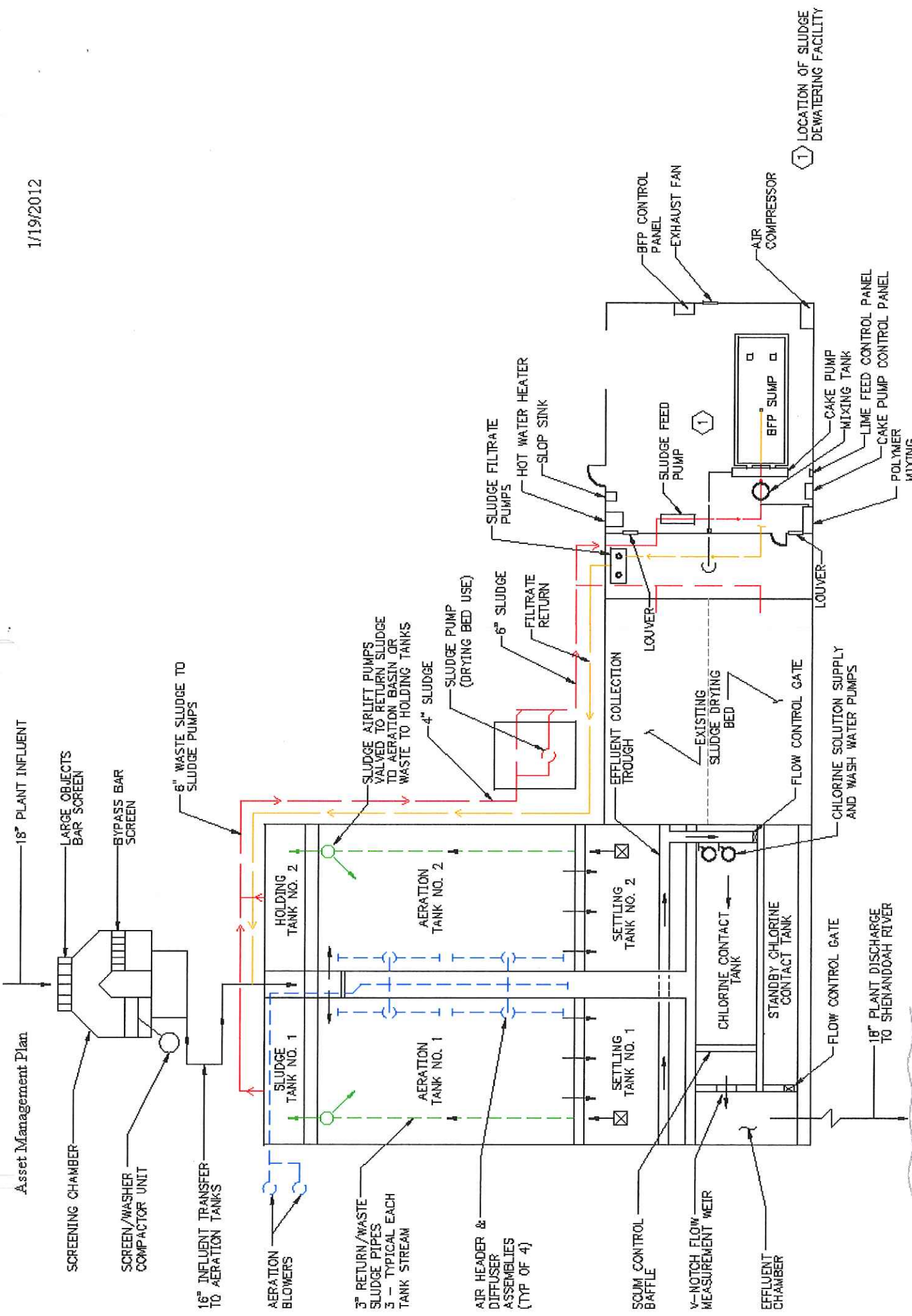


Figure 2-2: Harpers Ferry-Bolivar PSD Treatment Plant Schematic

4 Critical Assets

Some assets are more important than others in making sure that wastewater is treated effectively. Therefore, the asset management team used the CUPSS software (developed by the U.S. Environmental Protection Agency) to identify and prioritize critical assets and to improve practices used for routine operation and maintenance. This process includes reviewing all assets and recording their conditions (likelihood of failure), criticality to the utility (consequence of failure) and redundancy (the number of back-up assets to help support each asset). This will ensure that the utility delivers the level of service described in the previous section.

Tables 4-1 list assets critical to maintain the performance of the utility. (See Appendix F for full Asset Inventory list.)

Table 4-1. Harpers Ferry-Bolivar PSD Critical Asset Inventory

Asset	Asset Type	Year Installed	Condition	CoF	Capacity	Risk	Replacement Date
Chlorine Solution Pumps	Pumping Equipment	11/01/1979	Very Poor	Major	Fullsized	High Risk – Immediate Attention	12/01/2015
Blower #1	Treatment Equipment	12/01/1979	Very Poor	Major	Fullsized	High Risk – Immediate Attention	12/01/2013
Aeration/Diffuser Assemblies	Treatment Equipment	12/01/1979	Very Poor	Major	Fullsized	High Risk – Immediate Attention	12/01/2013
Electrical Switchgear	Transformers / Switchgears / Wiring	12/01/1979	Very Poor	Major	Fullsized	High Risk – Immediate Attention	12/01/2013
Blower #2	Treatment Equipment	01/01/1995	Good	Major	Fullsized	High Risk – Immediate Attention	12/01/2013
Sulfinator Building	Disinfection Equipment	12/01/1979	Very Poor	Moderate	Fullsized	Medium Risk – Aggressive Monitoring	12/01/2012
Power Distribution Panel	Transformers / Switchgears / Wiring	02/01/1979	Very Poor	Moderate	Fullsized	High Risk – Immediate Attention	02/01/2017
Cavalier Drive #2	Pumping Equipment	02/01/1979	Poor	Moderate	Fullsized	Medium Risk – Aggressive Monitoring	02/01/2015
Cavalier Drive #3	Pumping Equipment	02/01/1979	Poor	Moderate	Fullsized	Medium Risk – Aggressive Monitoring	02/01/2015
Collins Lift Station	Pumping Equipment	02/01/1979	Poor	Moderate	Fullsized	Medium Risk – Aggressive Monitoring	02/01/2015

5 Operation and Maintenance (O&M) Strategy

O&M consists of preventive and emergency/reactive maintenance. In this section, the strategy for O&M varies by the asset, criticality, condition and operating history. The risk matrix in My Check Up Asset Report provides the utility's assets and identifies the risk value for each asset. This risk matrix and section 4.0 of this document were used as the basis for establishing the maintenance program as a way to make sure that the utility address the highest risk assets. In addition, the maintenance program addresses the level of service performance objectives to ensure that the utility is running at a level acceptable to the customer.

Unexpected incidents could require changing the maintenance schedule for some assets. This is because corrective action must be taken in response to unexpected incidents, including those found during routine inspections and O&M activities. Utility staff will record condition assessments when maintenance is performed, at established intervals, or during scheduled inspections. Assets rated at the top of the priority ranking are presented below with the maintenance strategies. As an asset is repaired or replaced, its condition will improve and therefore can reduce the overall risk of the asset failing. The maintenance strategy will be revisited every year.

5.1 Preventive Maintenance

Preventive maintenance is the day-to-day work necessary to keep assets operating properly, which includes the following:

1. Regular and ongoing annual tasks necessary to keep the assets at their required service level
2. Day-to-day and general upkeep designed to keep the assets operating at the required levels of service
3. Tasks that provide for the normal care and attention of the asset including repairs and minor replacements

Preventive maintenance is carried out because of a planned maintenance program (such as regularly scheduled asset repairs) and historically problematic operations (such as blockages and root infestation). Equipment must be maintained according to manufacturer's recommendations to achieve maximum return on investment. By simply following the manufacturer's suggested preventive maintenance the useful life of equipment can be increased 2 to 3 times when compared to run till failure. Communities that have eliminated preventive maintenance practices from their operating budget can achieve positive returns from a relatively small additional investment.

Table 5-1 shows routine preventive maintenance cost based on best management practices and manufacturer's recommended servicing intervals. Deferred maintenance tasks that have not historically been performed because of inadequate funding or staffing must be projected into future operating budgets to achieve life expectancy projected by the manufacturer or engineer.

Task Name	Cost(\$)	Frequency	Estimate Annual Cost	Deferred Maintenance
Generator: Inspect / exercise generator (using check sheet).	6	Monthly	72	0
Grab Samples: Fecal Coliform (FC).	400	Monthly	4800	0
Grab Samples: pH, Dissolved Oxygen (DO), Total Residual Chlorine (TRC).	288	Monthly	3457	0
Motor Control Center (MCC): Check Voltage/Ampere (V/A) on motors fed from all MCCs.	6	Daily	2360	0
Motor Control Center (MCC): Preventive maintenance to all MCCs.	0	Yearly	0	0
Plant-walk-thru w/processes system checklist. Check proper function of all plant processes and take readings.	18	Daily	6752	0
Scum collectors: Dewater & clean.	18	Daily	6752	0
Secondary Clarifier: Check sludge blankets.	9	Daily	3394	0
Secondary Clarifier: Clean effluent trough.	18	Daily	6752	0
Shop: Check available security equipment and emergency response plans.	52	Yearly	52	0
Shop: Check power sources and back-up power.	5	Daily	1690	0
Shop: Preventive maintenance of tools & equipment.	0	Monthly	0	0
Sludge Dewatering: Dispose off sludge per 503 regulations.	52	Biweekly	1352	0
Sludge Dewatering: Make sure the system is functioning properly.	26	Weekly	1352	0
Sludge Dewatering: Sample & analyze sludge as appropriate.	600	Semiannually	1200	0
Sludge Holding Tanks: Collect supernatant sample.	18	Daily	6752	0
Sludge Holding Tanks: Decant supernatant.	26	3 per Week	4056	0
Total Maintenance Cost			69030	
Total Deferred Maintenance Cost				10777

*Additional cost necessary to fully implement the above described maintenance program are specified in the last column. These costs must be budgeted into the annual operating budget in order to achieve the manufacturer's

6 Water Quality

This section addresses how the Harpers Ferry-Bolivar PSD addresses water quality and water efficiency issues under the National Pollutant Discharge Elimination System (NPDES) Permitting Program.

The NPDES permit number for this utility is WV0039136. The information on the permit can be found at the treatment plant. Appendix C lists the exceedance, corrective action and the date when addressed. For the exceedances that have not been address see the action plan in Section 9.0.

Total Maximum Daily Loads (TMDLs)

N.A.

6.1 Implementation Strategy to Protect Watersheds

Water Quality Monitoring Strategy

Water quality monitoring provides the data to characterize waters and identify changes or trends in water quality over time. The collection of monitoring data enables Harpers Ferry-Bolivar PSD to identify existing or emerging water quality problems and determine whether current pollution control mechanisms are effective in complying with the regulations. Harpers Ferry-Bolivar PSD uses the continuous basis at regular sites (i.e., fixed stations) monitoring strategy and findings are included in the CUPSS application. The monitoring assets are included in Section 2.0 Utility Overview and tasks associated with water quality monitoring are included in Section 5.1.

Water and Energy Efficiency

Identifying approaches to integrate energy efficient practices into the daily management and long-term planning for the wastewater collection system and treatment contribute to the long-term sustainability of wastewater infrastructure by reducing operation costs.. Harpers Ferry-Bolivar PSD is initiating the following steps to encourage water use and energy efficiency to aid in forestalling future large capital expenditures in infrastructure and have identified several water and energy efficiency capital improvement project with a total cost of [Enter Costs]:

- Purchasing efficient pumps and motors
- Properly sizing equipment to its intended duty/load requirement
- Installing renewable energy technologies on-site or purchasing renewable energy credits
- Using variable speed devices
- Water audits and water loss control programs
- Considering how the utility handles heating, ventilation, air conditioning, and lighting
- Conducting a baseline energy evaluation to assess the utility's energy consumption status.

Best Management Practices (BMPs)

Adopting BMPs is an emerging trend among the wastewater utility industry. Widespread

7 Capital Improvement Program (CIP)

The Harpers Ferry-Bolivar PSD capital improvement program plan is the description of future capital projects. The PSD does not anticipate customer growth in the near future. However, capital improvement projects are required to replace antiquated equipment and upgrade the plant in order to continue meeting the effluent standards.

Capital Improvements shall be:

1. Expenditures that purchases or creates a new asset or in any way improves an asset beyond its original design intent.
2. Construction designed to produce an improvement in the standard operation of the asset to meet NPDES Permit limitations.
3. Construction designed to replace and upgrade antiquated equipment and its appurtenances.

In addition to capital improvement projects, the asset management team has reviewed and is establishing a renewal (or rehabilitation) strategy. Renewal expenditure is anything that does not increase the asset's design capacity but restores an existing asset to its original treatment requirements.

In making renewal decisions, the PSD considered several categories other than the normally recognized physical failure or breakage. Such renewal decisions include the following:

1. Level of service failures
2. Outdated functionality
3. Cost or economic impact

A summary of the current CIP is presented in Table 7-1. Because the expected needs of the PSD will change each year, the CIP will be updated to reflect those changes.

Capital Improvement Project	Total Cost	Annual Savings	Type of Capital Improvement Project	Year to Conduct CIP
Chlorine Changeover Valves	\$3,000	\$2,000	Rehab/Replace	2015
Chlorine Scale	\$2,000	\$120	Rehab/Replace	2015
Chlorine Solution Pumps	\$7,000	\$212	Rehab/Replace	2015
CL2 Gas Detector & Alarm	\$2,500	\$75	Rehab/Replace	2015
Generator	\$105,000	\$2,857	Rehab/Replace	2015
CIP#3 - Total Equipment Cost	\$122,500			
Installation Cost	\$122,500			
CIP#3 – Total Construction Cost	\$245,000			
Soft Costs	\$60,850			
CIP#3 – Total Cost	\$305,850			
CIPS #1,2,&3 Total Cost	\$1,052,550			
<u>Future CIP Items</u>				
Control Building	\$90,000	\$2,500	Rehab/Replace	2017
Generator Building	\$15,000	\$429	Rehab/Replace	2017
Bar Screen	\$150,000	\$7,500	Rehab/Replace	2020
Wash Water Pump	\$1,500	\$250	Rehab/Replace	2020
Backflow Preventer	\$1,000	\$48	Rehab/Replace	2020
Trash Pump	\$1,300	\$62	Rehab/Replace	2020
Standby Sludge Pumps	\$15,000	\$417	Rehab/Replace	2020
Garage	\$45,000	\$1,500	Rehab/Replace	2025
<u>Future Major Equipment Replacement</u>				
Dump Truck	\$60,000	\$3,000	Rehab/Replace	2018
Pick-up Truck	\$25,000	\$1,250	Rehab/Replace	2018
Tractor	\$25,000	\$1,087	Rehab/Replace	2018
<u>Future Minor Equipment Replacement</u>				
Ventilation Fan	\$1,000	\$48	Rehab/Replace	2028
Centrifuge	\$800	\$40	Rehab/Replace	2027
Ph Meter	\$1,000	\$50	Rehab/Replace	2024

Table 8-1. Harpers Ferry-Bolivar PSD Total Expenditure Summary - Actual/Forecast

	FY 2010 Actual	FY 2011 Budget	Expense /Revenue	Typical Year	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Water Supply														
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
33/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo	\$42/mo
\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
0.0%	0.0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
\$320,009	\$372,575	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$153	\$201	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$622,457	\$7,155	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$447,622	\$17,909	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$-21,365	\$-4,620	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$1,368,871	\$393,220	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$264,343	304,166													
\$9,969	\$9,311	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

9 Action Plan

The Harpers Ferry-Bolivar PSD Asset Management Plan refers to many objectives, targets, maintenance and improvements for the utility. Table 9-1 brings all these items together to clearly identify the actions required to successfully implement the Asset Management Plan.

Table 9-1 Action Plan Table

Urgency	Issue	Corrective Action Plan	Target Date for Completion	Status	Final Completion Date
High	Poor condition and age of multiple plant assets.	Replace high risk and original plant assets	December 2012	In Progress	TBD
High	The PSD does not have an up-to-date financial plan or source of funds.	Update the PSD financial plan. Research and seek out funding sources.	March 2012	In Progress	TBD
High	Assets with high risk failure will have to continue to operate until funding is secured to replace them.	Implement preventative maintenance on all assets with a high risk of failure.	December 2012	In Progress	TBD
Medium	Costs for wastewater treatment could be reduced by improved efficiencies at the plant.	Institute a trial of the activated sludge process into plant treatment operations in order to maximize aeration efficiency, waste solids concentrations in order to maximize dewatering efficiency	January 2014	Not Started	TBD

9.1 Review Schedule

The Harpers Ferry-Bolivar PSD is/are scheduled to review this plan annually and update the community on new information and changes on 06/13/2012.

Appendix B. Impaired Waterbodies and/or TMDLs List

Waterbody	Cause of Impairment
N.A.	N.A.

Appendix C. Glossary

Term	Definition
Annual Debt Payment	The dollar amount that must be paid each year toward retiring existing debt.
Annual Operating Expenses	Total annual cost of operating and maintaining the water or wastewater utility service. This does not include savings or future draws from capital savings accounts.
Asset	A component of a facility with an independent physical and functional identity and age (e.g. pump, motor, sedimentation tank, main).
Asset Category	Where the asset best fits within your system (e.g., source water, distribution or collection), for organizational purposes.
Asset Inventory	A list of assets with details about each one (installation date, original cost, condition, and such). Also known as an asset register.
Asset Management	A process for maintaining a desired level of customer service at the best appropriate cost.
Asset Name	The name of the technology or equipment that is used for your system to properly function (for example, "5th Street Pumping Station"). See also, Asset.
Asset Status	This is how your utilities view an asset. Assets can be active (most assets), not in use or a future investment. You would designate an asset a "future investment" if you would like it added to your capital improvement plan.
Asset Type	The asset's functional purpose for a specific asset category (for example, intake structure, pumping station, transmission main, storage tank, and the like).
Associated Asset	Assets that are directly related to a primary asset's function.
Associated Location	A location that complements an associated asset.
Capital Improvement (Expense)	Funds required for the future purchase, repair or alteration to or for an asset, structure, or major pieces of equipment.

Term	Definition
Financial Assets	Intangible assets such as cash and bank balances.
Growth	The amount, as a percent, a community's demand for water or wastewater treatment has increased or decreased. This value will be used to adjust future revenues and expenses.
Inflation	The anticipated rate of increase in the price level of goods and services.
Interest Rate	A rate that is charged or paid for the use of money. Note: Do not include a percentage sign.
Level of Service	The characteristics of system performance such as how much, of what nature, and how frequently, with regard to the system's service.
Liabilities	The financial obligations for which the utility is responsible.
Maintained According to Factory Recommendation	The frequency of routine maintenance as recommended by the manufacturer.
Operating Expenses	Total annual cost of operating and maintaining the water or wastewater utility service. This does not include savings or future funds withdrawal from capital savings accounts. Operating expenses include maintenance, equipment, salaries, wages, benefits, supplies, chemicals, contracts, utilities, monitoring, testing, emergency, rent, mortgage, insurance, services, training costs, billing costs, fees, and security costs.
Operating Ratio	<p>Operating Ratio = Operating Revenue / Operating Expense</p> <p>The operating ratio demonstrates the relationship between operating revenues and operating expenses. A high ratio indicates that the organization has operating efficiency by keeping expenses low relative to revenue.</p>
Original Cost	The amount paid for the initial purchase of an asset.
Probability of Failure	The chance an asset will fail based on the percent of effective life consumed and redundancy.
Redundancy	Spare assets that have the ability to do the same job, if a failure of the primary asset were to occur.
Replacement Cost	How much will it cost to replace the asset, if required today?
Revenue	Funds earned by the system through the sale of water or

Term	Definition
	by other means.
Revenue Surplus/Deficit	The difference between the total cost of doing business and the funds received from fees, loans and grants, and interest earned from any accounts. If the result is zero or greater, the utility is taking in enough money to fully recover its costs and have a surplus. If the result is less than zero, the utility will not cover all costs and therefore will have a deficit.
Risk	The potential for realization of unwanted adverse consequences or events.
Routine Maintenance Cost	How much does it cost for a single routine maintenance activity to be performed on the asset?
Sales Ratio	Sales Ratio = Sales / Total Revenue The sales ratio measures the percentage of total revenue that is made up of sales from operations. A low ratio indicates that the organization is overly reliant on outside funding.
Savings Withdrawal	A fixed amount of money removed from the savings account of the utility to help pay for capital improvement items or other planned or unplanned maintenance.
Total Annual Cost of Doing Business	The total annual operating expenses plus the required total annual reserve contributions to reserve funds.

Asset Management Plan

Appendix D. Asset Inventory List

NAME	TYPE	LOCATION	CONDITION	CONSEQUENCE OF FAILURE	REDUNT
Aeration/Diffuser Assemblies	Treatment Equipment	Treatment Plant	Very Poor	Major	0%
Blower	Treatment Equipment	Treatment Plant	Very Poor	Major	100
Blower	Treatment Equipment	Treatment Plant	Good	Major	100
Chlorinator	Disinfection Equipment	Treatment Plant	Good	Major	100
Chlorine Solution Pumps	Pumping Equipment	Treatment Plant	Very Poor	Major	0%
Electrical Switchgear	Transformers / Switchgears / Wiring	Treatment Plant	Very Poor	Major	50
Generator	Generators	Treatment Plant	Very Poor	Major	0%
Backflow Preventer	Treatment Equipment	Treatment Plant	Excellent	Moderate	0%
Belt Press	Treatment Equipment	Treatment Plant	Excellent	Moderate	0%
Belt Press Control Panel	Computer Equipment / Software	Treatment Plant	Excellent	Moderate	0%
Cake Pump Control Panel	Motor Controls / Drives	Treatment Plant	Excellent	Moderate	0%
Dewatering Building	Buildings	Treatment Plant	Excellent	Moderate	0%
Filtrate Pump Control Box	Motor Controls / Drives	Treatment Plant	Excellent	Moderate	0%
Filtrate Pumps	Pumping Equipment	Treatment Plant	Excellent	Moderate	100
Main Breaker Box	Transformers / Switchgears / Wiring	Treatment Plant	Excellent	Moderate	0%
Polymer Feed	Treatment Equipment	Treatment Plant	Excellent	Moderate	0%

Power Distribution Panel	Transformers / Switchgears / Wiring
Sludge Dewatering Pump	Pumping Equipment
Sludge Feed Pump	Pumping Equipment
Sludge Feed Pump Control Panel	Motor Controls / Drives
Sulfinator	Disinfection Equipment
Ventilation Fan	Tools and Shop Equipment
Ventilation Fan Control Box	Motor Controls / Drives
Air Compressor	Tools and Shop Equipment
Air Conditioner	Tools and Shop Equipment
Bar Screen	Treatment Equipment
Centrifuge	Tools and Shop Equipment
Chlorine Changeover Valves	Disinfection Equipment
Computer	Computer Equipment / Software
Computer	Computer Equipment / Software
Control Building	Buildings
Dump Truck	Transportation Equipment
Flow Meter	Meters
Flow Meter	Meters
Garage Door Opener	Motor Controls / Drives

Asset Management Plan

Gas Detector	Sensors	Treatment Plant	Good	Minor	0%
Generator Building	Buildings	Treatment Plant	Fair (Average)	Minor	0%
Hot Water Heater	Tools and Shop Equipment	Treatment Plant	Excellent	Minor	0%
Louvers	Tools and Shop Equipment	Treatment Plant	Excellent	Minor	0%
Multigas Detector	Lab / Monitoring Equipment	Treatment Plant	Excellent	Minor	0%
Ph Meter	Lab / Monitoring Equipment	Treatment Plant	Good	Minor	0%
Portable Dissolved Oxygen Meter	Lab / Monitoring Equipment	Treatment Plant	Good	Minor	0%
Scale	Disinfection Equipment	Treatment Plant	Very Poor	Minor	100%
Scale	Disinfection Equipment	Treatment Plant	Good	Minor	200%
Scale	Disinfection Equipment	Treatment Plant	Very Poor	Minor	50%
Standby Sludge Pumps	Pumping Equipment	Treatment Plant	Good	Minor	0%
Test Kit	Lab / Monitoring Equipment	Treatment Plant	Good	Minor	0%
Trash Pump	Pumping Equipment	Treatment Plant	Excellent	Minor	0%
Unit Heaters	Tools and Shop Equipment	Treatment Plant	Excellent	Minor	100%
Ventilation Fan	Treatment Equipment	Treatment Plant	Excellent	Minor	0%
Wash Water Pump	Pumping Equipment	Treatment Plant	Good	Minor	0%
Drain Mate	Tools and Shop Equipment	Treatment Plant	Fair (Average)	Insignificant	0%
Fax Machine	Tools and Shop Equipment	Treatment Plant	Excellent	Insignificant	0%
Furnace	Tools and Shop Equipment	Treatment Plant	Very Poor	Insignificant	0%

Garage	Buildings
Photocopier	Tools and Shop Equi
Pick-up Truck	Transportation Equi
Tractor	Transportation Equi
Triple Beam	Lab / Monitoring Equi
Typewriter	Tools and Shop Equi
Bi-River Lift Station	Pumping Equipm
Old Furnace	Pumping Equipm
Cavaller Drive #1	Pumping Equipm
Cavaller Drive #2	Pumping Equipm
Cavaller Drive #3	Pumping Equipm
Collins Lift Station	Pumping Equipm
Hilltop House	Pumping Equipm
Hough Station	Pumping Equipm
Portable Generator	Pumping Equipm
Putnam on the Potomac	Pumping Equipm
Ridge Street #1	Pumping Equipm
Ridge Street #2	Pumping Equipm
Ridge Street #3	Pumping Equipm

Asset Management Plan

Rodgers	Pumping Equipment	See Map	Good	Moderate	0%
Shoebidge	Pumping Equipment	See Map	Good	Moderate	100%

**West Virginia Election Calendar Overview
2012 Primary Election - Jefferson County**

PRIMARY ELECTION	Jan	Feb	Mar	Apr	May	Jun
Receive application for absentee ballot for military/overseas voters	2				2	
Notice of precinct change - deadline	8					
List of authorized ballot vendors issued by SoS - deadline	9					
Candidate filing period	9-28					
Give notice of appointment of ballot commissioners	10-25					
Appoint ballot commissioners	15-30					
Inactive voters designated through non-response of NCOA		1				
Voter registration data copied as permanent record		1-29				
Deadline for ordering precinct change		8				
Adopt policy extending medical emergency absentee voting - deadline		8				
Petition for suspension of election official - deadline		8				
Notice of emergency precinct change		9				
Executive committees fill vacancies due to withdrawal of candidate - Pri		10/14				
Candidate withdrawal deadline		14				
Receive application for absentee ballot by all other eligible voters		14			2	
Notice of number of election officials - deadline		14				
SoS certifies and posts lists of candidates filed with their office		14				
Vendor applies for authority to print ballots		14				
Drawing for order on the ballot - 9am		21				
Executive committees fill vacancies due to withdrawal of candidate - Gen		27/29				
SoS certifies candidates to county clerk		28				
Estimate number of absentee ballots - deadline		28				
Candidate name removed from ballot due to death		28				
Election official nominations filed - deadline		28				
Emergency order to change precincts - deadline			9			
Notice of number of sets of emergency absentee voting commissioners			13			
Election officials and alternates appointed			20			
County clerk fills vacancies of election officials			20		8	
Voter program for eligible high school students - deadline			23			
Delivery of absentee ballots to county clerk			23			
Mail absentee ballots			23		3	
Notice mailed to election officials - deadline			27			
Write-in candidate filing deadline for Primary (POE)			27			
First primary report (or annual report)			31	6		
Election officials respond to questions - deadline				3		
Instructional program on/after				9		
Publish notice				9-13		
Paper ballots available				10		
Publish sample				12-18		
Supply clerk training				16		
Maintenance to bring EES equipment to courthouses				17		
Poll clerk training				17		
Poll commissioner training				17		
Voter registration				17		
Correct incomplete voter registration - deadline				18		
Public test of equipment				18		
Notify commission of equipment readiness for EV				18-23		
Accept voter registration without postmark - deadline				20		
Maintenance to bring EES equipment to courthouse				20		
Pre-primary financial reports due				23-27		
Last minute independent expenditures reported				23	7	
EARLY VOTING PERIOD				25	5	
Supply clerk training in Bardane - 9am				25		
Poll commissioner training in Bardane - 9am				26		
Poll clerk training in Bardane - 6pm				26		
Saturday EV				28		
Publish official list of candidates or sample ballots for ED					1-7	
Instructional program make-up session					1-7	
Request emergency medical absentee ballot					1-8 noon	
Deadline for absentee by mail application					2	

3-12
 Agenda
 info

**West Virginia Election Calendar Overview
2012 Primary Election - Jefferson County**

PRIMARY ELECTION	Jan	Feb	Mar	Apr	May	Jun
Make up training in Bardane - 6pm					3	
Saturday EV - last day to early vote					5	
Deadline to hand-deliver absentee ballot to the clerk's office					7	
Maintenance to pick up trucks at Home Depot/equipment delivery to pcts					7	
Election commissioners receive election supplies/delivery thereof					7	
PRIMARY ELECTION DAY					8	
Post precinct returns					8	
Maintenance to pick up equipment from pcts/return trucks to Home Depot					9	
Absentee ballots without postmark accepted					9	
Mail precinct returns to SoS					10	
Absentee ballots postmarked by ED accepted - before canvass convenes					14	
Military absentees without postmark accepted - before canvass convenes					14	
Canvass returns					14	
Recount/contest primary election					TBD	
Post-primary financial statements					21	19
Maintenance to return EV equipment to Bardane; set up mtg room/hall					22	
Transmit certificate of results to SoS						7

Last updated 3/6/12

**WEST VIRGINIA LOTTERY
WEEKLY SETTLEMENT FOR CHARLES TOWN**

Week Ending Date	Week Ending April 21, 2012
To be Deposited on:	April 27, 2012
Amount Played	81,072,142.81
Amount Won	72,943,178.51
Amount Promo	245,596.00
MWAP Contribution	<u>6,622.80</u>
Adjusted Gross Terminal Revenue	<u>7,876,745.50</u>
Administrative Costs @ 4%	0.00
Excess Lottery Fund @ 4%	315,069.82
Net Terminal Revenue	<u>7,561,675.68</u>
Surcharge @ 10%	756,167.57
State Share Excess @ 58%	438,577.19
Track Share of Capital Reinvestment @ 42%	317,590.38
<i>Track Share of Capital Reinvestment @ 42% - 96%</i>	\$ 304,886.76
<i>Track Share of Capital Reinvestment @ 42% - 4%</i>	\$ 12,703.62
Adjusted Net Terminal Revenue	<u>6,805,508.11</u>
Racetrack @ 46.50% / 42%	2,858,313.41
Lottery Fund @ 30% / 0%	0.00
Excess Lottery Fund @ 0% / 41%	2,790,258.32
Race Track Purses @ 7% / 14% / 8%	544,440.65
Workers' Compensation Debt Reduction @ 7% / 0%	0.00
Employee Pension Fund @ 1% / .5%	34,027.54
Greyhound Development @ .75%	51,041.31
Thoroughbred Development @ .75%	51,041.31
Racing Commission @ 1%	68,055.08
County/Municipality @ 2%	136,110.16
3% Funds:	
Tourism Promotion Fund @ 1.375%	93,575.74
Development Office Promotion Fund @ .375%	25,520.66
Research Challenge Fund @ .5%	34,027.54
Capitol Renovation and Improvement Fund @ .6875%	46,787.87
2004 Capitol Complex Parking Garage Fund @ .0625%	4,253.44
1% Funds:	
State Capitol Complex Parking Garage @ 1%	0.00
Cultural Facilities and Capitol Resources @ .5%	0.00
Capitol Dome and Capitol Improvements @ .5% / 1%	<u>68,055.08</u>
	<u>6,805,508.11</u>

WEST VIRGINIA LOTTERY

First Benchmark

Charles Town

County / City Split

Fiscal Year 2012

Charles Town
 1999 Net Terminal Revenue \$ 45,603,174
 Benchmark Goal @ 2% \$ 912,063.48

DATE	2% OF ADJ. NET REVENUE	TO JEFFERSON COUNTY	TO FIVE CITIES	BOLIVAR 8.19%	CHARLES TOWN 41.20%	HARPERS FERRY 2.24%	RAMSON 34.78%	SHEPHERDS TOWN 13.59%
2 days ending: 7/1/2011 - 7/2/2011	\$ 69,824.12	\$ 69,824.12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Week Ending:								
07/09/11	\$ 171,717.28	\$ 171,717.28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
07/16/11	\$ 143,019.52	\$ 143,019.52	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
07/23/11	\$ 146,508.00	\$ 146,508.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
07/30/11	\$ 144,510.28	\$ 144,510.28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
08/06/11	\$ 151,495.28	\$ 151,495.28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
08/13/11	\$ 149,711.80	\$ 117,350.38	\$ 32,361.42	\$ 2,650.40	\$ 13,332.90	\$ 724.90	\$ 11,255.30	\$ 4,397.92
08/20/11	\$ 143,228.24	\$ 71,614.12	\$ 71,614.12	\$ 5,865.20	\$ 29,505.01	\$ 1,604.16	\$ 24,907.39	\$ 9,732.36
08/27/11	\$ 126,864.28	\$ 63,432.14	\$ 63,432.14	\$ 5,195.09	\$ 26,134.04	\$ 1,420.88	\$ 22,061.70	\$ 8,620.43
09/03/11	\$ 161,675.52	\$ 80,837.76	\$ 80,837.76	\$ 6,620.61	\$ 33,305.16	\$ 1,810.77	\$ 28,115.37	\$ 10,985.85
09/10/11	\$ 169,691.60	\$ 84,845.80	\$ 84,845.80	\$ 6,948.87	\$ 34,956.47	\$ 1,900.55	\$ 29,509.37	\$ 11,530.54
09/17/11	\$ 133,497.24	\$ 66,748.62	\$ 66,748.62	\$ 5,466.71	\$ 27,500.43	\$ 1,495.17	\$ 23,215.17	\$ 9,071.14
09/24/11	\$ 137,859.60	\$ 68,929.80	\$ 68,929.80	\$ 5,645.35	\$ 28,399.08	\$ 1,544.03	\$ 23,973.78	\$ 9,367.56
10/01/11	\$ 137,743.28	\$ 68,871.64	\$ 68,871.64	\$ 5,640.59	\$ 28,375.12	\$ 1,542.72	\$ 23,953.55	\$ 9,359.66
10/08/11	\$ 141,733.80	\$ 70,866.90	\$ 70,866.90	\$ 5,804.00	\$ 29,197.16	\$ 1,587.42	\$ 24,647.51	\$ 9,630.81
10/15/11	\$ 150,525.32	\$ 75,262.66	\$ 75,262.66	\$ 6,164.01	\$ 31,008.22	\$ 1,685.88	\$ 26,176.35	\$ 10,228.20
10/22/11	\$ 137,515.44	\$ 68,757.72	\$ 68,757.72	\$ 5,631.26	\$ 28,328.18	\$ 1,540.17	\$ 23,913.94	\$ 9,344.17
10/29/11	\$ 121,015.96	\$ 60,507.98	\$ 60,507.98	\$ 4,955.60	\$ 24,929.29	\$ 1,355.38	\$ 21,044.68	\$ 8,223.03
11/05/11	\$ 141,347.76	\$ 70,673.88	\$ 70,673.88	\$ 5,788.19	\$ 29,117.64	\$ 1,583.09	\$ 24,580.38	\$ 9,604.58
11/12/11	\$ 135,254.20	\$ 67,627.10	\$ 67,627.10	\$ 5,538.66	\$ 27,862.36	\$ 1,514.85	\$ 23,520.71	\$ 9,190.52
11/19/11	\$ 121,381.20	\$ 60,690.60	\$ 60,690.60	\$ 4,970.56	\$ 25,004.53	\$ 1,359.47	\$ 21,108.19	\$ 8,247.85
11/26/11	\$ 148,281.08	\$ 74,140.54	\$ 74,140.54	\$ 6,072.11	\$ 30,545.90	\$ 1,660.75	\$ 25,786.08	\$ 10,075.70
12/03/11	\$ 118,859.88	\$ 59,429.94	\$ 59,429.94	\$ 4,867.31	\$ 24,485.14	\$ 1,331.23	\$ 20,669.73	\$ 8,076.53
12/10/11	\$ 102,790.88	\$ 51,395.44	\$ 51,395.44	\$ 4,209.29	\$ 21,174.92	\$ 1,151.26	\$ 17,875.33	\$ 6,984.64
12/17/11	\$ 111,962.64	\$ 55,981.32	\$ 55,981.32	\$ 4,584.87	\$ 23,064.31	\$ 1,253.98	\$ 19,470.30	\$ 7,607.86
12/24/11	\$ 108,497.24	\$ 54,248.62	\$ 54,248.62	\$ 4,442.96	\$ 22,350.43	\$ 1,215.17	\$ 18,867.67	\$ 7,372.39
12/31/11	\$ 189,322.00	\$ 94,661.00	\$ 94,661.00	\$ 7,752.74	\$ 39,000.32	\$ 2,120.41	\$ 32,923.10	\$ 12,864.43
01/07/12	\$ 149,726.80	\$ 74,863.40	\$ 74,863.40	\$ 6,131.31	\$ 30,843.72	\$ 1,676.94	\$ 26,037.49	\$ 10,173.94
01/14/12	\$ 117,803.84	\$ 58,901.92	\$ 58,901.92	\$ 4,824.07	\$ 24,267.59	\$ 1,319.40	\$ 20,486.09	\$ 8,004.77
01/21/12	\$ 123,639.84	\$ 61,819.92	\$ 61,819.92	\$ 5,063.05	\$ 25,469.80	\$ 1,384.77	\$ 21,500.97	\$ 8,401.33
01/28/12	\$ 125,797.56	\$ 62,898.78	\$ 62,898.78	\$ 5,151.41	\$ 25,914.30	\$ 1,408.93	\$ 21,876.20	\$ 8,547.94
02/04/12	\$ 144,309.32	\$ 72,154.66	\$ 72,154.66	\$ 5,909.47	\$ 29,727.72	\$ 1,616.26	\$ 25,095.39	\$ 9,805.82
02/11/12	\$ 132,858.08	\$ 66,429.04	\$ 66,429.04	\$ 5,440.54	\$ 27,368.76	\$ 1,488.01	\$ 23,104.02	\$ 9,027.71
02/18/12	\$ 154,911.76	\$ 77,455.88	\$ 77,455.88	\$ 6,343.64	\$ 31,911.82	\$ 1,735.01	\$ 26,939.16	\$ 10,526.25
02/25/12	\$ 155,223.56	\$ 77,611.78	\$ 77,611.78	\$ 6,356.40	\$ 31,976.05	\$ 1,738.51	\$ 26,993.38	\$ 10,547.44
03/03/12	\$ 151,927.72	\$ 75,963.86	\$ 75,963.86	\$ 6,221.44	\$ 31,297.10	\$ 1,701.60	\$ 26,420.23	\$ 10,323.49
03/10/12	\$ 153,617.24	\$ 76,808.62	\$ 76,808.62	\$ 6,290.63	\$ 31,645.15	\$ 1,720.51	\$ 26,714.04	\$ 10,438.29
03/17/12	\$ 153,767.84	\$ 76,883.92	\$ 76,883.92	\$ 6,296.79	\$ 31,676.18	\$ 1,722.20	\$ 26,740.23	\$ 10,448.52
03/24/12	\$ 144,216.72	\$ 72,108.36	\$ 72,108.36	\$ 5,905.67	\$ 29,708.64	\$ 1,615.23	\$ 25,079.29	\$ 9,799.53
03/31/12	\$ 148,488.44	\$ 74,244.22	\$ 74,244.22	\$ 6,080.60	\$ 30,588.62	\$ 1,663.07	\$ 25,822.14	\$ 10,089.79
04/07/12	\$ 150,765.96	\$ 75,382.98	\$ 75,382.98	\$ 6,173.86	\$ 31,057.79	\$ 1,688.58	\$ 26,218.20	\$ 10,244.55
04/14/12	\$ 142,130.68	\$ 71,065.34	\$ 71,065.34	\$ 5,820.25	\$ 29,278.92	\$ 1,591.86	\$ 24,716.53	\$ 9,657.78
04/21/12	\$ 136,110.16	\$ 68,055.08	\$ 68,055.08	\$ 5,573.71	\$ 28,038.69	\$ 1,524.43	\$ 23,669.56	\$ 9,248.69
Subtotal	\$ 6,001,128.96	\$ 3,456,596.20	\$ 2,544,532.76	\$ 208,397.22	\$ 1,048,347.46	\$ 56,997.55	\$ 884,988.52	\$ 345,802.01

Benchmark Goal @ 2% \$ 912,063.48

Remainder until 1% / 1% Split \$ -

VIDEO LOTTERY REPORT

FY 2009			FY 2010			FY 2011			FY 2012		
Date	Amount		Date	Amount		Date	Amount		Date	Amount	
7/5/2008 *	169,912.56		7/4/2009 *	128,262.42		7/3/2010	115,402.58		7/1-2/2011	69,824.12	
7/12/2008	176,592.38		7/11/2009	168,815.08		7/10/2010	205,731.64		7/9/2011	171,717.28	
7/19/2008	160,344.08		7/18/2009	160,652.98		7/17/2010	161,386.76		7/16/2011	143,019.52	
7/26/2008	162,982.74		7/25/2009	158,869.08		7/24/2010	160,368.28		7/23/2011	146,508.00	
8/2/2008	178,171.04		8/1/2009	174,493.08		7/31/2010	157,802.08		7/30/2011	144,510.28	
8/9/2008	123,538.04		8/8/2009	138,408.80		8/7/2010	136,494.98		8/6/2011	151,495.28	
8/16/2008	82,482.89		8/15/2009	81,222.14		8/14/2010	78,376.68		8/13/2011	117,350.38	
8/23/2008	76,426.18		8/22/2009	76,260.31		8/21/2010	76,199.02		8/20/2011	71,614.12	
8/30/2008	89,459.86		8/29/2009	80,472.92		8/28/2010	72,460.03		8/27/2011	63,432.14	
9/6/2008	91,644.46		9/5/2009	80,798.15		9/4/2010	76,362.84		9/3/2011	80,837.76	
9/13/2008	79,729.93		9/12/2009	86,286.92		9/11/2010	82,969.36		9/10/2011	84,845.80	
9/20/2008	71,269.36		9/19/2009	70,010.15		9/18/2010	67,638.78		9/17/2011	66,748.62	
9/27/2008	79,735.73		9/26/2009	69,316.87		9/25/2010	70,435.06		9/24/2011	68,929.80	
10/4/2008	75,186.22		10/3/2009	72,286.04		10/2/2010	71,013.86		10/1/2011	68,871.64	
10/11/2008	77,139.04		10/10/2009	69,650.63		10/9/2010	69,311.50		10/8/2011	70,866.90	
10/18/2008	80,668.26		10/17/2009	73,560.21		10/16/2010	75,234.62		10/15/2011	75,262.66	
10/25/2008	64,379.44		10/24/2009	67,581.66		10/23/2010	70,290.80		10/22/2011	68,757.72	
11/1/2008	68,352.42		10/31/2009	64,528.30		10/30/2010	65,615.04		10/29/2011	60,507.98	
11/8/2008	70,823.02		11/7/2009	63,741.59		11/6/2010	61,337.62		11/5/2011	70,673.88	
11/15/2008	65,565.50		11/14/2009	65,959.64		11/13/2010	64,595.28		11/12/2011	67,627.10	
11/22/2008	63,883.80		11/21/2009	59,547.05		11/20/2010	56,010.08		11/19/2011	60,690.60	
11/29/2008	69,850.12		11/28/2009	72,399.98		11/27/2010	71,170.90		11/26/2011	74,140.54	
12/6/2008	55,696.68		12/5/2009	51,006.51		12/4/2010	53,215.08		12/3/2011	59,429.94	
12/13/2008	60,178.04		12/12/2009	52,460.58		12/11/2010	46,944.00		12/10/2011	51,395.44	
12/20/2008	52,189.19		12/19/2009	32,834.39		12/18/2010	42,076.76		12/17/2011	55,981.32	
12/27/2008	72,205.91		12/26/2009	53,406.34		12/25/2010	50,450.28		12/24/2011	54,248.62	
1/3/2009	96,504.65		1/2/2010	92,980.40		1/1/2011	85,152.12		12/31/2011	94,661.00	
1/10/2009	53,286.62		1/9/2010	55,020.46		1/8/2011	54,301.30		1/7/2012	74,863.40	

1/17/2009	56,068.87	1/16/2010	60,551.28	1/15/2011	54,005.90	1/14/2012	58,901.92
1/24/2009	71,474.63	1/23/2010	69,943.53	1/22/2011	60,924.74	1/21/2012	61,819.92
1/31/2009	61,089.80	1/30/2010	48,527.75	1/29/2011	48,036.94	1/28/2012	62,898.78
2/7/2009	83,539.63	2/6/2010	37,155.14	2/5/2011	60,777.44	2/4/2012	72,154.66
2/14/2009	76,054.44	2/13/2010	44,334.00	2/12/2011	67,471.84	2/11/2012	66,429.04
2/21/2009	91,838.41	2/20/2010	76,946.12	2/19/2011	72,018.54	2/18/2012	77,455.88
2/28/2009	80,806.88	2/27/2010	72,024.40	2/26/2011	75,544.02	2/25/2012	77,611.78
3/7/2009	48,837.13	3/6/2010	76,936.85	3/5/2011	74,535.34	3/3/2012	75,963.86
3/14/2009	96,025.39	3/13/2010	71,007.37	3/12/2011	66,979.48	3/10/2012	76,808.62
3/21/2009	79,002.82	3/20/2010	74,335.38	3/19/2011	73,113.26	3/17/2012	76,883.92
3/28/2009	79,250.83	3/27/2010	69,941.88	3/26/2011	68,490.80	3/24/2012	72,108.36
4/4/2009	75,968.30	4/3/2010	70,636.28	4/2/2011	70,846.58	3/31/2012	74,244.44
4/11/2009	75,964.94	4/10/2010	69,692.79	4/9/2011	67,076.78	4/7/2012	75,382.98
4/18/2009	80,598.22	4/17/2010	69,335.92	4/16/2011	64,698.56	4/14/2012	71,065.34
4/25/2009	75,571.46	4/24/2010	68,714.11	4/23/2011	67,674.14	4/21/2012	68,055.08
5/2/2009	73,957.05	5/1/2010	68,799.06	4/30/2011	66,807.50		
5/9/2009	76,697.22	5/8/2010	67,403.54	5/7/2011	66,379.74		
5/16/2009	71,925.70	5/15/2010	70,186.32	5/14/2011	66,699.76		
5/23/2009	81,395.43	5/22/2010	64,695.71	5/21/2011	63,210.44		
5/30/2009	82,161.55	5/29/2010	67,157.40	5/28/2011	64,724.06		
6/6/2009	74,895.74	6/5/2010	77,371.80	6/4/2011	74,952.34		
6/13/2009	67,327.23	6/12/2010	66,106.29	6/11/2011	62,203.12		
6/20/2009	75,500.53	6/19/2010	64,888.48	6/18/2011	61,200.76		
6/27/2009	67,354.10	6/26/2010	63,950.29	6/25/2011	65,470.44		
6/30/2009 ***	32,059.58	6/30/2010	29,667.19	6/30/2011	34,351.16		
TOTALS 4403564.04		4041141.56		4016541.01		3456596.42	

Table Game Revenue

Date	Amount
July/August, 2010	154,185.68
September, 2010	94,247.84
October, 2010	105,903.60
November, 2010	108,717.67
December, 2010	118,721.11
January, 2011	106,189.21
February, 2011	105,776.45
March, 2011	120,927.10
April, 2011	130,654.61
May, 2011	130,492.02
June, 2011	121,576.41
Total 2010-2011	1297391.7

Date	Amount
July, 2011	141,718.01
August, 2011	137,473.92
September, 2011	110,375.25
October, 2011	124,273.94
November, 2011	121,118.87
December, 2011	140,509.93
January, 2012	137,812.68
February, 2012	142,770.01
March, 2012	151,845.46
Total 2011-2012	1207898.07

WVACo Board of Directors
Spring Board Meeting Draft Agenda
Twin Falls State Park
June 3 - 5, 2012



Sunday, June 3rd

3:00 - 5:00 Registration
5:00 p.m. Annual Meeting Planning Committee Meeting (tentative time)
Other Committee Meetings as Needed - Committee Members will be contacted.
6:00 p.m. BBQ Dinner Sponsored by Wyoming County Commission & Hosted by Commissioner Jason Mullins

Monday, June 4th

8:00 a.m Breakfast / Possible Committee Meetings to be determined
9:00 a.m. **General Session - WVACo Business Meeting**
Pledge of Allegiance /Roll Call/ Establish Quorum/Approval of Minutes
Welcome from Wyoming County Officials
Self-Introductions

Remarks from Outgoing President - *Jerry Berry, Summers County Commissioner*

Welcome from the President - *Jeff Waybright, Jackson County Clerk*
Report & Brief Board Orientation from Executive Director - *Patti Hamilton*
Update on Dental/Vision Benefit Plan & WVACo Endorsed Life Insurance Program *Kathy Hughes Yates & Paul White*
Update on WV Counties Risk Pool - *Patti Hamilton / WVCoRP Staff*
Report from NACo Northeast County Caucus Board Representative - *Patsy Noland*

Report from Compensation Committee - *Lavada Williamson, Committee Chair* Budget Committee Report / Adopt Budget for Fiscal Year 2013 - *Committee Chair*

Approve Renewal of Contract for Knight Consulting Services for FY 2013

Report from Annual Meeting/Reception Committee / Approve Preliminary Plans - *Committee Chair*
Committee Appointments for 2012-2013

Noon - Luncheon - Area Legislators Invited

1:00 - 3:00 Presentation by WV Sheriff's Association - *Information about Constitutional Amendment Campaign*
Continuation of Morning Agenda / County Health Initiative / Legislative Issues needing Board Discussion or Action
Old Business / New Business
Free Time After Business Meeting -Enjoy Twin Falls! / Committee Meetings As Needed

6:00 p.m. Cook-Out Around the Campfire - Sponsored by Wyoming County Commission & Hosted by David "Bugs" Stover

Tuesday, June 5th

9:00- 11:00 Regional Wrap-Up
"Issues & Eggs" Power Point Presentation - Review of 2012 Legislative Session
Planning for 2012 Interim Session & 2013 Legislative Session





2012
SPRING BOARD
MEETING

June 3-5, 2012
TWIN FALLS RESORT



REGISTRATION



Name _____

County _____ Title _____

Address _____

GUEST _____

Registration Fee for Guests: \$40.00 Non-Board Member: \$75.00
No registration fee for Board Members.

_____ I will be attending the meeting but do not need a room.

ACCOMMODATIONS: TWIN FALLS STATE PARK Check In: 3:00 pm Check Out: 12:00 pm

ROOM: ___ Queen (\$87) ___ Doubles (\$87) ___ Queens (\$95)

___ 2 Queens (\$95) ___ King (\$105) ___ King Suite (\$120)

PAYMENT:

___ Direct Bill Credit Card: TYPE _____ Card# _____

Exp. _____ WVACO PHONE: 304-346-0591 FAX: 304-346-0592

PLEASE INCLUDE LETTER OF CREDIT (if applicable) and
TAX EXEMPT FORM WITH REGISTRATION

WVACO will make all room reservations.



Twin Falls is located southwest of Beckley. ▶ Exit I-64/I77 at Beckley Exit 42 (marked Beckley and Robert C. Byrd Drive). From Exit 42 it is 28 miles(45 minutes) to Twin Falls Lodge. ▶ From the Exit Ramp turn right onto Rt 16 South/Rt 97 West (marked Sophia, Mullens). Drive approximately 3.5 miles. ▶ Bear right onto Rt 54 South towards Mullens. ▶ Drive approximately 15 miles on Rt 54 South. You will drive through the towns of Glen White and Lester. These towns are locally noted for very strict enforcement of their speed limits, so be careful. ▶ At Maben, about a quarter of a mile past Maben Easy Stop, turn right onto Rt 97 West and drive 5.5 miles. ▶ About a quarter of a mile past the Exxon Station you will come to a STOP sign. ▶ Turn left onto Bear Hole Road. It is 4.1 miles to Twin Falls Lodge.

Copy to all Commissioners 4/27/12. - ds