



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 Fax: (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT
Pasha Majdi

COMMISSIONER
Jack Hefestay

COMMISSIONER
Cara Keys

COMMISSIONER
Mike Mood

COMMISSIONER
Steve Stolipher

Updated 2/4/2025 – see highlighted portions for amendments

AGENDA

JEFFERSON COUNTY COMMISSION
FIRST QUARTERLY SESSION – JANUARY- MARCH 2025

THURSDAY, February 6, 2025

9:30 a.m.

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

Zoom Broadcast (live):

<https://us06web.zoom.us/j/84812154493?pwd=2jPDJ2nEX778VvHWeCGLulkk2r6k9h.1>

Meeting ID: 848 1215 4493

Passcode: 135498

If you are attending virtually and would like to speak during the public comment period, please use the “raise hand” icon.

I. Call to Order

II. Prayer – Moment of silence

III. Pledge of Allegiance

IV. Pledge of Allegiance to the West Virginia Flag

I pledge allegiance to the flag of West Virginia, which serves as a constant reminder that ‘Mountaineers Are Always Free,’ which stands as a symbol of her majestic mountains, fertile forests, rich veins of coal, and the pride of her people.

V. Consent Agenda

1. Approval of Minutes

- a. January 14, 2025 Special Session Meeting Minutes DRAFT
- b. January 16, 2025 Regular Meeting Minutes DRAFT
- c. January 30, 2025 BORE Meeting Minutes DRAFT

2. Approval of Accounts Payable:

- a. January 23, 2025 \$ 471,594.60
- b. January 30, 2025 \$ 961,306.02

3. Approval of Manual Checks:
 - a. January 23, 2025 \$ 188,421.06
 - b. January 30, 2025 \$ 242,082.39

4. Approval of Payroll:
 - a. January 31, 2025 \$ 473,397.07

5. Approval of Requisitions
 - a. February 6, 2025 \$ 23,000.00

VI. Announcements

Please note:

- Draft minutes are included in the meeting packet. Draft meeting minutes are often also available separately online. See both here:
<https://www.jeffersoncountywv.org/find-it-fast/agendas-minutes-and-webcasts>
- Jefferson County Commission spending syncs with West Virginia Checkbook (<https://www.wvcheckbook.gov/>) daily. A complete list of publicly available information, and tutorials on using the site, are available online.

Report if there are changes in the agenda if applicable.

VII. Public Comment

To participate in public comment in person, please sign the public comment sign-in sheet located on the table in the back of the room. To participate virtually, please “raise your hand” on the Zoom control panel. Please submit comments via email to info@jeffersoncountywv.org. Your name and any written comments submitted for the record will be included in the minutes.

VIII. Regular Agenda- It is expected that all items will include discussion and possible action

New Businesses

1. 9:35 am Angie Banks, County Assessor
1.1. Exonerations

2. 9:40 am Personnel service awards
2.1. Years of Service Awards
2.2. Outstanding Constituent Relations
2.3. Exemplary Professionalism

3. 9:50 am Consideration of a sportsplex and/ or convention center (Majdi)

- 3.1. Panel 1: Krista Hoffman (executive director of the Jefferson County Development Authority), Jennifer Myers (director of the Jefferson County Parks and Recreation Commission), Andy Lang (Mayor of Bridgeport, WV)
- 3.2. Panel 2: Isabella Jacot (student, Jefferson High School), Bryan Sutherland (president of Jefferson County Little League)
4. 11:00 am FY 2025 HOME INVESTMENT PARTNERSHIP PROGRAM Public Hearing & FY 25 Resolution Adoption
4.1. Public hearing- speakers Jennifer Verdugo, Bob Anderson
4.2. FY25 Resolution
5. 11:10 pm Jeff Polczynski, director of Emergency Communications
5.1. Next Gen 911
5.2. Collaborations for Jefferson County Public Schools Career Technical Education program
6. 11:20 am Karen Olden, Jefferson County Clerk (Probate)
6.1. Hearing: Petition to probate the will of Thelma M. Kaetzel, in solemn form
7. 11:50 pm Groundwater (Majdi)
7.1. Groundwater study
7.2. Water Advisory Committee
8. 12:20 pm Brant Lowe, private citizen
8.1. Request to vacate a section of unimproved right-of-way
- BREAK*** ***Lunch***
- BREAK*** ***Board of Equalization and Review Meeting***
9. 2:00 pm Roger Goodwin, deputy county administrator
9.1. Annual Impact Fee report
10. 2:30 pm Task Force on Agri-tourism Development (Majdi)
11. 2:40 pm Follow up: Legislative priorities roundtable
11.1. Calendar Year 2025 Commission Priorities
11.2. Calendar Year 2025 Commission Priorities for the West Virginia Legislature
11.3. Calendar Year 2025 Commission Priorities for the US Congress
12. 3:10 pm Jennifer Myers, director of the Jefferson County Parks & Recreation Commission
12.1. Presentation of draft concept plan for Moulton Park

13. 3:20 pm Thomas Hansen, Jefferson County Sheriff and Treasurer
13.1. Court bailiff update
13.2. Part-time bailiff hire
14. 3:30 pm Jessica James, chief human resources officer
14.1. Approval of Hires – Firefighter/EMT I; Firefighter/Paramedic I; Firefighter, EMT II – ESA
14.2. Approval of Hire – GIS Analyst – Jefferson County Department of IT/GIS and Addressing Office
14.3. Discontinuation of current cleaning contract; approval to solicit for three full-time, in-house- custodial employees; approval of promotion to Deputy Director – Jefferson County Department of Fleet and Facilities Management
15. 3:40 pm David Bound, chief financial officer
15.1. State and internal budget revisions
16. 3:50 pm Edwina Benites-LM, County Administrator
16.1. Consider matters involving or affecting the construction, planning, purchase, sale, or lease of property for County office space and/ or courthouse space.

Old Business

17. 4:10 pm Tabled action: Conversion and reclassification of part-time positions (Jefferson County Emergency Services Agency)

CORRESPONDENCE AND INFORMATION

1. April Andrews – with attachment
2. Jean Zigler Kotch – with attachment
3. Richard Zigler – with attachment
4. Christine Marshall – with attachment

Minutes
Special Session
Jefferson County Commission
Tuesday, January 14, 2025

A special session of the Jefferson County Commission was held on Tuesday, January 14, 2025, during the first quarterly session at 3:00 p.m. The meeting was held via Zoom and in-person. Present were President Pasha Majdi, Vice President Mike Mood, Commissioner Steve Stolipher, Commissioner Cara Keys, and Commissioner Jack Hefestay. Also present were Edwina Benites-LM, County Administrator, Nathan Cochran, Assistant Prosecuting Attorney, Jacki Shadle, County Clerk, and Lynn Dillow, Administrative Clerk. The archived meeting of the Tuesday, January 14, 2025, meeting is available on the Jefferson County Commission website.

Call to Order

Pledge of Allegiance

1. Jefferson County Commission; Luke Seigfried, County Planner

Comprehensive Plan: Consideration of the Comprehensive Plan

Commissioner Majdi motioned to request that the Planning Commission designate both parcels 19-7-22-33-9, 8.31 acre Shirley as continued rural land use classification as it was in the 2035 Comprehensive Plan. The motion was seconded by Commissioner Hefestay. The motion was approved 4-0. Commissioner Mood recused himself from the vote on this item.

Commissioner Hefestay motioned to accept the first 7 staff recommended edits of the Comprehensive Plan as presented. The motion was seconded by Commissioner Stolipher. The motion was approved unanimously 5-0.

Commissioner Mood motioned to designate all parcels mentioned on page 6 item 32 as residential or commercial. The motion was seconded by Commissioner Stolipher. The motion was approved 4-0. Commissioner Keys recused herself from the vote on this item.

Commissioner Hefestay motioned to strike objective 1.4 from the Comprehensive Plan. The motion was seconded by Commissioner Mood. The motion was approved 4-1 (Stolipher).

Commissioner Stolipher motioned to accept the Comprehensive Plan updates and include the following edits 1 – 10, to include a letter including reasons and discussions. The motion was seconded by Commissioner Mood. The motion was approved unanimously 5-0.

2. Jefferson County Commission; Delegate Joe Funkhouser, Delegate Wayne Clark; Delegate Chris Anders; Ranson Councilmember Amanda Stroud; Ranson Councilmember Ken Suits

Commission Legislative Workshop

Public Comment for the Legislative Workshop was provided by:

1. Amanda Stroud
2. Christine Marshall
3. Ken Suits
4. Jacquelyn Milliron

Commissioner Majdi motioned to direct the County Administrator to delineate priorities as discussed today in the memorandum and present at the February 6th commission meeting. The motion was seconded by Commissioner Stolipher. The motion was approved unanimously 5-0.

Adjourn

Having no further business, Commissioner Majdi motioned to adjourn the meeting. The Commission adjourned at 5:38 p.m.

Pasha Majdi, PRESIDENT

Respectfully submitted
Lynn Dillow
Jefferson County Commission Administrative Clerk

Jefferson County Commission

COMMISSION LEGISLATIVE WORKSHOP

SIGN-IN SHEET TO SPEAK DURING PUBLIC HEARING

Tuesday, January 14, 2025

NAME	NAME OF GROUP REPRESENTED
Amanda Stroud	
Christin Maxwell	
Amber Eckert	
Ken Switz	City of Ranson
Jacquelyn Milliron	

THE COMMISSION IS ALLOWING THREE (3) MINUTES FOR EACH PERSON WISHING TO MAKE PUBLIC COMMENT

Minutes
Jefferson County Commission
Thursday, January 16, 2025

A meeting of the Jefferson County Commission was held on Thursday, January 16, 2025, during the first quarterly session at 6:00 p.m. The meeting was held via Zoom and in-person. Present were President Pasha Majdi, Vice President Mike Mood, Commissioner Steve Stolipher (virtual), Commissioner Cara Keys, and Commissioner Jack Hefestay. Also present were Edwina Benites-LM, County Administrator; Nathan Cochran, Assistant Prosecuting Attorney; Jacki Shadle, County Clerk; and Lynn Dillow, Administrative Clerk. The archived meeting of the Thursday, January 16, 2025, meeting is available on the Jefferson County Commission website.

Prayer led by Father Timothy J. Grassi, Pastor of St. James The Greater Catholic Church

Pledge of Allegiance

Pledge of allegiance to the West Virginia flag

APPROVAL OF MINUTES

Commissioner Majdi motioned to approve the regular meeting minutes from January 2, 2025, and the special session meeting minutes from December 4, 2024. The motion was approved unanimously.

APPROVAL OF PAYROLL

Commissioner Majdi motioned to approve the payroll for January 17, 2025, in the amount of **\$497,455.40**. The motion was approved unanimously.

APPROVAL OF ACCOUNTS PAYABLE

CHECK NUMBER		VENDOR NAME	UNCLEARED
91652		ADKINS AUTOMOTIVE LLC	1,651.06
91653		AMERICAN FAMILY LIFE INSURANCE COMPANY ICU	1,930.02
91654		AMERIFLEX	122.40
91655		AT&T	155.15
91656		BEGIN COUNSELING PLLC	1,162.20
91657		BLUE RIDGE MOUNTAIN VOLUNTEER FIRE DEPARTMENT	63,750.00
91658		BOLAND TRANE SERVICES INC	1,814.00
91659		BOUND TREE MEDICAL LLC	1,729.15

91660		BUREAU OF CHILD SUPPORT	612.00
91661		C&T FORLIFT REPAIR	224.50
91662		CAPITAL ELECTRIC	3,153.28
91663		CHANCE BOEHNING	199.00
91664		CHERI VEST	5,250.00
91665		COMPTROLLER OF MARYLAND	1,988.82
91666		DOING BETTER BUSINES	370.55
91667		EFTPS IRS TAXES	186,118.36
91668		EMPOWER RETIREMENT	7,663.95
91669		F.J. HEFESTAY JR	226.46
91670		FISHER AUTO PARTS	719.99
91671		FRIENDSHIP VOLUNTEER FIRE DEPARTMENT	1,800.00
91672		FRONTIER	13,044.29
91673		G & TRIPLE T LLC	3,840.00
91674		GUTTMAN OIL CO	8,252.53
91675		J.C. EHRLICH	904.87
91676		JEFFERSON COUNTY SOLID WASTE AUTHORITY	242.13
91677		JEFFERSON SECURITY BANK	4,153.00
91678		KIDWELLS PLUMBING & HEATING	1,850.00
91679		KONE BROOKLYN	1,809.75
91680		MCA, INC	5,956.80
91681		MCKESSON MEDICAL-SURGICAL GOVERNMENT SOLUTIONS LLC	5,803.53
91682		MICHAEL MONAGHAN	5,056.38
91683		MINNICKS TOWING & RECOVERY	200.00
91684		MURIEL RUTH OHLIN	80.33
91685		NICOLE NOBREGA	1,199.21
91686		NATIONWIDE RETIREMENT SOLUTIONS	1,065.00
91687		PA SCDU	320.00
91688		POTOMAC EDISON	827.81
91689		R.E. MICHEL CO. LLC	23.66
91690		RC TOWING LLC	320.50
91691		RETIREE HEALTH BENEFIT TRUST	6,652.00
91692		RICE TIRES CO	1,184.90
91693		RICOH USA INC	935.55
91694		ROBERTS OXYGEN COMPANY, INC	2,027.64
91695		SOFTWARE SYSTEMS INC	1,174.95
91696		STATE TAX DEPARTMENT	250.00
91697		SUMMIT COMMUNITY BANK	416.44
91698		TAMMY MOBLEY	3,762.62
91699		TEK ADVISORS LLC	7,370.23
91700		TELEFLEX LLC	3,724.00

91701		THE HARTFORD	3,753.70
91702		TYLER TECHNOLOGIES	300.00
91703		UNIFIRST	563.40
91704		WAR MEMORIAL HOSPITAL	760.66
91705		WITMER PUBLIC SAFETY GROUP INC	54.00
91706		WV DEPUTY SHERIFF RETIREMENT SYSTEM	34,612.12
91707		WV PUBLIC EMPLOYEE RETIREMENT SYSTEM	45,408.59
91708		WV REGIONAL JAIL & CORRECTION FACILITY AUTH	66,472.61
91709	GS/004	GENERAL COUNTY FUND-J FEE	10,048.78
91710	FG/009	SHERIFF OF JEFFERSON COUNTY	5,632.33
91711	BS/011	SHERIFF OF JEFFERSON COUNTY	12,235.82
91713	AM/053	GLOBAL SCIENCE & TECHNOLOGY INC	1,800.00
91714	AM/053	SHERIFF OF JEFFERSON COUNTY	1,875.08
TOTAL			546,606.10

Commissioner Majdi motioned to approve the accounts payable for January 16, 20245 in the amount of **\$546,606.10**. The motion was approved unanimously.

APPROVAL OF MANUAL CHECKS

Check #	Fund	Vendor	Amount
		16-Jan-25	
		OTHER FUNDS	
346	DG/003	SHERIFF OF JEFFERSON COUNTY	54.59
950	HD/008	ALLIED UNIVERSAL ELECTRONIC MONITORING US INC	3,126.40
951	HD/008	SATELLITE TRACKING OF PEOPLE, LLC	1,197.20
1215	AV/056	GLOBAL SCIENCE & TECHNOLOGY	2,146.25
1216	AV/056	MONROE SYSTEM FOR BUSINESS	965.20
1217	AV/056	PRINT-O- STAT INC	190.00
10	TC/077	UNITED WAY EASTERN PANHANDLE INC (TEEN COURT)	20.00
385	AR/207	POLY COATING SOLUTIONS LLC	10,000.00
386	AR/207	SHERIFF OF JEFFERSON COUNTY	2,819.43
387	AR/207	SNYDER ENVIRONMENTAL	12,755.00
1497	IP/249	SHERIFF OF JEFFERSON COUNTY	58.00
1498	IP/249	SHERIFF OF JEFFERSON COUNTY	14,207.87
1499	IP/249	SHERIFF OF JEFFERSON COUNTY	66,014.14
1500	IP/249	SHERIFF OF JEFFERSON COUNTY	6,945.93
1501	IP/249	SHERIFF OF JEFFERSON COUNTY	3,326.22
1010	CW/059	WV STATE POLICE ACCT OFFICE	30.00
1011	CW/059	WV STATE AUDITOR	755.00
TOTAL			124,611.23

Commissioner Majdi motioned to approve the manual checks for January 17, 2025, in the amount of **\$124,611.23**. The motion was approved unanimously.

PUBLIC COMMENT:

Public comment was received by:

Jacquelyn Milliron

Amanda Stroud

Christine Wimer

David Tabb

PRESENTATIONS

1. Angie Banks- Assessor

Exoneration(s)

NAME	TYPE	DISTRICT	AMOUNT	TICKET NO.
Amber Lafage	PP	Shepherdstown	\$340.60	315889

Commissioner Keys motioned to approve the exoneration of ticket Number 315889 as presented by Mrs. Banks. The motion was seconded by Commissioner Mood. The motion was approved unanimously.

2. Jefferson County Commission

Board and Commissioner Appointments

1. Brown, Kelly Jason
2. Chrisman, Bruce
3. Hagberg, Brian
4. Hayes, Daniel
5. Heck, Tammy
6. Holland, Zach
7. Kletter, Elliot
8. Morris, Charles
9. Ross, Maura
10. Tabb, David
11. Wesolek, Tim
12. Christa Edwards
13. Natalie Grantham Friend

Commissioner Majdi opened the floor to receive nominations.

Commissioner Mood nominated Bruce Chrisman and Tim Wesolek.

Commissioner Hefestay nominated Bruce Chrisman and Daniel Hayes.

Commissioner Keyes nominated Christa Edwards and Brian Hagberg.

Commissioner Stolipher motioned to close the nominations. The motion was seconded by Commissioner Mood and approved unanimously.

Commissioner Mood motioned to appoint Daniel Hayes for the unexpired seat 3 on the Jefferson County Planning Commission for a term expiring March 31, 2025. The motion was seconded by Commissioner Hefestay. The motion was approved unanimously 5-0.

Commissioner Hefestay motioned to appoint Bruce Chrisman for the unexpired seat 1 on the Jefferson County Planning Commission for a term expiring March 31, 2027. The motion was seconded by Commissioner Mood. The motion was approved unanimously 5-0.

3. Cory Roman, HOME Consortium

Request public hearing regarding HOME Consortium work in Jefferson County

Commissioner Mood motioned to hold a public hearing on the HOME Consortium at the next county commission meeting on Thursday, February 6, 2025 at 11:00 a.m. The motion was seconded by Commissioner Keys. The motion was approved unanimously.

4. Nikki Painter, Chief Deputy Clerk, Jefferson County Clerk's Office

Quarterly Review of Accountings and Waivers of Final Settlement; and set a hearing date for the Petition to Probate the Last Will and Testament of Thelma M. Kaetzel, in Solemn Form

Commissioner Mood motioned to convene as a Fiduciary Review Board. The motion was seconded by Commissioner Hefestay. The motion was approved unanimously.

Commissioner Keys motioned to accept the quarterly accountings and waivers of final settlement from the Probate office as presented. The motion was seconded by Commissioner Mood and approved unanimously.

Commissioner Hefestay motioned to set a date of February 6, 2025 at a time to be determined to hear the Petition to Probate the Last Will and Testament of Thelma M. Kaetzel in Solemn Form. The motion was seconded by Commissioner Mood and approved unanimously.

Commissioner Hefestay motioned to return to regular session. The motion was seconded by Commissioner Mood and approved unanimously.

5. Mike Sine, Jefferson County Emergency Services Agency

Conversion and reclassification of part-time positions

Commissioner Mood motioned to table the plan to RIF 34 part-time field positions within the ESA and convert the existing budgeted funding to create and hire up to 13 new permanent full-time positions until the next county commission meeting on February 6, 2025 at a time to be determined. The motion was seconded by Commissioner Hefestay and approved unanimously.

6. Nathan Cochran, Prosecuting Attorney's Office

Report by counsel on West Virginia Human Rights Commission EREP-49-21

Commissioner Mood motioned to enter into Executive Session at 9:05 p.m to receive legal advice. The motion was seconded by Commissioner Keys. The motion was approved unanimously.

Commissioner Mood motioned to return to regular session at 10:27 p.m. The motion was seconded by Commissioner Hefestay. The motion was approved unanimously.

Commissioner Keys motioned to approve the settlement of case EREP-49-21 and to direct the county administrator to take all actions necessary to effectuate the settlement and direct the clerk to issue funds to our counsel Mr. Kennedy's escrow account for that distribution. The motion was seconded by Commissioner Mood and approved unanimously.

7. Edwina Benites-LM, County Administrator

Legislative priorities roundtable-update

Ms. Benites-LM provided an update on the legislative priorities roundtable.

Matt Mullenax, Executive Director, Hagerstown –Eastern Panhandle Metropolitan Planning Organization

Letter of support – RAISE letter for Harpers Ferry

Commissioner Hefestay motioned to approve and send the letter of support as presented. The motion was seconded by Commissioner Mood and approved unanimously.

Future of fire service study – request for commissioner appointment

Commissioner Hefestay motioned to designate Commissioner Mood to work with staff in the future of the fire service study. The motion was affirmed and approved unanimously.

Ranson property acquisition request – ESA expansion

Commissioner Hefestay motioned to direct the Ms. Benites-LM and Nathan Cochran to work together to draft a letter to Ranson and the Ranson Building Commission to formally request the acquisition of the property adjoining the ESA property and allow the commission president to sign the letter. The motion was seconded by Commissioner Mood and approved unanimously.

Personnel issue: County Administrator

Commissioner Mood motioned to enter into Executive Session at 9:05 p.m to receive legal advice. The motion was seconded by Commissioner Keys. The motion was approved unanimously.

Commissioner Mood motioned to return to regular session at 10:27 p.m. The motion was seconded by Commissioner Hefestay. The motion was approved unanimously.

Consider matters involving or affecting the construction, planning, purchase, sale or lease of property for county office space and/or courthouse space

Commissioner Mood motioned to enter into Executive Session at 9:05 p.m to receive legal advice. The motion was seconded by Commissioner Keys. The motion was approved unanimously.

Commissioner Mood motioned to return to regular session at 10:27 p.m. The motion was seconded by Commissioner Hefestay. The motion was approved unanimously.

Adjourn

Having no further business, Commissioner Majdi motioned to adjourn the meeting. The motion was seconded and unanimously approved. The Commission adjourned at 10:28 p.m.

Pasha Majdi, PRESIDENT

Respectfully submitted
Lynn Dillow
Jefferson County Commission Administrative Clerk

**Public Comment for Jefferson County Commission meeting for
January 16, 2025**

I, **David Tabb**, a lifelong resident/taxpayer make the following comments:

PUBLIC COMMENT –

It's nice to see three new faces on the Jefferson County Commission, to include Mr. Majdi as an elected official now, instead of in his previous position of appointment.

I have an extensive file on all four of the newly elected County Commissioners. Now, lets see if they are held accountable to their campaign pledge.

Here are just a few topics: Comprehensive Plan, the future of the Emergency Services, the out-of-control building permits; without having adequate utilities (water and sewer), roads that are deteriorating and the lack of state road equipment and personal. The acquisition of a new County complex; that is outside the of County Seat. Solar sites that are already out of compliance with stormwater because of the Comprehensive Plan, including the lack of a required bonding for toxic and or environmental issues, and the community's latest challenge of the proposed 3M/Water bottling facility in Middleway.

The County Commission and the Jefferson County Development Authority are still out of compliance of a FIOA on the 3M/Water bottling plant.

Mr. Lutz, and I, representing the Eastern Panhandle Conservation District, meet with the WV Dept of Transportation and the building contractor for the 340-extension on the issue of the highway crossing the Bullskin/Marsh Wetlands. We were both meet with harsh and decisive statements regarding the environmental topic until we were allowed to present workable solutions to ensure the integrity of the Bullskin/Wetlands restoration while completing the new construction of 340 South.

All four of the newly elected County Commissioners promised no new or increase taxes. Good luck with that! It's not just Mr. Tabb who's watching now.

"The public reserves the right to call out the public officials to follow the required laws to ensure the constitutional rights of the public. The Governor has ordered the Government to be "open for business" and not deprived the public of notice and comments that would violate ethic provisions.

It is hard to be safe, with the current County Commission.

Have a nice day!

1. **Freedom of Information Act Request:** It has been about 7 months since I submitted a FOIA request for the information regarding the Jefferson County Planning Commission subcommittees. I have particularly asked for the draft ordinance rewrite which the taxpayers paid contractors to do. At the January 14, 2025 JCC Special Meeting, a staff representative from the planning department remarked about the draft ordinance. Evidently it does exist. I have asked repeatedly for a copy since that matter should have been vetted at public meetings since 2019 similar to other draft documents slated for decisions. I have continued to request status updates in a polite manner. Can you think of any reason why this commission isn't providing me with at least an estimated date of completion of my FOIA request?
2. **Murals VS EMS:** At the JCC's Legislative workshop on January 14, 2025, a \$100,000 mural for the used \$16 million county office building was on the bucket list, yet funding to return emergency medical services to the three rural areas didn't seem to get an urgent shout. We in the three underserved communities have to wait for money, to get back what was taken from us for likes of inadequately funded rooftops in the urban areas? The rural population is charged a fee for significantly reduced government services? Is that fair? We pay the same fee and tax; don't we deserve the same readiness or is that failure reserved for some and not others? Similar to the cherry-picking expedition of land use in the 2045 plan, it is shameful to think that this county has selected urban over rural residents for lifesaving services...services we once had. As you look in the mirror or the newspaper about who is the fairest, just know the mirror tells no lies.
3. **The Opioid Committee:** At the same workshop this week, there was a recommendation that the Opioid committee be headed by one commissioner. I strongly disagree with that recommendation. Anything regarding that pot of money should be vetted in front of the whole commission and not prescribed to a single commissioner.
4. **Chain Communications:** Please review the definition of chain or serial communication. It may surprise you that a single commissioner discussing a matter with a second commissioner and the second commissioner discussing the same matter with a third commissioner to vet a vote ahead of an agenda is actually not a permitted use of the seat.
5. **Building Permit Process:** What is the status of the review to streamline the process and procedure for building permits besides facilitating corporate builders with a rubber stamp on their houses?
6. **Commissioner Reports on Agendas:** I would like to see a running agenda item of commissioner reporting general points from the assigned boards and commission they are assigned.

Christiane Vermeer



COUNTY OF JEFFERSON West Virginia

GO



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 - Board of Health
 - Board of Zoning Appeals
 - Building Commission

Water Advisory Committee

Term Length: 3 years

Meeting Info: The Jefferson County Water Advisory Committee meets the 1st Tuesday of each month in the County Commissioner's 1st room located at 201 S. Washington Street, Charles Town, WV at 7:00 p.m.

Member	Board Term
Christiane Vermeer	04/21/2023 - 04/21/2026
John Smith	04/21/2023 - 04/21/2026
John Doe	04/21/2023 - 04/21/2026
John Doe	04/21/2023 - 04/21/2026
John Doe	04/21/2023 - 04/21/2026
John Doe	04/21/2023 - 04/21/2026

Print Size

Minutes
Board of Review and Equalization
Jefferson County Commission
Thursday, January 30, 2025

A meeting of the Jefferson County Commission seated as a Board of Equalization and Review was held on Thursday, January 30, 2025, during the first quarterly session at 1:30 p.m. The meeting was held via Zoom and in-person. Present were President Pasha Majdi (virtual); Vice President Mike Mood; Commissioner Steve Stolipher (virtual); and Commissioner Cara Keys (virtual). Also present were Edwina Benites-LM, County Administrator; Steve Groh, Assistant Prosecuting Attorney; Angie Banks, County Assessor; June Bowers, Tax Appraiser; and Lynn Dillow, Administrative Clerk. The archived meeting of the Thursday, January 30, 2025, meeting is available on the Jefferson County Commission website.

Call to Order as a Board of Review and Equalization

The meeting was called to order at 1:57 p.m. by commission President Pasha Majdi. As there were no citizens present to petition the board and hearing no objections, the meeting was recessed until the next meeting on Tuesday, February 4, 2025 at 1:30 p.m.

Adjourn

The Commission adjourned at 2:00 p.m.

Pasha Majdi, PRESIDENT

Respectfully submitted
Lynn Dillow
Jefferson County Commission Administrative Clerk

PURCHASE ORDERS TO BE APPROVED**February 6, 2025**

DEPARTMENT	PURCHASE ORDER NO.	AMOUNT	VENDOR	DESCRIPTION
JCESA	25060	\$ 15,000.00	Gearclean, Inc.	cleaning & inspection of fire gear
OTHER BUILDINGS	25066	\$ 8,000.00	G & Triple T LLC	rewiring of old farm house for Animal Control
GRAND TOTAL		\$ 23,000.00		

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: Angela Banks

Department or Organization: Assessor of Jefferson County

Estimation of amount of time needed for appointment: 5 minutes

Date Requested – 1st Choice: **February 6th, 2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

Exonerations

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

Is this a funding request? Y/N

If so, how much? \$

Provide exact financial impact/request:

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

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector **Y/N** Internet/Wi Fi **Y/N** Telephone for conference call **Y/N**

Contact information:

Email address:

Phone Number:

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable

**STATE OF WEST VIRGINIA,
COUNTY OF JEFFERSON:**

Sec. 27, Art. 3, Ch.11, Code of West Virginia, Acts of Legislature 1939. Chapter 123, relief in County Court from erroneous assessment, to the taxpayer resulting from a clerical error, or a mistake occasioned by an unintentional act as distinguished from a mistake by misjudgment of classification of taxability of such property.

In the 2024 Personal Property Book.

CTD DISTRICT MUNICIPALITY

Described as follows:

Did not have the 2015 Jeep Patriot July 1, 2023

Assessed Value \$ 4,470

Tax Amount \$ 104.65

In compliance with provisions of above mentioned article of the said Code of the State of West Virginia.



Applicant Fox, Kenneth M

1/17/2025

Date

Ticket # 301614

STATE OF WEST VIRGINIA,
COUNTY OF JEFFERSON:

Sec. 27, Art. 3, Ch.11, Code of West Virginia, Acts of Legislature 1939. Chapter 123, relief in County Court from erroneous assessment, to the taxpayer resulting from a clerical error, or a mistake occasioned by an unintentional act as distinguished from a mistake by misjudgment of classification of taxability of such property.

In the 2021 Personal Property Book.

CTD DISTRICT MUNICIPALITY

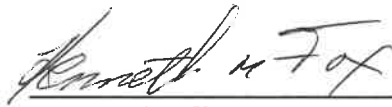
Described as follows:

Did not have the 2015 Jeep Patriot July 1, 2020

Assessed Value \$ 4,800

Tax Amount \$ 116.60

In compliance with provisions of above mentioned article of the said Code of the State of West Virginia.



Applicant Fox, Kenneth M

1/17/2025

Date

Ticket # 301654

**STATE OF WEST VIRGINIA,
COUNTY OF JEFFERSON:**

Sec. 27, Art. 3, Ch.11, Code of West Virginia, Acts of Legislature 1939. Chapter 123, relief in County Court from erroneous assessment, to the taxpayer resulting from a clerical error, or a mistake occasioned by an unintentional act as distinguished from a mistake by misjudgment of classification of taxability of such property.

In the 2024 Personal Property Book.

Charles Town DISTRICT MUNICIPALITY

Described as follows:

Did not own the 2015 Ford F-150 on
July 1, 2023

Assessed Value \$ 9,870

Tax Amount \$ 231.08

In compliance with provisions of above mentioned article of the said Code of the State of West Virginia.

William R Wolfe 1/17/2025
Applicant Wolfe William R Date

Ticket # 304552

**STATE OF WEST VIRGINIA,
COUNTY OF JEFFERSON:**

Sec. 27, Art. 3, Ch.11, Code of West Virginia, Acts of Legislature 1939. Chapter 123, relief in County Court from erroneous assessment, to the taxpayer resulting from a clerical error, or a mistake occasioned by an unintentional act as distinguished from a mistake by misjudgment of classification of taxability of such property.

In the 2023 Personal Property Book.

Charles Town DISTRICT MUNICIPALITY

Described as follows:

Did not own the 2015 Ford F-150 on
July 1, 2022

Assessed Value \$ 10,560

Tax Amount \$ 246.68

In compliance with provisions of above mentioned article of the said Code of the State of West Virginia.

William R Wolfe
Applicant Wolfe William R

1/17/2025
Date

Ticket # 304366

**STATE OF WEST VIRGINIA,
COUNTY OF JEFFERSON:**

Sec. 27, Art. 3, Ch.11, Code of West Virginia, Acts of Legislature 1939. Chapter 123, relief in County Court from erroneous assessment, to the taxpayer resulting from a clerical error, or a mistake occasioned by an unintentional act as distinguished from a mistake by misjudgment of classification of taxability of such property.

In the 2022 Personal Property Book.

Charles Town DISTRICT MUNICIPALITY

Described as follows:

Did not own the 2015 Ford F-150 on
July 1, 2021

Assessed Value \$ 10,400

Tax Amount \$ 247.86

In compliance with provisions of above mentioned article of the said Code of the State of West Virginia.

William R Wolfe 1/17/2025
Applicant Wolfe William R Date

Ticket # 304542

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: Pasha Majdi

Department or Organization: Commission

Estimation of amount of time needed for appointment: 1 hour

Date Requested – 1st Choice: **February 6, 2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

Consideration of a sportsplex/ convention center

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

Host two panels regarding the possibility of a convention center and/ or sportsplex.

Is this a funding request? Y/N

If so, how much? \$

Provide exact financial impact/request:

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

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y N Internet/Wi Fi Y N Telephone for conference call Y N

Contact information:

Email address:

Phone Number:

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable



**JEFFERSON COUNTY
DEVELOPMENT
AUTHORITY**

WHERE BUSINESS FEELS AT HOME

1948 Wiltshire Rd., Suite #4
Kearneysville, WV 25430

304.728.3255
jcda.net

To: Pasha Majdi, commissioner
Steve Stolipher, commissioner
Cara Keys, commissioner
Jack Hefestay, commissioner
Mike Mood, commissioner

From: Krista Hoffman

Date: February 4, 2025

Re: February 6, 2025, County Commission Meeting

Summary: The Economic Impact of The Bridge in Bridgeport, WV

The Bridge Sports Complex is a regional competition athletics facility and community asset designed and constructed to enhance the lives of the citizens of Bridgeport and north central West Virginia. The complex sits on 126 acres in Bridgeport and includes an outdoor turf field, baseball diamonds, multipurpose fields, a walking path, and the Citynet Center, which is an indoor facility with 156,000 square feet of courts, turf, aquatics, fitness, and more. The facility is a sports tournament destination venue attracting over 1 million visitors annually from the region. The complex has more than 6,000 members from Harrison County and beyond.

Cost

The Bridge Sports Complex was completed in 2020 and opened in June 2021. The indoor facility is 156,000 ft. The entire complex, including the baseball fields, cost approximately \$50 million.

Financing

Home Rule Tax – The Bridgeport City Council approved a 1% local sales tax under the state’s home rule program to finance the construction and operation of the proposed indoor recreation facility.

Municipal Bonds – The city intended to use proceeds from future sales tax receipts to construct indoor sports and recreation complexes.

Existing Tax Revenue – The baseball complex was partially funded through existing tax revenue channels, as it represented a significant capital improvement project for the city.

Memberships – Before opening its doors, The Bridge Sports Complex sold over \$360,000 worth of memberships, providing some initial capital.

State Support – While not part of the initial funding, it’s worth noting that in January 2025, the state government provided \$1.8 million in matching funds for additional turf fields, demonstrating ongoing financial support for the complex’s expansion.

Annual Economic Impact (City)

The Bridge hosts between 500,000 and 700,000 people annually. With the addition of new turf fields due to be completed in the fall of 2025, the complex will generate an estimated 18 million dollars each year for the local economy through sports tourism. In addition, The Bridge brought direct economic benefits to local restaurants, hotels, and retail businesses.

To: Pasha Majdi, commissioner
Steve Stolipher, commissioner
Cara Keys, commissioner
Jack Hefestay, commissioner
Mike Mood, commissioner

From: Krista Hoffman

Date: January 29, 2025

Re: February 6, 2025, County Commission Meeting

Summary: The JCDA's Financial Request for a Feasibility Study

The JCDA is requesting a match of \$37,500 from the Jefferson County Commission to conduct a Sports Complex/Convention Center feasibility study.



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 Fax: (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT

Pasha Majdi

COMMISSIONER

Jack Hefestay

COMMISSIONER

Cara Keys

COMMISSIONER

Steve Stolipher

COMMISSIONER

Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From: Krista Hoffman

Date: February 6, 2025, Commission Meeting

Re: Fiscal Note: Jefferson County Development Authority (JCDA) request for a Feasibility Study

The Jefferson County Development Authority (JCDA) is requesting a match of \$37,500 for the Jefferson County Commission to conduct a Sports Complex/Convention Center feasibility study.

The JC Commission has previously approved and deposited a grant match of \$20,000 for a US Department of Agriculture- Rural Development grant. These funds were allocated to the JCDA in May of 2024, and the JCDA was unsuccessful in securing the grant.

Typically, the Commission will use the Coal Severance fund for appropriations outside of normal course of business.

Current unencumbered Coal Severance funds: \$165,000

*** It should be noted that the Commission will review a variety of expenses at an upcoming meeting, and the Commission may need to use Coal Severance funds to pay these expenses.*

If the Commission would like to move forward funding this request:

Suggested motion: Move to approve

- 1. the change of use of the \$20K grant match allocated to the JCDA in May of 2024;**
- 2. Allocate an additional \$17,500 from the Coal Severance fund; and**
- 3. Require the results of the complex/center be presented to the Commission in 2025**

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: Cory D.M. Roman

Department or Organization: City of Martinsburg / Eastern Panhandle HOME Consortium Council

Estimation of amount of time needed for appointment: 30 Minutes

Date Requested – 1st Choice: **Thursday, February 6th, 2025, at 11 a.m**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*): **FY 2025 HOME INVESTMENT PARTNERSHIP PROGRAM Public Hearing & FY 25 Resolution Adoption**

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

- ✚ The purpose of this public hearing is to discuss the specific housing needs of Jefferson County, WV. The Jefferson County Commission is a member of the Eastern Panhandle HOME Consortium of West Virginia which consists of the City of Martinsburg, Berkeley County, part of Jefferson County and part of Morgan County, West Virginia. The HOME Consortium is eligible to receive a HOME Investment Partnership Grant in FY 2025. The U.S. Department of Housing and Urban Development will be notifying the City of Martinsburg in the future of the amount of HOME funds that will be available for FY 2025. In order to receive those funds, the member jurisdictions in the Eastern Panhandle HOME Consortium must develop a program for the use of HOME funds as a part of the City of Martinsburg's FY 2025 Annual Action Plan. The HOME Consortium will be preparing its HOME Program, and intends to afford citizens, local agencies, and interested parties the opportunity to become involved in the planning process.
- ✚ The anticipated speakers at the hearing will be Jefferson County Members of the HOME Consortium (Jennifer Verdugo & Bob Anderson) if not able to be present in person, I will ask them to submit a written statement.
- ✚

Is this a funding request? Y/N : NO

If so, how much? \$ N/A

Provide exact financial impact/request: N/A

Recommended motion (*Please type out the wording of the motion that you would like the Commission to approve*): Approve/Deny: A RESOLUTION OF THE COUNTY COMMISSION OF JEFFERSON COUNTY, WEST VIRGINIA AUTHORIZING PARTICIPATION IN THE EASTERN PANHANDLE HOME CONSORTIUM OF WEST VIRGINIA FOR THE PERIOD OF JULY 1, 2025, TO JUNE 30, 2026.

Attach supporting documents for request, or request may be denied.

If not attached, explain: Resolution attached to this request.

Is equipment needed? Projector **Y/N** Internet/Wi Fi **Y/N** Telephone for conference call **Y/N**

Contact information: Cory D.M Roman

Email address: croman@cityofmartinsburg.org

Phone Number: 304-264-2131 EXT. 276

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION
not applicable



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 Fax: (304) 725-7916

Web: www.jeffersoncountywv.org

To Authorize Participation in the Eastern Panhandle HOME Consortium of West Virginia for the Period of July 1, 2025, to June 30, 2026

Approved February 6, 2025

WHEREAS, TITLE II of the National Affordable Housing Act of 1990 provides for the creation of the HOME Investment Partnership Program (hereinafter referred to as “HOME”); and

WHEREAS, the HOME regulations promulgated by the U.S. Department of Housing and Urban Development (HUD) under 24 CFR Part 92 authorizes units of general local government to enter into Housing Consortium Cooperation Agreements; and

WHEREAS, there is a need throughout the Eastern Panhandle of West Virginia to provide affordable housing for the low and moderate-income residents; and

WHEREAS, the City of Martinsburg, County of Berkeley, Town of Hedgesville, County of Jefferson, Town of Bolivar, City of Charles Town, Corporation of Harpers Ferry, City of Ranson, Corporation of Shepherdstown, County of Morgan, Town of Bath, Town of Paw Paw, West Virginia, have formed a Consortium that has been designated as a Participating Jurisdiction under the HOME Program, thereby entitling the Consortium to seek annual funding; and

WHEREAS, the Jefferson County Commission entered into a three (3) year Housing Consortium Cooperation Agreement with an annual renewal clause for participation in the HOME Consortium for the Eastern Panhandle; and

WHEREAS, the U.S. Department of Housing and Urban Development is expected to award the HOME Consortium of the Eastern Panhandle a HOME grant upon request and consideration for Fiscal Year 2025; and

WHEREAS, the Jefferson County Commission recognizes the need to obtain funding for affordable housing and has identified the HOME Program as a source of funds to meet this need.

THEREFORE, BE IT RESOLVED that the Jefferson County Commission that:

1. Jefferson County will cooperate with the City of Martinsburg, County of Berkeley, Town of Hedgesville, County of Jefferson, Town of Bolivar, City of Charles Town, Corporation of Harpers Ferry, City of Ranson, Corporation of Shepherdstown, Town of Bath, Town of Paw Paw, West Virginia, in a Consortium for participation in the HOME Program; and

2. The President of the Jefferson County Commission is hereby authorized to enter into a one-year Cooperation Agreement for the period of July 1, 2025, to June 30, 2026, with the other members which form the Eastern Panhandle HOME Consortium of West Virginia; and
3. A copy of this resolution is to be submitted in the request to US. Department of Housing and Urban Development to approve funding of the Eastern Panhandle HOME Consortium of West Virginia for the above Fiscal Year 2025 HOME Investment Partnership Program.

Pasha Majdi
Jefferson County Commission President

Jacqueline C. Shadle
Jefferson County Clerk

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: **Jeffrey Polczynski, Director of Communications**

Department or Organization: **Emergency Communications Center – Dept 712**

Estimation of amount of time needed for appointment:

Date Requested – 1st Choice: **6 February 2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

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

This agenda request covers two separate items

- 1. Provide County Commission an update on the Jefferson County NextGeneration 9-1-1 ESInet and Motorola NextGenCoreServices project slated for go-live on 12 February 2025. The meeting will be attended by individuals from Motorola Solutions as well as Tek Advisors and other County employees**
- 2. Jefferson County Schools Career Technical Education Program for Emergency Communications (EmComm) – This is an explanation of the newly created high school program titled “Emergency Communications; or EmComm that will begin its inaugural instruction to seniors for Jefferson County Schools (both Washington and Jefferson High Schools) in the 2025-2026 school year. Other County employees will be in attendance.**

Is this a funding request? Y/N

If so, how much? \$

Provide exact financial impact/request:

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

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/**N** Internet/Wi Fi Y/**N** Telephone for conference call Y/**N**

Contact information: **Jeffrey Polczynski**

Email address: jpolczynski@jeffersoncountywv.org

Phone Number: 304-728-3317

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

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AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: Karen Olden

Department or Organization: **Jefferson County Clerk (Probate)**

Estimation of amount of time needed for appointment: 15-30 Minutes

Date Requested – 1st Choice:

*If a specific date is needed, please provide reason for specific date **February 6, 2025***

Petition to Probate Will of Thelma M. Kaetzel, in Solemn Form

Please provide the County Commission with a description of your request or presentation, including any background information:
To be included in packet.

The probate office is in receipt of a copy of the will for Thelma M. Kaetzel. Susan Kay Waters, Stephen Dale Carper as petitioners and co-executors of the last will and testament. (pro se) .The date of this hearing was published in the Spirit of Jefferson Newspaper on January 23 and 30th. The probate office has no objection to the copy of the will of Thelma M. Kaetzel, and therefore ask that the copy be admitted to record in place of an original.

Is this a funding request? Y/N NO

If so, how much? \$

Provide exact financial impact/request:

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

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/N Internet/Wi Fi Y/N. Telephone for conference call Y/N

Contact information:

Email address:

Phone Number:

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

In the County Commission of Jefferson County, West Virginia

Notice to all persons claiming an interest in the Estate Thelma M. Kaetzel. deceased.

ORDER OF PUBLICATION

The purpose of the above entitled action is to see the admission of Probate In Solem Form of a writing authorized and signed by Thelma M. Kaetzel. dated August 27, 2021, purporting to be the Last Will and Testament of Thelma M. Kaetzel (COPY) pursuant to the provisions of West Virginia Code # 41-5-5.

PLEASE TAKE NOTICE that on Thursday, the 6th, February 2025, at 9:30 a.m. or as soon thereafter as counsel can be heard, the Petitioners, Susan Kay Waters and Stephen Dale Carper (Under Will Appointed CoExecutors) will apply to the County Commission of Jefferson County, West Virginia, County Commission Meeting Room located at the Old Charles Town Library, 200 East Washington Street, Charles Town, WV, 25414 for an Order admitting to probate as the Last Will and Testament of Thelma M. Kaetzel,,deceased. And that said writing be recorded as and for the Last Will and Testament of Thelma M. Kaetzel. deceased.

Any person objecting in any manner or who may have reason why such writing should not be recorded as and for the Last Will and Testament of Thelma M. Kaetzel. is hereby given notice to appear at the time, date and place aforesaid, and shall be heard in opposition to such writing. Please take further notice that the said time and place of the hearing may be rescheduled without further notice or publication.

Entered by the Clerk of the County Commission this 17th, day of January 2025.

Jacqueline C. Shadle

Clerk of the County Commission

IN THE COUNTY COMMISSION OF JEFFERSON COUNTY, WEST VIRGINIA

IN RE: **ESTATE OF Thelma M. Kaetzel.**

PETITION TO PROBATE A WILL IN SOLEMN FORM

COMES NOW your Petitioners, Susan Kay Waters and Stephen Dale Carper, and petitions for the admission and probate in solemn form of the Last Will and Testament of **Thelma M. Kaetzel.** pursuant to the provisions of West Virginia Code Chapter 41, Article 5, Section 5, and represents to the Commission the following:

1. That **Thelma M. Kaetzel.** died October 22, 2024
2. That the last place of residence and domicile of **Thelma M. Kaetzel.** at her death was 313 Jefferson Avenue, Charles Town in Jefferson County, West Virginia.
3. That at the date of her death the nature of the estate of **Thelma M. Kaetzel.** consisted of valuable real estate and tangible personal property situate in the Charles Town District, Jefferson County, West Virginia, and intangible personal property.
4. That at the date of her death, the said **Thelma M. Kaetzel.** was a widow and that it is assumed she has one (adopted daughter.) Namely Telitha Jean Hanson.
5. That the heir at law and distributees of as defined under West Virginia Code Chapter 42, and their relationship to

the Decedent are as follows:

Telitha Jean Hanson, (Adopted daughter.)

Last known address
232 Brunswick Road
Stephens City, VA
22655

Susan Kay Waters, (Niece)
PO Box 646
Harpers Ferry, WV 25425

Stephen Dale Carper (Nephew)
185 Jefferson Terr. Rd.
Charles Town, WV 25414

6. That the Petitioners have no reason to conclude that **Thelma M. Kaetzel** revoked the aforesaid Last Will and Testament, was not competent, or that she was under undue influence at the time the Last Will and Testament was executed.

That Susan Kay Waters, Stephen Dale Carper are nominated as Co-Executors under the Last Will and Testament of **Thelma M. Kaetzel**, deceased, dated August 27, 2021, which is the subject of this Petition.

Venue lies within this Commission pursuant to West Virginia

Code §41-5-4, as said Petition involves the probate of a Will of the Testator who at the time of her death had valuable real and tangible personal property situate in Jefferson County, West Virginia.

7. Probate of the Last Will and Testament of **Thelma M. Kaetzel** in Jefferson County, West Virginia is authorized under West Virginia Code

§41-5-4(c) as Jefferson County is a county wherein the Decedent had tangible personal property at the time of her death.


WHEREFORE, the Petitioners respectfully petition this honorable County Commission to issue process and summons to all those persons known as heirs at law of **Thelma M. Kaetzel**, and those interested in the probate of the Last Will and Testament of **Thelma M. Kaetzel**, deceased, to appear before this County Commission on February 6, 2025, at 9:30 a.m., or as soon thereafter as the matter may come before the Commission,

to show cause why the Last Will and Testament of **Thelma M. Kaetzel** dated August 27, 2021, should not be admitted to probate pursuant to the provisions of Article 5, Chapter 41, of the West Virginia Code, to appoint Susan Kay Waters, Stephen Dale Carper as Co-Executors of said Will, and to take such further action as to this Commission may seem fair and just.

January 27, 2025

Petitioners,

Susan Kay Waters

Handwritten signature of Susan K. Waters in cursive script.

Stephen Dale Carper

Handwritten signature of Stephen D. Carper in cursive script.

LAST WILL AND TESTAMENT OF

THELMA M. KAETZEL

I, Thelma M. Kaetzel, of Jefferson County, State of West Virginia, do make, publish and declare this to be my Last Will and Testament, hereby revoking all Wills and Codicils heretofore made by me.

ITEM FIRST

I direct my Executor to pay all my legally enforceable debts.

ITEM SECOND

I direct my Executor to pay from my residuary estate all Federal and State estate and inheritance taxes which may be due and payable by reason of my death, without requiring contribution from anyone who in the absence of this exoneration would be liable for the payment of any portion of such taxes.

ITEM THIRD

I give and bequeath unto Susan Kay Waters, Stephen Dale Carper, and Telitha Jean Hanson in equal shares, my house, automobile, tools, my personal jewelry, books, wearing apparel, and other articles of personal use, and such interest as I may have, if any, in all household furnishings and supplies, linens, silverware and works of art used in the maintenance of our home, together with all unexpired insurance thereon.

ITEM FOURTH

I hereby appoint Susan Kay Waters of Harpers Ferry, West Virginian and Stephen Dale Carper of Charles Town, West Virginia, as Executor of this Will and request that they be excused from giving bond.

(a) I hereby confer upon my Executor all powers necessary for the Administration of my estate and for such purpose I authorize it to sell at public or private sale, and to charge all broker's commissions and all other expenses incident to any such sales as administration expenses and my estate; also to deed, assign, convey, mortgage, lease, invest, and otherwise to deal with my estate as it, in its sole and absolute discretion, may deem proper; and to comprise claims against or owing to my estate; and to vote in person or by either limited or general proxy securities constituting a part of my estate without liability for loss by reason of the exercise without prior application to or subsequent ratification by any Court having jurisdiction over the administration of my estate. It is my intention that the enumeration of the above powers shall not be a limitation upon the exercise by my Executor of other powers conferred upon it by law.

Thelma M Kaetzel

IN TESTIMONY WHEREOF, I have signed, sealed, published and declared this instrument as and for my Last Will and Testament, on this 27 day of August, ~~2016~~ 2021

Thelma M Kaetzel
THELMA M. KAETZEL

I, Thelma M. Kaetzel, the testatrix, sign my name to this instrument this 27 day of August, ~~2016~~ 2021 and being first duly sworn, do hereby declare to the undersigned authority that I sign and execute this instrument as my Last Will and Testament and that I sign it willingly, that I executed it as my free and voluntary act for the purposes therein expressed, and that I am eighteen years of age or older, of sound mind, and under no constraint or undue influence.

Thelma M Kaetzel
THELMA M. KAETZEL

Witnesses: Randy Delander
Denise Ring

We, Randy Delander, DENISE RING, and _____ the witnesses, sign our names to this the undersigned authority that the testatrix and in the presence and hearing of each other, hereby sign this will as witness of the testatrix' signing, and that to the best of our knowledge the testatrix is eighteen years of age or older, of sound mind, and under no constraint or undue influence.

Randy Delander
Denise Ring

The State of West Virginia
County of Jefferson

Subscribed, sworn to and acknowledge before me by THELMA M. KAETZEL, the testatrix and subscribed and sworn to before me by _____, and _____, witnesses, this _____ day of _____, 2016.

Notary Public for West Virginia
My Commission Expires:

Thelma M Kaetzel

United States of America

State of West Virginia



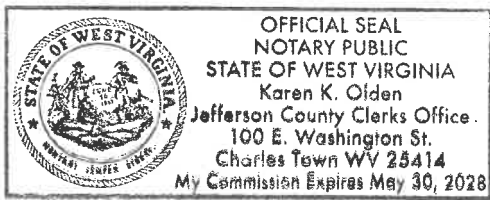
County of Jefferson, ss:

Affidavit of Witness to Last Will and Testament

On the 25 day of November, 2024, before the undersigned Notary Public came DENISE RING to me personally known, who being by me first duly sworn, upon oath states:

I, DENISE RING, was a witness to the writing hereto attached bearing the date of 8/27/2021 that I was present at the execution of the said writing and saw the testator/rix, THELMA M KAETZEL, sign his/her name thereto; that the said testator/rix signed and acknowledged the said writing as and for his/her Last Will and Testament in my presence and in the presence of the other witness; that I signed the said writing as a witness thereto; and that at the time of signing the said writing, the said THELMA M KAETZEL was of sound mind and memory and was over the age of eighteen (18) years.

Denise Ring (Signature)



STATE OF WV COUNTY OF Jefferson

The foregoing instrument was acknowledged before me this 25 day of November 2024.

My Commission expires: 5/30/28. Karen K. Olden Notary Public

United States of America

State of West Virginia

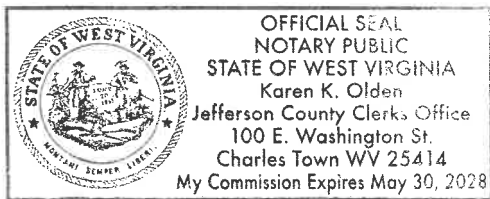


County of Jefferson, ss:

Affidavit of Witness to Last Will and Testament

On the 25 day of November, 2024, before the undersigned Notary Public came RANDY DELAWDER to me personally known, who being by me first duly sworn, upon oath states:

I, RANDY DELAWDER, was a witness to the writing hereto attached bearing the date of 8/27/2021 that I was present at the execution of the said writing and saw the testator/rix, THELMA M KAETZEL, sign his/her name thereto; that the said testator/rix signed and acknowledged the said writing as and for his/her Last Will and Testament in my presence and in the presence of the other witness; that I signed the said writing as a witness thereto; and that at the time of signing the said writing, the said THELMA M KAETZEL was of sound mind and memory and was over the age of eighteen (18) years.



Randy Delawder (Signature)

STATE OF WV COUNTY OF Jefferson

The foregoing instrument was acknowledged before me this 25 day of November, 2024

My Commission expires: 5/30/2020 Karen K Olden

Notary Public

NOTARY SEAL

PAUL OTTINGER
ATTORNEY AT LAW
42 JONATHAN STREET
HAGERSTOWN, MARYLAND
REGENT 3-9434

October 11, 1962

Mrs. Odessa E. Martin
Route # 5
Winchester, Virginia

Dear Mrs. Martin:

A few days ago I mailed a notice by registered mail to Mrs. Freda Settle and the return receipt has now been sent to me, showing that you signed for Mrs. Settle to get the letter.

I am arranging for Mr. and Mrs. James Powers to adopt one of Mrs. Settle's children, the one named Telitha.

It is not necessary for me to find out where Mrs. Settle is living, if she does not want it known, and it will not be necessary for her to come to Hagerstown; but it would be most helpful if she would sign the piece of paper which I sent her in August, saying that she does not object to this adoption, if this is true.

I will appreciate it very much if you will ask Mrs. Settle to sign this paper, have it notarized, and return it to me.

Very truly yours,

Paul Ottinger
Paul Ottinger

PO/ja

Mr. Powers:

The fact that this registered letter was not delivered to Mrs. Settle personally may cause us some trouble because we can't prove this way that she ever actually got notice of the petition for adoption. The next time you get a chance, would you please check with Mr. Settle to find out who Odessa Martin is, where she lives, and why she would be accepting mail for Mrs. Settle? Then, if you can, would you try to find out through Mrs. Martin where Mrs. Settle actually is, explaining that we are not trying to have her arrested or brought back - that we only want to get the answer signed by Mrs. Settle and she can do that anywhere she happens to be?

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: Pasha Majdi

Department or Organization: Commission

Estimation of amount of time needed for appointment: 1 hour

Date Requested – 1st Choice: **February 6, 2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

Groundwater study and advisory committee

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

1. Groundwater study. Two options to study groundwater include:
 - a. A reassessment of a 2012 study overseen by the Jefferson County Office of Engineering- “County-wide Groundwater Assessment, Jefferson County, West Virginia” (see attached) or a US Geological Survey study encompassing Jefferson and Berkeley counties. The reassessment of the 2012 study is estimated to cost \$100,000. The budget estimate for the USGS study is \$800,000.
2. Water Advisory Committee
 - a. The terms of all members of the Water Advisory Committee have expired. There is some discussion about reconstituting membership to include:
 - i. A member of the Health Department;
 - ii. A member of Engineering, Planning, and Zoning;
 - iii. A staff member of a public of each of the public water and/ or sewer utilities;
 - iv. A member of the State Department of Environmental Protection; and
 - v. A member of the public

Is this a funding request? Y/N

If so, how much? \$

Provide exact financial impact/request:

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

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/N Internet/Wi Fi Y/N. Telephone for conference call Y/N

Contact information:

Email address:

Phone Number:

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable

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

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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, metasilstone 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.

	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				
2011 Data			2004 Report	
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 Catocin 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, methemoglobinemia 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.

Unit	Hydrogeology	Well Data*	Common Contaminants
Western Unit (Fault-Dominated)	<u>Dominant Lithology:</u> Limestone, dolostone, and shale <u>Ground Water Influences:</u> Faulting, joints, lower permeability shales, and karst conditions where present	<u>Yield</u> 19 gpm <u>Well Depth</u> 281 feet <u>Well Casing</u> 57 feet <u>Depth to Water</u> 46 feet	Sulfate, Nitrate, Bacterial, and Hardness
Central Unit (Folded Carbonates)	<u>Dominant Lithology:</u> Limestone and dolostone <u>Ground Water Influences:</u> Joints, bedding planes, cross faults and karst conditions where present	<u>Yield</u> 32 gpm <u>Well Depth</u> 278 feet <u>Well Casing</u> 74 feet <u>Depth to Water</u> 66 feet	Nitrate, Bacteria, Hardness
Eastern Unit (Metamorphics)	<u>Dominant Lithology:</u> Metamorphic rock; phyllite, metasiltstone,	<u>Yield</u> 14 gpm <u>Well Depth</u> 355 feet	Iron, Manganese, Radionuclides

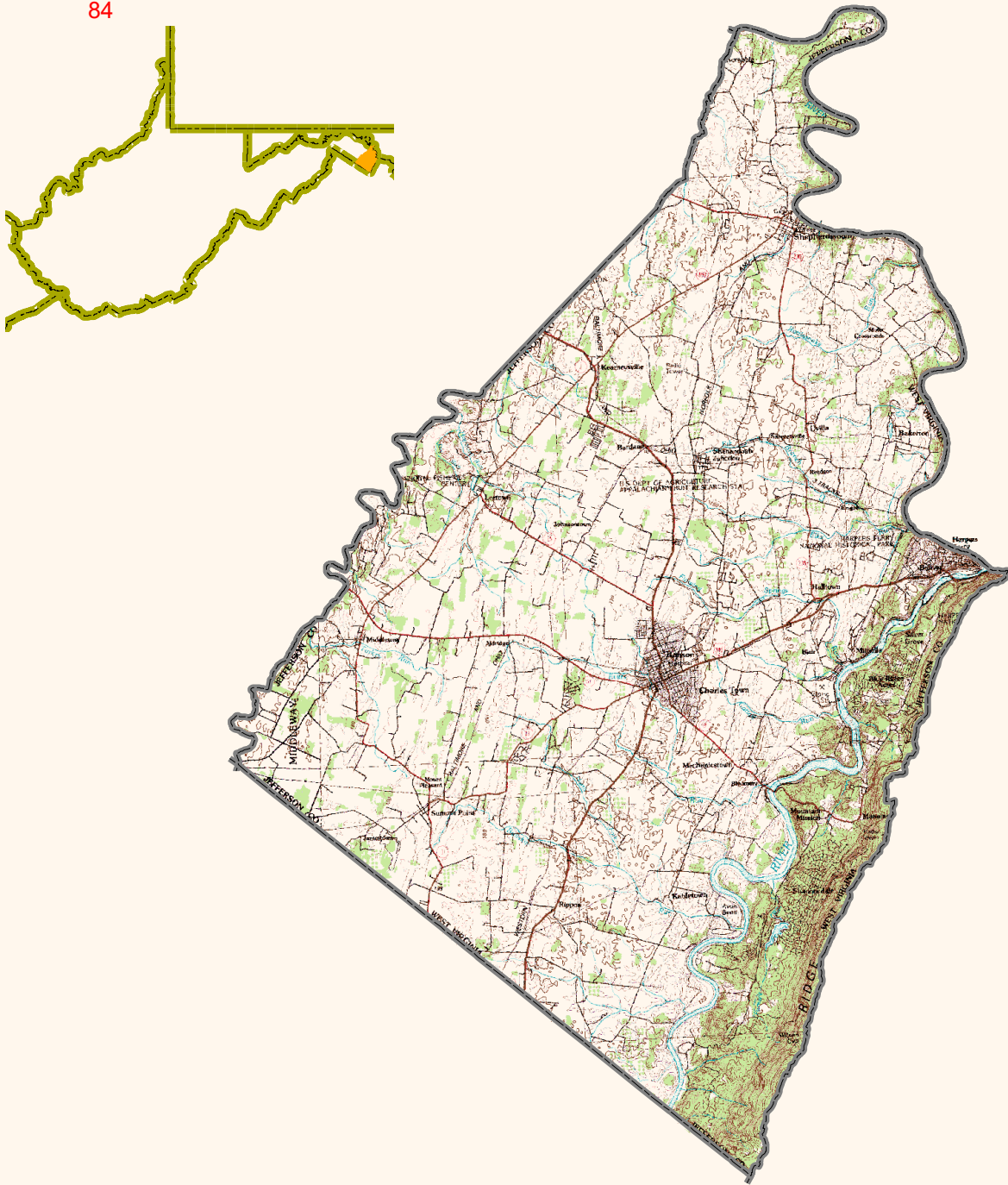
	metaconglomerate	<u>Well Casing</u> 83 feet	
	<u>Ground Water Influences:</u> Joint sets and primary bedding structures within metaconglomerates and quartzites. Metasiltstone and phyllite lack primary bedding structures and may be more impermeable.	<u>Depth to Water</u> 94 feet	

**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.

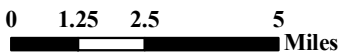
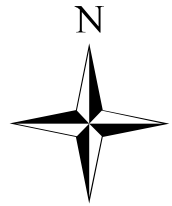
FIGURES



Jefferson County Site Location Map Figure 1

Legend

-  County Boundary
-  State Boundary
-  Jefferson County



Base Map Source: Jefferson County DRG <http://pubs.usgs.gov/of/2005/1407/>

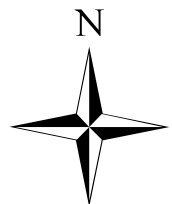
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Jefferson County Bedrock Geology Map Figure 2

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
- Et Tomstown Formation** – dolomite and dolomitic marble
- Ea Antietam Formation** – metasandstone
- Ch Harpers Formation** – phyllitic metasiltstone
- Ewl Weverton and Loudoun Formations** – metasandstone, conglomerate and phyllite
- Zc Catoclin Formation** – metabasalt



Base Map Source: <http://pubs.usgs.gov/of/2005/1407/>


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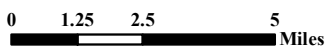
Faults and Fracture Traces Map Figure 3

Legend

- Faults
- Fracture Traces
- County Boundary



N



Base Map Source: USDA-FSA Aerial Photography Field Office



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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

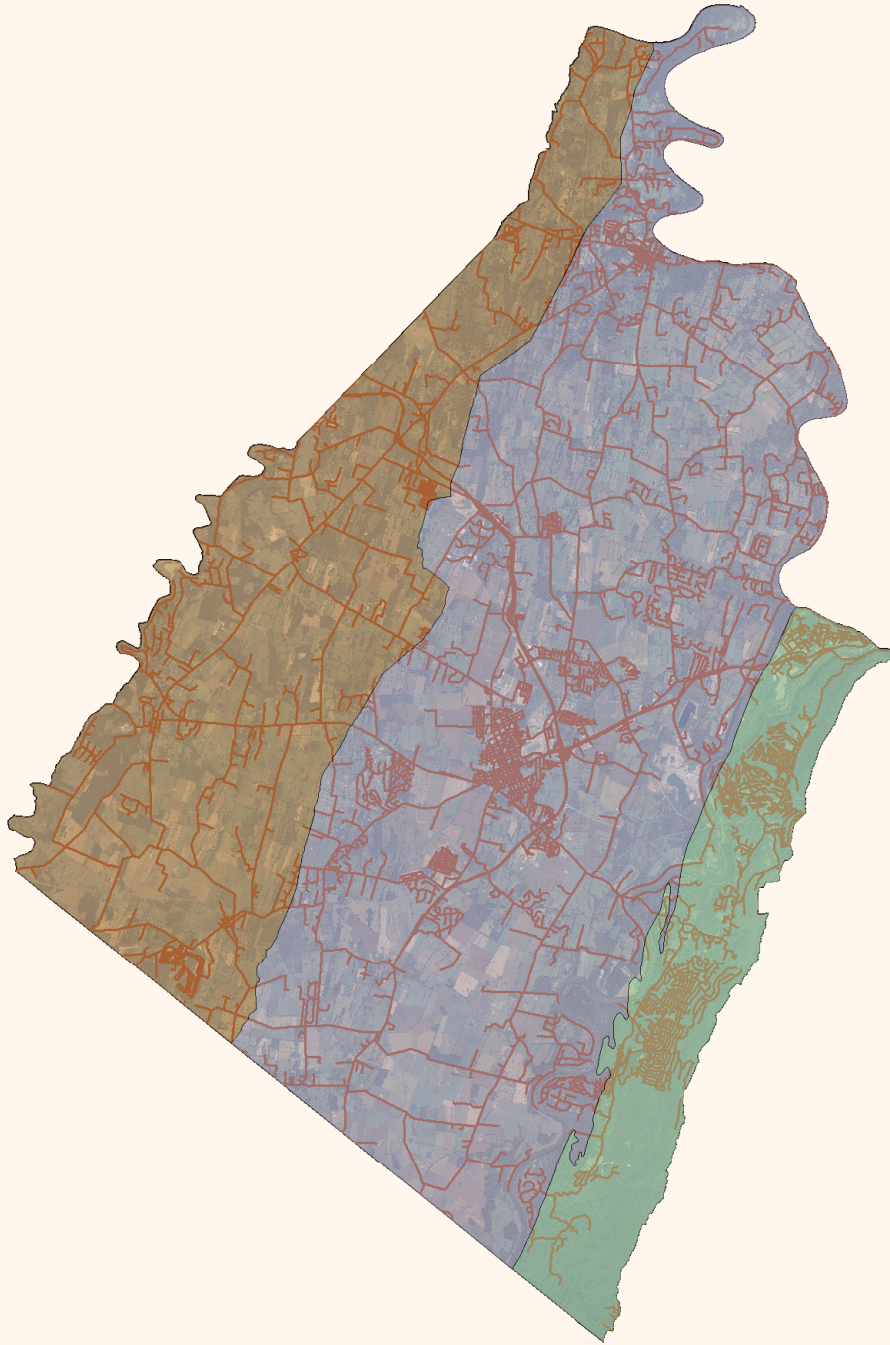


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



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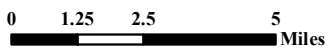
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Hydrogeologic Units Figure 5

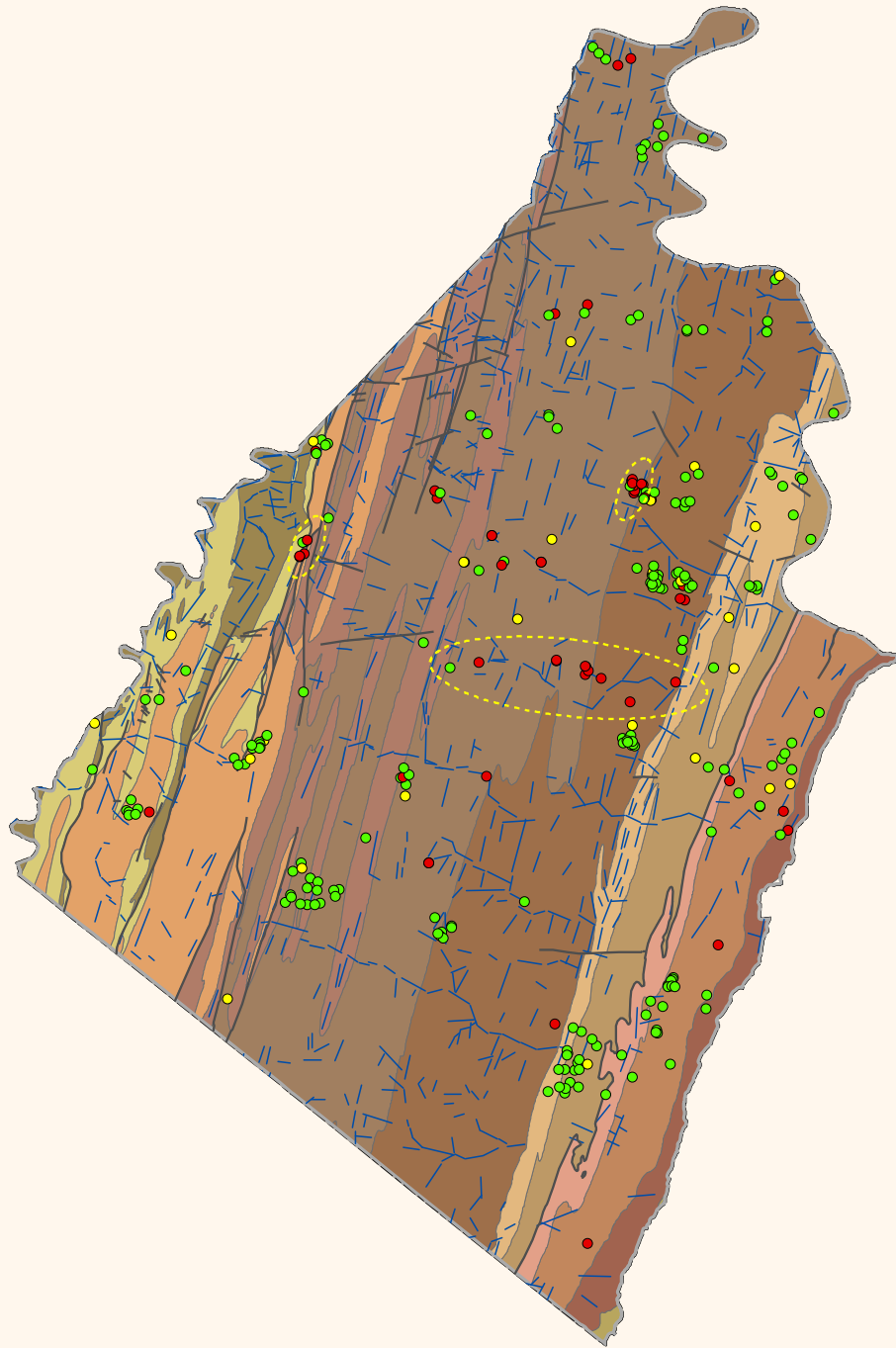
Legend

-  **Metamorphic Eastern**
-  **Folded Carbonate Central**
-  **Faulted Western**
-  **Roads**



Base Map Source: USDA-FSA Aerial Photography Field Office

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Legend

Bedrock	Yield gpm
Om	● 26-50
Omu	● 51-75
Opr	● 76+
Os	— Faults
OCc	— Fracture Traces
Ee	— County Boundary
Ew	⬡ Examples of High Yield Clusters
Et	
Ea	
Ch	
Cwl	
Zc	

High Yield Wells and Geologic Features

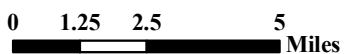
Figure 6



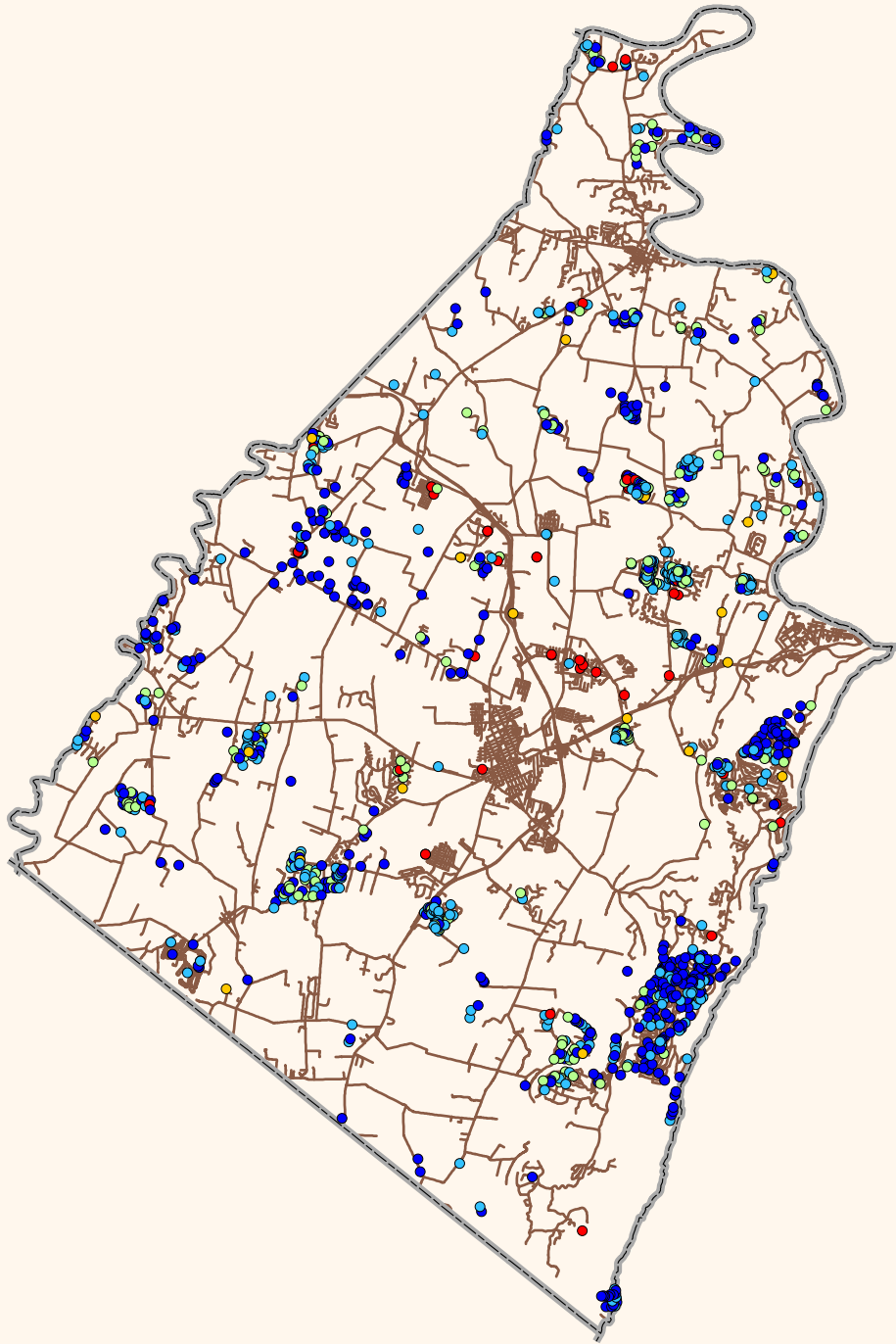
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Base Map Source: <http://pubs.usgs.gov/of/2005/1407/>



Legend

- Yield gpm
- 0-10
- 11-25
- 26-50
- 51-75
- 76+
- County Boundary
- Roads

Well Locations and Reported Yields

Figure 7



N



Base Map Source: Jefferson County GIS/Addressing Office

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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



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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

<u>Yields</u>			<u>Casing Length</u>		
<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%
<hr/>			<hr/>		
1122			1037		

<u>Depth</u>			<u>Static</u>		
<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%
<hr/>			<hr/>		
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		Mean	273	32	66	69		Mean	351	14	94	83
Std. Dev.	163	25	33	41		Std. Dev.	137	98	32	44		Std. Dev.	143	22	49	68
Median	260	10	40.41	42		Median	245	20	64	63		Median	316	8	85	61.5
Max	800	200	224	286		Max	900	2000	300	283		Max	800	300	300	504
Min	0	0	1.96	0		Min	0	0	4.8	0		Min	0	0	7	0

Western Unit Histograms				Central Unit Histograms				Eastern Unit 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	18.33%		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										
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 ft ²		Total Area	3,418,175,335 ft ²		Total Area	698,263,447 ft ²	
	40,820.40 acres			78,470 acres			16,030 acres	
	30.17%			57.99%			11.85%	
Recharge Zone	1,600,132,767.81 ft ²		Recharge Zone	3,078,997,494 ft ²		Recharge Zone	537,123,371 ft ²	
	36,733.85 acres			70,683.78 acres			12,330.61 acres	
Per Cent of Total	90.0%		Per Cent of Total	90.1%		Per Cent of Total	76.9%	
Recharge Rate	Normal (in/yr)	Drought (in/yr)	Recharge Rate	Normal (in/yr)	Drought (in/yr)	Recharge Rate	Normal (in/yr)	Drought (in/yr)
	9.9	5.9		9.3	5.6		9.1	5.5
	Normal (ft/yr)	Drought (ft/yr)		Normal (ft/yr)	Drought (ft/yr)		Normal (ft/yr)	Drought (ft/yr)
	0.825	0.492		0.775	0.467		0.758	0.458
Recharge Volume	Normal (ft ³ /yr)	Drought (ft ³ /yr)	Recharge Volume	Normal (ft ³ /yr)	Drought (ft ³ /yr)	Recharge Volume	Normal (ft ³ /yr)	Drought (ft ³ /yr)
	1,320,109,533	786,731,944		2,386,223,058	1,436,865,497		407,318,556	246,181,545
	Normal (gal/yr)	Drought (gal/yr)		Normal (gal/yr)	Drought (gal/yr)		Normal (gal/yr)	Drought (gal/yr)
	9,875,079,365	5,885,148,308		17,850,141,585	10,748,472,352		3,046,946,461	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)	Drought (gal/yr)
	30,772,167,410.50	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

$5.37 * 18 \text{ holes/day} * 365 \text{ days/yr} = 35,280.90 \text{ gal/yr}$

Total Estimated Irrigation Usage

$13,735,000 + 51,398,666 + 35,281 = \mathbf{65,168,947 \text{ gal/yr}}$

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)

$88,000 \text{ gpd} * (1.1225) = 98,773 \text{ gpd} * 365 \text{ days/yr} = \mathbf{36,052,194.8 \text{ gal/yr}}$

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:

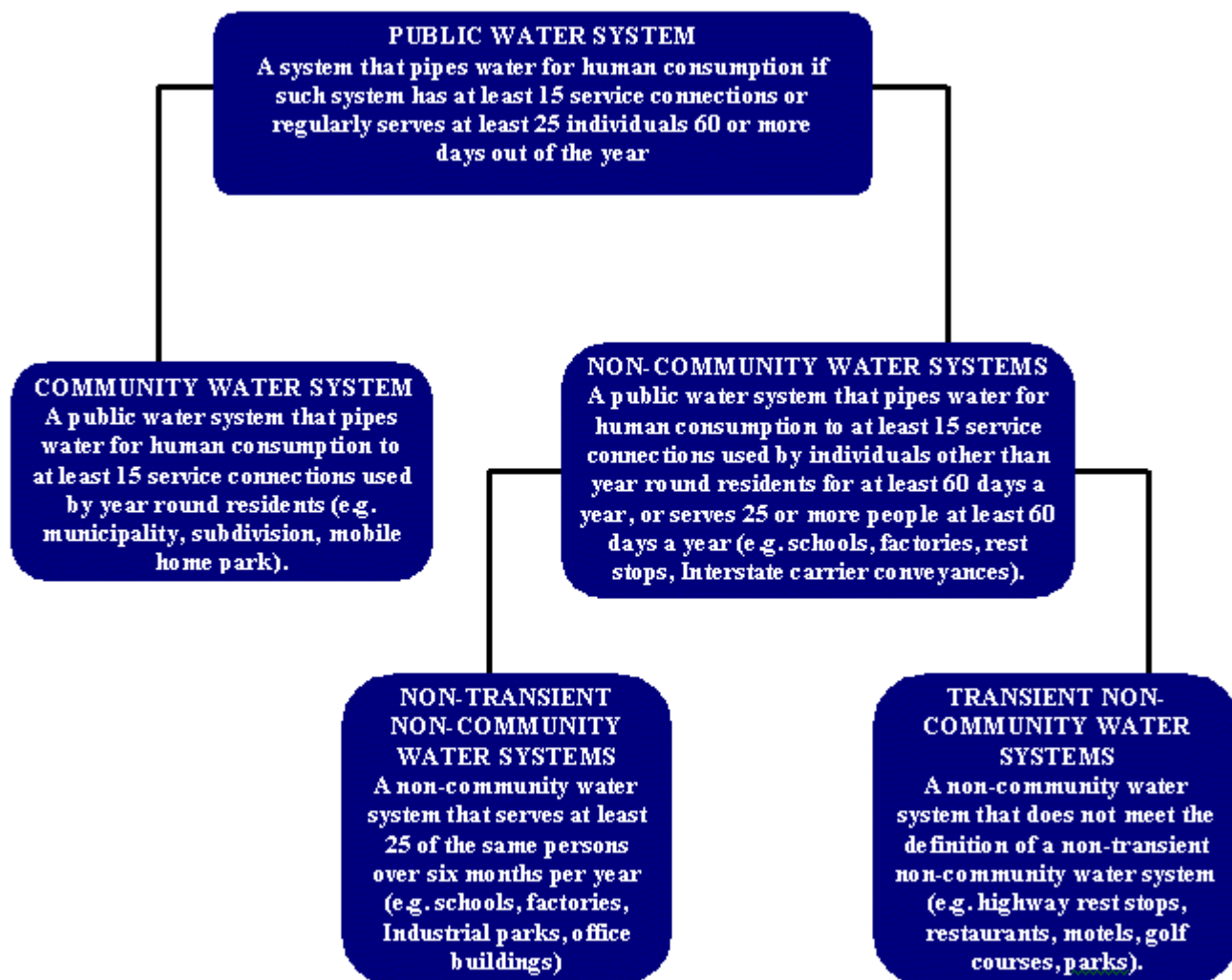
Frequency, One Measurement Every:	Elapsed Time, For the First:
30 Seconds	3 Minutes
1 Minute	3-15 Minutes
5 Minutes	15-60 Minutes
10 Minutes	60-120 Minutes
20 Minutes	2-3 Hours
1 Hour	3+ Hours

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.

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Edwina Benites

From: Kozar, Mark D <mdkozar@usgs.gov>
Sent: Friday, January 24, 2025 3:32 PM
To: Edwina Benites
Cc: Moyer, Douglas L; Bennett, Mark R; Jastram, John D
Subject: Proposal and scope of work for USGS development of a predictive groundwater flow model for Jefferson county
Attachments: Predictive Groundwater Flow Model Proposal for Jeffrson County Commission January 2025.docx

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or on clicking links from unknown senders.

Eddie,

Attached is the proposal including the scope of work, timeline, and budget for the U.S. Geological Survey to develop a predictive groundwater flow model for Jefferson County, West Virginia. The proposal document contains a list of points of contact should you require additional information. Also, we are available to drive up to Charles Town to meet with the County Commission to discuss specifics related to the proposed effort. Please advise as to the time of the meeting or other specifics that we should be aware of. We look forward to working with Jefferson County to develop the predictive groundwater-flow model, as it will enable Jefferson County to more effectively assess and manage its available groundwater resources both presently and into the future.

Best regards,

Mark D. Kozar
Hydrologist - USGS



Development of a Predictive Groundwater Flow Model to Assess Current And Future Water Availability in Jefferson County, West Virginia

U.S. Geological Survey Virginia and West Virginia Water Science Center

INTRODUCTION

Groundwater resources are vital to the rural residents of Jefferson County and several public water systems which rely heavily on groundwater as their primary water source. The County has also experienced significant economic growth and a major land use change over the last 50 years, transitioning from primarily agricultural land use in the 1970's to increasing suburban development with associated commercial and industrial growth at present. In addition, droughts in the summer and fall of 2024 and a similar drought in 2008 highlighted how limited groundwater availability may be during periods of extended drought. Assessing groundwater quantity and availability is essential for managing the aquifer and protecting this resource from possible over development.

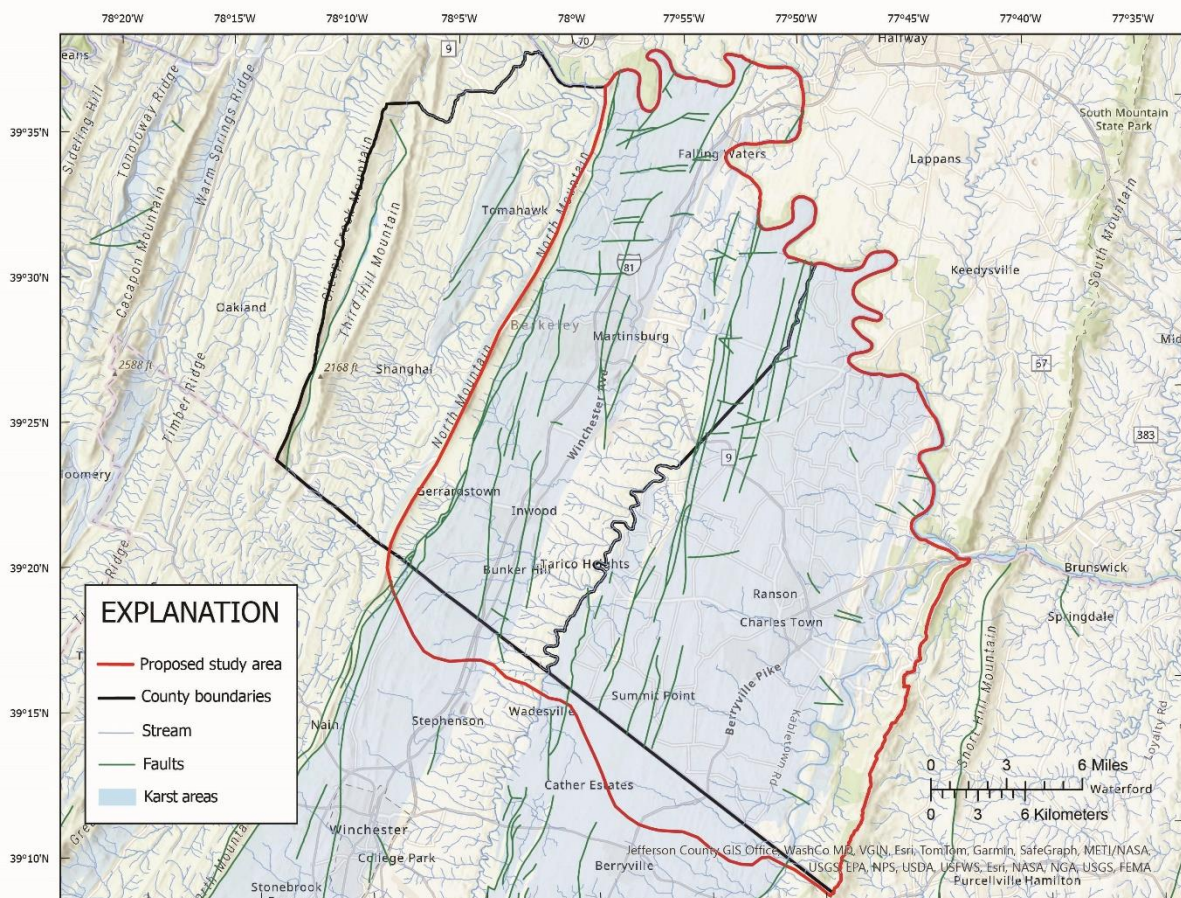


Figure 1. Map showing karst areas and the proposed study area boundary for a predictive groundwater-flow model for Jefferson County West Virginia.

Jefferson County, located in the eastern panhandle of West Virginia, is underlain by karst aquifers of Cambrian and Ordovician age and older siliciclastic and metamorphic rocks of Cambrian age adjacent to and east of the Shenandoah River. Naturally occurring dissolution of carbonate rocks in Jefferson County has resulted in a prolific karst aquifer with numerous karst features such as caves, sinkholes, disappearing streams, and large springs. The karst aquifer, which comprises most of the area west of the Shenandoah River within Jefferson County (fig. 1), contains areas of high permeability and associated water availability and areas of much lower permeability with a much lower potential for groundwater availability. Thus, water availability is not dispersed uniformly across the county, but rather certain areas are more conducive to providing large quantities of groundwater than are other areas. The higher permeability areas are commonly associated with thrust or cross strike faults (fig. 1) and with certain geologic formations that are more prone to dissolution of carbonate rock with a higher percentage of calcium carbonate within the aquifer. The metamorphic rocks along the Blue Ridge east of the Shenandoah River are comprised of low-permeability rock with a much lower capacity to provide sufficient groundwater for current demands.

The purpose of the proposed predictive groundwater flow model is to provide Jefferson County and local water resource managers with information to make science-based decisions on the availability of current and future groundwater resources. Additionally, this predictive groundwater flow model will help to facilitate the identification of areas within the county with a higher capacity of providing large quantities of groundwater to meet current and future supply needs. Once developed, the model can also be used to assess potential impact of proposed future development projects on the aquifer, including assessing potential impacts to existing wells and springs. The model will allow water resources managers to more effectively manage groundwater resources within the county than is currently possible.

OBJECTIVES

Specific objectives of the study are to develop a predictive groundwater flow model for Jefferson County to:

- 1) Assess current groundwater availability,
- 1) Assess the distribution of current groundwater withdrawals,
- 2) Delineate areas that have a higher capacity for high groundwater yield,
- 3) Assess the impacts of potential drought on current groundwater availability,
- 4) Develop scenarios of future groundwater availability based on anticipated population growth or future development activities on aquifer storage and impacts to existing wells and springs.

APPROACH

A large amount of groundwater information has previously been collected for Jefferson County and surrounding areas (see reference list for full list of previous studies) as part of previously completed USGS projects including 1) county-wide water-table maps, 2) county-wide fracture trace and lineament analysis maps and associated hydraulic data from 435 single well aquifer tests, 3) previously developed groundwater flow models for the Opequon Creek and Hopewell Run watersheds, and 4) investigations of groundwater flow processes of the conceptual groundwater flow system as part of intensive groundwater

studies of the USGS facility at Leetown, Jefferson County, West Virginia (see attached list of references for previous studies). In addition, 5) there are four long-term groundwater monitoring wells providing continuous measurements of groundwater levels within the study area, and 6) 10 existing USGS streamflow gaging stations providing long-term stream discharge data for the study area. This existing data provides a basis for development of a predictive groundwater flow model for Jefferson County.

A predictive groundwater flow model will be developed using the USGS software MODFLOW 6. Hydraulic properties within the model will be adopted from similar data used in the Opequon Creek and Hopewell Run watershed numerical groundwater flow models. Zones of high permeability will be simulated as zones of high hydraulic conductivity within the model or potentially using the USGS Conduit Flow Process. Such zones are commonly associated with thrust or cross strike faults and must be simulated to allow for accurate assessment of groundwater flow paths. Recharge applied to the model will be derived from USGS Soil Water Balance (SWB) calibrated models currently being developed as part of a separate recently funded project.

The predictive groundwater flow model will be calibrated to available groundwater-level measurements from previous studies ($n > 1,000$), hydraulic properties data from previous groundwater flow models and as part of the county-wide fracture trace and lineament analysis studies, and streamflow data measured at the 10 stream-gaging stations within the study area. The USGS parameter estimation package (PEST) will be used to further calibrate the model.

Once the predictive groundwater flow model has been fully developed and calibrated, scenario modeling will be conducted to include scenarios of 1) anticipated increases in population, 2) drought scenarios to assess changes in aquifer storage resulting from drought similar to the recent (summer 2024) drought, development scenarios including 3) impacts to the aquifer and existing wells and springs such as might occur if a new public supply well were brought into operation, or 4) a large commercial or industrial well were brought into operation. These scenario models will assess changes in storage within the aquifer, effects on existing wells and springs including reduction in spring flow and reduction in recharge to existing wells. Additional scenarios including 5) potential real-world scenarios of officially proposed development such as might occur with a well or wells drilled to provide water to a new subdivision, or 6) impacts of well(s) drilled for commercial operations such as was recently proposed for the bottled water plant in Middleway, West Virginia.

Once the model has been completed it will be archived as per USGS policy as a Data Release in the groundwater model archives on the USGS Science Base website. These archives allow the model to be made publicly available, and as such would be available not only to Jefferson County but to other entities such as public water systems wanting to assess potential impacts of a new public supply well, developers wanting to assess water-availability with respect to a new subdivision, or a commercial or industrial plant wanting to assess water availability for a new business venture. Regardless of who uses the model, it will provide for a much more realistic assessment of groundwater availability and potential effects of additional groundwater withdrawals on the aquifer than is currently possible.

DELIVERABLES

The principal deliverable product for the project will be an interpretative USGS Scientific Investigations Report to summarize the findings of the study. The numerical groundwater flow model will also be archived in the publicly available USGS groundwater flow model archives on the USGS Science Base website.

BUDGET

The total cost of the project is \$800,000 over a 3-year period. The first year of the project would be devoted to building and calibrating the model, the second year primarily towards developing and running various scenarios for population growth and economic development and infrastructure growth, and the third year would be devoted to completing writing and final publication of the interpretive report and archival of the model in the USGS Science Base data repository website.

Table 1. Budget estimates by year

Year 1 estimated budget	\$325,000
Year 2 estimated budget	\$325,000
Year 3 estimated budget	\$150,000
Total project budget	\$800,000

TIMELINE

The project will be completed over a 3-year period with development and calibration of the model planned for the first two years of the study and preparation and publication of the interpretive USGS Scientific Investigations Report and archival of the model planned for the third year of the project (Table 2).

Table 2. Timeline of proposed activities.

Calendar Year and Quarter	2025	2026	2027
Task	1 2 3 4	1 2 3 4	1 2 3 4
Compile existing data for the model	X X		
Develop initial groundwater flow model	X X X		
Prepare SWB recharge data for the model	X X X		
Calibrate groundwater flow model	X X	X X	
Conduct drought scenario modeling		X X X	
Conduct development scenario modeling		X X X	
Conduct population growth scenario modeling		X X X	
Prepare initial draft of investigative report		X X	X
Send report for colleague review			X
Address colleague review comments/edit report			X X
Submit report for editorial review			X X
Address editorial review comments			X X
Send report for USGS Bureau approval			X
Publish investigative report			X

BENEFITS

Results of this study will enable Jefferson County to more effectively manage its available groundwater resources, and to assess potential impacts to that resource such as might occur from proposed groundwater withdrawals for large water users such as an industrial facility, a new public supply well, a commercial water bottling plant or other similar commercial or industrial activities which require large supplies of groundwater.

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CONTACTS

Questions or comments, please contact:

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JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 **Fax:** (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT

Pasha Majdi

COMMISSIONER

Jack Hefestay

COMMISSIONER

Cara Keys

COMMISSIONER

Steve Stolipher

COMMISSIONER

Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From:

Date: February 6, 2025, Commission Meeting

Re: Fiscal Note: Jefferson County Ground Water Study

Before the Commission today, there are two groundwater study options. One for \$800,000 and one for \$100,000.

Typically, the Commission will use the Coal Severance fund for appropriations outside of normal course of business.

Current unencumbered Coal Severance funds: \$165,000

** It should be noted that the Commission will review a variety of expenses at an upcoming meeting, and the Commission may need to use Coal Severance funds to pay these expenses.

AGENDA REQUEST FORM
www.jeffersoncountywv.org



1Name: Brant Lowe

Department or Organization:

Estimation of amount of time needed for appointment: 10 minutes

Date Requested – 1st Choice: **January 16, 2025**

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

Date Requested – 2nd Choice: February 6, 2025

Subject (*Wording to be placed on agenda*): **Request to vacate a section of unimproved right-of-way.**

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

✚ Please see attached letter.

Is this a funding request? Y/N **NO**

If so, how much? \$

Provide exact financial impact/request:

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

Move to abandon and close that section of South Princess Street (Extended) south of the intersection of South Princess Street and Prospect Avenue in Shepherdstown, WV and place an attested copy of such order in the land records of Jefferson County.

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector **Y/N** Internet/Wi Fi **Y/N** Telephone for conference call **Y/N**

Contact information: Brant Lowe

Email address: brantlowe@gmail.com

Phone Number: 304-279-5050

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable



Jefferson County, West Virginia
Department of Engineering, Planning, and Zoning
Office of Planning & Zoning
116 East Washington Street; Suite 200
Charles Town, West Virginia 25414

Phone: (304) 728-3228
Fax: (304) 728-8126

Email: planningdepartment@jeffersoncountywv.org

January 31, 2024

PRE-PROPOSAL CONFERENCE MEMORANDUM

PPC Meeting Date: January 10, 2024 at 10:00 am
Owner: BML, LLC / Brant Lowe
Contact Information: brantlowe@gmail.com
Proposed Project: Boundary Line Adjustment and Minor Subdivisions
Parcel Information: 427 South Princess Street; Shepherdstown, WV 25443
Parcel ID: 09008B00850002; Size: 0.63 acres;
Zone: Residential Growth; Deed Book: 1296; Page: 521
Meeting Attendees: Jennifer Brockman, Chief County Planner; Jonathan Saunders, County Engineer;
Luke Seigfried, County Planner; Alex Beaulieu, Deputy Director & Zoning
Administrator; Brant Lowe, property owner

Meeting Overview/Discussion:

○ Overview:

Applicant is interested in a Boundary Line Adjustment/Merger of multiple parcels and to potentially abandon all or part of an existing ROW. The following parcels are all owned by BML LLC and are being considered for possible residential development:

- P92: 0.1629 ac – occupied by a two-family dwelling to be retained
- P91: 0.094 ac -- occupied by a house to be retained
- P90: 0.1928 ac – the applicant indicated that this parcel has a 60' right-of-way providing access from South Princess to the Alma Bea parking lot which will need to be addressed during any Boundary Line Adjustment
- P89: 0.0331 ac
- P85.2: 0.63 ac
- P88: 0.13 ac
- P87: 0.167 ac
- plus possible vacation of paper road ROW

○ Research/Additional Relevant Information:

These lots have generally existed since the 1940's and have not been subdivided since that time.

○ Tentative Site Capacity Calculations:

As these properties are zoned Residential Growth, and public water and sanitary sewer is available, these lots can be developed under the RG zoning as detailed below. The property boundaries can be modified through Boundary Line Adjustments to create lots that meet these requirements.

○ Relevant Information:

- A registered West Virginia Surveyor is required to stamp all Final Plats and Boundary Line Adjustment Plats.
- A Boundary Line Adjustment also requires a deed with the required language.
- Permits may be required from the following state agencies:

- West Virginia Division of Highways (entrance permit): 681-320-2039 (Burlington Office)
- Jefferson County Health Department (well & septic): 304-728-8416

Comments:**Vacating Paper Road**

It appears that pursuant to WV Code §7-1-3h, the County Commission may have the authority to close/vacate unused roads, streets and travel ways, after a petition by any landowner whose land abuts on any unused road, street, or other travel way designated on any map or plat of a subdivision of land within the county (outside of incorporated areas). If you are interested in vacating land south of South Princess Street and the paper streets to the west, staff recommends consulting an attorney to advise of this process. The Knodes and Dan Tokar will need to be a part of the application/petition.

If this is pursued, the 30' access easement to Dan Tokar's property will need to be taken into consideration.

Subdivision Regulations**Minor Subdivision**

- All lots created through the Minor Subdivision process shall have motor vehicle access via a 50' access easement, serving no more than 5 lots to either a WV DOH road right-of-way or easement; or a road in a major subdivision that meets county roadway design standards, and does not require the extension of off-tract infrastructure. Typically water and sewer mains have to be adjacent to the property to allow the property to process as a Minor. Additionally, only 5 lots can access off the 50' access easement before new road construction is required. Once the first 5 lots have been created as a Minor, if these criteria cannot be met, a Major Subdivision would be required.
- It appears that South Princess Street is not a state road or a major subdivision road and therefore no minor subdivisions can process without a waiver.

Boundary Line Adjustment/Merger Plat

- Section 20.106 outlines the process for submitting a request for a Boundary Line Adjustment (Merger Plat). Such a request requires submission and approval of a Merger Plat in accordance with this Section of the Subdivision Regulations prepared by a WV registered surveyor.
- The adjustment of boundary lines or the consolidation of lots or portions of lots for the purpose of increasing land area or adjusting shape shall be approved, provided that the following criteria are met:
 - A. Access to all lots included on this plat is not adversely affected and is depicted on the plat;
 - B. No new lot is created;
 - C. The remaining area of the lot from which the land is taken, satisfies requirements for minimum lot size in the zone district in which it is located. Lot boundary adjustments between non-conforming lots shall be exempt from the minimum lot size criteria unless the lot(s) is (are) rendered unbuildable.
 - D. The following note shall be included on this plat and in the deed:

“The land(s) hereby conveyed is (are) adjacent to and contiguous with that certain parcel of land which is owned by the grantees herein, having been conveyed to them by deed of record in the Clerk's Office of Jefferson County in Deed Book ____, Page ____, and this conveyance is made for the purpose of adjusting the boundary line(s) of said presently owned land(s) of the grantees.”
 - E. Provide acreage table on plat showing beginning acreages, the merged acreages and the final/net acreages for each lot in the format in the Subdivision Regulations.

- F. If the merger is occurring within a previously approved subdivision, a note which references the original plat stating “See PB ____ (Plat Book) PG ____ (Page Number), for subdivision notes and restrictions” shall be added.
 - G. New lot lines do not create any setback violations. A note shall be added to the plat to this effect or front, rear and side setbacks shall be designated on the Plat with any existing structures. A deed shall be required to be recorded with the plat and shall include the Plat Book and Page Number of the recorded plat and the note from 20.106(D) above.
- A deed is required for each merged parcel as well as the plat.

Zoning Ordinance

These lots can be developed pursuant to the Residential Site Development Standards provided in Appendix A and shall utilize the Residential Growth standards (excerpt below):

Zoning District	Land use	Land Use Subtype	Min Lot Area (MLA) sq. ft.**	Area per Dwelling Unit (ADU) sq. ft.	Min Lot Width	Max Building Height*	Setbacks				Parking/ Drive Aisle Setbacks	Screened Buffers Sec. 4.11
							Front	Side	Street Side	Rear		
Residential Growth (RG)	Single Family Detached Dwelling	Public/Central water and sewer	6,000	10,000	N/A	40	25	12	15	20	N/A	N/A
		Public/Central water or sewer	20,000	N/A	N/A	"	"	"	"	"		
		No Public/Central water or sewer	40,000	N/A	N/A	"	"	"	"	"		
	Small Lot Single-Family Detached Dwelling	Public/Central water and sewer	3,200	7,500	35	40	20****	5	10	20		
	Duplex Dwelling Unit	Public/Central water and sewer	3,200	7,500	N/A	40	25	15**	15	20		
		Public/Central water or sewer	N/A	10,000	N/A	"	"	"	"	"		
	Townhouse Dwelling ⁴²	Public/Central water and sewer	1,400	3,500	N/A	40	25	12**	15	20		
Multi-Family Dwelling (See Section 4.12)	Public/Central water and sewer	20,000	2,000	N/A	40	25	12**	15	30	12 side 15 front 15 rear	12 side 15 front 15 rear	

The applicant will need to demonstrate that the type of development identified (e.g. duplex, townhome, etc.) meets the Area per Dwelling Unit (ADU) requirements, which regulates density (the number of lots that can be created). A merger may occur to increase the beginning acreage to allow for a subdivision to occur.

Regarding the question pertaining the ADU to subdivide to create lots for two-family homes (two dwelling units attached side by side or above and below on a single lot of record), it would either be 20,000 square feet for a two family home (using the SF detached dwelling with water & sewer standard – 10,000 for each dwelling unit) or 15,000 square feet using the ADU that applies to duplex (7,500 square feet per dwelling unit).

Conclusion:

The applicant may proceed with the petition to vacate the paper street, the proposed mergers/boundary line adjustments, and the proposed residential subdivision. If the applicant would like to schedule another PPC after the petition to vacate the paper street, please contact our office.

Be advised that the purpose of this memo is informational and is only intended to provide general guidance.

Sincerely,

Jennifer M. Brockman, AICP
Chief County Planner

December 27, 2024

To the County Commission of Jefferson County, West Virginia,

This petition, by BML LLC, a limited liability company with address of PO Box 332, Kearneysville, WV 25430 (“Petitioner”), requests of the County Commission of Jefferson County, West Virginia to issue an official order vacating all or a portion of a certain section of a “paper” street located south of Shepherdstown, WV.

Petitioner purchased Parcel 09 8B008700000000 in December of 2022 which abuts a section of South Princess Street in Shepherdstown, WV. The street is shown on paper maps and plats, but it is not improved and has trees and bushes growing on it rendering it impassible.

As shown in Appendix A, Deed Book Z Page 130 contains a plat showing Princess Street (Extended).

As shown in Appendix B, Deed Book 1222 Page 566 contains a plat showing Petitioner’s property Parcel 87 abutting the section of Princess Street to the South and East.

As shown in Appendix C, the section of this street requested to be abandoned is between the intersection of Prospect Avenue/Princess Street and Fairmont Avenue/Princess Street and has never been developed or used according to the petitioner’s knowledge.

West Virginia Code Section 7-1-3h grants the County Commission the authority to abandon streets and roads within the county.

Petitioner met with the Jefferson County Office of Planning and Zoning and discussed the vacating of this street as outlined in a PPC Memo from a meeting held on January 10, 2024.

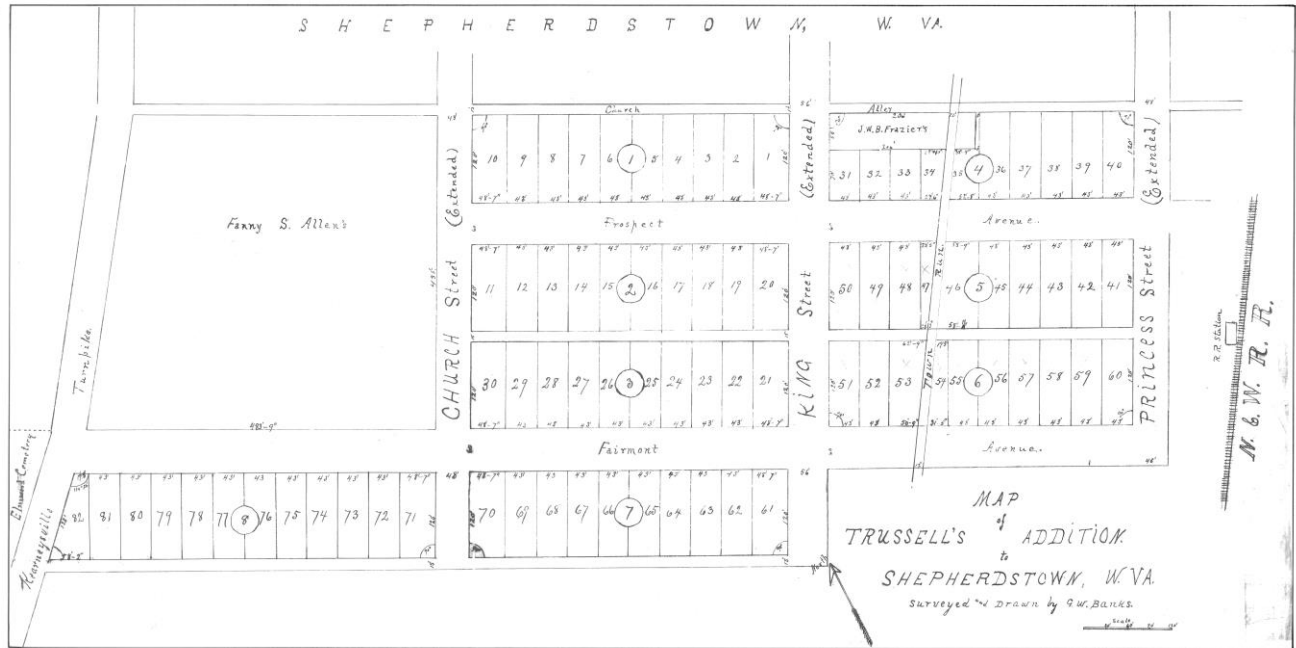
Petitioner acknowledges that adjoining property owners, Dan Tokar and Jo Ann Knode, will need to be included in the decision to vacate this portion of South Princess Street. Petitioner asserts that these parties will not be adversely affected by the abandonment of this street section.

Respectfully,

Brant Lowe for BML LLC
PO Box 332
Kearneysville, WV 25430

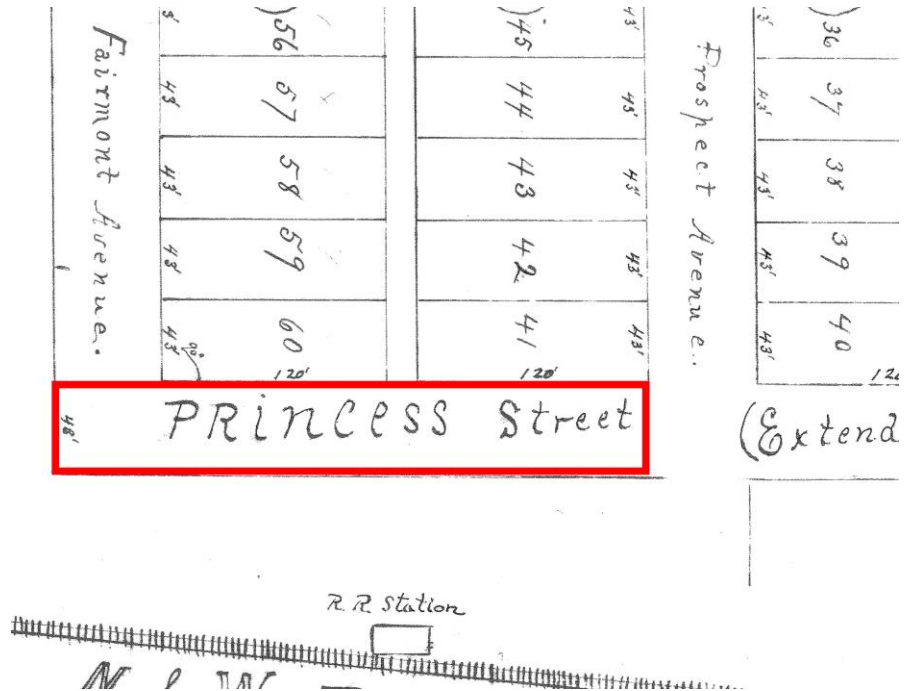
Appendix A

Plat from Deed Book Z Page 130



Appendix C

Section of street requested to be abandoned



AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: **Roger Goodwin, Director & Chief County Engineer**
Michelle Mason, Impact Fees Program Specialist

Department or Organization: **Department of Engineering, Planning & Zoning**

Estimation of amount of time needed for appointment: **25 minutes**

Date Requested – 1st Choice: **February 6, 2025**

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*): **Presentation of Calendar Year 2024 Annual Report for the Office of Impact Fees**

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

Pursuant to the Jefferson County Impact Fees Procedures Ordinance, Section 6.A(1), "at least once every year not later than January 31st of each year, beginning in the year 2005, and prior to County Commission's adoption of the Annual Budget and Capital Improvements Program, the Impact Fee Coordinator or a designee chosen by the Impact Fee Coordinator shall coordinate the preparation and submission of an Annual Report to the County Executive and County Commission on the subject of impact fees."

The Impact Fees Procedures Ordinance, Section 6.A (3), goes on to state "the Impact Fee Coordinator or the Impact Fee Coordinator's designee shall submit the Annual Report to the County Commission, who shall receive the Annual Report and which may take such actions as they deem appropriate, including, but not limited to, requesting additional data or analyses and holding public workshops and/or public hearings."

The impact fees annual report for calendar year 2024 is attached. Note that under section 2.4.1, "Inflation Adjustments," the annual inflation adjustment shown in the report will be automatically applied on April 1, 2024. The inflationary adjustment is to automatically occur by dictate of the Impact Fees Procedure Ordinance 2003-1, Section 6.B, unless the County Commission acts to stay the adjustment to the impact fees.

A new impact fee study was recently completed and new impact fees will become effective on June 1, 2025. Since the fee amounts reset based upon current market costs/values, staff recommends staying the inflation adjustment.

Is this a funding request? **No** If so, how much?

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

#1 Motion to accept the Calendar Year 2024 Impact Fees Annual Report for the Office of Impact Fees, as presented.

#2 Motion to (approve or stay) the annual inflationary adjustments to the impact fees.

Attach supporting documents for request, or request may be denied.

If not attached, explain: **CY 2023 Impact Fees Annual Report**

Is equipment needed? Projector Y/N **No** Internet/Wi Fi Y/N **No** Telephone for conference call Y/N **No**

Contact information:

Email address: engineering@jeffersoncountywv.org Phone Number: 304-728-3257

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/COMMENTS

<u>FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/COMMENTS</u>

Annual Report on Impact Fees

January 2024 – December 2024

Engineering Department
Office of Impact Fees
Jefferson County Government
28 January 2025

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Executive Summary

1.1. Trends in Fee Collection

Permitting for new residential construction in Jefferson County in Calendar Year (CY) 2024 increased relative to CY 2023. There were 1031 impact fee applications processed in CY 2024 versus 796 residential impact fee applications in CY 2023; a 29.5% increase. Of that total in CY 2024, 14 applications were for replacement of existing dwelling units, which do not represent new growth and were exempt from impact fees.

Permitting for new commercial construction in Jefferson County in CY 2024 decreased relative to CY 2023. There were 8 impact fee applications processed in CY 2024 versus 17 in CY 2023.

Table 1A. Total County Residential Building Permits (CY 2004-2024)

Year	Single Family			Town Home			Duplex			Multifamily			Grand Total
	Exempt	Fees	Total	Exempt	Fees	Total	Exempt	Fees	Total	Exempt	Fees	Total	
2004	49	269	318	0	5	5	0	0	0	0	0	0	323
2005	39	324	363	0	22	22	0	0	0	0	0	0	385
2006	42	256	298	0	57	57	0	0	0	0	0	0	355
2007	38	213	251	0	66	66	0	0	0	0	0	0	317
2008	22	108	130	0	39	39	0	0	0	0	0	0	169
2009	25	75	100	0	50	50	0	0	0	0	0	0	150
2010	32	91	123	0	39	39	0	0	0	0	0	0	162
2011	21	73	94	1	40	41	0	0	0	0	0	0	135
2012	13	118	131	0	24	24	0	0	0	0	0	0	155
2013	4	207	211	0	38	38	0	0	0	0	0	0	249
2014	4	182	186	0	16	16	0	0	0	0	0	0	202
2015	14	182	196	0	8	8	0	4	4	0	96	96	304
2016	14	165	179	0	10	10	0	0	0	0	0	0	189
2017	14	225	239	0	8	8	0	4	4	0	0	0	251
2018	19	178	197	1	32	33	0	33	33	0	24	24	287
2019	13	165	178	0	36	36	0	11	11	0	0	0	225
2020	15	182	197	0	91	91	0	4	4	0	309	309	601
2021	17	383	400	0	43	43	0	1	1	0	0	0	444
2022	13	289	302	0	148	148	2	15	17	0	0	0	467
2023	14	397	411	5	363	368	0	8	8	1	8	9	796
2024	12	544	556	0	467	467	2	2	4	0	4	4	1,031
Total	434	4,626	5,060	7	1,602	1,609	4	82	86	1	441	442	7,197

Table 1B. Total County **Non-Residential Building Permits** (CY 2004-2024)

Year	Exempt	Fees	Total
2004	0	4	4
2005	0	5	5
2006	0	0	0
2007	10	12	22
2008	4	9	13
2009	3	2	5
2010	10	8	18
2011	1	11	12
2012	3	13	16
2013	1	3	4
2014	0	4	4
2015	0	5	5
2016	0	13	13
2017	1	6	7
2018	1	4	5
2019	1	21	22
2020	0	10	10
2021	0	9	9
2022	0	7	7
2023	0	17	17
2024	0	8	8
Grand Total	35	171	206

1.2. Fees Collected

Jefferson County uses a fiscal year which starts in July and runs through June of the next year. The accounting of fees collected to date is based on a calendar year since this report is due to the Commission in January of each year. Thus, these values reported below span Fiscal Years 2024 and 2025 and run from 1 January 2024 through 31 December 2024. Table 2 presents the total fee collection data, while Tables 3 and 4 present the financial data categorized into county and municipal tax districts.

The financial transaction information for the Office of Impact Fees general account (which serves as the initial account of fee deposit) is presented in Table 5. Table 6 presents the financial data for each of the five long term impact fee holding accounts (Schools, Law Enforcement, Parks & Recreation, EMS, and Administrative Facilities).

Table 2. Fees Collected – Calendar Year 2024
County & Municipal Combined

Land Use	Type	Schools	Law	Parks & Rec	EMS	Admin. Facilities	Grand Total
Residential	Single Family	\$537	\$179,502	\$585,210	\$61,598	\$28,855	\$855,702
	Town Home	\$467	\$51,146	\$509,171	\$53,465	\$25,089	\$639,338
	Duplex	\$2	\$0	\$2,262	\$238	\$114	\$2,616
	Multifamily	\$4	\$0	\$3,150	\$334	\$153	\$3,641
	Residential Total	\$1,010	\$230,648	\$1,099,793	\$115,635	\$54,211	\$1,501,297
Commercial	Comm25Less	\$0	\$0	\$0	\$0	\$0	\$0
	Office10Less	\$0	\$0	\$0	\$0	\$0	\$0
	Office10-25	\$0	\$0	\$0	\$0	\$0	\$0
	Light Industrial	\$0	\$0	\$0	\$0	\$0	\$0
	Commercial Total	\$0	\$0	\$0	\$0	\$0	\$0
	Grand Total	\$1,010	\$230,648	\$1,099,793	\$115,635	\$54,211	\$1,501,297

Table 3. Fees Collected by **County** Tax District – Calendar Year 2024

Tax District	Land Use	Type	Schools	Law	Parks & Rec	EMS	Admin. Facilities	Grand Total
02 Charles Town	Residential	Single Family	\$155	\$96,032	\$170,817	\$17,978	\$8,479	\$293,461
		Townhome	\$68	\$40,976	\$72,908	\$7,676	\$3,556	\$125,184
	Residential Total		\$223	\$137,008	\$243,725	\$25,654	\$12,035	\$418,645
	Commercial	Office10Less	\$0	\$0	\$0	\$0	\$0	\$0
	Commercial Total		\$0	\$0	\$0	\$0	\$0	\$0
02 Charles Town Grand Total			\$223	\$137,008	\$243,725	\$25,654	\$12,035	\$418,645
04 Harpers Ferry	Residential	Single Family	\$38	\$23,495	\$41,795	\$4,399	\$2,066	\$71,793
		Residential Total		\$38	\$23,495	\$41,795	\$4,399	\$2,066
	Commercial		Light Industrial	\$0	\$0	\$0	\$0	\$0
	Commercial Total		\$0	\$0	\$0	\$0	\$0	\$0
04 Harpers Ferry Grand Total			\$38	\$23,495	\$41,795	\$4,399	\$2,066	\$71,793
06 Kabletown	Residential	Single Family	\$22	\$13,708	\$24,382	\$2,566	\$1,214	\$41,892
		Residential Total		\$22	\$13,708	\$24,382	\$2,566	\$1,214
06 Kabletown Grand Total			\$22	\$13,708	\$24,382	\$2,566	\$1,214	\$41,892
07 Middleway	Residential	Single Family	\$27	\$16,733	\$29,772	\$3,134	\$1,453	\$51,119
		Townhome	\$18	\$10,170	\$18,108	\$1,908	\$846	\$31,050
	Residential Total		\$45	\$26,903	\$47,880	\$5,042	\$2,299	\$82,169
	07 Middleway Grand Total			\$45	\$26,903	\$47,880	\$5,042	\$2,299
09 Shepherdstown	Residential	Single Family	\$48	\$29,534	\$52,538	\$5,530	\$2,596	\$90,246
		Residential Total		\$48	\$29,534	\$52,538	\$5,530	\$2,596
09 Shepherdstown Grand Total			\$48	\$29,534	\$52,538	\$5,530	\$2,596	\$90,246
County Grand Total			\$376	\$230,648	\$410,320	\$43,191	\$20,210	\$704,745

Table 4. Fees Collected by **Municipal** Tax District – Calendar Year 2024

Tax District	Land Use	Type	Schools	Parks & Rec	EMS	Admin. Facilities	Grand Total
03 Charles Town Corp	Residential	Single Family	\$85	\$91,510	\$9,634	\$4,475	\$105,704
		Town Home	\$153	\$168,037	\$17,555	\$8,311	\$194,056
		Duplex	\$2	\$2,262	\$238	\$114	\$2,616
		Multifamily	\$4	\$3,150	\$334	\$153	\$3,641
	Residential Total		\$244	\$264,959	\$27,761	\$13,053	\$306,017
	Commercial	Comm25Less	\$0	\$0	\$0	\$0	\$0
Office10Less		\$0	\$0	\$0	\$0	\$0	
Commercial Total		\$0	\$0	\$0	\$0	\$0	
03 Charles Town Corp Grand Total			\$244	\$264,959	\$27,761	\$13,053	\$306,017
05 Harpers Ferry Corp	Residential	Single Family	\$3	\$3,143	\$331	\$151	\$3,628
		Residential Total	\$3	\$3,143	\$331	\$151	\$3,628
05 Harpers Ferry Corp Grand Total			\$3	\$3,143	\$331	\$151	\$3,628
08 Ranson Corp	Residential	Single Family	\$159	\$171,253	\$18,026	\$8,421	\$197,859
		Town Home	\$228	\$250,118	\$26,326	\$12,376	\$289,048
		Residential Total	\$387	\$421,371	\$44,352	\$20,797	\$486,907
	Commercial	Comm25Less	\$0	\$0	\$0	\$0	\$0
		Office10-25	\$0	\$0	\$0	\$0	\$0
	Commercial Total		\$0	\$0	\$0	\$0	\$0
08 Ranson Corp Grand Total			\$387	\$421,371	\$44,352	\$20,797	\$486,907
Municipal Grand Total			\$634	\$689,473	\$72,444	\$34,001	\$796,552
County Tax District Fees Collected Totals							\$704,745
Municipal Tax District Fees Collected Totals							\$796,552
GRAND TOTAL							\$1,501,297

1.3. Financial Data

Table 5. Office of Impact Fees General Account (3111776)

Month	Starting Balance	Total Deposits	Total Checks	Interest	Ending Balance
January	\$74,050.40	\$115,676.00	\$74,050.40	\$58.26	\$115,734.26
February	\$115,734.26	\$151,300.00	\$115,734.26	\$82.84	\$151,382.84
March	\$151,382.84	\$157,605.00	\$151,382.84	\$76.55	\$157,681.55
April	\$157,681.55	\$131,915.00	\$157,681.55	\$81.97	\$131,996.97
May	\$131,996.97	\$159,503.00	\$131,996.97	\$84.62	\$159,587.62
June	\$159,587.62	\$170,592.00	\$159,587.62	\$82.05	\$170,674.05
July	\$170,674.05	\$118,074.00	\$170,674.05	\$77.29	\$118,151.29
August	\$118,151.29	\$71,530.00	\$118,151.29	\$49.26	\$71,579.26
September	\$71,579.26	\$141,693.00	\$71,579.26	\$75.10	\$141,768.10
October	\$141,768.10	\$106,680.00	\$141,768.10	\$70.80	\$106,750.80
November	\$106,750.80	\$82,896.00	\$106,750.80	\$63.07	\$82,959.07
December	\$82,959.07	\$90,478.00	\$82,959.07	\$74.16	\$90,552.16

December 2024 Outstanding Credits	0
January 2024 Transfers	(\$90,552.16)
01 January 2024 Deposits	0
01 January 2024 Balance	0

Table 6. Impact Fee Holding Accounts

Category	Schools	Law	Parks	EMS	Admin. Facilities
Account Number	3107582	3120120	3122808	3122816	33182570
Balance on 01 January 2024	\$2,004,875.24	\$548,331.95	\$1,266,489.98	\$88,168.58	\$58,842.77
Total Deposits	\$1,006.00	\$225,378.44	\$1,089,307.61	\$114,596.42	\$53,415.26
Withdraws /1	\$28,030.00	\$10,836.00	\$105,794.00	\$88,954.00	\$6,562.00
Interest Accrued - CY 2024	\$15,054.88	\$5,000.22	\$12,017.37	\$536.53	\$275.94
Balance on 31 December 2024	\$1,992,906.12	\$767,874.61	\$2,262,020.96	\$114,347.53	\$105,971.97
January Transfers /2	\$58.00	\$14,207.87	\$66,014.14	\$6,945.93	\$3,326.22
<i>Of Which</i>					
<i>Transferred Fees</i>	58.00	\$14,196.00	\$65,960.00	\$6,940.00	\$3,324.00
<i>Transferred Interest</i>	0.00	\$11.87	\$54.14	\$5.93	\$2.22
Final Balance 03 January 2025	\$1,992,964.12	\$782,082.48	\$2,328,035.10	\$121,293.46	\$109,298.19

Notes

/1 See Table 8 for details.

/2 From fees collected in December 2024 and transferred in January 2024.

1.4. Fees Disbursed

Fees are disbursed from the long-term accounts for only two reasons: refund and requisition. The transactional details for all fee disbursements are presented in Table 8.

1.4.1. Refunds

Refunds are only processed when a building permit is revoked and upon written request of the building permit applicant. There were two refunds processed in CY 2024.

1.4.2. Requisitions

The fee fundable projects approved by the Impact Fee Program Specialist for FY 2025 along with the approved funding amounts are listed in Table 7. The impact fee payments for projects listed on the FY 2025 Capital Improvement Plans are listed in Table 8. Projects eligible for funding by impact fees must be approved by the County Commission. The impact fee fundable projects for FY 2026 remain to be presented to the County Commission for approval.

Table 7. FY 2025 Approved Fee Fundable Projects

Category	Capital Improvement Project	Approved Impact Fee Funding
Schools	Shepherdstown Elementary School	\$1,276,081
	Ranson Elementary School	\$1,276,081
	High School Auxiliary Gym	\$1,910,688
	New Middle School (10 + Years)	\$3,232,660
Law Enforcement	Weapons Training Qualifications Range	\$25,000
	Internal Expansion Temporary Sheriff's Office Space	\$150,000
Parks and Recreation	Sam Michael's Park (Playground)	\$70,000
	South Jefferson Park (Master Plan)	\$75,000
	James Hite Park (Pickleball Courts)	\$200,000
	Sam Michael's Park (Septic Upgrades)	\$450,000
EMS	JCESA Building Mortgage	\$81,000
Administrative Facilities	393 N. Lawrence Street	\$25,000

Table 8. Impact Fee Holding Account Withdraws

Account	Check Date	Statement Date	Debit	Notes
Schools	6/1/2024	6/30/2024	\$2,860	2024 Impact Fee Recalculation Study
	6/27/2024	7/31/2024	\$1	Impact Fee Refund - John Hobday
	7/18/2024	7/31/2024	\$14,300	2024 Impact Fee Recalculation Study
	9/9/2024	9/30/2024	\$5,720	2024 Impact Fee Recalculation Study
	10/1/2024	10/31/2024	\$5,148	2024 Impact Fee Recalculation Study
	11/20/2024	11/30/2024	\$1	Impact Fee Refund - Kelly Browne
	TOTAL			\$28,030
Law Enforcement	6/1/2024	6/30/2024	\$720	2024 Impact Fee Recalculation Study
	6/27/2024	7/31/2024	\$565	Impact Fee Refund - John Hobday
	8/1/2024	8/31/2024	\$6,250	2024 Impact Fee Recalculation Study
	9/9/2024	9/30/2024	\$1,440	2024 Impact Fee Recalculation Study
	10/1/2024	10/31/2024	\$1,296	2024 Impact Fee Recalculation Study
	11/20/2024	11/30/2024	\$565	Impact Fee Refund - Kelly Browne
TOTAL			\$10,836	
Parks and Recreation	1/25/2024	1/31/2024	\$42,000	Requisition 24R0150 - Riverside Land Purchase
	3/25/2024	3/31/2024	\$600	Requisition 24R0151 - Sam Michael's Park Amphitheatre Phase II
	5/23/2024	5/31/2024	\$14,600	Requisition 24R0153 - Amphitheater Phase II Lighting
	6/1/2024	6/30/2024	\$1,250	2024 Impact Fee Recalculation Study
	6/27/2024	7/31/2024	\$1,006	Impact Fee Refund - John Hobday
	7/18/2024	7/31/2024	\$12,400	Requisition 24R0154 - Sam Michael's Park Amphitheatre Phase II
	8/1/2024	8/31/2024	\$3,600	2024 Impact Fee Recalculation Study
	9/9/2024	9/30/2024	\$2,500	2024 Impact Fee Recalculation Study
	9/10/2024	9/30/2024	\$24,582	Requisition 24R0155 - Sam Michael's Park Amphitheatre Phase II
	10/1/2024	10/31/2024	\$2,250	2024 Impact Fee Recalculation Study
	11/20/2024	11/30/2024	\$1,006	Impact Fee Refund - Kelly Browne
TOTAL			\$105,794	

Account	Check Date	Statement Date	Debit	Notes
EMS	3/12/2024	3/31/2024	\$81,000	Requisition 24R0152 - JCESA Mortgage
	6/1/2024	6/30/2024	\$790	2024 Impact Fee Recalculation Study
	6/27/2024	7/31/2024	\$106	Impact Fee Refund - John Hobday
	7/18/2024	7/31/2024	\$3,950	2024 Impact Fee Recalculation Study
	9/9/2024	9/30/2024	\$1,580	2024 Impact Fee Recalculation Study
	10/1/2024	10/31/2024	\$1,422	2024 Impact Fee Recalculation Study
	11/20/2024	11/30/2024	\$106	Impact Fee Refund - Kelly Browne
TOTAL			\$88,954	
Administrative Facilities	6/1/2024	6/30/2024	\$660	2024 Impact Fee Recalculation Study
	6/27/2024	7/31/2024	\$47	Impact Fee Refund - John Hobday
	7/18/2024	7/31/2024	\$4,620	2024 Impact Fee Recalculation Study
	10/1/2024	10/31/2024	\$1,188	2024 Impact Fee Recalculation Study
	11/20/2024	11/30/2024	\$47	Impact Fee Refund - Kelly Browne
TOTAL			\$6,562	
Grand Total			\$240,176	

2. Annual Review

2.1. *Recommended Changes to Ordinances or Procedures*

Proposed changes to all five of the Impact Fee Ordinances will occur during CY 2025.

2.1.1. Ordinance Changes During 2024

In 2024, the County Commission contracted with Tischler-Bise to recalculate the impact fees. The recalculation was completed in 2024 and the new impact fees were adopted by the County Commission on 5 December 2024; the fees will be effective 1 June 2025. The following impact fee ordinances are to be amended to reflect the new impact fee schedules for each impact fee entity in 2025:

Schools Ordinance No. 2003-3

Adopted 5 December 2024; Effective 1 June 2025

Parks & Recreation Ordinance No. 2005-2

Adopted 5 December 2024; Effective 1 June 2025

Law Enforcement Ordinance No. 2005-1

Adopted 5 December 2024; Effective 1 June 2025

EMS Ordinance No. 2005-3

Adopted 5 December 2024; Effective 1 June 2025

Administrative Facilities No. 2024-1

Adopted 5 December 2024; Effective 1 June 2025

In 2013, the County Commission adopted Ordinance No. 2013-1, which amended Law Enforcement Ordinance No. 2005-1 and EMS Ordinance No. 2005-3; reducing the commercial impact fees by 99.5% of the actual impact fee calculation for new commercial development. The reduction became effective on July 1, 2013 and was set to expire on July 1, 2015, unless extended by the County Commission. At the 5 August 2021 County Commission meeting, the County Commission voted to reduce the commercial impact fee to \$0.00.

At the 19 December 2024 County Commission meeting, the County Commission voted to reinstate the commercial impact fees according to the approved 4 December 2024 impact fee study.

The Impact Fees Procedure Ordinance was amended on 17 June 2021, to provide for the change in use based only on the incremental increase in the fee for the additional public facilities needed. Provided, however, that any change of use of a non-residential structure to residential or multi residential structure shall not be assessed an Impact Fee of such change in use of which conditions apply. However, after a discussion with our impact fee consultant during the 2024 impact fee study, Tischler-Bise, this prior change to the ordinance appears to be in violation of

the equal protection clause of the U.S. Constitution; you cannot discriminate in the application of impact fees between the different types of uses.

2.2. Identification of **FY 2026** Impact Fee-Fundable Capital Projects

The following projects will appear on the FY 2026 Jefferson County Capital Improvement Plan and are listed because they have been identified by the Impact Fee Program Specialist as being eligible for funding by impact fees, either in whole or in part. However, a final determination of eligibility has not been made. Projects so identified represent maintaining the current level of service due to new growth. Exclusion of other projects, listed in the FY 2026 CIP but not included here, only indicates that they are not eligible for funding by impact fees and should not be taken as an indication of their overall merit.

Note that in some service categories, there are insufficient funds to be able to fully fund all impact fee eligible projects listed in tables 9-13. Tables 9-13 list all potentially fundable projects with the knowledge that not all listed projects will be funded via impact fees.

2.2.1. Schools

Table 9. BOE Fee Fundable Projects

Project	Current Request	Funding Potential	Category
ROTC Wing at Jefferson High School	\$1,650,000	\$1,650,000	High Schools Facilities/Building
Totals	\$1,650,000	\$1,650,000	

2.2.2. Law Enforcement

Table 10. Jefferson County Law Enforcement Projects

Project	Current Request	Funding Potential	Category
Weapons Training Qualifications Range	\$25,000	\$25,000	Facilities
Expansion Temporary Sheriff's Office Space	\$600,000	\$350,000	Facilities
Interior Expansion Temporary Sheriff's Office Space	\$150,000	\$150,000	Facilities
Jefferson County Public Safety Center (50%)	\$1,500,000	\$100,000	Facilities
Totals	\$2,275,000	\$625,000	

2.2.3. Parks & Recreation

Table 11. Park & Recreation Fee Fundable Projects

Project	Current Request	Funding Potential	Category
Sam Michael's Park (Community Design and Expansion)	\$100,000	\$100,000	Recreation Center Space
2026 Parks Master Plan	\$100,000	\$100,000	Park Improvements
James Hite Park (Pickleball Courts)	\$200,000	\$200,000	Park Improvements
Leetown Park (Multipurpose Field)	\$50,231.70	\$50,231.70	Park Improvements

Moulton Park (Parking)	\$85,000	\$85,000	Park Improvements
Sam Michaels Park (Dog Park Expansion Design/Construction)	\$50,000	\$50,000	Park Improvements
Totals	\$585,231.70	\$585,231.70	

2.2.4. EMS

Table 12. Jefferson County EMS Projects

Company	Project	Current Request	Funding Potential	Category
JCESA	Building Mortgage	\$81,000	\$81,000	Facilities
	Jefferson County Public Safety Center (50%)	\$200,000	\$100,000	Facilities
	Total	\$81,000	\$181,000	

2.2.5. Administrative Facilities

Table 13. Jefferson County Administrative Facilities Projects

Company	Project	Current Request	Funding Potential	Category
Administrative Facilities	Prosecutor's Building (Cost Recovery)	\$25,000	\$25,000	Facilities
	393 N. Lawrence Street	\$568,342	\$100,000	Facilities
	Total	\$593,342	\$125,000	

2.3. Proposed Fee Boundary Districts

Presently, the only fee category which utilizes fee districts is Law Enforcement. The boundaries of these districts are coincident with the current municipal boundaries. The Law Enforcement Impact Fee Ordinance defines the fee collection district as that portion of the county which is unincorporated. Development projects in the municipalities do not pay the Law Enforcement impact fee. As various municipalities continue to annex portions of the county, this boundary automatically adjusts. Thus there are no specific recommendations to change fee boundaries.

2.4. Proposed Fee Schedule Changes

In 2024, all five impact fee categories underwent a recalculation.

The County updates its impact fee methodologies on a five-year cycle. Therefore, the Schools, Law Enforcement, Parks and Recreation, EMS, and Administrative Facilities impact fee categories were due last for recalculation in CY 2024. The County Commission recalculated the levels of service and impact fee amounts required to maintain this level of service and adopted new fees in 2024. The next impact fee recalculation should begin in CY 2029.

2.4.1. Inflation Adjustments

It is generally recommended that all fee schedules not recalculated in any given calendar year be adjusted for inflation. By dictate of the Impact Fee Procedures Ordinance [2003-1], the Impact

Fee Program Specialist must use the Price Indexes for Gross Government Fixed Investment by Type which is published by the United States Bureau of Economic Analysis¹. Table 14 is extracted from the United States Bureau of Economic Analysis (BEA) data for price indexes (Table 5.9.4B – Price Indexes for Gross Government Fixed Investment by Type), for year 2022 and 2023. These represent the most recent price indices and were released on 27 September 2024. These data constitute the source for the annual inflation adjustments for the five impact fee categories currently in effect. **As per the Impact Fee Procedures Ordinance 2003-1, Section 6(B), the annual inflation adjustment will be applied on 1 April 2025 unless the County Commission acts to stay these adjustments.** Considering that a recalculation study recently occurred in 2024 and new fees to be established on 1 June 2025, staff recommends to stay the inflationary adjustment that will automatically become effective 1 April 2025.

2.5. Proposed Changes to Level of Service Standards

2.5.1. Overview

West Virginia Code §7-20 requires that the County maintain, as part of its capital improvement program, level of service standards (LOS) for impact fee-applicable categories. The County maintains its LOS as the base data used to conduct impact fee calculations and these standards are documented in the various impact fee studies. Thus, the Level of Service Standards for the categories of Schools, Law Enforcement, Parks & Recreation, EMS services, Administrative Facilities were last updated in 2024.

Regardless of whether the County Commission adopts any or all of the recalculated fee schedules, **the recalculation exercise in effect recalibrates the Level of Service Standards and the percentage allocations for each capital category. The next scheduled update to the Level of Service Standards will occur in CY 2029.**

2.6. Proposed Changes to Base Data for Fee Calculation

There are no changes at this time.

3. CY 2024 Inflation Adjustments

3.1. Source Data

The following Table 14 is extracted from the United States Bureau of Economic Analysis (BEA) data for price indexes (Table 5.9.4 - Price Indexes for Gross Government Fixed Investment by Type), for years 2022 and 2023². These represent the most recent price indices and were released on 27 September 2024. These data constitute the source for the annual inflation adjustments for the 5 impact fee categories currently in effect. As per the Impact Fee Procedures Ordinance 2003-1, Section 6(B), the annual inflation adjustment will be applied on 1 April 2025 unless the

¹ Source is Table 5.9.4, Price Indexes for Gross Government Fixed Investment by Type; lines 32, 35, 36, and 37.

² Source:

<https://www.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=3&isuri=1&1921=survey&1903=338> (select Table 5.9.4).

County Commission acts to stay these adjustments. The inflationary adjustments result in a higher impact fee for all fee categories.

The values in the columns titled 2024 Impact Fee (tables 15-19) are the fees currently in effect as of 1 April 2024.

Table 14. Price Indices and Cost of Living Adjustment

BEA Table Line	Fee Category	Structure Class	Price Index CY 2022	Price Index CY 2023	Differential (Inflation Adjustment Factor)
32	Admin. Facilities	State and Local - Office	143.283	157.706	1.1006
35	School	State and Local – Educational	136.144	146.369	1.0751
36	Law & EMS	State and Local – Public Safety	135.259	141.636	1.0471
37	Parks	Amusement & Recreation	135.487	141.662	1.0455

Source: Bureau of Economic Analysis, US Department of Commerce.

The inflationary factors in table 14 would apply; however, considering that a recalculation study recently occurred in 2024 and new fees will be established on 1 June 2025, staff recommends to stay the inflationary adjustment that will automatically become effective 1 April 2025.

3.2. 2024 Impact Fees Effective 1 June 2025 – Schools

Table 15. Schools

Residential Development	2024 Impact Fee	1 June 2025 Adopted Fee	Differential
Single Family	\$1	\$6,772	\$6,771
Town home	\$1	\$6,772	\$6,771
Duplex	\$1	\$6,772	\$6,771
Multi-family	\$1	\$1,198	\$1,197

3.3. Law Enforcement

Table 16. Law Enforcement

Residential Development	2024 Impact Fee	1 June 2025 Adopted Fee	Differential
Single Family	\$636	\$394	(\$242)
Town home	\$636	\$394	(\$242)
Duplex	\$636	\$394	(\$242)
Multi-family	\$455	\$278	(\$177)
Non Residential Development (fees per 1,000 sq ft gross usable floor area)	2024 Impact Fee	1 June 2025 Adopted Fee	Differential
Commercial/Shopping Center 25,000 SF or less	\$0	\$595	\$595
Commercial/Shopping Center 25,001 – 50,000 SF	\$0	\$595	\$595
Commercial/Shopping Center 50,001 – 100,000 SF	\$0	\$595	\$595
Commercial/Shopping Center 100,001 – 200,000 SF	\$0	\$595	\$595
Commercial/Shopping Center over 200,000 SF	\$0	\$595	\$595
Office/Institutional 10,000 SF or less	\$0	\$264	\$264
Office/Institutional 10,001 – 25,000 SF	\$0	\$264	\$264
Office/Institutional 25,001 – 50,000 SF	\$0	\$264	\$264
Office/Institutional 50,001 – 100,000 SF	\$0	\$264	\$264
Office/Institutional over 100,000 SF	\$0	\$264	\$264
Business Park	\$0	\$303	\$303
Light Industrial	\$0	\$119	\$119
Warehousing	\$0	\$42	\$42
Manufacturing	\$0	\$116	\$116
Hotel (per room)	\$0	\$82	\$82
Nursing Home (per bed)	\$0	\$74	\$74

3.4. Parks & Recreation

Table 17. Parks & Recreation

Residential Development	2024 Impact Fee	1 June 2025 Adjusted	Differential
Single Family	\$1,131	\$1,179	\$48
Town home	\$1,131	\$1,179	\$48
Duplex	\$1,131	\$1,179	\$48
Multi-family	\$810	\$832	\$22

3.5. EMS

Table 18. EMS

Residential Development	2024 Impact Fee	1 June 2025 Adopted Fee	Differential
Single Family	\$119	\$509	\$390
Town home	\$119	\$509	\$390
Duplex	\$119	\$509	\$390
Multi-family	\$86	\$359	\$273
Non Residential Development (fees per 1,000 sq ft gross usable floor area)	2024 Impact Fee	1 June 2025 Adopted Fee	Differential
Commercial/Shopping Center 25,000 SF or less	\$0	\$596	\$596
Commercial/Shopping Center 25,001 – 50,000 SF	\$0	\$596	\$596
Commercial/Shopping Center 50,001 – 100,000 SF	\$0	\$596	\$596
Commercial/Shopping Center 100,001 – 200,000 SF	\$0	\$596	\$596
Commercial/Shopping Center over 200,000 SF	\$0	\$596	\$596
Office/Institutional 10,000 SF or less	\$0	\$265	\$265
Office/Institutional 10,001 – 25,000 SF	\$0	\$265	\$265
Office/Institutional 25,001 – 50,000 SF	\$0	\$265	\$265
Office/Institutional 50,001 – 100,000 SF	\$0	\$265	\$265
Office/Institutional over 100,000 SF	\$0	\$265	\$265
Business Park	\$0	\$303	\$303
Light Industrial	\$0	\$119	\$119
Warehousing	\$0	\$42	\$42
Manufacturing	\$0	\$116	\$116
Hotel (per room)	\$0	\$82	\$82
Nursing Home (per bed)	\$0	\$75	\$75

3.6. Administrative Facilities

Table 19. Administrative Facilities

Residential Development	2024 Impact Fee	1 June 2025 Adopted Fee	Differential
Single Family	\$57	\$951	\$894
Town home	\$57	\$951	\$894
Duplex	\$57	\$951	\$894
Multi-family	\$40	\$671	\$631
Non-Residential Development (fees per 1,000 sq ft gross usable floor area)	2024 Impact Fee	1 June 2025 Adopted Fee	Differential
Commercial/Shopping Center 25,000 SF or less	\$0	\$520	\$520
Commercial/Shopping Center 25,001 – 50,000 SF	\$0	\$520	\$520
Commercial/Shopping Center 50,001 – 100,000 SF	\$0	\$520	\$520
Commercial/Shopping Center 100,001 – 200,000 SF	\$0	\$520	\$520
Commercial/Shopping Center over 200,000 SF	\$0	\$520	\$520
Office/Institutional 10,000 SF or less	\$0	\$797	\$797
Office/Institutional 10,001 – 25,000 SF	\$0	\$797	\$797
Office/Institutional 25,001 – 50,000 SF	\$0	\$797	\$797
Office/Institutional 50,001 – 100,000 SF	\$0	\$797	\$797
Office/Institutional over 100,000 SF	\$0	\$797	\$797
Business Park	\$0	\$754	\$754
Light Industrial	\$0	\$384	\$384
Warehousing	\$0	\$83	\$83
Manufacturing	\$0	\$463	\$463
Hotel (per room)	\$0	\$136	\$136
Nursing Home (per bed)	\$0	\$499	\$499

3.7. Residential Fee Totals – Inflation Adjusted

The Impact Fee Procedure Ordinance (2003-1) indicates that unless the Commission acts to prevent these adjustments from taking effect, they automatically apply on the first day of April (c.f. §6(B) *et seq.*). The residential fee schedule listed below in table 20 will become effective on 1 June 2025. This fee schedule is based on the 2024 impact fee study which was adopted on 4 December 2024.

Table 20. Residential Impact Fee Schedule Effective 1 June 2025

Residential Development	Impact Fee Category	Current Impact Fee per Dwelling Unit	1 June 2025 Impact Fee per Dwelling Unit		
Single Family	Schools	\$1	\$6,772		
	Town Home	Law Enforcement	\$636	\$394	
		Duplex	Parks & Recreation	\$1,131	\$1,179
			EMS	\$119	\$509
			Admin. Facilities	\$57	\$951
TOTAL		\$1,944	\$9,805		
Multi-Family	Schools	\$1	\$1,198		
	Law Enforcement	\$455	\$278		
	Parks & Recreation	\$810	\$832		
	EMS	\$86	\$359		
	Admin. Facilities	\$40	\$671		
TOTAL		\$1,392	\$3,338		

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: Pasha Majdi

Department or Organization: Commission

Estimation of amount of time needed for appointment: 10 minutes

Date Requested – 1st Choice: **February 6, 2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

Task Force on Agritourism Development

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

Development of a Task Force on Agritourism Development could include:

1. Two representatives from the agritourism sector
2. One West Virginia legislative representative
3. One member of the Jefferson County Development Authority
4. One citizen representative

Is this a funding request? Y/N

If so, how much? \$

Provide exact financial impact/request:

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

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/N Internet/Wi Fi Y/N Telephone for conference call Y/N

Contact information:

Email address:

Phone Number:

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 Fax: (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT
Pasha Majdi

COMMISSIONER
Jack Hefestay

COMMISSIONER
Cara Keys

COMMISSIONER
Mike Mood

COMMISSIONER
Steve Stolipher

Jefferson County Commission Strategy: 2025 Action Plan

Strategic Focus:

- Enhancing Professionalism – Strengthening operational efficiency, decision-making, and service delivery.
- Strengthening Constituent Relations – Prioritizing transparency, responsiveness, and accessibility.
- Expanding Engagement
 - Interoffice Collaboration – Encouraging cross-department coordination and efficiency.
 - Constituent Participation – Expanding opportunities for residents to engage with the Commission.

Q1 - Q2 Priorities (January - June 2025)

1. Finalize the FY25 Budget
 - 1.1 Ensure responsible fiscal planning that aligns with county priorities.
 - 1.2 Engage departments and the public to refine budget allocations.
2. 393 Building: Due Diligence & Financing
 - 2.1 Complete thorough building and property due diligence.
 - 2.2 Solicit and approve financing for the purchase.
3. State & Federal Priorities: Submission & Advocacy
 - 3.1 Submit funding and policy requests to state and federal officials.
 - 3.2 Advocate for Jefferson County's needs through direct engagement with legislators and agencies.

Q3 - Q4 Priorities (July - December 2025)

1. Future of the Fire Service Study
 - 1.1 Collaborate with the consultant and community to assess current needs, assets, and liabilities.
 - 1.2 The consultant will finalize the report based on community input and collected data.
2. Website Redesign & Implementation
 - 2.1 Solicit and approve an RFP for a comprehensive website redesign.
 - 2.2 Work with the selected consultant to develop a user-friendly, accessible, and transparent online platform.
3. 393 Building: Begin Build-Out
 - 3.1 Coordinate with elected officials and departments to design each office layout.
 - 3.2 Strategically plan department space to enhance constituent access and service efficiency.

4. Coordination with Ranson on ESA Property Expansion
 - 4.1 Explore acquisition of adjoining property to improve emergency services capacity.
 - 4.2 Strengthen collaboration for enhanced public safety infrastructure.



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Jefferson County Commission: 2025 West Virginia Legislative Priorities

The Jefferson County Commission is committed to working with the West Virginia Legislature to advance policies and secure funding that strengthen our community, infrastructure, and economy. Our legislative priorities focus on improving transportation, supporting economic redevelopment, enhancing public safety, and preserving our rural character.

Infrastructure & Transportation

1. Advancing Department of Highways (DOH) Improvements
 - 1.1 Provide the State with a comprehensive list of roads in need of immediate attention.
 - 1.2 Host a Jefferson County Transportation Summit to bring together state and local officials, community stakeholders, and transportation experts to discuss regional infrastructure challenges and priorities.

Economic Redevelopment & Historic Preservation

2. Funding for a Study on Downtown Charles Town Redevelopment
 - 2.1 Seek state funding to conduct a study on the redevelopment of the downtown Charles Town campus if the Commission purchases and moves into the 393 Building.
 - 2.2 The study will assess potential uses for vacated government buildings, including business, housing, and mixed-use development opportunities.
 - 2.3 Findings will inform strategic planning efforts to support economic revitalization and historic preservation.

Public Safety & Workforce Protections

3. Legislation to Authorize Mental Health Coverage Under Workers' Compensation
 - 3.1 Advocate for legislation allowing mental health treatment coverage under West Virginia's workers' compensation system, ensuring first responders and other high-stress public employees have access to necessary mental health services.

Arts, Culture & Tourism

4. Funding Request for 393 Building Mural
 - 4.1 Seek funding through the West Virginia Department of Arts, Culture, and History/Department of Tourism for a public mural at the 393 Building.
 - 4.2 The mural will celebrate Jefferson County's history, culture, and future.

Farmland Preservation

5. Advocating for Farmland Preservation Legislation

- 5.1 Support legislative efforts that strengthen and expand farmland preservation programs, ensuring Jefferson County maintains its agricultural heritage and rural character.
- 5.2 Seek funding mechanisms that help protect farmland from development pressures while supporting property owners.



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Jefferson County Commission: 2025 Federal Priorities

The Jefferson County Commission is committed to working with the US Congress to secure funding to enhance public safety.

1. Public Safety Center – Phase 1: Site Design & Engineering

- 1.1 Request federal funding for Phase 1 of the Public Safety Center, including site design and engineering.
- 1.2 Should the Commission purchase the 393 Building, staff will relocate from the current Public Service Center to the new location.
- 1.3 In summer 2024, the Commission designated the Public Service Center lot as the future site of the Public Safety Center, which will co-locate:
 - Jefferson County Sheriff's Office
 - Jefferson County Emergency Services Agency (JCESA)
- 1.4 The new center will:
 - Utilize impact fees collected for growth to help cover construction costs.
 - Fill a service area gap identified in the JCESA Service Area Report.

2. License Plate Readers for Law Enforcement

- 2.1 Request federal funding for license plate readers to enhance law enforcement capabilities.
- 2.2 The Jefferson County Sheriff's Office uses these readers to:
 - Detect wanted vehicles entering the jurisdiction.
 - Solve significant local and regional crimes faster.
 - Improve public safety and criminal investigations through real-time data.

3. Jefferson County Emergency Services Agency Expansion – Ranson Facility

- 3.1 Request federal funding for the expansion of the JCESA facility in Ranson.
- 3.2 Expansion remains a top priority to meet critical space needs, including:
 - Storage for turnout gear and medical supplies.
 - Training facilities to enhance emergency response capabilities.
 - Additional parking to support growing operational needs.
- 3.3 By securing federal support for these initiatives, Jefferson County will enhance public safety and invest in critical infrastructure to serve residents effectively.

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: Jennifer Myers

Department or Organization: Jefferson County Parks & Recreation Commission

Estimation of amount of time needed for appointment: 10 min

Date Requested – 1st Choice:

*If a specific date is needed, please provide reason for specific date: **February 6***

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*): **Presentation of Draft Concept Plan for Moulton Park.**

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

✚ In 2023, The Jefferson County Parks & Recreation Commission closed on an 86-acre parcel that expands Moulton Park. The property holds a conservation easement and will provide additional recreational activities for residents and visitors to the county. The Jefferson County Parks & Recreation Commission received a Chesapeake Gateways Grant to develop a concept plan for the expansion of Moulton Park. The concept plan is in its final stages, and we are looking to engage the public for feedback.

Is this a funding request? Y/N NO

If so, how much? \$

Provide exact financial impact/request:

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

No motion needed.

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/N Internet/Wi Fi Y/N Telephone for conference call Y/N

Contact information: Jennifer Myers

Email address: jmyers@jcprc.org

Phone Number: 304-728-3207

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable

Moulton Park Concept Plan: [Restoration Vision]

Acknowledgements

Thank you to all those who contributed to the development of the Moulton Park Master Plan. This document is the result of the support and dedication from the following:

The Moulton Family,

Your generosity and commitment to conservation made your land a public resource for future generations.

Jefferson County Park and Recreation Commission,

The tireless efforts of the board, as well as its committees and staff has been instrumental in allowing this project to take a major step forward. Your commitment to fulfilling your mission has enhanced the community's quality of life.

Funding Partners and Sponsors,

We would like to recognize the financial contributions from West Virginia Land Trust, the Chesapeake Conservancy, West Virginia Outdoor Heritage Conservation Fund, and the National Park Service, Chesapeake Gateways Funding, as well as other private donors without whom this project would not have been possible.

Intro

Along the banks of the Shenandoah River, just outside of Charles Town and historic Harpers Ferry, West Virginia, lies a lush, 86-acre plot of land with a multigenerational significance to the Moulton family, who acquired the parcel in 1946. Now known as Moulton Park, the riverside tract was for decades enjoyed as a refuge from city life and as a home base for friends and family to reconnect. In 1976, 3 acres were donated to Jefferson County Parks and Recreation Commission (JCPRC) for public recreation. The park expanded significantly in 2023 when the remaining 83 acres were transferred to JCPRC, solidifying its status as an iconic fixture of the region. Today's generation of the Moulton family has set their sights on a larger scale community park that caters to locals and visitors alike while retaining a special focus on conservation goals. The West Virginia Land Trust will hold a conservation easement on the property, ensuring it is indefinitely protected from development and will be managed for watershed protection, soil and forest regeneration, education, biodiversity, and outdoor recreation.

Currently, Moulton Park features campsites, picnic tables, a boat ramp, fire pits, parking access, and a recent boat ramp that allows for fishing on the Shenandoah River. However, stakeholders are now determining how best to leverage the asset of the newly expanded 86-acre park. Under the guidance of the JCPRC infrastructure committee and the Moulton Park steering committee, (which is comprised of members such as the JCPRC board and executive director, the Moulton family, and the Chesapeake Conservancy) the consulting team is in the process of establishing a path for Moulton Park that will bring a new level of local engagement as well as recreation tourism.

Purpose

The future development of Moulton Park will conserve both **natural and cultural resources**, while also offering **diverse recreational opportunities**.

To establish a common vision for the park, Downstream Strategies will conduct a robust planning process that includes **research and site analysis, public input sessions, conceptual design iterations, and a finalized plan** that will ensure **economic, social, and environmental prosperity for the site**.

The conceptual redesign will focus on the **83 acres** recently acquired by **Jefferson County Parks and Recreation**, as well as the **existing riverfront park**.

Adoption Process

In June of 2023, Jefferson County Parks and Recreation adopted 83-acres of former farmland from the Moulton family which will expand the existing waterfront park to provide 85-acres of public land along the Shenandoah River.



Protecting the Landscape

Prior to this transition, the **Moulton family** worked extensively with the **West Virginia Outdoor Heritage Conservation Fund** and the **Chesapeake Conservancy** to establish a **conservation easement**.

The easement will solidify the landscape as a public space for **watershed protection, education, native species protection, soil and forest regeneration, and access to the outdoors**.

The West Virginia Land Trust, a statewide nonprofit dedicated to protecting West Virginia's natural lands, will work in tandem with **Jefferson County Parks and Recreation** to oversee the planning process and create a new public park that stands the test of time.



Photo by The WV Independent Observer | Brucie Moulton cutting the ribbon for the park's expansion

Conservation Easement

Key Requirements (Overall)

All permitted activities on the Property shall be conducted in such a fashion so as to not degrade surface water and groundwater quality, except development of on-site drinking water supplies, well and septic to permitted Improvements and Residences within the Building Envelope. (No pollution or degradation of surface water, natural water courses, subsurface water or springs on the Property.)

No hunting or equestrian usage is permitted on the landscape. Invasive species on the site should be removed with biocides and natural methods instead of herbicides. Only native species can be added to the site.



1 Key Requirements in Building Envelope

- **Camping allowed** within the building envelope
- **New buildings and construction** are **only permitted** within the building envelope
- **Total Impervious Surface** of such constructed features, Residences, Improvements, and Roads within the Building Envelope shall **not exceed 600,000 square feet.**
- The Building Envelope shall also serve as the location for **all necessary public parking** areas for visitors to the Property.
- Any **parking area** must be surfaced with gravel or other **impervious material** and may be **landscaped with native vegetation.**
- **Temporary parking is permitted on non-surfaced areas** within the Building Envelope as necessary to accommodate the needs of **commercial festival-related events.**
- Grantor may keep and maintain a **25-foot grass buffer around the parking areas** for safety and to provide an area for **snow removal** and transitory uses such as for **event tents and garbage receptacles.**
- Grantor may place **security lighting on and around the parking area**, may install **gates to lock the area** when the park is closed and **may build road access to the parking area within the Building Envelope.**
- The **parking areas may also be used as a temporary staging area for food, art, and festival vendors during special events** hosted by Grantor but are never to be maintained as a permanent vending area.
- Roads shall be **no more than twenty-five (25) feet in width**, excluding shoulders and mowed buffer. **10-foot buffer required on each side.**

2 Key Requirements Outside of Building Envelope

- **No public access roads are permitted.**
- **Utility/Maintenance road is permitted but cannot be used for public access**
- **Passive recreation focused**
- **Includes Forest area and Historic Fields**
- Within this area Improvements that individually are **not greater than 600 square feet** and in the aggregate are **not greater than 1,000 square feet** can be constructed that further the mission of the parks.
- **Camping is not permitted** outside of the building envelope.
- **Passive Recreational and educational activities** such as picnic tables, trash cans, recycling receptacles, benches, gazebos/pavilions, disc golf baskets and tee pads, boardwalks, interpretive trail signs are permitted, along with passive rec opportunities. Examples: disc golf, bocce, croquet, horseshoe pits, cross country skiing, an archery range, exercise stations and ADA requirements for the same.
- Grantor may also use the Property as a **venue for outside commercial concerts or temporary commercial festival-related events** that host spectators or customers. **No more than eight (8) such concert or festival-related events (collectively) are permitted per calendar year.** Grantor may **use the Historic Fields** for said events.
- **Total Impervious Surface** of any Improvements Outside of the Building Envelope, excluding the Road and Trails, **shall not exceed 2,000 square feet.** The **maintenance Road** allowed in the area outside the Building Envelope shall **not count against the allowable impervious surface.**
- Historic Fields may also be restored or partially restored back to **native forest or pollinator gardens** using native tree, shrub, or herbaceous species.

Contents

Regional and Moulton Park History

Focus on conservation along the Shenandoah

500 B.C.–100 A.D.



The Mound Builders (Adena) settled throughout the Eastern panhandle of present-day West Virginia.

1768

Indigenous nations are forced to relinquish their claims to land between the Ohio River and the Alleghenies to the British, creating a larger presence of settlers in the region.

1600s–1700s

The Iroquois Confederacy (Mohawk, Onondaga, Cayuga, Oneida, Seneca, and Tuscarora) headquartered in New York and used the region as hunting grounds in the spring and summer months. Along with the Iroquois Confederacy, the Shawnee, Mingo, and Delaware tribes also hunted on these lands through the 1700s.



1786

Charles Washington (George Washington's youngest brother), petitioned to incorporate a new town in Berkeley County: Charles Town.



1776

The United States gains independence.



1801

Jefferson County is established after citizens of Berkeley County felt they had to travel too far to the county seat of Martinsburg. The county is named after Thomas Jefferson, who had just become the third president of the United States.



1859



John Brown, a prominent leader in the American Abolitionist Movement, led a raid on the federal armory in Harpers Ferry (which would soon become a part of West Virginia). Brown intended to arm slaves with weapons from the armory to escape and move south. After being captured, Brown was tried for treason against the Commonwealth of Virginia in Charles Town. He was the first person in U.S. History to be executed for treason.

1825

Riverside Farm is established for agricultural use with its historic farmhouse built in 1825.

1820

Shannondale Springs Resort is established in Harpers Ferry.



1861

The Civil War begins.

1863

West Virginia joins the Union and becomes a new state. Both Jefferson and Berkeley Counties voted in favor of annexation to West Virginia, dividing the states by the Potomac and Shenandoah River.

1865

The Civil War ends.



1937

The Moulton Park property was sold to Thornton T. Perry, Sr., who later donated it to the Nature Conservancy



1946

The Moulton family purchases the property along the Shenandoah River.

1947



Harold G. Moulton, President of Brookings Institution, is asked by Senator Arthur H. Vandenburg to produce an independent research study to make recommendations for the European Recovery Program or Marshall Plan to assist Europe after WW2.

1986

The Moulton Park property is transferred to the West Virginia Division of Natural Resources.



1976

The Moulton family sells 2,875 acres of land to Jefferson County Parks and Recreation (existing Moulton Park).



2023

The Moulton family sells its remaining 82-acre farm to Jefferson County Parks and Recreation in order to expand Moulton Park.



2021

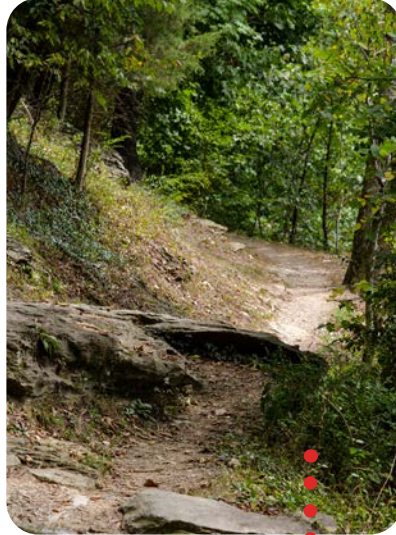
The West Virginia Department of Natural Resources conducts a biodiversity study and finds that two species would benefit from expanded forest buffer: the halberd-leaved rose mallow and the northern red-bellied cooter.



What's nearby?

Harpers Ferry National Park

Just six miles north of Moulton Park and right at the confluence of the Potomac and Shenandoah rivers lies the 3,745-acre Harpers Ferry National Historical Park which is the site of multiple significant historical events, including John Brown's 1859 abolitionist raid and several Civil War battles including the 1862 Battle of Harpers Ferry. Harpers Ferry was also the home to the Harpers Ferry Armory, a strategic manufacturing base which supplied munitions and other hardware to the Lewis and Clark Expedition as well as the Civil War. The park has over 20 miles of hiking trails that cover The Point at the river confluence as well as Jefferson Rock, so named for Thomas Jefferson, who stood at and wrote of the location, "The passage of the [Potomac] through the Blue Ridge is perhaps one of the most stupendous scenes in Nature." The park is also the midpoint of the Appalachian Trail. Today, about 500,000 tourists visit the park every year.



Appalachian Trail

The Appalachian Trail crosses over 2,190 miles of wilderness between Springer Mountain, Georgia and Katahdin, Maine. Every year, an estimated 3 million people visit the trail and 4,000 hikers attempt to thru-hike it. Every year at various points along its length with about 4,000 hikers attempting to thru-hike. The "AT" runs two miles east of Moulton Park along the Virginia-West Virginia border.



Shannondale Springs WMA

The Shannondale Springs Wildlife Management Area (WMA) consists of a 610-acre parcel that includes a portion of the Shenandoah River and a 738-acre parcel with mixed hardwoods. The WMA has a network of trails throughout and boasts abundant wildlife. Moulton Park is approximately five miles north of the northern segment of the WMA.

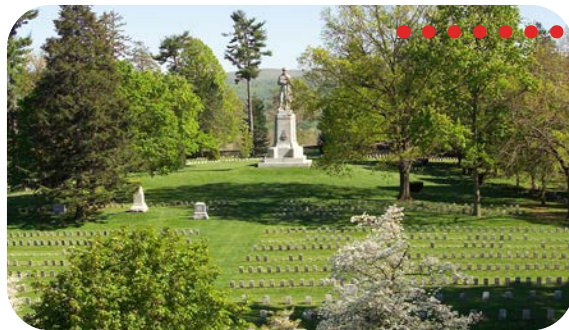


Shenandoah River

The Shenandoah River, approximately 56 miles in length, empties into the Potomac River at Harpers Ferry at its northern terminus. From there, the water flows into the Chesapeake Bay and the Atlantic Ocean. Moulton Park lies right on the banks of the Shenandoah River, just south of where it joins the Potomac.

Antietam National Battlefield

Just one-half hour from Moulton Park is the Antietam National Battlefield in Sharpsburg, Maryland. The twelve-hour battle on September 17, 1862 saw 23,000 soldiers killed, wounded, or missing, making Antietam the bloodiest one-day battle in American history. The battle led to President Abraham Lincoln's preliminary Emancipation Proclamation.



C&O Canal

The Chesapeake and Ohio (C&O) Canal was built between 1828 and 1850 along the north bank of the Potomac River and operated sporadically from 1831 to 1924. Once a major commercial waterway, the 184.5-mile canal was designated as a national historical park in 1971 and now offers a range of historical, natural, and recreational attractions along its towpath.



Sam Michaels Park

This 138-acre park, located near Harpers Ferry, offers hiking trails, a dog park, disc golf course, a full-featured pavilion, playgrounds, athletic fields, and other amenities. Elks Run also runs through the property. The park features an amphitheater that hosts community events such as concerts and festivals.



James Hite Park

Opened to the public in 2016, this 119-acre park in Kearneysville offers soccer fields, a short walking loop trail, a playground, a pavilion, and fishing opportunities. Future expansions are planned for the park and include additional trails, athletic fields, pavilions, and other recreational elements.



Harpers Ferry

The historic Harpers Ferry is the anchor for the Harpers Ferry National Historical Park, the midpoint of the Appalachian Trail, and is replete with tourist attractions, shops, dining, and natural features. Named one of the "14 Most Underrated U.S. Travel Destinations" in Reader's Digest, Harpers Ferry contains historic candy and other vintage novelty shops, an Appalachian Trail Conservancy Visitors Center, John Brown's Fort, scenic overlooks and trails, and myriad other attractions.

Shepherdstown

The oldest town in West Virginia, Shepherdstown lies at the western bank of the Potomac River, just across from Maryland. Shepherdstown is brimming with cultural and commercial assets, including a range of restaurants, shops, music and arts events, museums, and colonial-era buildings.



Bolivar

Bolivar, adjacent to Harpers Ferry, is encompassed by the Harpers Ferry National Historical Park.



Ranson

Bordering Charles Town is Ranson, so it enjoys the same amenities and close access to major metropolitan centers. Additionally, Ranson features an antique mall, the Summit Point Motorsports Park, a 30-acre park, and a number of novelty shops.

Middleway

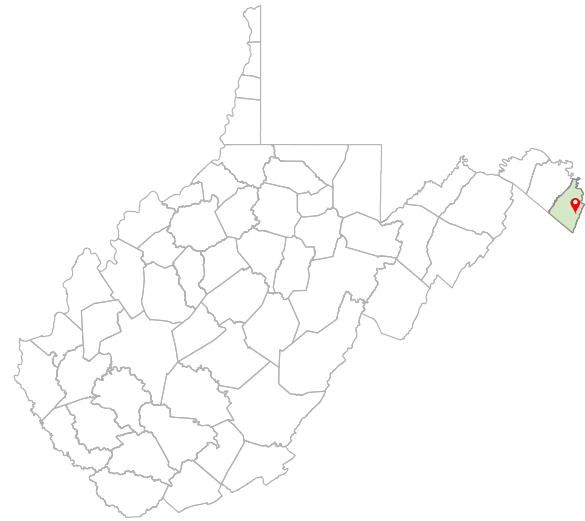
West of Charles Town lies Middleway, a small village that was once a center of commerce and considered the "Paris of the Valley" before the Civil War. Middleway is also called "Wizard Clip" or "Clip" due to an 18th-century legend of various supernatural phenomena, specifically a "clipping" sound of shears, that occurred following a traveler's death. The town has much of its original historical buildings preserved and is on the National Register of Historic Places.



Charles Town

Right outside of Moulton Park is the historic Charles Town, named after George Washington's youngest brother, Charles, who laid out the town and donated lots for public buildings. Features include local retail shops and dining, Hollywood Casino at Charles Town Racing, and the Old Opera House, a golf course, nature preserve, the Jefferson County Museum, and six historic homes previously owned by members of George Washington's family.

Jefferson County, West Virginia



41 Public Parks

Including but not limited to:

- 1 Harpers Ferry National Park
- 2 The Appalachian Trail
- 3 Shannondale Springs
- 4 Sams Michael Park
- 5 James Hite Park

8 Cities & Towns

Incorporated Places (WV Census 2024)

- 1 Charles Town
- 2 Ranson
- 3 Harpers Ferry
- 4 Bolivar
- 5 Shepardstown

Census Designated Places (WV Census 2020)

- 6 Shannondale
- 7 Middleway
- 8 Shenandoah Junction

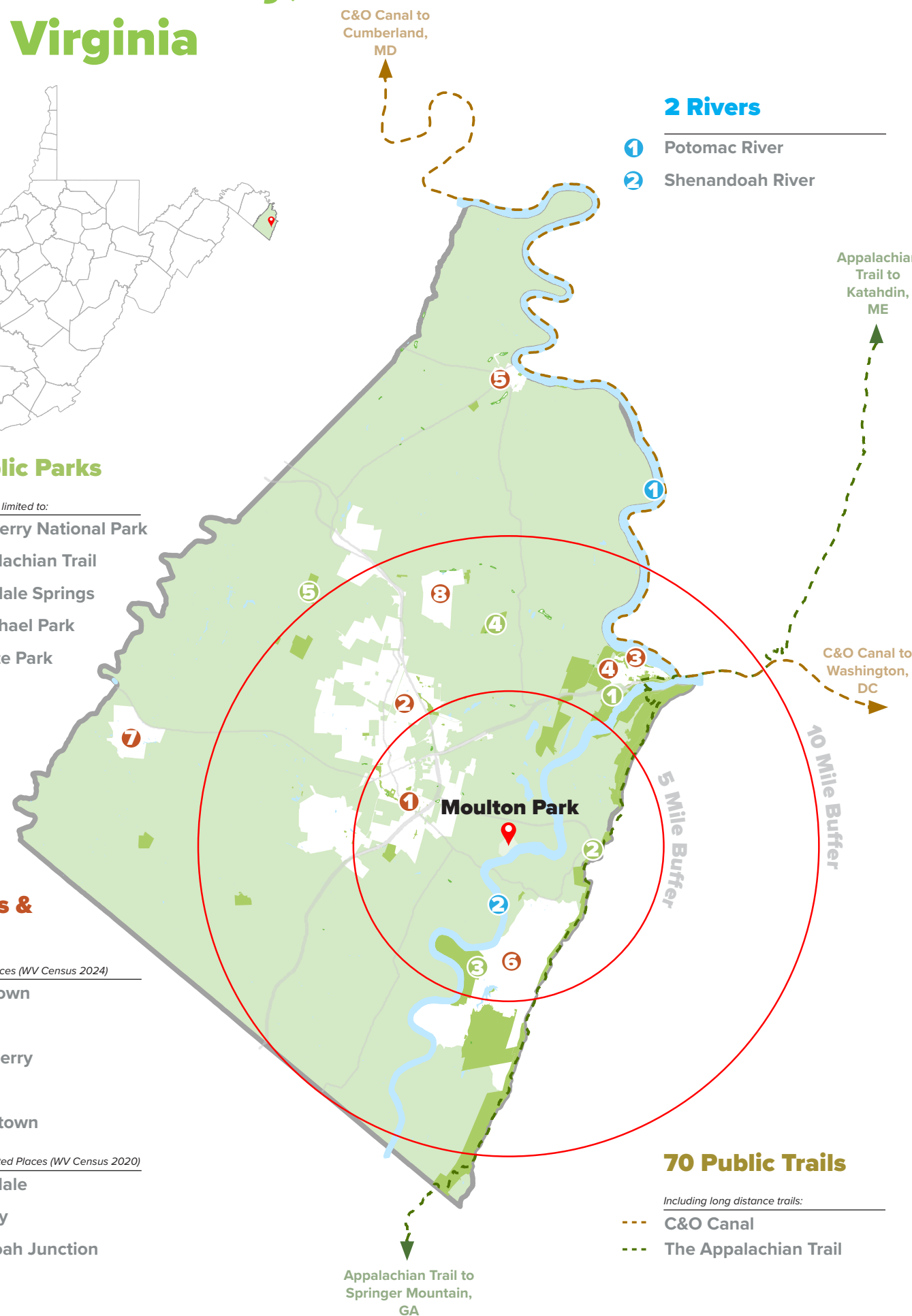
2 Rivers

- 1 Potomac River
- 2 Shenandoah River

70 Public Trails

Including long distance trails:

- C&O Canal
- The Appalachian Trail



Legend

- DEP Dam Locations
- Boat Launches
- 📍 Moulton Park
- Parks
- Cities + Towns
- Freeway/Highway
- Arterial
- Local
- Trails

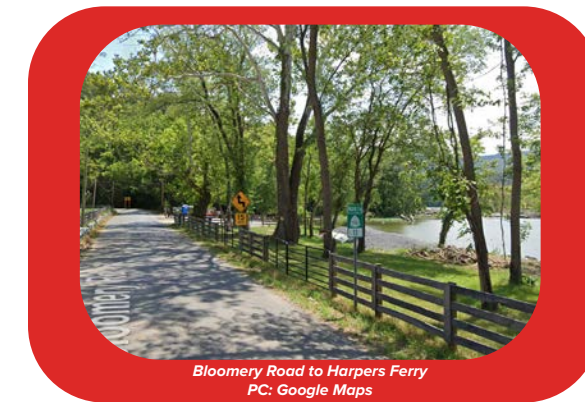
Summary Text

Within 5 miles of Moulton Park, one can access long distance hiking and biking trails and water access locations along the Shenandoah River. Parks in the area largely showcase the regions history, as well as its natural abundance.



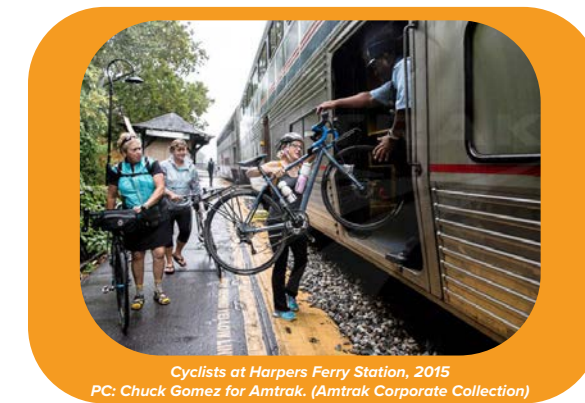
Circulation Analysis

This large-scale circulation analysis was created to evaluate opportunities and constraints of potential connections to Moulton Park via roads, trains, trails, and water to solidify the park as a gateway park to Harpers Ferry National Historic Park.



Moulton Access Roads

Currently, there is no trail linkage that connects to Moulton Park, making this a destination that can only be reached by vehicles and watercraft. From Charles Town, many locals will take Charles Town Road to Bloomery Road. From Harpers Ferry, folks will take Millville Road to Bloomery Road. Tourists from nearby metropolitan areas will likely pass through Harpers Ferry to reach the park. Bloomery Road to Harpers Ferry is a scenic route with low speed limits in which feasibility could be explored for a potential bike path that connects to Harpers Ferry National Historic Park and the C&O Canal.



Trains

Amtrak's Capitol Limited Route spans from Washington, DC., Pittsburgh, PA., and Cleveland, OH., to Chicago, IL. with many other stops along the way- one of which is Harpers Ferry. The route travels on the historic B&O railroad line, which was first chartered in 1827 as the nations first common carrier railroad. The Capitol Limited Route offers daily trips to and from Washington and Chicago. Moulton Park as well as Harpers Ferry could benefit from tourists coming to the region to explore via Train instead of driving. (Supported by a potential bike route from Bloomery Road to Harpers Ferry). Marketing and advertising efforts could be conducted to encourage potential visitors from metropolitan areas to visit via Amtrak for a sustainable and authentic regional experience.



Trails

Jefferson County is home to two long-distance national trails: The C&O Canal, and the Appalachian Trail. Though a designated bike path connects Charles Town to the Keys Gap AT Trailhead, folks would still need to bike alongside Charles Town Road to access Moulton Park. The speed limit on Charles Town Road is 45 mph. According to the League of American Bicyclists, 45 mph is the most common speed in which cyclists are killed. Thus, to connect Charles Town to Moulton via Charles Town Road, a separate and protected bike lane would need to be developed.

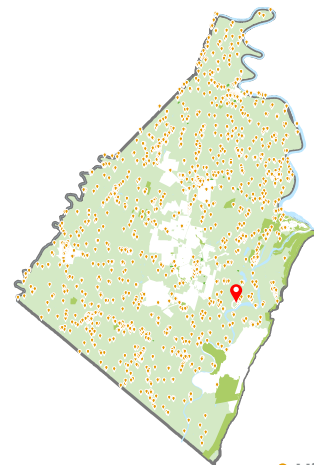


Water Access

A direct water connection from Moulton Park to Harpers Ferry is prevented by the Millville Dam. However, there are four put-in/ take-out locations downstream from Moulton Park, and three upstream (below the dam). There is opportunity to expand and connect these river access locations in the section of the Shenandoah below Harpers Ferry. A shuttle service could be utilized to transport river recreators back to other locations in which folks began their float after reaching Moulton Park.

Historic Resources

This map includes all the known historic resources within Jefferson County, WV, including homes, barns, mills, etc. The data and GIS map layer is maintained by the Jefferson County Historic Landmarks Commission.



Historic Resources

A total of 1,883 points shown on the dataset signify spaces that have historic relevance in Jefferson County. The majority of these points are structures built before the Civil War that still stand today, including the house located at Moulton Park. Situated on a parcel known as the Riverside Farm, the house was originally built in 1825 for agricultural use.

Historic Ferry Locations



Water connections to Harpers Ferry are prevented by the Millville Dam, however, there are 5 historic ferries and one historic wildlife management area downstream of the park that can be showcased in tandem with Moulton Park. **An annual historic kayaking event with Moulton Park as the destination could be developed.**

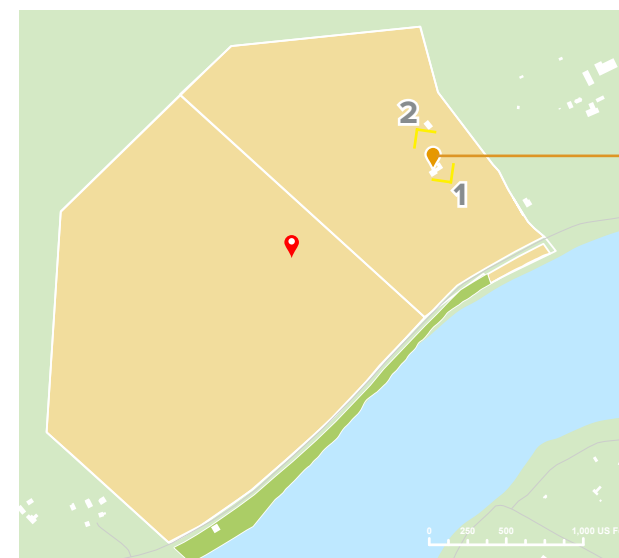
Opportunities

- 1 Implement a water trail designed to connect the historic ferry locations of the region to Moulton Park
- 2 Connect Shannondale Springs Wildlife Management Area to Moulton park via the river for birders and history enthusiasts alike
- 3 Support effort to establish Moulton Park a NPS "gateway" park to Harpers Ferry National Historic Park by connecting archived assets along the Shenandoah



This map with a 3-mile buffer shows a sample of the historic structures in close proximity to Moulton Park.

Existing Historic Resources On-Site



Front View of Moulton Residence/ Riverside Farm

Rear View of Moulton Residence/ Riverside Farm

Images attained for the baseline report completed by J. Matthew Monroe & Associates, LLC show the historic home built in 1825.

The home is not currently ADA compliant, but could expand opportunities for future events programmed within the home if compliance is attained.

Existing Infrastructure and Features

Building Envelope

The building envelope contains the residence (3), a pavilion (4), a structure with a water spigot (5), and several stone remnants (6). It is accessed by a gravel driveway (1) that passes along a powerline right-of-way (2).

Outside of Building Envelope

The area outside of the building envelope is largely made-up of a historic field surrounded by a young forest (3-6). The baseline document completed by ___* indicates a former entrance to the farm (1,2).

Existing Riverfront Park

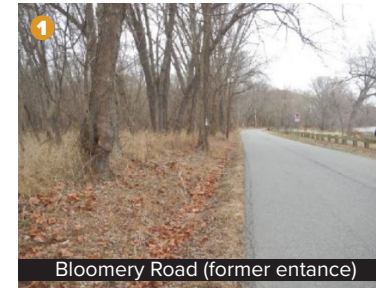
The existing riverfront contains both a motorized (1) and a nonmotorized boat launch at opposite ends (6) of the linear park. Located between these two access points are 14 primitive camping sites (4), each with a picnic table and fire ring. The riverbank is eroded in many sections of the park (3,5).



Building Envelope



Outside of Building Envelope



Existing Riverfront Park



Photos from the building envelope and outside of the building envelope are derived from the Baseline Report completed by J. Matthew Monroe & Associates, LLC. Photos from the existing riverfront park were compiled from GoogleMaps.

Elevation Analysis



Slopes Less than or Equal to 6%

The areas shown can be utilized for new infrastructure, parking, camping, and accessible/beginner trails. These slopes have the lowest risk of erosion.

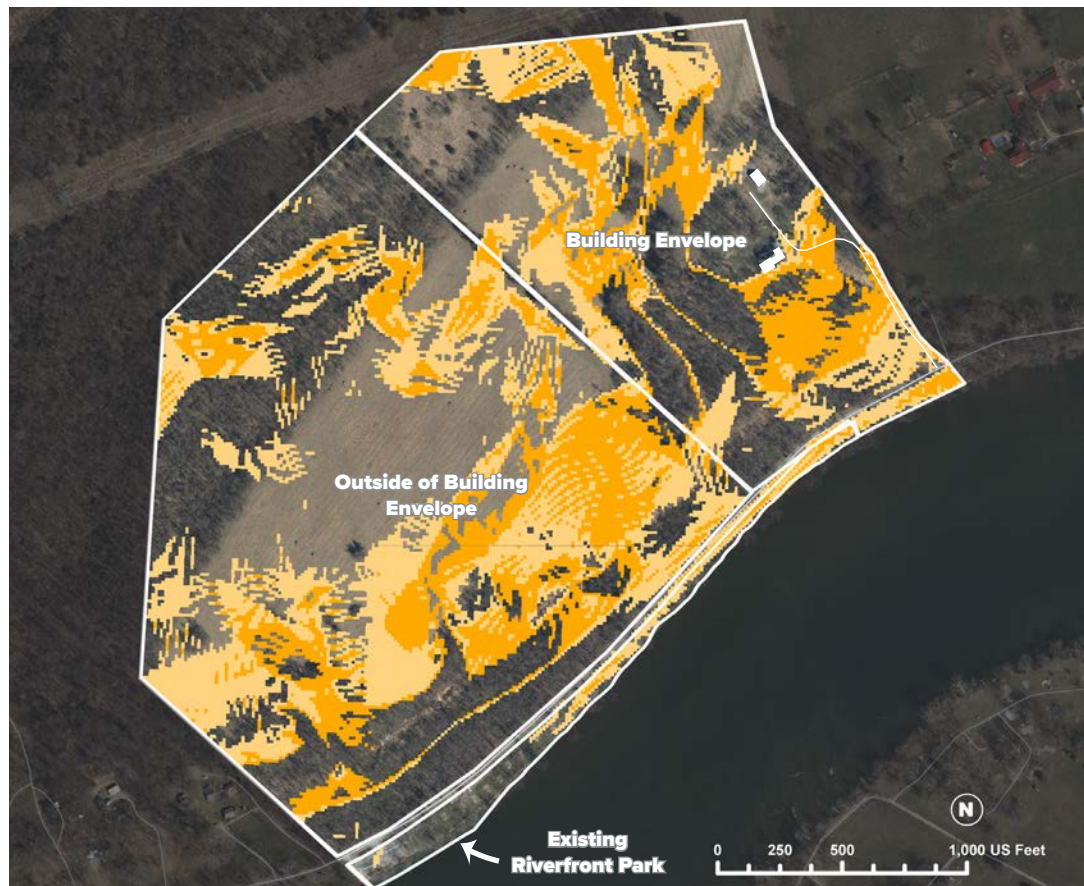
- Less than or equal to 3%
- Between 3% and 6%



Slopes above 16%

All slopes above 16% should be avoided for development.

- Between 16% and 20%
- Between 20% and 30%
- Greater than 30%



Slopes between or equal to 7%-15%

These areas are ideal for multi-use trails and other passive recreation opportunities. Though some infrastructure can be implemented on slopes between 6% and 10%, building on slopes greater than 10% should be avoided.

- Between 6% and 10%
- Between 10% and 15%

Usable Land



Summary

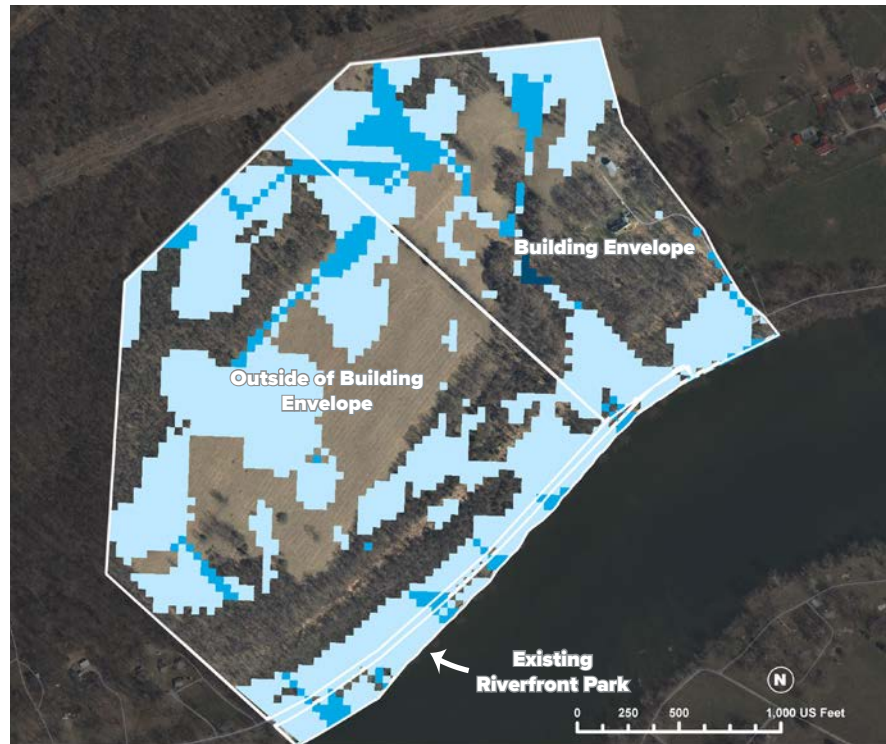
This map depicts all areas within the property where slopes are under a 10% grade. Opportunity exists to provide a range of passive recreation amenities that are accessible for all user groups. Facilities designed within the building envelope are somewhat restricted.

Some topographic constraints in the building envelope exist near the Moulton home and entrance road.

Ecological Analysis

Ecological Land Units

Ecological land units (ELUs) derived for the state of West Virginia. The 9 meter DEM was derived from the 2003 West Virginia Statewide Addressing and Mapping Board (SAMB) DEM by resampling the original 3 meter DEM. The following categories were derived: cliff, steep slope, slope crest, upper slope, flat summit, sideslope, cove, dry flat, moist flat, wet flat, and slope bottom.



This map indicates suitable placement for restoration plants that require moist soils and a generous amount of water to thrive.

- Moist Flat
- Wet Flat
- Slope Bottom



This map indicates suitable placement for planting that will focus on restoring native forestlands.

- Upper Slope
- Flat Summit
- Side Slope
- Dry Flat

Forest Fragmentation

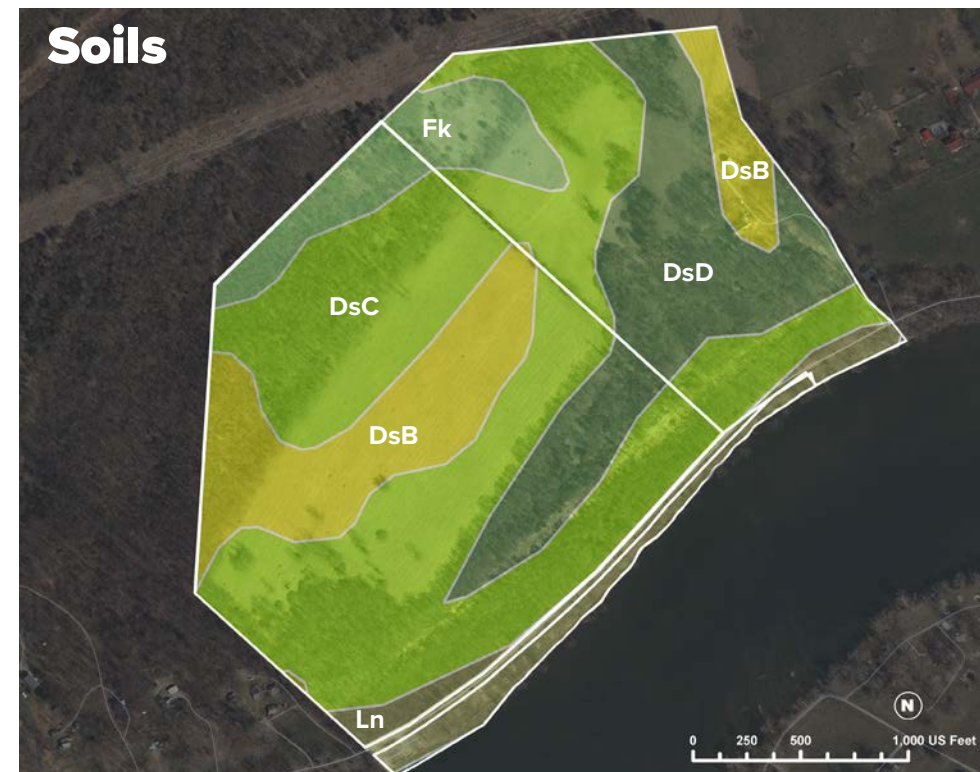
A forest fragmentation layer was developed for West Virginia by NRAC using an early iteration of the 9m land cover dataset.



Majority of the site is categorized as 'non-forested' and 'patch,' with few areas to avoid for concerns of old growth habitat disturbance.

- No data/non-forested
- Patch
- Edge
- Perforated
- Core (250-500 acres)
- Core (>500 acres)

Soils



Map Symbol	Soil Name	% Slope	Soil Classification	% of Property
DsB	Downsville gravelly loam	3-8%	Prime	16.4%
DsC	Downsville gravelly loam	8-15%	Statewide Importance	53.2%
DsD	Downsville gravelly loam	15-25%	Statewide Importance	22.3%
Fk	Funktown silt loam	-	Prime	4.3%
Ln	Lindside silt loam	-	Prime	3.6%

Hydrology

The Shenandoah River flows almost its entire length in Virginia, with its headwaters near Harrisonburg, Virginia. The Shenandoah Valley’s fertile soil was historically and remains an agricultural area, although there is significant urban development.

The mainstem of the river is generally low gradient, with small riffles, making it a popular destination for canoeing and other recreational activities, including fishing. The river contains many popular sport fishing species, including smallmouth bass, largemouth bass, crappie, sunfish, and channel catfish. It is also listed as a National Habitat Designation for freshwater mussels

The approximately 3,000 square mile basin is the largest drainage to the Potomac River. Historically, it has also been a source of pollution to the Potomac and the Chesapeake Bay. Sedimentation, nutrient loading from fertilizers and poultry farming, and industrial discharges are the largest issues. While issues have remained, there has been significant progress to clean up and protect water quality in the Chesapeake Bay, and the rivers that flow into it. Activities such as land protection, riparian plantings, fencing to keep cattle out of streams, and nutrient management programs have helped to minimize impacts to water quality, making the Shenandoah and other Chesapeake Bay tributaries healthier and safer for both their inhabitants and recreational users.



Photo of Shenandoah River from DiscoverFrontRoyal

Erosion

Moulton Park owns, and is responsible for, 2,400 linear feet of Shenandoah Riverbank. River currents can chisel away these banks —also referred to as riparian areas— contributing to sediment pollution in the waterway and limiting the Shenandoah’s recreational usage.

Current natural stream design methods incorporate bio-engineering strategies, such as riparian buffer tree plantings and live staking-- reducing sediment, improving recreational water quality, and creating beneficial habitat for various species including the red-bellied cooter.



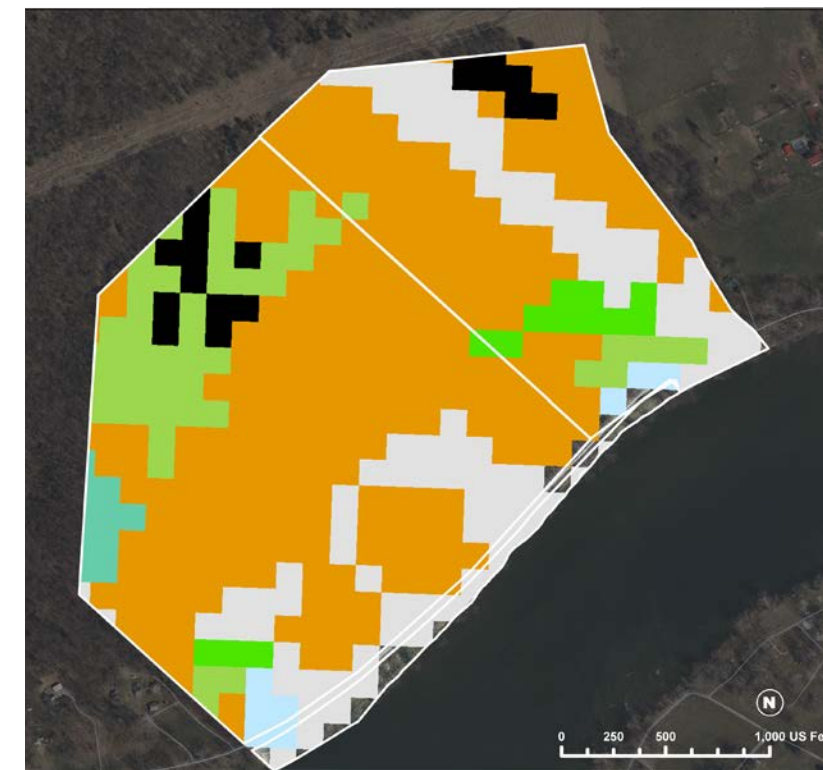
Photo of Erosion on at existing riverfront park from GoogleMaps



- 1% Annual Chance Flood Hazard
- Regulatory Flood Plane

According to the Baseline Report completed by J. Matthew Monroe & Associates, LLC and Downstream Strategies’ ArcGIS analysis, there are no hydraulic lines, streams, or water bodies on the site. However, the parks riverfront rests entirely in a regulatory floodway. The 1% chance annual flood hazard, or, 100 year flood extends into lower areas within the new expansion of Moulton Park. Floodway constraints will be evaluated to determine suitable amenities for the riverfront.

Terrestrial Habitats



- Agriculture
- Dry Oak Forests
- Dry-Mesic Oak Forests
- Dry Calcareous Forests, Woodlands, and Glades
- River Floodplains
- Developed
- Sinkhole and Depression Ponds

This dataset represents terrestrial habitats used for the 2015 revision of West Virginia’s State Wildlife Action Plan (West Virginia Division of Natural Resources, 2015). This dataset should be considered a broad-scale conceptual model but is indicative of forest cover relevant for planting native species and guiding restoration efforts in agricultural areas.

Terrestrial habitat categories present in Moulton Park include dry calcareous forests, wetlands and glades, agriculture, dry oak forests, and dry-mesic oak forests.

Market Analysis and User Groups

Respecting the use limitations of the property as described above in the conservation easement, the consulting team conducted a comprehensive market analysis that the newly enhanced Moulton Park can expect to reach. Three primary target audiences were identified based on travel distance from the park:

30
or fewer
miles

Reoccurring programs (e.g., weekly hiking clubs, youth camps, sport equipment rentals) will serve a local audience

30-60
miles

Special events, which may occur on a quarterly basis, (e.g., concerts, holiday celebrations) will attract a regional audience

60-120
miles

Destination offerings (e.g., workshops, conferences, retreats) are suited for overnight visitors.

Additional research and analysis exists regarding current outdoor recreation trends, as well as strategies identified in the Jefferson County Park and Recreation Commission’s Strategic Plan and the Jefferson County Comprehensive Plan. Current programming in Jefferson County’s parks is geared toward youth and families. Moulton Park is perfectly positioned to broaden offerings in what JCPRC has found to be the top outdoor activities for various age groups, including swimming, camping, biking, fishing, hiking, wildlife viewing, and non-motorized boats.

Some of the most popular youth programs, including “Aquatics” and “Camps,” have been at capacity for years, leaving many would-be participants on waitlists. Establishing similar, complementary programs will alleviate these full programs and ensure more people will have the opportunity to partake in them.

The output of this market analysis identified five primary user groups:

- 1 Trail users
- 2 Campers
- 3 Riverfront users
- 4 Homesteaders and naturalists
- 5 Limited mobility users

Local User Groups

Current programming in Jefferson County’s parks is geared toward youth and families. Moulton Park, especially with its proximity to the Shenandoah River, is perfectly positioned to broaden offerings in what JCPRC has found to be the top outdoor activities for various age groups, including swimming, camping, biking, fishing, hiking, wildlife viewing, and non-motorized boating.

Some of the most popular youth programs have been at capacity for years, leaving many would-be participants on waitlists. Establishing similar, complementary programs will alleviate these full programs and ensure more people will have the opportunity to partake in them.

Tourists

Moulton Park is in a prime location to attract travelers visiting nearby attractions or citydwellers looking for a rural getaway. At just over an hour from both Washington, D.C. and Baltimore, Maryland, the park is a day trip away for millions of people. Shenandoah National Park is less than an hour south, and Harpers Ferry National Historical Park sits a mere 6 miles from Moulton Park.

According to National Park Service data, Harpers Ferry welcomed 407,000 visitors and \$22.3 million in visitor spending in 2022 with a projected 5% increase to 427,000 visitors in 2023—which translates to an additional \$1.11 million in sales. Moulton Park has the potential to capture a portion of these visitors through additional various enhancements to physical and programmatic features it offers. Local and regional residents, particularly families with young children, are a primary target audience.



Site Character and Public Process

Focus Group Meetings

A series of focus group meetings were held with public stakeholders. These meetings offered the planning team and JCPRC an opportunity to articulate the limitations within the conservation easement’s restrictions. Additionally, the meetings helped build relationships with future partners and served as a platform to establish five common themes:

- 1 **Expanded river use**
- 2 **Increased parking**
- 3 **Variety of multi-use trails**
- 4 **Additional primitive camping**
- 5 **Improved operations and management**

During the summer of 2024, four focus groups convened to learn more about the strengths and weaknesses of Moulton Park, and the opportunities available for how to best use this property. Focus groups cited several recreational features to prioritize. Picnicking was frequently mentioned as one the main activities park visitors partake in. Existing picnic areas can be improved and new picnic areas can be developed both along the riverfront and throughout the new expansion.

Individuals also noted the lack of shaded areas at Moulton Park, which can be remedied with built canopies and pavilions as well as strategically placed benches and other seating options in existing, naturally shaded areas.

Multi-use trails that accommodate a range of users and abilities were a desired asset in focus group meetings. This concept plan proposes a trail layouts for both the riverfront and the expansion of Moulton Park.

Other target user groups identified during focus group meetings included families with young children, anglers, and those interested in park-based sports such as disc golf.

Bloomery Road River Access and Parking Issues

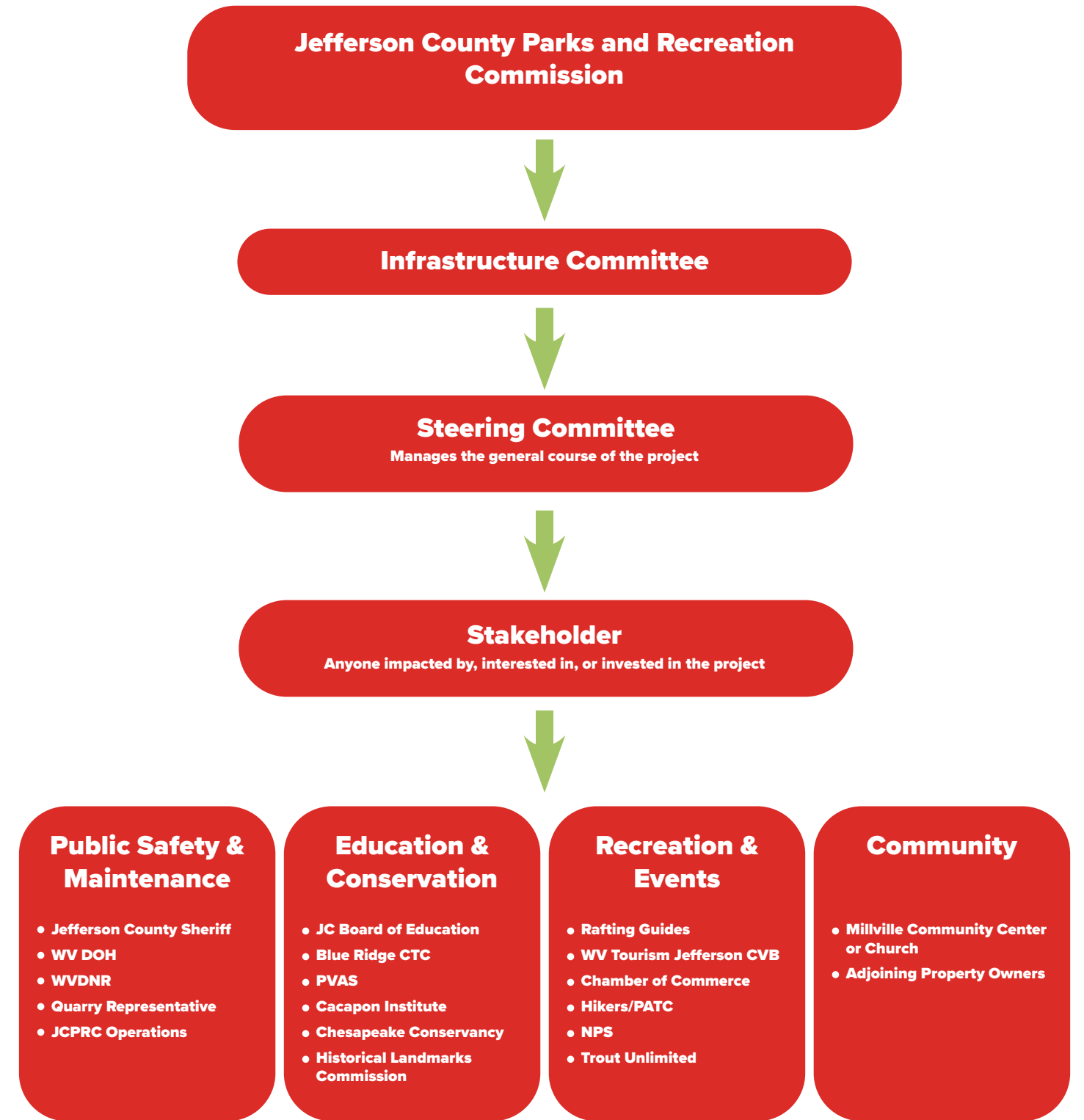
Public Safety Focus group meetings held during the summer 2024 revealed that a limited number of reported incidents are occurring around Moulton Park. Most of these incidents revolve around poor public behavior, intoxication, and suspicious activity. Public safety officials acknowledge that the proximity of Bloomery Road to the park presents safety concerns with vehicles potentially veering off the roadway into campsites with limited protection.

During these group meetings, repeated comments were made regarding signage. Moulton Park officials say little to no signage exists to properly advise visitors of policies, procedures, and water-related hazards. Furthermore, no multilingual signage exists to educate or direct non-English-speaking visitors and community members.

JCPRC identified a lack of oversight at the park, and public safety officials concurred that there is no routine patrol, but drive-by surveillance occurs occasionally.

Several comments from the group regarding Moulton Park’s appearance is that it is abandoned, creating the perception of the park as unsafe and rundown. The park welcomes larger crowds during the warm seasons, with peak attendance occurring during the summer months. JCPRC routinely observes traffic issues and illegal parking along the riverfront during this time. Discussion of the focus groups indicated that this could be alleviated if the park opens a parking area on the Riverside Farm section.

Governance Structure



The Moulton Family



Photo of Harold G. Moulton by Blackstone Studios | University of Chicago

On August 31st of 1946, esteemed economist Harold G. Moulton and his wife Frances R. Moulton purchased approximately 295 acres along the Shenandoah. This land included the Riverside Farm and an 1825-era farmhouse. In 1953 they sold 210 acres, keeping 85 acres for the family's use.

During this time Harold served as president of The Brookings Institution (1927-1952), authoring several dozen books and papers exploring America's socio-economic conditions. In 1947 Harold was asked by Senator Arthur H. Vandenburg to produce an independent research study to make recommendations for the European Recovery Program or Marshall Plan to assist Europe after WW2.

Dividing time between life along the Shenandoah, and Washington D.C., the Moulton family grew. Frances and Harold had a daughter Barbara Moulton, and a son, John R. Moulton "Jack." After Harold's retirement from the Brookings Institution in 1952, the family farming legacy at riverside resumed.

Jack and Barbara continued cattle farming on the 83-acre parcel. Jack also routinely made house calls to repair farm equipment of others in Jefferson County. The pavillion that stands today was built on the location of his former mechanic workshop. In 1976, the Moulton family sold 2.875 acres of land along the Shenandoah to Jefferson County Parks and Recreation (existing Moulton Park).

An interview with Jack's daughter, Sally Bruceton Moulton "Brucie" revealed that the farm served as a place to commune, to come together, and to sample a slice of life from previous eras. Brucie's connection and nostalgia for the landscape transpired into a lifetime of environmental activism. It was a refuge from city life, a common ground—a "home base" to reconnect with family. Her daughter Emma would eventually create a childrens nature school on the remaining farm parcel, further ensuring that knowledge of the natural world will be shared with generations to come.

Placemaking



Site Programming

Input from the focus group meetings and interviews provided ideas for potential events and programmed areas that would benefit a variety of user-groups at Moulton Park. Opportunities were compiled to understand the goals and mission of the park.

Goal 1 Establish Seasonal Attractions

- Seminars for conservation organizations
- Guided tours of native species in bloom
- Migratory bird viewing
- Earth Day celebrations
- Summer concert series
- Annual historic kayak race to the park
- Kid's nature camps
- Christmas markets
- Photo staging for the holidays
- Easter egg hunts
- Halloween ghost story series
- Sledding + cross-country skiing
- Wine and Jazz Festival

Goal 2 Promote Health and Fitness

- Hiking
- Fishing
- Kayaking
- Cross Country skiing
- Disk golf practice
- Cross country practice

Goal 3 Facilitate Community Classes

- Cooking classes
- Children's classes
- Art classes
- Yoga classes
- Naturalist meet-ups/classes

Goal 4 Support Local Arts

- Art exhibits/installations
- Childrens plays and performances
- Poetry readings
- Open-mic nights
- Gallery spaces in residence
- Local artisan gift shop in residence
- Summer movie nights

Goal 5 Provide Group Rentals

- Birthdays
- Graduations
- Weddings
- Retreats
- Family camping
- Appalachian Trail hiker lodging
- Seasonal nature camps

Memories at Moulton

Brucie recalls finding arrowheads, studying native wildflowers, tending to the family's animals, and sharing meals together vividly. Close interactions with nature were not uncommon at Riverside. Once, a group of Great Horned Owls sat outside of Brucie's newborn's nursery window on the second floor of the residence, cooing until the infant was fast asleep. To support an identity of conservation at the park,



The Great Horned Owl can serve as a "flagship species."

*A flagship species is an animal that is selected to represent a habitat and to raise support for conservation.



Photo from Chesapeake Conservancy of Moulton Family



Photo of former Riverside Nature School by Emma Huvos



Photo from Emma Huvos of snow at the Moulton residence

Composite Analysis



Legend

- Proposed bird blind areas
- Launches
- Proposed trailhead areas
- Proposed accessible trails
- Proposed intermediate trails
- Proposed wildlife meadow
- Potential development areas
- Existing roads
- Proposed roads
- Entrances

Opportunities

- 1 Level terrain for riverfront trail and docks
- 2 Crosswalk connecting the park at former entrance
- 3 Separation of motorized and nonmotorized boat launch
- 4 Utilizing power-line right-of-way for additional parking
- 5 Centralized outdoor event area
- 6 Soils suitable to restore native habitat
- 7 Level terrain outside of building envelope allows for accessible trails

Constraints

- 1 Riverfront park's flood plane limits riverfront development potentials
- 2 Uneven terrain in building envelope creates distance from the residence to potential event area
- 3 Entrance road is narrow- will need to be expanded to accomodate an influx of visitors
- 4 DOH assistance needed to facilitate speed controls in the area and implement a crosswalk on Bloomery Road

Summary

Upon reviewing the site analysis and public feedback, amenities, as well as appropriate placement for said amenities were decided after completion of the composite analysis.

All elements highlighted in yellow on the map are less than or equal to a 6% slope, making these areas the easiest to build infrastructure. The area highlighted in green represents space that accumulates adequate water for meadow planting and accessible trails. South of the wildlife meadow, terrain gradually gets steeper. Restoration efforts will continue here, but will focus on reforestation and other passive recreation opportunities such as disc golf and intermediate hiking.

Along the entrance road to the residence, a powerline right of way fragments the forest. This area can be utilized as an additional parking area, alleviating parking and access issues that occur frequently along Bloomery Road. The Baseline Report completed by J. Matthew Monroe & Associates, LLC indicates a former entrance located along Bloomery Road- where the building envelope ends. Though this is no longer a vehicle entrance, it could serve as a crosswalk location to connect the riverfront park and the new expansion.

Based on the goals reviewed from interviews and focus group meetings, it was determined that wide, multi-use trails for hiking and cross country skiing would be most beneficial to the community. A small ampitheater will expand opportunities for year-round programmed events at Moulton Park, along with improvements to the historic home. Camping areas, a children's nature play area, and picnic areas will also be implemented to the final plan.

Master Plan

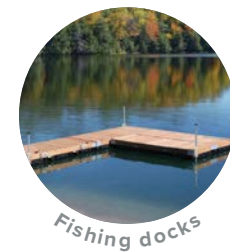


Legend

- | | | |
|---|-----------------------------------|--------------------------------------|
| 1 Naturalized riverfront | P Proposed parking areas | Proposed open areas |
| 2 Homestead area | ⊕ Proposed launches | Proposed wildlife meadow |
| 3 Flexible event space and/or future camping | ⚡ Proposed trailhead areas | Existing and proposed forested areas |
| 4 Wildlife meadow | — Proposed accessible trails | |
| 5 New community forest | ⋯ Proposed intermediate trails | |

Riverfront Park

The existing park has long been a beloved community space offering recreational opportunities like fishing, boating, picnicking, and camping. The redesign of this space introduces upgrades and additional amenities to enhance the overall experience. The redesign will offer upgraded picnic and leisure areas, fishing docks, a riverside trail, and upgrades to the existing launch areas. Though this space is not included in the conservation easement, the values of conservation will be integrated into the design phase, as naturalizing the riverbank along the park will support the biodiversity that brings folks to the region.



Fishing docks



Riverfront Trail



Riverfront Camping

Amenities

- Pavilion (32'x46') with 6 picnic tables
- Hammocks (6)
- Fishing docks (5)
- Visit West Virginia swing
- Boat trailer parking (7)
- Food truck space (1)
- Kayak/sup rental station
- Primitive and/or yurt camping spots (4)
- Riverfront trail
- Non-motorized pick-up/drop-off loop
- Improvements to existing launches
- Temporary restroom facilities
- Crosswalk to new expansion

New Expansion

Mandated by a conservation easement, the park's design within the new expansion is managed to ensure the preservation of its natural habitat. The park will offer a dynamic, flexible space that adapts to the needs of diverse user groups and special events.

The park's expansion will bring even greater opportunities for visitors of all ages, backgrounds, and abilities to connect with nature, participate in educational and cultural activities, and engage in seasonal celebrations. Designed to adapt, the new spaces will accommodate everything from large community events to smaller, intimate gatherings.

Out of the ___ miles of proposed trails, ___ are designed to offer safer, easier access to outdoor environments without the risk of challenging terrain. All trails are 8ft wide to facilitate a comfortable experience for a high volume of hikers and cross-country skiers.



Amphitheater



Bird blinds



Shelter with porch swings



Childrens nature play



Disc golf

Amenities

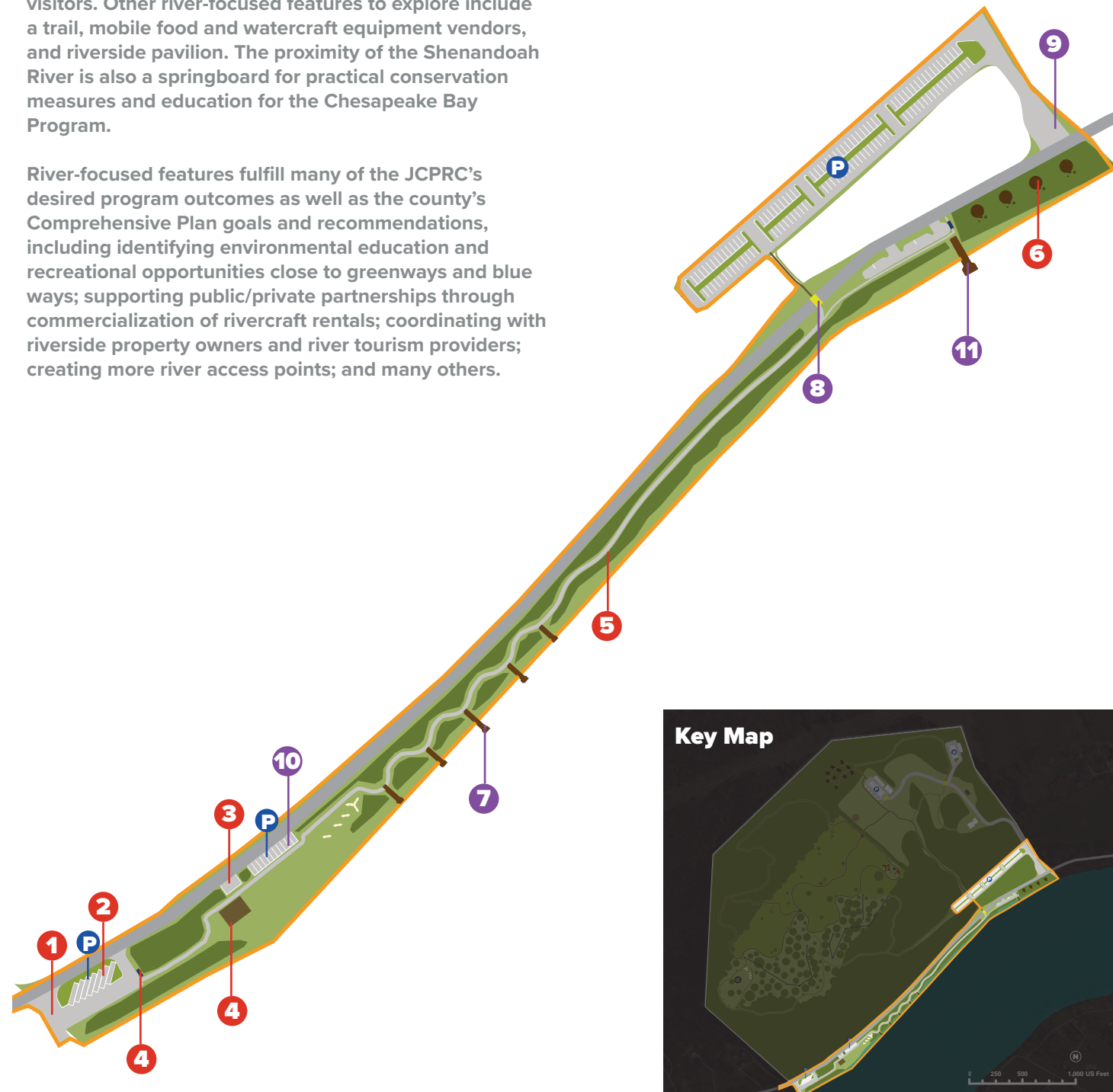
- Multi-use trails
- Amphitheater (30'x25')
- Bathhouse and storage shed (56'x26')
- Parking areas (3)
- Bird blinds (3)
- Benches (16)
- Primitive and/or yurt camping spots (4)
- Childrens nature play area
- Sheltered picnic tables (3)
- Shelters with porch swings (3)
- Hammocks (6)
- Disc golf area
- Labyrinth
- Great horned owl boxes (3)
- Wildlife meadow area
- New community forest

Existing Riverfront Park

The Shenandoah River is a major social, natural, and recreational asset for Jefferson County. Moulton Park has sizable Shenandoah River frontage, and many of the park’s potential developments showcase the river. The existing boat launch can be paired with additional launches and river access points, particularly those that comply with EDA standards, making Moulton Park a “true river access park” and uniquely appealing to limited mobility river users. Equipment rentals, such as standup paddleboards, kayaks/canoes, and angling gear further boosts the versatility of the river for park visitors. Other river-focused features to explore include a trail, mobile food and watercraft equipment vendors, and riverside pavilion. The proximity of the Shenandoah River is also a springboard for practical conservation measures and education for the Chesapeake Bay Program.

River-focused features fulfill many of the JCPRC’s desired program outcomes as well as the county’s Comprehensive Plan goals and recommendations, including identifying environmental education and recreational opportunities close to greenways and blue ways; supporting public/private partnerships through commercialization of rivercraft rentals; coordinating with riverside property owners and river tourism providers; creating more river access points; and many others.

The 3.29 acres located between the Shenandoah River and Bloomery Road is entirely in the 100-year floodplain and is subject to Jefferson County ordinances. Special consideration will need to be given for any development in this area. Land disturbance and structures will need to be reviewed by engineers to meet compliance with current ordinance specifications. Currently the proposed riverfront design elements pose minimal to zero adverse flooding impacts. While some improvements may be considered “grandfathered,” others may require various approvals from applicable permitting authorities.



Amenities

- 1 Existing motorized boat launch**
Focus group input emphasized the desire for a separate motorized launch for improved safety and fishing
- 2 Boat trailer parking**
This public asset will accommodate a 20-foot trailer and large vehicle capable of hauling full loads.
- 3 mobile vendor kiosks (e.g., food trucks)**
Exploring leases with private restaurants and watercraft equipment rental outfitters was identified in the JCPRC Strategic Plan. An entrepreneurial opportunity along the riverfront will establish commerce and order that could also alleviate the Bloomery Road community’s concerns over poor behavior and litter.
- 4 Comfort and convenience infrastructure**
Accommodations such as picnic tables, waste receptacles, mobile restrooms, a pavilion, and hammocks will welcome visitors to Jefferson County’s true riverfront park.
- 5 Riverfront trail**
Consistently reoccurring throughout the market and research analysis, walking trails will accommodate all ranges of users. Due to the proximity to the riverbank and assumed heavy use, including by limited-mobility visitors, this concept plan recommends a hard-packed surface such as asphalt or macadam.
- 6 Legacy campsites**
Staying true to the Moulton family’s tradition of welcoming campers along the banks of the Shenandoah, this concept plan recommends four legacy campsites to remain, if practical. These sites may remain primitive in the short term but could evolve into yurt-like platform accommodations if designed to meet ordinance standards.
- 7 Floating docks**
Additional fishing access points were frequently received during input sessions. Fishing is also growing in popularity within the geographic market. Authorizing agencies may include but are not limited to WVDNR, U.S. Army Corps of Engineers, and JCPC.
- 8 Bloomery Road pedestrian crossing infrastructure and signage**
The crossing will allow visitors to safely cross the road from the existing Moulton Park to the new 83-acre addition. This crossing must be closely coordinated with the West Virginia Department of Highways (WVDOH).
- 9 Bloomery Road entrance**
The downriver loading loop will allow visitors to drop off and pack up non-motorized watercraft then proceed to the new parking areas located in the 83-acre addition. Authorizing agencies may include but are not limited to the WVDOH (Entrance Permit) and JCPC.
- 10 Handicap parking**
Offering convenient parking spaces for limited-mobility users was common feedback from focus groups. Authorizing agencies may include but are not limited to JCPC.
- 11 Non-motorized watercraft launch**
Separation of non-motorized launches will not compete with water turbulence from larger engine-driven boats. Users can enjoy tubing, stand-up paddleboarding (SUP), kayaking, and canoeing the waters of the Shenandoah. Take-out points can be placed along the Moulton Park shoreline or, for a longer float downriver, at the popular WVDNR-owned “Big Eddy.” Authorizing agencies may include but are not limited to WVDNR, U.S. Army Corps of Engineers, and JCPC.

The additional design elements listed below may warrant a higher level of permit review from the Jefferson County Planning Commission (JCPC) and other applicable permitting authorities due to the creation of new impervious surfaces or access points to the Shenandoah River and Bloomery Road.

	Item	Total	Build-out Phase
Cost Estimate	Design and Engineering	\$8,600	1
	Kayak drop-off lot	\$77,000	1
	Pedestrian crossing	\$9,800	1
	Portable toilet screening	\$1,800	1
	Legacy camping area	\$5,000	1
	Floating docks	\$40,300	1 & 2
	Hard-packed trail	\$50,500	2
	Pavilion (30’x40’)	\$86,400	2
	Total estimate	\$279,400	

Riverfront Park Expansion Area Entrance



Additional Considerations

Entrance to Expanded Park Area

This concept plan recommends that JCPRC offer the parking lot as a solution to Bloomery Road concerns posed by the County Commission. Additionally, JCPRC should submit a budget request for design, permitting, and construction of a Phase One parking lot along the electric power line clearing. This parking lot is assumed to be filled by day-users of the park and the Shenandoah River.

- 1 Main entrance**
Main Entrance. A divided ingress/egress will allow the current stone “gateway” to remain at the existing entryway. Driveway widening to accommodate two-way traffic should be conducted up to the point where the new day-use public parking lot is being proposed. This will allow the Moulton family home to continue to be leased with minimal vehicle traffic disturbance. Overnight campers will be permitted to travel onward up the hill to the camping zone, where designated “pull-off” shoulders can be installed along the driveway to accommodate campers. Authorizing agencies may include but not be limited to WVDOH (Entrance Permit) and JCPC.

Overflow parking lot traffic will be directed by staff and volunteers during special events and holidays during the warm season, such as Memorial Day, West Virginia Day, Fourth of July, and Labor Day.

- 2 Day-use parking lot**
Public parking quickly rose to the top of most needed assets at Moulton Park. JCPRC monitors visitation at their parks throughout the year. The existing Moulton Park and areas along Bloomery Road currently receive approximately 37,300 visitors during the warm seasons (April–October), with weekends being the peak times. Authorizing agencies may include but not be limited to Potomac Edison, WVDEP, and JCPC.

- 3 Trailhead kiosk**
Multilingual trailhead signage will direct visitors to either the riverfront or into the new Moulton Park expansion. Authorizing agencies may include but not be limited to JCPC.

Given these attendance rates and the primary issues identified during the Bloomery Task Force meetings, Moulton Park’s newly expanded parking areas will ease public nuisance and help to create order within the nearby community.

	Item	Total	Build-out Phase
Cost Estimate	Design and Engineering	\$11,500	1
	Clearing/excavation	\$36,000	1
	Stormwater management	\$54,000	1
	Parking lot construction	\$250,000	1 & 2
	Trailhead kiosk	\$4,000	1
	Entrance/road improvements	\$67,000	1
	Total estimate	\$422,500	

Residence Area/Building Envelope



1 Residence area

The Residence area consists of the existing timber frame pavilion and Moulton family home. This area will serve as the gateway to future expansion at Moulton Park. However, the area will be limited to vehicle access during the first phase.

Pavilion

The pavilion is approximately 1,100 square feet and will serve as a public gathering space and shelter for visitors. The pavilion can be reserved for events and parties, providing additional revenues to cover small maintenance costs associated with this structure. Authorizing agencies may include but are not limited to JCPC.

Residence

The existing Moulton family home is a 3,300-square-foot structure built in 1830 containing four bedrooms and three bathrooms. Currently, the house is being privately leased. This rental revenue will help fund upgrades to the home to maximize its public use for events and programs, such as weddings, company retreats, and various educational seminars. Upgrades could include those needed to meet fire marshal requirements for assembly classifications, accessibility, and local building codes. Authorizing agencies may include but are not limited to JCPC and the State Fire Marshall.



2 Camping area

During focus group meetings, several attendees reported a need for increased primitive camping accommodations within Jefferson County. This feedback matches current growth trends with camping in the outdoor recreational sectors. Focus group participants also noted that existing campsites along the riverfront have created control issues, visitor confusion, and interference with river uses. To maximize the riverfront asset and accommodate user demands, this concept plan recommends a majority of existing campsites be relocated into the new Moulton Park expansion and leave only four “legacy” campsites in areas to be determined by JCPRC. This relocation will limit primitive campsites within the Moulton Park expansion during Phase One development to only ten.

Primitive campsite management and development

A case study of the nearby City of Brunswick, Maryland proved a successful public-private partnership is possible in campsite operations and management. Given the success of the Brunswick Family Campground, this concept plan recommends JCPRC gather general information about potential campsite operations and management service providers. If a private organization is well suited, JCPRC should then work to develop the sites in mutually agreed-upon locations and fixtures within the Camping Zone. Authorizing agencies may include but are not limited to WVDEP, JCPC, and Jefferson County Health Department.

(Camping area continued)

Comfort station

As discussed in Division 8.0 of the Jefferson County Planning Commission ordinance and Virginia Department of Health requirements, all campsites must be located within 500 feet of a water and sewage comfort station. In addition to restrooms, the comfort station should consider providing showers and laundry facilities to accommodate campers and AT hikers. Authorizing agencies may include but are not limited to WVDEP, JCPC, Jefferson County Health Department.

Water and sanitary upgrades

While the new expansion of Moulton Park contains an existing well and septic system, they may need upgrades to meet public health treatment standards. Authorizing agencies may include but are not limited to WVDEP, JCPC, and the Jefferson County Health Department.

3 Flexible event area

The need for an outdoor event area was expressed in focus group meetings. This amenity will improve seasonal possibilities for programmed events at the park. The area can also be developed for additional campsites in the future if desired.

Small amphitheater

An amphitheater will serve as a venue for educational presentations and various gatherings described on page 33 of this document.

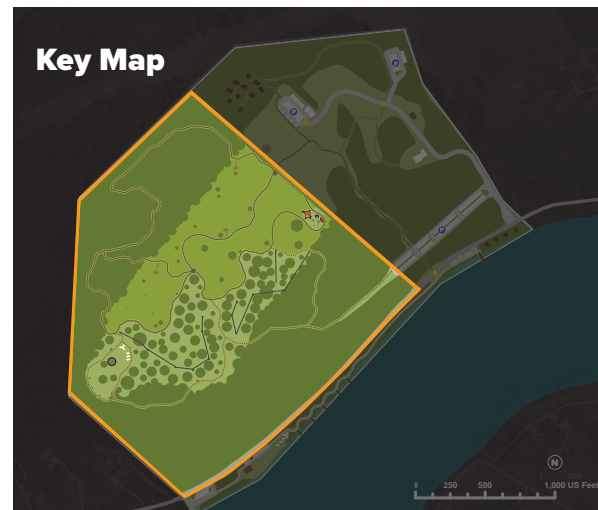
Cost Estimate

Item	Total	Build-out Phase
Residence area		
Consulting Architect	\$23,000	2
Fire suppression system	\$16,000	2
Accessibility upgrades	\$17,500	2
Electrical upgrades	\$45,500	2
Total estimate	\$144,000	
Camping area		
Primitive campsite	\$12,500	1
Campsite fixtures	\$12,800	1
Comfort station	\$72,000	2
Sanitary upgrades	\$14,400	2
Water upgrades	\$9,000	
Total estimate	\$144,000	
Flexible event area		
Small amphitheater	\$144,000	2

Passive Recreation Area



- Proposed trailhead areas
- Proposed accessible trails
- Proposed intermediate trails
- Proposed open areas
- Proposed wildlife meadow
- Existing and proposed forested areas



Amenities

Trails in Moulton Park were the top item identified during the research, analysis, and focus group stage.

Trail development is of interest at Moulton Park, particularly in areas under the conservation easement which are shielded from the development of impervious surfaces. Hiking has been the reigning activity in participation for multiple years nationwide, with a reported 881,000 new hikers in 2022 according to the Outdoor Recreation Report. Locally, walking/jogging and hiking are the top cited activities, followed closely by camping, swimming, biking, boating, and fishing. Trail development coupled with other natural resource-based features such as community gardens and agricultural elements, additional campsites, will not only appeal to park users near and far but will satisfy a range of JCPRC's goals.

Additionally, local Placer.ai data provided by JCPRC, which measures foot traffic, indicates that approximately 33,800 visitors annually travel to Hite Park. Located approximately 12 miles from Moulton Park in Kearneysville, West Virginia, Hite Park is a comparable site to gauge local trail user interest and demand.

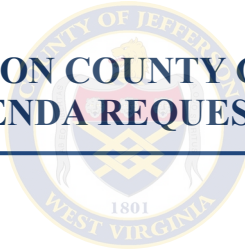
Expanding outward to a 30-mile radius of Moulton Park: over 400,000 individuals will participate in hiking, 248,000 in jogging, and 690,000 in walking for exercise. (Esri Business Analyst, 2024) This concept plan presents a trail layout that recognizes the most feasible locations for trails based on slope and maintenance requirements. Additionally, this concept plan recommends coordinating with a local cross country high school team to determine how suitable this trail layout would be as the site of a future race. Cross country races are approximately five kilometers long (a "5K"). Establishing a championship-level race route will also attract potential fundraising events for the park.

In addition to trails, other amenities in the Trail Zone will accommodate both experienced and beginner outdoor recreationists. These park assets are geared toward visitors who are more experienced with nature.

- 1 Bird blinds**
Wildlife viewers and photographers can shelter and shield themselves from view, allowing animals to freely fly and graze nearby without feeling threatened. Authorizing agencies may include but are not limited to JCPC.
- 2 Hammocks**
The Moulton family frequently described the Riverside Farm as a place of refuge and rejuvenation. Relaxing within this natural setting will introduce a slice of life the Moulton family values—and now shares with the public. Authorizing agencies may include but are not limited to JCPC.
- 3 Nature-based playground**
Creating a destination-style playground that harnesses inspiration of nature will market Moulton Park to young families and introduce them to outdoor recreational opportunities. Authorizing agencies may include but are not limited to JCPC.
- 4 Disc golf course**
Focus group meetings revealed interest in this growing activity. In 2023, 1.4 million individuals subscribed to UDisc—a 17% user increase from 2022 (UDisc, 2024). UDisc is a GPS-enabled app that provides disc golf course layouts and hole-by-hole navigation to players. This figure marks a 17% increase from 2022 and will allow Moulton Park to reach new users through this recreational activity and being added to this mobile app. Authorizing agencies may include but are not limited to JCPC.
- 5 Wayfinding signage**
Both wayfinding and interpretative/educational signage will enhance the experience in Moulton Park. In addition to directing visitors to trails and key attractions, signs can cater to the different prominent user groups of the park, including birders, anglers, and historians. A later phase of park development can incorporate multilingual signage, which would help welcome non-English speakers to Moulton Park. Authorizing agencies may include but are not limited to JCPC.

	Item	Total	Build-out Phase
Cost Estimate	Trail construction	\$81,100	1
	Disc golf (design/Build)	\$23,750	1
	Wayfinding signage	\$11,500	1
	Bird blinds	\$2,800	2
	Hammocks	\$7,200	2
	Nature playground	\$24,000	2
	Total estimate	\$322,600	

JEFFERSON COUNTY COMMISSION AGENDA REQUEST FORM



Name:

Department or Organization:

Commission Meeting Date:

Special Meeting Date (if necessary):

Subject (*wording to be placed on agenda*):

Please provide a description of your request or presentation, including any background information:

Type of Request: (Funding/Hiring):

Funding/Salary/Hourly Amount:

Name of Hire (if Applicable):

Grade/Step/Hours (PT/FT):

Start Date (beginning of pay period):

Post Probationary Increase (If applicable):

Any Additional Conditions of Employment or Funding Comments:

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

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed?

Projector

Internet/Wi Fi:

Conference/Video

No

Contact Information:

Phone Number:

Email Address:



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 **Fax:** (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT

Pasha Majdi

COMMISSIONER

Jack Hefestay

COMMISSIONER

Cara Keys

COMMISSIONER

Steve Stolipher

COMMISSIONER

Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From: David Bound

Date: February 6, 2025, Commission meeting

Re: Fiscal Note: Sheriff's Personnel Request

Sheriff Thomas Hansen requests the following new hire.

Part-Time Bailiff position: @ \$17.50/hour

Projected annual pay	\$18,200
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Amount budgeted for this position in FY 25	<u>\$20,280</u>
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Difference	\$2,080
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AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: **Jessica James, CHRO/assistant deputy administrator**

Department or Organization: **Jefferson County Commission**

Estimation of amount of time needed for appointment: **15 minutes**

Date Requested – 1st Choice: **February 6, 2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

- 1. Approval of Hires – Firefighter/EMT I; Firefighter/Paramedic I; Firefighter/EMT II – ESA**
- 2. Approval of Hire – GIS Analyst - Jefferson County Department of IT/GIS and Addressing Office**
- 3. Discontinuation of current cleaning contract; approval to solicit for three full-time, in-house custodial employees; approval of promotion to Deputy Director – Jefferson County Department of Fleet and Facilities Management**

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

1. Staff has identified several candidates for positions within the Emergency Services Agency and is seeking to hire one full-time Firefighter/EMT I; one Firefighter/Paramedic I; and one Firefighter/EMT II
2. Staff has identified a candidate for the position of GIS Analyst within the Jefferson County Department of IT/GIS and Addressing Office and is requesting to hire for the Grade 5, full-time, 80-hour position.
3. The Department of Fleet and Facilities Management seeks approval to discontinue the current cleaning contract and hire three (3) custodial employees to meet the cleaning needs of the downtown campus. Additionally, the department requests approval to promote a current employee to the position of Deputy Director/Construction Manager. This promotion addresses the critical need for a deputy to provide essential support and ensures continuity of operations.

Is this a funding request? Y/N - NO –

If so, how much? \$

Provide exact financial impact/request:

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

ESA Requests

- I move to approve the hire of Bobbi Keller for the position of full-time Firefighter/EMT I with the Jefferson County Emergency Services Agency at an hourly rate of \$20.65, effective February 10, 2025.***

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- I move to approve the hire of Amy Masser for the position of full-time Firefighter/Paramedic I with the Jefferson County Emergency Services Agency at an hourly rate of \$29.93, effective February 10, 2025.
- I move to approve the hire of Jesse Rupenthal for the position of Firefighter/EMT II with the Jefferson County Emergency Services Agency at an hourly rate of \$22.82, effective February 10, 2025.

Dept. of IT/GIS and Addressing Office Request

- I move to approve the transfer of Rhonda Greenholtz from full-time GIS Technician to a Grade V, full-time, 80-hour GIS Analyst with the Jefferson County Department of IT/GIS and Addressing Office, at a salary of \$54,000, effective February 7, 2025.

Department of Fleet and Facilities Management Requests

- I move to discontinue the current County cleaning contract, effective April 1, 2025 and transfer \$38,148 from contracted services to salary lines in 001424 to cover in-house custodial staff salaries for the remainder of FY25.
- I move to approve the request to advertise for three (3) full-time custodial team member positions within the Department of Fleet & Facilities Management at a Grade 2 with a salary of \$35,664 each, effective April 1, 2025.
- I move to approve the promotion of Leonard Thomas from the position of Maintenance Carpenter to the position of Deputy Director/Construction at a Grade 7 (full-time, 80-hour) with a salary of \$74,000, effective April 1, 2025.

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/N Internet/Wi Fi Y/N Telephone for conference call Y/N

Contact information: Jessica James

Email address: jjames@jeffersoncountywv.org

Phone Number: 304-728-3282

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 **Fax:** (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT
Pasha Majdi

COMMISSIONER
Michael Mood

COMMISSIONER
Jack Hefestay

COMMISSIONER
Cara Keys

COMMISSIONER
Steve Stolipher

To: Commissioner Pasha Majdsi
Commissioner Michael Mood
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher

From: David Bound, Chief Financial Officer

Date: February 6, 2025

Re: Fiscal Note: Chief Human Resource Officer - Personnel

Jessica James, Chief Human Resource Officer requests the following personnel requests:

Emergency Services

1. New Hires (Budget Neutral):

Bobbie Keller, FF/EMT I	\$20.65/hour	\$45,099.60
- Amount budgeted for this position in FY 25:		\$50,427.52
- Promote to FF/EMT II upon completion of introductory period and necessary training	\$21.17/hour	\$46,235.28
Jesse Ruppenthal, FF/EMT II	\$22.82/hour	\$49,838.88
- Amount budgeted for this position in FY 25:		\$61,960.08
Amy Masser, FF/Paramedic I	\$29.93/hour	\$65,367.12
- Amount budgeted for this position in FY 25:		\$62,535.46
- Promote to FF/Paramedic II upon completion of Introductory period and necessary training	\$30.67/hour	\$66,983.28

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: **Jessica James, CHRO/assistant deputy administrator**

Department or Organization: **Jefferson County Commission**

Estimation of amount of time needed for appointment: **15 minutes**

Date Requested – 1st Choice: **February 6, 2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

- 1. Approval of Hires – Firefighter/EMT I; Firefighter/Paramedic I; Firefighter/EMT II – ESA**
- 2. Approval of Hire – GIS Analyst - Jefferson County Department of IT/GIS and Addressing Office**
- 3. Discontinuation of current cleaning contract; approval to solicit for three full-time, in-house custodial employees; approval of promotion to Deputy Director – Jefferson County Department of Fleet and Facilities Management**

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

1. Staff has identified several candidates for positions within the Emergency Services Agency and is seeking to hire one full-time Firefighter/EMT I; one Firefighter/Paramedic I; and one Firefighter/EMT II
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3. The Department of Fleet and Facilities Management seeks approval to discontinue the current cleaning contract and hire three (3) custodial employees to meet the cleaning needs of the downtown campus. Additionally, the department requests approval to promote a current employee to the position of Deputy Director/Construction Manager. This promotion addresses the critical need for a deputy to provide essential support and ensures continuity of operations.

Is this a funding request? Y/N - NO –

If so, how much? \$

Provide exact financial impact/request:

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

ESA Requests

- I move to approve the hire of Bobbi Keller for the position of full-time Firefighter/EMT I with the Jefferson County Emergency Services Agency at an hourly rate of \$20.65, effective February 10, 2025.***

208

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Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/N Internet/Wi Fi Y/N Telephone for conference call Y/N

Contact information: Jessica James

Email address: jjames@jeffersoncountywv.org

Phone Number: 304-728-3282

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable

Jefferson County, West Virginia Job Description

Position Title:	GIS Analyst 1	Grade Level:	V
Department	Information Technology	Date:	October 2024
Reports to:	GIS Manager/GIS Coordinator	FLSA Status	Non-Exempt

Statement of Duties: The GIS Analyst's responsibilities are two-fold. The first aspect of the position concentrates on data and programming knowledge. The Analyst must be familiar with database driven information, because the second aspect of the position, data analysis, is derived from this knowledge. The Analyst's duties include a high amount of data conversion, application, and implementation. Another role is transferring data from a database with certain parameters and ultimately preparing reports or making decisions from this created information. The Analyst makes practical sense out of processed data and then applies it to real-world cases. Employee collects, edits, manipulates, transforms, queries, maps, and assures quality of all GIS and Tabular data in the Jefferson County Enterprise GIS. This position also assists other departments with their mapping projects and geographic analysis through performance of advanced data maintenance, visualization or analysis. Employee is required to perform all similar or related duties.

Supervision Required: Under general supervision of the IT Director or guidance from GIS Coordinator, the employee plans, prioritizes, and carries out the regular work in accordance with standard practices and previous training. The employee interprets instructions and/or adapts methods to resolve particular problems. Instructions for new assignments usually consist of statements of desired objectives, deadlines, and priorities. Technical and policy problems or changes in procedures are discussed with supervisor. Work is generally reviewed only for technical adequacy, appropriateness of actions or decision, and conformance with policy, or other requirements.

Supervisory Responsibility: Employee is not regularly required to supervise others.

Confidentiality: Employee has access to confidential information of the department.

Accountability: Consequences of errors or poor judgment may include missed deadlines, time loss, and adverse public relations, jeopardize programs, danger to public health/safety, and legal repercussions.

Judgment: Numerous standardized practices, procedures, or general instructions govern the work and, in some cases, may require additional interpretation. Judgment is needed to locate, select, and apply the most pertinent practice, procedure, regulation, or guideline.

Complexity: The work consists of the practical application of a variety of concepts, practices, and specialized techniques relating to a professional or technical field. Assignments typically involve evaluation and interpretation of factors, conditions, or unusual circumstances; inspecting, testing, or evaluating compliance with established standards or criteria; gathering, analyzing, and evaluating facts or data using specialized techniques; or determining the methods to accomplish the work.

Work Environment: Work is performed in an office environment with some field work required.

Jefferson County, West Virginia Job Description

Nature and Purpose of Relationships: Relationships are regular with co-workers, the public, and external contacts such as other professionals. Interaction involves interpretation of guidelines and procedures, planning, or coordination of work or resolving problems.

Occupational Risk: Duties generally do not present occupational risk to the employee. Minor injury could occur, however, through employee failure to properly follow safety precautions or procedures. Examples of injury include minor bruises from falls, minor cuts or burns, or minor muscular strains from lifting, pushing or carrying heavy equipment or work materials.

Essential Functions:

The essential functions or duties listed below are intended only as illustrations of the various type of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

1. Responsible for 911 physical addressing of structures and geocoding for the county; assigning address ranges to roads and locations as appropriate.
2. Perform moderate level GIS projects and spatial analyses that require commensurate technical knowledge, skills, and experience.
3. Collect, create, update, edit, maintain, analyze, and distribute the county mapping files and metadata documents and provide data to user departments; perform quality assurance for same.
4. Assist in maintenance of GIS system and component databases and datasets.
5. Assist County departments with GIS project planning, implementation, and management.
6. Assist GIS Coordinator with the Dept of Engineering, Planning, & Zoning and the municipalities in land development application reviews, with a focus on addressing issues, road name, and subdivision name reviews in accordance with the County Ordinance.
7. Provide seamless, office-wide customer service, training, and technical support to all users of the GIS and mapping systems within the County, members of the public, other departments, elected officials and governmental agencies.
8. Perform database maintenance for CAD, SQL, Access, GIS, Excel, and other programs used by the department, including but not limited to database design, analysis, maintenance, and troubleshooting.
9. Operate GIS system as required to generate reports, documentation, metadata, cartography, visualization, maps, illustrations, diagrams, etc. to assist in department or county operations.
10. Utilize Global Positioning Systems (GPS) to mark important features in the field for location purposes. Perform various other field work as required.

Jefferson County, West Virginia Job Description

11. Collaborate closely with industry peers and GIS professionals.
12. Keep up to date in new advances in mapping software.
13. Convert analog map products to digital format, and digital data from one form to another using established conversion procedures.
14. Develop and perform analysis algorithms relating to graphic data sets in the GIS and compile cartographic output from spatial, tabular and graphic data.
15. Perform related tasks as required.

Recommended Minimum Qualifications:

Education and Experience: Preferred to have a Bachelor's degree in GIS, Geography, Information Technology, or related field and minimum five to seven (5-7) years of related experience; or any equivalent combination of education, training and experience which provides the required knowledge, skills and abilities to perform the essential functions of the job.

Special Requirements: Must have a valid West Virginia Operator's License prior to appointment. GIS Professional (GISP) certification preferred, but not required.

Certifications

At Hire or Earned Within 12 months: Microsoft Excel Level 1, Microsoft Access Level 1, ESRI GIS Fundamentals Foundation

Required To Move On To GIS Analyst Level 2: Microsoft Excel Level 2, ESRI ArcGIS Hub Fundamentals, ESRI ArcGIS Pro Foundation

Knowledge, Abilities and Skills

Knowledge: Knowledge of geographic concepts, spatial analysis, database management, and above average IT knowledge. Higher education in Geographic and/or Computer Sciences.

Abilities: Ability to communicate effectively, manage time and projects successfully and efficiently. Work alone or within a team with minimal supervision.

Skills: Advanced technical computer skills, and specific training in GIS software in use at Jefferson County (ArcGIS). Strong project management skills are required. Understand, import, export and manipulate various digital GIS data formats like Geodatabases, shapefiles, AutoCAD DWG/DXF, raster imagery, tables, etc. Understand relational databases. Utilize typical Microsoft Office software, such as MS Access, in a Windows environment.

Jefferson County, West Virginia Job Description

Physical and Mental Requirements

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the position's essential functions.

Physical Skills: Little or no physical demands are required to perform the work. Work effort principally involves sitting to perform work tasks, with intermittent periods of stooping, walking, and standing. There may also be some occasional lifting of objects such as ledger books, photocopy, and computer paper.

Motor Skills: Position requires minimal motor skills for activities such as: operating a personal computer and/or most other office equipment, typing and/or word processing, filing, moving objects, sorting of papers, or operating a motor vehicle.

Visual Skills: Position requires routine reading of documents, maps, and reports for understanding; employee is required to distinguish colors.

Jefferson County Job Description

Position Title:	Custodian	Grade Level:	II
Department	Fleet & Facilities Management	Date:	2/15/2023
Reports to:	Director of Fleet & Facilities	FLSA Status	NE

Statement of Duties: The employee is responsible for the cleanliness, orderliness and proper appearance of the County facilities assigned. Employee is required to perform all similar or related duties.

Supervision Required: Under general supervision of the Director of Fleet & Facilities, the employee is familiar with the work routine and uses initiative in carrying out recurring assignments independently with specific instruction. The supervisor provides additional, specific instruction for new, difficult or unusual assignments, including suggested work methods. The employee is expected to recognize instances which are out of the ordinary and which do not fall within existing instructions; the employee is then expected to seek advice and further instructions. Reviews and checks of the employee's work are applied to an extent sufficient to keep the supervisor aware of progress, and to insure that completed work and methods used are technically accurate and that instructions are being followed.

Supervisory Responsibility: Employee, as a regular and continuing part of the job, does not supervise other employees.

Confidentiality: Employee does not have access to confidential information.

Accountability: Consequences of errors, missed deadlines or poor judgment may include adverse public relations.

Judgment: Numerous standardized practices, procedures, or general instructions govern the work and in some cases, may require additional interpretation. Judgment is needed to locate, select, and apply the most pertinent practice, procedure, regulation or guideline.

Complexity: The work consists of a variety of duties which generally follow standardized practices, procedures, regulations or guidelines. The sequence of work and/or the procedures followed vary according to the nature of the transaction and/or the information involved, or sought, in a particular situation.

Work Environment: The work environment involves everyday discomforts typical of offices with occasional exposure to outside elements. Noise or physical surroundings may be distracting, but conditions are generally not unpleasant. Employee may be required to work beyond normal business hours

Nature and Purpose of Public Contact: Relationships are primarily with co-workers incidental to the purpose of the work involving giving and receiving factual information about the work. Ordinary courtesy and tact are required. Contacts with the public may be required on an occasional basis.

Occupational Risk: Working conditions involve occasional exposure to unpleasant elements such as odors, chemical fumes, heat, or cold. Work may involve general cleaning, occasional work at heights or in confined or cramped quarters, or work around machinery and its moving parts. Work may also involve occasional mental stress, such as completing several unrelated tasks within a relatively short period of time.

Fleet & Facilities
Custodian
2/15/2023

Jefferson County Job Description

Essential Functions:

The essential functions or duties listed below are intended only as illustrations of the various type of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

1. Clean County buildings, including but not limited to disinfecting, sweeping, scrubbing, mopping, waxing and/or buffing floors, vacuuming and shampooing carpets, cleaning surfaces and baseboards, polishing glass, furniture, fixtures and woodwork, washing windows and emptying and cleaning garbage receptacles.
2. Clean and maintain bathrooms, toilets, showers, locker rooms and fixtures and ensure all bathroom necessities are provided.
3. Ensures the appropriate inventory of supplies.
4. Work alone, or as a member of the Fleet & Facilities team, to ensure smooth operations and satisfaction of departments served by the Department of Fleet & Facilities Management.
5. Ensures that safety is maintained at all times on the interior/exterior of the buildings for which responsible.
6. Maintains an awareness of maintenance deficiencies and corrects and/or reports such deficiencies to the Director of Fleet & Facilities.
7. Responds to emergencies at any time.
8. Promotes positive relationships with other departments and the public.
9. Refer all instructions from other departments and/or requests for assistance to the Director of Fleet & Facilities or office staff.

Recommended Minimum Qualifications:

Education and Experience: High School degree or equivalent with one to three (1-3) years related work experience; or any equivalent combination of education, training and experience which provides the required knowledge, skills and abilities to perform the essential functions of the job.

Special Requirements: A valid driver's license is required for this position. Must pass a background check.

Knowledge, Abilities and Skill

Knowledge: Common policies, practices and procedures of the department and building maintenance. Working knowledge of the safety precautions, supplies and materials needed to perform duties.

Abilities: Work independently and be self-motivated.

Skills: Efficient and thorough cleaning and maintenance of buildings and grounds, and attention to detail.

Jefferson County Job Description

Physical and Mental Requirements

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the position's essential functions.

Physical Demands: Work requires some agility and physical strength, such as standing or walking most of the work period. Occasionally, work may require lifting heavy objects and carrying them. There may be a need to stretch and reach to retrieve materials. Usually, the work will require extended physical effort over a significant portion of the work day.

Motor Skills: Duties may require assignments requiring application of hand and eye coordination with finger dexterity and motor coordination for activities such as sweeping, scrubbing, cleaning, and moving objects.

Visual Demands: Visual demands include reading documents for general understanding.

Jefferson County Job Description

Position Title:	Deputy Director/Construction Manager	Grade Level:	VII
Department	Fleet & Facilities Management	Date:	2/6/2025
Reports to:	Director of Fleet & Facilities	FLSA Status	Exempt

Statement of Duties: Performs and manages skilled and technical carpentry/construction work and provides essential backup to the Fleet & Facilities Director to provide a safe, efficient, highly functioning and attractive work environment that supports individual and group productivity. Employee is required to perform all similar or related duties.

Supervision Required: Under general direction of the Fleet & Facilities Director, the employee plans and carries out the regular work in accordance with standard practices and previous training, with substantial responsibility for determining the sequence and timing of action and substantial independence in planning and organizing the work activities, including determining the work methods. The employee is expected to solve through experienced judgment most problems of detail or unusual situations by adapting methods or interpreting instructions to resolve the particular problem. Instructions for new assignments or special projects usually consist of statements of desired objectives, deadlines and priorities. Technical and policy problems or changes in procedures are discussed with supervisor, but ordinarily the employee plans the work, lays it out and carries it through to completion independently. Work is generally reviewed only for technical adequacy, appropriateness of actions or decisions, and conformance with policy or other requirements; the methods used in arriving at the end result are not usually reviewed in detail.

Supervisory Responsibility: Employee, as a regular and continuing part of the job, provides direction and supervision to the Fleet & Facility employees. Employee, as a regular and continuing part of the job, is accountable for the quality and quantity of work done by subordinates and assures the accomplishment of the assigned work in the prescribed manner. Supervisory functions typically consist of most of the following: plans, schedules and coordinates work operations to meet schedules, deadlines and priorities; revises work schedules to meet changes in workload or availability of manpower; recommends and justifies to higher levels of management changes in the organization of work, work methods or assignment of functions to positions that may affect staffing patterns, costs, work standards, etc.; assigns work based on varying capabilities of employees; assures that completed work meets the required standard of quality, timeliness and cost, taking corrective actions as necessary, including rejecting the work; gives advice and instruction on both administrative and work matters; informs subordinates of organizational policies, goals and procedures; resolves employee complaints and effects disciplinary actions, such as oral warnings and reprimands.

Confidentiality: Regular access at the departmental level to a wide variety of confidential information, including personnel records and departmental records.

Accountability: Consequences of errors or poor judgement may include adverse public relations, missed deadlines, monetary loss, legal repercussions, labor/material costs, and/or jeopardize programs.

Judgment: The work requires examining, analyzing and evaluating facts and circumstances surrounding individual problems, situations or transactions, and determining actions to be taken within the limits of standard or accepted practices. Guidelines include a large body of policies, practices and precedents which may be complex or conflicting, at times. Judgment is used in analyzing specific situations to determine appropriate actions. Employee is expected to weigh efficiency and relative priorities in conjunction with procedural concerns in decision making. Requires understanding, interpreting and applying federal, state and local regulations.

Fleet & Facilities
Deputy Director
2/6/25

Jefferson County Job Description

Complexity: The work consists of a variety of duties which generally follow standardized practices, procedures, regulations or guidelines. The sequence of work and/or the procedures followed vary according to the nature of the transaction and/or the information involved, or sought, in a particular situation.

Work Environment: Working conditions involve occasional exposure to intermittent machine or related noise or a combination of unpleasant elements such as odors, chemical fumes, dust, smoke, heat, cold, oil, dirt or grease. Includes work under typical shop conditions or outdoor work which is suspended when weather conditions are poor. Work may involve general cleaning, occasional work at heights or in confined or cramped quarters, or work around machinery and its moving parts. Work may also involve occasional mental stress, such as completing several unrelated tasks within a relatively short period of time.

Nature and Purpose of Public Contact: Contacts are with co-workers and the public involving frequent explanation, discussion or interpretation of practices, procedures, regulations or guidelines in order to render service, plan or coordinate work efforts, or resolve operating problems. Other regular contacts are with service recipients and employees of outside organizations such as vendors, and/or contractors. More than ordinary courtesy, tact, and diplomacy may be required to resolve complaints or deal with uncooperative or uninformed persons.

Occupational Risk: Essential functions regularly present potential risk of injuries from improper exposure which could result in loss of time from work. Examples of injury include burns from chemicals, steam or fire, severe muscular strains from working with extremely heavy material, falls from heights in excess of three feet and illness from exposure to communicable diseases. Special safety precautions, training, or protective clothing such as gowns, coats, gloves, glasses, hats or boots may be required.

Essential Functions:

The essential functions or duties listed below are intended only as illustrations of the various type of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

1. Assist the Director of Fleet & Facilities in overseeing, coordinating, and managing the department's operations.
2. Support the supervision and leadership of department employees alongside the Director.
3. Serve as Acting Director in the absence of the Director due to leave or other circumstances.
4. Collaborate with the Director in planning, coordinating, and managing remodeling, renovation, and new construction projects for the County.
5. Oversee work with outside contractors or vendors, including obtaining job quotes and scheduling work.
6. Prepare cost estimates for repair, renovation, and construction projects.
7. Perform renovation, remodeling, construction, carpentry, and repair projects as needed.
8. Work independently and as part of the Fleet & Facilities team to ensure efficient operations and departmental satisfaction.

Fleet & Facilities
Deputy Director
2/6/25

Jefferson County Job Description

9. Supervise and assist with grounds maintenance, including lawn care, snow removal, leaf removal, and litter removal.
10. Ensure safety on the interior and exterior of County buildings at all times.
11. Identify and address security or maintenance deficiencies, reporting unresolved issues to the Director.
12. Respond promptly to emergencies as required.
13. Foster positive relationships with other County departments and the public.
14. Perform additional duties as assigned by the Director.
15. Attend workshops, seminars, and classes to maintain and improve skills.

Recommended Minimum Qualifications:

Education and Experience: High School degree or equivalent with three to five (3-5) years related work experience; or any equivalent combination of education, training and experience which provides the required knowledge, skills and abilities to perform the essential functions of the job.

Special Requirements: A valid driver's license is required for this position. Must pass a background check.

Knowledge, Abilities and Skill

Knowledge: Common policies, practices and procedures of the department and building construction and maintenance. Working knowledge of the safety precautions, supplies and materials needed to perform duties. Knowledge of electrical, plumbing and carpentry work.

Abilities: Ability to interact effectively and appropriately with the public and other personnel, perform multiple tasks and maintain confidential information.

Skills: Proficient in construction management, electrical, plumbing and carpentry work to ensure the efficient and thorough maintenance and repair of buildings and grounds.

Physical and Mental Requirements

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the position's essential functions.

Physical Demands: Work requires some agility and physical strength, such as moving in or about construction sites or over rough terrain, or standing or walking most of the work period. Occasionally, work may require lifting heavy objects and carrying them. There may be need to stretch and reach to retrieve materials. Usually, the work will require extended physical effort over a significant portion of the work day. Driving in adverse weather and troublesome road conditions may be required.

Motor Skills: Essential functions involve *close hand and eye coordination and physical dexterity.*

Fleet & Facilities
Deputy Director
2/6/25

Jefferson County Job Description

Manipulation and motor control under conditions which may require extreme accuracy may be critical. The manual skills required are comparable to those which might be needed in making repairs to delicate electronic instruments or complex equipment,

Visual Demands: Visual demands require the employee to constantly read documents for general understanding and analytical purposes; employee also routinely reviews non-written materials (e.g. maps and blueprints).

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: David Bound

Department or Organization: JC CFO

Estimation of amount of time needed for appointment: 10 minutes

Date Requested – 1st Choice: **2/6/25**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*): **4 budget revisions 2 internal revisions - EMS and Sheriff Office**
2 external revisions - requiring state auditor signature

Please provide the County Commission with a description of your request or presentation, including any background information:
Internal Budget Revisions for Sheriff and EMS, External Budget Revisions for County and EMS and Maintenance departments

Is this a funding request? Y/N NO

If so, how much? \$

Provide exact financial impact/request:

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

I recommend a motion for: the Commission to approve the two internal budget revisions for EMS FY25-007 and the Sheriff's office FY25-008 as presented for posting in addition to approving the external budget revisions FY25-004 and FY25-005 which will be sent to the WV State auditor for approval signatures and posting once received back.

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/**N** Internet/Wi Fi Y/**N**. Telephone for conference call Y/**N**

Contact information:

Email address:

Phone Number:

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable

REQUEST FOR REVISION TO APPROVED BUDGET

Ora Ash, Deputy State Auditor
 West Virginia State Auditor's Office
200 West Main Street
 Clarksburg, WV 26301
 Phone: 627-2415 ext. 5101 or ext. 5118
 Fax: 304-340-5090
 Email: igs@wvsao.gov

Subject to approval of the state auditor, the governing body requests that the budget be revised prior to the expenditure or obligation of funds for which no appropriation or insufficient appropriation currently exists. (§ 11-8-26a)

CONTROL NUMBER
 FY: 2025
 Fund: 001
 Rev. No. 4
 Pages: 1

Jefferson County Commission

 GOVERNMENT ENTITY

Person To Contact Regarding Request: _____
 Name: **David Bound** _____ STREET OR PO BOX
 Phone: **304.724.8425** _____ COUNTY
 Fax: _____ Charles Town _____ 25414 Government Type
 Email: dbound@jeffersoncountywv.org _____ CITY ZIP CODE

REVENUES: (net each acct.)

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	PREVIOUSLY APPROVED AMOUNT	(INCREASE)	(DECREASE)	REVISED AMOUNT
299	Unassigned Fund Balance	6,157,865	4,033,276		10,191,141
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
NET INCREASE/(DECREASE) Revenues (ALL PAGES)			4,033,276		

COUNTIES-TRANSFERS TO THE GENERAL FUND FROM OTHER FUNDS MUST HAVE PRIOR APPROVAL OF AUDITOR'S OFFICE

EXPENDITURES: (net each account category)

(WV CODE 7-1-9)

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	PREVIOUSLY APPROVED AMOUNT	(INCREASE)	(DECREASE)	REVISED AMOUNT
699	Contingencies	4,063,022	403,328		4,466,350
696	Transfer to Financial Stabilization Fund	452,707	3,629,948		4,082,655
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
NET INCREASE/(DECREASE) Expenditures			4,033,276		

APPROVED BY THE STATE AUDITOR
 BY: _____
 Deputy State Auditor, Local Government Services Div. Date

 AUTHORIZED SIGNATURE OF ENTITY APPROVAL DATE

RESOLUTION

At a regular session of the Jefferson County Commission, held on the 6th Day of February 2025, the following Order was made and entered:

SUBJECT: The revision of the Levy Estimate (Budget) for the County of Jefferson. The following resolution was offered.

RESOLVED: That subject to approval of the State Auditor as ex officio chief inspector of public offices, the Jefferson County Commission does hereby direct that the budget be revised as shown on **Fiscal Year 2025 budget revision number #4 to the General Fund**, a copy of which is entered as part of this record.

The adoption of the foregoing Resolution having been moved by

_____, and duly seconded by _____, the vote was as follows:

Pasha Majdi	<u> yes </u>
Mike Mood	<u> yes </u>
Stephen Stolipher	<u> yes </u>
Cara Keys	<u> yes </u>
Jack Hefestay	<u> yes </u>

Whereupon, Commissioner _____ declared said Resolution duly adopted, and it is therefore ADJUDGED and ORDERED that said Resolution be, and the same is, hereby adopted as so stated above, and **Pasha Majdi**, President of the Jefferson County Commission, is authorized to affix his signature to the attached "Request for Revision to Approved Budget" to be sent to the State Auditor for approval.

Pasha Majdi, President
 Jefferson County Commission

RESOLUTION

At a regular session of the Jefferson County Commission, held on the 6th Day of February 2025, the following Order was made and entered:

SUBJECT: The revision of the Levy Estimate (Budget) for the County of Jefferson. The following resolution was offered.

RESOLVED: That subject to approval of the State Auditor as ex officio chief inspector of public offices, the Jefferson County Commission does hereby direct that the budget be revised as shown on **Fiscal Year 2025 budget revision number #5 to the General Fund**, a copy of which is entered as part of this record.

The adoption of the foregoing Resolution having been moved by

_____, and duly seconded by _____, the vote was as follows:

Pasha Majdi	<u>yes</u>
Mike Mood	<u>yes</u>
Stephen Stolipher	<u>yes</u>
Cara Keys	<u>yes</u>
Jack Hefestay	<u>yes</u>

Whereupon, Commissioner _____ declared said Resolution duly adopted, and it is therefore ADJUDGED and ORDERED that said Resolution be, and the same is, hereby adopted as so stated above, and **Pasha Majdi**, President of the Jefferson County Commission, is authorized to affix his signature to the attached "Request for Revision to Approved Budget" to be sent to the State Auditor for approval.

Pasha Majdi, President
 Jefferson County Commission

Jefferson County, West Virginia
 Department of Financial Management
 Budget Revision for Fiscal Year Ending June 30, 2025
 Internal Budget Revision
 IBR # FY25-008

Narrative:

Reduce materials and supplies to increase training, dues and subscriptions and professional services for the Sheriff's Office.

Budget Line No.	Account Name	Approved Budget	Requested Additions	Requested Reduction	Revised Budget
001700-422100	TRAINING AND EDUCATION	18,000		12,500	5,500
001700-422200	DUES AND SUBSCRIPTIONS	4,000	5,000		9,000
001700-422300	PROFESSIONAL SERVICES	5,000	2,500		7,500
001700-434100	MATERIALS AND SUPPLIES	130,000	5,000		135,000
					-
					-
					-
					-
					-
					-
					-

Requested by: DEBORAH LOWE

Approved by:(department head/elected): _____

Date: 1/14/2025

Reviewed by:

David Bound

Date: 1/14/25

David Bound / Chief Financial Officer

Date Submitted to County Commission: _____

Date Approved: _____

Authorizing Signature: _____



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 **Fax:** (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT

Pasha Majdi

COMMISSIONER

Jack Hefestay

COMMISSIONER

Cara Keys

COMMISSIONER

Steve Stolipher

COMMISSIONER

Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From: David Bound

Date: January 30, 2025

Re: Fiscal Note: Sheriff's Office internal budget revision to align FY25 expenditures.

I recommend approving the Sheriff's office internal budget revision to better align FY25 expenditures by reducing training by \$12,500 and increasing dues, services and materials \$5,000, \$2,500 and \$5,000 respectively.



JEFFERSON COUNTY COMMISSION

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PRESIDENT
Pasha Majdi

COMMISSIONER
Jack Hefestay

COMMISSIONER
Cara Keys

COMMISSIONER
Steve Stolipher

COMMISSIONER
Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From: David Bound

Date: February 6, 2025, Commission Meeting

Re: Fiscal Note: Sheriff's Office internal budget revision to align FY25 expenditures.

The Sheriff's office requests internal budget revisions for FY25 expenditures:

Reductions to training:	\$12,500
Increases	
Dues	\$5,000
Services	\$2,500
Materials	<u>\$5,000</u>
Total	\$12,500

The requested changes would have no impact on the budget- ie, budget neutral.



JEFFERSON COUNTY COMMISSION

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PRESIDENT

Pasha Majdi

COMMISSIONER

Jack Hefestay

COMMISSIONER

Cara Keys

COMMISSIONER

Steve Stolipher

COMMISSIONER

Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From: David Bound

Date: February 6, 2025, Commission Meeting

Re: Fiscal Note: February External Budget amendments for FY25.

EMS (Dept. 715) will send funds to Maintenance (Dept. 424) to pay for the below services from the Maintenance Department's budget:

Electricity	\$ 6,000
Water and Sewer	6,500
LP Gas	<u>5,000</u>
	\$17,500



JEFFERSON COUNTY COMMISSION

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PRESIDENT

Pasha Majdi

COMMISSIONER

Jack Hefestay

COMMISSIONER

Cara Keys

COMMISSIONER

Steve Stolipher

COMMISSIONER

Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From: David Bound

Date: February 6, 2025, Commission Meeting

Re: Fiscal Note: February External Budget amendments for FY25.

\$4,033,276 from FY24 was unused at the end of the fiscal year. The Commission must assign this balance to (a) category/ i.e. before submitting the final, revised budget to the State Auditor and close the books for FY 2024.

Attached is a proposed revision to allocate the unused funds (i.e., unassigned balance) of \$4,033,276 to the contingencies for FY25 (\$403,328) and increase to the stabilization fund to \$3,629,948.

Several County policies prescribe allocations to the contingency fund and to the stabilization fund:

- Contingency fund: 10% of budgeted expenses
- Stabilization fund: 16.7% of \$44,663,502 (FY25 budget.)

Currently, the County has 91% of the Contingency fund in the FY25 budget. This budget revision would fully fund the contingency fund for FY25.

Currently, the County has \$0 in the FY25 stabilization fund. This budget revision would fund 8% to the stabilization fund. To meet the County stabilization fund policy in FY25, another \$3.8M will need to be funded.

Suggested motion: Motion to approve the External budget amendments as signed and for the approved External budget amendments to be forwarded to the WV State Auditor's office for approval and signature.

Ora Ash, Deputy State Auditor
 West Virginia State Auditor's Office
200 West Main Street
 Clarksburg, WV 26301
 Phone: 627-2415 ext. 5101 or ext. 5118
 Fax: 304-340-5090
 Email: igs@wvsao.gov

REQUEST FOR REVISION TO APPROVED BUDGET

Subject to approval of the state auditor, the governing body requests that the budget be revised prior to the expenditure or obligation of funds for which no appropriation or insufficient appropriation currently exists. (§ 11-8-26a)

CONTROL NUMBER
 FY: 2025
 Fund: 001
 Rev. No. 5
 Pages: 1

Jefferson County Commission

 GOVERNMENT ENTITY

Person To Contact Regarding Request: _____
 Name: **David Bound** _____ STREET OR PO BOX
 Phone: **304.728.3284** _____
 Fax: _____ Charles Town _____ 25414
 Email: dbound@jeffersoncountywv.org _____ CITY ZIP CODE

COUNTY
 Government Type

REVENUES: (net each acct.)

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	PREVIOUSLY APPROVED AMOUNT	(INCREASE)	(DECREASE)	REVISED AMOUNT
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				

NET INCREASE/(DECREASE) Revenues (ALL PAGES)

COUNTIES-TRANSFERS TO THE GENERAL FUND FROM OTHER FUNDS MUST HAVE PRIOR APPROVAL OF AUDITOR'S OFFICE

EXPENDITURES: (net each account category)

(WV CODE 7-1-9)

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	PREVIOUSLY APPROVED AMOUNT	(INCREASE)	(DECREASE)	REVISED AMOUNT
424	Courthouse	1,274,118	17,500		1,291,618
715	Ambulance Authority	6,496,093		17,500	6,478,593
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				
	#N/A				

NET INCREASE/(DECREASE) Expenditures

APPROVED BY THE STATE AUDITOR

BY: _____ Date
 Deputy State Auditor, Local Government Services Div.

2/6/2025
 AUTHORIZED SIGNATURE OF ENTITY APPROVAL DATE

AGENDA REQUEST FORM
www.jeffersoncountywv.org



Name: **Mike Mood on behalf of Mike Sine**

Department or Organization: **ESA**

Estimation of amount of time needed for appointment: **15 min**

Date Requested – 1st Choice: **2/06/2025**

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

Date Requested – 2nd Choice:

Subject (*Wording to be placed on agenda*):

1- Previously Tabled - Conversion and Reclassification of Part-time positions

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

- 1- Consideration and action to: RIF 34 of 36 Part-time field staff positions and convert to new permanent full-time positions.**

Is this a funding request? Y/**N** **budget neutral**

If so, how much?

Provide exact financial impact/request: **A**

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

- 1- Move to approve the plan to RIF 34 part-time field positions within the ESA and convert the existing budgeted funding to create and hire up to 12 new permanent full-time positions in such a manner as it remains budget neutral.**

Attach supporting documents for request, or request may be denied.

If not attached, explain:

Is equipment needed? Projector Y/**N** Internet/Wi Fi Y/**N** Telephone for conference call Y/**N**

Contact information: Mike Sine

Email address: msine@jcesa.org

Phone Number: 304-728-3287

FOR COMMISSION STAFF USE ONLY – FINANCIAL IMPACT/RECOMMENDATION

not applicable

715 ESA Staffing & Budget Revision Proposal - 2/06/2025

	Last Name	First Name	Job Status	Pay Classification	Budgeted Position	EMS Certification	Grade	Est YOS Step	Est Max Hourly Rate	Estimated Maximum Annual Pay	Retirement Employer Contribution
NEW HIRE			FULL TIME	Safety Officer	Lieutenant	EMT or Higher	7	10	35.79	78,165.36	7,426
NEW HIRE			FULL TIME	Safety Officer	Lieutenant	EMT or Higher	7	10	35.79	78,165.36	7,426
NEW HIRE			FULL TIME	Logistics Officer	Lieutenant	EMT or Higher	7	5	32.59	71,176.56	6,762
NEW HIRE			FULL TIME	FF/PARAMEDIC II	PARAMEDIC	AEMT or Paramedic	5	4	29.55	64,537.20	6,131
NEW HIRE			FULL TIME	FF/PARAMEDIC II	PARAMEDIC	AEMT or Paramedic	5	4	29.55	64,537.20	6,131
NEW HIRE			FULL TIME	FF/PARAMEDIC II	PARAMEDIC	AEMT or Paramedic	5	4	29.55	64,537.20	6,131
NEW HIRE			FULL TIME	FF/PARAMEDIC II	PARAMEDIC	AEMT or Paramedic	5	4	29.55	64,537.20	6,131
NEW HIRE			FULL TIME	FF/PARAMEDIC II	PARAMEDIC	AEMT or Paramedic	5	4	29.55	64,537.20	6,131
NEW HIRE			FULL TIME	FF/PARAMEDIC II	PARAMEDIC	AEMT or Paramedic	5	4	29.55	64,537.20	6,131
NEW HIRE			FULL TIME	FF/EMT II	EMT	EMT	4	4	22.82	49,838.88	4,735
NEW HIRE			FULL TIME	FF/EMT II	EMT	EMT	4	4	22.82	49,838.88	4,735
NEW HIRE			FULL TIME	Administrative Asst	Adm Asst	NONE	2	0	19.25	40,040.00	3,604

Projected Maximum Cost New Positions **754,448.24** **71,474.00**

CURRENT	Conner	Monte	PART TIME	FF/Paramedic IV	Instructor				32.97	34,288.80	
CURRENT	Swan	Dave	PART TIME	Technician	Instructor				29.62	30,804.80	
Total Retained Positions										65,093.60	

FY26 Projections if ALL positions are hired at Maximum estimated wages at FY25 funding level

FY26 Projected MAXIMUM wages for NEW positions										754,448.24
Projected additional cost for employer retirement contribution										71,474.00
Total wages for 2 retained Part-time positions										65,093.60
Total projected MAXIMUM wages for 12 new full-time & 2 existing part-time positions for FY26										891,015.84
Part-time Wages Budgeted for FY25										965,037.00
Remaining Funds to be added to OT & Retirement budget line in FY26										74,021.16

FY25 Budget Adjustments

Overtime Actuals Q1&Q2 FY25								101%	395,995.87	
Projected Part-time wages FY25										114,342.42
Budget Revision 3rd qrtr FY25 transfer funds from Part-time wages to Retirement & OT to cover Q3&Q4										328,500.00
Estimated FY25 Expenses New Positions (hire date to end FY25)										238,751.64
Total Projected FY25 Funding Commitments for Part-time Budget										681,594.06
FY25 Part-time Budget Line										965,037.00
Projected Remaining Unencumbered Funds for FY25										283,442.94



Jefferson County Emergency Services Agency

419 16th Ave., Ranson, WV 25438
 Tel: 304-728-3287 Fax 304-728-6221
www.jcesa.org



Part-time Conversion/Elimination Proposal

2/06/2025

Overview

Re-utilize the current budgeted part-time funding level to expand service and support mission objectives through the use of new full-time staff.

- **Retain 2 Part-time (Agency retirees) who are Community Education Instructors**
- **Eliminate 34 Part-time positions: 24 of which are currently vacant**
- **Use funds from eliminated positions to create 12 new full-time positions**
 - Create and staff another 24/7 ALS ambulance as an additional unit or as flex staffing to support shift vacancies – 6 FTE's
 - Convert the 12hr BLS staffed ambulance to ALS – 2 FTE's
 - Create Safety Officer positions - 2 FTE's: 12hrs/day 7days/week with on-call at night
 - Create Logistics Officer position - 1 FTE: Efficiently manage day-to-day supply, gear, and maintenance programs
 - New Administrative Assistant - 1 FTE: Support Finance and Administration Manager and Ambulance Fee Clerk (Office)
- **Transfer remaining unencumbered funds to cover overtime expenses**

Details

As we continue to expand our responsibilities and move forward in the future, the use of part-time employees has become burdensome and ineffective. Utilization of the part-time budget at the end of Q2 is at 5%. Here are just a few issues with continuing with the use of part-timers:

- Trending reduction in activity/availability
- High rates of the part-time employee not completing the probationary period
- Lack of yearly NFPA physicals – additional expense
- Loss of familiarity with the constant operational changes
- The inability to oversee that the employee maintains their proficiency/skills



Jefferson County Emergency Services Agency

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www.jcesa.org



- Repetitive cost of on boarding new personnel
- Increased overhead cost of maintenance & supply of fire gear & uniforms
- Systemic problem not isolated to Jefferson County

Goal: Reduction of overtime expenses and forced employee holdovers.

Current unit deployment is 100% of the minimum daily staffing requirements. Therefore, any field staff position must be backfilled. At the end of Q2 we are at 101% of budgeted overtime. Lack of available part-time employees creates an increase in overtime costs due to over-utilization of full-time employees. There is a procedure in place where we utilize a Mandatory Hold-over list. This is a rotational list where full-time employees may be forced to stay beyond their regular shift to fill vacancies. Over-utilization of the mandatory hold creates morale issues and increased over-time expenses.

Implementation:

- 1- Eliminate 34 part-time positions, retain 2 currently employed part-time instructors, and use the budgeted funding to create 12 new full-time field and operations positions.** The positions will not be part of the daily minimum staffing level. The 2 retained employees are retired from full-time positions within the ESA and are the Community Education Program instructors. This program is well received by the public and we are privileged to have the 2 employees support it.
- 2- Create/hire 8 new full-time field staff positions to staff an additional 24hr ALS (paramedic) (Flex) ambulance and convert the existing 12hr BLS ambulance to an ALS (Paramedic) unit.**
 - **Create a new Flex unit**
 - The Flex unit requires 1 Paramedic & 1 EMT to work each of the (4) 24hr shift rotations. It is a unit that is not part of critical staffing and it or its crew may be reassigned for other needs: shift vacancies, standbys, community events, etc. The idea of a Flex unit or staff is not unique to fire and EMS but is a first for our department. Many systems operate with above minimum staffing levels to easily fill vacancies and reduce overtime. The current concept is to place the unit at Middleway FD when not needed for other uses. This would add services to the Middleway area as outlined as priority #1 for expansion in the 2024 Ambulance Response Area Report.
 - A. Needs:**
 - Hire 4 new Paramedics



Jefferson County Emergency Services Agency

419 16th Ave., Ranson, WV 25438
 Tel: 304-728-3287 Fax 304-728-6221
www.jcesa.org



- Hire 2 new EMT's
- Transfer 2 current EMT positions from the 12hr BLS unit
- Lease agreement and associated expenses to outfit another VFD
- **Convert the current 12hr BLS unit to an ALS unit**
 - The current 12 BLS unit is difficult to properly utilize. Often patient information is not correctly relayed to 911 and results in the unit responding to a call that requires a paramedic. Converting this unit to ALS eliminates the unnecessary response of 2 ambulances on 1 incident and decreases the response time by not having to determine if the call requires an ALS or BLS unit.
 - A. Needs:**
 - 2 new full-time paramedic positions
 - Transfer 2 EMT positions to Flex unit
- 3- Expand/create key operational officer positions.** As laid out in the FY25 budget process we requested additional operational officer positions which were not approved. The scope of this department has expanded greatly with only the addition being the Lieutenant (Field Supervisor) who moved from an ambulance crew member to an SUV Chase Car. Current field staff are performing additional tasks, many times at OT rate, that could be performed by dedicated full-time staff.
- **Safety Officer: will hold the rank equivalent of Lieutenant with EMT or higher EMS certification.** The overarching goal is to have a Safety Officer on duty 24/7/365. In this conversion we will create 2 new full-time positions. These positions will work 12hrs/day 7 days/week and be on-call at night. As it sounds, this position has a key role on fire and rescue incidents but can encompass planning, inspection, training, and other tasks.
 - **Roles and responsibilities:**
 - Hazard Identification and risk management
 - Safety plan development
 - Monitoring of scene management
 - Incident command support
 - Post-incident analysis
 - Equipment inspection and maintenance
 - Accident investigation – personal or equipment



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Workers Comp

Employee health and safety

- **Additional needs:**
 - A. 1-2 additional response vehicles
 - B. Furnishings and equipment for an additional workstation
- **Logistics Officer: will hold the rank equivalent of Lieutenant with EMT or higher EMS certification.** Post-transition the ESA now if responsible for a fleet of 10 ambulances and all the supplies needed for the operation. There is a master supply room at the main office and small supply rooms in each of the 4 (potentially 5) operational bases (VFD's). We expect to handle \$300,000 in supplies in a typical FY. We have implemented an inventory management software, Operative IQ, to track and maintain optimal levels. This system also is utilized for supply ordering, expiration tracking, inventory management of other equipment, and vehicle maintenance. Currently these tasks are being handled by multiple individuals. These employees do this in addition to their normal fire/EMS duties. Often this is accomplished in addition to normal hours and at overtime rate. This is causing unbudgeted overtime, inconsistencies, and less than optimal efficiency of the supply management program.
 - **Roles and responsibilities:**
 - Inventory Management
 - Procurement and Ordering
 - Equipment Maintenance
 - Uniform & Fire Gear Management
 - Budgeting and Cost Control
 - Emergency Response Support
 - Reporting and Documentation
 - **Additional Needs: None**
- **Full-time Administrative Assistant**
 - **Roles and responsibilities:**
 - Front Desk (Lobby) Clerk



Jefferson County Emergency Services Agency

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Assist Finance and Administration Manager

Assist Ambulance Fee Clerk during peak billing times

Work in place of the Ambulance Fee Clerk in their absence

- **Additional Needs: None**

Future Considerations:

- Promotion of Operations Commander from Captain to Deputy Director/Deputy Chief – currently have no Deputy
- Promotion of all Lieutenants to Captains
- Creation of Station level Lieutenant positions - creates advancement opportunities for EMTs and improves span of control
- Expansion of service - additional field staff
- Revision/simplification of job classifications & payable
- Starting wage increases

Promotions and expanded leadership roles are necessary progression as a career service. The fire and rescue service has designated span of control and rank structure standards which are necessary for safe and effective leadership.



JEFFERSON COUNTY COMMISSION

124 East Washington Street, P.O. Box 250, Charles Town, WV 25414

Phone: (304) 728-3284 Fax: (304) 725-7916

Web: www.jeffersoncountywv.org

PRESIDENT

Pasha Majdi

COMMISSIONER

Jack Hefestay

COMMISSIONER

Cara Keys

COMMISSIONER

Steve Stolipher

COMMISSIONER

Mike Mood

To: Commissioner Pasha Majdi
Commissioner Jack Hefestay
Commissioner Cara Keys
Commissioner Steve Stolipher
Commissioner Mike Mood

From: David Bound, chief financial officer

Date: February 6, 2025, Commission Meeting

Re: Fiscal Note: Jefferson County Emergency Services Agency (JCESA) part-time to full-time conversion proposal

The JCESA proposes to convert thirty-four (34) of the total thirty-six (36) part-time positions into twelve (12) permanent, full time positions.

Amount budgeted for the 34 part-time provisions	\$ 899,943
<u>Amount expected in overtime (202% of budget allocation)</u>	<u>\$ 791,992</u>

Total	\$1,691,935
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Proposed maximum amount budgeted for 12, new full time positions as an annual number (Salary and benefits)	\$ 825,922
Proposed amount to be budgeted for overtime as an annual number <u>beginning in FY26</u>	<u>\$ 500,000</u>

Total	\$1,325,922
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Current total	\$1,691,935
<u>Projected total</u>	<u>\$1,325,922</u>

Estimated cost savings	\$ 366,013
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The JCESA proposal is estimated to save the County \$ 366,013 as a year-over-year projection. Should the JCESA proposal be adopted, the figures presented here will differ on the FY25 budget and balance sheets because of its implementation mid-year.

Edwina Benites

From: ComPlan2045
Sent: Wednesday, January 29, 2025 2:02 PM
To: Lynn Dillow
Cc: Edwina Benites
Subject: FW: Goal 1, Objective 4.

Hi Lynn,

We received the comments below from Jean Zigler Kotch regarding the Comprehensive Plan and they requested the comment also be provided to County Commission so I am forwarding them over to you and responding to Ms. Kotch directly.

Best,
Luke

Luke Seigfried (He, Him, His)
County Planner
Department of Engineering, Planning, & Zoning
Jefferson County, WV
(304) 728-3228
complan2045@jeffersoncountywv.org

From: Jean Zigler <zigboyswv@gmail.com>
Sent: Tuesday, January 28, 2025 5:41 PM
To: ComPlan2045 <complan2045@jeffersoncountywv.org>
Subject: Re: Goal 1, Objective 4.

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or on clicking links from unknown senders.

Good Evening,

Yes, please provide my comments to the County Commission.

Thank you,
Jean

On Tue, Jan 28, 2025 at 5:20 PM ComPlan2045 <complan2045@jeffersoncountywv.org> wrote:

Good afternoon,

Thank you for providing this public comment regarding the Comprehensive Plan Update. On January 14, 2025 the County Commission voted to amend the Comprehensive Plan and sent the amended Plan to the Planning Commission for their action. Staff will provide your comment to the Planning Commission as part of the agenda packet for the meeting where the Planning Commission will consider the amended Comprehensive Plan.

If you would like I can also forward your comment over to the County Commission staff for its inclusion at the next available County Commission meeting.

Best,

Luke

Luke Seigfried (He, Him, His)

County Planner

Department of Engineering, Planning, & Zoning

Jefferson County, WV

(304) 728-3228

complan2045@jeffersoncountywv.org

From: Jean Zigler <zigboyswv@gmail.com>

Sent: Monday, January 27, 2025 3:01 PM

To: ComPlan2045 <complan2045@jeffersoncountywv.org>

Subject: Goal 1, Objective 4.

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or on clicking links from unknown senders.

Dear Sir/Madam,

While some view Goal 1, Objective 4 as an open door, it is more a window of opportunity.

The comprehensive plan continues to be revised but nothing changes. Charles Town, Shepherdstown, Ranson and Harper's Ferry are always on a journey to renew or rejuvenate the towns. Yet, businesses are still

concerned over limited parking. This contributes to the amount and flow of consumers walking through our towns.

Case in point, as a young child, my family shopped at JCPenney. In the 1970's the store manager complained about the limited parking. The store closed. In more recent history Skipper's was concerned about the limited parking and the store closed.

This limited view or tunnel vision for the county has held us back. Not every resident resides in a township or on the edge of town. Please stop putting those views above all other needs of the county.

When I return home from Berryville, I see a church that has closed and reopened the doors several times. I would see a vacant general store/post office with a gas station and homes gutted mixed within the landscape. Some of which has been removed but still an untasteful appeal. If I do not use the bypass and drive into Charles Town past the radio station, I see empty storefronts on my left. Merchants come and go, this includes the drive thru for the Bank of Charles Town. The approach from Harper's ferry on 340 is bypass or coming into town to see old homes decaying.

Is this really what is best for our country? The John Brown Museum has closed, the tree where he met his demise is gone. Shepherdstown struggles as merchants come and go.

The county's comprehensive development plan continues to shut down merchants. Now removing Goal , Objective 4 will shut down landowners. Tracks of land that look abandoned, overgrown, decaying or lack of repair. Wow, is that the true vision for Jefferson County?

Please defend as written and show the County Commission that verbiage has a reason.

Thank you,

Jean Zigler Kotch

JCCInfo

From: Richard Zigler <rzigler01@gmail.com>
Sent: Saturday, January 4, 2025 10:09 AM
To: JCCInfo
Subject: Comprehensive Plan

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or on clicking links from unknown senders.

With literally thousands of new homes being built, and to be built, in Jefferson County, and the farmland that so many claimed they wanted to be protected is being bulldozed and ripped up for residential housing, and that we are in the middle of the hard part of the ten year drought cycle, people are getting concerned. Questions from "Where is the money for the new schools going to come from?". "Will there be enough water and sewer facilities and how much will it cost for new or expansion of current facilities?" Even Anti-Solar advocates are becoming alarmed.

I know that the people were lied to about the impact of solar, mostly by hiding the impact of these thousands of new homes going in. I hope that because the first solar facility built, without self restrictions others were volunteering to put in, made such a negative impact. But the fact remains that it will restrict residential growth and positively impact the aquifers of this county now that permanent ground cover is starting to grow. Thousands of homes create hundreds of acres of impervious areas of concrete and asphalt that also actively pollute the soil and aquifers.

In the race to stop commercial solar, only those of us that had the foresight to try to truly preserve the land from the ravages of residential housing, and provide a tax revenue boon to our county by installing solar arrays, saw this coming.

Now would be the time to reevaluate the county's position on solar. Now would be the time to preserve our natural resources, specifically water resources. Now would be the time to look forward to the financial benefits of solar both in revenue and in the expenditures that would be curbed by not having those thousands of acres also going into residential housing.

Also, It is my fear that because of public angst of the current housing boom, that the landowners that tried to get people to understand what is happening in the county, and that it will only get worse, and be more expensive, will be denied their ability to have their land developed for residential or commercial use because they tried to do the right thing, at the right time.

Maintain, and/or expand, all provisions that allow for solar, and any other renewable energy sources, to be developed in the county. Also, remember that energy production revenues are as close as you will ever get to free money because they require no services or infrastructure, including schools that cost millions of dollars to build.

So, before the Comprehensive plan is nailed down tight, now is the time to make sure the future of our county is more forward looking than the extremely vocal shortsighted few that don't truly understand the benefits of commercial solar.

Richard Zigler
1083 Roper North Fork road
Charles Town, WV

From: [WebmastervJCC](#)
To: [JCCInfo](#)
Subject: Jefferson County Commission, WV: Website Form Notification
Date: Monday, February 3, 2025 9:52:35 AM

A new entry to a form/survey has been submitted.

Form Name: County Commission Contact
Date & Time: 02/03/2025 9:52 AM
Response #: 3869
Submitter ID: 9900
IP address: 104.28.78.231
Time to complete: 0 min. , 44 sec.

Survey Details

Page 1

1. Name

April Andrews

2. Email

bethp1023@gmail.com

3. Questions or Concerns

Hello,

I am writing to address how awful it is that we are chasing away a Business OPPORTUNITY for W Virginians to have jobs. I understand the argument is to keep this quaint little town from giving West Virginia a positive and lucrative business that could lead to more business. But because the elder population here doesn't understand or feel the need to help WV residents keep families here. This could also lead to more businesses opening. Which, as you know, WV desperately needs. The trucks that residents are afraid of driving through will bring more business for local hardworking people who matter more than a dying town where no one will ever visit unless there is a reason. I implore you to review this matter.

Please, in the best interest of the people, reconsider and come to a compromise.

Thank you.

4. Would you like to receive email notifications from Jefferson County?

No

Edwina Benites

From: Christine Marshall <balmertmarshall@icloud.com>
Sent: Friday, January 17, 2025 10:22 AM
To: Pasha Majdi; Mike Mood; Jack Hefestay; Cara Keys; Steve Stolipher
Cc: Edwina Benites
Subject: Jefferson County Commission Policy Board/Commission Appointments

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or on clicking links from unknown senders.

January 17, 2025

Good Day County Commissioners and County Administrator,

Please accept my comments here for inclusion in the next agenda packet as public comment.

I have a good deal of concern regarding the process used by the Jefferson County Commission for appointing board members. Like the applicants during the interviews and filling of the vacant Mountain Party seat, a number of the applicants for the Planning Commission were not notified or had very short notice (1 hour) that they were on the agenda and scheduled for an interview. I would suggest that the Jefferson County Commission follow the written policy in which applicants are notified the Monday before the Thursday that interviews and appointments are made. Some improvement to that policy could be as follows:

A policy should include that the County Administrator (or approved staff) publicly announce the open period for applications. That period may be greater than, but not less than 20 business days to apply for an open publicly announced board/commission seat. The open application period should end 5 business days before the meeting in which the applicants are interviewed and appointed. The applicants must be notified by e-mail and phone call 5 business days before the interview date and before board appointments.

The selection method of commissioners could also be included in policy and some improvements could follow as such:

Appointments to seats should be done one at a time and for a specific seat. All applicants could be nominated. Votes for nominees should be written on paper and submitted confidentially. Staff would then read the votes and the person who made the vote identified. The nominee with the highest number of votes will win that appointment.

Current Jefferson County Commission Policy:

<https://www.jeffersoncountywv.org/home/showpublisheddocument/9275/635773957462430000>

Further, if County policy was not followed, are the two appointments to the Planning Commission void? Should the appointments be recalled then the process done over at the next available meeting; I think that would be appropriate.

Thank you for listening to my concerns.

Christine Marshall