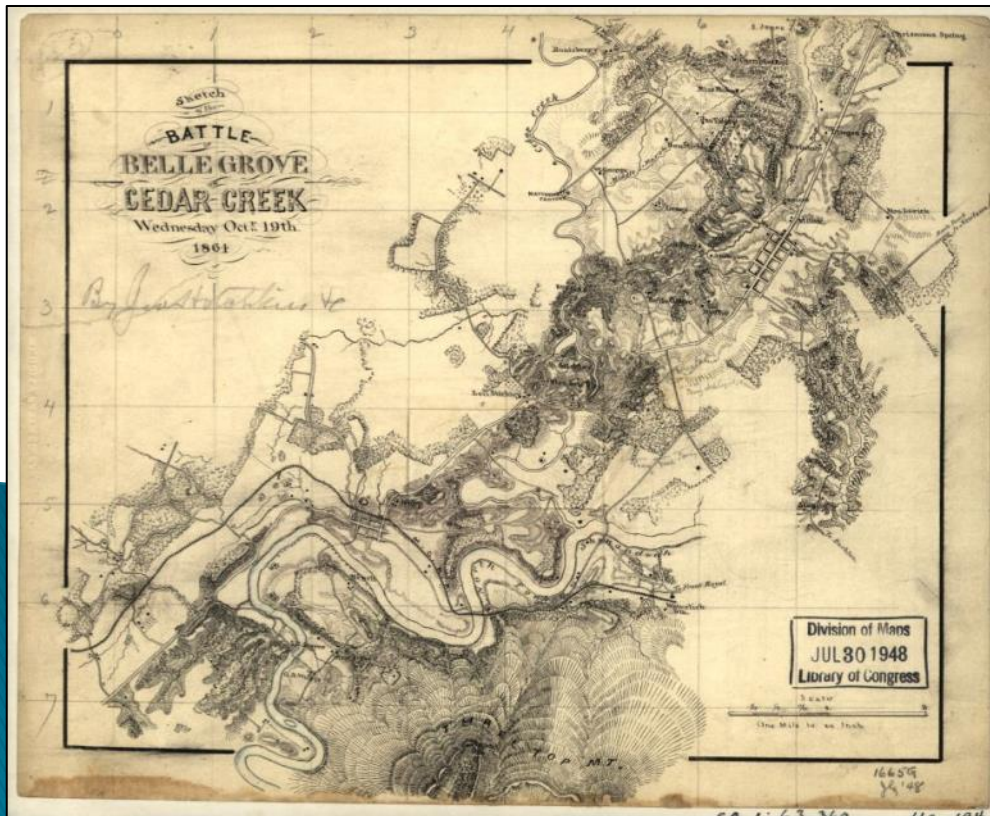


The Battle of Cedar Creek (October 1864)

Cataloging
the
evidence

Geography 596A
James Whitehorne
Spring II , 2014



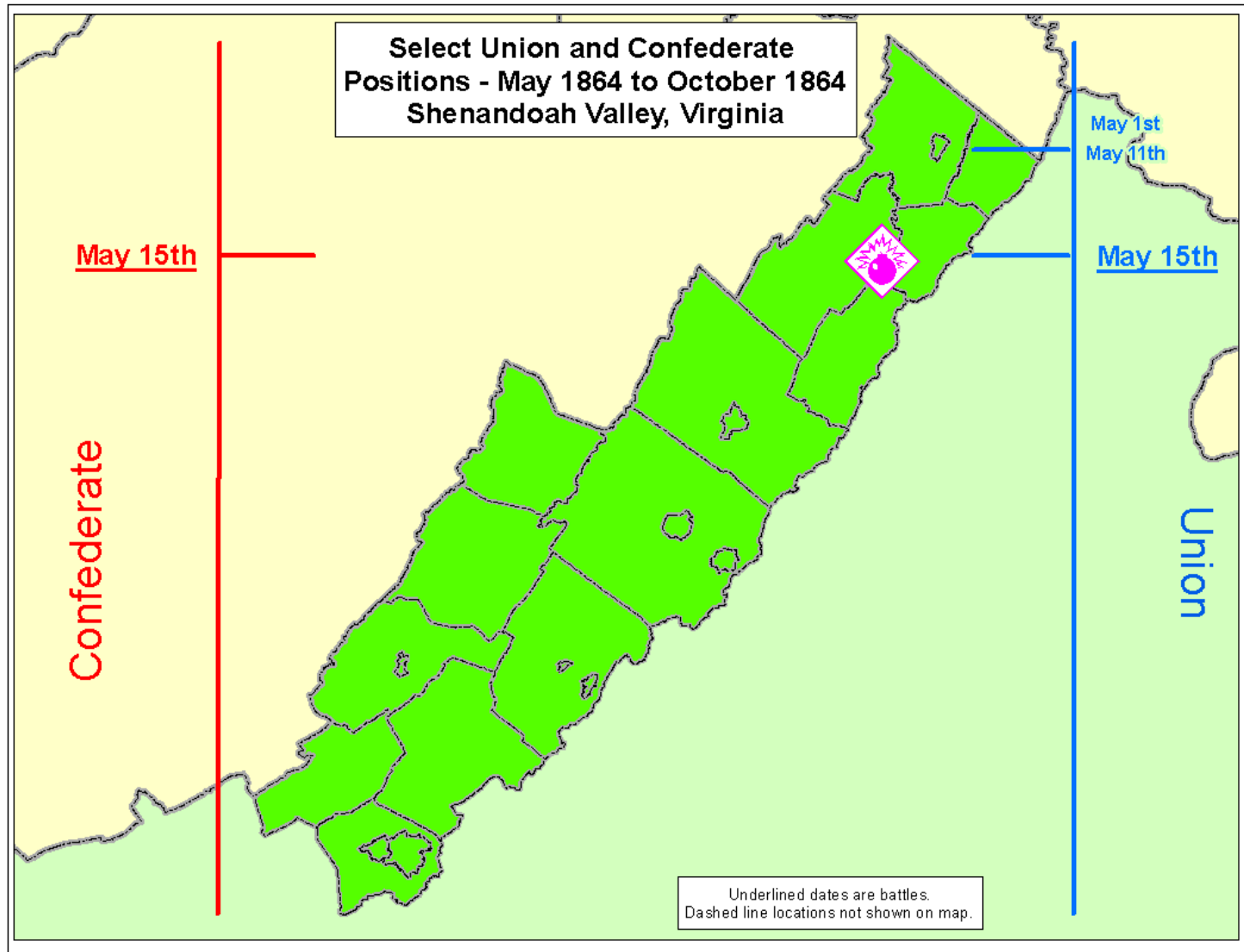
Background

- ▶ The Battle of Cedar Creek represents the end of Confederate power in the Shenandoah Valley during the Civil War.
 - This was important since the valley was a great economic resource providing the materials needed to wage war.
 - The Valley also provided a transportation corridor with reach towards many Union areas including the Capitol.

Background

Prelude to the Battle of Cedar Creek

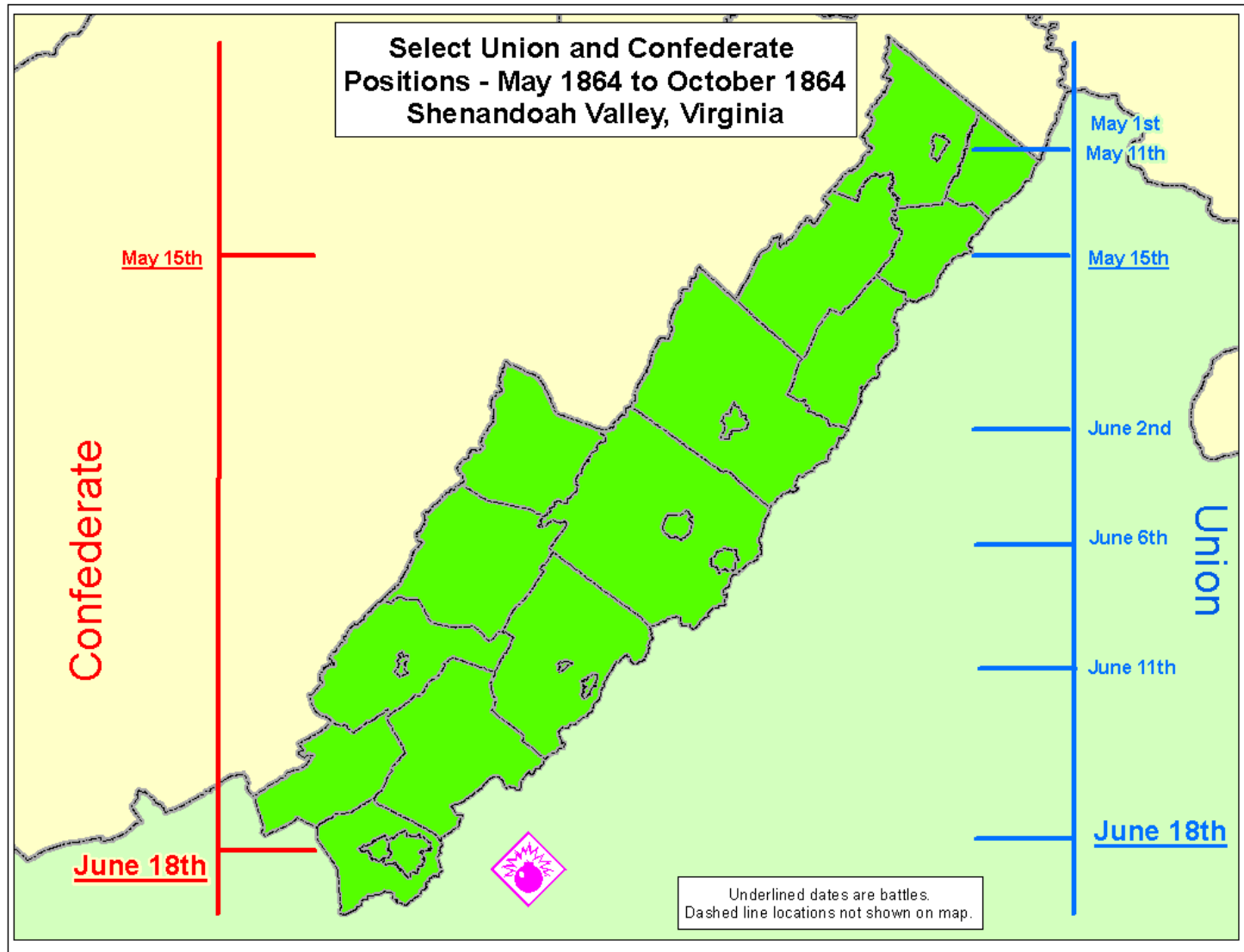
- ▶ Jockeying for position in the Valley



Background

Prelude to the Battle of Cedar Creek

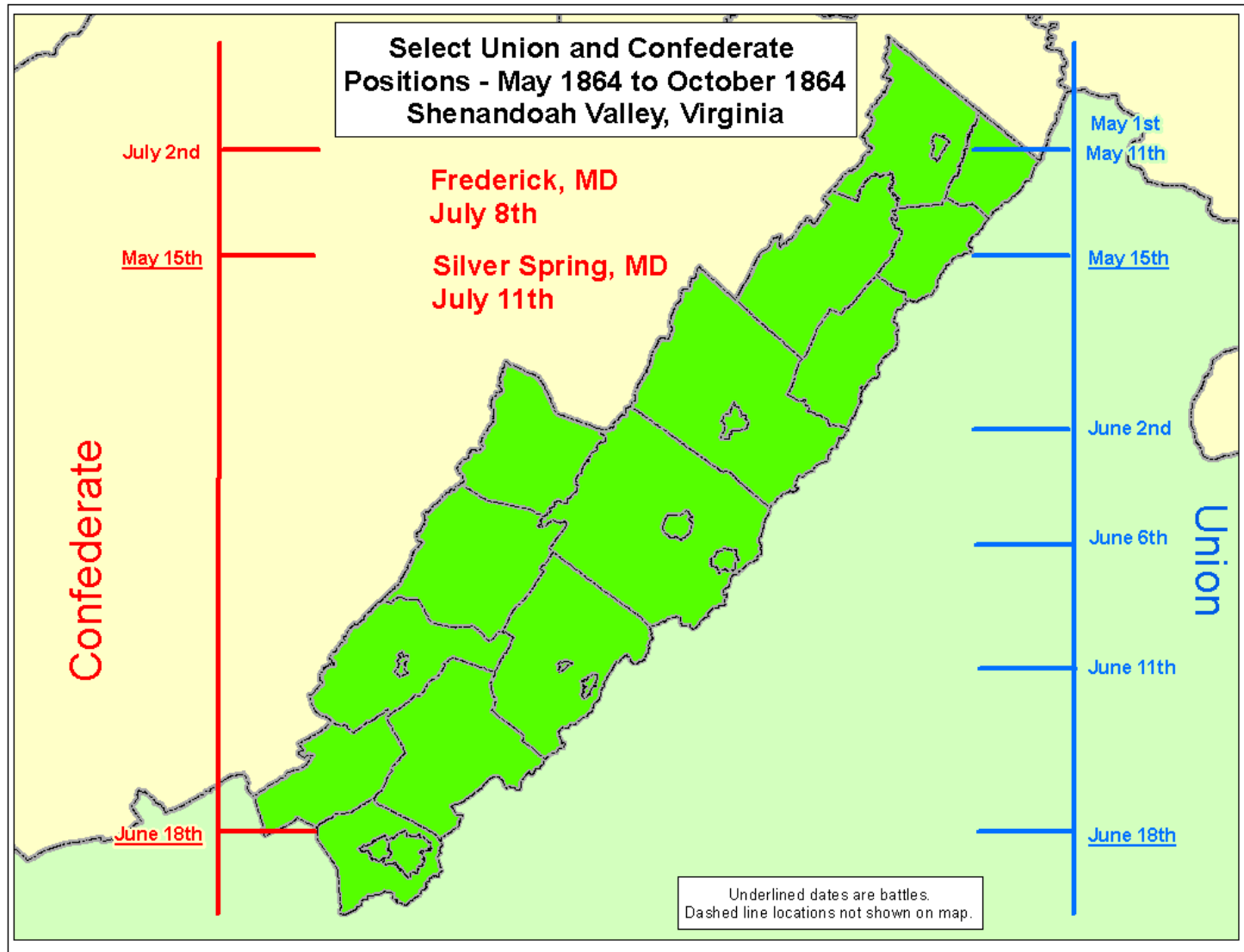
- ▶ Jockeying for position in the Valley



Background

Prelude to the Battle of Cedar Creek

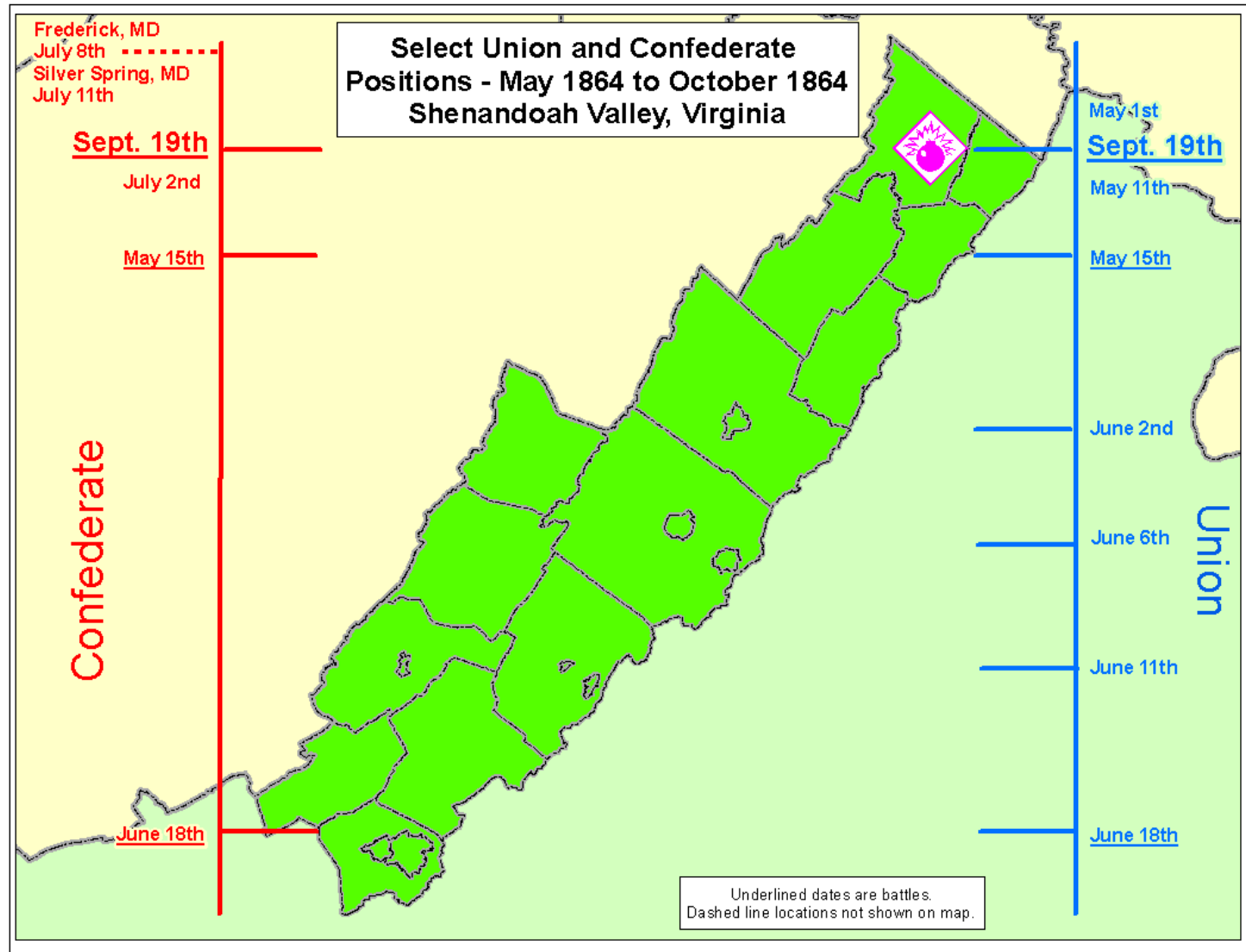
- ▶ Jockeying for position in the Valley



Background

Prelude to the Battle of Cedar Creek

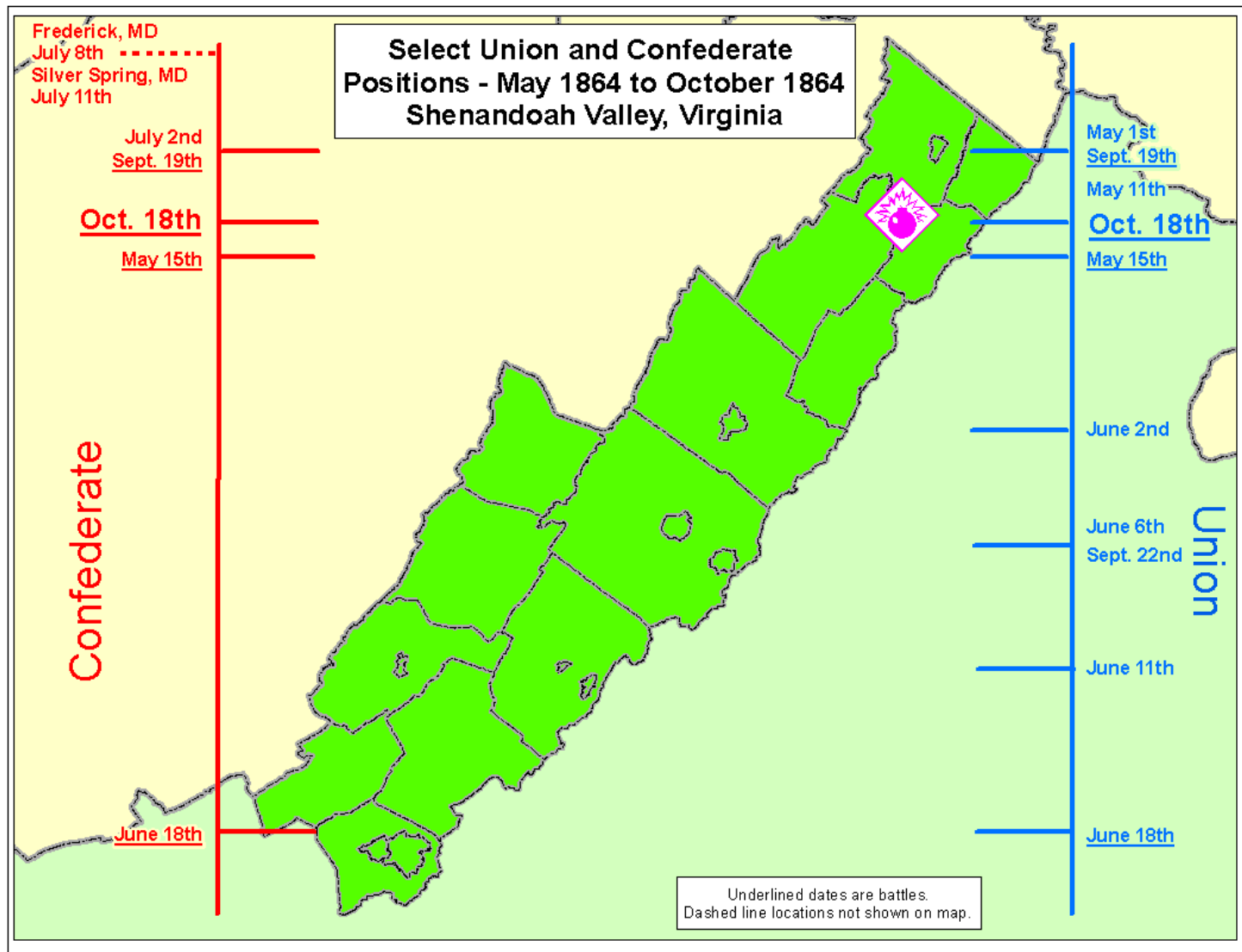
- ▶ Jockeying for position in the Valley



Background

Prelude to the Battle of Cedar Creek

- ▶ Jockeying for position in the Valley

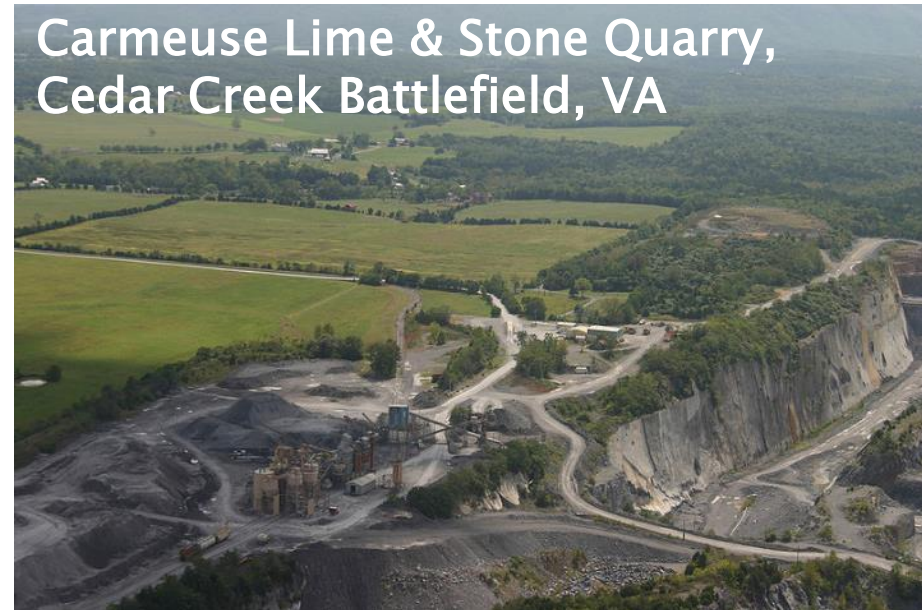


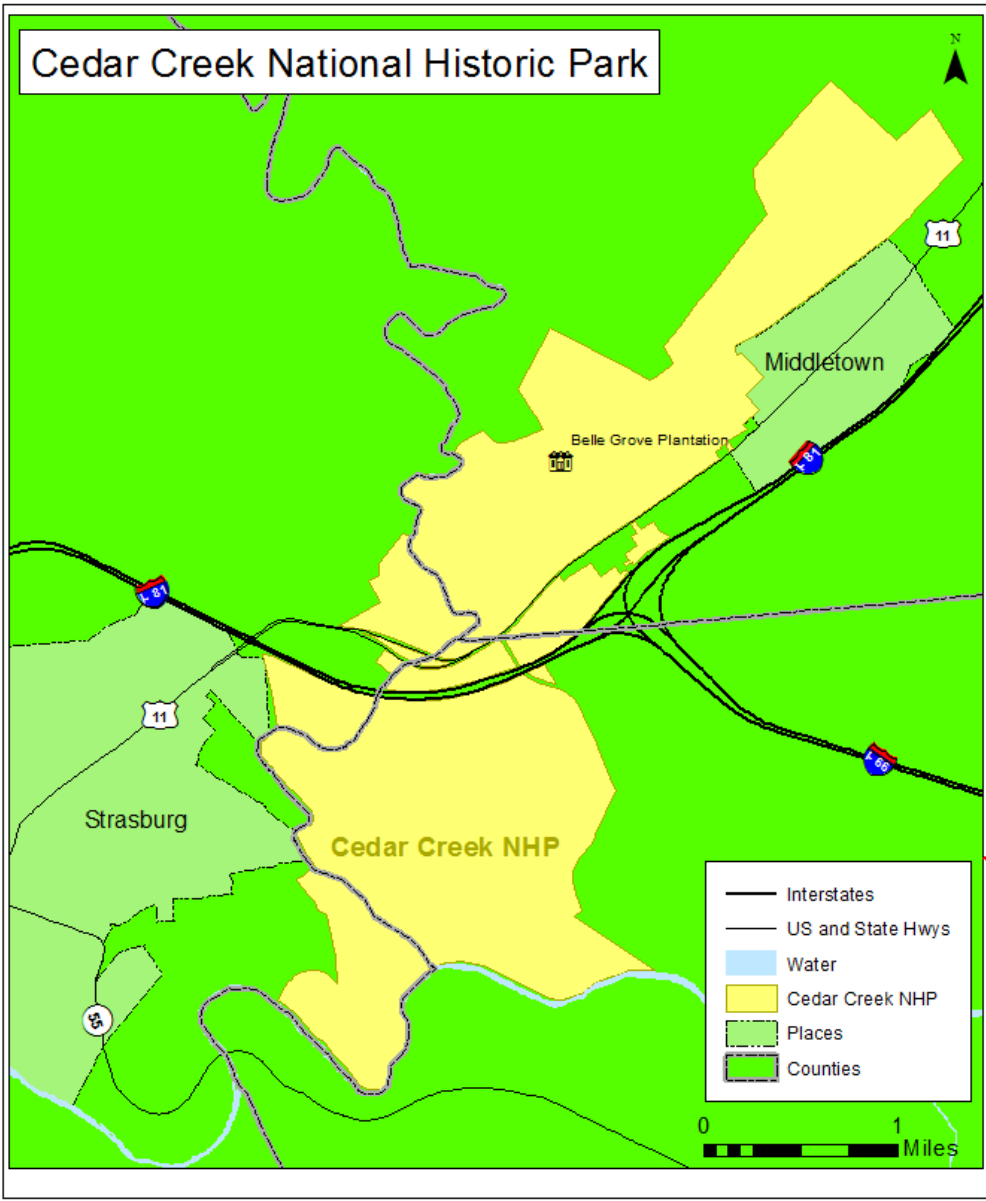
Purpose

- ▶ The purpose of this project is to develop a GIS that catalogs the archeological evidence supporting the historical record surrounding the Battle of Cedar Creek. This catalog will be used in support of visualizations of the events surrounding the October 19th 1864 battle and provide context for managing these and future archeological finds.

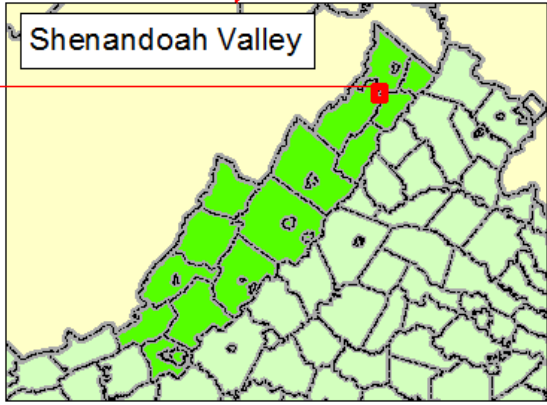
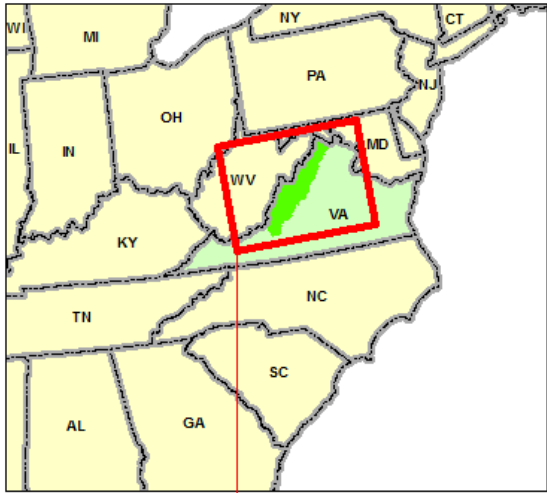
Overview

- ▶ This project will catalog the archeological evidence from the battle that are used to support and illustrate the historical record.
 - These archeological finds will be mapped within the context of the battle's activities
 - These archeological finds will be mapped within the context of current land use and ownership.
 - These archeological finds will be used to identify areas of possible future exploration





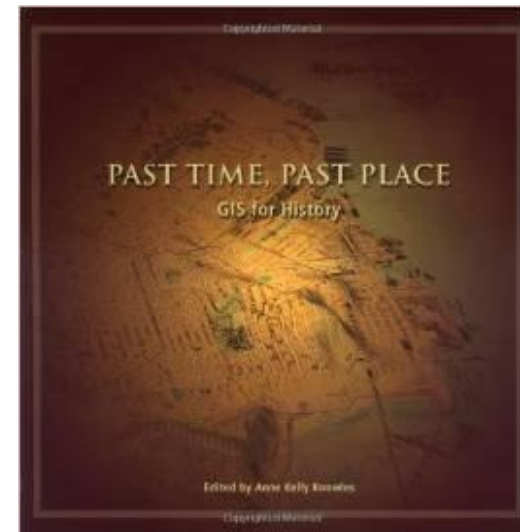
State of Virginia and Cedar Creek Battlefield



Previous Work – GIS

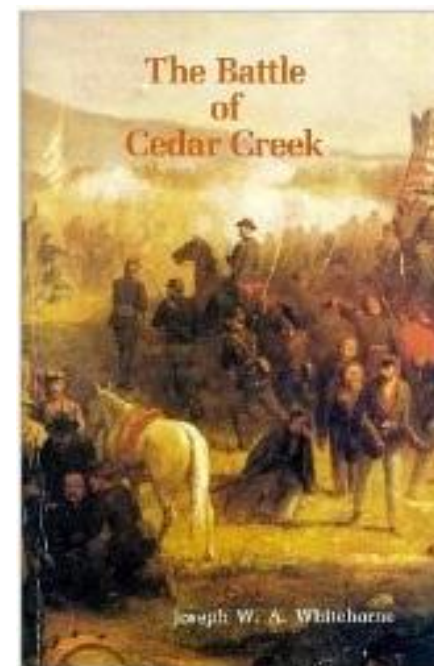
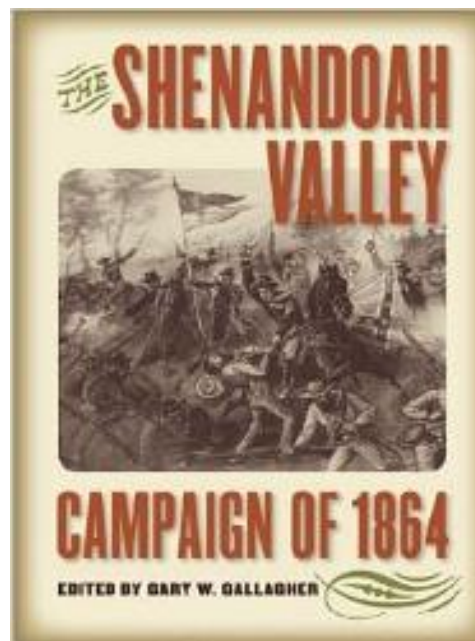
▶ Anne Knowles

- Washington Post Article
 - *Looking at the Battle of Gettysburg Through Robert E. Lee's Eyes*
- Past Time, Past Place: GIS for History
 - Essay by David W. Lowe
 - *Telling Civil War Battlefield Stories with GIS*



Previous Work – Historical

- ▶ Gary Gallagher
 - *The Shenandoah Valley Campaign of 1864*
- ▶ Joseph Whitehorne
 - *Self Guided Tour of The Battle of Cedar Creek*

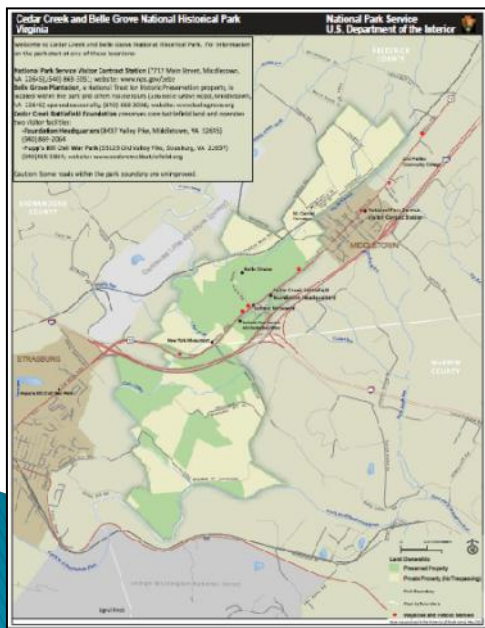


Resources

- ▶ Cedar Creek Battlefield Foundation (CCBF)
 - Background
 - Maps
 - Commissioned reports, presentations and other documentation
- ▶ National Park Service (NPS)
 - GIS Basemap Data
 - Maps
 - Archaeological Sites Information Management System
- ▶ Shenandoah Battlefields Foundation (SBF)
 - Background
 - Maps
- ▶ Wikipedia
 - Background
 - Maps

Resources: NPS

- ▶ The National Park Service has GIS resources along with maps and visitor information. Most notably, they have a map showing the land ownership which will be useful for adding value to the geocoded archeological finds.



The screenshot shows the National Park Service website's navigation menu. The header includes the National Park Service logo and the text 'National Park Service U.S. Department of the Interior'. Below the header is a search bar with the text 'Search NPS.gov' and a 'GO' button. The main navigation menu is organized into several categories:

- All NPS
- NPS/GIS
- Advanced Search
- Geography & Mapping Technologies
- Data & Information
- Outreach & Education
- Applications

The 'Geography & Mapping Technologies' category is expanded, showing sub-categories:

- ▶ Data & Information
- ▶ Outreach & Education
- ▶ Applications

Below the navigation menu is a large banner image of a landscape with the text 'Geography and Mapping Technologies Geographic Information Systems'. At the bottom of the page, there are three columns of information:

- Data & Information**: Discover & Download GIS data for your National Parks. **Data & Information**: Discover & Download GIS data for your National Parks.
- Outreach & Education**: Learn how we use GIS in the National Park Service. **Outreach & Education**: Learn how we use GIS in the National Park Service.
- Applications**: Models, Software, and Standards. **Applications**: Models, Software, and Standards.

Resources: CCBF/NPS

Archeological Site Information Management System

ASMIS ID	STATE #	SITE NAME	Cont. Resource	Historic Sign.	THEMES	REFERENCE
CEBE00035	44FK0608	19th Corps Earthwork, Flying V	Y	SM	MD, MET, MBF	Geier and Morrison 2003
CEBE00036	44FK0613	Isolated Quarry Pit 2	Y	SD	DIQ	Geier and Morrison 2003
CEBE00037	44FK0060	Ramseur Monument	Y	SM	U, MCM	VDHR file
CEBE00038	44FK0058	MacCauley's 3d Brigade	Y	SM	MD, MBF	Geier and Harding 2006
CEBE00039	none	Unnamed Military Site 2	U	U	U	Geier and Harding 2006
CEBE00040	none	Carter's Battery				
CEBE00041	none	Ashby's Battery				
CEBE00042	none	Daniel Stickley Mill Complex				
CEBE00043	none	Cedar Creek Bridge				
CEBE00044	none	Unnamed Site 2				
CEBE00045	none	Bowman Cemetery				
CEBE00046	none	Tenant House				
CEBE00047	none	Harmony Hall Plantation				
CEBE00048	44SH0001	Bowman Site				
CEBE00049	44FK0494	Unnamed Military Encampment 13 (Bowman Site)				
CEBE00050	44FK0017	Panther Cave				
CEBE00051	none	Miller's Mill				
CEBE00052	none	Unnamed Prehistoric 1				
CEBE00053	none	Unnamed Prehistoric 2				
CEBE00054	44WR0168	Unnamed Prehistoric 3				
CEBE00055	44WR0298	Thoburn's Defenses north segment				
CEBE00056	none	Unnamed Prehistoric 4				

Key:

Contributing Resource (CR)

- Y: Contributes to military or historic significance of park.
- N: Does not contribute to historic significance of park.
- U: Unknown; remains to be determined.

Applicable National Register Criteria (NRC)

- A: Associated with events that have made a significant contribution to the broad patterns of our history.
- B: Associated with lives of significant persons in the past.
- C: Embody the distinctive characteristics of a type, period, or method of construction or that represent a significant and distinguishable entity whose components may lack individual distinction.
- D: Have yielded or may be likely to yield information in history or prehistory.
- NO: Not eligible
- U: Uncertain, to be determined.

Known Evidence of Threat (THREAT)

- NAT: Natural threat (flooding, hurricane damage, etc.)
- MAN: Manmade threat (development, plowing, etc.)
- NONE: No evidence of natural or human disturbance observed at this time.
- UNC: Threat undetermined or unknown

Priority

- H: High priority – action should be taken as soon as possible.
- M: Moderate – site may have data of significance, but is not considered a high priority.
- L: Low priority – no immediate action necessary.
- NONE: None - no action necessary.

Action Recommended (ACTION)

- Archival: Archival research recommended
- ARCH: Archeological testing and assessment (Phase II) and archival research needed to determine or confirm historical significance.
- NONE: No additional cultural resource study needed.
- MON: No additional work needed at this time but monitor if threatened.

Historic Significance (HIST. SIGN.)

- SM: Potentially significant military site.
- SD: Potentially significant domestic site.
- SB: Potentially significant domestic and military features.
- U: Historical significance to be determined
- I: No significance proposed.

Resources: CCBF/NPS

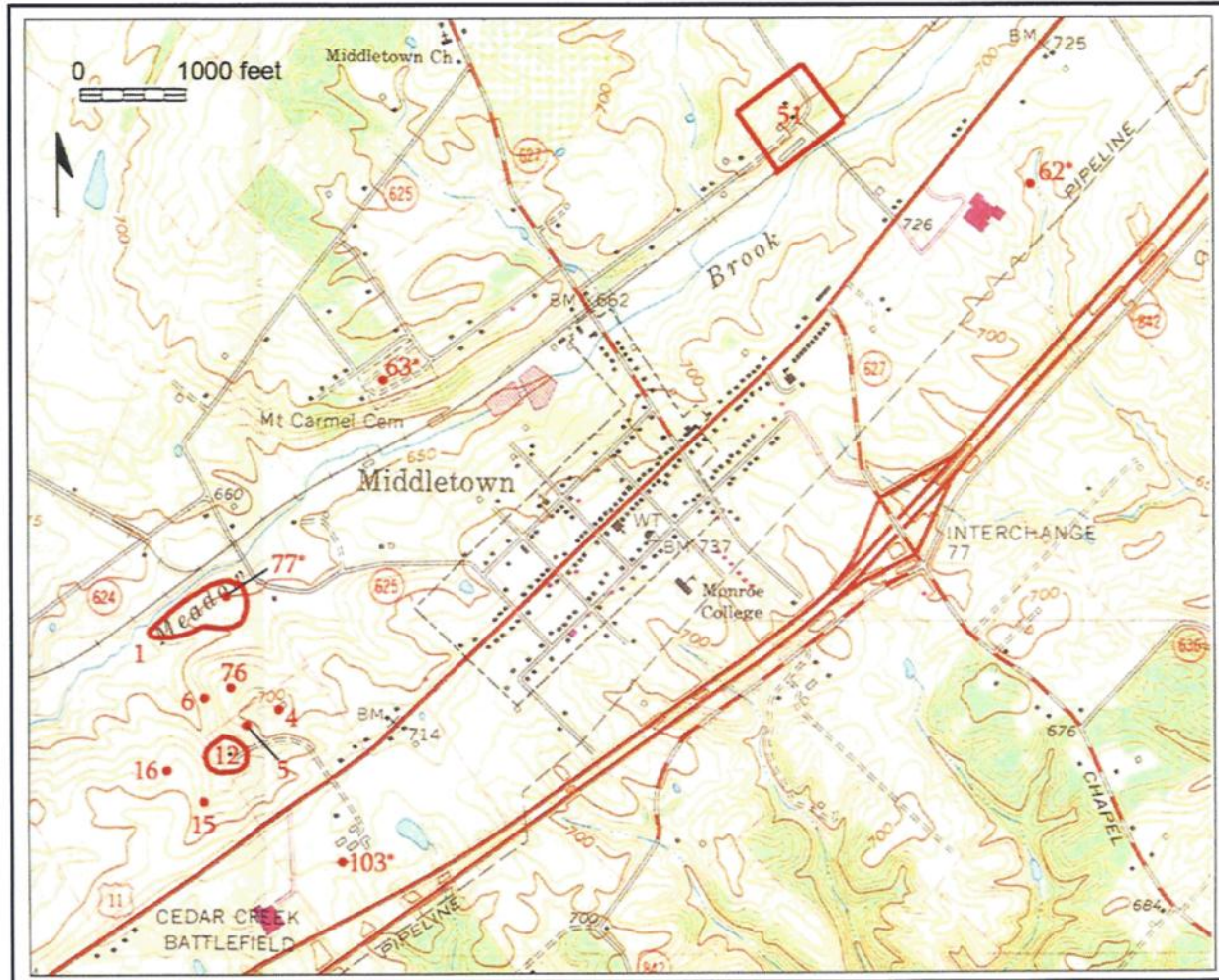


Figure 4.4. North sector or Study Area 4 of CEBC National Historical Park. Numbers correspond to ASMIS designations. (abstracted from USGS Topographic Map, Middletown Quadrangle, 1999).

Resources: CCBF/NPS



Figure 14. Button Assemblage from Sibley Tent Camp Site; button faces: A) New York Militia Button, B) General Service Eagle Button, C) three backs to possible cuff or vest buttons, D) front of possible cuff or vest button, E) Flat, two hole brass button.



Figure 15. Button Assemblage from Sibley Tent Camp Site; button backs: A) New York Militia Button, B) General Service Eagle Button, C) backs of cuff or vest buttons, D) back of face of cuff or vest button, E) back of flat, two hole, brass button.

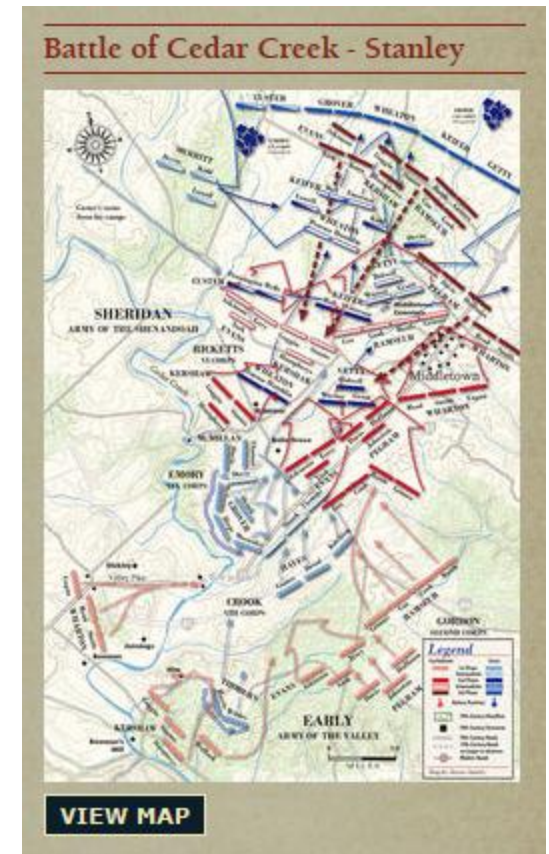
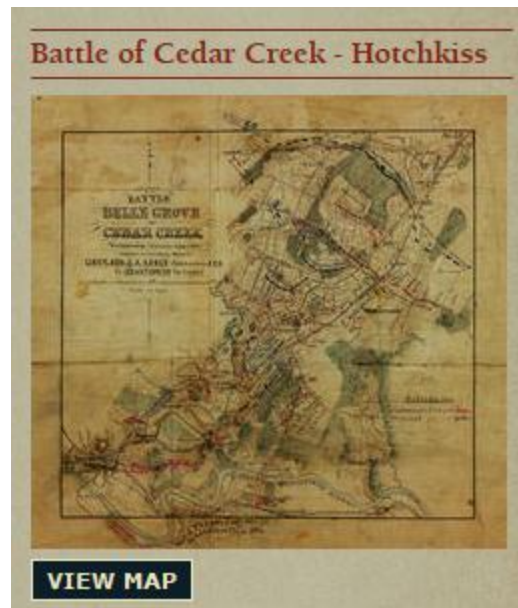
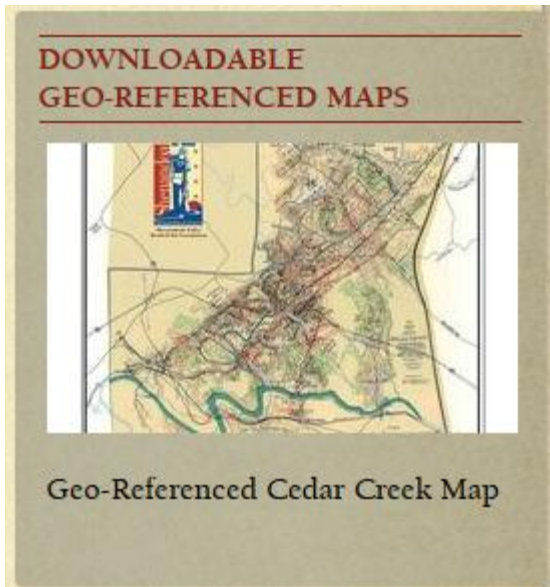
Resources: CCBF/NPS



Figure 16. Assemblage of bullets and half dime from Sibley Tent Site: A) 44 caliber pistol bullets, B) 54 caliber Merrill carbine bullet, C. 54 caliber Burnside bullet, D) fired 3 ring minie ball, E. 1853 silver half dime..

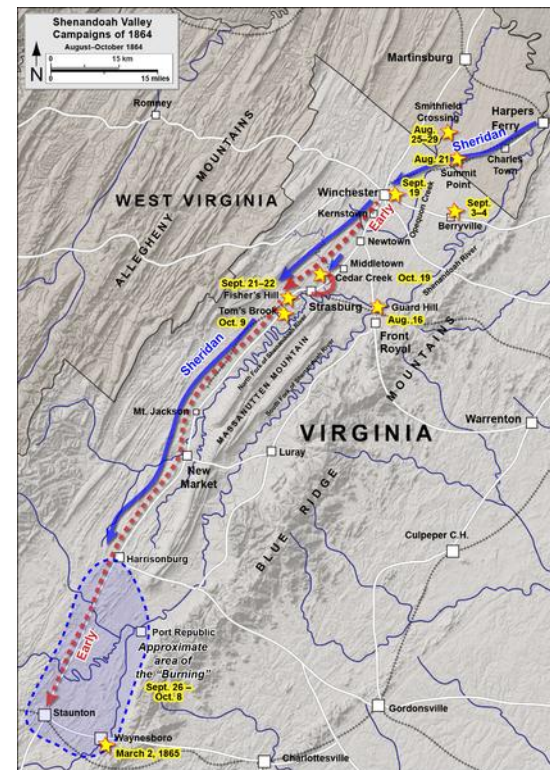
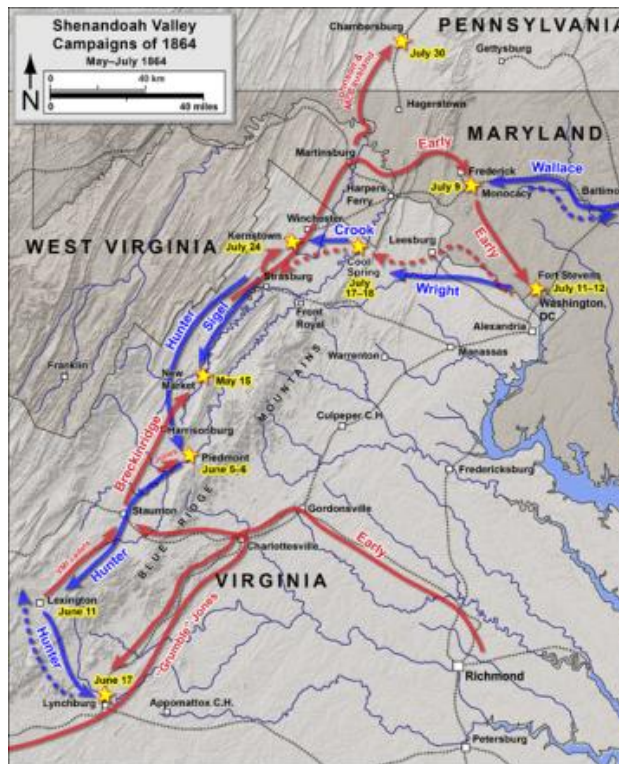
Resources: SBF

- ▶ Descriptive timelines of the battle
- ▶ Pressures faced for preservation
- ▶ Geo-referenced maps.



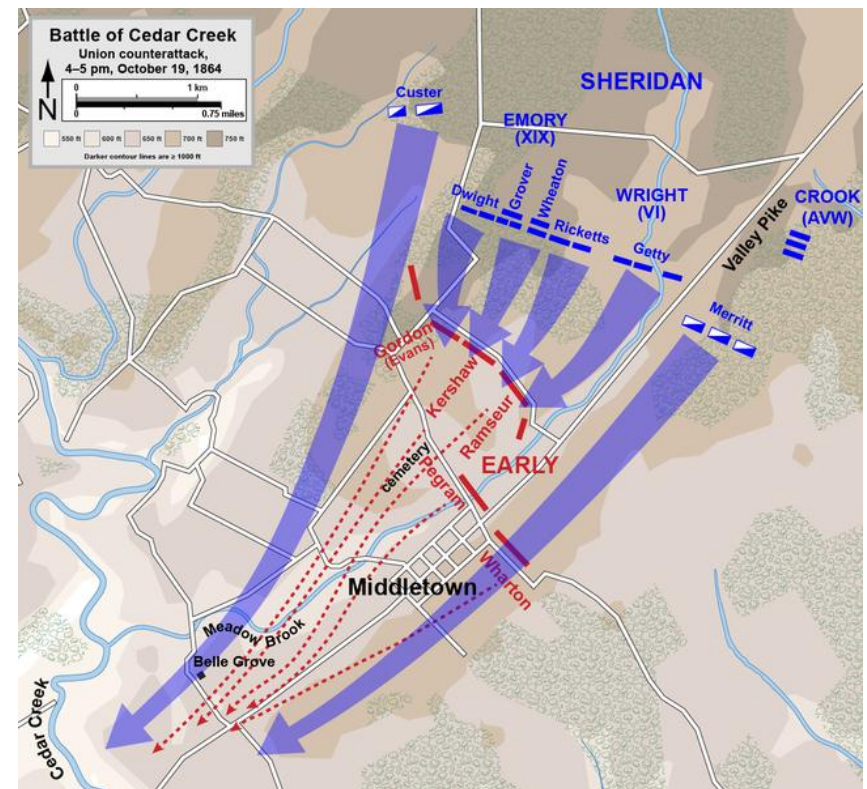
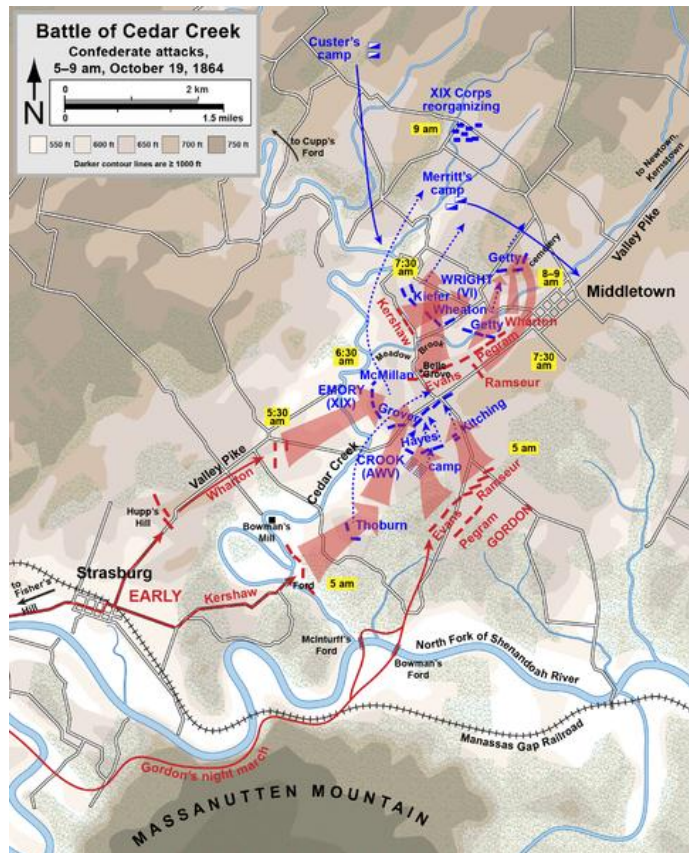
Resources: Wikipedia

- ▶ Wikipedia provides numerous maps depicting the battle with troop movements



Resources: Wikipedia

- ▶ On multiple scales and different stages

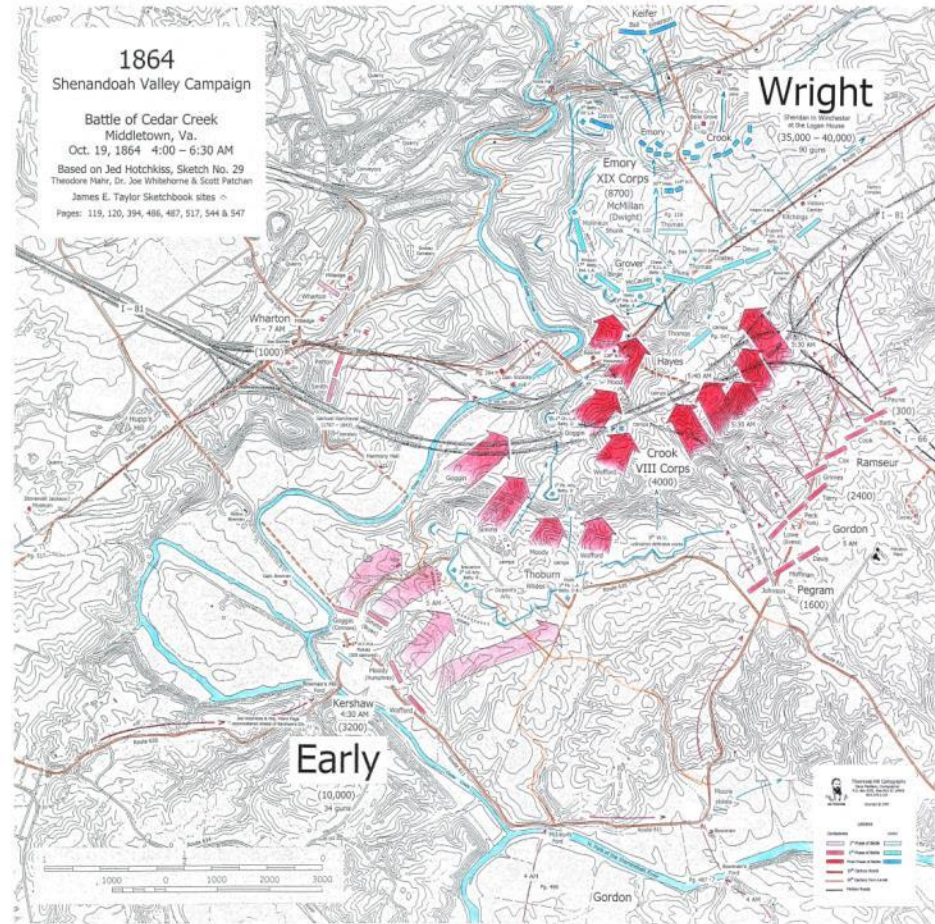


The Narrative

- ▶ The Four Phases of the Battle of Cedar Creek
 - Phase 1 – Early's positioning and attack
 - Phase 2 – The Confederate push
 - Phase 3 – Sheridan's response
 - Phase 4 – The Confederate retreat

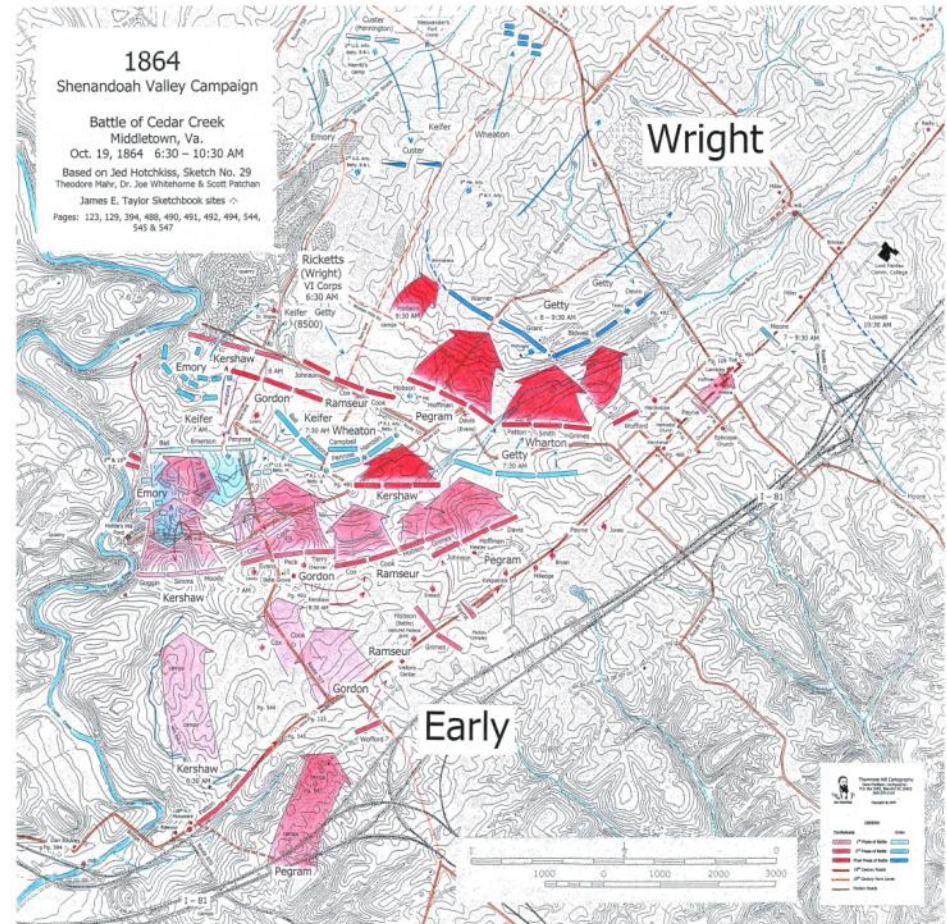
The Narrative – Phase 1

The first Phase will digitize the positions of the Confederate and Union troops in the morning from the Wrights encamped positions to those of Early's troops from which they had quietly advanced over the late night and early morning.



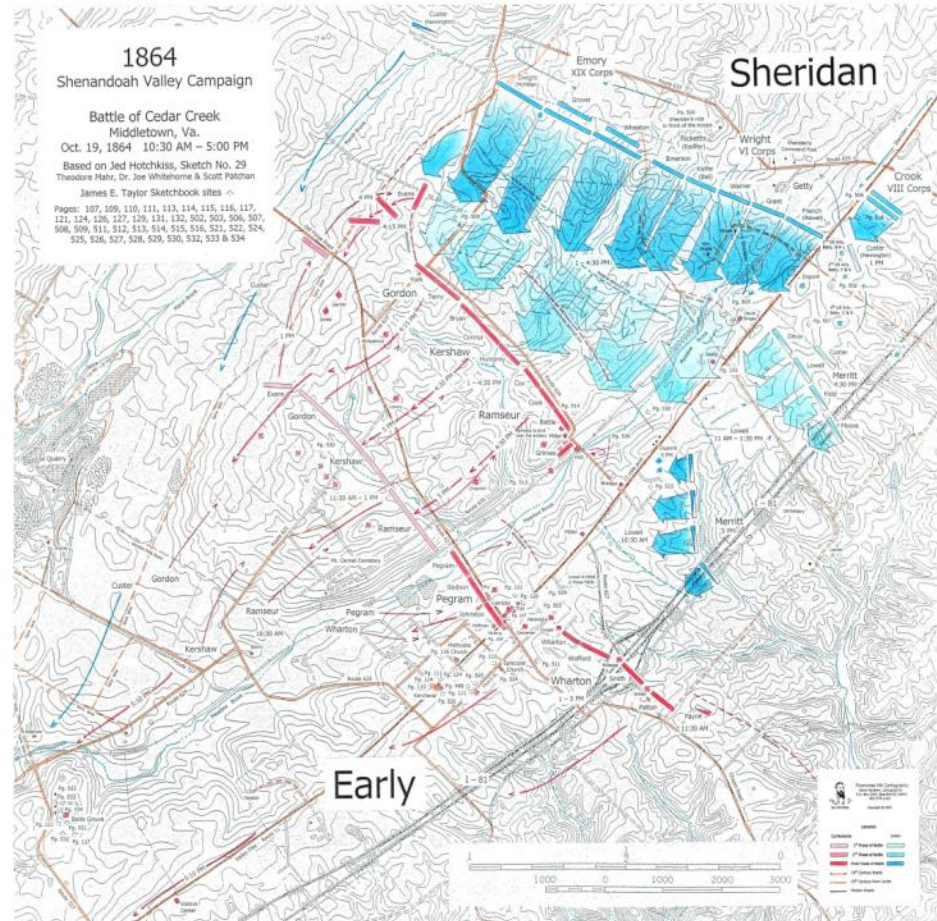
The Narrative – Phase 2

The second Phase will digitize the positions of the Confederate and Union troops as the Confederate's successful attack causes the Union to fall back and continue to try and regroup to counter the Confederate offensive.



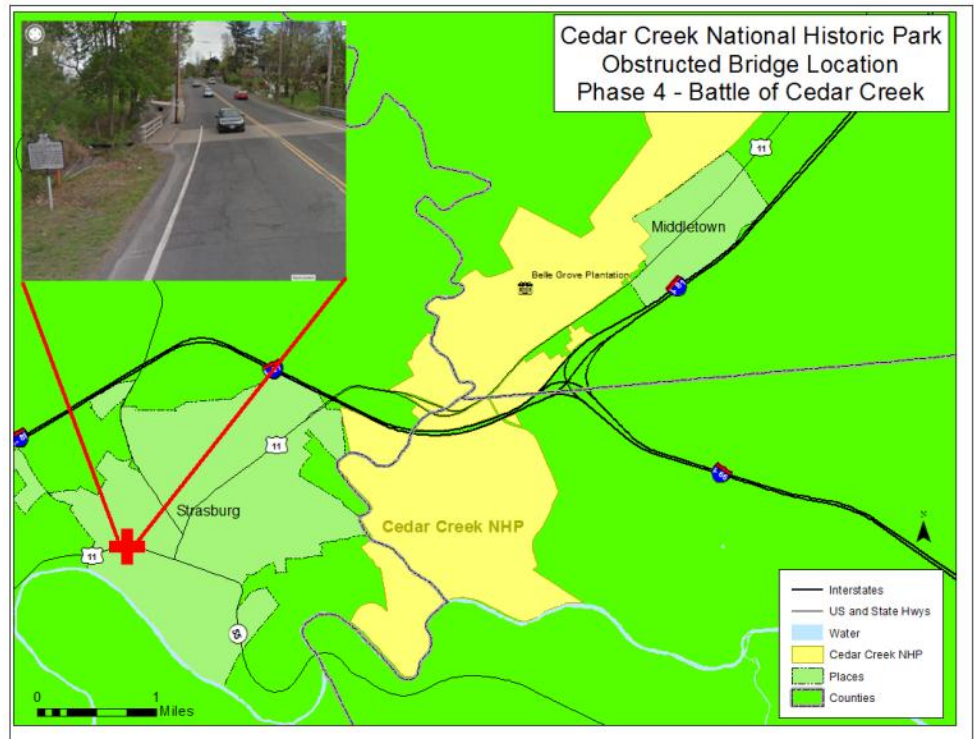
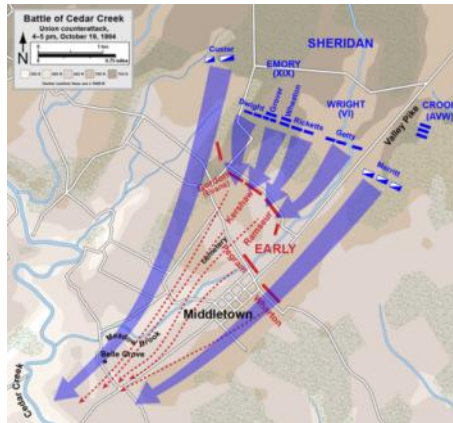
The Narrative – Phase 3

The third Phase will digitize the positions of the Confederate and Union troops as the Confederates solidify their newly won positions and the Union troops, under the just returned Sheridan, successfully regroups and begins to plan a counterattack.



The Narrative – Phase 4

The fourth Phase will digitize the positions of the Confederate and Union troops as the Union forces launch a counterattack which routes the Confederates thus breaking the Confederate hold on the Shenandoah Valley for the remainder of the war.



Methodology

- ▶ Identify records for digitizing
- ▶ Design geodatabase schema
 - Layers
 - Attributes
- ▶ Acquire Base Data Layers
 - Area boundaries (Park, Shenandoah Valley, etc.)
 - Ownership Parcels
 - Features (roads, buildings, bridges, water, etc.)
 - Contextual Data (Orthophotos, DEMs, etc.)
- ▶ Populate geodatabase
- ▶ Generate maps
- ▶ Perform analysis

Geodatabase Design

▶ Critical elements

◦ Archeology

• Artifacts

- Location digitized from ASMIS records (lat long)
- Military Unit (if known or applicable)
- Label of location (i.e. Hupp's Hill)
- Significance Value?
- Military/Civilian Flag
- Underlying Land Ownership
- Notes

• Excavated Areas

◦ Troops

• Location

- By Phase
- Troop Type (Infantry, Artillery, Cavalry)

Geodatabase Design

- ▶ Critical elements – continued
 - Land Ownership
 - Ownership Type
 - Land Use
 - Point Landmarks
 - Buildings
 - Bridges
 - Monuments
 - Water
 - Streams
 - Lakes and Ponds
 - Elevation
 - Contours

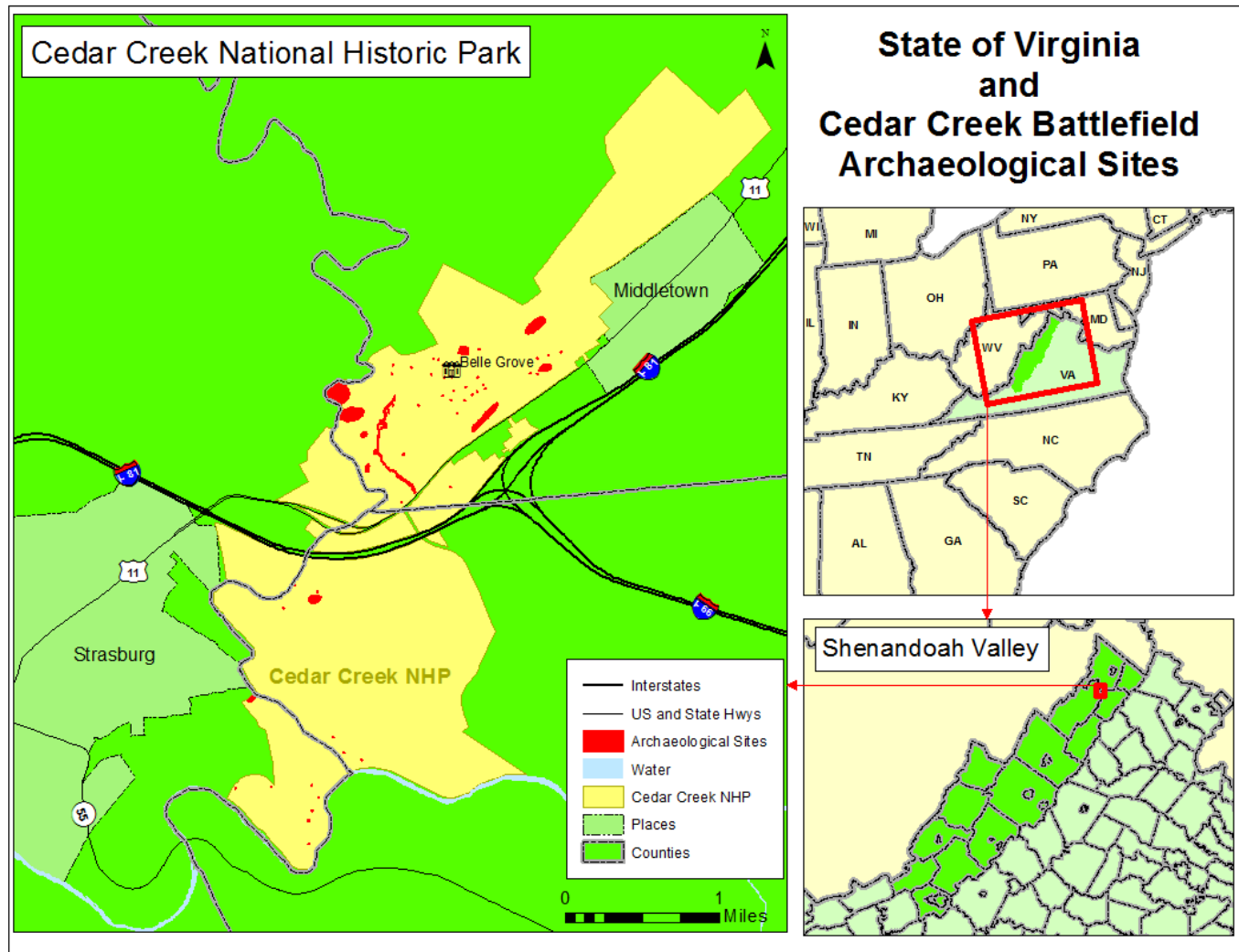
Basemap Design

- ▶ Multiple Maps
 - Different scales
 - Military symbolization
 - Archeological finds with symbolization
 - Classified by Military/Civilian
 - Classified by source
 - Other classifications

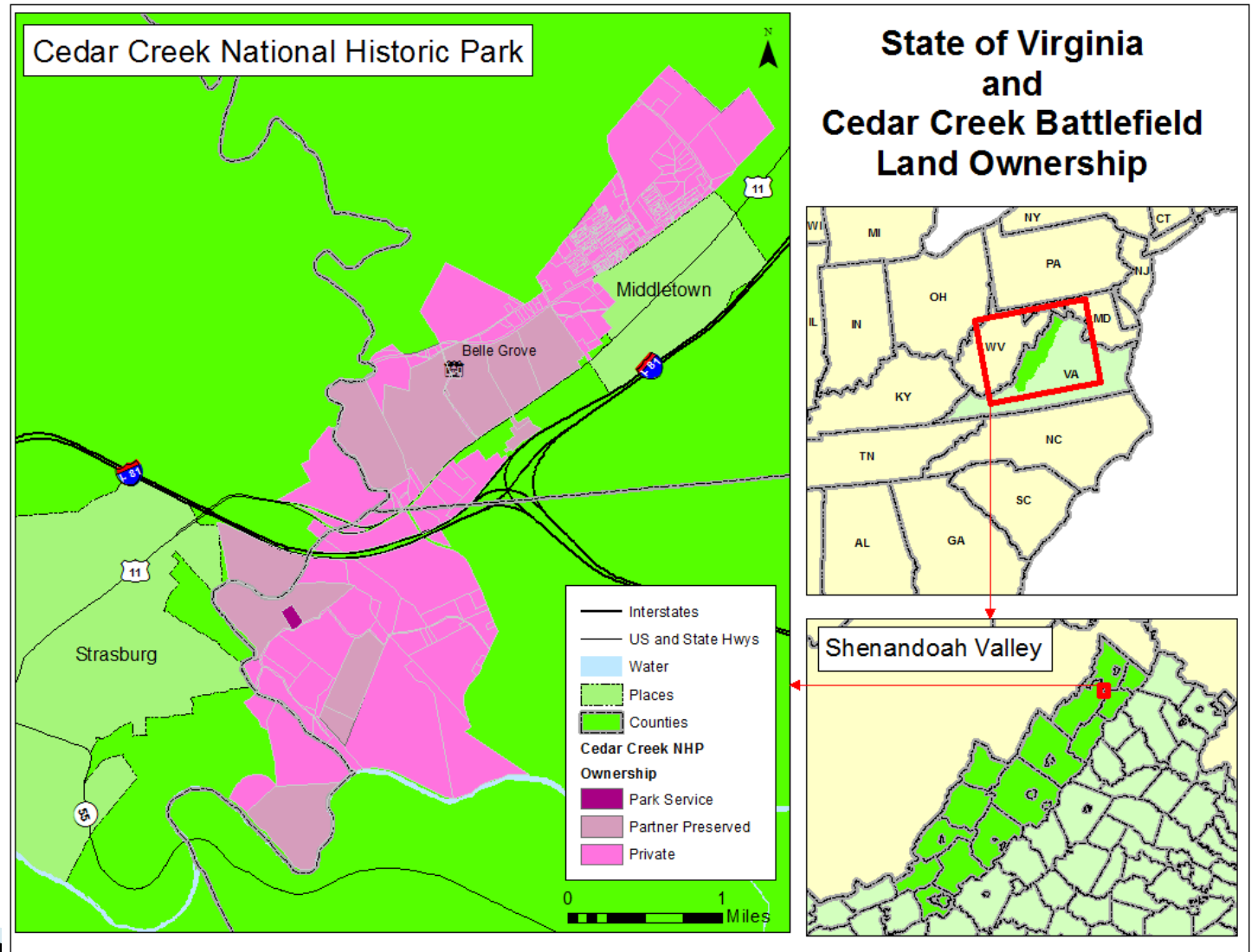
Maps

- ▶ Valley Overview
- ▶ Phase Maps
 - Troop positions
 - Artifact locations (filtered if possible to just those relevant)
- ▶ Modern Day
 - Ownership
 - Artifact locations/ Areas
 - Land use

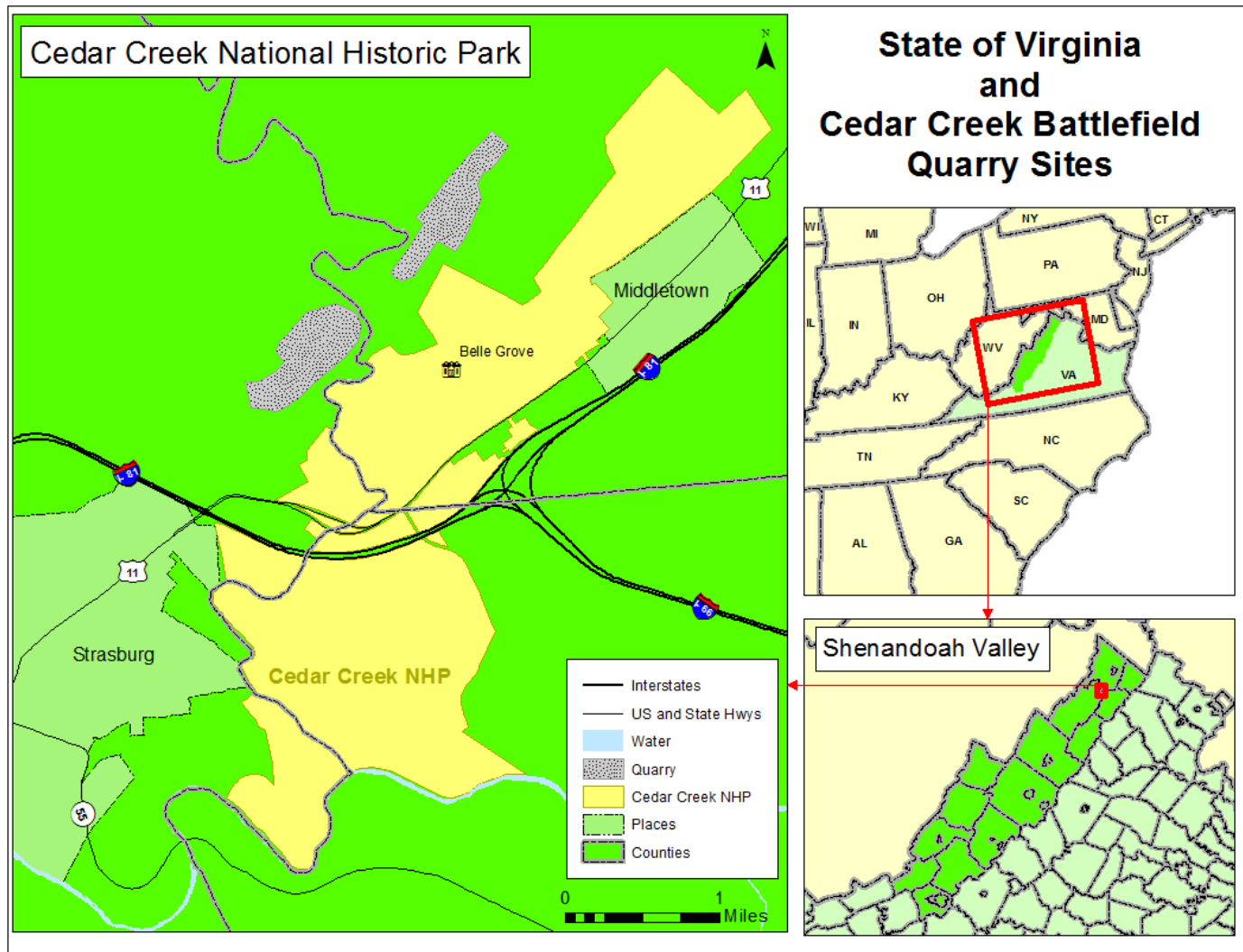
Basemap Design – Worked Sites



Basemap Design – Ownership

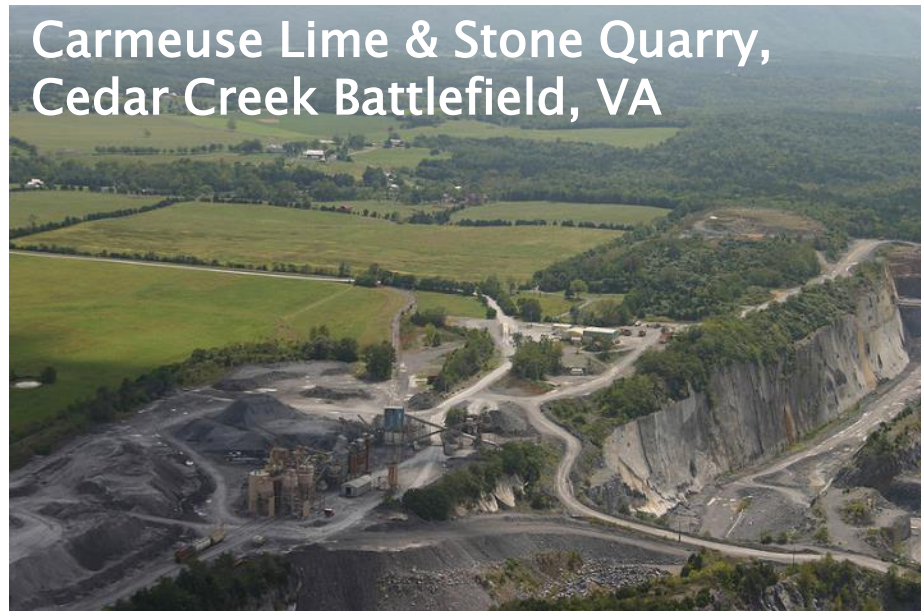


Basemap Design – Land use



Analysis

- ▶ Identify areas of known troop locations not associated with previously reviewed areas
 - Correlate those with areas likely to be disturbed
 - Private Property
 - Quarry



Moving Forward

- ▶ Still refining the schedule
 - Continued collection of data – May 2014
 - Digitize basemap data – May 2014 to June 2014
 - Digitize artifact data – June 2014
 - Generate maps – July 2014
 - Analysis/write report – July 2014 to Aug 2014
 - Present August 14th, 2014

Thank You

- ▶ Cedar Creek Battlefield Foundation
- ▶ National Park Service
- ▶ Shenandoah Battlefield Foundation
- ▶ Dr. Holdsworth