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Site Identification and Documentation Project
The Battle of Great Falls/Wissantinnewag-Peskeompskut – Phase III
May 19, 1676

Technical Report
(P22AP01555)



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Heritage Consultants LLC

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Contributors

There were many organizations and people that contributed to the ultimate success of *The Battle of Great Falls/Wissantinnewag-Peskeompskut* project. This project has greatly benefitted from thousands of hours of volunteers' efforts. The Battlefield Advisory Board has been composed of Historical Commissioners from the towns of Montague, Greenfield, Gill, Deerfield, and Northfield, as well as representatives from the Chaubunagungamaug Band of Nipmuck Indians, the Elnu Abenaki, the Narragansett Indian Tribe, the Aquinnah Wampanoag, the Stockbridge-Munsee Tribe of Mohican Indians. This advisory board has been a rare vessel for civic/cultural participation, a coming together of people to share different perspectives, to pursue greater truth and understanding, to work out history in present day relationship.

In addition to meeting once a month for the past 13 years, the advisory board members were joined by dozens of interested citizens and local historians, who greatly contributed to the success of this endeavor. David Brule, as volunteer coordinator of the Advisory board diligently wrote and posted monthly agendas beginning in 2013, in addition to providing a record of this project through the maintenance of monthly board minutes, communicating with the local press, doing radio and television interviews.

Thanks go to the many board members and community members who made this legacy of tribal and non-tribal effort possible: David Tall Pine White, Liz Coldwind Santana-Kiser, Rich Holschuh, Roger Longtoe Sheehan, Doug Harris, Bettina Washinton, Peter Miller, Patricia Pruitt, John Nove, Tim Blagg, Lynn Stowe Tomb, Ivan Ussach, Kit Carpenter, Joe Graveline, Dr. Peter Thomas, Paul Robinson, Frank Abbondanzio, Walter Ramsey, Matt Ashby, Kate Albrecht, Carrie and Michael Kline, Bonnie Hartley, Gary Sanderson, and many more.

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landscapes we have yet encountered in battlefield archeology projects. YTC and Awesome Relics members were tireless in their efforts to continually revise their methods, techniques and technologies to adapt them to the challenges of the cultural and physical landscape. They were very knowledgeable in many aspects of the historic period material culture from their many years of detecting and provided important real time perspectives on recovered objects that informed field decisions regarding where best to focus efforts.

Throughout the field season the *Greenfield Recorder* regularly reported on archaeological findings which familiarized the local community with the project and Heritage Consultants staff in advance of being approached for permission. The knowledge and experience of the members and staff of the Nolumbeka Project also contributed valuable insights on the project, historical context, and battle events. Many local historians and archaeologists with extensive knowledge of the culture history of the area and battle events made important contributions to the project and during public meetings. Dr. Peter Thomas provided many valued archeological and historical perspectives on battle events, and the Colonial and Native history of the middle Connecticut Valley was important for the ongoing interpretation of the battlefield throughout the field season. Tim Blagg who served on the Battlefield Advisory Board was particularly helpful in acquiring landowner permissions and conducting historical research.

Many Heritage Consultant staff were instrumental in the successful completion of both the fieldwork and writing of this technical report including David George, MA, RPA (President & Archaeologist), William Keegan (Vice-President & Historical Geographer), David Leslie, Ph.D., RPA (Director of Research), Cole Peters from the GIS Department, Sussanah Goeters from the Laboratory Department, Geophysical Department, and the Archaeological Field Technicians who assisted from the field crew including Joseph Kinney who provided metal detecting assistance in the field. The team at Heritage Consultants provided invaluable technical support, field assistance, laboratory time, and archaeological expertise throughout the *Battle of Great Falls/Wissantinnewag-Peskeompskut* project.

I. Introduction and Project Summary

This Technical Report summarizes the research, methods, and results of the Battle of Great Falls/Wissantinnewag-Peskeompskut (P22AP01555) National Park Service American Battlefield Protection Program (ABPP) Site Identification and Documentation grant awarded to the Town of Montague in 2023.[1] The Town of Montague was previously awarded a Pre-Inventory Research and Documentation Grant (GA-2287-012), a Site Identification and Evaluation Grant (GA-2287-16-006), and a second Site Inventory and Evaluation Grant (GA-2287-18-007) to support research, education, site identification and documentation, and preservation of sites associated with the Battle of Great Falls / Wissantinnewag-Peskeompskut (May 19, 1676) and King Philip's War (1675-1676) (Figure 1).[2]

The Battle of Great Falls/Peskeompskut took place on May 19, 1676, and was perhaps the most significant battle of King Philip's War (1675-1676; Figure 1). The combatants included garrison forces drawn from several towns in the upper Connecticut Valley, Settlers from various towns who volunteered to go on the expedition to attack the village of Peskeompskut, and Native Coalition forces comprised of fighting men from various tribes including the Narragansett, Wampanoag, Nipmuc, Abenaki, Norwottuck, Agawam, and others. By the spring of 1676 Native people from a Coalition of dozens of tribes fighting the English from throughout southern New England gathered at Great Falls to seek refuge and respite from constant English attacks and to gather fish and plant corn for the coming year. The valley was a hotly contested landscape that spring - whoever held the middle valley would control the richest agricultural lands in New England referred to as "the breadbasket of New England." The battle took place in two phases: the initial English attack on the Peskeompskut village and the subsequent 7.5-mile English fighting retreat to the Deerfield River Ford. The second phase of the battle (English retreat) is best characterized as a near continuous fighting retreat punctuated by episodes of intense fighting at

[1] The ABPP promotes the preservation of significant historic battlefields associated with wars on American soil. The purpose of the program is to assist citizens, public and private institutions, and governments at all levels in planning, interpreting, and protecting sites where historic battles were fought on American soil during the armed conflicts that shaped the growth and development of the United States, in order that present and future generations may learn and gain inspiration from the ground where Americans made their ultimate sacrifice. The goals of the program are: 1) to protect battlefields and sites associated with armed conflicts that influenced the course of American history, 2) to encourage and assist all Americans in planning for the preservation, management, and interpretation of these sites, and 3) to raise awareness of the importance of preserving battlefields and related sites for future generations.

[2] Kevin McBride, David Naumec, Ashley Bissonnette & Noah Fellman, *Final Technical Report Battle of Great Falls (Wissatinnewag-Peskeompskut) Pre-Inventory and Documentation Plan* (GA-2287-14-012), report submitted to the Town of Montague, 2016.

locations where Coalition forces were able to get ahead of the English column and set ambushes. There were also areas where little or no evidence of fighting occurred when the mounted English reached level terrain and were able to outdistance Coalition forces for a brief period. The Phase II survey also resulted in several new perspectives on the battle including the tactics and weapons used by English and Coalition forces, and the realization that some of the English were eventually able to mount a cohesive defense when Lieutenant Samuel Holyoke took command when Captain Turner was killed.

The English were the victors at the attack on the Peskeompskut Village, killing hundreds of Native people and destroying critical food and military supplies. In the second phase of the battle Coalition forces from five nearby villages mounted a series of successful and coordinated counterattacks and ambushes against the retreating English which speaks to the experience and leadership within the Native Coalition. The success of the Coalition counterattacks is reflected in the English casualty rate of between 45-55% (thirty-nine killed twenty-nine wounded) of an estimated 120-150 soldiers. At the end of the day, Coalition forces controlled the battlefield and exacted a steep price from the English for their attack on Peskeompskut. Nonetheless the battle was the beginning of a process that resulted in the dissolution of the Native Coalition and ultimately the piecemeal defeat of all the tribes in the Coalition. In the weeks and months following the battle, dozens of Native communities abandoned the middle Connecticut River Valley to seek refuge in Mahican territory east of the Hudson River and among the Abenaki to the north, or they returned to their homelands in central and eastern Massachusetts and Narragansett country where many were killed or captured.

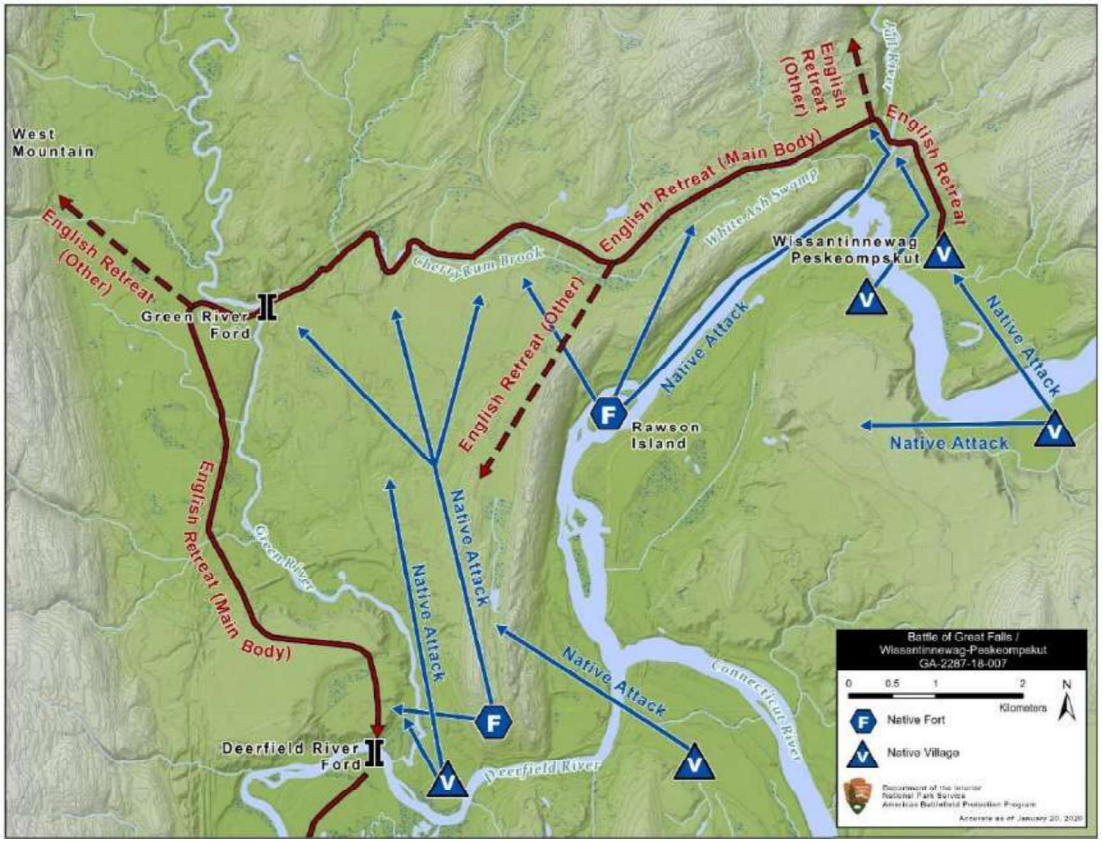


Figure 1. Battle of Great Falls and the English Retreat.[3]

The first (Phase I) of the Site Identification and Documentation Project (GA-2287-16-006) surveyed a discontinuous stretch of approximately 1.25 miles and 170 acres of the 7.0-mile battlefield that took place between the Riverside area of Gill, Massachusetts and the Deerfield River Ford. The Phase I survey conducted in 2016 identified seven battlefield loci and recovered 284 musket balls, and 66 seventeenth or potentially seventeenth battle related or domestic objects such as amulets, brass and lead scrap buttons, gun parts, horse tack, and miscellaneous equipment.[4] The battlefield proved larger, and more complex than originally anticipated and the survey could not be completed in a single grant cycle.

[3] Origins and routes of Coalition attacks are inferred.

[4] Kevin McBride, David Naumec, Ashley Bissonnette, and Noah Fellman; Site Identification and Documentation Project, *The Battle of Great Falls / Wissantinnewag-Peskeompskut* May 19, 1676, Technical Report (GA-2287-16-006) submitted to the National Park Service American Battlefield Protection Program, Mashantucket Pequot Museum and Research Center, May 2017.

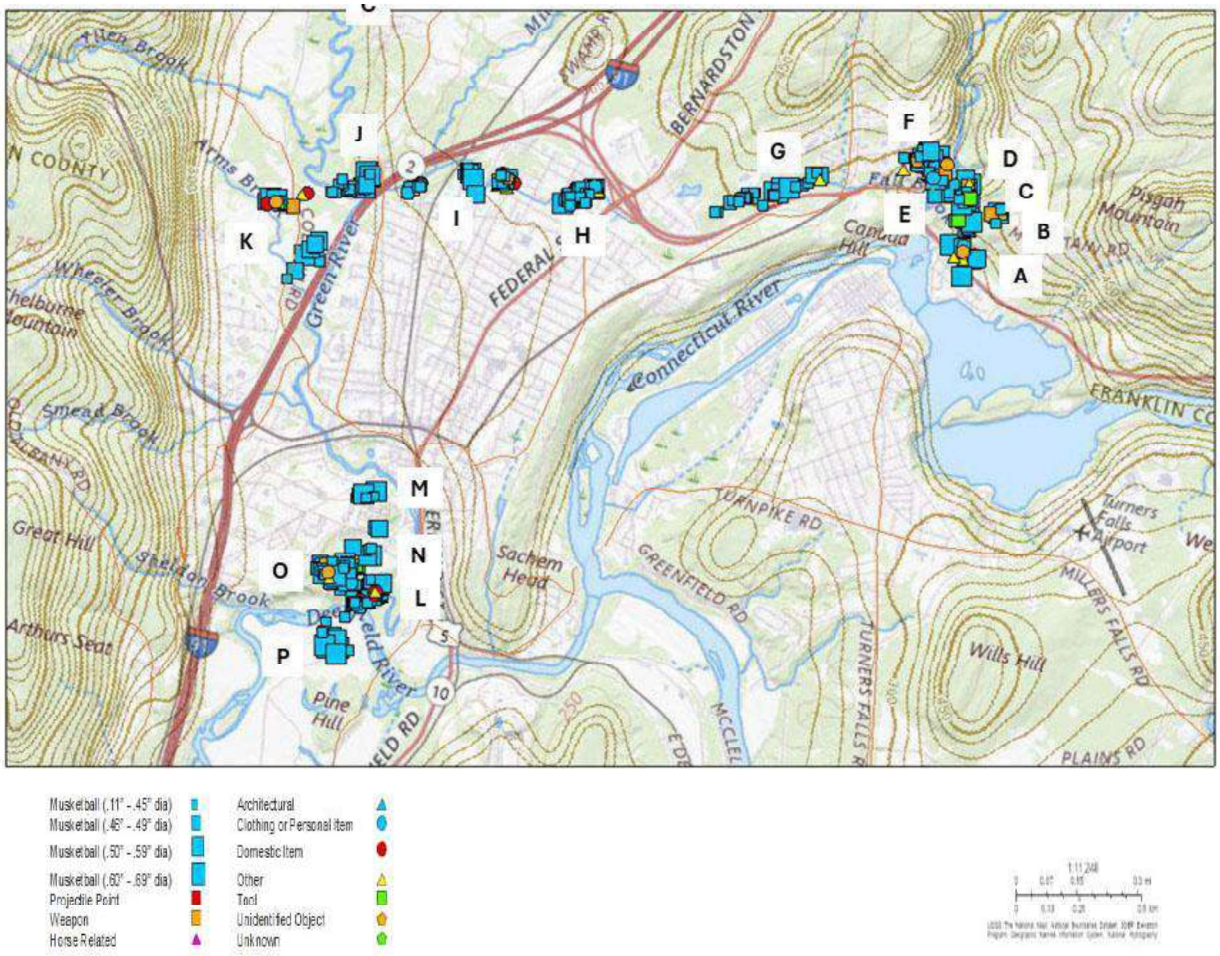


Figure 2. Battle of Great Falls. All Battlefield Loci. Musket Ball and Battle-Related Objects.

The Town of Montague submitted a second grant application to the ABPP in January of 2018 which was awarded in August of 2018. The Phase II Site Identification and Documentation project (GA-2287-18-007) surveyed an additional 1.75 miles and 180 acres of the estimated 7.0 miles of the battlefield (a total of 3.0-miles and 350 acres) and identified five additional battlefield Loci (G, H, J, K) and recovered 264 musket balls and 25 seventeenth or potentially seventeenth century battle related or domestic objects such as beads, brass scrap, and buttons.[5] The Phase I and Phase II surveys of the Battle of Great Falls/Wissantinnewag-Peskeompskut added an important perspective that is lacking in the English accounts – evidence of a series of well-coordinated combat actions on the part of counterattacking Native Coalition forces contesting the retreat of

[5] Kevin McBride, David Naumec, Ashley Bissonnette, and Noah Fellman; Site Identification and Documentation Project Phase II, *The Battle of Great Falls / Wissantinnewag-Peskeompskut* May 19, 1676, Technical Report (GA-2287-18-007) submitted to the National Park Service American Battlefield Protection Program, Mashantucket Pequot Museum and Research Center, October 2020.

English forces following the attack on the Peskeompskut village. The continuous and intense fighting along the entire seven miles of the English retreat is not fully reflected in the surviving English battle narratives nor is the extent of Native Coalition coordinated counterattacks across the battlefield.

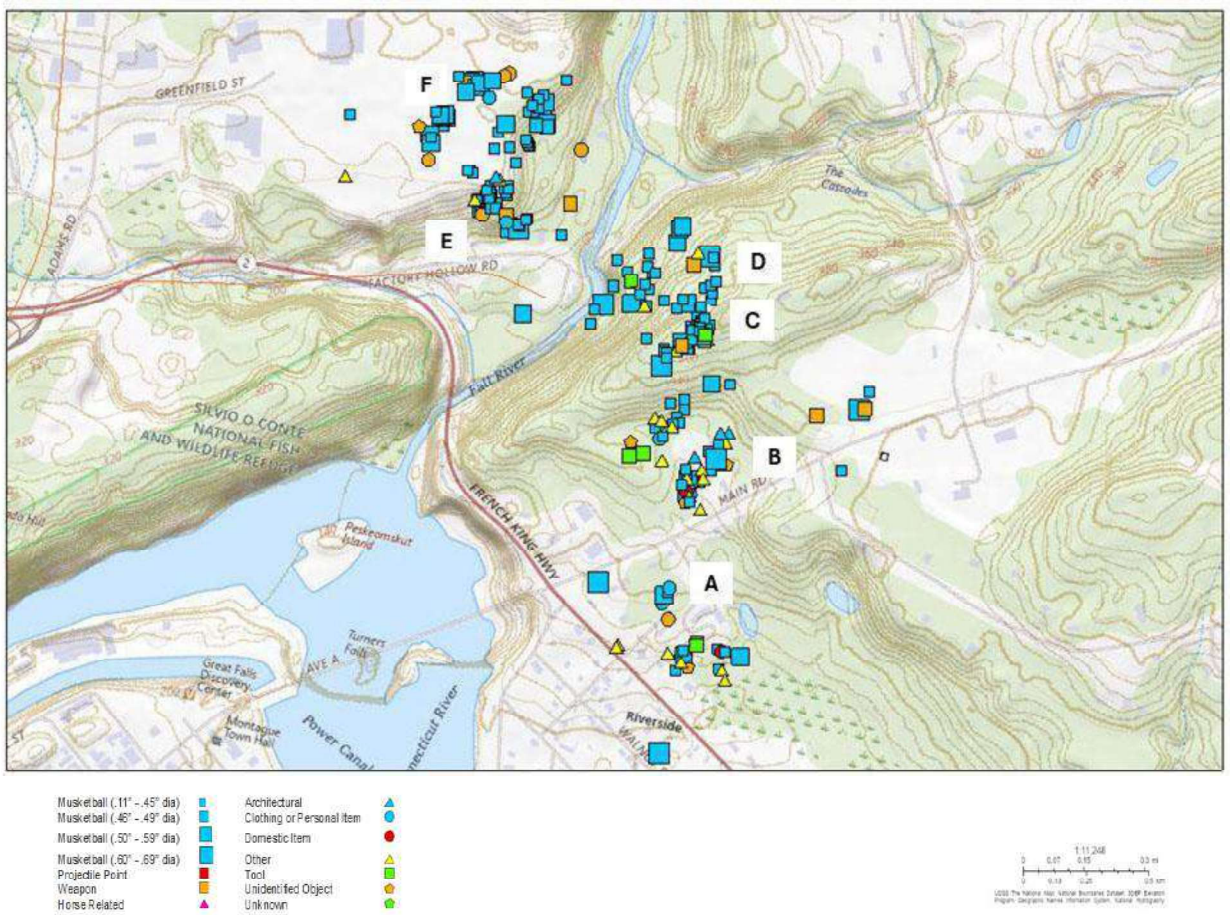


Figure 3. Battle of Great Falls, Loci A-F. Musket Balls and Battle-Related and Domestic Objects.

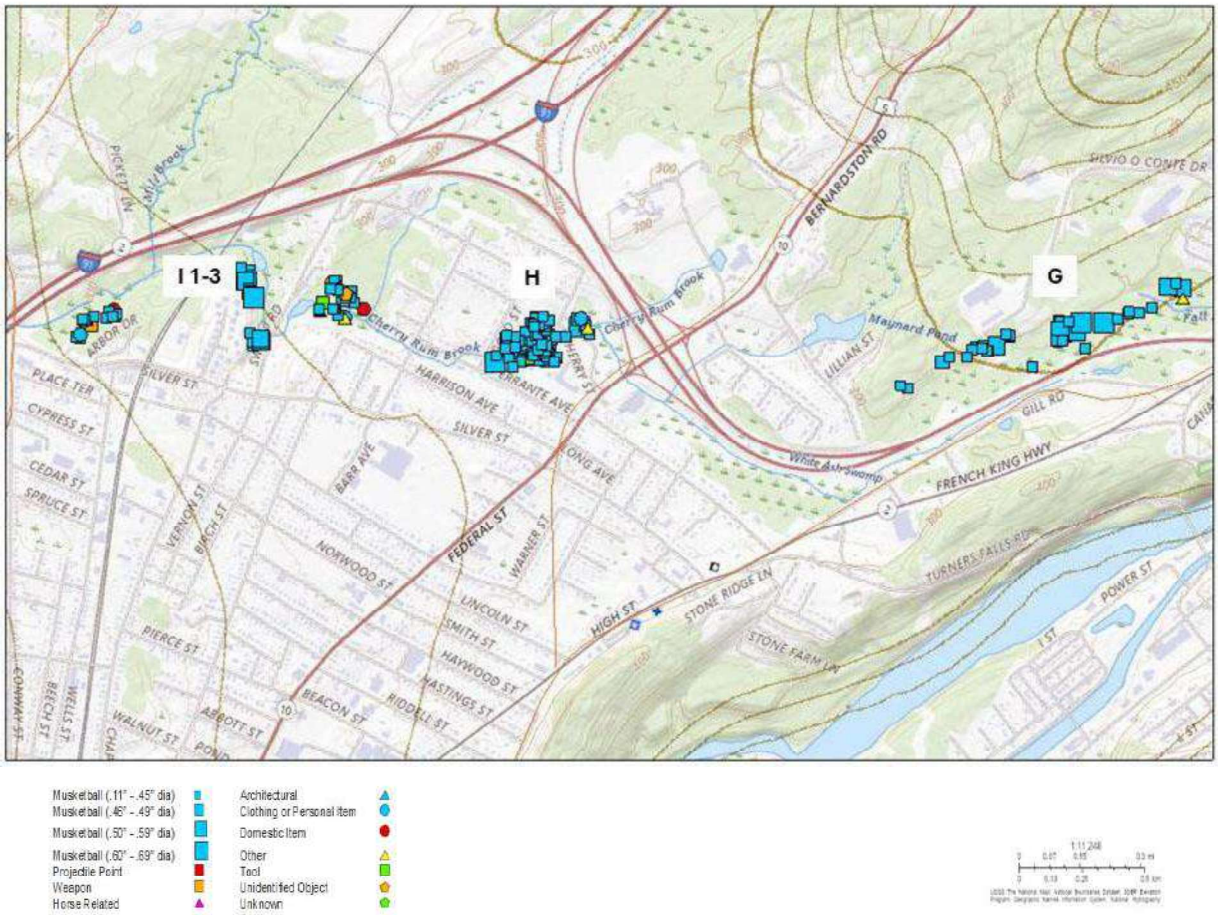


Figure 4. Battle of Great Falls Phase, Loci G- I. Musket Balls and Battle-Related Objects.

The Town of Montague submitted a third (Phase III) NPS ABPP Site Identification and Documentation grant to complete the survey of Battle of Great Falls/Wissantinnewag-Peskeompskut which was awarded in 2023 (P22AP01555). The 2024-2025 field season surveyed an additional 1.5 miles and 170 acres of the estimated 7.0-mile battlefield from the Riverside area in the Town of Gill to the Town of Deerfield North Meadows where English sources say the Native attacks ended (Figures 2-6). Four new Loci were identified (Loci M-P) and three Loci (Loci J, K, L) were re-surveyed and significantly expanded. The new loci included: Locus M: Petty Plain, Locus N: Light Skirmishing, Locus O: Pine Barrens, and Locus P: North Deerfield Meadows (Figures 5, 6). The Phase I, II, and III surveys recovered 1,037 musket balls and 103 battle-related and Native domestic objects. The surveys also identified three seventeenth century Native domestic sites at Loci A, B, I-2, and L.

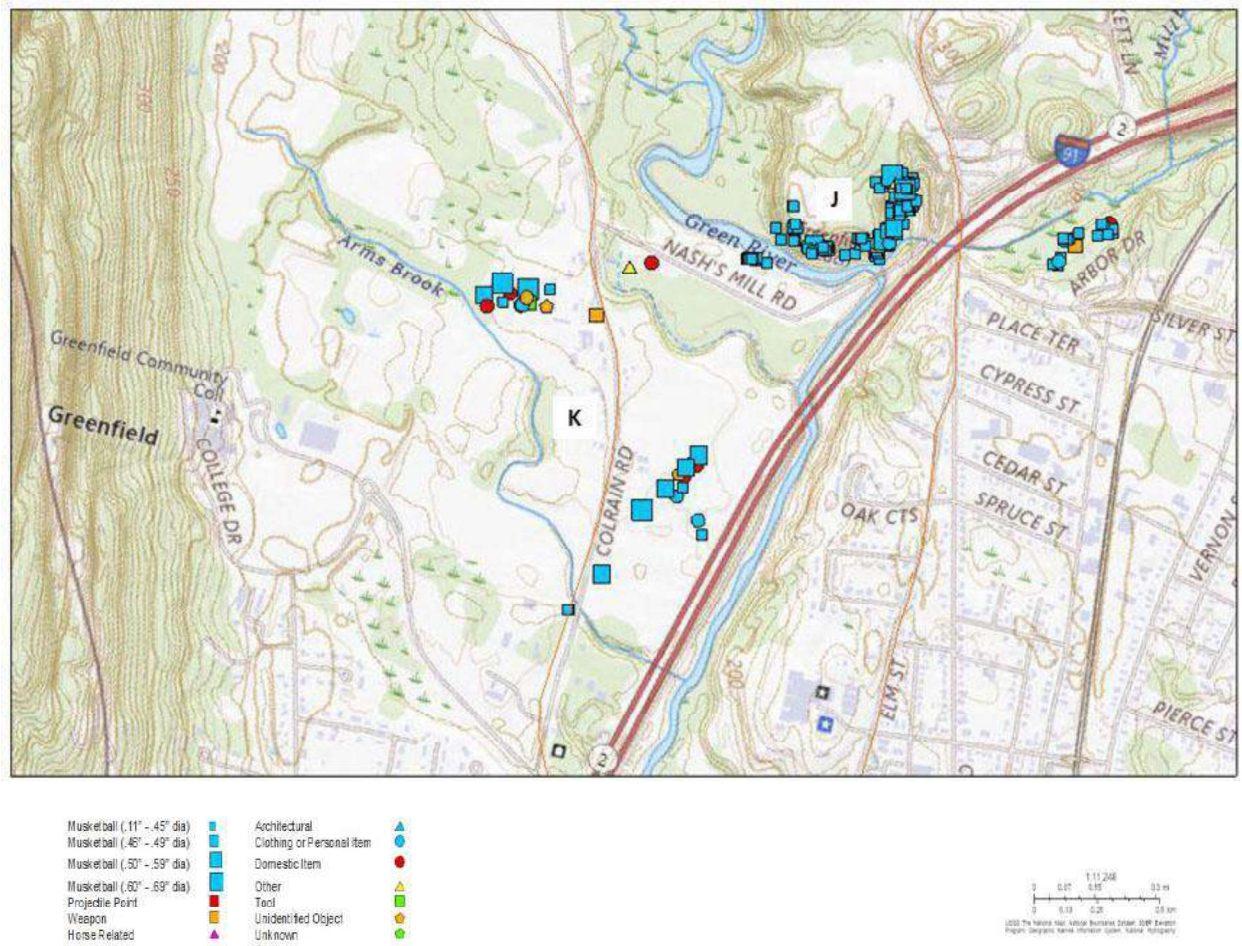


Figure 5. Battle of Great Falls, Loci J-K. Musket Balls and Battle-related Objects.

The Phase III research was intended to complete the work of the earlier grants by focusing on areas along the proposed battlefield route that were not sufficiently surveyed or surveyed at all. This included property along Nash's Mill Road, Colrain Road, Petty Plain Road, Meridian Street and Colorado Avenue. Battle-related objects were recovered from throughout the surveyed project area and although artifact density varied, it appears that combat never fully ceased during the English retreat phase of the battle. The survey determined that fighting in the vicinity of the Green River Ford was heavier than previously observed as discussed in earlier reports. As additional land was surveyed along the north side of the Green River and along the west side of the Mill Brook battlefield boundaries were significantly expanded to the west and northeast which lead to a reinterpretation of battle events. Prior to the second phase of archaeological survey work a moderate number of musket balls and battle-related objects were recovered along the southern face of Nash's Mill Hill in which at the time resulted in an interpretation of a short, sharp fight in the

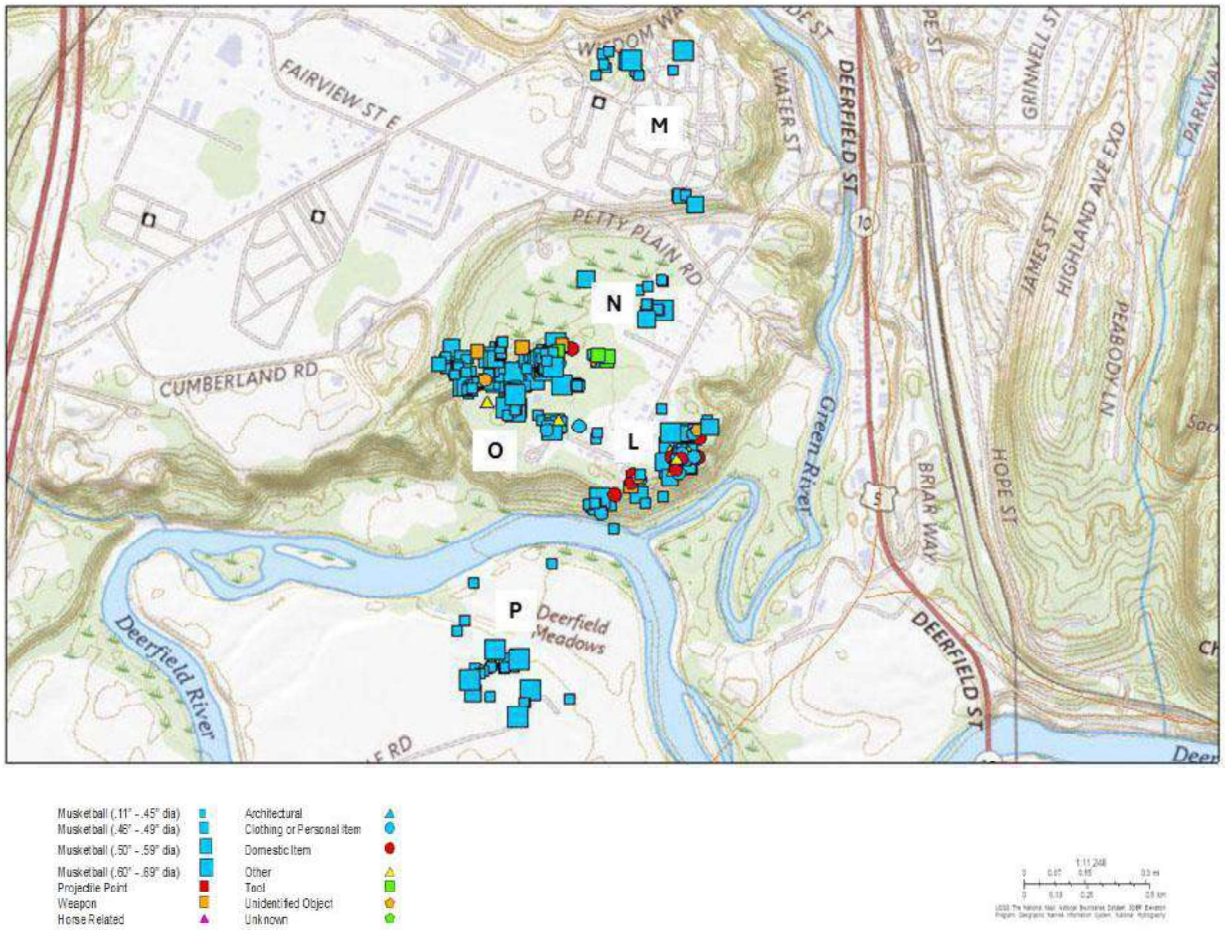


Figure 6. Battle of Great Falls, Loci L-P. Musket Balls and Battle Related Objects.

vicinity of the Green River Ford as English forces retreated south towards a trail along present-day Colrain Road. Phase III fieldwork upended this interpretation through the recovery of 145 additional musket balls along the east and north face of the hill overlooking Mill Brook (Locus J; Figure 5). The pattern suggests Native Coalition forces were positioned on the top and slopes of Mill Hill anticipating the English retreat down Cherry Rum Brook and Mill Brook to the Green River Ford. The pattern also suggests the English were unable to cross the Green River at the Green River ford as it was heavily defended by Native Coalition forces, and they had to traverse west along the north bank of the Green River until they were able to cross the river. The pattern of musket balls at Nash's Mill also suggests a change in English tactics to a more cohesive and aggressive defense, even dismounting and attacking up the south and west slopes of the hill, probably when Lieutenant Holyoke took command.

The survey confirmed a brief decline in the intensity fighting as the English retreated south along present-day Colrain Road (Locus K; Figure 5). This interpretation is based on the moderate to low number of musket balls and battle related artifacts recovered along the two-mile distance from the junction of present day Colrain Road and Nash's Mill Road south to Wheeler's Brook. This interpretation is potentially biased as large areas could not be surveyed as several landowners did not give permission to survey their property. As a result, it is unclear what battle events occurred along approximately one-half mile of the battlefield route.

One challenging aspect of reconstructing remaining sections of the battlefield route not surveyed in previous grants was the nature and magnitude of development that occurred during the twentieth century. Most notably, a stretch of Interstate 91, completed in 1960, significantly impacted the battlefield landscape from the Mohawk Trail (Route 2) running north along the east side of Colrain Road and following the west bank of the Green River before crossing it just east of Nash's Mill Road and the Green River Ford. The interstate highway did not impact the immediate battlefield landscape as much as the commercial development that occurred in the years that followed. Much of the projected battlefield route east of Interstate 91 running southeast towards the Deerfield River Ford proved a challenge due to residential development, the existence of the Franklin County Fairgrounds and the extensive Green River Cemetery.

The battlefield survey focused on the English route of retreat from Green River Ford to Deerfield River Ford and although it appears that English forces consolidated following the death of Captain Turner at the Green River Ford and after Lieutenant Holyoke took command it was unclear which and where other groups of retreating English soldiers were on the landscape due to the chaos of the fighting. The possibility of another group following or preceding the main body under Captain Holyoke was a scenario that was considered as the survey progressed. An additional challenge was documenting the many avenues of the Native Coalition counterattacks and the complexity of their movements and tactics. Native men from at least five other villages (and perhaps some survivors from Wissantinnewag-Peskeompskut) mobilized and counterattacked the retreating English at various points within an hour or so after the English assault on the village ended. It also appears that the Native leaders predicted the primary English route of retreat and set up ambushes at various locations along the way. Generally, the battlefield evidence indicates a well-coordinated series of Native counter attacks from the front, flank, and rear that have provided important insights into Native strategy and tactics during the battle.

The results and new information obtained from 2024-2025 battlefield survey include:

1. New information obtained from additional musket balls and battle-related objects recovered from three resurveyed Loci: Locus J (Nash's Mill), Locus K (Holyoke's Retreat), Locus L (Deerfield River Ford East) (Figures 5 & 6).

2. Identification and survey of four new Loci; Locus M (Petty Plain), Locus N (Light Skirmishing), Locus O (Pine Barrens/Deerfield River Ford West), and Locus P (North Deerfield Meadows) (Figure 6).

3. New insights into the cultural association of large and small diameter musket balls, the diameter and number of small musket balls in load of 'buckshot', associated with English and Coalition forces, redefinition of categories of ranges of musket ball diameters (.1" – .45"; .46" - .49"; .50" - .59"; .60" – 69").

4. Identification of pistol balls on the battlefield and their diameter ranges.

5. Identification of four Native domestic sites at Locus A, Locus B, Locus I1, and Locus L. Locus A and B are the village of Wissantinnewag-Peskeompskut attacked by the English.

Project Scope and Objectives

The primary objective of the 2023-2024 Battle of Great Falls/Wissantinnewag-Peskeompskut Site Identification and Documentation Project was to complete the battlefield archeology survey of the project area to locate, sequence, and document battlefield actions (Core Areas of fighting) within the battlefield boundary and to assess the eligibility of the battlefield for nomination to the National Register of Historic Places.[6]

Several tasks were identified by the Town of Montague's Request for Proposals for the Battle of Great Falls/Wissatinnewag-Peskeompskut Site Identification and Evaluation Project. The results of these tasks will be discussed below:

Task 1: Develop an Archeological Research Design to standards acceptable by the ABPP and in accordance with Massachusetts Historic Commission permitting and standards. Research design should address NAGPRA and protocol for discovery of human remains, review the Pre-Inventory Research and Documentation Report (Phase I Report). The research design should be provided in draft form within 60 days of the notice to proceed. The research design should also include 1) the

[6] McBride, Et Al. *Final Technical Report Battle of Great Falls Pre-Inventory and Documentation Plan* (GA-2287-14-012). Note that the Indian settlement adjacent to the Falls and the Fall River environs are already within the bounds of the Riverside Archaeological District (1975).

specific location of all field surveys and 2) an explanation for how landowner permissions will be obtained prior to accessing the identified site(s). The town will distribute the draft and final archaeological research design to the National Park Service, MA State Historic Preservation Office, and all federally recognized tribes with an interest in the APE.

Task 2: Conduct Field Survey in accordance with the Secretary of Interior's Standards and Guidelines for Archeological Documentation. S*pecific Information on these tasks is discussed in the Research Design outlined below.*

2.1 Walkover Survey: A pedestrian survey will be conducted of the study areas to identify artifacts that may be visible on the surface. Much of the remaining land in the study areas is covered with vegetation or previously developed and probably will have no visible artifact concentrations. The Town will hire a representative from the Tribal Historic Preservation Offices (THPO)s from Narragansett, Wampanoag of Gay Head (Aquinnah), and Nipmuc tribes to be present during walkover.

2.2 Remote Sensing: The walkover will be followed with a metal detector survey of selected areas within each of the core areas. The survey will be conducted using a grid of points, established in proportion to the size of the area to be examined. "Hits" will be flagged, mapped and evaluated with small excavation units. The grid location and depth of each artifact will be recorded on GPS for use in making a GIS map of artifact distribution. The Town will hire a THPO from Narragansett, Wampanoag of Gay Head (Aquinnah) and Nipmuc tribes to be present during remote sensing.

2.3 Subsurface Testing: Subsurface testing may also be conducted in core areas and sites that are expected to contain significant numbers of non-metallic artifacts and features. Examples of these sites are White Ash Swamp and Village core areas. The Town will hire a THPO or their representative from Narragansett, Wampanoag of Gay Head (Aquinnah), and Nipmuc tribes to be present during all subsurface testing.

2.4 Prepare GIS Map of Battlefield Area: The NPS battlefield survey data dictionary will be referenced. An archaeological permit application will be submitted to the Massachusetts Historical Commission within a few weeks after the contract is awarded.

Task 3: Laboratory Analysis and Curation. The field methodology will be designed to document the battlefield boundaries with minimal artifact collection. Some artifacts will be recovered, however, so adequate laboratory facilities are required to handle the expected classes of recovered materials which may include small, corroded metallic objects, such as shell fragments, bullets, buckles and so forth. All artifacts will be cleaned, assessed for conservation needs, identified and catalogued with the location of each plotted on the battlefield base maps. The PI and Town of Montague will identify a museum that meets National Park Service Standards according to statute 36 CFR 79: Curation of Federally Owned and Administered Archaeological Collections.

Task 4: Public Meetings. Coordinate a public planning process which shall include three meetings. The first meeting will be to present the goals of the project. The second meeting will be to solicit public comment on the draft report. The third meeting will be a presentation of the final report. The meetings shall be coordinated with the Battlefield Advisory Board.

Task 5: Interpretive Sign Design. create digital designs for up to 4 interpretive signs for the public using information provided by the PI. Signs shall incorporate text and photographs from current and previous studies. The signs shall be approved by the Battlefield Grant Advisory Board. The designs shall be delivered in a reproduceable format.

Task 6: Technical Report. Prepare a draft and final technical report as specified in the work plan, with a preference for a final product that is in consistent format with the preceding technical reports. The report must meet Section 508 requirements. The Town will distribute the draft and final technical report to the National Park Service, MA State Historic Preservation Office, and all federally recognized tribes with an interest in the APE. *Specific Information on this task is discussed in the Research design discussed below.*

Task 7: Provide monthly updates to the Battlefield Grant Advisory Board through a written report or participation in the monthly board meetings.

Task 8: Following approval of the final report document, the consultant shall provide the Town with ten (10) acid-free paper copies of the Technical Report and GIS map. One copy should be redacted following guidelines outlined in Section 304 (54USC 307103-Access to Information); Title 54-National Park Service and Related Programs.

II. Methods

The discipline of Battlefield Archeology is concerned primarily with the identification and study of sites where conflicts took place, and the archeological signature of the event. This requires gathering information from historical records associated with the battle including combatant dispositions and numbers, the order of battle (command structure, strength, and disposition of personnel, and equipment), as well as any undocumented evidence of an action or battle gathered from archeological investigations. The archeology associated with battlefields allows battlefield historians and archeologists to reconstruct the progress of a battle, assess the veracity of historical accounts of the battle, and fill in any gaps in the historical record. Battlefield archeology also seeks to move beyond simple reconstruction of the battlefield event and move toward a more dynamic interpretation of the battlefield.[7]

[7] Richard Fox & Douglas Scott. "The Post-Civil War Battlefield Pattern: An Example from the Custer Battlefield" in *Historical Archeology*, Vol. 25, No. 2, 1991. (92-103).

Battlefield Boundary - Battle of Great Falls/Wissantinnewag-Peskeompskut

The first step toward battlefield preservation is to define battlefield boundaries. In 2016 the ABPP revised their Battlefield Survey Manual to focus the attention of battlefield researchers on a standard methodology to provide State Historic Preservation Offices, local planners, preservation advocates, and others with a reliable and standardized methodology to enable the ABPP to compare information across all wars and all sites.[8]

One of the more significant changes in the revised manual was the redefinition of the term Battlefield Study Area to Battlefield Boundary:

> Perhaps a weakness of the old manual was the use of the term "study area" to indicate the furthest extent of the historic battlefield boundary. Casual researchers frequently equated the "study area" to the Project Area or Vicinity Area of a general study which may include buffers in the boundary of land that really had little value. Just the term devalued the historic resource. It was difficult for our partners to defend that the "study area" has known, studied and identified historic resources. Worst, even less careful investigators use the term to indicate that there was no value outside of the Core Area as defined by our surveys. For this reason, the ABPP has decided to change the term to indicate that the battlefield boundary is indeed the currently understood boundary of the battlefield.[9]

The Battlefield Boundary should accurately reflect the extent of the battle and is defined as the ground over which units maneuvered in preparation for combat, the salient places where battle events occurred, and important cultural landmarks and terrain features. This requires establishing the Battlefield Boundary and delineating it on a USGS 7.5 series topographic map or other GIS referenced maps. The boundary must be defensible based on historical and/or archeological evidence, and the final map must demonstrate that the boundaries encompass legitimate historic resources. Battlefield boundaries should be defined as objectively as possible to include the salient places where battle events occurred and where important landmarks are located and should accurately reflect the extent of the battle and encompass the ground over which units maneuvered in preparation for combat. The initial survey should include all known historic standing, terrain, or archaeological resources associated with the battle. Once the battlefield survey is completed and the final battlefield map is marked with defining features and boundaries,

[8] National Park Service American Battlefield Protection Program, *Battlefield Survey Manual* (Washington, D.C.: National Park Service, 2016).
[9] ABPP. *Battlefield Survey Manual*. P. 3.

informed preservation decisions can be made. The battlefield survey should result in the definition of three boundaries:

- Battlefield Boundary defined as the maximum delineation of the historic battle and associated terrain.
- Core Area(s), which defines the area where significant combat events occurred.
- Potential National Register Boundary (PotNR), which contains only those portions of the battlefield that have retained integrity.

In the case of the Battle of Great Falls/Wissantinnewag-Peskeompskut, the Battlefield Boundary, Core Area(s), and National Register Boundary are very similar and determined primarily by the distribution of battle-related objects along a linear battlefield landscape.

Defining Battlefield Boundaries and Core Areas

Defining Battlefield Boundaries and Core Areas of the battlefield is a critical part of the battlefield documentation process.[10] The Battlefield Boundary is defined as the maximum delineation of the historical site and should contain all the terrain, cultural features, and artifacts related to or contributing to the battle event including where combatants maneuvered, deployed, and fought immediately before, during, and after combat. In the Battle of Great Falls, Deerfield North Meadows immediately south of the Deerfield River fords is considered the southern boundary of the battlefield as it marks the English Avenue of Approach and Retreat and where the fighting ended. The Peskeompskut village in Riverside marks the current northern boundary of the battlefield as it marks the northernmost extent of fighting. The remaining boundaries will be determined by the maximum distribution and extent of battle-related objects (primarily musket balls) that delineate fighting along the White Ash Swamp, Cherry Rum Brook, and the west bank of the Green River. The five other Coalition villages along the Connecticut River in the immediate vicinity of the battle will also help define the Battlefield Boundary as Native men from these villages mobilized to attack the retreating English.

The Battlefield Boundary functions as the tactical context and visual setting of the battlefield. Natural features and contours on relevant USGS 7.5-minute quadrangle maps are used to outline a Battlefield Boundary and should include all locations and terrain features that directly

[10] ABPP. *Battlefield Survey Manual*. P. 28-29.

contributed to the development and conclusion of the battle. The Battlefield Boundary should include the following:

- Core Areas of combat (e.g., Loci A-P).
- Avenues of Approach and Withdrawal/Retreat.
- locations of all deployed units of the combatants on the field, including reserves.
- preliminary skirmishing if it led directly to the battle.
- logistical areas (supply trains, encampments/villages, storage facilities, villages, watercraft, etc.).

The Core Area(s) of a battlefield must fall fully within the Battlefield Boundary and defined as the area(s) of direct combat and include those places where the opposing forces engaged and incurred casualties. Currently twelve Core Areas or discrete battlefield loci (A-P) have been identified, but the reality is the battlefield is characterized by almost continuous fighting punctuated by more intense episodes of fighting (Figures 2-6). The natural features and contours on USGS 7.5-minute quadrant maps help to define Core Areas and should include the areas of confrontation, conflict, and casualties. Natural barriers, such as rivers, creeks, swamps, hills, and ridges often restrained or enhanced the movement of the combatants and can provide a natural landscape or topographical boundary for the battlefield. Generally, Core Areas can be reasonably well defined in Revolutionary War and Civil War battlefields based on better documentation and maps compared to seventeenth-century battlefields. No known period maps document the Battle of Great Falls, and the available documentation with respect to battle locations and actions is ambiguous or nonexistent. As such the Battle of Great Falls Battlefield Boundary and Core Areas will be delineated primarily based on the nature and distribution of battle-related and domestic objects and key terrain and cultural features.

When the original Study (now Battlefield Boundary) and Core Areas were identified it was not precisely known where the English route of retreat was located, how many different routes the English used during the retreat, nor the nature and locations of all the actions associated with the battle. The boundaries of the Study Area and locations of Core Areas were based entirely on primary sources associated with the battle and were imprecise and too broad as proven by the recent battlefield survey. The recently completed battlefield survey has confirmed some of the

original Core Areas but has identified several new actions and terrain features. Many more actions should be anticipated when the entire battlefield has been completely surveyed.

Areas of Integrity

Areas of integrity delineate portions of the historic battlefield landscape that still convey a sense of the historic scene (retain visual and physical integrity) and can still be preserved (See: Part III Battlefield Landscape and Key Terrain Features). Any areas of the Battlefield Boundary and Core Areas that have been impacted or otherwise compromised by modern development, erosion, or other destructive forces and can no longer provide a feeling of the historic setting are excluded from areas of integrity. However, some battlefields in suburban areas may still retain integrity and significance if artifacts or other archeological information are intact.

The Riverside neighborhood in Gill, Massachusetts, is the supposed location of the Peskeompskut village attacked by Turner's company. It has been significantly impacted by nineteenth and twentieth century industrial development with numerous cut and fill episodes, high water levels resulting from the Turners Falls Dam that may have submerged significant portions of the battlefield, and a high density of residential homes. The area certainly has no visual integrity and metal detector surveys during the Phase I project indicated the area does not retain physical integrity either. The Lower Factory Hollow area has also been significantly impacted by industrial activity, industrial construction and demolition episodes, and residential construction. One of the largest impacts is from the thousands of non-battle related objects and debris from industrial activities which make it extremely difficult to identify any battle-related objects amongst the "noise" from thousands of more recent metal objects. Areas along the projected battlefield route between the southern end of Colrain Road to Petty Plain Road to the southeast were heavily impacted by twentieth century highway construction and related activities making it virtually impossible to survey.

However, as demonstrated from the Phase I and Phase II surveys many portions of the Great Falls battlefield still retain a high degree of visual and physical integrity that convey a sense of the historic scene and battlefield landscape. Since the 1676 battle, houses, factories, and roads have impacted sections of the battlefield and the nature of the vegetation has certainly changed (it was likely a more open forest), but the battlefield terrain and geomorphology are relatively

unchanged and still provide a sense of the visual setting at the time of the battle. The most significant impacts to the battlefield are those resulting from 350 years of land use after the battle. Post-battle artifacts recovered from the battlefield include hundreds of lead bullets, horse and ox shoes, quarry tools such as feathers and plugs, chain links, and personal items such as coins, buttons and harmonicas. While these activities resulted in thousands of non-battle related objects deposited on the battlefield landscape and made the identification of battle related objects more challenging, they do not significantly affect the integrity of the battlefield.

Battlefield Pattern Analysis

Traditional battlefield interpretations and reconstructions rely primarily on historical information (e.g., battle accounts, narratives, diaries, etc.), occasionally augmented by oral histories and random collections of battle-related objects. These reconstructions tend to focus only on the analysis of the spatial distribution of battle related objects which resulted in a static reconstruction of the battlefield, referred to as Gross-Pattern Analysis. Douglas Scott, Richard Fox, and others have advocated for an approach to battlefield archeology that moves beyond the particularistic and synchronic approach characteristic of Gross-Pattern Analysis in battlefield reconstructions.[11] This approach was developed to document the Battle of the Little Big Horn. This approach referred to as Dynamic-Pattern Analysis, adds a temporal dimension to battlefield reconstruction by integrating discrete battlefield events and their archeological signatures into a cohesive spatial and temporal sequence.

The key to a dynamic battlefield analysis as defined by Scott and Fox is the identification of individual and unit actions that "allows resolution of individual positions and movements across the battlefield."[12] In the case of the Battle of the Little Bighorn this was largely achieved through modern forensic ballistic analysis of thousands of rifled bullets and cartridge cases which allowed researchers to track individual firearms (bullets and shell casings) across the battlefield. This model integrating spatial and temporal dimensions of the battlefield has been the paradigm for Civil War and post-Civil War battlefield archeology since 1985. A dynamic reconstruction of battlefield events requires an ongoing assessment of the congruence of the historical and

[11] Douglas D Scott, *Archeological Perspectives on the Battle of the Little Bighorn* (Norman, OK: University of Oklahoma Press, 1989); Fox and Scott, "Post-Civil War Battlefield Pattern." Pp. 92-103.
[12] Scott. *Archeological Perspectives on the Battle of the Little Bighorn.* P.148.

archeological record to identify discrete group (units) or individual actions and movements on the battlefield to place them in a temporal framework. This approach would seemingly not work on seventeenth-century battlefields where the projectiles were musket balls, and the actions of individuals could rarely if ever be identified. Nonetheless a modification of this approach that focused on group actions was successfully adapted to document the Great Falls/Peskeompskut battlefield.

Although individual actions could not be identified based on the identification of a unique ballistic signature several distinct actions were identified on the Great Falls/Peskeompskut battlefield in past surveys and during the 2024-2025 field seasons. Within these areas, designated Locus A through Locus P, lead shot was recovered in specific context which suggested they were largely fired by specific combatants, either Native American Coalition Forces (Coalition) or English Massachusetts Bay Forces (English). When compared across the entire battlefield these unique patterns of lead shot appeared to correspond with combatants, most notably among small shot ammunition. Based upon these observations a range of shot diameters was developed to assist in a dynamic battlefield analysis of the Great Falls/Peskeompskut Battlefield site. First, lead shot was divided into two general categories: Small Shot (.10”-.45” diameter) and Musket Ball (.46”-.69”) ammunition. Small Shot consists of multiple lead shot used in a single discharge like modern “buckshot.” Musket Ball ammunition is a single lead projectile discharged from a firearm. Both types of ammunition exhibit distinct wear patterns because of how they were loaded and discharged which assist in identification. For example, properly loaded small shot with a full powder charge and wadding results in multiple facets on the balls from compression and from being pressed against the barrel. A singly fired musket ball typically a few thousandths of an inch smaller than the barrel diameter, if properly loaded with a full powder charge and rammed tightly down with a ramrod, often exhibits ramrod marks from the loading process and a firing hemisphere from being swaged through the length of the musket barrel and it will not exhibit other facets.

Within these two broad categories musket balls were further categorized as follows. Small Shot (.10”-.45”) was subdivided based on patterns observed in the several battlefield Loci. Recovered lead shot within range of .18” - .32” diameter was considered Coalition ammunition as it largely appeared in battlefield contexts where it appeared to be by Coalition Forces. Lead shot within the .33” - .34” diameter range could not be confidently attributed to either side as this ammunition appeared to be utilized by both combatants based on the artifact distribution, context,

and association at various Loci. Lead shot between .35” -. 45” was considered English ammunition as it largely appeared in battlefield contexts where it appeared to be fired by English forces.

Musket Balls (.46”-.69”) was also subdivided based on spatial patterns, direction of fire, and other associations observed in the several battlefield Loci. Lead shot ranging from .46”-.49” diameter was rarely encountered on the battlefield but when they were recovered, they all appeared to be singly fired either as pistol ammunition or from smaller caliber fowling muskets. Nineteen pistol balls were identified based on the presence of firing hemispheres and/or ram rod marks on smaller diameter musket balls. It is assumed that most of the pistols are associated with English combatants. Lieutenant Holyoke discharged his two pistols at Coalition forces who attempted to kill him after his horse was shot from under him.[13]

Musket balls that fell within the .50”-.59” diameter range was generally attributed to Coalition Forces as they often were associated with a clearly Native American Coalition context. In several cases, several specific musket ball diameters could be confidently associated with either Coalition or English forces. Comparative research documented the existence of similar diameter and type (i.e., cylindrical) lead shot recovered from seventeenth century Native American military and mortuary sites including Fort Hill, Hinsdale, New Hampshire (27CH85), Burrs Hill, and a Narragansett cemetery in Providence, Rhode Island (RI-1000). Even so, there are a few examples of ammunition in the .50”-.59” diameter range fired by English forces which indicate mixed use of these musket balls by both combatants. Finally, musket balls from the .60” - .69” diameter range were determined to be used by both Coalition and English forces based on their context and association in various Loci. Upon analysis of individual Loci musket balls within the .60”-.69” range could often be confidently attributed to one combatant or the other, while a few battlefield Loci exhibited evidence of both combatants using similar ammunition.

Locus J provides a good representative example of how this methodology was employed on the Great Falls/Peskeompskut Battlefield during the 2024-2025 Phase III survey. Locus J: Green River Ford represents a coordinated Native Coalition ambush of English forces retreating along present-day Mill Brook towards the Green River Ford in addition to an English counterattack and a newly documented fording location used by the English west of the traditional fording area. As English forces retreated west under fire along Cherry Rum Brook and down Mill Brook towards

[13] Hubbard, *A Narrative of the Troubles with the Indians*, pp. 85-86

the Green River, they were forced to enter a valley flanked by steep, wooded hillsides to the east and west. There, Native Coalition forces positioned an unknown number of troops and potentially a sizeable force on the south side of the Green River and ford crossing itself. Based on the artifact distribution in Locus J it appears English forces were unable to cross the ford at the traditional location. Although historical accounts note that Captain Turner and other were killed at this point there was no indication the other English troops successfully crossed. Approximately 100 yards (91.44 meters) north of the ford and 50 yards (45.72 meters) north of the Mill Brook over 100 musket balls were recovered along the hillside including several discreet concentrations of small shot indicating a single discharge at close range (less than 25 yards / 22.86 meters) which suggest that the rear of the English forces, likely lead by Lieutenant Holyoke, went on the offensive as the front of the column was unable to cross the ford. The survey identified impacted musket balls on the steep slopes overlooking the northern bank of the Green River, much further west than anticipated and small-shot loads impacted in concentrations that could not be created if fired from the south side of the Green River had English troops crossed at the usual ford location. Most of the musket balls recovered from Loci J, were located mostly on the southern and eastern slopes of the hill overlooking the Mill Brook and Green River (Figure 5). Many of the ball appear to have been fired as the English attacked the southern and eastern slopes of the hill to push the Coalition forces up the hill. This scenario is not explicitly mentioned in the battle narratives but nonetheless but is suggested by English musket balls fired as buckshot in tight clusters mid-way of the slope of Nash's Mill (Figure 5) The context and proximity of musket balls associated with certain terrain features indicates the English may have dismounted from their horses to fire over certain terrain features and to get close to the Coalition forces positioned on the slopes of the hill. The direction of fire could also be determine indicating English or Coalition fire. It now appears that some of the English eventually mounted a cohesive defense as they approached the Green River Ford and fought hard along portions of their retreat likely resulting in several Native casualties.

Military Terrain Analysis (KOCOA)

A key aspect of battlefield reconstruction is to try to understand and view the battlefield terrain through the soldiers' eyes. The military has developed a process for evaluating the military significance of the terrain denoted by the mnemonic KOCOA—Key Terrain, Obstacles, Cover and Concealment, Observation and Fields of Fire, Avenues of Approach and Retreat.

Key Terrain: Ground that when controlled and occupied gives its possessor an advantage. Examples within the Great Falls battlefield include the White Ash Swamp, elevated terraces overlooking the Deerfield River Ford, bedrock ridges at the Mountain Gap, and the fords at the Green and Deerfield Rivers. These areas were used by the Native combatants to attack the retreating English column and set ambushes.

Obstacles: Terrain features at the time of the battle that prevented, restricted, channeled or delayed troop movements included steep slopes and bedrock ridges, the White Ash Swamp and the Connecticut, Deerfield, and Green Rivers. Other examples include the "Mountain Gap" the English were forced to pass through to escape Native counterattacks, and the swales leading to high ground from lower to upper Factory Hollow and the fords over the Green and Deerfield Rivers. Some of the very steep terrain along the English route of approach and retreat would not have been an obstacle for soldiers on foot but significantly restricted use and access of these areas if soldiers were on horseback. Examples include the terrace edge along the west bank of the Green River and the very steep slopes overlooking the Falls River along the east side of the river.

Cover and Concealment: Cover is protection from the enemy's fire, such as the brow of a hill, a ravine, or lip of a terrace. Concealment is cover from observation by the enemy. Examples include the White Ash Swamp that provided concealment to the Native combatants and opportunities to set ambushes.

Observation and Fields of Fire: The ability to observe the movements of the enemy and to prevent surprise is a major advantage in battle. This might require occupying high ground that was not necessarily key terrain. An example of a terrain feature that provided Native combatants with an opportunity to observe the retreating English were the elevated bedrock outcrops along the route of retreat such as Rocky Mountain and Canada Hill assuming there were fewer trees than today.

Avenues of Approach and Retreat: The transportation networks in the broader Turners Falls area at the time of the battle consisted of paths, trails, and cart paths. Jonathan Wells, a soldier who was separated from the main body of English during the retreat mentions traveling along a footpath "which led up to the path the army returned in" as he could see hoof prints. These networks connected Native villages and colonial settlements, and fishing places and were used by the English and Native combatants to facilitate movement at the time of the battle.

Defining Terrain Features

The Native and English combatants who fought in the Battle of Great Falls oriented themselves on the battlefield with the cultural and natural landmarks of the historic landscape. A *defining feature* may be any feature mentioned in battle accounts or shown on historic maps that potentially can be located on the ground. Defining features referenced in historic sources at the time of the battle or shortly after include the Connecticut, Deerfield, Green, and Fall Rivers, Cherry

Rum and Mill Brooks, the fords at the Deerfield and Green Rivers, the White Ash Swamp, the five Native villages in addition to Peskeompskut documented in the Great Falls Area "at Deerfield, Cheapside, & the island & up above & on ye east side of ye river," a Native fort at Rawson Island, the footpath and road/path the English used during their approach and retreat, West Mountain, and Greenfield River Plain.[14]

Several other defining features were identified based on the presence and distribution of battle-related objects including "The Mountain Gap" (Locus C), the terraces overlooking the Falls River (Locus D), the swales along the slopes leading from Lower (Locus E) to Upper Factory Hollow (Locus F), and the White Ash Swamp (Locus G). The Cherry Rum Brook (Locus H & I) is also considered a defining terrain feature based on the fighting that occurred along its 2-mile (3.2-kilometer) length from the White Ash Swamp to the Green River and because the English used the brook to orient themselves in unfamiliar territory during the retreat. The high slopes northwest of Mill Brook and north of the Green River (Locus J), the fields further south the English retreat through (Locus K), the fields further southeast abutting the Green River known as Petty Plains (Locus L), the heavily contested terrain north of the Deerfield River Ford, and the vast open fields south of the Deerfield River where the fighting ended are all defining features that remain on the landscape today (Figure 7; Table 1).

[14] Thomas. "Rev. Stephen Williams's Notebook." Pp. 13, 15.

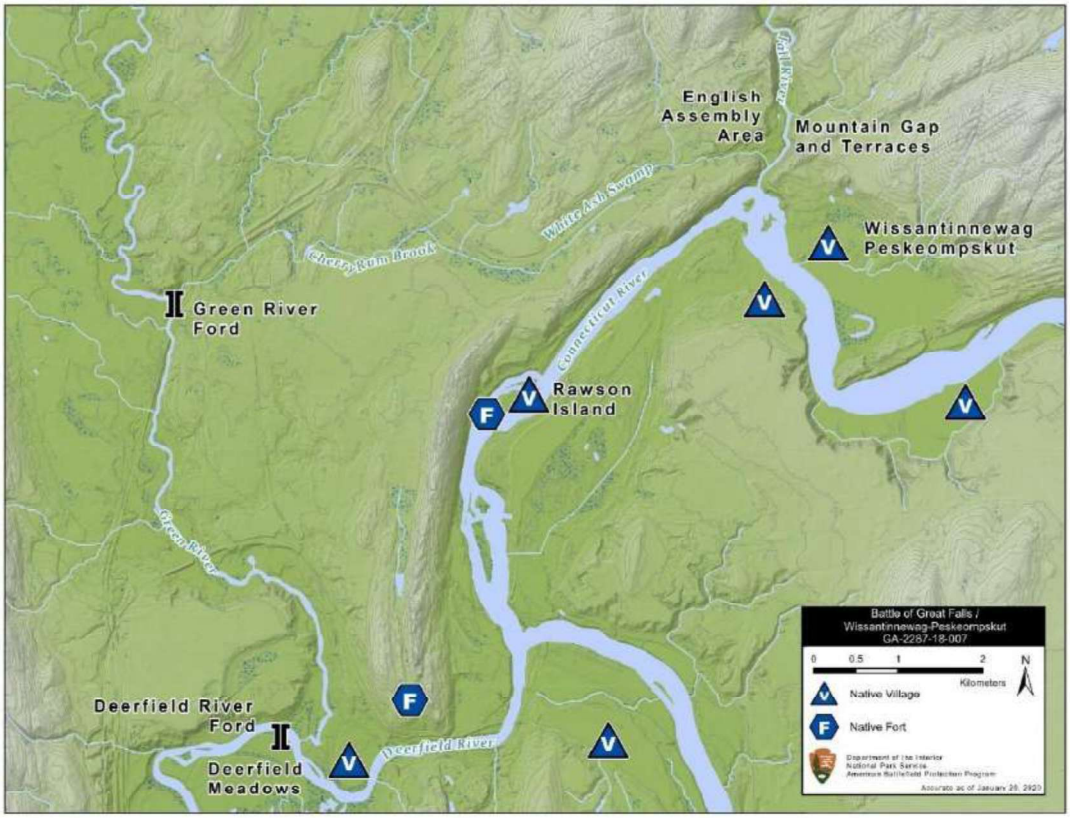


Figure 7. Battlefield Landscape and Defining Terrain Features.

Table 1. Defining Terrain and Cultural Features. Battle of Great Falls.

Name	Location	Relevance to Battle	Field Comment	KOCOA Analysis	Integrity
Defining Terrain and Cultural Features					
Locus A Peskeompskut	A 150-acre floodplain along the west bank of the river adjacent to the Great Falls	Site of a Native village, one of several in the area, it was the objective of the English and was attacked on May 19, 1676.	Heavily impacted by 19th and 20th century industrial and residential development.	Key Terrain (English)	Physical and visual integrity very low
Locus B Initial Coalition Counterattack	Situated between Peskeompskut and the Mountain Gap	Area of initial Native counterattacks on the 20 men who served as the rear guard as the main body of English troops retreated to their horses. It was the only avenue of retreat for the English	A relatively flat plain until a moderate slope on the western end leading to the Mountain Gap. Several musket balls were fired south to north indicating fire from pursuing Natives. Moderate residential construction.	Key Terrain, Route of Retreat (English), Key Terrain, Route of Approach (Native)	Excellent physical and visual integrity

Locus C Mountain Gap	A north-south bedrock ridge with east-west gap 125 yards east of the Fall River	A chokepoint used by Coalition forces to ambush the English as they passed through the gap to recover their horses on the west side of the Fall River.	High density of musket balls fired from south to north as English passed through the gap. Wooded.	Key Terrain, Route of Retreat (English), Key Terrain, Route of Approach (Native)	Excellent visual and physical integrity
Locus D Terraces	High ground situated between the Fall River and the Mountain Gap overlooking the Fall River	After exiting the Mountain Gap, the English retreated across the terraces to descend to the Fall River and cross to recover their horses. The level, open ground provided the English an avenue of escape from pursuing Coalition forces.	Nature and distribution of musket balls indicate English split into two groups. Wooded.	Key Terrain, Route of Retreat (English), Key Terrain, Route of Approach (Native)	Excellent visual and physical integrity
Locus E Lower Factory Hollow	A rising slope between Fall River and steep slope leading to Upper Factory Hollow	Location where the English tied their horses and had to fight Coalition forces to recover their horses. Swales leading up the western slope provided access to flat ground for English to escape on horses.	Very high centration of buckshot in swales leading from Lower to Upper Factory Hollow as Coalition forces tried to prevent English from escaping. Residential and wooded.	Key Terrain, Route of Retreat (English), Key Terrain, Route of Approach (Native)	Area east of steep slope heavily impacted, steep slope has excellent visual and physical integrity
Locus F Upper Factory Hollow	A level plain between Lower Factory Hollow and White Ash Swamp	When the mounted English escaped up the swales from Lower Factory Hollow the level ground allowed them to put some distance from the Coalition forces.	Majority of musket balls are large diameter as Coalition forces target English at greater distance. Agricultural.	Key Terrain, Route of Retreat (English), Key Terrain, Route of Approach (Native)	Excellent visual and physical integrity
Locus G White Ash Swamp	Swamp is located .45 miles west of Upper Factory Hollow and extends for .6 miles	Coalition forces set an ambush at eastern end of swamp scattering the panicked English into several groups.	Musket balls are distributed in a linear pattern along dry ground along the northern edge of the swamp.	Route of Retreat, Obstacle (English), Key Terrain, Cover and Concealment, Route of Approach (Native)	Good visual and physical integrity
Locus H Cherry Rum Engagement	Located along Cherry Rum Brook in area of low ground .9 miles west of White Ash Swamp	Area may have been a thicket or swamp used by Natives for concealment. English may have suspected as high density of musket balls most appear to be English fire. English may have regained some cohesion.	Musket balls distributed over 10 acres 10 yards either side of brook. Wooded.	Route of Retreat, Obstacle (English), Key Terrain, Cover and Concealment, Route of Approach (Native)	Excellent physical and visual integrity

Locus I Cherry Rum Brook	Brook from White Ash Swamp to Green River a distance of two miles. used by the English to orient themselves during the retreat	As Coalition forces could anticipate English movements as they stuck close to the brook to guide to during their retreat Coalition forces could predict when and where they would be.	Residential in some areas wooded in others. Intermittent areas of steep ground and level ground musket balls recovered all along the brook.	Route of Retreat (English), Key Terrain, Cover and Concealment, Route of Approach (Native)	Good visual and physical integrity
Locus J Green River Ford	Ford used by the English at the confluence of Cherry Rum and Green Rivers	Coalition forces set an ambush along the ridge overlooking the ford. Chokepoint as English had to maneuver within a very narrow valley to cross the ford. Turner was killed leading English forces across the Green River ford.	Musket balls recovered on slope of ridge indicates English fire at Coalition forces. North side of the Green River is wooded while the south side is developed into a town recreation area and beach.	Route of Retreat, Obstacle (English), Key Terrain, Cover and Concealment, Route of Approach (Native)	Visual integrity is good, physical integrity moderate from construction of town park and Nash's Mill Road Bridge.
Locus K Holyoke's Retreat	A level plain on west side of Green River extending south from Green River Ford south to Arms Brook.	Musket balls found west of the Green River Ford suggest English crossed there and retreated west along present-day Nash's Mill Road and then south in the vicinity of present-day Colrain Road.	Musket balls and English equipment recovered over a distance of 1-mile indicating moderate contact between combatants. Agricultural and moderate residential development.	Key Terrain, Route of Retreat, (English), Route of Approach (Native)	Good physical and visual integrity
Locus L English Retreat Through Petty Plain	A level plain or plateau on the south and west side of Green River east of present-day Wisdom Way and north of present-day Petty Plain Road.	English forces retreated along a route taking them to a ford on the Deerfield which took them over a hill on the west side of the Green River.	Musket balls and English equipment recovered over 1-mile indicating little contact between combatants. Residential development and site of cemetery.	Key Terrain, Avenue of Retreat (English)	Good visual and physical integrity
Locus M Deerfield River Ford	One of two locations used to ford the Deerfield River to the west of the Green River. The second ford further west was used by English forces on their approach to the falls.	The Deerfield River Ford on the west side of the Green River was used by the English as an Avenue of Retreat. The terrace above ford was a bottleneck and Coalition forces attacked the English as they waited to descend.	Moderate residential development, lightly wooded.	Key Terrain, Avenue of Retreat (English), Key Terrain, Cover and Concealment (Native)	Good visual and physical integrity

Locus N North Deerfield Plains	Fields south of the Deerfield River Ford crossed by the English on their Approach and used by the English during their retreat. This was where the fighting ended.	Open fields where the English were able to outpace pursuing Coalition forces. Fighting ended on the plains south of the Deerfield River.	Open Space, Agricultural.	Key Terrain, Avenue of Approach and Retreat (English and Native)	Excellent physical and visual integrity
Native Villages and Forts	Five Native villages and one or two were distributed along the CT River from Cheapside to the Miller River.	The villages/forts contributed men in the battle against the English.	Moderate Residential Development, Wooded, Public Roads	Key Terrain, Observation (Native), Obstacles, Fortified Place	Fair physical and visual integrity
Connecticut River	The CT River runs south from the border with Quebec, Canada and discharges at Old Saybrook, CT.	The portion of the CT River beginning south at Deerfield and running north to Gill served as a major obstacle to English and used by Native forces to move men into battle	Substantial Industrial development around the towns of Gill and Montague, Open Space, Wooded	Key Terrain, Obstacle (English & Native), Avenue of retreat & approach (Native)	Good: Location, setting, feeling, association, material
Fall River	A tributary of the Connecticut River which empties just below Great Falls.	English forces dismounted and left their horses and a small guard west of Fall River. The main force crossed Fall River and continued east.	Moderate Residential Development, Open Space, Wooded, Public Roads	Key Terrain, Obstacles, Avenue of Approach & Retreat (English & Native)	Good: Location, setting, feeling, association, material culture
Arms Brook	A small brook that runs along the west side of present-day Colrain Road southwesterly until it meets the Green River.	Coalition forces utilized Arms Brook for cover and concealment as well as a route of approach to intercept English forces.	Low Residential Development, Wooded, Open Space, Agricultural.	Key Terrain, Obstacle (English), Avenue of Approach, Cover and Concealment (Native)	Good visual and physical integrity
Deerfield River/Petty Plain	Located north of the Deerfield River and west of the Green River	English forces forded the Deerfield River and crossed Petty Plain towards the Green River.	Moderate Residential Development, Open Space, Wooded, Public Roads	Key Terrain, Avenue of Approach & Retreat (English & Native)	Fair: Location, setting, feeling, association, material culture

Battlefield Landscape.

Four types of resources make up the battlefield landscape: *natural features, cultural features, military engineering features,* and *artifacts*. An important aspect of the battlefield analysis is the reconstruction of the historic and battlefield landscape to identify natural and

cultural features present within the Battlefield Boundary and to determine how they were used by the combatants and which may have influenced the outcome of the battle.[15] A cultural landscape is defined as a geographic area which includes both cultural and natural resources associated with the historic battlefield event and which contribute to the landscape's physical appearance.[16] In addition to vegetation and topography, cultural landscapes include water features, such as ponds, streams, wetlands, and rivers; circulation features such as paths, roads, and fords, and the built environment such as fences, corn fields, and villages.

To identify, document, survey, and map a battlefield landscape relevant historical accounts must be searched to identify the historic landscape that defined the battlefield through terrain analysis and identification of natural and cultural features associated with the battlefield. Elements of the Great Falls battlefield landscape that can still be seen today include the Connecticut River, Fall River, Green River, and Deerfield River, and Cherry Rum Brook, Arms Brook and White Ash Swamp as well as the numerous bedrock ridges, terraces, and swales that define and influenced the course of the battle (Figure 6).

Natural Features

The natural terrain or topography of the battlefield landscape is defined by the drainage pattern and relative elevation. Natural features within the Great Falls battlefield include rivers, streams, swamps, hills and valleys, and the natural land cover at the time of the battle which included stands of young and old trees, abandoned and newly planted corn fields, and swamp vegetation. Nuances of the terrain that are not necessarily apparent on a contemporary map may have influenced how the battle was fought. For example, at the "Green River Ford Fight" (Locus J), the wooded slopes of a steep hill along the west side of Mill Brook provided cover for Native Coalition forces who battled with mounted English troops below who attempted to ford the Green River below which itself was a natural obstacle. This area proved to be an ideal terrain by which the Native attackers could pour fire into the massed group of English waiting to cross the ford at the Green River. As Captain Turner and others fell, both killed and wounded, attempting to cross

[15] John Carman & Patricia Carman, "Mustering Landscapes: What Historic Battlefields Share in Common" in Eds. Douglas Scott, Lawrence Babits, and Charles Haecker. *Fields of Conflict: Battlefield Archeology from the Roman Empire to the Korean War* (Washington, D.C.: Potomac Books, 2009).

[16] Susan Loechl, S. Enscore, M. Tooker, & S. Batzli. *Guidelines for Identifying and Evaluating Military Landscapes* (Washington, DC: Legacy Resource Management Program, Army Corps of Engineers, Washing, D.C. 2009).

the river English forces came to a halt in the valley at the base of the hill where they returned fire on their attackers on the slopes above. With few options the next ranking officer, Lieutenant Holyoke, took command, retreated west along the base of the hill his men were taking fire from to break from the attack, and crossed at a point 75 yards (240 meters) further west. This maneuver also afforded the English some cover by keeping so close to the base of the hill they could effectively give fire while making it difficult for Native Coalition forces to depress their firearms low enough to hit them.

It is also important to assess how much the terrain has changed since the battle event. Have streams been diverted or channeled? Have swamps and bogs been drained or filled? Have terrain features been destroyed by sand and gravel operations? Have any of the steep terrain features along the Fall, Green, and Deerfield Rivers have been altered by erosion? Peter Thomas' analysis of the changing course of the Deerfield River over the last two hundred years indicates that the original fords may have been altered (Figure 8). Erosion along the east bank of the Fall River and Green River may have impacted portions of the battlefield. Finally, the construction of State Route 2 and Interstate 91 may have significantly impacted portions of the battlefield through cutting and filling.

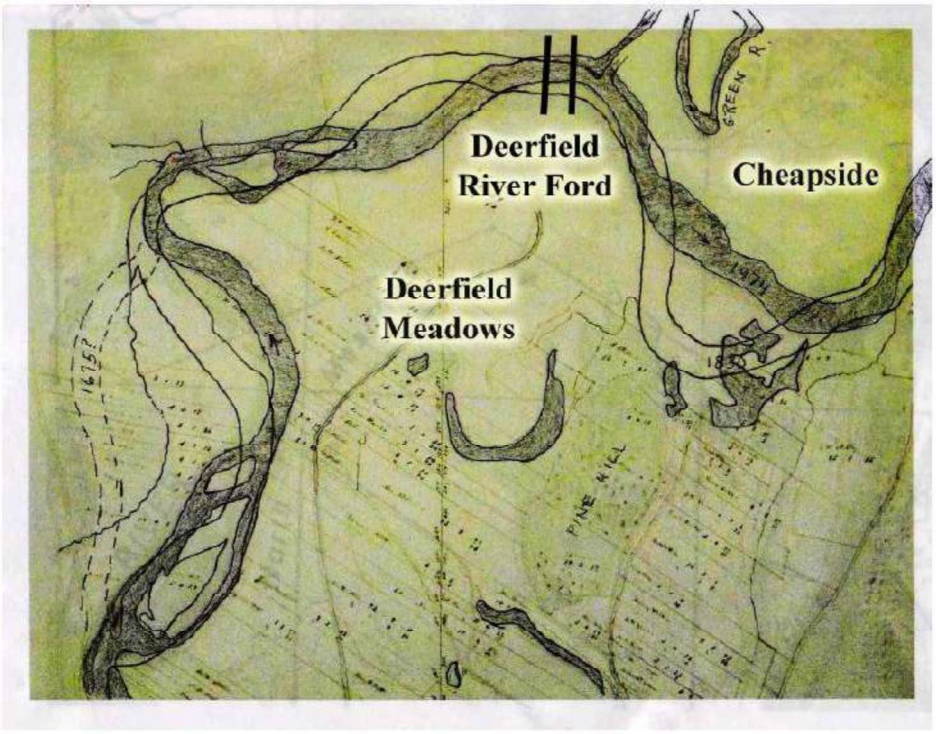


Figure 8. Changing Channels of the Deerfield River. Ca. 1675 – 1974 (Map Courtesy of Peter Thomas).[17]

[17] The map depicts the river's configuration in 1830 and 1974. It undoubtedly shifted between 1675 and 1830.

Cultural Features

Cultural features are elements of the historic landscape created by humans. The Great Falls battlefield landscape was the result of hundreds if not thousands of years of Native land use that included fishing camps and villages, fortifications, agricultural fields, burial and ceremonial places, and networks of paths and trails that connected communities and resources. A brief description of Rawson Island a month after the battle provides an interesting perspective on the built environment and cultural landscape at the time. Except for the fort the cultural features described at this location would have been found at any of the Native villages:

> *June*. 28. About thirty of ours adventured to go up the River towards the Falls at *Deerfield*, to see what Indians they could espy thereabouts, but coming they found none. They went to an Island where they found an hundred *Wigwams*, and some English plundered Goods, which they took, and burnt the *Wigwams*. Also they marched up to a Fort which the Indians had built there, and destroyed it. Digging here and there they found several Indian Barns, where was an abundance of Fish, which they took and spoiled, as also thirty of their Canoos".[18]

The cultural landscape, in turn, was shaped by topography, natural drainages, elevations, mountain gaps, fords, and soil quality. The presence of the Great Falls and the numerous river confluences in the Great Falls area were ideal locations to capture anadromous fish in the spring and greatly influenced the locations of fishing camps and villages. The cultural landscape influenced the speed, location, nature, and direction of combat. River fords, paths and trails suitable for horses largely dictated the speed and routes of the English approach and withdrawal and could be used by the Native combatants to predict the route of the English retreat and set ambushes at key locations.

There were at least six Native villages in the immediate vicinity of the Great Falls area between the Green and Miller Rivers (Figure 7). In addition to Wissantinnewag-Peskeompskut (Riverside) on the south bank of the Connecticut River, English sources identify many others; the east bank of the Connecticut River across from Wissantinnewag-Peskeompskut, at the confluence of the Deerfield and Green Rivers at an area known as Cheapside, one (fort and village) at Rawson Island, and one further upriver from Wissantinnewag-Peskeompskut perhaps near the Miller River. These villages were occupied at the time of the battle and contributed fighting men to the battle. It

[18] Mather. *A Brief History*. P. 57.

is not entirely clear why the English decided to attack the village at Wissantinnewag-Peskeompskut, but that decision influenced their route of approach, where they tied their horses, their Avenue of Approach, and their deployment during the attack. The locations of the remaining villages greatly influenced the outcome of the battle based on their positions near or adjacent to the English route of retreat, the number of Native men they contributed to the battle, and the speed and location with which they engaged the English during the counterattack. Native men from all the remaining five villages sent men against the English during the counterattacks (Figure 1):

> …& Captain Wells says that ye difficulties they were exposed to in the retreat was probably owing to ye long stay they made in the place of victory [Wissantinnewag-Peskeompskut]…this gave time to ye Indians that were at Deerfield, Cheapside, & the island & up above & on ye east side of ye river to get together & when they did make head against our men ye army drew off in great order and confusion.[19]

> The soldiers so cut off were surprised by a party of the enemy belonging to the Indians at Deerfield.[20]

> In the meanwhile, a party of Indians from an Island (whose coming on shore might easily have been prevented, and the Souldiers before they set out from *Hadly* were earnestly admonished to take care about that matter) assaulted our men; yea, to the great dishonour of the English.[21]

Military Engineering Features

Military earthworks (field fortifications, palisades, entrenchments, trenches) are an important resource for understanding a battle event. Surviving earthworks often define critical military objectives, opposing lines of battle, and no-man's land. Two Native fortifications are mentioned around the time of the battle, one at Rawson Island, "they [English] marched up to a Fort which the Indians had built there, and destroyed it" and a second possibly at Cheapside "and their fort close by Deerfield River,[22] It is unlikely this is a reference to the fort on Rawson Island on the Connecticut River, as the confluence with the Deerfield River is located 1.3-miles downstream, and Cheapside is located 2-miles f up the Deerfield River. From the confluence with the Connecticut River. Just east of and adjacent to Cheapside is the southern terminus of a large

[19] Thomas. "Rev. Stephen Williams's Notebook." Pp. 13, 15.

[20] Roger L'Estrange, *A True Account of the Most Considerable Occurrences that have Happened in the Warre Between the English and the Indians in New England, From the Fifth of May 1676, to the Fourth of August Last* (London, UK: Printed for Benjamin Billingsly at the Printing Press in Cornhill, 1676). P. 4

[21] Mather. *A Brief History.* P.49.

[22] Mather. *A Brief History.* P. 59; CSL. Colonial Wars, Series I. Doc. 74.

ridge known as Canada Hill. The ridge rises some 200 feet above Cheapside and the Deerfield River makes it an ideal location for a fort.

Battle Related Artifacts

Although the contemporary visible landscape may present a quiet, pastoral scene, it belies the fact that many artifacts related to the battle lie hidden beneath the ground surface. Beneath the surface of the battlefield landscape is physical archeological evidence of the many actions and domestic sites and activities associated with the Battle of Great Falls. This includes the English attack on the village at Peskeompskut, the initial Native counterattacks beginning with Wells' group of twenty soldiers, the disintegration of English forces at the English Assembly Area while regaining their horses, ambushes around the White Ash Swamp, fighting at the Green River Ford, combat around the Deerfield River Ford, and other actions yet to be documented. The archeological record provides a direct physical link to recorded battle events and identifies actions that were not recorded in battle narratives. Archeological evidence is the key to documenting the battlefield as the nature and distribution of battle-related objects anchors the battle events to the landscape. Without physical evidence there is no proof of the battlefield.

A battle-related artifact is only valuable in terms of its relationship, context, and association with other artifacts. The recovery of a single musket ball may be the result of hunting activity, but dozens of impacted and dropped musket balls of various diameters within a circumscribed area and associated with key terrain features such as the "Green River Ford" or other battle-related objects such as seventeenth century buttons and equipment, firearms parts, and horseshoes indicate they are associated with battle events. Battlefield archeologists and historians use this evidence to verify or identify troop movements, map out battle actions in time and space, reconstruct and interpret a battle's progress, reveal previously unrecorded aspects of the battles, confirm locations of Native villages, verify or disprove long-believed myths or "official" accounts of the battle, elucidate short and long term effects of the battle on English and Native communities, and in some instances provide important information on the experiences of battle participants through the recovery of personal and domestic objects from the battlefield. Most defining features identified in the historic documents, and in the field, have archeological resources associated with them such as the Green River Ford and Deerfield River Ford. Conversely, archeological resources can also identify key terrain features that were not mentioned in primary sources such as the English Retreat

through Petty Plain and the terraces overlooking the Deerfield River Ford. Defining features are often the most important resource to preserve and protect on the battlefield landscape.

Methods of Analysis of Battle Related Objects

One of the main goals of the 2024 survey was to conduct a thorough examination of musket balls and associated terrain contexts across the battlefield, and within each locus to determine to the extent possible to which musket ball diameters and caliber of firearms could be associated with Coalition or English forces to achieve a more complete and nuanced reconstruction of the battlefield.

Full musket calibers (interior bore diameter of the weapon) regardless of ignition system (matchlock, snaphaunce/flintlock, or wheelock) typically ranged between .60 and .75 caliber or greater and had barrels that ranged from 3 to five feet (or longer) depending on the type (full musket vs fowler). Carbines usually had a barrel length of between two and three feet and usually ranged between .50 and .60 caliber. Regardless of the ignition system smoothbore weapons had an effective range at individual targets of 50-75 yards for shorter barreled weapons and a range of 100-150 yards for longer barreled weapons. Pistol calibers can vary but are most often between .40 and .50 diameter but only have an effective range between 25 and 35 yards.

The first step was to redefine the categories of musket ball diameters used in the earlier surveys to accommodate new information and a better understanding of the potential association of musket ball diameters and firearm calibers with one combatant or the other based on earlier survey results. One of the primary reasons the musket ball categories were redefined was the realization that existing categories served to mask potential variation of firearm calibers and the use of small shot (buckshot) across the battlefield.

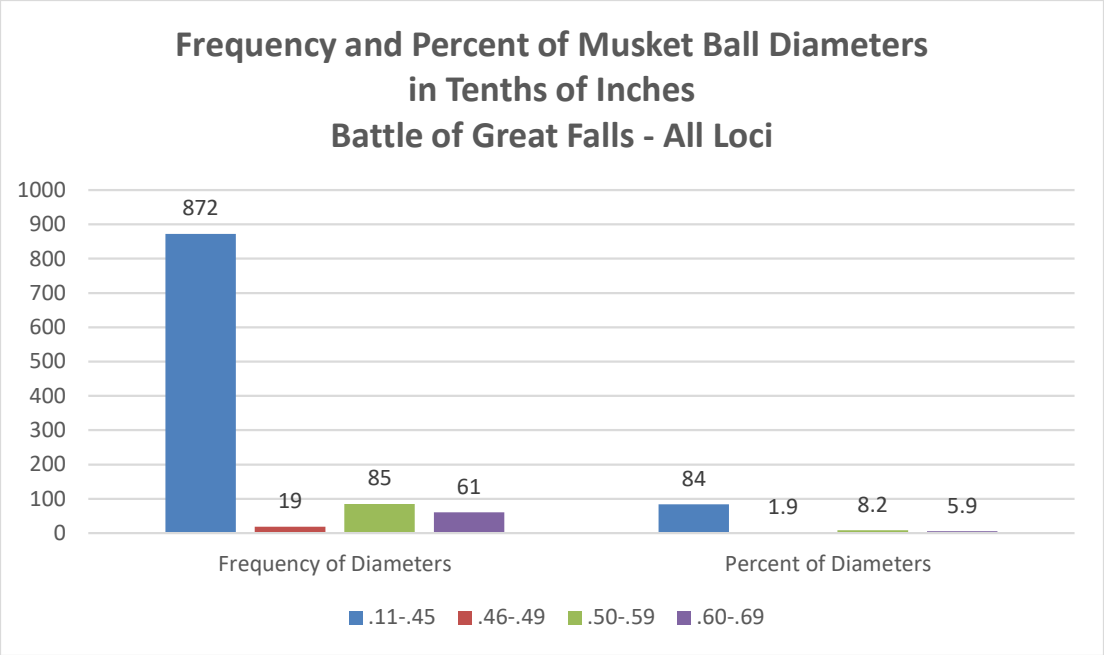


Figure 9. Musket Ball Diameters Battle of Great Falls – All Loci.

The new musket ball categories were based on the correlation of specific musket ball diameters and patterns of musket ball diameters with battle events, terrain, and direction of fire that could be associated specific tactical actions and with Native or English fire (Table 2). The small shot category was based on the high percentage of musket balls between .11" - .45" diameter that exhibited one or more facets indicating the ball was fired as buckshot. Nineteen musket balls were identified as pistol ball if they were small diameter and exhibited evidence of a ram rod mark or firing hemisphere indicating they were fired as a single shot (.30, .35, .36(2), 38(6), .39(3), .40, .41, .43, .48, .48).

Table 2. Revised Musket Ball Diameter Categories.

.11" - .45"	.46" - .49"	.50" - .59"	.60" -. 69"
Small Shot	Pistol/Carbine	Carbine/Fowler	Musket

In some instances, musket balls recovered from several of the loci could be confidently associated with Coalition or English forces particularly Locus C, D, E, F, G, H, and J. Combatant associations with certain ranges of musket ball diameters based on context, association, terrain, and direction of fire it was possible to infer English vs. Coalition fire for the remaining Loci as

well.

Part of the musket ball analysis focused on identifying unique casting and mold flaws evident on individual musket balls which could potentially be used to identify individuals on the battlefield, although this analysis was largely unsuccessful. The revised musket ball categories in Table 2 were developed based on the tactics and calibers of weapons that could be associated by English and Coalition forces. For example, musket balls in the .15" - .32" and in the .50" - .54" diameter ranges were almost exclusively associated with Coalition forces. Musket balls in the .55" - .59" diameter range were associated with Coalition and English forces, while musket balls in the .35 - 49" and .60 - .69" diameter ranges tended to be associated with English forces.

During the 2024 survey it became apparent that the previously established musket ball designations/ranges developed during the Phase I and Phase II surveys did not accurately reflect the nature of combat, tactics, and weapons used by the opposing forces. The knowledge and experienced gained in surveying Loci J-P resulted in a modified "Revised Musket Ball Diameter Categories" schema (Table 2). The revised approach resulted from the need to contextualize hundreds of small musket balls in the .15" - .38" diameter range as small shot fired as buckshot, the most common tactic on the battlefield. These balls were classified as small shot and fired as buckshot loads of 10-13 ball based on the presence of facets and the absence of ram rod marks or firing hemispheres.

For the final analysis all recovered musket balls in the small-shot categories were measured in increments of 5 hundredths of an inch, (e.g. .35", .36', .37' etc.) to facilitate a more refined and nuanced analysis so as not be constrained by arbitrary designations such as pistol, carbine, or musket. Although both Coalition and English forces utilized small shot loads in combat, a clear pattern emerged from instances of recovered blasts of 8-12 small lead ball that could be attributed to one combatant or the other. Coalition forces tended to fire multiple loads of small caliber shot (buckshot) using musket ball sizes ranging from .15" to .34" diameter, but primarily in the .21" - .32" diameter range. English forces tended to fire multiple loads of small caliber shot (buckshot) using musket ball sizes primarily between .31" and .34" diameter. The greater range of Coalition small ball diameters suggests the sources from which they acquired their ammunition may have been more varied than English sources. The English tended to acquire cast musket balls from county or town sources, and there may have been a more consistent casting policy for small ball. Given that English soldiers carried weapons of variable calibers, they likely cast their own ball to

fit the caliber of their weapons. Coalition forces originated from a variety of villages and communities, each with their own blacksmith and supplies of lead. It's possible that there was more variation in the small shot produced in this context.

In terms of larger musket balls intended for single aimed shots, Coalition forces appear to have preferred lighter carbine or muskets that fired musket balls in the .50" - .54" diameter range (e.g. .54" - .58" caliber). English combatants fired musket balls in the .55" - .59" diameter range (e.g. .58" - .66" caliber) but also appear to have carried weapons in the .69" to .75" caliber range as indicated by recovered musket balls in the .60-.69" diameter range. Other recovered musket balls in the .35" to .49" diameter range with firing hemispheres and/or ramrod marks indicate they were discharged from pistols or perhaps carbines. None of the recovered musket balls designated as pistols appear to have been fired by Native Coalition combatants.

Musket Ball Analysis

A total of 1,037 musket balls were recovered from the Battle of Great Falls Phase I, II, and III surveys (Figure 9). Interpreting the nature, distribution, and context of the musket ball assemblages proved to be very challenging due to two major factors. First, unlike earlier European and Indigenous conflicts such as the Pequot War (1636-1637) where the Pequot used the bow (tipped with brass arrow points) as their primary weapon, firearms were the primary weapon of both Native Coalition and English forces during King Philip's War and opposing sides *generally* carried similar arms. With few exceptions, it is difficult to associate the nature and distribution of lead shot across the Great Falls battlefield with one combatant or the other, or which side fired specific ranges of projectiles, or which caliber of firearm was used or preferred. Secondly, like most King Philip's War combat, fighting during the Battle of Great Fall was asymmetrical in nature and some areas of the battlefield may have initially been dominated by projectiles fired by one side or the other (or both) but given the linear nature of the battlefield the terrain may have been traversed by various combatants several times over, making it difficult to attribute lead shot to one side or the other. These factors necessitated the need for a more comprehensive analysis of the ammunition carried and expended by Coalition and English forces.

All musket balls were initially brushed to remove any soil adhering to the ball and then weighed to determine the diameter of impacted (i.e. no longer spherical or showed evidence of impact) and "dropped" (i.e. spherical with no evidence of any impacts) ball using the Sivilich

formula from his work at the Monmouth Revolutionary War battlefield (diameter in inches=.223204 x (weight in grams)1/3).[23] The diameter was also measured with calipers if the ball was not deformed spherical but in all case the diameter measured by caliper and calculated using the Sivilich formula were virtually identical. Musket balls were then examined under a 10x binocular microscope to identify casting features, any deformations from loading or firing, and any evidence of slight or minimal impacts (e.g. striations, gouges). Table 3 identifies the information on various features recorded for each musket ball.

Table 3. Musket Ball Features.

Casting Seam: Present, Present, Prominent (mold haves not tight), Misaligned (offset)
Composition: Lead, Lead Alloy (Pewter)
Deformation from Loading or Firing: Ramrod Mark, Middle or End (large diameter double shot), Firing Hemisphere (large diameter single shot), Bore Edge Facet (small diameter buckshot), Number of Facets (small diameter buckshot), Chewed
Diameter in Inches
Facets, number of
Impact Damage: None (dropped), Heavily Impacted (high velocity or impact on hard of sharp surface), Moderately Impacted (medium velocity or impact on flat solid surface), Slightly Impacted (low velocity – striations or gouges), Ricochet
Mold Flaws: Jupiter Ring, Cool Casting Wrinkles
Sprue: Round, Oval, Single or Double Clip, Casting Cavity
Shape: Round, Cylindrical

Casting, Firing, and Impact Features

One avenue of musket ball research included a lead shot study to identify unique casting features and flaws to potentially identify musket balls with similar features across the battlefield and perhaps associate certain casting flaw patterns with a particular combatant. All musket balls recovered from the Battle of Great Falls were examined to identify features resulting from casting, firing, and impacts.

[23] Daniel M. Sivilich, *Musket Ball and Small Shot Identification: A Guide.* (Norman, OK: University of Oklahoma Press. 2016).

Casting Features

Traces of the manufacturing (casting) process are often visible on lead shot: the casting seam where the two halves of the bullet mold join; the sprue, a vestige of the opening where the lead was poured into the mold; and the sprue scar that results from the sprue being trimmed or cut off. Sprues are most often circular, but they are also observed with oval, triangular, or square sprues reflecting how the specific mold was constructed (Figures 10 & 11).



Figure 10. Sprue Shapes, Oval (left), Round (middle and right).

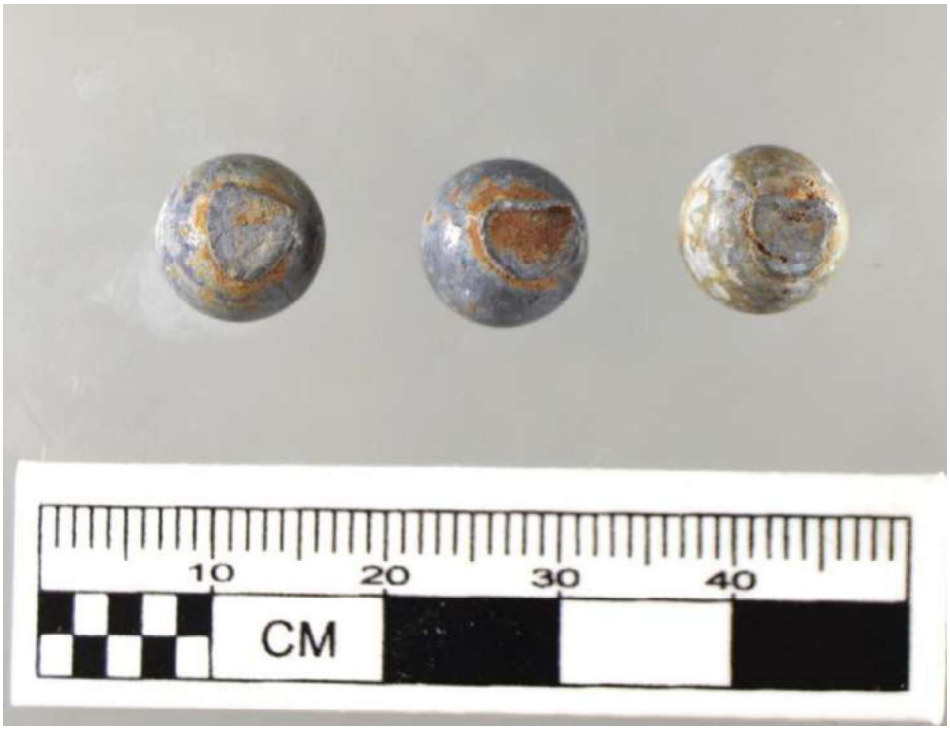


Figure 11. Triangular (left) and Odd Shaped Sprues (middle & right).



Figure 12. Misaligned Seam (left two), Prominent Casting Seam from Spillage (third from left), Normal [Typical?] Casting Seam (far right).

The casting seam on a musket ball is a line that forms around the ball from pole to pole where the two halves of the mold meet. The seam is sometimes prominent if the mold does not close properly either because of offset or misalignment offset, or because the rims of the hemispherical cavities were not sharp, and 'spillage' occurs (Figure 12). Another diagnostic feature is tool marks left in the mold cavity in the form of rings likely formed by an abrasive rotating tool which hollowed out the cavity during manufacture of the mold (Figure 13). Depending on the nature and location of the ring it could be a unique signature for a particular mold, and it would be evident on musket balls cast from that mold. Several musket balls recovered from the battlefield exhibits such marks.

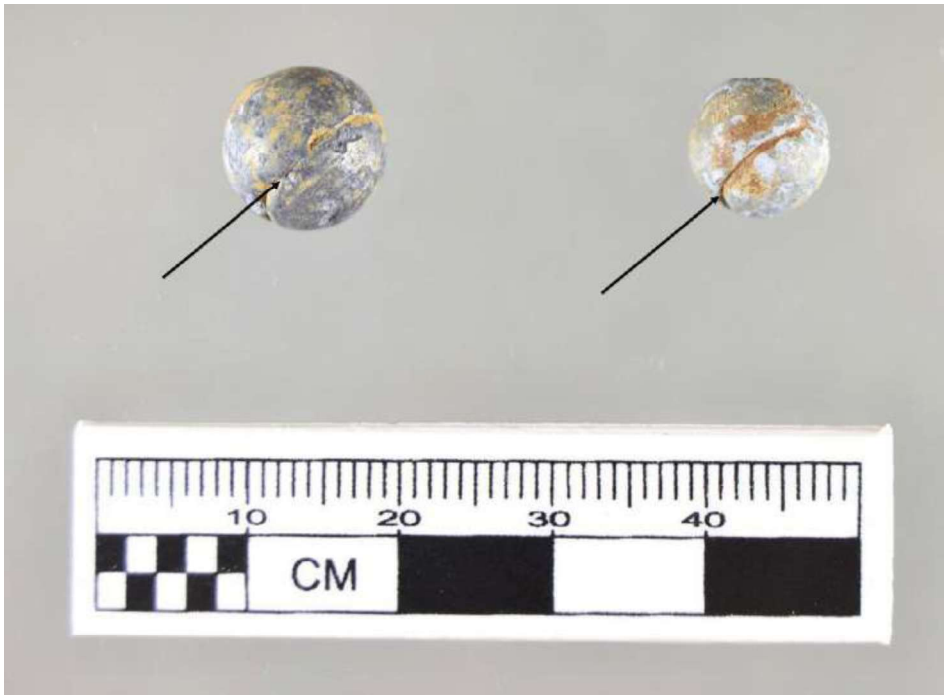


Figure 13. Tool Marks.

Firing Features

Musket Balls were examined to determine if a firing hemisphere was evident around the circumference of the ball which indicates both the caliber of the weapon and a single-shot potentially taken at a distance (> 40 yards), versus multiple small-shot loads employed at close-range (< 40 yards). A musket ball undergoes deformation in the barrel while its inertia is being overcome by the compressive forces of propellent gasses as it is squeezed outwards against the musket barrel bore. If the diameter of the musket ball is close to the interior diameter (caliber) of the gun barrel (e.g. .10") the circumference acquires a distinctive cylindrical zone or band from the interior surface of the gun barrel as it is swaged through the barrel referred to in this study at the firing hemisphere (Figure 14).



Figure 14. Firing Hemisphere.

Smoothbore weapons such as were used in King Philip's War fired a musket ball that measured approximately 0.05 – 0.10" less than the barrel bore diameter or caliber. The difference allowed the ball to be more easily loaded down the barrel and prevent jamming after subsequent shots. The difference between the musket ball diameter and the weapon's bore diameter (caliber) is referred to as windage. Thirteen musket balls exhibited firing hemispheres which provide direct evidence of the caliber of the firearm (Table 4). Musket ball diameters between .33" and .48" were likely fired from pistols (see below), diameters in the .50" - .60" diameter range were fired from carbines, and those in the .60" + range were fired from muskets.

Table 4. Musket Ball Diameters with Firing Hemispheres.

.33"	.36"	.45"	.48"	.50"	.54"	.56"	.58"	.60"	.60"	.63"	.66"	.68"
Pistol				Carbine					Musket			

Small Shot and Bore Facets

Small concave depressions or facets often appear on small diameter musket balls because of being fired in a single load as buckshot. The facets are the result of being compacted and pressed

together during the firing process from the pressure of being discharged which is often contingent upon the effectiveness of the wadding. Upon firing, a load of closely packed musket balls (10-13) is pressed together against each other and the barrel bore by escaping gasses and inertia resulting in the distinctive facet pattern (Figures 15 & 16). Facets can also occur because of long-term storage and movement that occur from being transported aboard ships or overland on wagons or saddlebags. The presence of facets may suggest a high velocity discharge due to a greater powder charge and good wadding but cannot be used to identify a particular combatant on the battlefield. Much like the firing hemisphere that occurs on a single round ball, a unique mark known as a "bore facet" can sometimes been seen from along the area of a musket ball that meets the barrel bore when discharged (Figures 15 & 17). A "bore edge facet," essentially a partial firing hemisphere, can occur on small musket balls fired as buckshot and were compressed against the interior of the barrel during discharge. Theoretically the curvature or partial circumference of a bore facet can be used to reconstruct the bore diameter (caliber) of the musket from which the shot was fired. This avenue of research could potentially be used to attribute certain calibers of weapons to combatants.

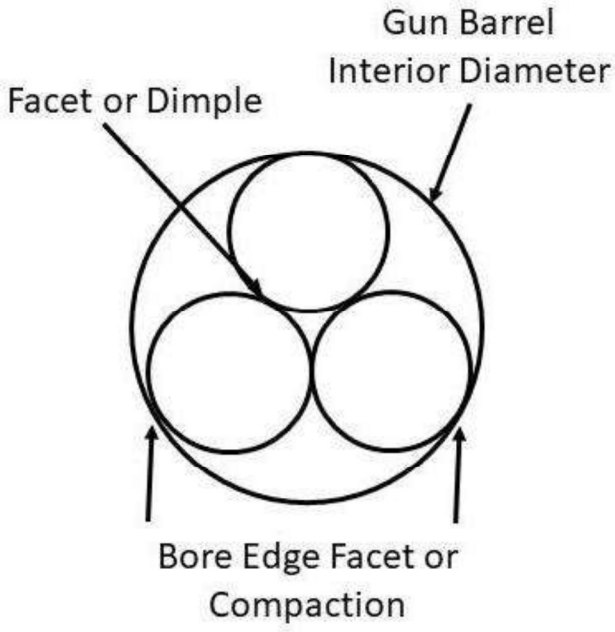


Figure 15. Facet Diagram.



Figure 16. Small Diameter Musket Balls with Facets.



Figure 17. Bore Edge Facet.

The most common type of projectiles recovered from the Great Falls battlefield were small shot in the .15" - .45" diameter range which constituted 84% (n=872) of the musket ball assemblage (Figure 9). One hundred sixty-nine musket balls in this category (20 %) exhibited "facets" indicating combatants loaded their weapons with several (10-13) small diameter shot for a buckshot effect. In comparison, only 6.9% (n=14) of the musket balls in the .35-.49" diameter category exhibited facets indicating they were not as likely to have been used as buckshot, but as single shot in a pistol or carbine. However, the absence of facets does not necessarily mean the ball was not fired as buckshot. The hardness of the ball, how loose or compact the load of buckshot was, whether good wadding was used, and the amount of gunpowder in the charge all could have been factors that negated or minimized the appearance of facets. The difference of 20 % of balls with evidence of facets in the .15" - .34" diameter range compared to 7% of ball in the .35 - .49" diameter range with evidence of facets is statistically significant and likely indicates balls in the .15" - .34" diameter range was primarily used as buckshot.

Ramrod Marks

A few musket balls exhibit marks from repeated hits by a ramrod to seat the lead ball(s) in the barrel to tightly pack the powder charge, wadding, and ball in preparation for firing (Figures 18 & 19). Slamming the ramrod down the barrel with great force is not necessary and would likely only increase the chances of a wooden ramrod snapping in the process. Ramrod marks were evident on nine musket balls, and all appear to have been formed by a metal-headed ramrod. One ramrod mark could have been formed either by the ramrod hitting fabric/wadding or the ramrod tip was a thimble used as a ramrod tip which was a common practice (Figure 18).



Figure 18. Ramrod Mark, .38" Diameter Musket Ball.



Figure 19. Ramrod Mark with Wadding/Fabric or Thimble Impression.

Musket Ball Types

Nine cylindrical musket balls were recovered from the battlefield and are believed to be associated with Coalition forces. The diameters of the cylindrical shot included .40, .45. .48, .52-, .53-, .55(2)- and .59-inch diameter. Cylindrical shot is also referred to as "plug shot" or a "slug." The weight of the shot is always greater than the diameter of the original ball (although some are cast as cylindrical). A few are hammered from larger round musket balls, but most are cast as cylindrical shot (Figure 20). Cylindrical shot was either cast to size or hammered into shape from an existing musket ball to make a larger musket ball fit a smaller caliber. Cylindrical shot presumably results in greater stopping power and damage due to more mass than the ball that would normally fit the caliber of the weapon, and because the shot would tumble in flight and therefore cause a terrible wound when the projectile struck its target.[24] The tradeoff is cylindrical shot is far less accurate than round ball.

[24] David Harding. *Lead Shot of the English Civil War* (London: Foresight Books, 2012). Pp. 100-101.



Figure 20. Impacted Cylindrical Shot.

Two or Multiple Ball Loads of Full Caliber

Several sets of musket balls were recovered from the Great Falls battlefield that show patterns of deformation that resulted from being fired as 'sandwich shot', i.e., two- or three-ball loads of flattened round ball (Figure 21). The musket balls were spherical and or sandwiched or stacked upon another, which resulted in a multi-projectile discharge with more stopping power than small shot. This does not appear to be common practice given the rarity of such ball on the battlefield. Two-and three-ball loads were presumably use for short range and against troops *en masse*.[25] The two 'sandwich' shot were .52" and .60" diameter suggesting that multiple ball loads were used at least twice on the battlefield. Both were recovered from Locus O (Deerfield River Ford).

[25] Harding, Lead Shot of the English Civil War. Pp.84-85.



Figure 21. Sandwich Shot. .52" (left) and .60" Diameter (right).

Impact Damage:

Impact damage on musket balls or the lack of it on the Great Falls battlefield is potentially important for the interpretation of the battle, and for comparative analysis of battlefield loci. The analysis of impact damage is ongoing, but a few inferences can be made. Lead shot that appears pristine with no evidence of deformation, striations, or gouges, and has clear casting lines and/or sprues and has no firing hemisphere was designated as "Dropped" and not discharged. Approximately 131 (12.5 %) of the musket balls from the Battle of Great Falls were dropped (Figure 21). Dropped shot may indicate the position of a combatant who was in the process of reloading.

Lead shot that exhibited signs of deformation, gouges, striations, missing fragments, microscopic rock fragments, firing hemispheres or ramrod marks were designated as "Impacted". Nine hundred and six (87.5 %) of the musket balls recovered from the Great Falls battlefield were impacted and exhibited impact damage in a variety of forms and degrees of severity. There are certain recurrent and distinctive forms of impact damage that can provide clues as to whether the projectile hit a target, the ground, or something beyond the intended target. Sometimes the

direction of fire can be determined if the musket ball impacted against a steep hill or rock. Differences in the severity of the impact can also provide clues regarding the angle of fire and whether the projectile was traveling at a low or high velocity depending on the charge. Musket balls that are severely impacted either hit a target directly or a ricochet or fired at a low or horizontal angle and bounced along the ground for a great distance. Figures 23 – 26 are examples of various types of impacts on musket balls recovered from the battlefield.

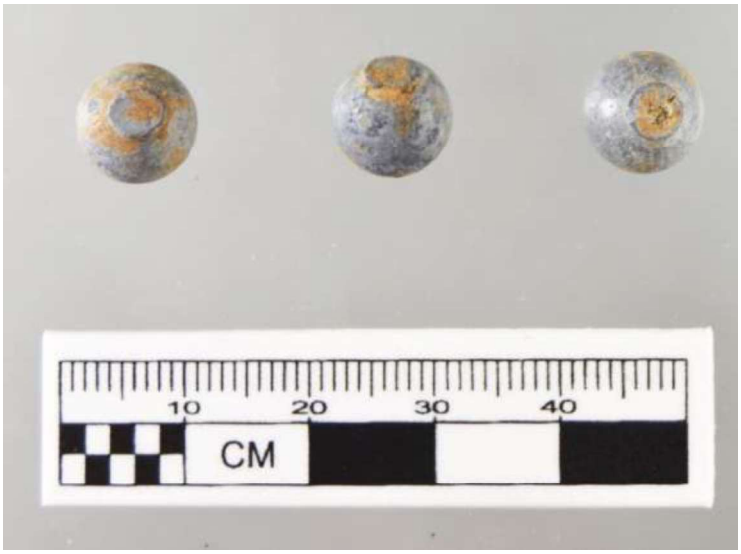


Figure 22. Dropped Musket Balls.

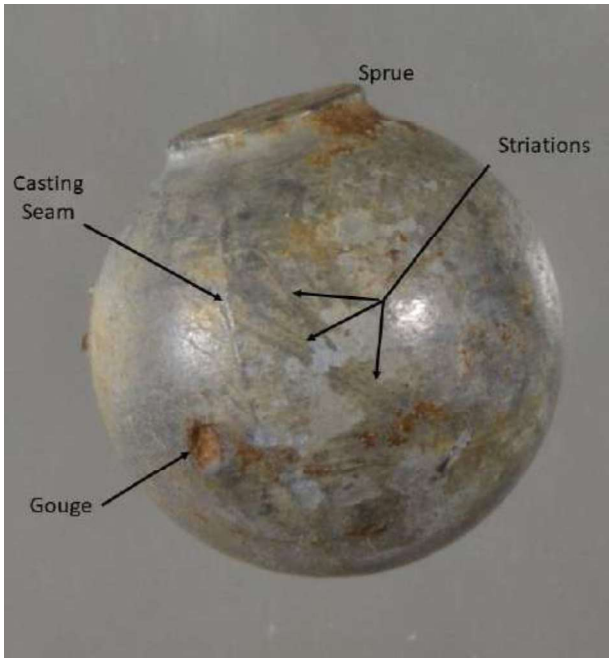


Figure 23. Locus H Musket Ball with Gouges and Striations.

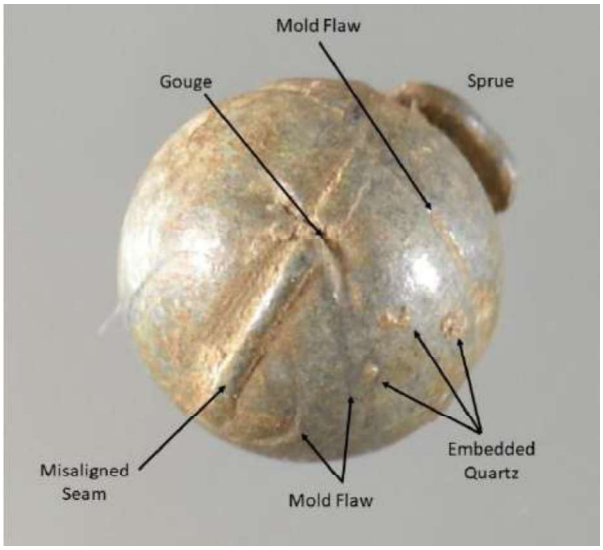


Figure 24. Locus H Musket Ball with Mold Imperfections and Impact.

Some examples of impacted shot do not have prominent deformations and appear dropped to the naked eye. Under close examination these musket balls have slight striations and gouges and are imbedded with small grains of rock or minerals and most often recovered from fine grained soils from wetlands or floodplain silts. Figures 23 and 24 are examples of impacted musket balls that were not deformed or misshapen in any way and exhibited very slight evidence of impact in the form of slight striations or gouges only discernable under a microscope. Soil conditions may not be the only factor to explain these subtle impacts. Another factor could be that the balls were fired directly into the ground as most of the damage that occurs on musket balls is when they skip and bounce along the ground for some distance. Another factor could be the musket balls were traveling at a very low velocity at the time of impact. This could result from a light powder charge and/or a lack of wadding between the powder and lead shot which would have reduced the inertia and compressive forces and subsequently the force of impact. This phenomenon was observed at Locus H where 147 musket balls in the .35”-.49” diameter range were recovered of which 82% were considered impacted although none exhibited any deformation or other obvious signs of impact. The balls did exhibit evidence of impacts in the form of slight striations, gouges, and embedded fragments of stone.

Other musket balls exhibited damage consisted with high velocity impacts or impacts against hard objects such as metal or trees, particularly in Locus O. Many of the impacts on musket balls recovered from Locus O were flattened, and some exhibited damage consistent with impacts

against bark or wood. The high number of flattened ball and those with bark or wood impressions in Locus O are consistent with early eighteenth-century descriptions of the pine barrens, heavily forested with pine. This pattern of impacts suggests the fighting in Locus O took place in a heavily wooded area



Figure 25. Severe Impact at High Velocity.



Figure 26. Severe Impact at High Velocity Against a Sharp Object

Calibers, Musket Ball Diameters, and Combatant Tactics

The small shot in Locus C (96.5%, n=55) and Locus E (75.3%, n=67) is primarily the result of Coalition fire based on primary sources, terrain features, and direction of fire. At locus C, 96.5% (n=55) of the musket balls were in the .15”-.35” diameter rage and 58% (n=32) of the small shot at Locus C exhibited facets. At Locus E 75% (n=67) of the musket balls were in the .15”-.34” diameter range and 75% (n=50) exhibited facets. Based on the patterns observed at these two loci

it appears that Coalition forces loaded their weapons with multiple rounds of small shot, an effective tactic for ambushes or other close-range situations.

Musket balls in the .50"-.54" diameter range are believed to be primarily associated with Coalition forces. Thirteen impacted musket balls in the .50"-.54" diameter range (.53"-.57" caliber) were recovered from Locus F and believed to be associated with Coalition forces based on their close association with horse tack. The context and association suggest horses were shot as the English tried to escape Factory Hollow and were then used by English soldiers as cover. Other contexts indicate that musket balls in the .55"-.59" diameter range (.58"-.62" caliber) were used by both Coalition and English forces.

Two other lines of evidence suggest Coalition forces preferred lighter smaller caliber weapons and used small diameter musket balls as buckshot. The Squakheage Fort Hill site is located along the Connecticut River in Hinsdale, New Hampshire 20 miles north of the Great Falls. Peter Thomas estimates the site was occupied for a six-month period in late 1663 through early 1664. Thomas' excavations recovered a lock plate and two-gun barrels which he believed to be of French origin. Twenty-one musket balls were also recovered "ranging in diameter from BB-size, buck shot to .60" caliber (i.e. diameter) slugs".[26] The majority (n=15, 71.5%) were in the .30"-.36" diameter range and the remaining five were in the .50"-.60" diameter range suggesting use in carbines.

The Burrs Hill Cemetery in Warren, Rhode Island is associated with Metacom's Pokenoket band of Wampanoag.[27] The cemetery is estimated to have been used between 1660 and 1680 and temporally overlaps with King Philip's War and the Battle of Great Falls. Sixty-one objects of military relevance were recovered including a matchlock plate with a serpentine, two flintlock plates, a brass pistol barrel (.39" caliber), three-gun barrels (.59," .70," .70" caliber), a 28-shot bullet mold with 28 cavities of .34" diameter, and fifty-three musket balls. Forty-seven of the musket balls (89%) are .35" diameter, five (9%) are .51" diameter, and one (2%) is .43" diameter. Based on the bullet mold and musket balls the evidence from Burrs Hill and Fort Hill supports the inference that Natives preferred smaller diameter shot and tended to prefer lighter shorter barreled weapons such as carbines. The exception is the matchlock serpentine and the two .70" caliber

[26] Peter Thomas, In the Maelstrom of Change, The Indian Trade and Cultural Process in the Middle Connecticut River Valley: 1635-1665. PhD Dissertation, University of Massachusetts. 1979, pp. 377-378.
[27] Susan G. Gibbon, Ed. Burr's Hill: A Seventeenth Century Burial Ground in Warren, Rhode Island

barrels indicating full muskets, although it does not preclude loading the weapons with multiple rounds of small shot.

Bore edge facets on small shot can also indicate the caliber of the weapon they were fired from. Bore edge facets were evident in the .29”-.38” diameter range of the small musket balls recovered from the Battle of Great Falls. Bore edge facets occur when upon firing gas pressure forces the musket balls against the gun barrel leaving a distinctive elongated facet reflecting the inside diameter of the gun barrel as the ball passes down the barrel (Figures 15 & 17). As the entire small diameter ball is not pressed against the barrel, the bore edge facet occurs on only a portion of the musket ball unlike a firing hemisphere. The partial circumference of the bore edge facet can be measured, and the circumference (caliber) of the barrel can then be calculated. Based on a preliminary analysis of the circumference indicated on bore edge facets, most of the small shot was fired from calibers between .49” and .58” diameters, with a few indicating they were fired from .60” caliber weapons.

As mentioned above, musket balls in the .35-.49” diameter range are believed to be associated with English forces. This conclusion is based largely on the assemblage of musket balls recovered from Locus H, which by the process of elimination, and admittedly weak inference, the assemblage can be argued to be the result of English fire. The musket ball assemblage recovered at Locus H is quite unique compared to any of the other battlefield loci. The 151 (95.5%) musket balls in the .35”-.49” diameter range were almost all in a ‘pristine” condition. Most had a prominent sprue and a recognizable casting seam which is a feature that often disappear once the musket ball has been fired (Figure 23). None of the musket balls in that category exhibited obvious signs of deformation or impacts. Only when each musket ball was examined under a microscope were striations and gouges observed, indicating they impacted the ground and did not impact on anything more solid such as a tree or rock. It appears they hit the soft ground quickly after firing, likely at a steep down angle from someone mounted, and did not ‘skip’ across the landscape for any distance. In some instances, tiny fragments of quartz were observed embedded in the musket ball from impacting on the ground (Figure 24).

Of the 156 musket balls recovered in Locus H, 151 (95.5%) of the ball were in the .35-.49” diameter range, five (3.2%) were in the .15-.34” diameter range, and two (1.3%) were in the .60-.69” diameter range (also believed to be an English signature). Musket balls in the .15”-.34” diameter range are strongly associated with Coalition fire at Locus C and E. Ninety-six percent

(n=55) of the musket balls at Locus C were in the .15-.34" diameter and 75% (n=67) at Locus E. No musket balls in the .35"-.49" diameter range were recovered at Locus C. Seventeen (19%) of the musket balls recovered from Locus E were in the .35-.49" range but were in contexts that suggested English fire. In addition, almost all of the musket balls recovered from the swales at Locus E were in the .15-.34" and 75% exhibited facets.

None of the 151 musket balls in the .35-.49" diameter range at Locus H exhibited facets, usually a signature of buckshot. Additionally, five ball in the .35-.49" diameter range showed evidence of ramrod marks (Figures 18 & 19), and one (.48" diameter) exhibited a firing hemisphere further suggesting ball in that range were fired as a single shot from a pistol or possibly carbine.

Based on these contexts it appears that Coalition forces were more likely to use multiple loads of .15"-.34" diameter shot and rarely used musket balls in the .35"-.49" diameter range. Only five (3%) musket balls in the .15"-.34" diameter range were recovered from Locus H, and four (80%) had facets. The occurrence of facets only on ball in the .15"-.34" diameter range indicates a Coalition signature, and it can be argued that most of the musket balls recovered from Locus H were from English and not Coalition fire.

The musket balls recovered from Locus J (Green River Ford) are largely if not entirely the result of English fire based on direction of fire toward the western and southern slopes of Nash's Mill Hill where Coalition forces positioned themselves to fire on the English as they descended the Mill River and crossed the Green River Ford. Two musket balls (.33" and .36" diameter) from Locus J exhibited firing hemispheres suggesting they were fired from pistols. Six of the musket balls in the .15-.34" diameter range (43% of the total assemblage) exhibited facets indicating that the English did carry and used small shot as buckshot in certain situations. It would be interesting to see what the pattern would be associated with the English attack on Peskeompskut but unfortunately the area was too disturbed, and no musket balls were recovered.

Evidence for the use of pistols among Captain Turners' men based on primary sources is mixed. Although about half of Turners' men were garrison troops, many of them previously served with Captain Turner as foot soldiers or as dragoons with other commanders for a brief period, and presumably some would have carried pistols. Both Massachusetts (1672) and Connecticut (1673) stipulated the equipment and firearms dragoons/troopers should carry, with specific mentions of pistols and/or carbines suggesting it may have been a common practice among dragoon companies, at least officers and non-commissioned officers, to carry pistols:

> …every Trooper shall keep alwayes a good Horse, and be well Trooped fitted with Saddle, Bridle, Holsters, Pistols or Carbines and Swords, under the penalty of ten fallings for every defect, and having Lifted his Horse, shall riot change or put him off without License from his Captain or chief Officer under the like penalty.[28]

> …each dragoone be provided with a good sword and belt, and serviceable musket or kirbine, with a shott powch and powder and bullitts, viz: one pownd of powder made into cartiridges fit for his gunn, and three pownd of bulletts fit for their guns, or pistol bulletts; and a horss to expedite their march.[29]

According to Hubbard, Lieutenant Holyoke carried two pistols at the Battle of Great Falls:

> The said Capt. *Holiokes* horse was shot down under him, and himself ready to be assaulted by many of the Indians, just coming upon him, but discharging his pistols upon one or two of them, who he presently dispatched.[30]

King Philip's War Battlefields and Engagements Database

A thorough analysis of primary and secondary source materials was conducted to identify every engagement that could be identified in King Philips War (1675-1678) no matter how small. Although town histories are not generally considered primary sources, they often contain oral traditions or segments of written histories that pertain to King Philip's War that are often overlooked by historians. A database was created for each action that included all the primary sources that mentioned the action. The primary sources were cross referenced to get the most accurate information on the number of combatants, type of action, who initiated it, how the attack was conducted, the outcome, casualty estimates, number of captives, structures and property destroyed, and tactics. When information conflicted regarding casualties from various sources (as was often the case) the most consistent information was used or an average taken. The survey identified 218 separate engagements that were divided into six operational theaters (Figure 27).

[28] Whitmore, William Henry, The Colonial Laws of Massachusetts, Boston: Rockwell and Churchill, City Printers, 1890. p. 164.
[29] Trumbull, *Colony of Connecticut.* Pp. 2:207-208.
[30] Hubbard, *A Narrative of the Troubles with the Indians*, pp. 85-86

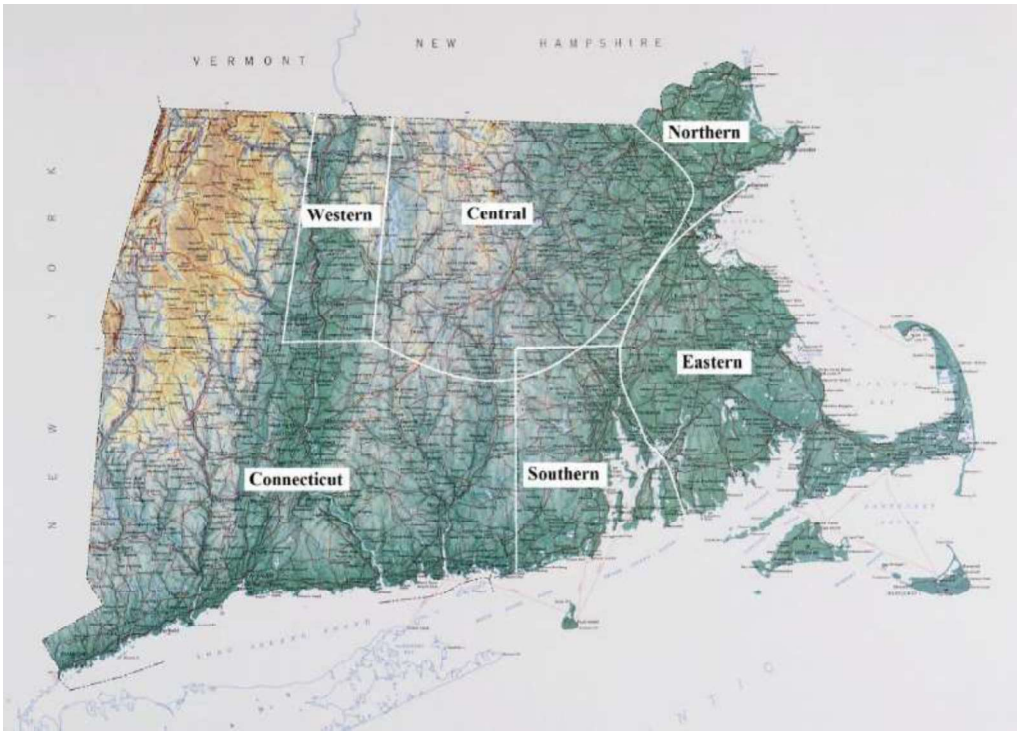


Figure 27. King Philip's War Theaters of Operation.

The theaters were delineated based primarily on the Native tribes who inhabited a theater and the primary English colony that conducted operations within the theater. The Theaters of Operation are defined as follows:

Northern: The extreme northeastern corner of Massachusetts into Maine. Tribes inhabiting the theater included the Nashaway and various Eastern Abenaki groups in southern Maine. Massachusetts Bay was the only colony that conducted field operations in this theater.

Southern: The Southern Theater is entirely within the boundaries of Rhode Island Colony and abuts the western boundary of Plymouth Colony, a portion of the Eastern Theater. The Narragansett were the principal Native tribe inhabiting the Southern Theater. Connecticut conducted most of the field operations in the theater although Plymouth and Massachusetts conducted a few operations in the northern and eastern portions of the theater. The only joint colonial operation in the theater was the Narragansett Swamp Fight of December 19, 1675, and a brief operation by a combined army in the northern portion of the theater shortly after the swamp fight.

Eastern: The Eastern Theater is defined from just outside Boston and forms a broad arc to the east side of Narragansett Bay and to Rhode Island Sound. Various Wampanoag bands including the Pokanoket and Pocasset inhabited the more southern portions of the theater. Plymouth Colony conducted almost all the field operations in the southern portion of the theater within the boundaries of the colony. Massachusetts conducted all field operations in the northern portion of the theater.

Western: The Connecticut Valley from Springfield (Agawam) to Northfield (Squakheage) extending a few miles east and west of the Connecticut River inhabited by the Squakheage, Pocumtuck, Norwottock, Nonotuck and Agawam. Connecticut conducted most of the field operations in this theater. There were at least 300 Mass Bay soldiers in the valley in the fall of 1675 – under Lathrop, Beers, Mosley, etc; but left in November. Treat's company from CT was certainly a significant force as well. As most Massachusetts Bay soldiers served as garrison troops, field operations were rare late in the war and mostly provided soldiers for garrison duty.

Central: From Brookfield (Quabaug) east to just a few miles outside of Boston and north to Maine and south to Narragansett Country in Rhode Island and Connecticut. Tribal groups within the theater include the Nashaway, Nipmuck (multiple bands), and Quabaug. Massachusetts conducted most of the field operations in the theater although Connecticut conducted field operations at Wabaquasett, Watchusett, and Quabaug.

Connecticut: This theater is entirely within the boundaries of Connecticut. There were some minor actions and raids within Connecticut but no major actions aside from the burning of Simsbury as most of the Native population in the theater were allied with the English. Many of the raids and actions were conducted by Natives from outside the colony.

Identified combat actions were characterized by type of engagement: Battle, Skirmish, Raid on an English Settlement or Native Village, Native Ambush, English Ambush, Mass Native Surrender, and Massacre (Figure 28). Some actions such as the Great Swamp Fight and the Battle of Great Falls-Wissatinnewag-Peskeompskut may appear in several categories such as Raid on Native Settlement, Battle, and Massacre. Information was also entered on Date, Location, Native Strength, Native Leaders, Native Casualties, Native Non-Combatants Killed, Captured Natives, English Strength, English Leaders, English Casualties, Captured English, English Non-Combatants killed, Destruction of Property, evidence of Torture and Mutilation, Destruction of Food Stores, Duration of Action, and when possible, the precise longitude and Latitude of the action. The types of actions were defined as follows:

*Battle***:** A sustained engagement with at least one hundred combatants on each side.

*Skirmish***:** An **e**ngagement conducted by small detachments of combatants, generally less than one hundred combatants on either side.

*Raid on Native Settlement***:** Defined as the destruction of Native villages including the destruction of wigwams and food stores by English forces. Generally, Native casualties resulted from these attacks.

*Raid on English Settlement***:** Any type of attack on an English settlement that may or may not have resulted in casualties but did result in the destruction or stealing of property (often livestock).
*Native Ambush***:** Native forces conducting a surprise attack on English combatants and noncombatants from a concealed position

*English Ambush***:** English forces **c**onducting a surprise attack on Native combatants and noncombatants from a concealed position.

*Mass Native Surrender***:** Natives groups that turned themselves in to the English.

Massacre: The indiscriminate killing of unarmed English or Native non-combatants

Figures 28-30 were created using the database of 218 actions recorded for King Philip's War. The data synthesized in these figures can potentially provide information on evolving Native Coalition and English strategies and tactics during the war by theater and over time. Coalition raids on English settlements and ambushes were by far the most common Native offensive actions in the war (Figures 29, 32-35). Coalition forces generally tried to avoid pitched battles unless they clearly had the tactical advantage (e.g. Bloody Brook, Pierces Fight, Sudbury) or if they were forced to engage the English to buy time for non-combatants to escape. Most of the examples of Native initiated battles (versus attacks or raids on settlements) took place when the English were approaching a group of Natives that included women and children. In these instances, a contingent of Native soldiers would break away from the group to engage the English to buy time for the women and children to escape. This occurred at the First Battle of Nipsachuck (August 4, 1675) when Philip and his men fought a four-hour delaying action against almost 200 Plymouth Colony and Mohegan/Pequot soldiers to buy time for the Pokanoket and Pocasset communities time to escape. Philip may have lost as many as 50 men in this engagement. In late February Mary Rowlandson described a delaying action near the Millers River during her fifth 'remove' in Late February 1676. One source estimated that 90 Native men were killed in the battle:

> The occasion (as I thought) of their removing at this time, was the English army's being near and following them: for they went as if they had gone for their lives, for some considerable way, and then they made a stop, and chose out some of their stoutest men, and sent them back to hold the English army in play whilst the rest escaped.[31]

[31] Rowlandson. *A Narrative*. P. 31.

The most common offensive action on the part of the English was skirmishes followed by attacks on Native villages, and occasionally ambushes (Figure 30). English forces were largely incapable of staging an ambush unless there was a contingent of Natives allies accompanying them such as Praying Indians with Massachusetts Bay forces or Mohegan and Pequot with Connecticut forces. Native allies did not always accompany an English force (particularly Massachusetts Bay and Plymouth forces) which explains the large difference in Coalition initiated ambushes and English initiated ambushes (Figures 29 & 30). The key to a successful ambush was stealth and silence which most English soldiers were not prepared or trained for. Daniel Gookin relates two anecdotes that illustrate English ineptitude in field operations:

> One of the English soldiers had on a new pair of shoes that made a creaking noise as they travelled. The Indian Captain was not quiet until he had persuaded the fellow with the creaking shoes to take his moccasins and wear them, and the Indian carried the Englishman's shoes at his back and went himself barefoot. Another English soldier had on a pair of leather breeches, which being dry made a rustling noise; the Indian Captain was not satisfied until he had persuaded the man to take off his breeches, or else to wet them in the water to prevent their rustling. By this relation, which is a truth, we may observe how circumspect and careful they are in order to obtain advantage over their enemies.[32]

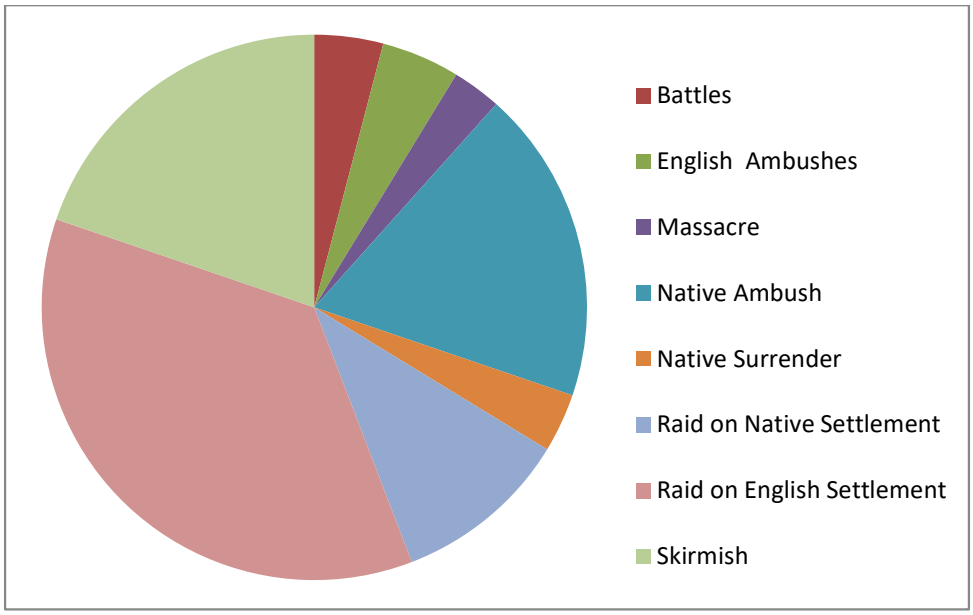


Figure 28. All Engagements, June 1675 – September 1676.

[32] Daniel Gookin. *An Historical Account of the Doings and Sufferings of the Christian Indians in New England, In the Years 1675, 1676, 1677* (Cambridge, UK: Folsom, Wells, and Thurston, 1912). P. 442.

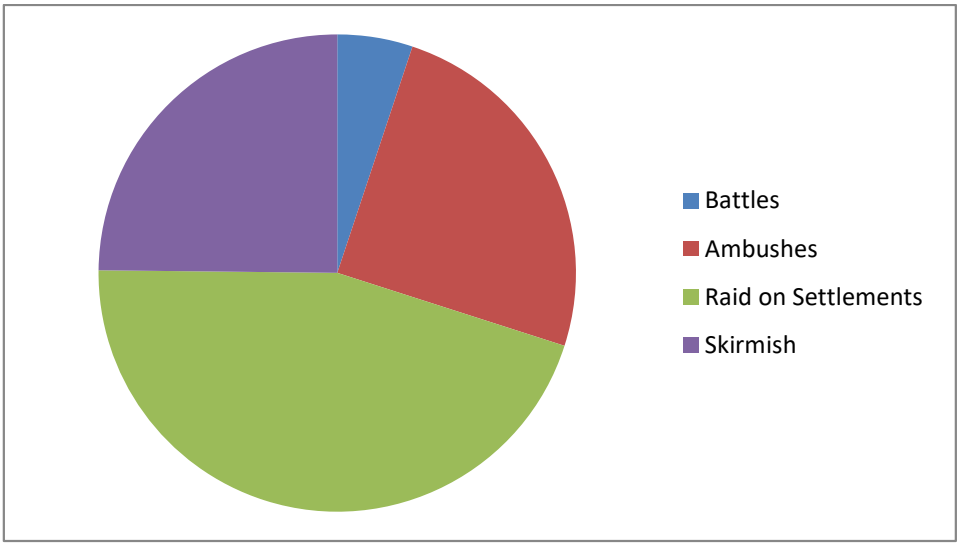


Figure 29. Native Offensive Operations, June 1675 – July 1676.

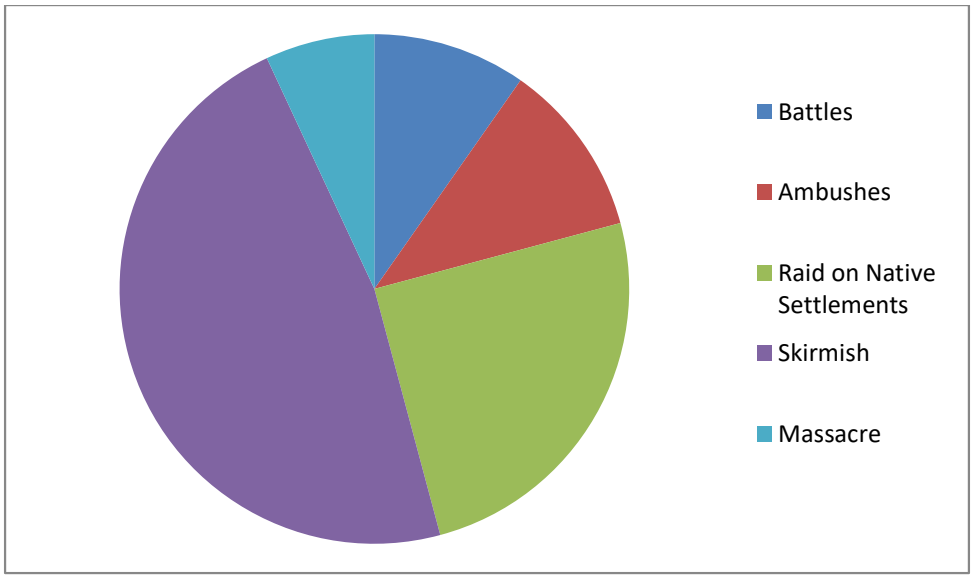


Figure 30. English Offensive Operations, June 1675 – September 1676.

III. Historical Context of the Battle of Great Falls/Peskeompskut

Analysis of Primary and Secondary Sources

The first step in the process of battlefield reconstruction was to develop a comprehensive military and cultural history of the Battle of Great Falls by identifying relevant primary and secondary accounts that provide information on battlefield events, movements, and sites. Once

these accounts were identified they were analyzed to assess the quality, veracity, relevancy, and significance of the material they contained. Very few primary written or published materials survive which discuss the fighting at Great Falls and the subsequent English retreat in detail, but a number of accounts were identified that were written at the time of the battle or shortly after.[33] Many of the accounts were written by individuals who participated in the battle or by historians who interviewed battle participants immediately or shortly after the battle. Although primary sources were relied upon whenever possible to reconstruct battle events, secondary sources published in the nineteenth and early twentieth century were also consulted to better understand the historiography and historical memory of the event, and which sometimes contained primary sources. Secondary sources were also assessed for any local lore, oral traditions, early photographs and sketches, and geographic clues to the locations of battle events. [34]

Important considerations were given to assess the veracity of individual accounts including: determining who the author was (battle participant or chronicler), why the account was written (e.g., field report, history, colonial records, trial), how long after the battle was the account written, and if the information included in the account could be corroborated by other sources. *Atlas.ti*, literary software, was used to systematically code, compare and arrange information from a wide range of sources, primary and secondary, regarding the Battle of Great Falls. Using optical character recognition and applying a wide variety of search terms to these digitized documents, *Atlas.ti*, can quickly query any given term and highlight all instances of that term in any given document.

Some of the more important primary sources consulted during this research include the narrative of Jonathan Wells (sixteen-year-old soldier in the battle), Roger L'Estrange (chronicler), William Hubbard (chronicler), and Increase Mather (chronicler). These sources have provided important insights into the sequence of battle events, physical terrain features and combatants (Native and English). Both Increase Mather and William Hubbard relied on local intelligence made available to them from soldiers, fellow ministers and official letters as they were both tasked to publish a history of Massachusetts Bay Colony and the Indian war.[35]

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[33] For a list of identified primary sources see: Chapter IX : Works Cited

[34] For a list of identified second sources used to reconstruct the battlefield narrative see: Chapter XXX: Works Cited

[35] Nelson, Anne Kusener. "King Philip's War and the Hubbard-Mather Rivalry," *William and Mary*, Series III, Vol. 27, No. 4 (Oct. 1970). Pp. 615-629.

Manuscript collections containing letters to and from officials of the Massachusetts (Military Series) and Connecticut War Councils (Colonial War & Indian Series I) also provided important details of the battle including effects of diseases and illness, mortality rates, movements of Colonial and Native Coalition forces, logistics, supplies, military compensation and requests for inter-colony support. The Reverend John Russell of Hadley was a central figure reporting on the events leading up to and immediately after the battle and his letters to the Massachusetts and Connecticut War Councils were important sources of information. His letters provided information on the disposition of Native communities and the vengeful mood of the local settlements and advocated an immediate attack on the Native encampments at the falls despite Connecticut's wishes to delay any action to see how the peace process unfolded. Other sources include Newport Court records that provide the testimony of captured Native (Narragansett/Coweeset) men who were at the Battle of the Great Falls and subsequently executed for their role in King Philip's War.

King Philip's War has been the subject of many publications including early antiquarian histories, dime novels, plays, travel guides, popular histories and academic works.[36] Most localities affected by the war published histories of the event that impacted their town in the form of pamphlets, newspaper articles, town histories, or other historical writings. These sources provide fascinating insights into local events and commemoration which often reflect the biases, prejudices, and Anglo-American perspectives of the period in which they were produced. One of the more useful sources includes several town histories written by twentieth century historian

[36] Numerous published works concerning King Philip's War have been produced since the seventeenth century. The following lists includes some representative samples of secondary sources often consulted by historians and the public: James David Drake, *King Philip's War: Civil War in New England, 1675-1676* (Amherst, MA: University of Massachusetts Press, 1999); Samuel G. Drake, *Indian Biography, Containing the Lives of More than Two Hundred Indian Chiefs: Also Such Others of that Race as Have Rendered Their Names Conspicuous in the History of North America. Giving Their Most Celebrated Speeches, Memorable Sayings, Numerous Anecdotes; And a History of Their Wars. Much of Which is Taken from Manuscripts Never Before Published* (Boston, MA: J. Drake, 1832); Samuel G. Drake, *The History of King Philip's War* (Boston, MA: J. Munsell, 1862); Yasuhide Kawashima, *Igniting King Philip's War: The John Sassamon Murder Trial* (Lawrence, KS: University Press of Kansas, 2001); Douglas Leach, *Flintlock and tomahawk; New England in King Philip's War* (New York, NY: Macmillan, 1958); Jill Lepore, *The Name of War: King Philip's War and the Origins of American Identity* (New York, NY: Knopf, 1998); Patrick Malone, *The Skulking Way of War* (Lanham, MD: Madison Books, 1991); Kevin McBride, "Mohantic Fort: The Pequots in King Philip's War" in Gaynell Stone, Ed. *Native Forts of the Long Island Sound Area* (Stoney Brook, NY: Suffolk County Archaeological Association, 2002); John McWilliams, "A Cloud of Blood: King Philip's War" in *New England's Crises and Cultural Memory: Literature, Politics, History, Religion 1620-1860* (New York, NY: Cambridge University Press, 2004); Eric B. Schultz & Michael J. Tougias, *King Philip's War: The History and Legacy of America's Forgotten Conflict* (Woodstock, VT: Countryman Press, 1999); Richard Slotkin & James K. Folsom, eds. *So Dreadfull a Judgment: Puritan Responses to King Philip's War, 1676-1677* (Middletown, CT: Wesleyan University Press, 1978); Jason W. Warren, Connecticut *Unscathed: Victory in the Great Narragansett War 1675-1676* (Norman, OK: University of Oklahoma Press, 2014).

Sylvester Judd who provided some additional details on the Battle of the Falls.[37] Judd was responsible for organizing the Connecticut Colonial War Series at the Connecticut State Library, which also contained the John Russell letters and the assembled the Judd Collection at the Forbes Library, Northampton, Massachusetts. Judd also conducted oral histories with local descendants of English soldiers who were engaged in the battle for inclusion in his publications.

Similarly, the historian George Madison Bodge published an extremely detailed account of the war in his 1891 book *Soldiers in King Philip's War* in which included both extensive primary source research and oral traditions of many English descendants. Bodge also compiled comprehensive rosters of English forces and English and Native casualty figures. He also took great care to ensure the accuracy of his reconstructions of individual engagements in terms of tactics, movements, and combatants, and Bodge's history still stands as one of the definitive books regarding the history of King Philip's War.[38]

All the above-mentioned documentary sources were deconstructed to identify defining cultural and physical features of the Battle of Great Falls/Wissatinnewag-Peskeompskut including locations of Native villages and encampments, battle events and locations, movements of combatants on the battlefield and avenues of approach and retreat. An integrated analysis of all relevant primary and secondary accounts provided a much richer and more complex narrative of the battle and greatly assisted in refining the scope and scale of the battlefield study areas.

Brief History of King Philip's War - Introduction

> Know by this paper, that the Indians that thou hast provoked to wrath and anger will war this 21 years if you will. There are many Indians yet. We come 300 at this time. You must consider the Indians lose nothing but their life. You must lose your fair houses and cattle.[39]

This brief letter written by Nipmuc Christian Indian James the Printer, and scribe for Metacom, was nailed to a bridge post following the Battle of Medfield on February 21, 1676. The letter epitomizes the anger Native people throughout New England felt toward the English and

[37] Judd, *History of Hadley.*

[38] George M. Bodge, *Soldiers in King Philip's War: Containing lists of the soldiers of Massachusetts Colony, who served in the Indian war of 1675-1677. With sketches of the principal officers, and copies of ancient documents and records relating to the war* (Boston, MA: Printed for the author, 1891).

[39] Gookin. *Christian Indians in New England*. P. 494

their deep concern for their futures. It also speaks to a broader Native strategy in King Philip's War to destroy the English livelihood and infrastructure.[40] English settlements were established in Native homelands at an astounding rate which greatly impacted their lifeways and forced them into ever diminishing territories. Thirty-Four English settlements were established in Plymouth and Massachusetts Bay between 1636 and 1673 and the rate continued to increase in the decade before King Philip's War (Figure 31).

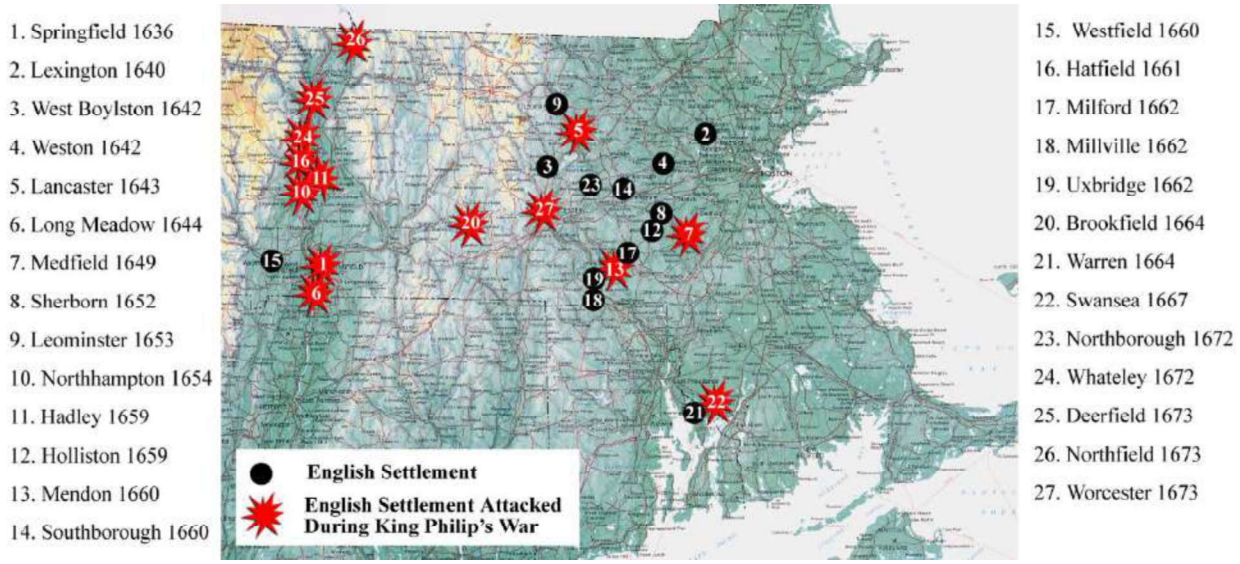


Figure 31. English Settlements on the Eve of King Philip's War

King Philip's War was not the first time Native peoples in New England contemplated a general war against the English, as Native people clearly understood the long-term implications of the expanding English settlements decades before King Philip's War. Shortly after the Pequot War began in September of 1636 the Pequots approached their traditional enemy the Narragansett to make peace and to enlist their aid in their war against the English. Their arguments to the Narragansett to unite against the English, and the tactics they proposed are eerily similar to those used by Metacom in King Philip's War forty years later:

> The Pequods…did at the last by all subtle insinuations and persuasions try to make their peace with the Narragansetts, using such arguments as to right reason seemed not only pregnant to the purpose but also most cogent and invincible…That the

[40] King Philip's War has also been referred to as the First Indian War, Metacom's War, or Metacom's Rebellion. Most recently, Major Jason Warren has referred to the conflict as the Great Narragansett War in his book *Connecticut Unscathed: Victory in the Great Narragansett War* (2014).

> English were strangers, and began to overspread the country, which would soon be possessed by them to the depriving the ancient inhabitants of their right, if they were not timely prevented, and that the Narragansetts would but make their way for their own ruin, by helping to destroy the Pequods, for after themselves were subdued, it would not be long ere the Narragansetts themselves, would in the next place be rooted out likewise; whereas if they would but join together against the English they could demonstrate how the English might easily either be destroyed or forced to leave the country, and that without any danger to themselves: Telling them also that they never need come to any open battles, they might destroy them only by firing their houses, and killing their cattle, and lying in wait for them as they went on their ordinary occasions; which course, if it were pursued, they said their new and unwelcome neighbors could not long subsist; but would either be starved with hunger and cold, or forced to leave the country.[41]

In 1642, Miantonomoh, one of the chief sachems of the Narragansett Tribe also tried to enlist Native tribes throughout southern New England and Long Island in a plan "for destruction of the English and generally throughout New England to make war upon the English because the English did get possession of all the best places and did drive the Indians away and were likely to take away the country from them."[42] Many of the sachems were reluctant to become a part of the conspiracy "as that the English were too strong for them." In a speech to the gathered sachems on Long Island Miantonomoh replied:

> So are we all Indeans as ye English are, and Say brother to one another, So must we be one as they are, Otherwise we will all be gone shortly, for you know our fathers had plentie of deare, & Skins, our plaines weare full of dear as also our woods and of Turkies, and our Coves full of fish and foule, but these English having gotten our land, they with Sythes cut downe ye grass, and with axes fell the trees their Cowes & horses eat ye grass and their hoggs spoyle our Clambanks, and we Shall all be starved: therefore it is best for you to do as wee for wee are all the Sachems from East to west both Moquakues & Mowhauks Joyning with us, and we are all resolved to fall upon them all at one appointed day.[43]

These complaints were echoed 33 years later, one week before King Philip's War began, during a meeting between King Philip (Metacom) and the Rhode Island Deputy Governor John Easton. Easton invited Metacom and 40 of his men to discuss Pokanoket grievances in the hopes

[41] Hubbard. *Narrative*. Pp. 29-30.
[42] James Kendall Hosmer, Ed. *Winthrop's Journal History of New England, 1630-1649* (New York, NY: Charles Scribner's Sons, 1908). P. 79.
[43] Lion Gardener. *Relation of the Pequot Warres* (Hartford, CT: Acorn Club. 1901). P. 26.

of finding a solution and prevent a war. Metacom and his councilors listed many grievances that echoed Miantonomoh's speech forty years earlier:

> They said they had been the first in doing good to the English, and the English the first in doing wrong; they said when the English first came, their king's father was as a great man and the English as a little child. He constrained other Indians from wronging the English and gave them corn and showed them how to plant and was free to do them any good and had let them have a 100 times more land than now the king had for his own people. But their king's brother, when he was king, came miserably to die by being forced into court and, as they judged, poisoned. And another grievance was if 20 of their honest Indians testified that a Englishman had done them wrong, it was as nothing; and if but one of their worst Indians testified against any Indian or their king when it pleased the English, that was sufficient. Another grievance was when their kings sold land the English would say it was more than they agreed to and a writing must be proof against all them, and some of their kings had done wrong to sell so much that he left his people none, and some being given to drunkeness, the English made them drunk and then cheated them in bargains…that now they had no hopes left to keep any land. Another grievance was that the English cattle and horses still increased so that when they removed 30 miles from where the English had anything to do, they could not keep their corn from being spoiled, they never being used to fence, and thought that when the English bought land of them that they would have kept their cattle upon their own land. Another grievance was that the English were so eager to sell the Indians liquors that most of the Indians spent all in drunkeness and then ravened upon the sober Indians and, they did believe, often did hurt the English cattle, and their kings could not prevent it.[44]

The immediate cause of King Philip's War was Plymouth Colony's execution of three of King Philip's men in June of 1675. The three men had been tried and found guilty of murdering John Sassamon, a Harvard educated Christian Indian who had served as an interpreter and advisor to Metacom, but whom Metacom had accused of spying for the colonists. Increase Mather claimed, "but the main ground why they murthered him seems to be, because he discovered their subtle and malicious designs, which they were complotting against the English."[45] In fact, the causes of the war were far more complex. The murder and executions ignited a tinderbox fueled by the underlying tensions between Indians and the English that had been smoldering for over 50 years over competing land claims, disputes over the grazing of colonial livestock, impacts on

[44] John Easton, Franklin B. Hough, Editor, *A Narrative Of the Causes which led to Philip's Indian War, of 1675 and 1676, by John Easton, of Rhode Island.* (Albany, NY: J. Munsell, 1858). Pp 11-13.
[45] Mather. *A Brief History*. P. 11.

Native hunting, and fishing grounds, and agricultural fields, interracial insensitivities, and English cultural encroachment on Native lifeways.

King Philip's War Begins

King Philip's War (June 1675 – August 1676) was an armed conflict between dozens of Native American tribes and bands who inhabited (and still do) present-day southern New England who fought against the United Colonies of Connecticut, Massachusetts Bay, and Plymouth. The war is named after the Pokanoket sachem Metacom, known to the English as "King Philip," as the war began in Plymouth Colony, the homeland of the Pokanoket, and due to King Philip's leadership role during the conflict. Dozens of frontier towns in central Massachusetts and the Connecticut Valley were attacked and burned during the war, as were settlements in Providence Plantations, Plymouth Colony and eastern Massachusetts (Figure 31). The conflict is often referred to as the deadliest in American history based on English and Native civilian and military casualties per capita relative to the population.[46]

There is some evidence that Metacom had been planning a war against the English for years, accumulating firearms, storing food, and forging alliances with Native tribes through the region. There is strong circumstantial evidence for such a conspiracy if English sources are to be believed. As early as 1671 Plymouth Colony accused Metacom of plotting a war against them: "Phillip and his council did acknowledge that they had bine in a preparation for war against us; and that not grounded upon any injury sustained from us, nor provocation given by us, but from their own naughty harts."[47] In 1675 Plymouth Colony accused Philip of sending his messengers to several Indian sachems to join with him in a confederacy against the English to which he apparently confessed:

> …to enter into a confederacy with him against the English, and himself arms about 700 of his men, and obtains 1000 more of his confederates: and what others besides these he hath engaged to his party, is to the English unknown, though its shrewdly suspected this cruel subtle fellow hath engaged most of the Indians in the country to espouse his quarrel as a common cause. All this spring Philip's soldiers (who were well fitted with guns, powder, shot, etc. which they had long since gotten of

[46] Douglas Leach, *Flintlock and tomahawk; New England in King Philip's War* (New York, NY: Macmillan, 1958).
[47] Nathaniel Shurtleff, Ed. *Records of Plymouth Colony*, Vol. 5 (Boston, MA: William White, 1671). P. 63.

the Dutch, French, yea and of some English themselves) were seen marching in their arms even at the planting of their corn.[48]

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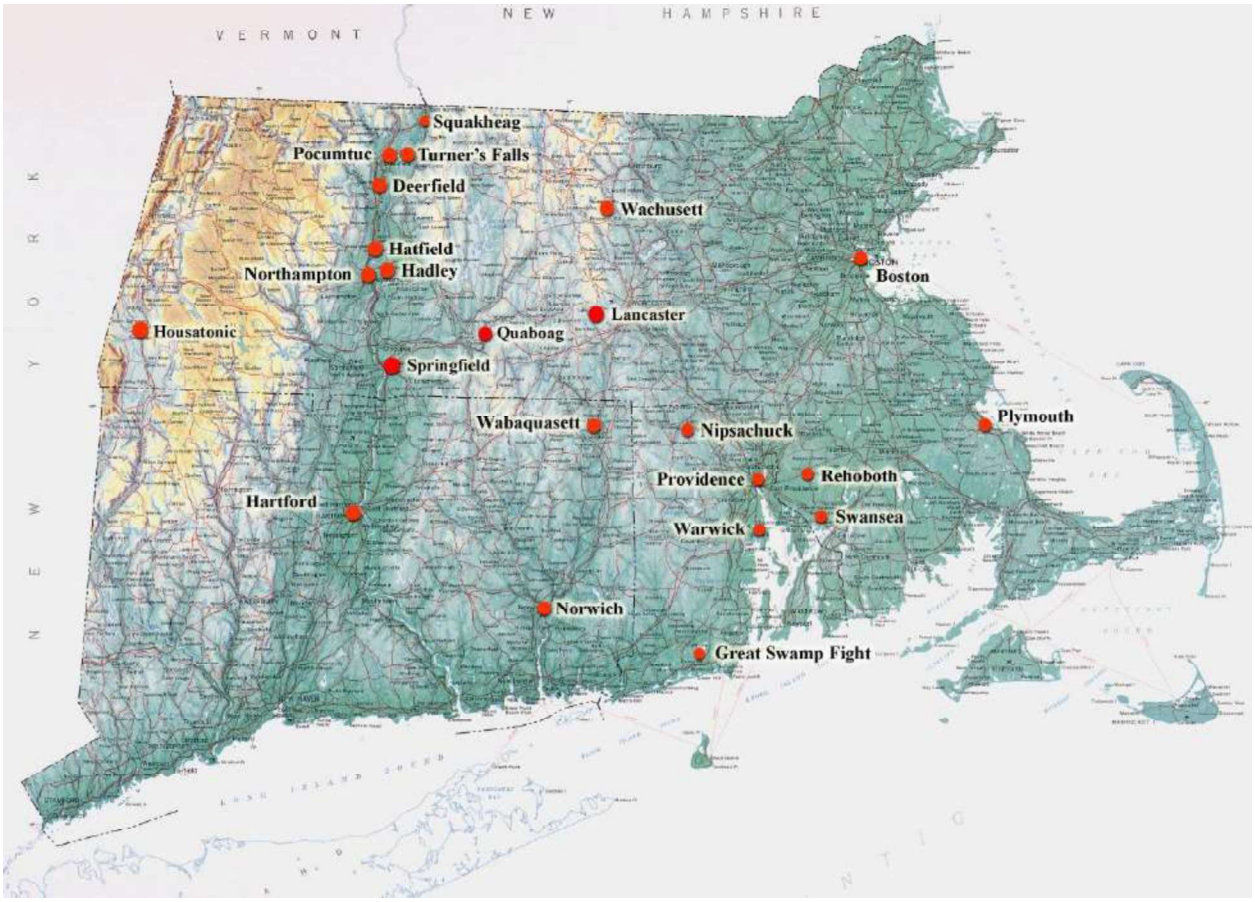


Figure 32. Selected Towns, Native Communities, and Place Names (1675-1676).

William Harris of Providence moved to the relative safety of Newport at the outbreak of the war but was aware of the events taking place in Pokanoket territory just a few miles away. In 1676 he wrote a letter to Sir Joseph Williamson, Secretary of State for the British crown outlining many of the events of King Philip's War:

> Phillip did intend this war long since: aboute foure years, & had executed it: but y^{e} god's Imedyate hand then preuented him: twice at y^{e} least by great mighty raynes, which after ward was made knowne by Some Indeans, And he being required then to answer: had all moste broke out then, very neer he was to a war, & then stoode vpon his gard in Armes; but at y^{e} last he apeared (much adoe) & then confesed his guilt of y^{e} sd fact. He hath resolued this war: thoughe y^{e} s^{d} writt had nevr come out

[48] Roger L'Strange. *A Brief and True Narration of the Late Wars Risen in New England* (London, UK: Printed for J.S., 1675). P. 4.

> against him, And all y^{e} Indeans with him in these partes, apears, by they^{r} preparation for it, laying up great quantetyes of corne, not after theyr useall manner, but y^{e} year before: as a store for y^{e} war, and Soe layd up, as cannot easely be founde, makeing y^{e} ground level: & grass growing vpon them: yl they layd up y^{e} last year; and y^{l} they layd up this year (wher y^{e} grass had not time to be made to grow over it) they make hills in they^{r} fields like hills of Corne on they^{r} barnes, & put dead stalkes of corne as if they had the^{r} grew, whereas: at all other times of peace: they make theyr barnes y^{l} any Child y^{l} paseth by may see where they are (y^{l} are vsed to them) And by they^{r} prouiding powder: & Shott & Arrowes, which y^{e} English perceiueing: & takeing notice of the Indeans pretended they^{r} preparation against ye moowhagues [Mohawks].[49]

King Philip's War began on June 25, 1675, when a group of Metacom's men attacked and killed several English at Swansea, Massachusetts because of rising tensions between the Pokanoket and Plymouth Colony following the execution of three Pokanoket men by the English several months earlier.[50] This action initiated a sequence of events that engulfed all of New England in a full-scale war within a few months. Once the Pokanoket (Bristol, RI), Pocasset (Tiverton, RI), and other Wampanoag bands eluded English forces at Mount Hope (Metacom's homeland) and fled to central Massachusetts in late August, almost all the Native groups in Massachusetts joined the war against the English.[51] It was reported that there were even some Mohegan's who fought for Philip. Roger Williams reported that after the Great Swamp Fight "14 Monhiggins are now marcht away with the Nahigonsiks."[52] The Narragansett of Rhode Island entered the war in December of 1675 following a surprise attack on their fortified village in South Kingston by the United Colonies on December 19, 1675.

The movements of Metacom following his escape from Mount Hope indicate the close kinship ties the Pokanoket had with the Quabaug of west central Massachusetts, and by extension the tribes in the Connecticut Valley as the Quabaug had kin ties with the Agawam, Norwottuck,

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[49] William Harris. A Rhode Islander Reports on King Philip's War; The Second William Harris Letter of August 1676, P. P. 20, 22. Transcribed and Edited by Douglas Edward Leach. Providence: Rhode Island Historical Society. 1963.

[50] George Madison Bodge, *Soldiers in King Philip's War: Being a Critical Account of that War* (Boston, MA: Rockwell and Churchill Press, 1906). Pp. 25-27

[51] The Nipmuc of central Massachusetts and northeastern Connecticut, as well as the Pocumtuck (Deerfield), Norwottuck (Hadley), Agawam (Springfield), Woronoco (Westfield), Nonotuck (Hadley), Squakheag (Northfield) of the middle Connecticut Valley, and various Nipmuc tribes including the Quabaug (Brookfield) and Nashaway, and the Quahmsit, and Segunesit of north central Massachusetts.

[52] LaFantasie. *Correspondence of Roger Williams*. P. II:714

and Woronoco.[53] Metacom's immediate goal after leaving Pokanoket territory was to seek the protection and aid of the Quabaug (Brookfield) who had long acknowledged Massasoit (Philip's father) and Philip as their sachem. Metacom arrived at Quabaug Old Fort on August 5. There is evidence to suggest that Mattaump and the other Quabaug sachems anticipated Metacom's arrival as "the sachems had sent men to Philip to conduct him to Squabauge [Quabaug], with assurance that they would protect him."[54] The first attacks on the English outside of Plymouth Colony were on the English settlement at Brookfield in Quabaug territory on August 2nd. Attacks on English settlements in the middle Connecticut Valley followed a month later.

From the summer of 1675 through the early winter of 1676 The Pokanoket and Pocasset Wampanoag, Narragansett, Nipmuc, middle Connecticut River Valley tribes (Pocumtuck, Nonotucks, Agawam, Norwottock) and the Quabaug, Nashaway, and Sokokis, launched dozens of highly successful attacks against English settlements in the Western, Central, and Eastern theaters (Figures 32-35). These attacks had a devastating impact on English settlements. The experiences of John Kingsley of Rehoboth echoed those throughout the English settlements:

> I now, in my sickenes, my skin is ready to cleave to my bones. Now being unknowne to you beloe on the river, I say I am the 1 man & onely left of those that gathered the Church that is now in Dorchester, yet of late have lived at Rehoboth or Seconke & hath suffered deepe, with my neighboures. Now to tel you what wee have & how wee are like to suffer, my hart will not hould to write & sheetes would [not] contain. I am not able to beare the sad stories of our woeful day, when the Lord made our wolfish heathen to be our lordes, to fire our townc, shout & holler to call to us to come out of our garisones. Some did goe out alive, with success; but had not our God restrained them, thay were enough to have swalowed us all up. Thay burnt our milles, brake the stones, y^{e}, our grinding stone; & what was hid in the earth they found, corne & fowlcs, kild catel & tooke the hind quarters & left the rest, yea, all that day that the Lord gave license they burnt cartes wheles, drive away our catel, shipe, horses, in a word had not the Lord restrained thay had not left one to have told of our Woeful day. We lost but one silly man that day. We are shut up in our garisones & dare not goe abroad far to our outlande, without some strength. Some of our souldiers are removed. Nobody comes to say, how doe ye…but alas, what will we doe against famine!

[53] *Collections of the Massachusetts Historical Society,* "Letter from Nathaniel Thomas to Governor Winslow, June 25, 1675." (Boston, MA: Samuel Hall, 1798). Pp. 86-87.
[54] J. H. Temple. *History of North Brookfield, Massachusetts* (North Brookfield, MA: Town of North Brookfield, 1887). P. 99.

Coalition attacks on the middle Connecticut Valley settlements forced the English settlements at Northfield (Squakheage) and Deerfield (Pocumtuck) to be abandoned in September of 1675. In October Native attacks on English corn and grist mills in the middle Connecticut valley forced Massachusetts Bay and Connecticut to send soldiers to garrison and fortify the remaining settlements of Springfield, Westfield, Hatfield, Hadley, and Northampton during the winter of 1675-1676. This greatly increased the burden on the local population who had to feed and house the soldiers, and they often complained of overcrowding and shortages in medicine, food and clothing.

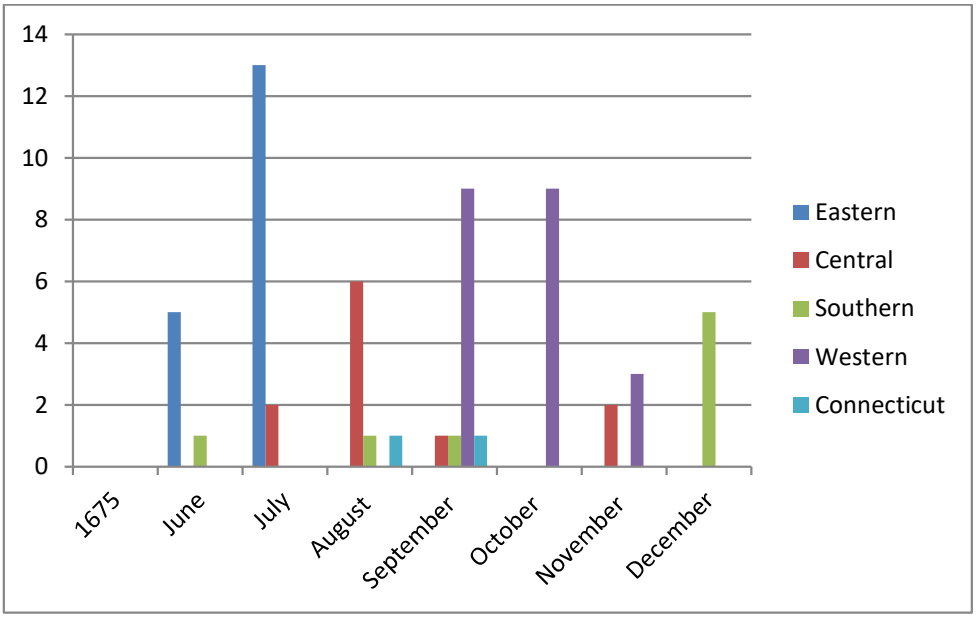


Figure 33. Native Attacks by Theater, June – December 1675

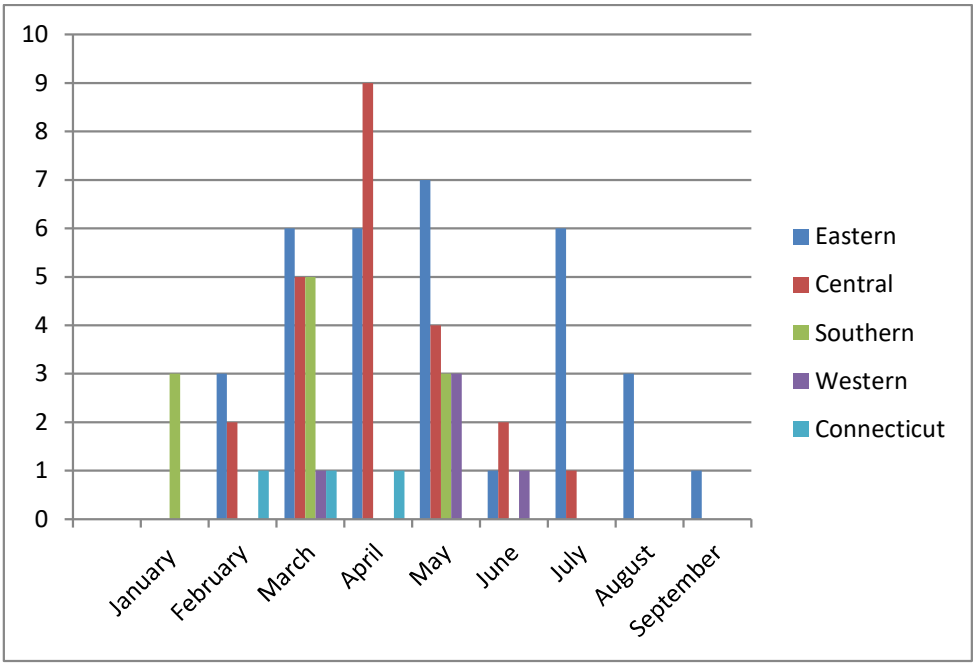


Figure 34. Native Attacks by Theater, January 1676 – September 1676.

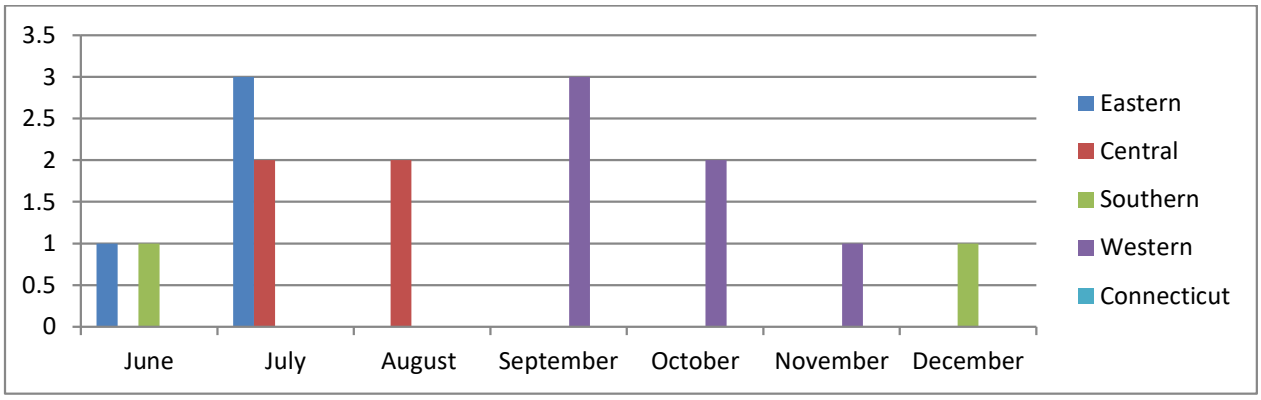


Figure 35. Native Attacks on English Settlements, June 1675 – December 1675.

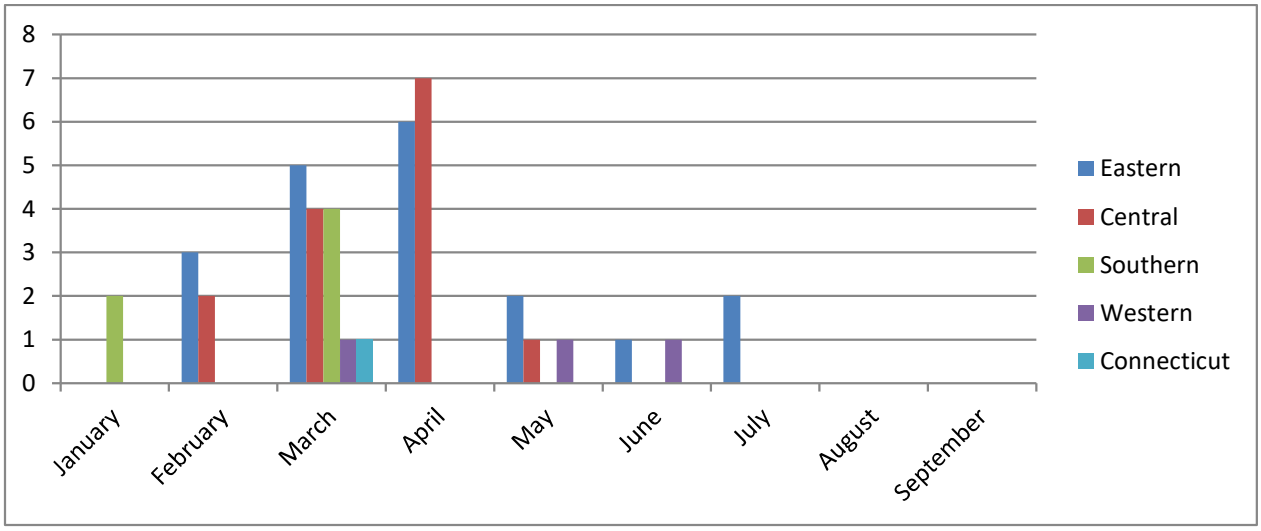


Figure 36. Native Attacks on English Settlements, January 1676 – September 1676.

During the winter of 1675-1676 English towns experienced severe hunger and famine, but not nearly to the extent that Native communities did. Chronic food shortages, malnutrition, and consumption of spoiled meat (e.g., decomposed horse legs) led to a severe deterioration in the overall health of Native communities. Mary Rowlandson was captured in the raid on Lancaster on February 10, 1676, and spent almost three months with Native Coalition communities. During that time, she was able to observe their diet daily:

> It was thought, if their corn were cut down, they would starve and die with hunger; and all that could be found was destroyed, and they driven from that little they had in store, into the woods, in the midst of winter…Though many times they would eat that that a hog would hardly touch; yet by that God strengthened them to be a scourge to his people. Their chief and commonest food was ground nuts, they eat also nuts and acorns, artichokes, lilly roots, ground beans, and several other weeds and roots that I know not. They would pick up old bones, and cut them in pieces at the joints, and if they were full of worms and maggots, they would scald them over the fire, to make the vermine come out, and then boil them, and drink up the liquor, and then beat the great ends of them in a mortar, and so eat them. They would eat horses guts, and ears, and all sorts of wild birds which they could catch.[55]

Dysentery ("bloody flux") spread throughout the Native communities in the winter of 1676 along with a dramatic increase in the number of deaths from battlefield casualties, exposure to the elements, and other unidentified illnesses. Although not documented in Native communities during

[55] Mary Rowlandson. *Narrative of the Captivity and Removes of Mrs. Mary Rowlandson*. P. 67-68. Lancaster: Carter, Andrews & Co. 1828.

the war, smallpox was frequently reported in English settlements and undoubtedly had a significant impact on Native communities as well. Massachusetts Bay soldiers may have inadvertently spread sickness and disease throughout the English and Native communities when they returned home from the field or as captives. Though European peoples had developed some antibodies protecting them against such viruses, illnesses such as smallpox and influenza were opportunistic and unknown but highly infectious diseases infected thousands of Natives and English during the war, particularly during the winter and spring of 1676.[56] James the Printer spent the winter and spring with Native Coalition forces and reported: "many of the Indians are dead since this War began; and that more have dyed by the hand of God, in respect of Diseases, Fluxes, and Fevers, which have been amongst them, then have been killed with the Sword."[57] Increase Mather reported "In these two months of May & April [1676], besides the Sword of War, in respect to the Heathen, the Sword of the Lord hath been drawn against this Land, in respect of Epidemical Disease, which sin hath brought upon us; Sore and (doubtless) Malignant Colds prevailing everywhere."[58] Native settlements in Narragansett country, central Massachusetts and the middle Connecticut Valley were abandoned as Massachusetts Bay and Connecticut forces destroyed their cornfields and food stores, and kept Native communities on the run to prevent them from gathering and hunting to "see to it the Indians would likewise face hardships come winter."[59]

By the spring of 1676, the war had raged for nearly a year with heavy casualties on both sides, but the Native Coalition was far more successful on the battlefield than were the English. Even so, the tide of the war began to turn in favor of the English as they began to aggressively pursue, harass, and attack Native communities throughout the region, not allowing them time to rest, gather food, or plant their fields (Figures 37 & 38). By the early spring both sides were exhausted and there was a brief pause in the war as the combatants took time to rest and resupply. English forces in Connecticut, Massachusetts Bay, and Plymouth refitted their armies, provided for the defense of their towns, and prepared for spring offensives against the Native Coalition.

[56] Increase Mather, *Diary, March 1675-December 1676* (Cambridge, MA: John Wilson and Son, 1900). P.18.
[57] Mather. *Brief History*. P. 62.
[58] Mather. *Brief History*. P. 62.
[59] Gookin. *Christian Indians in New England*. P. 448.

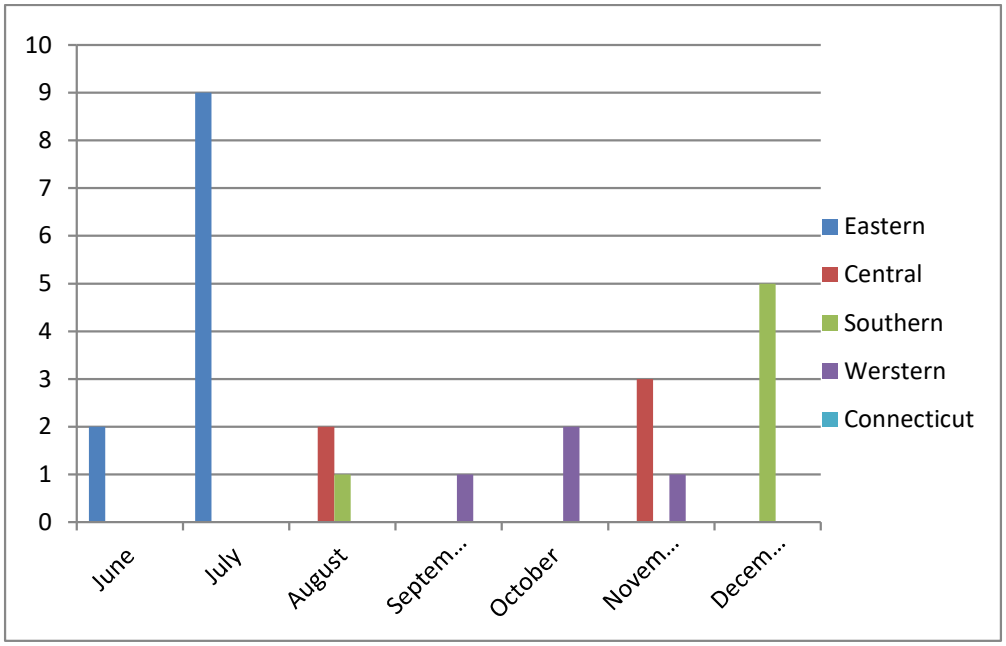


Figure 37. English Offensive Operations, June 1675 – December 1675.

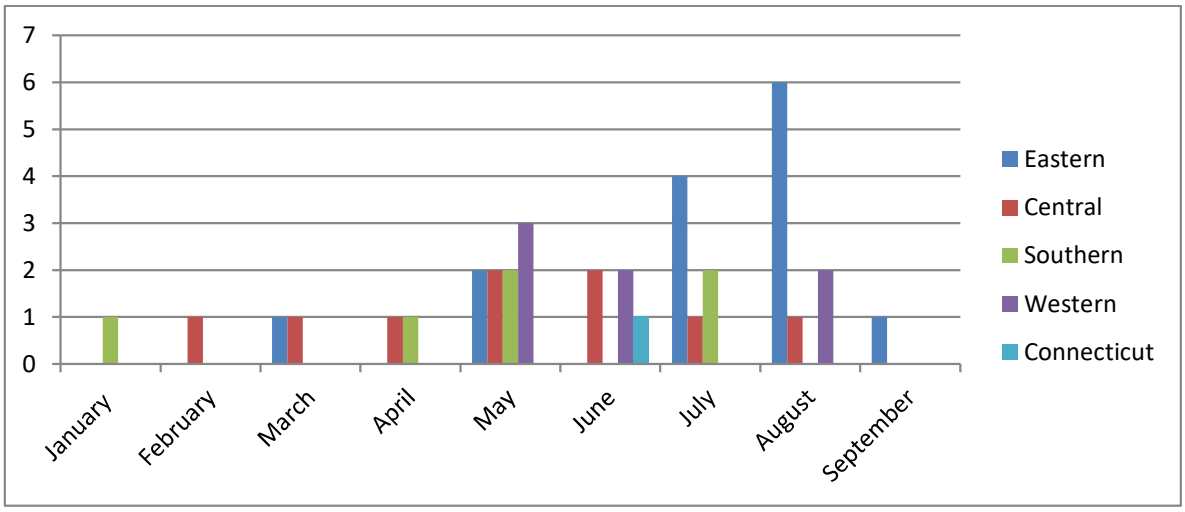


Figure 38. English Offensive Operations, January 1676 – September 1676

Native communities began gathering in the middle Connecticut River Valley in early spring to find refuge and recover from the long winter, plan future strategy, rearm and refit, plant corn, and gather food supplies, particularly fish, for immediate consumption and as food stores to continue the war for next year. There were far more Native attacks in all theaters between January and May of 1676 than in the previous five months in part because of the addition of the Narragansett to the Coalition and likely because the Coalition used the winter to plan and prepare for wide ranging offensive operations (Figures 32-35). Similarly, we see a dramatic increase in English offensive operations in the spring of 1676 as well (Figures 37 & 38). This surge may have

been partly in response to Native attacks but was also the result of developing English experience in battlefield operations and execution, as well as logistics and planning. The English operations in the spring of 1676 (mostly attacks on Native communities) had a tremendous impact on Native people throughout the region. These operations prevented Native communities from gathering food supplies, planting, and directly and indirectly caused thousands of deaths from battlefield casualties, malnutrition, sickness, and disease.

By April the broader Peskeompskut/Great Falls area of the middle Connecticut River Valley, had become a center of a multi-tribal gathering with at least a dozen villages located between Deerfield and Squakheage (Figure 39). In a May 1 letter, the Connecticut War Council identified several Coalition leaders and communities at Squakheag including Pessicus (Narragansett), Wequaquat (Pocumtuck), Wanchequit (Norwottuck), Sunggumachoe (Nonotuck/Pocumtuck?) "and the rest of the Indian sachems up the river at Suckquackheage [Squakheag]."[60] Jonathan Wells identified six Coalition communities in the immediate vicinity of Great Falls at the time of the battle at Peskeompskut, directly across the river, further upriver near the confluence of the Millers River, Cheapside (east of the confluence of the Deerfield and Green Rivers), Deerfield and Rawson's Island.[61]

The immediate area around Peskeompskut consisted of two broad floodplains along the west and east banks of the Connecticut River adjacent to the falls. The bedrock formation at Peskeompskut forms one of the largest waterfalls along the Connecticut River where anadromous fish such as shad, alewife, salmon, and eels were easily caught as they make their way upriver to

[60] Trumbull, *Colony of Connecticut.* P. II:439

[61] Thomas, *Historiagraphic Analysis*, pp. 11, 13-14.

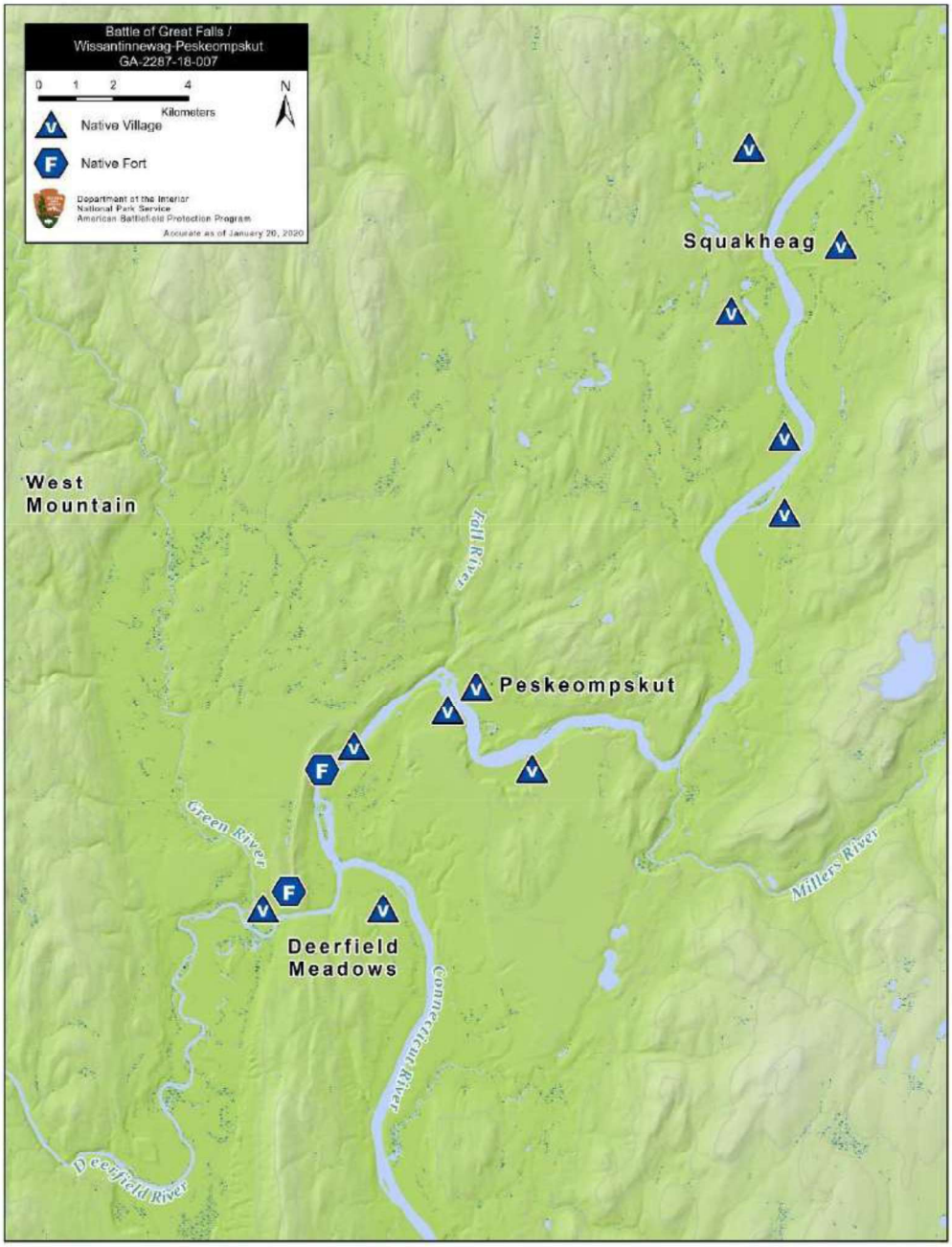


Figure 39. Coalition Forts and Village Locations, Spring of 1636.

spawn. The confluences of the Green and Deerfield Rivers, the Fall and Connecticut Rivers, and the Banquaug (Miller's) and Connecticut Rivers were all ideal fishing places to capture anadromous fish and it's no coincidence that Native villages were located in these areas (Figure 39).

The English and Native Coalition groups were war weary by the early spring of 1676, and each began to make peace overtures. Earlier messages were exchanged between the Narragansett sachems and the English in early January after the Great Swamp fight, but nothing came out of these early attempts. The English thought the Native leaders were playing for time (which they probably were), but also because there were serious divisions among the Native leaders whether to even engage in peace negotiations. Seventeenth-century historian William Hubbard reported that on January 12, 1676 a messenger came from the Narragansett Sachem Canonicus "desiring the space of a month longer, wherein to issue the treaty, which so provoked the Commander of our forces, that they resolved to have no more treaties with the enemy, but prepare to assault them, with God's assistance, as soon as the season would permit."[62] Hubbard also reported the "rest of the winter was spent in fruitless treaties about a peace, both sides being well wearied with the late desperate fight, were willing to refresh themselves the remaining part of the winter with the short slumber of a pretended peace at least with a talk or a dream thereof."[63] Metacom and other sachems were vehemently opposed to any peace negotiations with the English. Just before her release from captivity on May 2 Mary Rowlandson reported that a council of Coalition leaders were gathered at Watchusett to "consult and determine whether I should go home or no. And they all seemingly consented that I should go, except Philip, who would not come among them".[64]

On March 11, the Commissioners of the United Colonies issued a letter to the respective colonial governments stating:

> We are well informed that the enemy hath given it out that they keep some English which they have taken captive in order to their making of peace and for that end our council have it in consideration to commission two or more meet persons…to embrace & improve all …with assurances that they shall not be remanded by the English so as to be sold for slaves or to lose their lives…the enemy are far the greatest part of them weary of the war, as well as the English, only the youngest and their pride and fear of slavery have propose for a peace…[65]

The return of English captives and the peace process were now inexorably linked. For their part the Connecticut War Council sent a letter dated March 28 to "the Indians in hostility against us" proposing a prisoner exchange at Hadley. They also offered "if the said Indians do desire any

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[62] Hubbard, *Narrative*. P. 148.
[63] Hubbard, *Narrative.* P. 145.
[64] Mary Rowlandson, *The Narrative of the Captivity and Restoration of Mrs. Mary Rowlandson*. Cambridge, Massachusetts, 1682. P. 101.
[65] Connecticut State Library, *Connecticut Archives, Colonial War, Series I, 1675-1775.* Document 45.

treaty with us, and make appear that they have been wronged by any of the English, we shall endeavor to have that wrong rectified and hear any propositions that they shall make unto us; and that if any of the sachem have a desire to treat with us, they shall have liberty to come to us and go away without any molestation."[66] The letter was carried by a Narragansett man named Towcanchasson who was a trusted advisor to Narragansett Sachem Pessicus and Squaw Sachem Quiapan. Towcanchasson was later killed along with Quiapan at the Second Battle of Nipsachuck on Jul3 3, 1676. Towcanchasson was called upon on several occasions in the winter and spring of 1676 to serve as an intermediary between the English at Connecticut and Massachusetts Bay and the Narragansett, Wampanoag, Nonotuck, Pocumtuck and Norwottuck sachems around Squaheag.

No immediate reply was forthcoming from the sachems, perhaps because Connecticut and Massachusetts Bay continued to attack the Narragansett and other tribes in the Connecticut Valley, as well as communities in Nipmuc and Narragansett territory as well. The silence on the part of the sachems which so frustrated the English may also have been because of the deep divisions within the Coalition whether to pursue peace or not. English strategy was to: "put the greatest dread upon the enemy…so also the prudently to embrace and improve all opportunities for obtaining a peace, so that the enemy with thorough hopelessness of having a case of submission be made desperate in their designs."[67] Understandably Native leaders were loath to expose their communities to the uncertainties of an English peace. In early April the Narragansett Sachem Canonchet, a highly respected leader among Natives and English alike, was captured by Connecticut Dragoons and executed by the Pequot and Mohegan when he returned to Narragansett Country to retrieve seed corn and raid English settlements for livestock. Canonchet's death was a tremendous blow not only to the Narragansett but the entire Coalition. The principal Narragansett Sachem Pessicus (Sucquance) responded to the Connecticut War Council's peace proposal in late April and stated that he would gather the other sachems to present Connecticut's terms and requested that any Narragansett sachems imprisoned by the English to be released.[68] On May 1, 1676, the Connecticut Council sent a message to:

> Pessicus [Narragansett], Wequaquat [Pocumtuck], Wanchequit [Norwottuck], Sunggumachoe [Nonotuck] and the rest of the Indian sachems up the river at Suckquackheage [Northfield]…we have received your writing brought by our two

[66] Trumbull, Ed. *Public Records of the Colony of Connecticut*. P. II:425.
[67] Trumbull, *Colony of Connecticut.* P. II:425.
[68] Trumbull, *Colony of Connecticut.* P. II:425.

> messengers and by Pessicus his messenger [presumably Towcanchasson], and in it we find no answer to what we proposed, and therefore once again we have sent these lines to you, to infrom you that, as we sayd before, we are men of peace, and if they will deliver unto us the English captives that are with them, either for money or for captives of yours in our hands, to be returned to them, we shall accept of it so far ; and if they will attend a meeting at Hadley within these eight days, if the Sachems will come thither bringing the captives with them as a sign of their real desire of peace, we shall appoint some to meet them there, and to treat them upon terms of peace.[69]

It appears that Connecticut was serious about peace negotiations, primarily to secure the release of captives held by Coalition forces. Connecticut was negotiating chiefly with Pessicus and sachems from Pocumtuck, Norwottock and other River Indian tribes based at Squakheage, while Massachusetts Bay opened negotiations with the Narragansett, Quabaug, and Nipmuc sachems based at Quabaug. In early May the Connecticut War Council instructed Reverend Russell and the settlers at Hadley not to take any aggressive action as "in any onset should be made upon the enemy whilst the captives are in their hands they will destroy each of them…if they accept a treaty we may send a good guard to attend the messengers that shall be sent to joyne with such…accordingly to be improved to best advantage."[70] The council offered to exchange Native prisoners for English captives and proposed to meet the sachems at Hadley within eight days (May 9).[71]

The sachems never responded, and it appears that there were significant differences within the Coalition regarding whether to return the English captives and pursue a peace with the English. Roger L'Estrange reported that "were it not for him [Philip] and one sachem more [Megunneway, an Eastern Abenaki sachem], the Indians would gladly yield to any terms of peace with the English."[72] These differences may have contributed to the dissolution of the Coalition following the Battle of Battle of Great Falls/Wissatinnewag-Peskeompskut:

> This treaty about the captives, and the consequences thereof, had no small influences into the abatement of the enemy's violence and our troubles, and had a tendency to dividing them and break their union, and consequently their strength; for Philip, and some others of the enemy's chief men, were utterly against treating with the English or surrendering the captives. But some of their principal sachems, that were more inclinable to a reconciliation with the English, thought that their

[69] Trumbull, *Colony of Connecticut.* P. II:439.
[70] CSL, *Colonial War, Series I.* Document 67.
[71] Trumbull, *Colony of Connecticut.* P. II:439.
[72] L'Estrange. *A True Account*. P. 262.

> compliance with the English about surrendering the captives (especially being well paid for their redemption) would mollify the Englishmen's minds in order to make peace. This contest about the treaty, caused them to fall and divide. Philip and most of the Narragansett Indians separated from the inland Indians, and went into their own country, and the inland Indians staid about Watchusett Mountain.[73]

On May 15, 1676 Russell reported to the Connecticut Council that captive Mary Rowlandson had been released (on May 2) and a Mr. Hoar "brought a letter subscribed by Philip: The Old queen [Quiapan] & sundry sachems containing a desire of peace or rather an overture for a cessation that they might quietly plant at Menden, Groton, Quaboag etc."[74] In late May it was reported that the "enemie" was planting at "Quabaug & at Nipsachook, nigh Coweesit: that Philip's men & the Narraganset are generally come into these above mentioned places, only Pessicus, one of the chief of the Narragansett sachems did abide up at Pocomtuck with some few of his men."[75] It's not clear why Pessicus stayed at Pocumtuck, but a few months later he abandoned the valley for Paquiag on the west side of the Hudson River in Mahican country rather than return to Narragansett country. These letters suggest that except for Pessicus and probably the River Indians, the Pokanoket, Nipmuc, and many of the Narragansett left Peskeompskut shortly after the Great Falls battle and began to return to their homelands.

Evidence indicates a growing rift within the Coalition with each tribe considering different courses of action, whether to continue to fight or to sue for peace and return to their homelands to plant. English sources place the Narragansett Sachem Pessicus at Pocumtuck in late April, and Metacom and Quiapan at Watchusett in early May. Philip joined Mary Rowland's party on April 17 near Wachusett and was still there on May 2 when Mary was freed (Rowlandson 19th and 20th removes). Philip is reported in the East after this.

Native Strategy and Tactics

The broader strategic goals of the Native Coalition are difficult to discern as Native voices rarely come through in the English narratives or battle accounts. Many historians have questioned King Philip's leadership role in the war as there is no evidence that he was ever present on a battlefield after he left Pokanoket territory. Benjamin Church reported that "it was Philips custom

[73] Gookin. *Christian Indians in New England*. Pp. 508-509.
[74] CSL, *Colonial War, Series I.* Document 71.
[75] CSL, *Colonial War, Series I.* Document 80a.

to be fore-most in the flight".[76] This statement likely does not indicate Metacom was a coward but rather that as the leader in the war effort against the English it was not in his or the Coalition's interest to put himself in harm's way.

There is considerable circumstantial evidence that Metacom was a central figure in planning and implementing the broader strategic goals of the Coalition during the war and in acquiring much needed supplies and ammunition for the Coalition. The characterization of Metacom as a war leader, grand strategist, and leader of the "rebellion" are overly simplistic and does not convey his important role and broader influence in the war effort. It does appear that Metacom initiated the "insurgency" and was planning for it for years, but after the war started he does not appear to have been a field or military commander.[77] George Memicho was a Praying Indian captured by the Quabaug on August 2, 1675 when the Quabaug attacked a party of twenty-two English led by Captains Wheeler and Hutchinson which included Memicho and two other Indian guides as they were on their way to meet with the Quabaug sachems to discuss peace. During the engagement, Captain Wheeler and eight others were killed and five others wounded. Memicho was captured and was present when Philip arrived at Quabaug following the First Battle of Nipsachuck on August 2, 1675. He related that:

> Upon Friday the 5th [6th] of this instant (August) Philip and his company came to us at this swamp, six miles from the swamp where they killed our men. Philip brought with him about forty men, but women and children many more, the number I cannot tell. Philip's men were about 30 of them armed with guns, the rest had bows and arrows. He observed there were about ten of Philip's men wounded. Philip was conducted to the swamp by two Indians, one of them Caleb of Tatumasket, beyond Mendon. The Indians told Philip at his first coming what they had done to the English at Quabaug; then he presented and gave to three sagamores, viz. John, alias Apequinash, Quananssit, and Mawtamps, to each of them about a peck of unstrung wampum, which they accepted. Philip, as I understood, told Quabaug and Nipmuck Indians, that when he first came towards the Nipmuc country and left his own, he had in his company about 250 men, besides women and children, including the Squaw Sachem [Weetamoo] and her company, but now they had left him, and some of them were killed, and he was reduced to 40 men, besides women and children.[78]

[76] Church, Benjamin, and Thomas Church. *The Entertaining History of King Philip's War*. Early American Imprints, Series 1, no. 12352. P. 43.

[77] Metacom was not present at any of the battles following the First Battle of Nipsachuck on August 1-2, 1675.

[78] Temple. *History of North Brookfield, Massachusetts.* Pp. 100-101.

This brief account provides some important information on the number of soldiers under Metacom and their armaments. When Metacom left Pokanoket territory he had 250 Pokanoket and Pocasset fighting men. Metacom's men suffered heavy casualties following attacks by the Mohegan at Smithfield, Rhode Island in late July and by Plymouth Colony forces at the First Battle of Nipsachuck on August 2, 1675. The high casualties were not necessarily the result of superior numbers of the enemy or better armaments, but as commonly noted throughout the war Native men were willing to take heavy casualties in delaying actions to buy time for women and children to escape. After the Nipsachuck battle Weetamoo, Squaw Sachem of the Pocasset, left Metacom at Nipsachuck and sought safety with the Narragansett. She eventually rejoined Philip and was with him in Nipmuc country and in the middle Connecticut Valley during the winter and spring of 1675/76.

Memicho states that of the 40 men with Philip 30 were armed with guns and ten with bows. It would be dangerous to assume that the percentage of firearms (75 percent) counted among the Pokanoket in early August 1675 was carried to all the Native combatants during King Philip's War. As the war continued, and Native victories mounted, Native soldiers could better munition themselves by taking English weapons, powder, and shot on the battlefield or purchasing arms and powder from the French or from Mahican middlemen along the Hudson River who purchased them from the Dutch at Albany. It is also noteworthy that Memicho mentioned bows which are rarely mentioned in English narratives. During the Siege of Brookfield (August 2-5) Captain Wheeler's narrative makes frequent reference to bows but always in the context of shooting fire arrows at the garrison house. When the siege was lifted on August 5, 1675, the English found a "great store of arrows they had also prepared to shoot fire upon the house that night" indicating that they were intended for use as incendiary devices.[79] Englishman Joshua Tift fought with the Narragansett at the Great Swamp Fight and was captured a few weeks later and executed. At his trial he said that there were "about 800 fighting men' in the fort and 400 guns.[80]

The number of Pokanoket combatants identified in English sources rarely exceeds 100, suggesting that Metacom's influence and contribution during the war was not in the numbers of men he could bring to battle, but in his contributions as a strategic planner, diplomat, and logistician. In this context Metacom was active in pursuing and maintaining alliances within the

[79] Temple. *History of North Brookfield, Massachusetts.* P.86.
[80] LaFantasie. *The Correspondence of Roger Williams.* P. II:712.

Coalition and with obtaining material support (arms, ammunition, and other resources) from Native groups outside of the Coalition (e.g., Paquiag [Mahican], "French Indians") as well as Europeans (e.g., French, Dutch). Joshua Tift related at his trial "The Nahigonsiks [Narragansett] powder is (generally) gone and spent but Philip hath sent them word that he will furnish them enough from the French…and that the French have sent Philip a present viz a brass gun and bandoleers Suitable."[81]

There are several examples of Metacom offering wampum to the Quaboag, Nashaway and Nipmuc sachems presumably to solidify or confirm their allegiance to him and the broadening Coalition. When Metacom arrived at Quabaug on August 5, 1675:

> The Indians told Philip at his first coming what they had done to the English at Quabaug [Brookfield]; then he presented and gave to three sagamores, viz. John, alias Apequinash, Quanansit, and Mawtamps, to each of them about a peck of unstrung wampum, which they accepted.[82]

In late August it was reported that:

> King Philip now beginning to want money (having a coat made of all of Wampampeag, (i.e., Indian Money) cuts his coat into pieces, and distributes it plentifully among the Nipmoog sachems and others, as well to the eastward and southward, and all round about.[83]

In January Metacom went to Albany (perhaps Schaghticoke) with "4 or 500 hundred North Indians [River Indians and Abenaki? and probably some Narragansett], fighting men" ostensibly to enlist the aid of the Mohawk against the English and perhaps to acquire powder and shot.[84] Mary Rowlandson's son told her that Philip and others had gone to Albany at that time "to buy powder from the French".[85] In a January 21 letter to Governor Andross the Connecticut Council reported "that the enenmie do boast of great supply from those parts about Albany; whether it be directly, or indirectly by Indians there inhabiting, is not yet so known to us".[86]

The diplomatic and strategic overture to the Mohawk failed and they attacked Metacom's company killing several of his men. Even near Albany Metacom seemed to have maintained

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[81] LaFantasie. *The Correspondence of Roger Williams.* P. II:712.
[82] Temple. *History of North Brookfield, Massachusetts.* P. 100.
[83] Roger L'Estrange. *The Present State of New England with Respect to the Indian War* (London, 1675). P. 13.
[84] Trumbull. *Public Records of the Colony of Connecticut*. P. II:397.
[85] Rowlandson. *The Narrative of the Captivity and Restoration*. P. 63
[86] Trumbull. *Public Records of the Colony of Connecticut*. II:397.

control over matters of policy and strategy. In mid-January Praying Indians James Quannapohit and Job Kattenanit were sent by Massachusetts authorities to Quaboag to gain intelligence on the "state of the enemy [principally the Narragansett]. On his return Quannapohit reported that the Quabaug sachem Mattaump told him "that he should accompany him [Mattaump] to visit Philip [near Albany], and to acquaint and inform him of affairs at Boston, and of the breach between the English and Narragansets."[87] Quannapohit also reported on the broader strategic goals of the Coalition:

> …and that Philip and his soldiers not far from Albany. The Nipmuc and divers others at Menumese [Quaboag] That they intended a general Rondezvous in the spring of the year, and then they would prosecute the war vigorously against the English, burn and destroy the towns. They heard of the fight between the English and the Narragansets, and rejoiced much at that breach, hoping now to be strong enough to deal with the English, when the Narragansets were joined.[88]
>
> This Indian [Nashaway sachem Monoco or One-Eyed John] told me, they would fall on Lancaster, Groton, Marlborough, Sudbury, and Medfield; and that the first thing they would do is cut down Lancaster Bridge, so to hinder their flight, and assistance coming to them; and that they intended to fall upon them in about twenty days time from last Wednesday.[89]

Quannapohit indicated that Philip was considered the leader of the Coalition by the other tribes, and that while he was at Quabaug "there were messengers sent from the Narraganset to the Nipmucs that quartered about Menumesse, declaring their desire to join with them and Philip."[90]

The military arm of the Coalition had some very capable leaders such as Matoonas [Nipmuck sachem], Sagamore Sam [Upchattuck/Shoshanim/Uskattuhgun, Nashaway sachem], Canonchet [Narragansett sachem], Quiapan [Narragansett squaw sachem], Mattaump [Quabaug sachem] and Tuspaquin or the Black Sachem [Assawamsets/Nemasket sachem]. These men collectively and individually planned and implemented some very sophisticated attacks on English settlements and fortifications during the war including Hadley, Hatfield, Deerfield, Sudbury, Mendon, Marlborough, and Providence by employing a variety of siege and open field tactics and

[87] Gookin. *Christian Indians in New England*. P. 488.
[88] Gookin. *Christian Indians in New England*. P. 488.
[89] Ibid. P. 488-489.
[90] Ibid. P. 488.

stratagems. The Coalition forces under their command were also very successful against English troops at the battles of Bloody Brook, Pierces Fight, and Captain Beers Fight.

In many attacks the Coalition forces were comprised of men from several different tribes, and the leader of the attack was not necessarily from the tribal territory where the attack took place. In the Hadley attack on June 21, 1676 the Quabaug sachem Mattaump led a diverse Coalition force that included Narragansetts, Pocumtuck and Wampanoag.[91] On the attack on Providence on March 29 (and presumably on Captain Pierce's men a few days before) Roger Williams reported the enemy force of 1,500 was composed of "Nahigonsets, and Cowwesets, and Wampanoags, and Neepmucks, and Quntocoogs [Connecticut Valley Indians].[92] Roger Williams also provided information on the command structure within the Coalition: "I [Roger Williams] asked who commanded here: They said many captains and inferior sachems, and councilors."[93] Even though the attack was in Narragansett/Cowweset territory Williams identified the leader of the attack as "A Qunniticutt [Connecticut Valley] sachem A stout lustie brave fellow, and I think the chief in command of them."[94] Although the attack on Providence involved an unusually large number of Coalition forces, the basic command structure described by Roger Williams was probably similar for smaller attacks commensurate with the number of men involved in the attack

There is no doubt that when the Narragansetts entered the conflict the entire complexion of the war changed. Joshua Tift, an Englishman who fought with the Narragansett at the Great Swamp Fight on December 19, 1675, had intimate knowledge of the number of fighting men at the Great Swamp Fight and the number that survived. At his trial for treason Tift stated at "their fort where was about 800 fighting men with 97 slaine and 48 wounded."[95] James Quannapohit, the Natick Indian sent by Massachusetts Bay to gather intelligence on the whereabouts and intentions of the Narragansett in mid-January 1676 soon after the Great Swamp Fight, reported "there is seven hundred fighting men, well-armed left of the Narragansett's."[96] Although the spring offensive was likely planned before the Narragansett entered the war, the number of attacks documented between January and April of 1676 in the Central and Southern theaters, where the

[91] Mather. *Troubles*. Pp. 155-156.
[92] LaFantasie. *Correspondence of Roger Williams*. P. II:722.
[93] LaFantasie. *Correspondence of Roger Williams*. P. II:722.
[94] LaFantasie. *Correspondence of Roger Williams*. P. II:722.
[95] LaFantasie. *Correspondence of Roger Williams*. P. II:714.
[96] Gookin. *Christian Indians in New England*. P. 488.

Narragansett would have been most active before they went north to the Great Falls, increased from eight between September and December of 1675 to 24 between January and April of 1676 (Figures 32-35). Even after the casualties suffered at the Great Swamp Battle the Narragansett could still field 700 men, a significant increase to Coalition forces.

Prelude to the Battle of Great Falls/Wissatinnewag-Peskeompskut

Coalition Forces conducted 21 attacks on the English in the middle Connecticut valley between September and November of 1675, six of which were major attacks on English settlements (Figures 32 & 33). The English settlements at Deerfield and Northfield were destroyed and abandoned in September of 1675 (For a map of English towns in the middle Connecticut River Valley see Figure 31). By the fall of 1676, the northernmost English settlements along the middle Connecticut River Valley were the towns of Northampton, Hadley, and Hatfield. The English also suffered significant military defeats in ambushes during the month of September at Northfield when Captain Beers and his company of 37 men were killed, and at Bloody Brook in Deerfield when 75 soldiers and local teamsters were killed.

The attacks were part of a broader Coalition strategy to force the English out of the middle Connecticut valley, and it was succeeding. The winter of 1675/76 was relatively quiet in the middle valley with virtually no attacks recorded as the Coalition shifted their attention to the eastern and southern theaters (Figures 33 & 34). By the spring of 1676 a false sense of security developed within the English settlements in the middle valley with the promise of peace negotiations and the cessation of Coalition attacks during the winter. That perspective changed when an estimated 500 Narragansett, Pocumtuck, Wampanoag, and Nipmuck soldiers attacked Northampton on March 14, 1676. The attack brought an immediate response by the Reverend John Russel of Hadley who wrote the Connecticut War Council on March 16, two days after the attack:

> Although the Lord hath granted us an interval of quiet this winter yet since the coming on of y^{e} Spring the war here is renewed with more strength and violence here than in any other part while we remaine for as we had intelligence by the Captain who is returned (commonly called "Speckled Tom"), Philip intended with his whole power to come upon these towns and taking them to make his planting place a fort this year at Deerfield so on y^{e} 14th instant the enemy to the number of 1,000 as judged made a sudden and violent iruption upon Northhampton…Here also above Deerfield is the great place of their fishing which must be expected to afford them their provisions for the yere, so that the swarm of them being here and

> like to continue here we must look to feele their utmost rage except the Lord be pleased to break their power.[97]

By the early spring of 1676 the Great Falls and surrounding area had become a gathering place for many tribes and bands in the Coalition where they could rest and resupply and escape the relentless pursuit of Connecticut and Massachusetts Bay forces. The English in the valley recognized the threat from the Native tribes gathering near the falls and well understood the broader Native strategy to force the English from the valley so they could plant corn and resettle the middle valley. With the planting season just weeks away, control over "one of the best granaries" in the colony could disrupt one side or the other's ability to support their war effort.[98] What emerged was a debate between the English at Connecticut and Massachusetts Bay, and the leaders of the remaining English settlements in the middle Connecticut valley on the best strategy to deal with the Native threat. Massachusetts advocated that the English settlers abandon Westfield, Northampton, and Hatfield and take refuge in Hadley and Springfield. In early April the Massachusetts Council had:

> …come to a conclusion to draw in the out garrisons of the town…and to contract their fortifications…The Bay Council had advised that Westfield should be abandoned, and its inhabitants remove to Springfield.[99]

Connecticut and Massachusetts Bay had very differing opinions on the best strategy to gain and maintain control of the valley given the increasing Coalition presence in the area and the expectation of renewed attacks. Connecticut advocated for a strategy to maintain the settlements in the middle valley by a policy of prisoner exchanges tied to peace negotiations while focusing on field operations in lieu of augmenting garrison troops. In early April, Towcanchasson, a Narragansett diplomat and councilor for Narragansett Sachems Pessicus and (squaw sachem) Quiapan carried a letter dated March 31 from the Connecticut War Council to the Indian sachems in the upper Connecticut River Valley. The letter stated that:

> …we haue thought meet to declare to the said Indians that we are willing to tender them an exchang of captives, for such English as they have in their hands; and that upon the return of o" to Hadley, where we will meet them, theirs shall be set at liberty to come to them. We allso tender that if the said Indians doe desire any treaty

[97] Bodge. King Philip's War, P. 236.
[98] CSL. CT Archives, Colonial Wars, Series I. Doc. 66.
[99] Trumbull. *Public Records of the Colony of Connecticut.* P. II:432.

> with us, and can make appeare that they haue been wrounged by any of the English, we shall endeavour to haue that wroung rectifyed, and heare any propositions that they haue to make unto us.[100]

The Connecticut War Council expressed their concern to the Massachusetts Council in late April regarding Massachusetts' strategy to abandon most of the English settlements in the valley and consolidate the populations into one town and pointed out the broader strategic implications of such a move. The council wrote that:

> We received a letter from our friends of Hadley and those townes intimating an advice given to them to gather into one towne for more safety, & so desert the rest unto w^{ch} we returned our apprehensions negative & gave our reasons viz that herby our enemy will be animated immediately to destroy the deserted places and possess themselves of the land for rendezvous and to plant great numbers upon such desireable, rich & ready accommodations…and when the enemy is so strengthened and accommodated for reception of a great confluence of Indians to them then it may be very difficult to bring them off & and when all our store is spent; for we hear they have great ambition to possess those parts which would suffice thousands of them: If so one of the best granaries in your colony will be lost.[101]

The English settlers in the valley refused to abandon their farms and settlements and argued for a more aggressive course of action against the Native communities gathering at Great Falls despite the ongoing peace negotiations which to date had born no fruit. In late April English settlers in the middle valley were advocating for an immediate attack on Coalition villages at the Great Falls and laid out a strategy and plan of attack. On April 29, Reverend John Russell, Captain William Turner, and others wrote to the General Court of Massachusetts and argued:

> The enemy is now come so near us that we count we might go forth in the evening, and come upon them in the darkness of the same night. …now is the time to distress the enemy; and that could we drive them from their fishing and keep out though but lesser parties against them famine would subdue them.[102]

In a letter to the Connecticut War Council on the same date, Russell, Turner, and others laid out a case to attack the villages at Great Falls:

> Such things will weaken the enemies strength and spirits: and rational it is to think y^{t} might be undertaken against them here in conjunction with what is in other parts it might at such a time sinke their harts and brake their rage and power; and make

[100] Trumbull. *Public Records of the Colony of Connecticut.* P. II:425.
[101] CSL. CT Archives, Colonial Wars, Series I. 66.
[102] Ellis and Morris. *King Philip's War*. P. 225.

> them more real for peace…The spirit of man with us are more than ever heightened with desire and earnestess to be going forth against the enemy.[103]

The Connecticut War Council replied on May 1 and cautioned patience and restraint while peace negotiations continued:

> We having so far proceeded in a treaty with them we cannot judge it rational whilst this treaty is in hand to use hostility against this but we judge it expedient to be silent for the present as to action, we have confirmed them [sachems] to five days to bring an answer to Hadley that they will meet with us…we feare that any onset should be made upon our enemie whilst the captives are in their hands they will destroy each of them as are with them.[104]

The events of May 13, 1676, made the argument moot and provided the final justification for the valley settlements to conduct an attack on the Native communities at Great Falls. Coalition forces from the Great Falls area raided Hatfield meadows and captured seventy cattle and horses which they drove north to Deerfield Meadows.[105] This incident enraged the English settlers at Hadley and the other river towns, who had been urging colonial officials to attack the upriver Native settlements for weeks and were concerned that the tribes would be able to gather enough dried fish and eventually corn to continue the war for the following year. Revenge was likely a factor as well. The deaths of more than 100 English soldiers and settlers in the upper valley at the hands of Coalition forces in the previous six months certainly contributed to a growing desire on the part of the settlers to attack the Native people gathered at Wissatinnewag-Peskeompskut. There were probably several soldiers in Turner's command from outside the valley who may also have sought vengeance. For example, Ephraim Roper, a private in Turner's company at the Battle of Great Falls, was a resident of Lancaster when Coalition forces attacked on February 10 and killed his wife.[106] Several others in Turner's Company were survivors of both the ambush on Beer's Company (including Beer's son) and the Battle at Bloody Brook.[107]

On May 15, two days after the cattle raid, Reverend John Russell of Hadley and others, including Captain William Turner, wrote to the Connecticut War Council to press Connecticut to

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[103] CSL. CT Archives, Colonial Wars, Series I. 67a.

[104] CSL. CT Archives, Colonial Wars, Series I. 67b.

[105] For infromation regarding the cattle raid see: L'Estrange. *A True Account.* P. 3; Hubbard. *A Narrative.* P. 85; CSL, Connecticut Archives, Colonial War, Series 1.Doc. 71.

[106] Ellis and Morris. *King Philip's War*. P. 172.

[107] Wilson. The Probable Composition of Captain William Turner's Forces: February 20 – May 19, 1676. Pp 10-11.

join the middle valley settlements in an attack against the Natives gathered at the falls. Russell informed the War Council that the settlements in the middle valley were going to take immediate action against the Native encampments at Peskeompskut whether Connecticut was willing to assist or not, and regardless of any ongoing peace negotiations:

> We have yet no return from the Indians: and are now past expecting of anything further…They sit by us secure without watch, busy at their harvest work storing themselves with food for a year to fight against us and we let them alone to take the full advantage...This being the state of things we think the Lord calls us to make some try and what may be done against them suddenly without further delays and therefore the concurring resolution of men here seems to be to goe out against them tomorrow night so as to be with them the Lord assisting before break of day.[108]

In the letter Russell also mentioned "about sunrise came into Hatfield one Thomas Reedy [Reed], a soldier who was taken captive [at Hadley] when Deacon Goodman was slain [April 1]."[109] Thomas Reed was taken captive in an attack on Hadley by Coalition forces from several villages located near present-day Hinsdale, New Hampshire. Mary Rowlandson was with this group and mentioned "About this time [April 3] they came yelping from Hadley, where they killed three Englishmen, and brought one captive, viz. Thomas Reede."[110] Rowlandson related that Reed's captors "all gathered around the poor man, asking him many questions."[111] As a soldier on garrison duty at Captain Turner's headquarters at Hadley, Reed would likely have shared any information he had on troop strength in the various settlements, and he would certainly have known that Connecticut and Massachusetts Bay troops had pulled out of the upper valley leaving the settlements lightly defended and the garrison troops incapable of any offensive operations.

Ironically, the fact that the Native communities at Great Falls felt secure "and not fearing any assault from our soldiers" may have been a direct result of the information they received from Reed.[112] After his capture Reed was taken to Great Falls area and during the time he spent there he passed back and forth between Peskeomskut and the village on the opposite side of the

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[108] CSL, Connecticut Archives, Colonial War, Series 1.Doc. 71.
[109] CSL, Connecticut Archives, Colonial War, Series 1.Doc. 71.
[110] Mary Rowlandson, *A Narrative of the Captivity, Sufferings, and Removes, of Mrs. Mary Rowlandson, who was taken prisoner by the Indians; with several others, and treated in the most barbarous and cruel Manner by those vile Savages: with many other remarkable Events during her Travels* (Boston, MA: Thomas and John Fleet, 1791). P. 21.
[111] Rowlandson. *Narrative of the Captivity*. P. 21.
[112] Hubbard. *A Narrative.* P. 204.

Connecticut River. After remaining there for several weeks, Reed escaped and made his way back to Hadley on May 15.

Reed provided information to Turner on the whereabouts and organization of the Native communities on the north and south banks of the Connecticut at Wissatinnewag-Peskeompskut, including their activities and the number of fighting men. He also reported that the Natives felt secure and had not posted any guards. Turner did not entirely trust Reed's estimates and mentioned "Altho this man speakes of their numbers as he judath yet: Thay may be many more for we perceive their number varies and thay are going and coming so that there is no trust to his guess."[113] Armed with the information provided by Reed, the militia committees from the various settlements gathered garrison soldiers under Turner's command and volunteers from the towns of Northampton, Hadley, Hatfield, Springfield and Westfield. The combined force of 150 or so soldiers prepared for an immediate attack on the Native encampments at Peskeompskut.

English forces began to assemble from the various towns at Hatfield and prepared to march to Great Falls before the Connecticut Council even received the March 15 letter from Reverend Russel and Captain Turner. Turner's force of between 120 and 150 men prepared to march to Great Falls on the evening of May 18. Turner's largely inexperienced force, drawn in equal parts from militia and garrison troops, the latter presumably with more combat experience, counted on the element of surprise and presumably a larger force. The latter consideration was based on Reeds assessment that there were only 60-70 fighting men between the two Native communities at Great Falls. Benjamin Wait of Hatfield and Experience Hinsdale of Hadley were selected to serve as guides presumably because of their knowledge of the region.[114]

Disposition of Native Forces – Battle of Great Falls/Peskeompskut

By late March Native tribes from throughout southern New England began to gather along the Connecticut River near the Great Falls and eight miles further upriver at Squakheage (Northfield) (Figures 39 & 40). Mary Rowlandson was at Squakheage in early March and mentioned that King Philip and the Pocasset Squaw Sachem Wetamoo were there along with hundreds, if not thousands of men, women, and children.[115] Northampton was attacked on March

[113] CSL, Connecticut Archives, Colonial War, Series 1.Doc. 71.
[114] Sylvester Judd, *History of Hadley* (Springfield, MA: H.R. Hunting & Company, 1905). P. 171; Bodge. *King Philip's War.* P. 245.
[115] Rowlandson. *Narrative of the Captivity*. Pp. 13-16.

14 by men Rowlandson saw gathered at Squakheage. The communities at Great Falls and further north at Squakheag began to gather along the Connecticut River in March when the anadromous fish began to run. Around the time of the battle English sources provide descriptions of where the villages were located – six in the immediate vicinity of Great Falls and at least six further north near Squakheag (Figure 39).

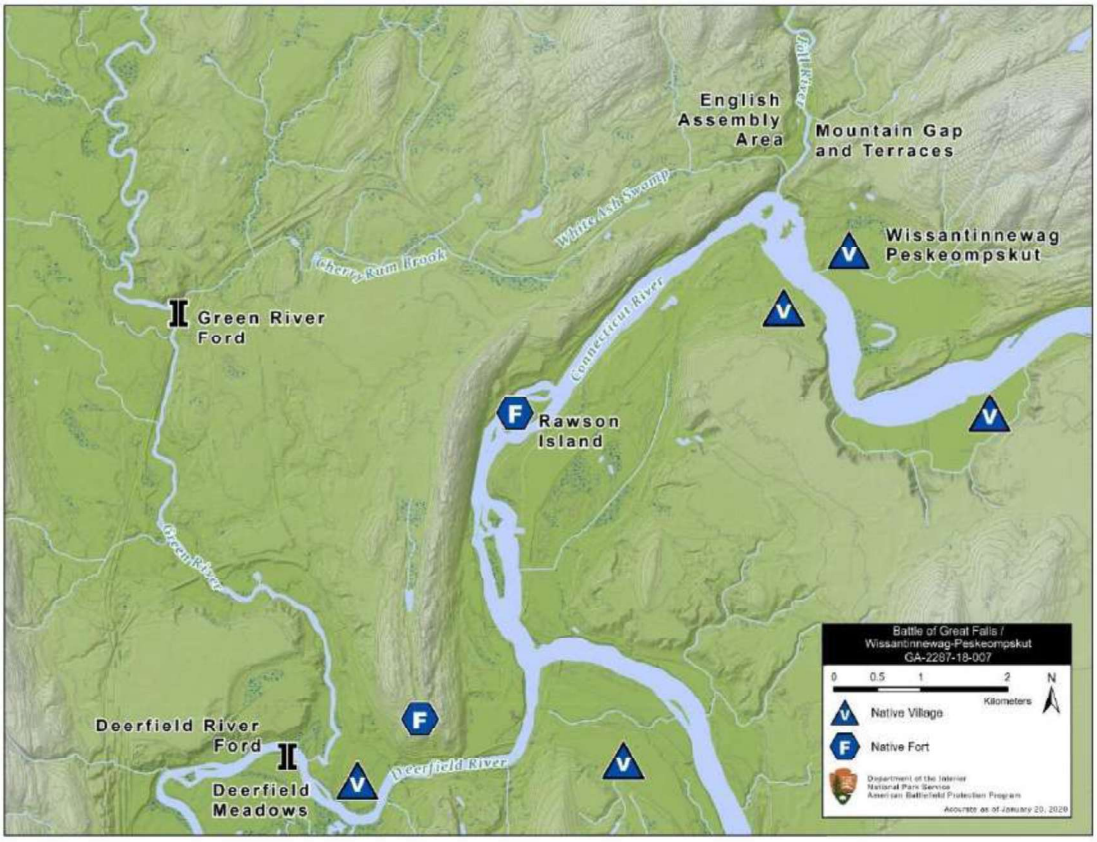


Figure 40. Coalition Villages in the Vicinity of Great Falls.

The distribution of Native communities in March largely mirrored their locations on the eve of the Battle of Great Falls in mid-May. The Nipmuck, Nashaway, and Quabaug continued to occupy their homelands, and with the help of the Narragansett and Wampanoag conducted several major attacks in central Massachusetts during the spring. Wampanoag, Quabaug, and Narragansett men may have returned to the Great Falls area around the time of the battle as many participated in the Battle of Great Falls. English sources identified Narragansett, Pocumtuck, Norwottuck, and Nonotuck communities gathered at Squakheage by early May if not before. In late March and early April, a force of 1,000-1,500 Narragansett, Nipmuck, Wampanoag and Connecticut valley Indians

conducted several attacks in Rhode Island and Plymouth Colonies. It is not certain, but the River Indians and Narragansett were probably based in the Turner's Falls area at that time and further north near Squakheage. Many of these men had likely returned to the Connecticut Valley around the time of the Battle of Great Falls.

On May 1 the Connecticut War Council addressed a letter to Pessicus (Narragansett), Wequaquat (Pocumtuck), Wanchequit (Norwottuck), Sunggumacho (Nonotuck) "and the rest of the Indians sachems up the river at Suckquackheage [Squakheage] proposing peace talks."[116] As the letter is dated just two weeks before the battle it is likely these sachems (and others) were still residing in the Squakheage area at the time of the battle (Pessicus was still there a few weeks after the battle). It's always been a little unclear if the communities at Squakheage contributed any men to the battle given the distance (8 miles). A half Narragansett / Mohegan man named Menowniett was captured in Rhode Island in August of 1676 and was court martialed and executed. Based on his testimony Menowniett was at the Battle of Great Falls and testified that "In y^{e} Fall fight were slayne 40 Norwottog, Quabaog 10 Narragansetts and [illegible]" illustrating the diversity of Coalition forces engaged in the battle.[117]

Jonathan Wells identified five villages in addition to Peskeompskut in the immediate vicinity of Great Falls that contributed men to the battle. In his narrative:

> & capt: Wells Says yt the difficulties were exposed to in yr retreat was probably owing to ye long stay yy made in ye place of ye victory Sd yt ye [that this] gave time to ye indians yt were at Deerfd cheapside & ye Island& up above & on ye east side of ye River to get together. & wn yy did make head agst or men.[118]

The village of Peskeompskut was located at Riverside and a second village was located directly across the river adjacent to the falls. Cheapside was located just east of the confluence of the Deerfield and Green Rivers on the north bank of the Deerfield River, and the village "upon the island" was located at Rawson Island. The village on Rawson's Island appears to have been an important logistical, supply, and defensive location. A month after the battle, on June 21, a group

[116] Trumbull. *Colonial Records of the Colony of Connecticut*. P. II:439. Attribution of tribal affiliation is based on other primary sources.
[117] Trumbull. *Colonial Records of the Colony of Connecticut*. P.II: 471.
[118] Thomas. "Rev. Stephen Williams's Notebook." Pp. 13, 15.

of Connecticut soldiers under the command of Major Talcott went upriver to the falls to determine if any Natives were still in the area. The area was deserted but on Rawson Island they:

> …found an hundred *Wigwams*, and some English plundered goods, which they took, and burnt the *Wigwams*. Also they marched up to a Fort which the Indians had built there, and destroyed it. Digging here and there they found several Indian Barns, where was an abundance of Fish, which they took and spoiled, as also thirty of their Canoos."[119]

There may have been a second fort at Cheapside as a few days after the battle Russell mentions "their fort close by Deerfield River.[120] The fort "close by Deerfield River" is not the fort at Rawson Island as Cheapside is located 3.3 miles from Rawson Island along the Deerfield River. It is not precisely clear where the village "up y^{e} river further" was located but a reasonable guess suggests it may be located near Millers River three miles upriver from Peskeomskut as it would have been an ideal place to capture anadromous fish. The precise location of the Deerfield community is not known but as Turner's men did not encounter it as they passed through Deerfield Meadows it was likely located on high ground further to the east. It is difficult to estimate how many Native men, women, and children were in the Peskeompskut village and the one on the opposite bank, but an estimate of 400-500 is not unreasonable. Based on casualties reported during the attack on Peskeomskut there were at least 200 people there.

Reed reported that Native communities were "planting at Deerfield and have been so these three or four days or more."[121] Reed also mentioned that the Natives around the Great Falls felt secure because most of the English army had withdrawn from the valley leaving only a few garrison troops. He also reported that two days earlier Coalition forces raided Hatfield upper meadows and drove away 80 horses and cattle and brought them to Deerfield meadow where they were fenced in.

Reed probably passed back and forth between the two villages at the falls several times and was familiar with the layout of both villages. He was also brought to Deerfield meadows (perhaps to assist in planting) several times as he observed Natives planting corn over a few days, and he also saw where the animals were penned. Interestingly he does not seem to have been aware of the other four villages, which turned out to be an unfortunate lapse in intelligence when Turner planned

[119] Mather. *Brief History.* P. 57.
[120] CSL. Colonial Wars Series I, Doc. 74.
[121] CSL. Colonial Wars Series I, Doc. 74.

the attack, although Turner seems to have been informed of Coalition forces at Rawson's Island but chose to ignore the intelligence. It was likely Reed's information that led to the decision to attack Peskeompskut. The village on the opposite bank from Peskeomskut was not targeted as logistically it would been difficult for Turner's mounted force to cross to the east bank of the Connecticut River from where the English gathered at Hatfield on the west side of the Connecticut River.

The number of Coalition fighting men in the six villages probably exceeded several hundred, far more than the 60 to 70 soldiers estimated by Reed. By this time of the war, these men were battle hardened, well-armed, and led by experienced sachems, captains, and councilors. Most of the men had probably participated in attacks on English settlements and forces. During Menowniett's interrogation he not only confessed that he fought in the Battle of Great Falls, but that he participated in several engagements including the attacks on the English settlements at Deerfield, Hadley (where he was wounded in the leg), and Northampton. He also said he participated in several attacks on Connecticut colonists. His experiences were probably not unique among Coalition forces as he also named eleven other Native men (Munch, Cohas [Narragansett], Tosocum, Cawcohehoage, Wewawoas, Johnnot, Mashinott, Wequash [Squakheage or Sakonnet?], Whowassamoh[?], Pawwawwoise [Agawam], Mawcahat [Agawam], Sanchamoise [Abenaki?], and Wesoncketiachen [Norwottuck] who made up raiding parties of four, seven, or nine men to attack Connecticut settlers at Middletown, Wethersfield, and Podunk (South Windsor), and in the burning of Simsbury.[122]

English Forces – Battle of Great Falls/Peskeompskut

The number of men reported to have been under Turner's command varies. Hubbard mentioned 150, Mather 160, and Stephen Williams stated "y^{e} standing forces with about 60 and about 60 volunteers."[123] For the purposes of this narrative the figure of 150 is used as Mather's and Hubbard's information was probably obtained shortly after the battle. Turner's "standing forces" were garrison troops, only nine of whom had previously served under. The volunteers were militia drawn from the various settlements in the middle valley. Some of Turner's standing forces had limited combat experience but the volunteers had little or none (see Appendix IV). Some, such

[122] Trumbull. *Records of the Colony of Connecticut.* P.II:472.
[123] Thomas. "Rev. Stephen Williams's Notebook." P. 9.

as Jonathan Wells (age 16) and his brother, were only boys who had never ventured outside the boundaries of their towns.

Captain Turner and his original company of 64-foot soldiers were placed under the command of Major Savage when he left Boston on February 21, 1676, to relieve the Town of Medfield that had been attacked that morning. As Turner's company passed through Dedham they were attacked, and one man was seriously wounded. Turner's company accompanied Savage as the army pursued retreating Native Coalition forces through Brookfield, Wenimesset, and Paquayag (Athol) until they reached the Banquaug (Millers) River around March 3-5. Hundreds of Natives crossed the river on rafts trying to escape from the English and built wigwams on the north side of the river. For some inexplicable reason Savage elected not to cross the river and pursue the Natives on the other side. Mary Rowlandson, captured at Lancaster on February 10 lamented "On that very day came the English army after them to this river, and saw the smoke of their wigwams [which the Natives set on fire as they retreated], and yet this river put a stop to them. God did not give them courage or activity to go after us."[124] Nonetheless Turner and his men may have seen some action during the pursuit as Rowlandson also reported:

> The occasion (as I thought) of their moving at this time was the English army [under Major Savage], it being near and following them. For they went as if they had gone with their lives, for some considerable way, and then they made a stop, and chose some of their stoutest men, and sent them back to hold the English army in play whilst the rest escaped.[125]

Turner and some of his men also saw action on March 14 when over 500 Nipmuc, Narragansett, Quabaug, Wampanoag, and Connecticut Valley Indians attacked the garrison and settlement at Northampton. Unknown to them, the garrison had been reinforced the day before by Connecticut troops and Coalition forces suffered heavy casualties. The were relatively few casualties including several civilian casualties, including a young girl, and two of Turner's men.

Turner's Company was disadvantaged from the start in terms of veteran soldiers (see Appendix IV), necessary supplies, poor intelligence, and a poorly conceived battle plan. Another factor may have been the overall health of the soldiers in the company, including Captain Turner. On May 15, 1676, Reverend John Russel of Hadley wrote to the Connecticut War Council and

[124] Rowlandson. *Narrative*, P. 8.
[125] Rowlandson. *Narrative*, P. 8.

reported a "general visitation by sickness which you wrote of hath passed unto us also." Whatever the sickness was it seriously impacted Turner's ability to command. As noted by Hubbard, Turner's Company:

> …who in their retreat were a little disordered for want of the help of the eldest captain that was so enfeebled by sickness before he set out that he was no way able for want of bodily strength (not any way defective for want of skill or courage) to assist or direct in making the retreat…the loss that befell our men in the retreat was occasioned principally by the bodily weakness of Captain Turner, unable to manage his charge any longer."[126]

Turner's failure of command was also attested to by Jonathan Wells who states that when he tried to persuade Turner to "turn and take care of y^{e} men in the rear" during the retreat, Turner refused and responded "better lose some than lose all."[127] Nonetheless, the Massachusetts Bay Council recognized something in Turner to appoint him field commander of the garrisons in the middle valley.

After Turner left Boston in early 1676 his company was reorganized several times over the next few months giving Turner and his officers and non-commissioned officers little opportunity to get to know their men or their capabilities. John Wilson estimates that only 20 of the new transfers were veterans who had served in two or more campaigns.[128] Wilson also estimates that only nine of the soldiers whom Captain Turner had commanded in the defense of Northampton on March 14 continued to serve with him at the Hadley garrison and available for the expedition to Great Falls. The remaining 83 percent of his command were soldiers he had never served with and barely knew. Turner's newly organized command also suffered from a lack of experienced officers and non-commissioned officers and many of the Corporals and Sergeants had only recently been promoted from the rank of private.[129] When Turner was left in charge of the garrison troops in the middle valley, his original company was stripped of all its officers and reduced to 29 men. Those left in the garrisons were soldiers from other companies who were left behind and probably consisted of men whose company commanders thought least suited to fight.[130] The volunteers

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[126] Hubbard. *Narrative,* Pp. 206-207.

[127] Thomas. "Rev. Stephen Williams's Notebook." P. 24.

[128] John Wilson. "The Probable Composition of Captain William Turner's Forces: February 20 – May 19, 1676" (Unpublished Manuscript, 2016). P. 10.

[129] Wilson. The Probable Composition of Captain William Turner's Forces: February 20 – May 19, 1676. Pp 10-11.

[130] When we look at the distribution of garrison soldiers who did remain behind, a conscious defensive strategy seems to have been devised. None of the nine soldiers guarding the Hadley gristmill, a strategic and indispensable resource,

from the settlements had little or no combat experience nor did most of their officers. Despite Lieutenant Holyoke's lack of combat experience, he is later credited with getting the company reorganized during the retreat and saving most of the remaining men. Hubbard noted that "if Captain [Lieutenant] Holyoke had not played the man at a more than ordinary rate, sometimes in the front, sometimes in the flank and rear, at a fatal business to the assailants…and so carried off the soldiers without any further loss."[131]

Isaiah Toy (or Toye/Tay) was one of the original privates in Turner's company who quickly rose through the company ranks to Sargent, and just before the Battle of Great Falls Turner promoted him to Ensign making him second in command in the company and third in command overall behind Lieutenant Holyoke. Although Toy does not appear to have had much combat experience John Wilson suggests he may have been promoted as result of exceptional ability and/or some act of bravery during the defense of Northampton. Most of the remaining men in Turner's company, particularly the colonists drawn from the river towns, had little or no combat experience which in addition to failed leadership on Turner's part was likely a major factor that contributed to the panic that spread throughout the company during the Native counterattacks following the English attack on Peskeompskut.

Another challenge facing Turner in addition to few experienced soldiers may have been a lack of adequate supplies, particularly ammunition. Turner had hoped for material support in the from of men, powder and shot from Connecticut but no reinforcements or supplies arrived in time and Turner's company may have gone into battle short on ammunition. William Hubbard stated that if the attack had "been done with a little deliberation, waiting for the coming of supplies, expected from Hartford, [it] might have proved a fatal business to all the said Indians."[132] Hubbard also states that the lack of ammunition contributed to the disorganized retreat "yet some say they wanted powder, which forced them to retire, as fast as they could, by Captain Turners order."[133]

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went with Turner; none of the ten garrison soldiers went from Springfield, the community farthest from the intended action; and only five of the 40 soldiers participated who were garrisoned at Hatfield, the most vulnerable town exposed to attack from the north. Those who did go were drawn equally from the garrison forces in Northampton and Hadley -- 13 of the 43 soldiers based in Northampton and 18 of the 49 soldiers stationed at Turner's headquarters in Hadley. Captain Turner's young son was one of those who remained in Hadley with Sergeant Thropp, along with five other members of Turner's company who had marched with him from Boston in February. Peter Thomas, Personal Communication September 2015.

[131] Hubbard. *Narrative.* P. 207.

[132] Hubbard. *Narrative.* P. 204.

[133] Hubbard. *Narrative.* P. 205.

The criticism by Hubbard regarding the lack of planning was certainly legitimate. The plan of attack was probably developed in just a few days either following the raid on the cattle and horses in Hatfield meadow on May 13, or certainly after the arrival of Thomas Reed at Hatfield on the morning of May 15. In that short period (3-5 days) Turner had to gather men, horses, equipment, supplies and ammunition, and plan the attack. A breakdown in overall intelligence gathering and a failure to properly act on what little information Turner had on the disposition of Coalition forces was probably the most serious oversight in the English battle plan which directly contributed to the significant English casualties incurred during the retreat. It does not appear that Turner sent out any scouts in the days before the attack, nor does it appear he sent out any scouts or flankers along the avenue of approach on the day of the battle. Turner also failed to respond to intelligence that there was a Native force on Rawson Island:

> In the meanwhile, a party of Indians from an Island (whose coming on shore might easily have been prevented, and the Souldiers before they set out from Hadley were earnestly admonished to take care about that matter) assaulted our men."[134]

This force probably came up the Fall River and attacked the English in the English Assembly Area, splitting the English forces and then pursued the main body as they retreated west toward the White Ash Swamp and perhaps were part of the contingent that ambushed the English at White Ash Swamp. The statement by Mather suggests that the English had intelligence of the Native presence on the island and could have prevented them from entering the battle if Turner had positioned a blocking force at the narrow gorge at the confluence of the Connecticut and Fall Rivers.

[134] Mather. *Brief History*. P. 49.

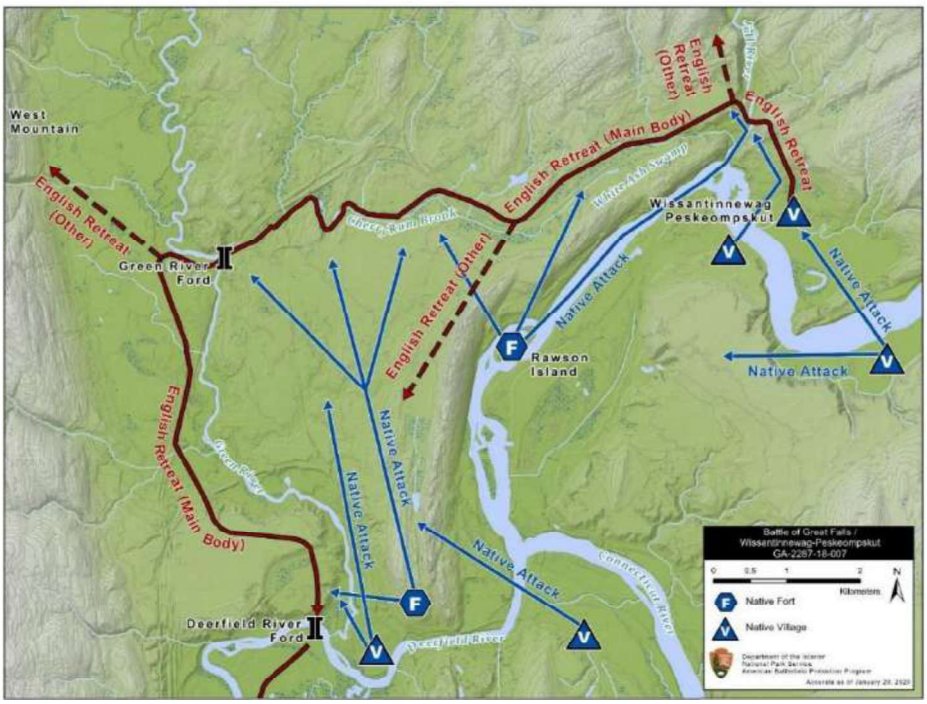


Figure 41. Battle of Great Falls/Peskeompskut and the English Retreat.

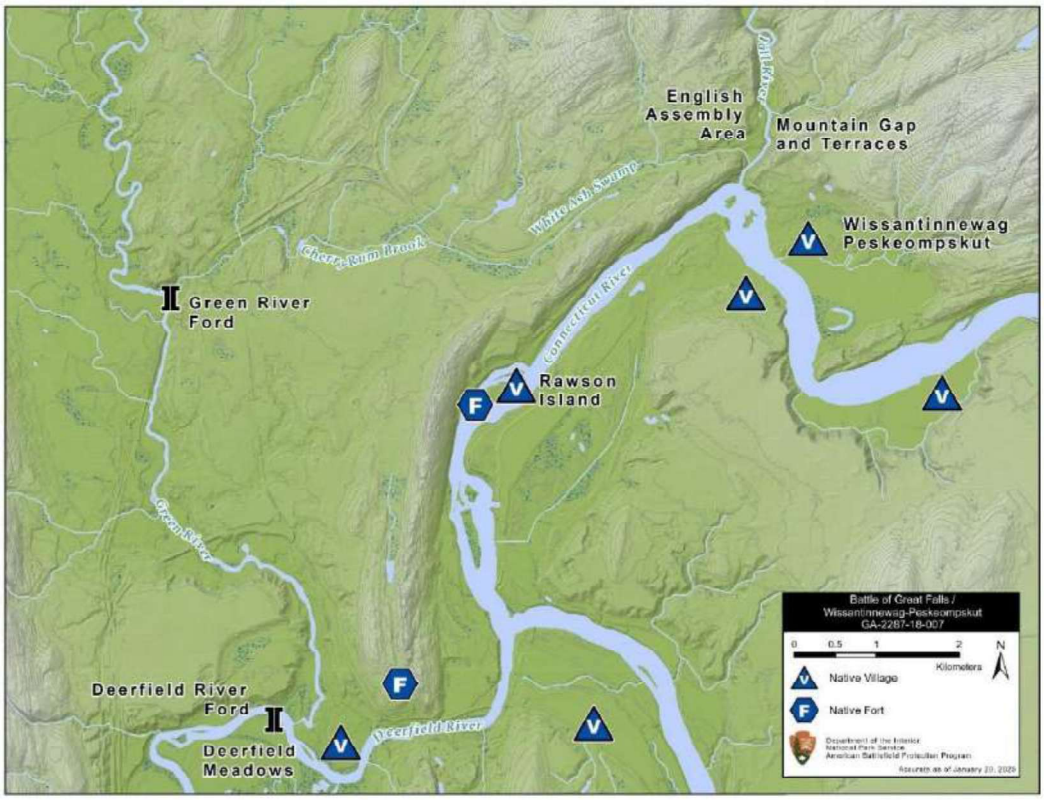


Figure 42. Battle of Great Falls Battlefield Terrain and Cultural Features

Battle of Great Falls/Peskeompskut

The narrative of the Battle of Great Falls/ Wissantinnewag-Peskeompskut that follows was drawn primarily from three sources; William Hubbard's *Narrative of the Indian Wars*, Increase Mather's *An Brief History of the Indian Wars in New England*, and the "*Reverend Stephen Williams Notebook.*"[135] These sources, and others, were discussed above, but it is worth reiterating some of their historic contexts to better understand how they were used to reconstruct the battle events. While it is not known from whom Hubbard or Mather obtained their information, their narratives are generally considered correct and factual (although not without cultural bias), as they can often be substantiated by other sources. They would have received their information either directly from individuals who were present at the battle or received letters from knowledgeable individuals about the events (perhaps Reverend John Russell of Hadley). Their information was recorded soon after the battle events, perhaps within a few days or weeks. Stephen Williams obtained much of his information from Jonathan Wells and a few other soldiers who were in the battle. Wells was a 16-year-old settler from Hadley at the time of the battle and had never traveled beyond the settlement's boundaries. When Williams recorded Wells' narrative around 1731/32, Wells was in his 70's and had achieved the rank of Captain for his service in King William's (1688-1697) and Queen Anne's (1702-1713) Wars. As Wells' narrative was obtained more than 50 years after the battle event, the veracity of the information recorded so many years after the battle should be considered, although there is no reason to doubt the accuracy of Wells' account. The other sources Williams may have relied on were "Several very valuable persons in this engagement" possibly Japhet Chapin, Captain Fuller, and Captain Hitchcock."[136]

Williams also drew upon William Hubbard's Narrative for some information that is sprinkled throughout his narrative to which Williams does attribute to Hubbard (e.g. Mr. H or H). As discussed above Williams did make one serious error in transcribing a portion of Hubbard's narrative. Williams states "ye English allightd from y^{r} horses at a quarter of a mile distance from the Enemy, & tyd y^{r} horses to Some young trees" indicating Turner's company rode to within one

[135] Thomas. "Rev. Stephen Williams's Notebook."

[136] Thomas. "Rev. Stephen Williams's Notebook." P. 15. Only one of these men were living in the valley when Williams was compiling his information. Note, these were settlers who later obtained these ranks long after the war. All of them were settlers under Holyoke's command from Springfield, which may account for why only 2 of 25 settlers from Springfield died during the retreat. No garrison soldiers came from Springfield.

quarter of a mile of the village before they dismounted.[137] In fact, what Hubbard said was "When they came near the Indians rendezvous, they alighted off their horses, and tied them to some young trees at a quarter of a mile distance."[138] Hubbard's mention of one quarter of a mile distance is in reference to the small trees, not the distance to the village. While seemingly minor, the error has major implications for trying to determine the location of the English Assembly / Horse Hitching Area and the nature of the fighting that took place there. One of the more interesting aspects of Wells' narrative is that some of the information was obtained from Native men who participated in the battle and is one of the few times Native voices come through in the narratives of King Philip's War. Wells must have known these men and spoke with them sometime after the battle. The information is such that Wells could not have observed or known about certain actions that took place on the battlefield unless it was told to them by a Native combatant who was present at the battle:

> There happening a short flash of thunder & lightening just before Y^{d} got there…Some Indians Y^{et} were out fishing were beat in.[139]

> …and passed by y^{e} Indians y^{et} dwelt at Cheapside & y^{e} noise was heard by the Indian watchman, who informed y^{e} Indians y^{et} he heard horses pass along, upon which y^{e} Indians went (with a light torch) to y^{e} usual path y^{et} cross Green River (but the army had missed y^{e} usual path & cross y^{e} river at 30 rods [*500 ft*] higher) & not observing any tracks concluded y^{e} watchman was mistaken and y^{et} it was moose y^{et} he heard & so continued quiet & did not send to inform y^{e} Indians above why they cd easily have done.[140]

> …y^{et} y^{e} Monday after y^{e} fight 8 men y^{et} were lost came to them & offered to Submit themselves to y^{e}, if they would not putt them to death; but whether they promised them quarter yea or not they took them, and burnt y^{e}. The method of burning them was covering them with thatch & put fire to it & set them running & when one coat of thatch was burnt up they would putt on another &c the barbarous creatures that have given this account of their inhumanity & barbarity have in a Scoffing man: add y^{et} the English men wd cry out as they were Burning &c Oh dear Oh dear.[141]

[137] Thomas. "Rev. Stephen Williams's Notebook." P. 13.
[138] Hubbard. *Narrative.* P. 204.
[139] Thomas. "Rev. Stephen Williams's Notebook." P. 9.
[140] Thomas. "Rev. Stephen Williams's Notebook." P. 9.
[141] Thomas. "Rev. Stephen Williams's Notebook." P. 15.

> …an Indian was coming over y^e^ River in a Cano to him [Jonathan Wells] coming ashore to him near. He presented his Gun & y^e^ Indian frightened jump out of y^e^ canoe & left his Cano & went & told y^e^ Indians y^e^ English army were come again for he had seen one of ye Scouts himself (y^e^ Indians gave this acct afterwards & ds b^y^ went to look but b^y^ saw nothing but y^e^ Indian being a Narragansett b^y^ concluded he was fright groundlessly so b^y^ hold y^e^ No better than Squaws &c)[142]

On May 18 Captain Turner and approximately 150 soldiers and militia/colonists drawn from Springfield/Westfield, Hatfield, Hadley, and Northampton "came from Hatfield a little before night…ye most with horses & a few footman."[143] Half of the men were garrison troops under the command of Turner and the other half militia from the Hampshire County militia or settlers. The company left Hatfield at dusk and travelled north 15 miles along the west side of the Connecticut River through Deerfield Meadow to the Deerfield River. Two local men, Experience Hinsdale of Hadley and Benjamin Wait from Hatfield, served as guides for Turner's Company.[144] The English originally intended to cross the Deerfield River at the main ford across from Cheapside west of the confluence with the Green River "but the army had missed ye usual path & crossed ye river about 30 rods higher."[145] The secondary ford was located 500' upriver (west) from the main ford that was closer to the Green River and Cheapside. As the English crossed the river:

> …y^e^ noise was heard by the Indian watchman [near the main ford], who informed y^e^ Indians [at Cheapside] y^t^ he heard horses pass along, upon which y^e^ Indians went (with a lighted torch) to y^e^ usual path y^t^ crossed y^e^ Green [Deerfield] River…& not observing any tracks concluded y^e^ watchman was mistaken and y^t^ it was a moose y^t^ he heard & so continued quiet & did not send to infrom y^e^ Indians above which they could easily have done.[146]

The two ford locations place the English crossing on west of the Green River which influenced their route of approach to Peskeompskut and subsequent route of retreat. Turner's force then proceeded north for approximately 2.5 miles along the west side of the Green River until they reached the Green River Ford at the confluence with present-day Mill Brook which leads to Cherry Rum Brook. From there the English travelled east 3.25 miles closely paralleling the Cherry Rum Brook, along the north side of White Ash Swamp to the Fall Brook leading to Lower Factory

[142] Thomas. "Rev. Stephen Williams's Notebook." P. 26, 28.
[143] Hubbard. *Narrative.* P. 9.
[144] Experience Hinsdale resettled at Deerfield. His father and three brothers were killed at Bloody Brook.
[145] Thomas. "Rev. Stephen Williams's Notebook." P. 13.
[146] Thomas. "Rev. Stephen Williams's Notebook." P. 13.

Hollow, arriving just before dawn. The English forces travelled the 21 or so miles from Htfield to the Fall River under a full moon in approximately 8 to 9 hours, at a speed of 2.5 to 3.0 miles an hour. William Hubbard states that "When they came near the Indians rendezvous, they alighted off their horses and tied them to some young trees at a quarter of a mile distance" and then marched to the village.[147] The area where the English hitched their horses in Lower Factory Hollow is approximately one-half mile from the village at Riverside. As discussed earlier, the English Assembly, or Horse Hitching Area, is believed to be on the west side of the Fall River in Lower Factory Hollow partly because the terrain on the east side of the Fall River is difficult if not impossible for horses to ascend even if the English dismounted and led their horses. Assuming 140 horses, as some of the English were on foot, Turner would have probably left 15 to 20 men behind (one man per 7-9 horses) to adequately care for and guard the horses, thereby reducing the attacking force to 120-125 soldiers, probably organized into squads of twenty men under a sergeant or ensign.

The distance from the Fall River to the Peskeompskut village is about .5 miles, which is a typical distance for dragoons (mounted infantry) to dismount from the intended locus of attack in order not to be detected. Stephen Williams described the approach and the attack on the village based on interviews with Wells and perhaps other veterans of the battle as well as some information he obtained from William Hubbard.

> The army came up to the Indians (at the falls) a little before break of day whom y^{e} found very Secure without any watchman. Some y^{t} had been at the river fishing y^{t} cd have been like to have discovered y^{e}, having been driven from y^{r} fishing by a little storm of thunder and lightning, y^{t} happened a little before ye sun came up, y^{e} English allighted from y^{r} horses at a quarter of a mile distance from the enemy, & tied their horses to some young trees; and when it grew so light as y^{t} they were able to distinguish between y^{r} friend & enemies they marched up to y^{e} wigwams…[148]

The number and arrangement of the wigwams in the main part of the village dictated, or at least greatly influenced, the English plan of attack. Thomas Reed, who had recently spent time in the

[147] Hubbard. *Narrative.* P. 205.

[148] Williams obtained the information in italics from Hubbard, but William's mis-transcribed the information. What Hubbard said was "When they came near the Indians rendezvous, they alighted off their horses and tied them to some young trees at a quarter of a mile distance". The Hubbard's reference to one quarter of a mile is in reference to the distance to the young trees from where the English dismounted, not the distance to the village. See: Thomas. "Rev. Stephen Williams's Notebook." P. 13.

village before his escape, knew something about the distribution of wigwams there and Turner would have planned accordingly.

The total number of people in the village is difficult to determine as the sources vary widely and are based primarily on casualty estimates. Assuming 250 people and approximately 8 to 15 people per wigwam, there may have been 15 to 30 wigwams in the village. One ambiguous reference by an English soldier described "a wigwam or two [a] little higher than the rest" of the village, which is interpreted to mean they were located further upslope and otherwise slightly removed from the main village.[149] It probably would have been difficult, if not impossible, for the English to completely surround the village given its size and the potential they would be discovered. Another issue was certainly the danger of friendly fire, which did occur once during the assault. As no battle-related objects were recovered from the highly disturbed Riverside area, and none of the sources describe the English battle formation or plan of attack, no firm conclusions can be drawn regarding English attack formations and the evolution of the battle

One scenario proposed by John Wilson is that Captain Turner and Lieutenant Holyoke commanded their respective garrison soldiers and militia on the east and west wing of the formation. If the company was organized in a single file the formation would have extended for approximately 1200 feet, and if the company was organized in two files the line would have extended for 600 feet.[150] The formation would likely have attacked the village with the center attacking the 'top' or northern portion of the village while the wings moved simultaneously to envelope the upstream and downstream sides of the village driving the villagers to the river. By all accounts the English forces advanced to within point-blank range of the village without being detected, to the extent that some soldier "put their guns even into their Wigwams" as the signal was given to fire.[151] If that is the case, English forces may have advanced right up to the village perimeter as a loose line of single file skirmishers, allowing them to approach individual wigwams, and fire directly into them.

On a given signal English forces would have opened fire upon the unsuspecting inhabitants of the village indiscriminately killing any Native people they encountered. Several sources report that when the first shots were fired the villagers thought it was the Mohawk attacking them. After

[149] CSL. Colonial Wars, Series I. Doc. 74.
[150] John Wilson, Personal Communication. 2017.
[151] L'Estrange. *A True Account.* P. 3.

the initial attack English soldiers took up positions along the shoreline and opened fired on anyone trying to escape into the river including swimmers, people in canoes, and those hiding under the bank of the river:

> …others of them creeping for shelter under the banks of the great river, were espied by our men and killed with their swords; Captain Holyoke killing five, young and old, with his own hands, from under a bank."[152]

Roger L'Estrange provides the most graphic and disturbing account of the massacre:

> Our soldiers got thither after a hard march just after break of day, and took most of the Indians fast asleep, and put their gums even into their wigwams and poured in their shot among them, whereupon the Indians that durst and were able to get out of their wigwams and did fight a little (in which fight one Englishman only was slaine) others of the Indians did enter the river to swim over from the English, but many of them were shot dead in the waters, others wounded were therein drowned, many got into canoes to paddle away, but the paddlers being shot, the canoes over-set with all therein, and the stream of the river being very violent and swift in the place near the great falls, most that fell overboard were born by the strong current of the river, and carried upon the falls of water from those exceeding high and steep rocks, and from thence tumbling down were broken in pieces and cast ashore, above two hundred.[153]

As old men, women, and children ran from English soldiers towards the banks of the Connecticut River, Native men in the village probably engaged the English taking heavy casualties to slow the assault so that the women and children could escape. The only Native description of the battle is from the testimony of several Native men who were captured a few months after the battle and were court marshalled and executed. It is not clear if the testimony of these men described events at the Peskeompskut village fight or the retreat battle (or both). A Narragansett man named John Wecopeak testified:

> …that he was at the fight with Captain Turner and run away by reason the shot came as thick as rain, but said alsoe, that he was at a great Distance. Butt John Godfree and William Heifferman saith, that he the said Wecopeak told them, that he saw Capt. Turner, and that he was shott in the Thigh, and that he knew it was him, for the said Turner said that was his name.[154]

[152] Hubbard. *Narrative*, P. 206.
[153] L'Estrange. *A True Account of the Most Considerable Occurrences*. Pp. 3-4
[154] Easton. *A Narrative of the causes.* P. 180.

A Pawtuxet Indian named Wenanaquabin "also confessed that he was at the fight with Captain Turner, and there lost his gun, and swam over a river to save his life."[155] Wenanaquaban's statement that he "swam over a river" is probably not a reference to the Connecticut River given the current and the number of people who were swept over the falls. It is more likely he was referring to the Green River or Deerfield River. The sense one gets from Wecopeak's testimony is that he was at the Peskeompskut fight and then perhaps made his way to the confluence of the Green River and Cherry Rum Brook to assist in the ambush that killed Turner. He may have been among the men from the fort at Smead's Island who came up the Fall River. he river who chased the English over the ridge to Fall River. That would be several miles but given that the English delayed along the river after the battle counting the dead and taking plunder, it is entirely possible. Alternatively, he may be referring to a location somewhere along the retreat where heavy fighting took place and then made his way to the Green River. Wecopeak's testimony suggests Coalition leaders re-deployed their men to various locations during the battle as they could anticipate the route of the English retreat.

Two English soldiers were wounded during the attack, and one killed by friendly fire: "Of our men, one was killed in the action, by his friends, who takeing him for an indian as he came out of a wigwam shot him dead."[156] Following the battle the English destroyed large amounts of food supplies, ammunition, and blacksmith forges:

> We there destroyed all their Ammunition and Provision, which we think they can hardly be so soon and easily recruited with, as possibly they may be with Men. We likewise here demolished Two Forges they had to mend their Armes; took away all their Materials and Tools, and drove many of them into the River, where they were drowned, and threw two great Piggs of Lead of theirs (intended for making of Bullets) into the said River.[157]

Estimates of Native casualties vary considerably between 200 and 300. A few days after the battle Reverend John Russell wrote a letter to the Connecticut War Council enumerating Native casualties from the battle, he obtained from men in Turner's company who took time after the battle to carefully count the dead around the village and those that were swept over the falls:

> As to the number of the enemy slain; many of the soldiers say they guessed them to be about fourscore [80] y^{t} lay upon the ground. But Serjeant Richard Smith saith

[155] Easton. *A Narrative of the causes.* P. 179.
[156] Thomas. "Rev. Stephen Williams's Notebook." P. 18.
[157] L'Estrange. *A True Account of the Most Considerable Occurrences.* P. 4.

> he had time and took it to run them over by going from wigwam to wigwam to do it & and also what was between y^{r} bank and the water and found them about an hundred he hath sometimes said six score [120] but stands to y^{e} y^{t} they were about 100. Seventeen being in a wigwam or a two little higher up than the rest.
>
> Likewise William Draw [from Hadley] a soldier y^{t} terms of good behavior & credit being two or three soldiers to stand in a secure place below the bank, more quiet than he thought was [illegible] for the time; He asked them why they had stood there saith they answered that they had seen many goe down the falls and they would endeavor to tell how many. Here upon he observed with them: until he told fifty; and they said to him that those make up six score and ten [70]. Some of them were also slaine in their pursuit of ours where so many of [illegible] fall. Hence we cannot judge but there were above 200 of them slaine.[158]

Based on these figures there may have been 70 Native Coalition casualties in the battle. Mather states that:

> …yet it be as some Indians have since related, the victory was not so great as at first apprehended: For sundry of them who were at several times taken after this slaughter, affirm that many of the Indians that were driven down the falls got safe on shore again, and that they lost not above three score men in the fight…I am informed that diverse Indians who were in that battle, but since come in to the English at Norwich, say that there were three hundred killed at that time, which is also confirmed by an Indian called Ponham, who saith that of the three hundred there were an hundred and seventy fighting men.[159]

The wide disparity in casualty figures is impossible to reconcile. The reference that "Some of them also were slaine in their pursuit…We cannot but judge but there were above 200 of them slaine" is significant because it is the only reference to the possible number of Native casualties (30+?) in the retreat battle assuming 170 were killed at Peskeompskut. Some Native sources provide specific figures on the number and tribal affiliation of Native men killed at Peskeompskut. Menowniett, a Narragansett and Mohegan man who fought in the battle, reported that "in ye Fall Fight were slayne 40 Norwottog [Norwottuck], Quaboag 10 Narragansett."[160] It is likely these figures reflect casualties from both the attack on the village as well as the English retreat. The figure of 50 Coalition casualties is consistent with the Native informants Mather refers to who stated there were 60 Native men who died in the battle. The high number of Norwottuck casualties

[158] CSL. Colonial Wars, Series I. Doc. 74.
[159] Mather. *A Brief History*. P. 50.
[160] Trumbull. *Records of the Colony of Connecticut*. P. II:471.

is interesting and it raises the possibility that the Native population in the Peskeompskut village may have been primarily Norwottuck. One source state that 70 Wampanoag men were killed in the battle.[161] Hubbard claims that prisoners taken after the battle "owned that they lost 300 in that camisado [surprise attack], some whereof were principal sachems, and some of their best fighting men that were left, which made the victory more considerable than else it would have been."[162]

If the casualty figure of 50 men given by Menowniett refers only to the attack on Peskeompskut it would seem to be a very high number given that Thomas Reed estimated a total of 60-70 men between the two villages on both sides of the Great Falls. However, as mentioned previously there are many examples during the war where Native men were willing to sustain extraordinarily high casualties to protect women and children to give them time to escape, and to defend wounded comrades and recover their dead. It may also be that some of the casualties occurred as men from the village on the opposite bank canoed across the river to engage the English. Most likely, the estimate includes Coalition casualties from Peskeompskut as well as the retreat.

[161] L'Estrange. *A Brief and True Narration*, P. 4.
[162] Hubbard. *A Narrative*, P. 206.

English Retreat from Peskeompskut

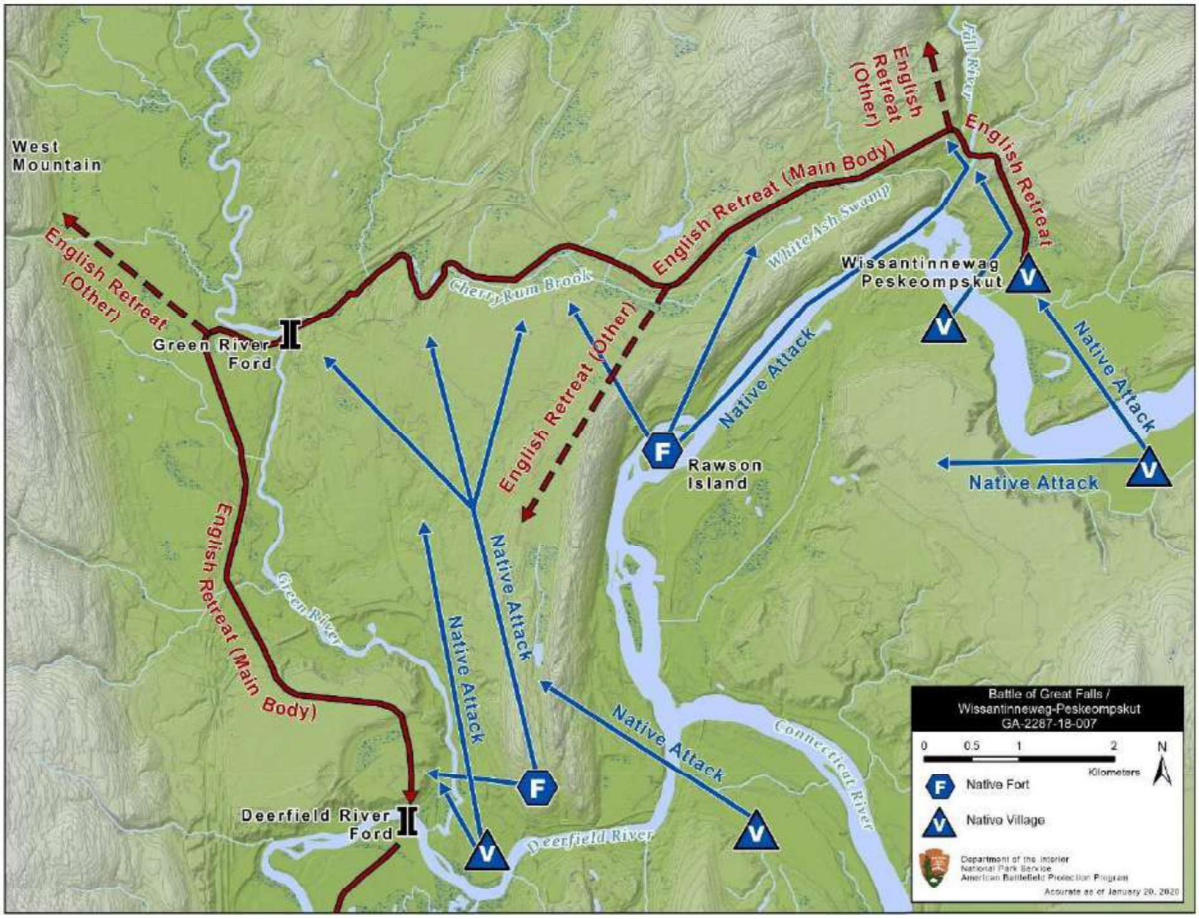


Figure 43. Battle of the English Retreat.

Confident in their victory, and apparently unaware of the other Native villages mobilizing for a counterattack, the English delayed their retreat to count the dead, burn wigwams, destroy supplies, and loot the village for trade goods. In the meantime, Native men from the other villages organized to counterattack the English. During the attack on the village the English rescued an English boy:

> …who was found in the wigwams, spake as if Philip were coming with a thousand Indians; which false report being famed among the soldiers, a pannick terror fell upon many of them, and they hastened homeward in a confused rout.[163]

[163] Thomas. "Rev. Stephen Williams's Notebook." P. 18.

The report quickly spread among the English soldiers and almost at the same moment the information was received that Native forces were counterattacking from across the river in canoes. The congruence of the rumor about Philip and the initial Native Coalition counterattack on some point along the Connecticut River spread panic and fear through the English ranks, and the retreat quickly turned into a rout. Wells relates the events that took place soon after the attack on Peskeompskut as Native soldiers from the remaining five villages began to mobilize:

> …& capt: Wells Says y^{t} the difficulties y^{y} were exposed to in y^{r} retreat was probably owing to ye long stay y^{y} made in y^{e} place of y^{e} victory S^{d} y^{t} y^{e} [that this] gave time to y^{e} indians y^{t} were at Deerf^{d} cheapside & y^{e} Island & up above & on y^{e} east side of y^{e} River to get together _ & wn y^{y} did make head agst or men y^{e} army drew off in great disorder & confusion yea abt 20 men, y^{t} tarrid behind to fire at some indians y^{t} were comeing over ye River and were left by y^{e} company, and were forcd to dispute y^{e} point wth y^{e} Enemy a considerable time before y^{y} cd recover y^{t} horses in y^{r} retreat Some Indians followd y^{e} Some were before y^{e}_ & Some attackd ye on one side &c.[164]

The number of Native men involved in the counterattacks is difficult to determine. L'Estrange stated "they were six times superior to us in number" indicating a figure of 900 men, presumably including those that were killed during the attack on Peskeompskut.[165] The figure seems a bit high as it suggests there were 150 to 175 men in each of the remaining villages. If the figure is accurate, it likely includes men from the upriver villages at Squakheag. Mather contradicts L'Estrange and states "to the great dishonor of the English, a few Indians pursued our soldiers four or five miles, who [i.e. English] were in number near twice as many as the enemy" indicating only 75 Native men were involved in the counterattacks – a number that seems much too low.[166] There may have been hundreds of Native men involved in the attacks but the English only witnessed a "few" at any given time as contingents of Native men from different locations may have entered the battle at various points and were sometimes outdistanced by the English when they reached terrain more suitable for horses.

The initial counterattack came from Native men coming across the river in canoes from the village across the Connecticut River from Peskeompskut, and perhaps from the village "up above" near Millers River or beyond. Jonathan Wells was with the group of 20 men that "tarried behind"

[164] Thomas. "Rev. Stephen Williams's Notebook." Pp. 13-15.
[165] L'Estrange. *A New and Further Narrative*, P. 12.
[166] Mather. *A Brief History*. P. 49.

to fire at the Indians coming across the river. It is not clear if the 20 men were purposely deployed as a rear guard or were in the act of engaging oncoming attackers and were simply left behind by the main group who beat a hasty retreat. At this point Turner's command was split between the main body of approximately 110 soldiers who had begun a panicked and disorganized retreat to where their horses were tied a half mile or so away on the west side of the Fall River and another group of 20 men skirmishing with Native Coalition forces by the river. It is not clear from the narratives when the main body of men under Turner was initially attacked, but it may have been as they reached the mountain overlooking Fall River below and the assembly area where their horses were tied. As noted by Mather:

> A panicked terror fell upon many of them, and they hastened homeward in a confused rout…In the meanwhile, a party of Indians from an island (whose coming on shore might easily have been prevented, and the soldiers before they set out from Hadley were earnestly admonished to take care of that matter) assaulted our men.[167]

[167] Mather. *A Brief History*. P. 49.

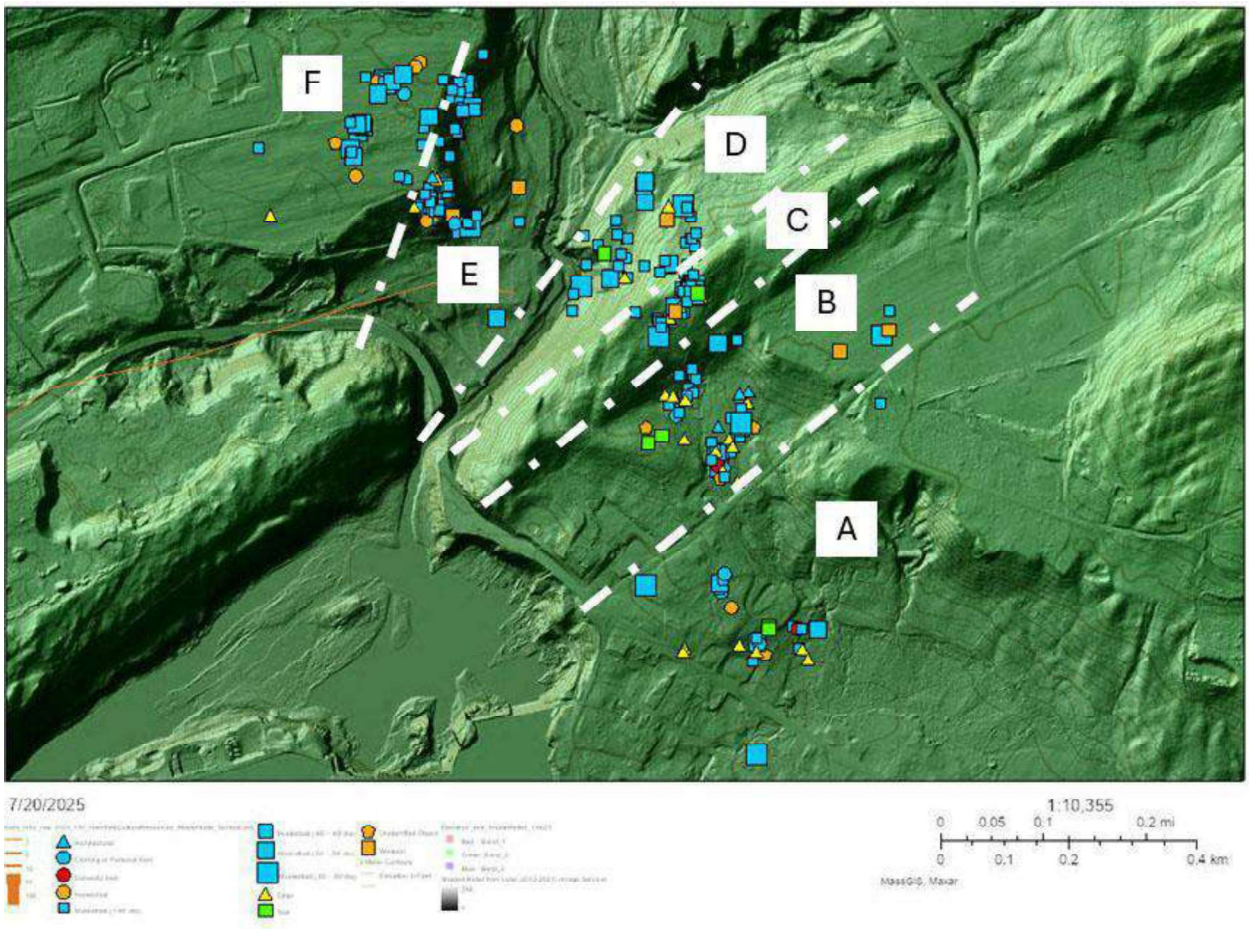


Figure 44. Musket Ball Distributions Battlefield Loci A-F.

In the meantime, Wells' group was beaten back from the river's edge by the Native counterattack coming across the river and retreated after their fleeing comrades. Turner's command may have already been under fire by pursuing Native Coalition forces and Wells notes that his small group specifically had to fight their way back, "forced to dispute y^{e} point wth y^{e} Enemy a considerable time before y^{y} could recover y^{t} horses."[168] A 'considerable time' suggests that Wells' group was under attack for the entire distance of 0.5-miles from Riverside to the English Assembly/Horse Hitching Area, as indicated by the continuous distribution of musket balls from Peskeompskut to the Fall River. Figure 43 depicts the distribution of musket balls recovered from Battlefield Loci A-F. It is believed the distributions of musket balls in Loci A-D reflect the engagements between Wells' group of twenty men and Coalition forces.

[168] Thomas. "Rev. Stephen Williams's Notebook." P. 15.

The main body of English troops under Turner fled to where they left their horses under guard but arrived in complete disorder because of being attacked by Native Coalition forces from several different directions. Native Coalition forces were converging on the same assembly area as their men pursued Turner's troops east from Peskeompskut while men stationed at Rawson Island south on the Connecticut River landed at the Fall River and attacked the horse guard as recalled by Wells who noted "some of the enemy fell upon the guards that kept the horses, others pursued them in the rear."[169] The troops who retreated with Turner were most likely under attack by the time the descended the mountain to Fall River and their horses beyond. Based on the distribution of musket balls closely associated with several 'swales' leading from Lower to Upper Factory Hollow, once mounted the retreating English used the swales to ascend the steep incline leading to Upper Factory Hollow to escape from Coalition forces.

As Well's group tried to catch up to the main body after they retrieved their horses they were under constant attack. Captain Turner leads the main body of troops out of the hitching area the same way they entered, though now under enemy fire the men charged their horses up several natural swales to a flat terrace above. Wells's small company likely retook their horses as the main body was moving out and had to fight to catch up. Wells related that as his company fled after Captain Turner, he:

> …was wounded ab^{t} a quarter of a mile where they took y^{r} horses [somewhere in Upper Factory Hollow] being in y^{e} rear shot by 3 indians. One bullet struck his thigh bone & one bullet brushd his hair, and y^{e} other struck his horse behind, & broke part of y^{e} bone which before had been broken by a cart wheel…& kept y^{e} indians back by presenting his gun once or twice & when y^{y} stopped to charge he got [away] from y^{e} & came up to y^{e} capt [Turner]: & persuaded him to turn & take care of y^{e} men in y^{e} rear but he s^{d} he had better lose some than lose all & then he fell into the rear again & took wth a Small company y^{t} Separatd from others y^{t} ran upon a parsell of indians near a Swamp & were most of y^{e} killd & then y^{y} was Separat^{d} again & had ab^{t} ten men left with him & his horse failing & himself Spent wth bleeding. [170]

This passage reflects the hard fighting and utter chaos that resulted from the multipronged Indian attack as well as a complete breakdown in leadership. It also indicates that Turner and the main body of soldiers were not too far ahead as Wells was able to catch up with him even amid all the fighting.

[169] Thomas. "Rev. Stephen Williams's Notebook." P. 24.
[170] Thomas. "Rev. Stephen Williams's Notebook." P. 24.

The English forces were now under attack from all directions, and their command and cohesion began to break down turning the retreat into an unorganized rout. These circumstances were in part the result of the lack of training and inexperience of most of the men who had never been in battle as well as the command failure of Captain Turner. The superior tactics, coordination, and planning by Coalition forces was also an important factor as they managed to get ahead of the English to set several ambushes. The various narratives and descriptions of the retreat battle underscore the utter chaos and confusion the English soldiers experienced during the retreat. These sources are confusing, incomplete, inconsistent and sometimes contradictory, but nonetheless provide the only information available to reconstruct the battle and help interpret the distribution of battle related objects along the retreat. Some of the inconsistencies and contradictions are because many different individuals who were in the battle contributed to these accounts, and there were several different authors who recorded their experiences. These unnamed soldiers had different perspectives and experiences as they may have been on different parts of the battlefield:

It appears that the English had already splintered into several groups before they reached the White Ash Swamp with perhaps one large group and some smaller ones passed by the White Ash Swamp and were ambushed resulting in significant English casualties. Wells indicates that he was with one of the groups that was ambushed at the swamp, but says it was only a small company which was likely 15-20 men. The constant attacks, skirmishing and ambushes further splintered the English:

> On their route the Indians had laid ambush in a swamp, but as the English were not all together, only part of them went that way. The ambushing Indians slew many of that group, in fact, about thirty-eight. Four of five men (some say more) the Indians caught alive, and tortured them…[171]

> …& [Wells]came up to ye capt: & psuadd him to turn & take care of ye men in ye rear but he sd he had better lose some than lose all & then he fell into the rear again & took wth *a Small company yt Separatd from others yt ran upon a parsell of indians near a Swamp & were most of ye killd* & then yy was Separatd again & had abt ten men left with him.[172]

> …y^{e} indians & y^{y} [Wells' group] fought for y^{r} horses & and recovered y^{y} mounted & went after y^{r} company, but y^{e} indians followed & some came across way & some

171 Douglas Edward Leach, Ed. *A Rhode Islander Reports on King Philip's War: The Second William Harris Letter of August, 1676.* Providence, RI: Rhode Island Historical Society, 1963. P. 81.
172 Thomas. *Rev. Stephen Williams's Notebook*. P.24.

> between y^e & so y^y fought upon a retreat being divided into several companies or parties being separated by y^e Indians.[173]

Some sources hint that Captain Turner and Captain Holyoke may have separated early in the battle, perhaps prior to the ambush at the White Ash Swamp. It also appears that at least two other groups of English broke from Turner and Holyoke to pursue their own different retreat routes. One group followed guide Benjamin Wait and the other Experience Hinsdale, who did not survive. Wells states one guide was "acquainted with the woods" perhaps indicating he led a group of men along a different route than the White Ash Swamp. It also appears that many of the English horses were killed or wounded leaving some English on foot and others forced to ride double which would have significantly affected the speed of the retreat:

> Capt. Turner, to whom he represented y^e difficulties of y^e men in ye rear & urgd y^t he either turn back to y^r relief, or tarry a little till they all come up & so go off in a body; but y^e Capt. replid he had 'better save some, than lose all,' and quickly y^e army were divided into several parties, one pilot crying out 'if you love your lives follow me'; another y^t was acquainted w^th ye woods cry^d 'if you love your lives follow me.'[174]

> …a fear possessed some part of the English, whereby they fell into a disorder, and thereby Captain *Turner* and several of his Souldiers were slain and others to the number of two and thirty. But Captain *Holyoke* exhorted them not to be terrifiyed, saying God hath wrought hitherto for us wonderfully, let us trust in him still: and reducing his men into close order made a safe and a valiant retreat, and preserved the Souldiers under him; that there were but few of them slain.[175]

Based on the distribution of musket balls along the route of retreat that was surveyed, most of the English forces retreated along the north side of White Ash Swamp and the Cherry Rum Brook to the Green River Ford. It is impossible[?] to distinguish how many companies of English troops followed this route but it appears the vast majority other than the few smaller groups that had broken off and met their fate at the earlier swamp detailed in Wells' account. As Captain Turner and Captain Holyoke were both present at the Green River Ford it is clear the two large groups under their command had reunited their troops at that time. The question is, did Holyoke take a different route, perhaps following the other guide, or did he take the White Ash Swamp-

[173] Thomas. *Rev. Stephen Williams's Notebook*. P.9.
[174] Thomas. *Rev. Stephen Williams's Notebook*. P.24.
[175] L'Estrange. *A True Account*. P. 4.

Cherry Rum Brook route and was ahead of Turner? Without conducting additional battlefield surveys along other prospective routes of retreat this question will remain unanswered.

The eastern end of the White Ash Swamp is located approximately one-half mile west of Factory Hollow and extends for approximately .75 miles west to Cherry Rum Brook. The battle narratives point to this location where Coalition forces converged at the White Ash Swamp from several directions resulting in the further splintering of the English force. At least one party of English were ambushed when they reached the White Ash Swamp by Coalition forces from Cheapside, Deerfield, Rawson Island and perhaps elsewhere, catching the English completely by surprise. Several sources indicate that the ambush at the White Ash Swamp is where the English suffered most of their casualties and further splintered the group. William Harris reported that several men were captured during the swamp ambush and were tortured:

> Four or five men (some say more) the Indians caught alive and tortured them as follows: They tied their hands up spreading upon the one and the other upon another, and likewise set two stakes at a distance, to which they tied their feet. Then they made a fire under each of them, gashing their thighs and legs with knives, and casting into the gashes hot embers to torment them. This also somewhat stanches the blood so that they do not bleed to death so soon, but remains to torment longer.[176]

Three days after the battle another group of English were caught and tortured based on testimony given to Jonathan Wells by Natives who fought in the battle:

> Y^{t} Y^{e} Monday after the fight 8 men y^{t} were lost came to them & offerd to Submit themselves to y^{e}, if they would not putt them to death; but whether they promised them quarter yea or not they took them, and burnt y^{e}. The method of burning them was covering them with thatch & put fire to it & set them running & when one coat of thatch was burnt up they would putt on another &c. The barbarous creatures that have given this account of their inhumanity & barbarity have in a Scoffing manr: added y^{t} the English men would cry out as they were Burning &c Oh dear Oh dear. y^{e} Indians acct it very unmanly to moan & make ado under y^{e} torments & cruelties from y^{r} enemies who put y^{e} to death.[177]

[176] Leach, Ed. *Second William Harris Letter*, P. 80-81.
[177] Thomas. "Rev. Stephen Williams's Notebook." P. 15.

Multiple torture victims are rarely recorded in any of the primary sources associated with King Philips War which may be a result of post-war Native informants who witnessed these events. The Native men were so enraged by the Peskeompskut massacre that they exacted immediate revenge immediately on any English soldier they captured. No known captives from the battle are known to have survived.

Native forces continued to attack English forces as they emerged from the vicinity of White Ash Swamp along the Cherry Rum Brook in their retreat to the Green River Ford. Some of the English may have been following the same path mentioned by Wells "abt 2 miles from ye place where yy did ye Exploit &c & wn yy had left ye track of ye company & were unacquainted wth ye woods.[178] Wells also noted that while he was lost for two days after the battle around West Mountain and the Green River Plain "he travelled upon y^{t} plain till he came to a foot path y^{t} led him to y^{e} road he went out in"[179]

Perhaps because of the 'road' and the fact that none of the English were familiar with the area other than the two guides, they retreated along the same route they travelled to Peskeompskut making it easy for the Native forces to anticipate their route and set up ambushes along the way. There is not much information in the narratives regarding the remainder of the retreat from the White Ash Swamp to the Green River other than a vague reference by Wells that "In their retreat they were surrounded by the Enemy, Some were before them, some were behind them, and some on Each side so y^{t} it is wonderful that so many of them recovr^{d} their Home &c."[180] The fighting was chaotic and the English had to fight hard to escape from the Native attackers who beset them from all sides:

> The said Captain Holyoke's horse was shot down under him, and himself ready to be assaulted by many of the Indians, just coming upon him, but discharging his pistols upon one or two of them, whom he presently dispatched, and a friend coming to his rescue, he was saved.[181]

> One bullet struck his [Jonathan Wells] thigh bone & one bullet brushd his hair, and ye other struck his horse behind, & broke part of ye bone which before had been broken by a cart wheel & never set but lapd & shatter part of ye bone & ye other part stuck where it lapd. J fond he had likd to have fallen but catchd hold of ye

[178] Thomas. "Rev. Stephen Williams's Notebook." P. 24.
[179] Thomas. "Rev. Stephen Williams's Notebook." P. 26.
[180] Thomas. "Rev. Stephen Williams's Notebook." P. 20.
[181] Hubbard. *Narrative of the Indian Wars*. P. 207.

> horse's main & kept ye indians back by presenting his gun once or twice & when they stopd to charge he got [away] from ye.[182]

There is good evidence from the battlefield survey that confirm Wells' statement that the English were under constant attack during the retreat. Mather states "a few Indians pursued our soldiers four or five miles" suggesting attacks from the rear.[183] Large and small distribution of musket balls was recovered almost continuously along the route of retreat – any area that was surveyed and undisturbed yielded musket balls. The exception is the area between the Green and River Fords which was not adequately surveyed.

Evidence also indicates that Native Coalition forces anticipated the English at various choke points along the route of retreat such as the White Ash Swamp and the Green and Deerfield River fords. Captain Turner was killed just west of the Green River Ford based on the testimony from Native combatants and English forces that found his body near the ford a few days after the battle. Narragansett Indian John Wecopeak told his interrogators at his Court Marshall "that he saw Capt. Turner, and that he was shot in the thigh, and that he knew it was him, for the said Turner said that was his name."[184] Mather reported that:

> …the chief Captain, whose name was Turner, lost his life, he was pursued through a river, received his fatal stroke as he passed through that which is called Green River, & as he came out of the water he fell into the hands of the uncircumscribed, who stripped him, (as some say who say they saw it affirm it) and rode away on his horse...within a few days, Capt. Turner's dead corpse was found a small distance from the river, it appeared that he had been shot though his thigh and back, of which its judged he dyed speedily, without any great torture from the enemy.[185]

It is interesting that John Wecopeak observed that Turner had been shot in the thigh but did not mention that he had been shot in the back. Whenever Wecopeak saw Turner, he was still alive but killed shortly after. Whether the shot that killed him was in the heat of battle or a *coup de gras* cannot be determined, but as Mather points out if he was still alive, he would likely have been tortured. Stripping the clothes off dead Englishmen (and women) was a common practice in King Philip' War intended to humiliate the person and 'stripping' them of the cultural values and

[182] Thomas. "Rev. Stephen Williams's Notebook." P. 24.
[183] Mather. *A Brief History.* P. 50.
[184] Easton. *A Narrative of the causes.* Pp. 179-180.
[185] Mather. *A Brief History*. P. 50.

beliefs that made them English. An account describing a Sachem's actions to humiliate an enemy best conveys this concept:

> After he had wronged a sachem and robbed him tooke away his breeches and left him naked, which is accounted amongst them the greatest disgrace that may be and deserves death amongst them and the sachem told them he had rather die than have such a disgrace putt upon himself.[186]

The distance from the Green River to the Deerfield River Ford is approximately 2.5 miles. Although battle narratives do not describe the fighting that occurred after Turner's death, the distribution of musket balls marking the English route of retreat from the Green River Ford (Locus J), south through the fields along the west side of the Green River (Locus K), southeast over Petty Plain (Locus L), and the fighting to reach the Deerfield River Ford(Loci M, N, O) and the concentration of musket balls in the north Deerfield plains indicate constant combat along the way. Mather says, "a few Indians pursued our Souldiers four or five miles" which would fall a mile or so short of the Deerfield River as measured from the English Assembly Area (Locus E), present-day Factor Hollow. While Mather's estimate may be a bit shorter than the identified distribution of musket balls, documentary and archaeological sources indicate the English were pursued a short distance beyond the Deerfield River.

English soldiers (including Jonathan Wells) continued to make their way back to Hatfield over the next few days and one group was reported wandering on West Mountain west of Green River a few days after the battle. One of the more interesting accounts was provided by the Reverend Atherton who served as Chaplain to Turner's company on the expedition. He, like many others, became separated from the main body during the retreat and spent several days lost and wandering around the battlefield. He related:

> In the hurry and confusion of the retreat, I was separated from the army; the night following, I Wandered up and down among the dwelling places of the enemy, but none of them discovered me. The next day, I tendered myself to them a prisoner, for no way of escape appeared, and I had been a long time without food; but notwithstanding I offered myself to them, yet, they accepted not the offer; when I spake they answered not; and when I moved toward them they fled.[187]

[186] John Winthrop. *Winthrop Papers,* Volume 3 (Boston, MA: Massachusetts Historical Society, 1943). P. 44
[187] Wells & Wells. *History of Hatfield*. Pp. 86-87.

Several English sources (corroborated by Native sources) agree that 39 English soldiers died in the battle. Jonathan Wells states that "29 with their wounds came home swiftly on ye same day" and "two died of their wounds."[188] A total of 41 dead and 29 wounded is a casualty rate of just over 45 percent, which is extremely high by any standard. It is likely the casualty rate would have been far higher if not for the actions of Lieutenant Holyoke who "exhorted them not to be terrified…and reduced his men into close order made a safe and valiant retreat and preserved the soldiers under him; that there were but few slain."[189]

The War Ends: May 1676 – 1677

The English considered the Battle of Great Falls/Wissantinnewag-Peskeompskut a victory but remained concerned that there were still hundreds of enemy combatants in the upper valley. Within a day after the battle the upriver settlements sent a request to Connecticut for assistance. In response, Connecticut ordered eighty men under Captain Benjamin Newberry to proceed to Northampton for their. A few days after the battle English scouts reported that "the enemy abide still in the place where they were on both sides of ye river and in the island; and fires in the same place [Peskeompskut] our men had burnt the wigwams."[190] The settlers in the upper valley remained fearful of renewed attacks and surmised that the enemy still had ample supplies of fish and corn and were well protected by their forts on the island and Cheapside so "y^{t} we count them likely to abide a while."[191] The settlers were so concerned about the prospect of renewed attacks from the Indians along the river they proposed that a large boat be fastened with planks as a protection against musket fire, and be sent up the river to keep the enemy from passing back and forth.[192]

In the meantime, Connecticut and Massachusetts were planning major offensives in the Central and Western theaters and in Narragansett Country. Connecticut had already ended all efforts at peace negotiations with the tribes in the valley and Massachusetts soon followed suit with their negotiations with the Nipmuc and Narragansett. On May 23 Massachusetts informed Connecticut that they had ended all efforts at a treaty with the Indians as they had received no

[188] Thomas. "Rev. Stephen Williams's Notebook." P. 9.
[189] L'Estrange. *A Brief and True Narration*. P. 4.
[190] CSL, Colonial Wars, Series I. Doc. 74.
[191] CSL, Colonial Wars, Series I. Doc. 74.
[192] CSL, Colonial Wars, Series I. Doc. 74.

response to their overtures "and therefore thought it meete to prosecute the war in all places." Massachusetts requested that Connecticut send a force of soldiers and Mohegan and Pequot Indians to Hadley to join with 500 Massachusetts Bay soldiers "to go out against y^{e} enemy to destroy them at Squakheage, Deerfield or anywhere thereabouts."[193] In response, on May 24 Connecticut ordered Major Talcott "to goe forth against the Indians at Pocumtuck and those parts."[194]

At this point the weary Native Coalition began to dissolve. The rapid dissolution of their alliance following the Battle of Great Falls was due to several factors. There were significant disagreements among the tribes regarding the future course of the war, and particularly about peace negotiations with the English. Metacom and a few other sachems were vehemently against any peace overtures and ransoming captives. Shortly before Mary Rowlandson was ransomed, she related "On Tuesday morning they called their general court (as they call it) to consult and determine, whether I should go home or no. And they all as one man did seemingly consent to it, that I should go home except Philip, who would not come among them."[195] The rift between the tribes may also have been the result of different strategic goals and interests. For a time, most of the tribes saw the middle Connecticut Valley as their best hope to reestablish their communities in a safe, protected, and defensible landscape with plenty of fish and arable land to grow corn. Shortly after the battle Connecticut and Massachusetts Bay renewed their offensives in the upper valley making it untenable for the tribes to continue there. For the Narragansett, Wampanoag, Nipmuc and Quabaug they made the decision to return to their homelands and try to reestablish their communities. For the Native communities of the middle valley their only option was to continue the war against the English in the valley and hope they could establish a defensive perimeter. Those hopes ended with renewed English offensives designed to sweep the remaining tribes from the valley.

Widespread disease and sickness undoubtedly played a role in the decision to seek peace with the English as the high death rate must have significantly undermined the morale of the tribes. Many of their leaders and fighting men had been killed during the war and increasingly the remaining communities were comprised by growing numbers of women and children making it

[193] CSL, Colonial Wars, Series I. Doc. 75.
[194] CSL, Colonial Wars, Series I. Doc. 77.
[195] Rowlandson 20th remove Rowlandson. *Narrative of the Captivity*. P. 33.

harder to continue the war effort. The recent battlefield successes of the English armies and their unrelenting pursuit of Native communities kept them constantly on the move and unable to gather food and particularly to plant corn. Unless they surrendered Native people had few options; death in battle, starvation, or being sold into slavery. The Mohawk likely played a significant role in the decision to abandon the middle Connecticut Valley. Mohawk attacks on Native communities in the valley occurred on a regular basis toward the end of the war, and with fewer men to defend them these communities had to seek refuge elsewhere, such as Mahican territory. The Mohawk assault on Peskeompskut on June 12, 1675, during the Native Coalition troops attack on Hadley, may have been the event that ultimately dispersed Native communities from their encampments around the falls.

Shortly after the Battle of Great Falls, the Narragansett and Wampanoag began to abandon the valley and seek refuge at Watchusett and eventually began to return home. On May 30 Major Talcott reported intelligence he had received from Wabbaquasset and Pequot allies that:

> …its the generall reportef all that the chief place of their women & children is at Watchoosuck, not far off from Quabaug; that they have planted at Quabaug & at Nipsachook, nigh Coweesit; that Philip's men & the Narragansetts are generally come into those abovementioned places, only Pessicus, one of the chief of the Narragansett sachems, did abide up at Pocomptuck with some few of his men.[196]

To push the English settlements southward, a force of 500 Native men (presumably from the middle valley) attacked Hatfield on May 30. The Natives suffered heavy losses in the attack, and five English settlers were killed and three wounded with several houses burned.[197] Connecticut's forces had not yet arrived and Talcott wrote on May 31 that they would be unable to assist the upriver settlements until they could gather supplies and men.[198] Connecticut troops eventually arrived in Northampton on June 8 with an army of 450 men, including 100 Mohegan and Pequot Indians.

On June 12 a reported force of 250 Indians attacked Hadley, unaware that hundreds of English and Native allies were in the town. As described by Increase Mather, the attack was sophisticated and well planned and may well have succeeded if the Connecticut forces had not been there:

[196] Trumbull, *Colony of Connecticut.* P. 2:447.
[197] Trumbull, *Colony of Connecticut.* P. 2:450.
[198] Trumbull, *Colony of Connecticut.* P. 2:450.

> The common enemy who was quickly driven off at the *South end* of the Town whilst our men were pursuing of them there, on a sudden a great Swarm of Indians issued out of the bushes, and made their main assault at the *North end* of the Town, they fired a Barn which was without the Fortifications, and went into an house, where the inhabitants discharged a great Gun upon them, whereupon about fifty Indians were seen running out of the house in great haste, being terribly frightened with the Report and slaughter made amongst them by the great Gun.[199]

The attackers retreated and were pursued two miles when inexplicitly the English gave up the chase "because they had no order to do so. Some in those parts think, that as great an opportunity and advantage as hath been since the war began, was lost at this time."[200] It was reported that while the enemy was assaulting Hadley the "Mohawks came upon their Head-Quarters, and smote their women and Children with a great Slaughter, and then returned with much plunder."[201] The defeat at Hadley combined with the loss of their women and children at the hands of the Mohawk so soon after the Battle of Great Falls must have completely disheartened the communities that still remained in the valley. Shortly after, the River Indian communities that still resided in the Great Falls area began to abandon the valley.

On June 16, 500 Massachusetts Bay soldiers under Captain Henchman arrived at Hadley to conduct joint operations with the Connecticut forces and seek out and destroy the enemy in the middle Connecticut Valley. The combined Connecticut and Massachusetts Bay expedition was the largest English force sent to the middle Connecticut River Valley in the entire war. The Connecticut forces swept up the west side of the Connecticut River and Massachusetts Bay searched the east side. Connecticut went as far north as Squakheage and Massachusetts as far north as Great Falls but did not find any evidence of the enemy. Talcott returned to Norwich on June 22 and reported to the Council that his forces had scouted both sides of the river above Pocumtuck with no sign of enemy forces. Talcott reported that his men had been to the:

> Falls above Pocomtuck, and scouts being sent up the River on both sides and on the east side as high as Sucquackheag; and not discovering the enemy to be in those parts, but rather they were retired back towards Watchosuck or into the Nipmuc country; and that they were under no engagement of farther conjunction with the Massachusetts forces…[202]

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[199] Mather. *A Narrative*. P. 53.
[200] Mather. *A Narrative*. P. 53.
[201] Mather. *A Narrative*. P. 54.
[202] Trumbull. *Colony of Connecticut.* Pp. II:455.

On June 28 it was reported:

> About thirty of ours adventured to go up the River towards the Falls at Deerfield, to see what Indians they could espy thereabouts, but coming they found none. They went to an Island where they found an hundred Wigwams, and some English plundered Goods, which they took, and burnt the Wigwams. Also they marched up to a Fort which the Indians had built there, and destroyed it. Digging here and there they found several Indian Barns, where was an abundance of Fish, which they took and spoiled, as also thirty of their Canoos; so that it appears that the Heathen are distressed and scattered, being no more able to continue together in such great Bodyes as fromerly.[203]

Many of the Native communities from the middle Connecticut Valley appear to have gone west to Paquiag (open or clear place) in Mahican territory on the west side of the Hudson River 40 miles south of Albany. Hubbard reported that "the River Indians, who have many of them withdrawn themselves and are gone far westward, and whilst they and others that have been in hostility against us, remain unconquered, we cannot enjoy such perfect peace as in the years which are past."[204] It is not at all clear what the connection was between the Natives of the Connecticut Valley and the Mahicans of Paquiag, but there were several references during the war that the Connecticut Valley Indians acquired their powder from the Dutch with the Mahicans acting as middlemen. In his testimony in August of 1676 Menowniett stated:

> …that the Norwottock Springfield Indians and others are gone to a place about Hudson's River called Paquayag, and were encouraged to come there by a great man of those parts, whoe hath allso encouraged them to engage against the English and that they should not be weary of it. He did not Bee the man nor doth not know who it was. He was askt where they had ye ammunition to carry on the warr: he said the Powquiag Indians bought it of y^{e} Dutch and sold it them. He was asked how many of the North Indians are gone that way. He saith about 90 men of them and Sucquance [Pessacus] is with them; he was very sick and as like to die as live…What Indians be at Housetanuck? None. They are all gone to Paquiag on ye West side of Hudson's River.[205]

In late July a "great party of those North Indians [Connecticut Valley]" were reported near Westfield travelling to the Hudson River on a southerly track to avoid the Mohawk.[206] On August

[203] Mather. *A Narrative*. P. 57.
[204] Samuel Drake, Ed. *The History of King Philip's War*, P. 204.
[205] Trumbull. *Colony of Connecticut.* Pp. II:471-472.
[206] Trumbull, *Colony of Connecticut.* Vol. 2:466.

11 John Pynchon reported a group of "200 Indians including 50-60 fighting men, 100 women, and the rest children were seen three or four miles from Westfield heading toward Housatonic. He also reported "their tracks come from Nipmuck country."[207] On August 19 the Connecticut War Council reported to Governor Andros of New York:

> Hon" Sir. Your fromerly neighbourly professions to secure such of the common barbarous enemies as haue or may fly or retire themselves into your parts, concerning whome o' neighboures of Boston doe say that they haue wrote to your Hon' desireing that they may be sent thither at their charge; this gives us encouragement to giue you farther acco' & inteligence even now come to hand, viz. that upon the persuit of a considerable number of the enemie, about 150, who are now makeing that way but were overtaken & fought by a party of our neare unto Ousatunick [Housatonic near Great Barrington] ; whereof ours slue 40 & took 15 captives; some others allso were taken neare the same road, who infrome that the enemies designe was to goe over Hudson's River to a place called Paquiage where its sayd there is a tbrte [meaning unclear], & complices ready to receiue and shelter them, and there they intend refreshment & recruits…[208]

Major Talcott was immediately ordered to Westfield to pursue the group expecting to catch up with them at Housatonic (Great Barrington). He found them at dusk three days later halfway between Westfield and Albany on the west side of the Housatonic River "entirely secure." In the morning Talcott's dragoons were split into two divisions:

> One was ordered to pass the river below the enemy, and to advance and compass [surround] them in on that side. The other party, creeping silently up to the east bank of the river, were to lie prepared instantly to fire, when they should receive the signal from the other division…[and] discharged upon the enemy, as they were rising in surprise, or lay upon the ground, and killed and wounded a great number of them.[209]

William Hubbard reported that the English:

> …pursued after them as far as Ausotunnoog [Housatonic] River (in the middle way betwixt Westfield and the Dutch [Hudson] River, and Fort Albany) where he overtook them, and fought with them; killing and taking 45 prisoners, 25 whereof were fighting men. Without the loss of any one of his company save a Mohegan Indian: Many of the rest were badly wounded, as appeared by the bushes being so much besmeared with blood, as was observed by those that followed them further. It is written since from Albany, that there were sundry lost besides the 45

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[207] Carl Bridenbaugh, Ed. *Pynchon Papers*: *Volume I Letters of John Pynchon, 1654-1700* (Boston, MA: Colonial Society of Massachusetts, 1982). P. I:163.

[208] Trumbull, *Colony of Connecticut.* P. II:469.

[209] Benjamin Trumbull. *A Complete History of Connecticut*. (Hartford, CT: Hudson and Goodwin. 1797). P. I:365-366.

> aforementioned, to the number of threescore in all; and also than an hundred and twenty of them are since dead of sickness.[210]

A Narragansett Indian from Connecticut named Choos was at the Housatonic Fight and was captured in September at Stratford, Connecticut. After the battle he hid in Farmington until he was almost starved, and then went to the Stratford coast to collect oysters to eat:

> He affirmed that there were above 250 fighting men amongst those Indians that fled westward, besides women, and children; and that near 200 of them passed the great river below Albany, and were sheltered by the Indians of that place, called Moheganders [Mahicans]; but about 80 of them tarried on the hither side of that river, near a Dutch village."[211]

John Pynchon confirmed the Choos testimony and reported in late August of 1676 that "gathered togeather at Paquoag on Hudson River about 200 men and having there their wives and children in a safe and secure place; the men may with freedom and without any clog make inroads upon these towns, doing what they do at a push, and suddenly return again to their headquarters."[212] The Connecticut War Council was so concerned about the threat the Natives at Paquiog posed that in late August of 1676 they wrote Governor Andros of New York requesting permission "to pass up ye Hudson River with our own vessels to pursue them."[213] The Connecticut Valley communities at Paquiog continued to be perceived as a threat as late as 1677. In April of that year Major Pynchon wrote to Governor Andros:

> There being some principle Indians more deeply ingaged in the late mischiefs done upon us, whoe we understand are upon your River [Hudson], we judged it necessary to demand them to be delivered to justice; yet weighing what your Hour hath presented, together with our owne observations, doe not apprehend it convenient at this time to insist farther upon it, but shall represent the same with our sence thereof, to the respective Councils of our Colonoyes; and in case they still persist therein, that then your Hon"' would be pleased fully to answer theire desire. In the meantime let all be in silence. Their names are Wecjuegan [Agawam], Awassamauge, Pummanequin, Negonump, Apequanas alias John Sagamore and Cochapesen [Agawam].[214]

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[210] Hubbard. *A Narrative.* P. 244.
[211] Hubbard. *A Narrative*. P. 245-246.
[212] Bridenbaugh, Ed. *Pynchon Papers*. P. I:163.
[213] Trumbull, *Colony of Connecticut.* P. II:478.
[214] Trumbull, *Colony of Connecticut.* P. II:494.

The anticipated attacks from the River Indians at Poquiag never materialized although refugee River Indians out of Canada attacked Hatfield and Deerfield on September 19, 1677. The group consisted of 24 Pocumtuck and a Narragansett under the command of Aspelon a Pocumtuck Captain or Sachem. Dozens of settlers were killed or captured which proved to be the final attack on the Connecticut River settlements for decades.[215]

The war in southern New England ended when English soldiers and their Native allies killed Metacom at Mount Hope in present-day Bristol, Rhode Island on August 12, 1676. The war continued in northern New England (primarily on the Maine frontier) until a treaty was signed at Casco Bay in April of 1678. King Philip's War has been described as the deadliest in American history based on English and Native civilian and military casualties relative to the population.[216] By the time the war had ended, colonial authorities estimated that 600 English had been killed, 200 in the Connecticut Valley and 1,200 houses burned. It is impossible to accurately calculate Native casualties but it is estimated that a minimum of 3,000-5,000 Native men, women, and children died in battle and disease, starvation, and exposure, and hundreds more were sold into slavery throughout the Atlantic World.[217] The most graphic and horrific description of the impact of the war upon the Native peoples of southern New England was by Puritan minister and historian Cotton Mather:

> But God hath consumed them by the Sword, and by Famine and by Sickness, it being no unusual thing for those that traverse the woods to find dead Indians up and down, whom either Famine, or sickness, hath caused to die, and there hath been none to bury them.[218]

IV. Key Terrain Features & Loci - Battle of Great Falls/Peskeompskut

The Key Terrain features associated with the Battle of Great Falls battlefield landscape fall into three categories: 1) Terrain features identified from historical records and have yet to be confirmed by direct association with battle-related objects; 2) Terrain features identified in the historical record and directly associated with battle-related objects; and 3) Terrain features not mentioned in the historical record but identified as such based on their direct association with

[215] George Sheldon. History of Deerfield, Vol. I, P. 180-181. Deerfield. 1895.
[216] Jason W. Warren, *Connecticut Unscathed: Victory in the Great Narragansett War 1675-1676* (Norman, OK: University of Oklahoma Press, 2014). P. 4.
[217] John Romeyn Brodhead, Ed. *Documents Relative to the Colonial History of the State of New York* (Albany, NY: Weed, Parsons, and Company, 1855). Pp. 3:243-244.
[218] Drake. *History of King Philip's War*. P. 205.

battle-related objects. Figure 41 identifies the locations of Key Terrain features from all three categories.



Figure 45. Connecticut River, Deerfield MA. View North to South.

1. Connecticut River. The river served as an important resource for Native people in the region who gathered along the river in the spring to fish. The river was also an obstacle to the English, particularly if they were on horseback, as it prevented them from easily crossing from one side to the other (Figure 45). The Connecticut River also served as an important means of communication and transportation for Native people in the region.

2. Locus A: Upper Peskeompskut Village; Locus B: English Retreat (Figures 46-49). No solid physical evidence has been recovered to identify the precise location of the village that is believed to be in the Riverside area of Gill. Three musket balls have been recovered from Riverside; a dropped .66" diameter musket ball from a known location on Walnut Street and impacted .58 and .70" diameter musket balls from unknown location(s) in Riverside. The village is identified as a Key Terrain cultural feature based on historical narratives and was the objective of the English attack.

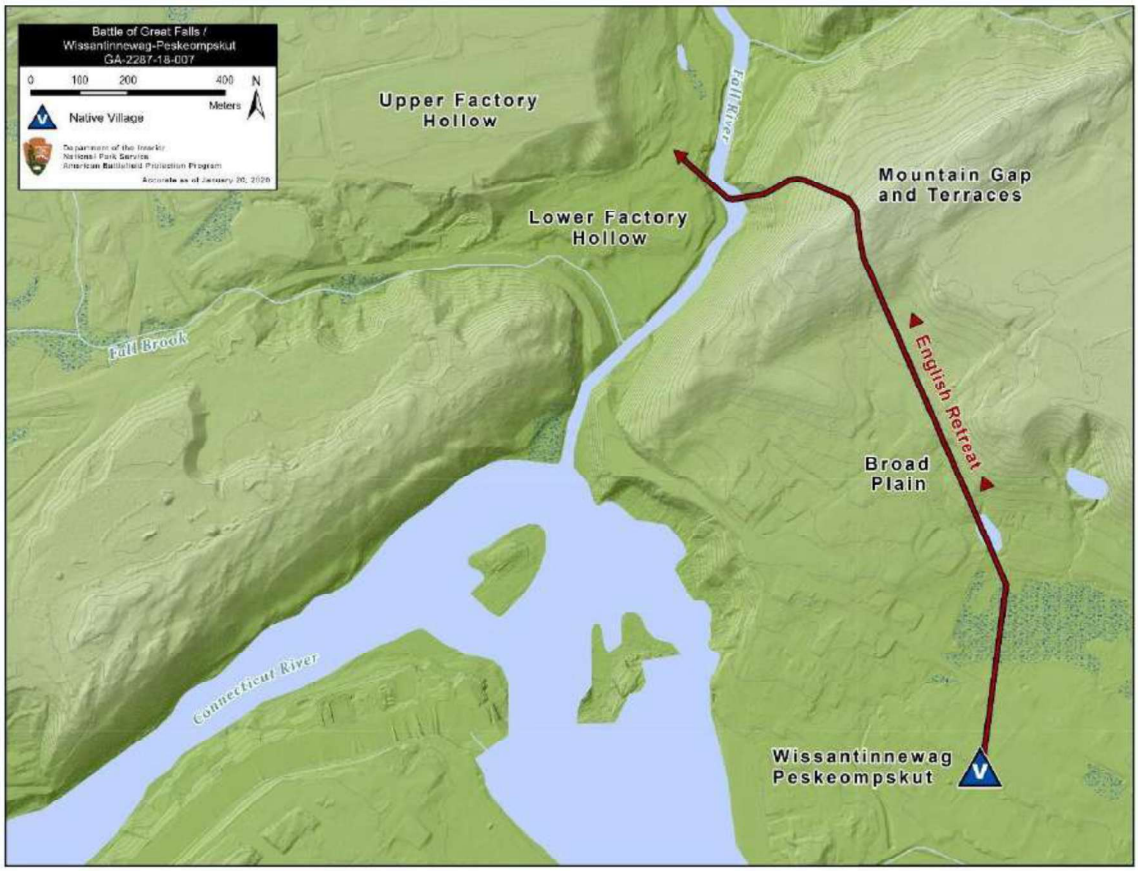


Figure 46. English Retreat, Peskeomskut to Fall River.

The 20 English left behind in the village to cover the retreat of the main body were attacked by Coalition forces from a village across the river. The English fought their way from the village area (Battlefield Locus A) across a broad plain (Battlefield Locus B; Figures 46 & 48) and the slopes leading to the Mountain Gap (Battlefield Locus C). English movements and options were increasingly restricted as they approached the Mountain Gap as evidenced by the distribution of musket balls.



Figure 47. Arial View Loci A-F.



Figure 48. Riverside/Peskeompskut. View S to N from East Bank of Connecticut River.



Figure 49. Battlefield Locus B, Broad Plain leading to Mountain Gap.
View Southeast to Northwest.

3. Locus C: Mountain Gap (Battlefield Locus C; Figures 50 & 51). As the English retreated to the west side of the Fall River where their horses were hitched to saplings they first had to pass through a narrow northwest – southeast trending gap 30 yards long and 20 yards wide through a bedrock ridge. The Mountain Gap exits onto a series of terraces overlooking the Fall River (Figure 51). The bedrock ridge is extremely steep and would have prevented anyone on foot from descending the ridge to the terrace below without going through the Mountain Gap. The Mountain Gap provided the only means of access to the terraces which the English had to traverse to recover their horses on the west side of the Fall River. There is no mention in the historical narratives of this topographic feature, and its identification as a Key Terrain Feature is based on the recovery of over 50 small diameter musket balls that were fired as buckshot from southwest to northeast at a group 20 English as they retreated through the Mountain Gap.

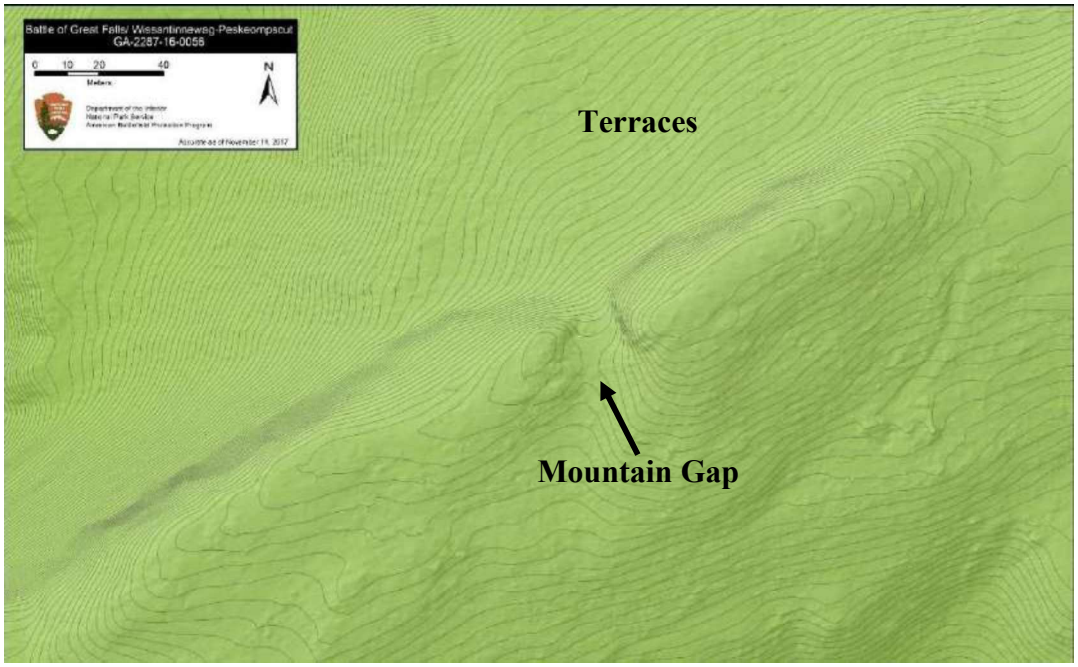


Figure 50. Mountain Gap and Terraces.



Figure 51. The Mountain Gap. View Northwest to Southeast from Terraces.

4. Locus D: Terraces (Battlefield Locus D; Figures 52-54). The terraces are not mentioned in any of the accounts of the battle but are a defining topographic feature based on the distribution of

musket balls. The northwest side of the Mountain Gap exits into an area characterized by relatively flat upper and lower terraces separated by an area of moderate topographic relief extending over an area of approximately eight acres. The western edge/boundary of the terraces overlooks the Fall River 40' – 60' below the terrace edge (Figure 54). The slopes leading down to the river are extremely steep and would have been a serious impediment to anyone attempting to descend (or ascend) to or from the Fall River even on foot. Based on the distribution of musket balls the English used two routes to cross the terraces as they exited the gap and crossed the terraces and descended to the Fall River in two areas along the terrace edge where the topographic relief is not as severe (Figure 52).

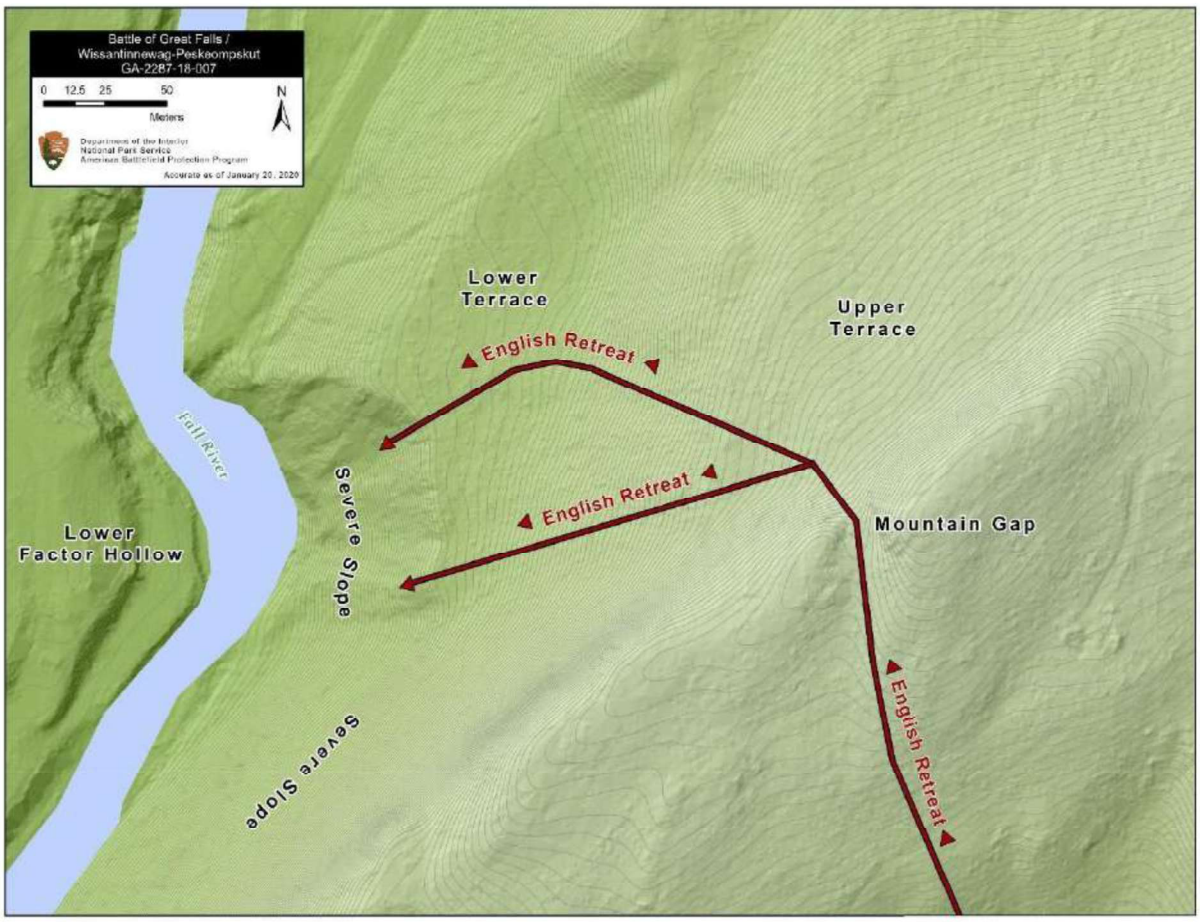


Figure 52. English Retreat, Mountain Gap and Terraces.



Figure 53. Upper Terrace immediately West of Mountain Gap (uphill to right).



Figure 54. Terrace Edge and Severe Slope Overlooking Fall River. View East to West.

5. Fall River (Figures 52, 55-57). The Fall River is considered a key terrain feature as it was used by Native forces from Rawson Island 1.7 miles (2.8 kilometers) down the Connecticut River from the mouth of the Fall River as an avenue to attack the English at the assembly area where their horses were tied (Figure 42). There is a reference in the battlefield narratives to Natives from an island in the Connecticut River using the Fall River to counterattack the English as they reached the Assembly Area to recover their horses:

> a party of Indians from an Island (whose coming on shore might easily have been prevented, and the Souldiers before they set out from *Hadly* were earnestly admonished to take care about that matter) assaulted our men.[219]

The Fall River is very shallow and would not offer any impediment for Coalition forces to travel the .2 miles (3.3 kilometers) north from the mouth of the river to the English Assembly Area in Lower Factory Hollow Area. The reference that the English could easily have prevented the Natives from "an island" from coming ashore suggests a choke point at the confluence of the Fall and Connecticut Rivers where the mouth of the Fall River is flanked on the east and west sides by extremely steep topography (Figure 55).

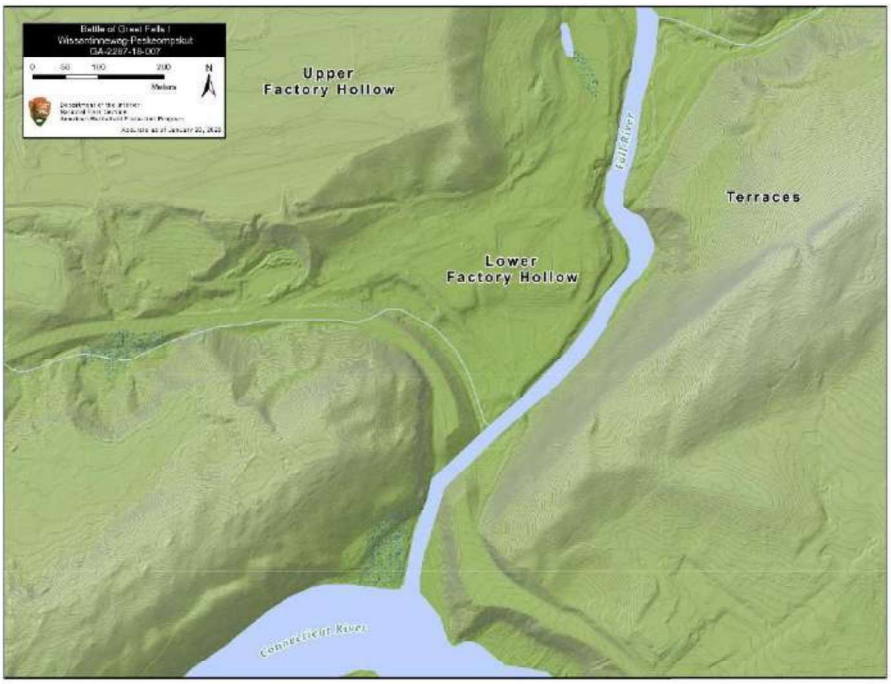


Figure 55. Fall River.

[219] Mather, *A Brief History*. P. 49.



Figure 56. Fall River. Steep Slope between the Terrace edge and the Fall River to Left. View North to South.

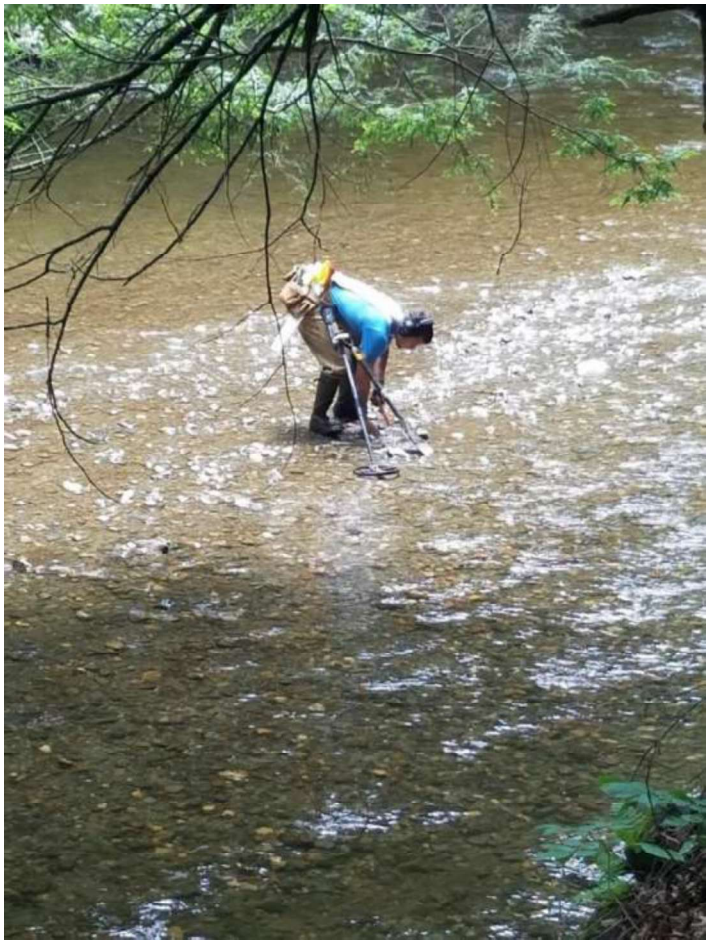


Figure 57. Fall River. Note Shallowness of the River.

6. Locus E: English Assembly Area - Lower Factory Hollow (Battlefield Locus E; Figures 57-59). The Factory Hollow area is located on the west side of the Fall River and is divided into lower and upper sections (Figure 58). The Lower Factory Hollow area (English Assembly Area) is believed to be where English forces dismounted and hitched their horses to young trees before making their way east on foot across the Fall River. There they ascended the steep slope to their east leading to the Terraces and through the Mountain Gap. The English Assembly Area is a Key Terrain feature as it was a focal point of the initial Native Coalition counterassault on the English guarding those horses to prevent the main body of troops from recovering their horses. From an English perspective control of the assembly area and recovering their horses was critical to facilitating their retreat. Lower Factory Hollow is a 10-acre terrace with a slight incline trending west to a steep slope that abruptly rises 40' to Upper Factory Hollow (Figure 58). The steep slope would be difficult for horses to ascend or descend but is interspersed with several swales or erosional gullies (low area or depression of lesser topographic relief) leading from Lower to the Upper Factory Hollow Area (Figures 58 & 60). A brief reference by Hubbard is the only primary source that mentions the horse tie down area:

> When they [English] came near the Indians rendezvous, they alighted off their horses, and tied to them to some young trees at a quarter of a mile distance, so marching up, they fired briskly into their wigwams.[220]

Hubbard clearly states that the English tied their horses a quarter of a mile distance from where they dismounted, not a quarter mile from the village as Stephen Williams' narrative states. Presumably the English dismounted in Lower Factory Hollow and tied their horses a quarter of a mile away likely because the young trees (saplings) offered a convenient way to tie their horses. It is estimated that 15-20 soldiers were left to tend the horses (7-9 horses per man). Assuming 150 soldiers, the attacking force would have been reduced to 130-135 soldiers.

[220] Hubbard. *A Narrative of the Indian Wars.* P. 85.

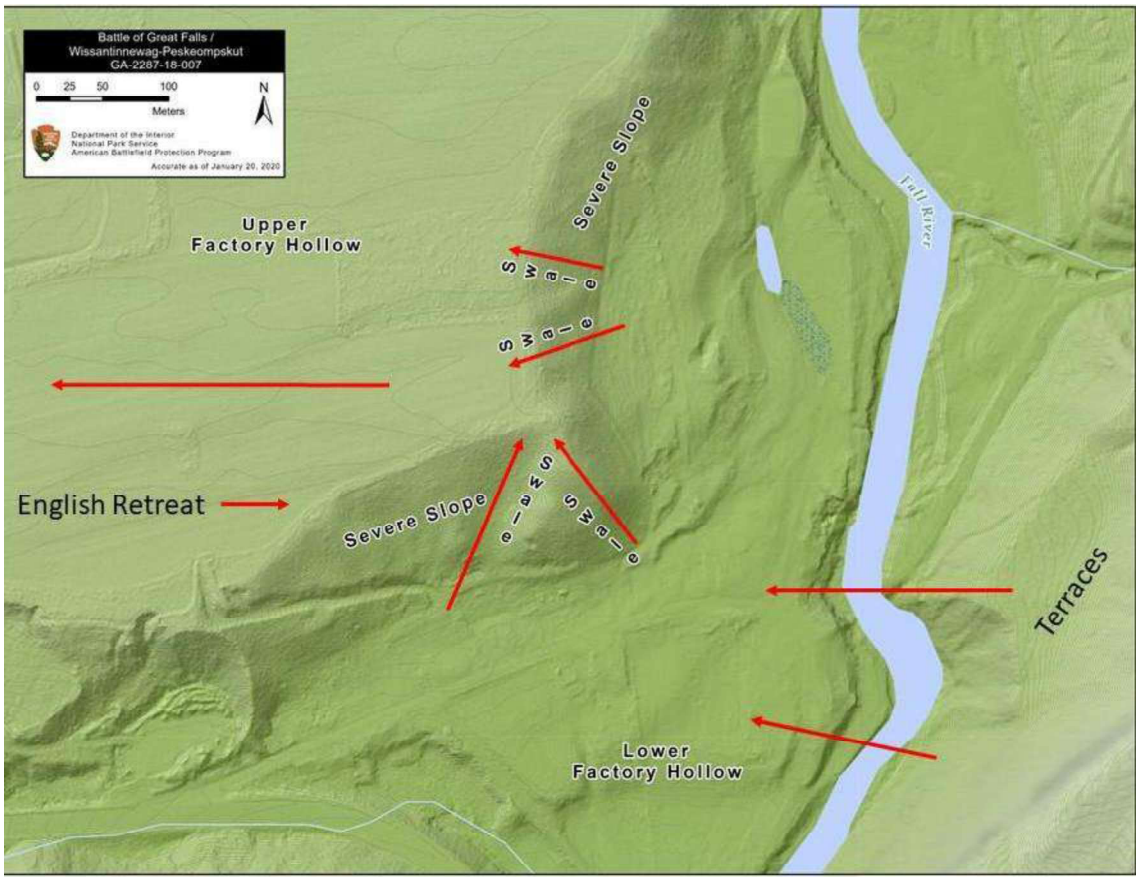


Figure 58. English Retreat Lower Factory Hollow and English Assembly Area.

Unfortunately Hubbard's brief reference does not provide any information regarding the precise location where the English tied their horses, but the location should have a recognizable archaeological signature as the group of 20 English who had stayed behind at Peskeompskut to fire upon Natives crossing the Connecticut River in canoes "were forced to dispute ye point with the enemy a considerable time to recover their horses[221] The soldiers guarding the horses also came under attack presumably from Coalition forces coming up the Fall River "For some of the enemy fell upon the Guards that kept the horses."[222] The argument that the Lower Factory Hollow Area is the location of the English Assembly Area is based on the following inferences:

1. The very steep terrain on the east side of the Fall River would have been nearly impossible to ascend (or descend) on horseback suggesting the horse tie down area was on the west side of the river.

[221] Thomas. "Rev. Stephen Williams's Notebook." P. 15.
[222] Hubbard. *Narrative of the Indian Wars*. P. 206

2. The further the English moved east of the Fall River if they were on horseback increased the likelihood they would be discovered if they approached within only one quarter mile from the village.

3. The swales leading up the severe slope from Lower to Upper Factory Hollow had high concentrations of impacted musket balls indicating they were used by the retreating English after they recovered their horses from Lower Factory Hollow. Additionally, only the swales contained musket balls and any other areas of the slope which would have been extremely difficult to traverse on horseback.

4. There is evidence of horse tack in several areas of Lower and Upper Factory Hollow. In Upper Factory Hollow the horse tack is surrounded by musket balls suggesting the English were fired upon as they exited the swales to Upper Factory Hollow and some may have used downed horses as cover or were pinned by their wounded horses drawing fire.

5. There is an abrupt end to the distribution of musket balls in the Upper Factory Hollow Area suggesting the retreating English were mounted and were able to outdistance their attackers once they reached the level ground in Upper Factory Hollow. From that point the English retreated west to the north side of the White Ash Swamp.

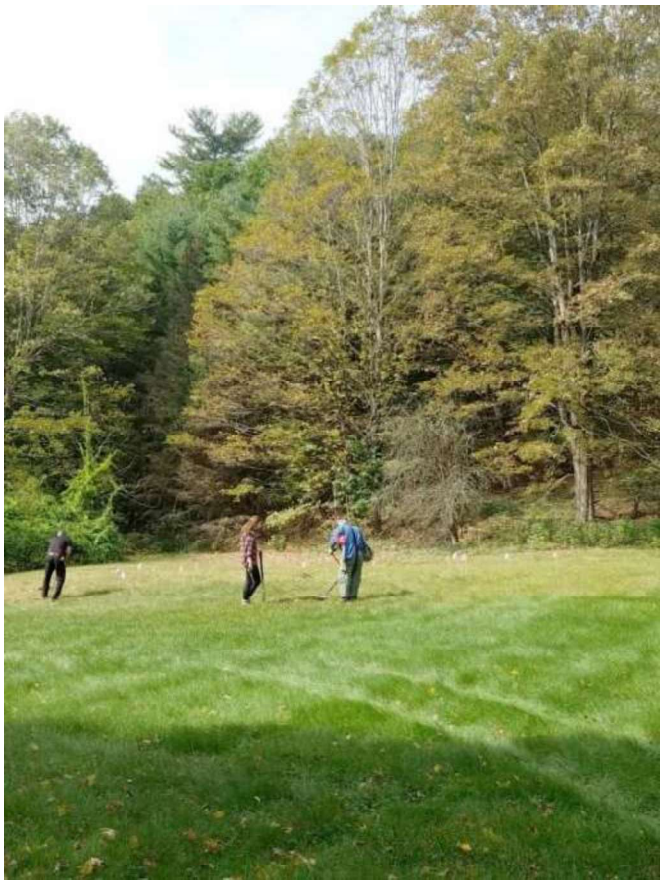


Figure 59. Lower Factory Hollow.



Figure 60. Swale Leading Upslope from Lower to Upper Factory Hollow. View East to West. Pink Flags Mark Musket Balls.

7. Locus F: Upper Factory Hollow (Battlefield Locus F; Figures 57 & 60). Upper Factory Hollow is a level plain 50 acres in extent rising 40 feet above Lower Factory Hollow. The landform begins at the top of the severe slope leading from Lower Factory Hollow and extends west to Factory Hollow Brook and eventually White Ash Swamp (Figure 60). Upper Factory Hollow is defining terrain as it provided the mounted English with an opportunity to out distance Coalition forces for a short time until they were ambushed at the White Ash Swamp 0.5 miles to the west.



Figure 61. Upper Factory Hollow. Swales to Left. View East to West.

8. Locus G: White Ash Swamp (Battlefield Locus G; Figures 62-64). The White Ash Swamp is considered a key terrain feature as the swamp (as well as Cherry Rum Brook) was used by at least the main body of English to orient themselves during the retreat. The swamp also provided cover and concealment for Coalition forces who ambushed the English them as they rode along the northern edge of the swamp (based on the distribution of musket balls). By the time the English reached White Ash Swamp after exiting Upper Factory Hollow .5 miles to the east, Coalition forces (perhaps from Rawson Island) had taken up positions in the swamp to ambush the English, splitting them into several groups in their panic to escape. According to William Harris the English suffered most of their casualties in the swamp ambush:

On their route the Indians had laid ambush in a swamp, but as the English were not all together, only part of them went that way. The ambushing Indians slew many of that group, in fact, about thirty-eight[223]

A Small company y^{t} Separatd from others – y^{t} ran upon a parsell of indians near a Swamp & were most of y^{e} killd.[224]

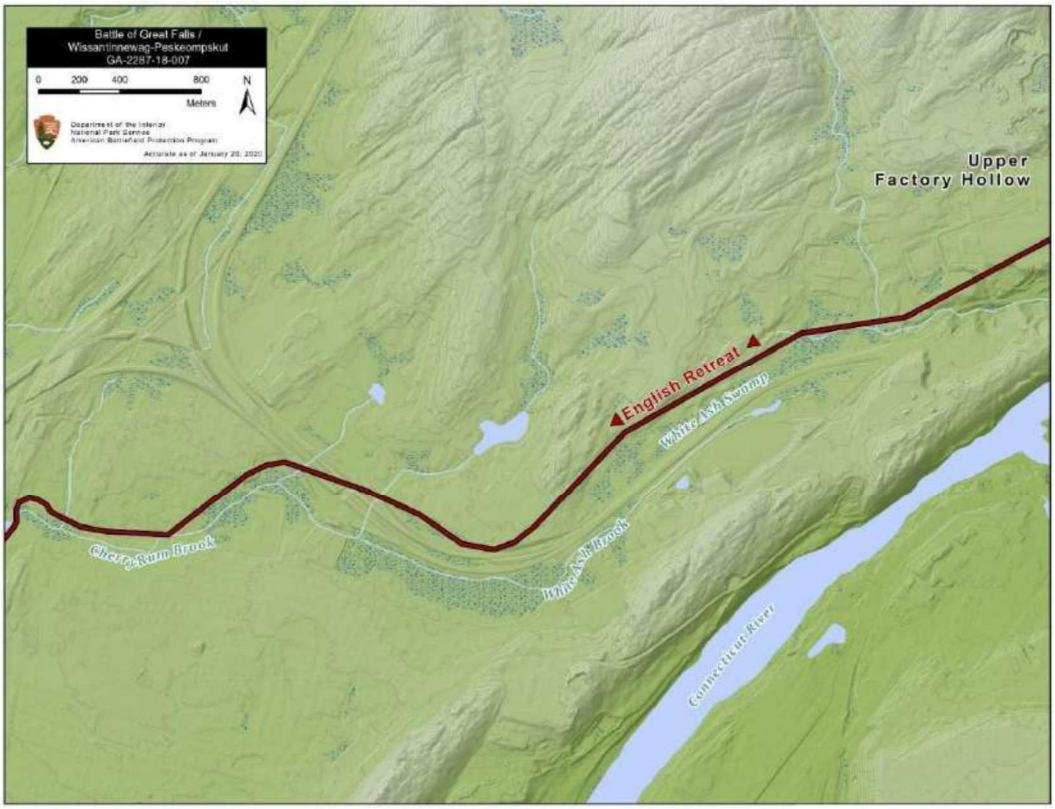


Figure 62. White Ash Swamp.

White Ash Swamp begins approximately .5 miles (.8 kilometers) west of Upper Factory Hollow and extends westerly for .6 miles (1 kilometer) to within .2 miles (.3 kilometers) of Cherry Rum Brook (Figures 62-64). Much of the center of White Ash Swamp has been filled to construct Routes 2 and 2A but the northern and southern margins of the swamp are relatively intact.

Based on the distribution of musket balls the English retreated along the northern edge of the swamp where the terrain was dry and fairly level, keeping the swamp in view on their left to orient themselves. The direction of fire could be determined for some of the musket balls,

[223] Douglas Leach, Ed. *A Rhode Islander Reports on King Philip's War: The Second William Harris Letter of August, 1676, P.* 77, Providence, RI: Rhode Island Historical Society, 1963.
[224] Thomas. "Rev. Stephen Williams's Notebook." P. 15.

indicating they were fired by Coalition forces north from the swamp toward the English retreating along the slightly higher ground along the northern border of the swamp. The Coalition forces, surmising the English would retreat along the swamp and brook, were able to lay ambushes along the way and appear to have continuously attacked the English for 3 miles (4.8 kilometers) to the Green River Ford.



Figure 63. White Ash Swamp and Firm Ground and Route English Traversed North of White Ash Swamp. Swamp in Background. View West to East. Pink Flags Mark Musket Balls.

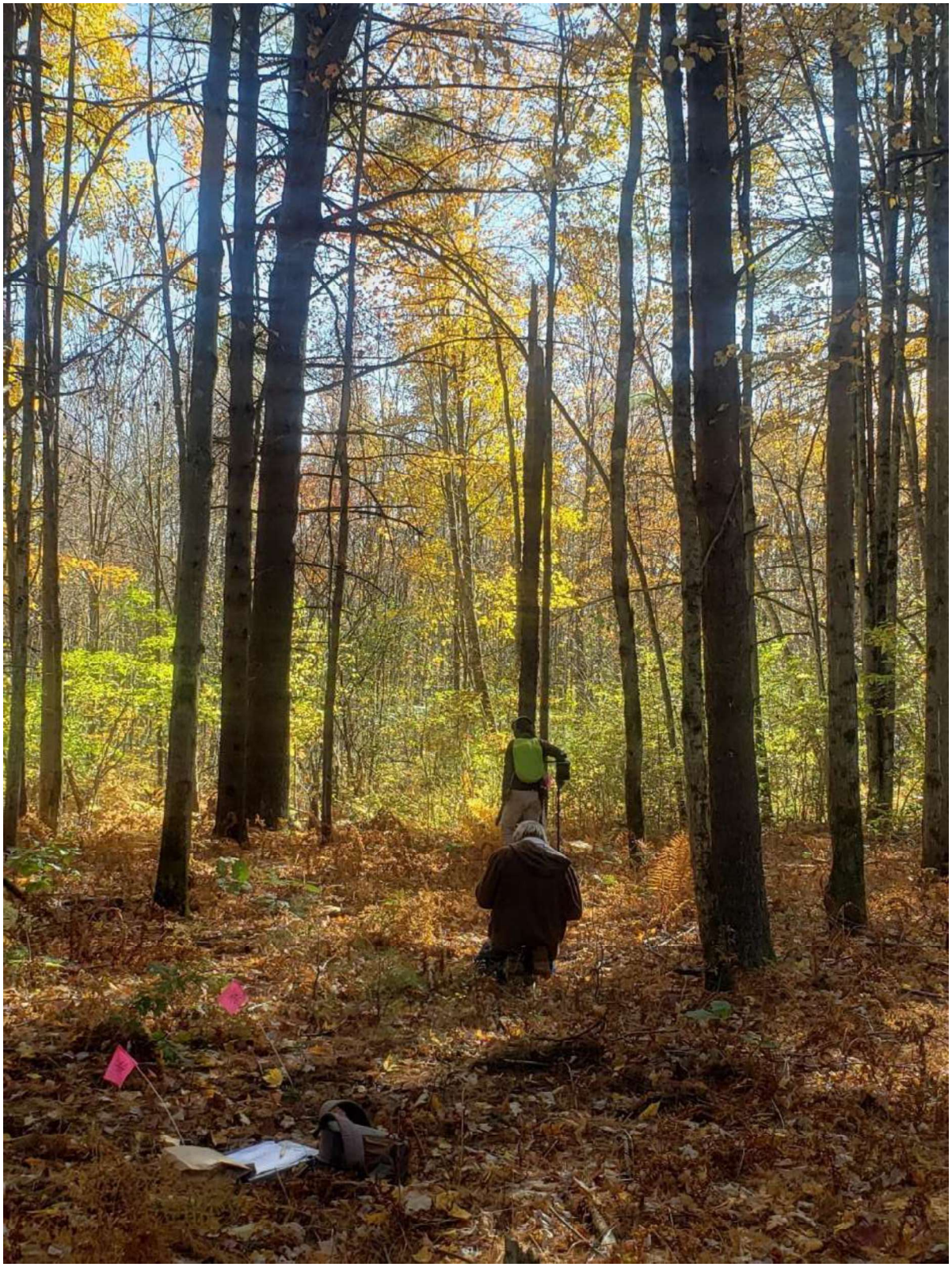


Figure 64. White Ash Swamp in Background. View N to S. Pink Flags Mark Musket Balls.

10. Locus H: Cherry Rum Brook Engagement; Locus I: Cherry Rum Brook (Battlefield Loci H and I; Figures 65-67). When the English exited White Ash Swamp, they followed the Cherry Rum Brook for approximately 2-miles to the confluence with the Green River and the Green River Ford (Figure 65). The Cherry Rum Brook is considered a Key Terrain Feature as it was primary English route of approach and retreat during the battle. Despite the meandering brook through several wetlands with many twists and turns, the English never veered from the brook although they could have shortened the distance by cutting across some of the meanders. This pattern indicates the English were in unfamiliar territory and needed the brook to orient themselves, choosing the dangers of ambushes rather than cutting across country. The distribution of musket balls along the brook is almost continuous indicating Coalition forces could keep up with the mounted English in the difficult terrain and could also easily predict the route of the English retreat and set ambushes along the way. It is unlikely the English were following a Native trail or path that paralleled the brook given the difficulty of the terrain and the many meanders.

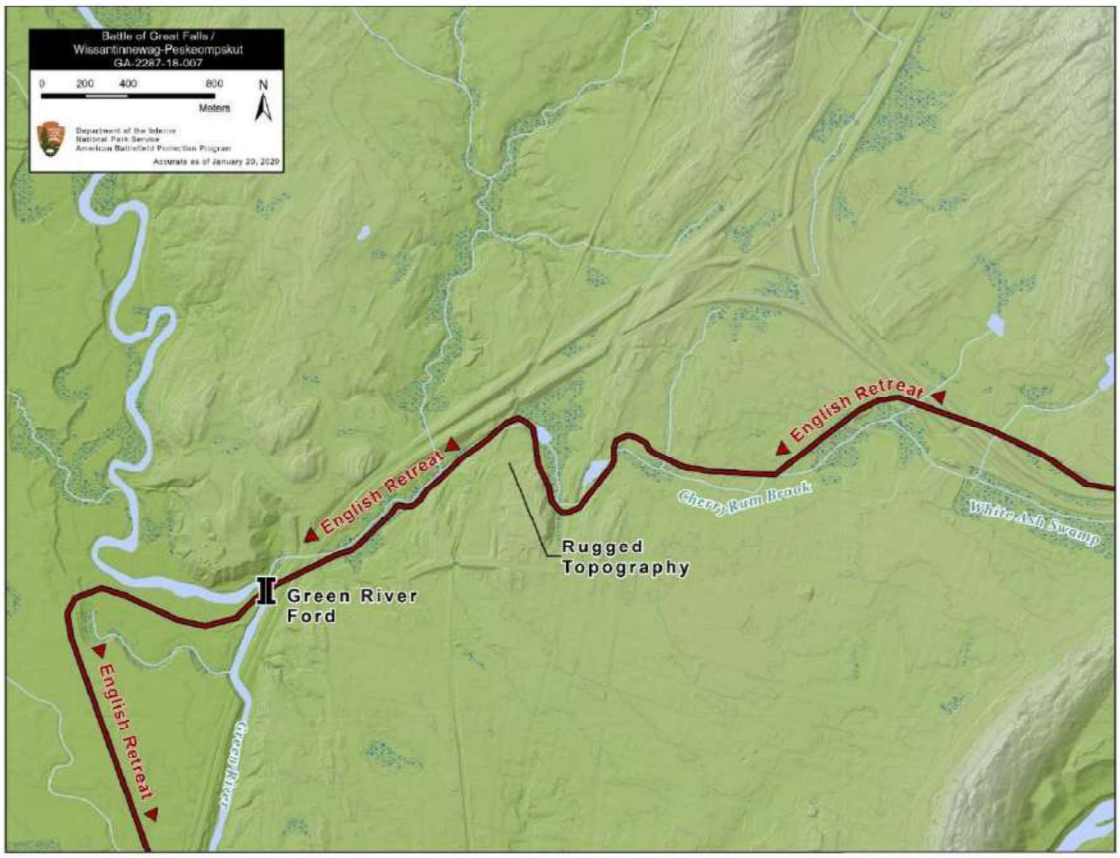


Figure 65. English Retreat Along Cherry Rum Brook. Battlefield Loci H and I.

In Jonathan Wells' narrative of his experiences in the battle he described how, after being separated from the main body of English troops, he followed a "track of ye company" although it is unclear whether he was referring to an established trail, footpath, or simply hoof prints:

> …abt 2 miles [approximately one mile west of Factory Hollow] from y^{e} place where y^{y} did y^{e} Exploit &c & when y^{y} had left y^{e} track of y^{e} company & were unacquainted wth y^{e} woods.[225]

The Cherry Rum Brook flows through highly variable terrain ranging from relatively flat and level topography to topography that rises steeply 50-60 feet above the brook. The rugged topography in some areas would have restricted the movements of the mounted English to a very narrow area between the brook and the foot of the slope. In some sections of the brook the topography is so severe it would have been very difficult for horses to negotiate (Figures 66, 67).

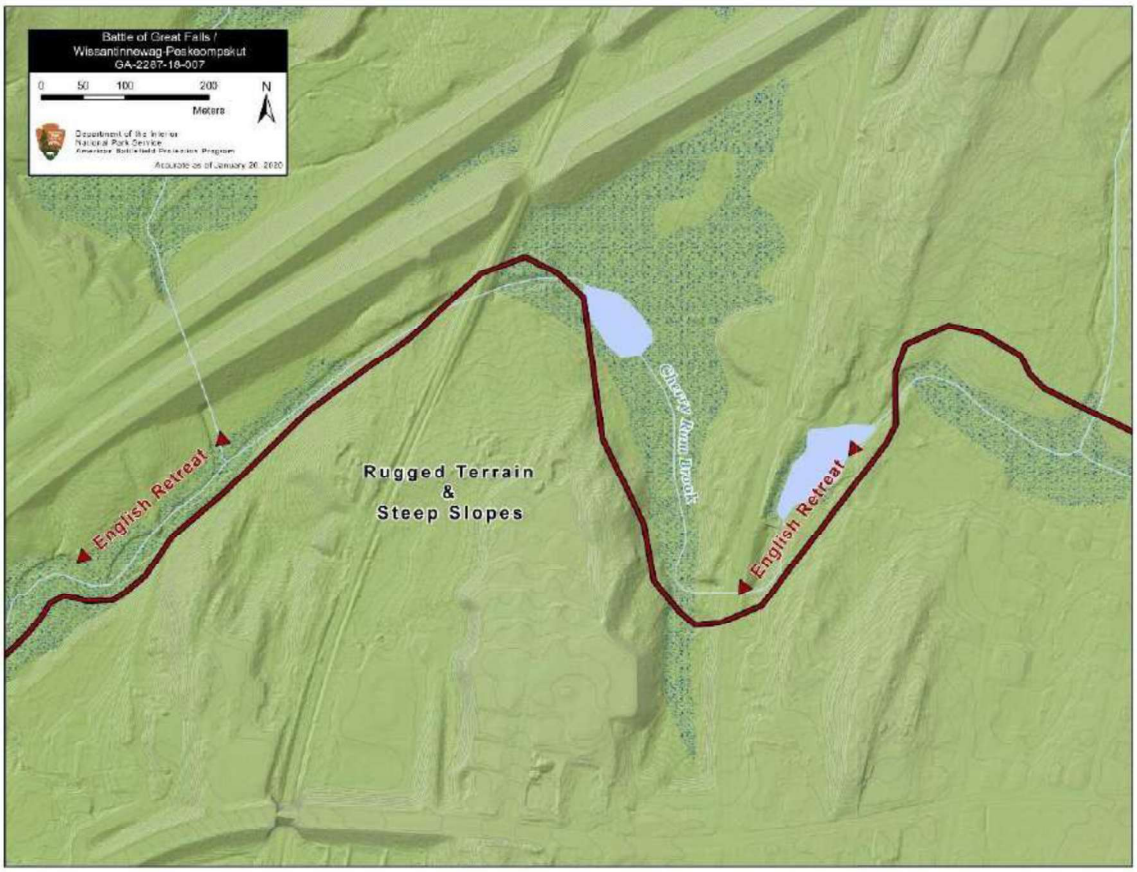


Figure 66. Battlefield Locus I, Cherry Rum Brook Steep Terrain.

[225] Thomas. "Rev. Stephen Williams's Notebook." P. 24.



Figure 67. Cherry Rum Brook Area of Steep Terrain. View North to South. Cherry Rum Brook to Left (East).



Figure 68. Cherry Rum Brook Area of Steep Terrain. View North to South. Cherry Rum Brook to Left (East). Pink Flags Mark Musket Balls.

The stream bed of the brook is packed gravel and very solid, sufficient to support horses along almost the entire distance to the Green River Ford. The stream bed is generally only 30 feet wide so the English could ride two abreast for most of the way. If that was the case, and assuming the main body at that time was about 80 soldiers riding abreast, the column would have stretched around 300-yards along the brook. In some areas along the brook the terrain on either side of the stream was level with little topographic relief that would have allowed the English to leave the stream bed and fan out along both sides of the brook (Battlefield Locus H; Figures 67-71).

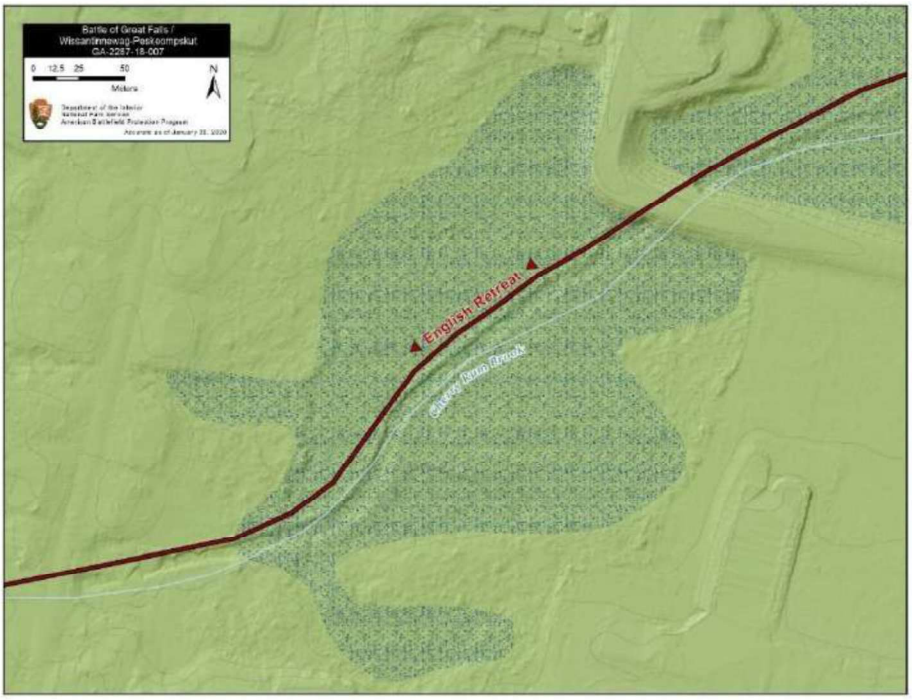


Figure 69. Locus H, Cherry Rum Brook and Wetland.

Locus H is an area of very flat and level terrain, essentially a small floodplain associated with the Cherry Rum Brook. It is currently classified as a wetland and may have supported dense vegetation at the time of the battle, what the English would have described as a thicket (Figures 67-71). The area is approximately 6-acres and extends for 85 yards on either side of the brook. More than 150 musket balls were recovered from the area, the vast majority believed to be English fire. If the wetland vegetation provided sufficient cover to potentially conceal Coalition forces waiting in ambush, the English may have preemptively fired volleys of musket balls into the thicket on either side of the brook. Locus I include the remainder of the Cherry Rum Brook to the west of Locus H as it passes through varied terrain of wetlands, floodplains, and rugged, high hills along

much of its southern course before meeting the Mill Brook. Locus I is distinctly different than the preceding Loci as it contains a far lower musket ball distribution along the route. Although lead shot was recovered along the entire stretch of the Cherry Rum Brook there were three areas marked by higher concentrations of dropped and impacted musket balls, much of which appeared to be Coalition fire that originated from the abutting wetlands.



Figure 70. Cherry Rum Brook, Battlefield Locus H.
Area of Low Topographic Relief to North and South. View East to West.

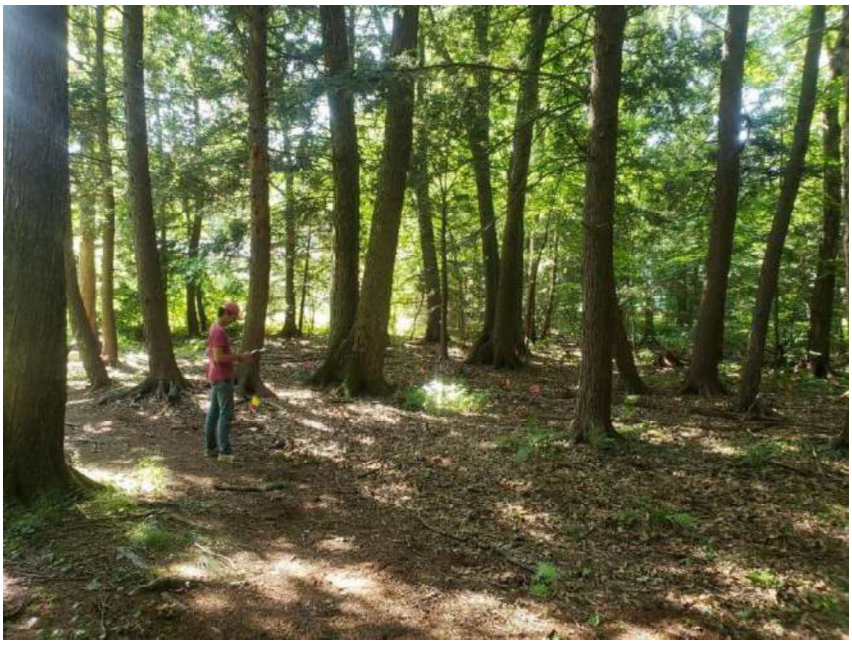


Figure 71. Cherry Rum Brook Battlefield Locus H. Area of Low Topographic Relief.
View from Cherry Rum Brook to North. Pink and Yellow Flags Mark Musket Balls.

11. Locus J: Green River Ford (Battlefield Locus J; Figures 72-75). The Green River Ford is located at the confluence of the Green River and Mill Brook. The Green River Ford is considered a Key Terrain Feature as it was used by the English to cross the Green River on their approach to Peskeompskut and was their intended destination as they followed the Cherry Rum Brook to Mill Brook on the way to the ford. The fording location and the approach to it was controlled by Native Coalition forces who positioned themselves to the west of Mill Brook on a terrace and slope 40 feet above the ford to ambush the English (Figure 72). Other Native Coalition forces defended the ford crossing itself while others may have taken positions on the hill east of the ford location which has been significantly impacted by the twentieth century construction of Interstate 91. The ford served as a chokepoint as steep terrain on both sides of the Cherry Rum Brook funneled the English into a narrow defile making it easy for Coalition forces to concentrate their fire exactly where the English would cross the river as well as the approach to it. Dozens of musket balls were recovered from the terrace slope because of English fire directed at Native forces positioned there. The landscape in the general area of the ford has been extensively disturbed from various construction projects over the years, particularly on the west side of the ford.

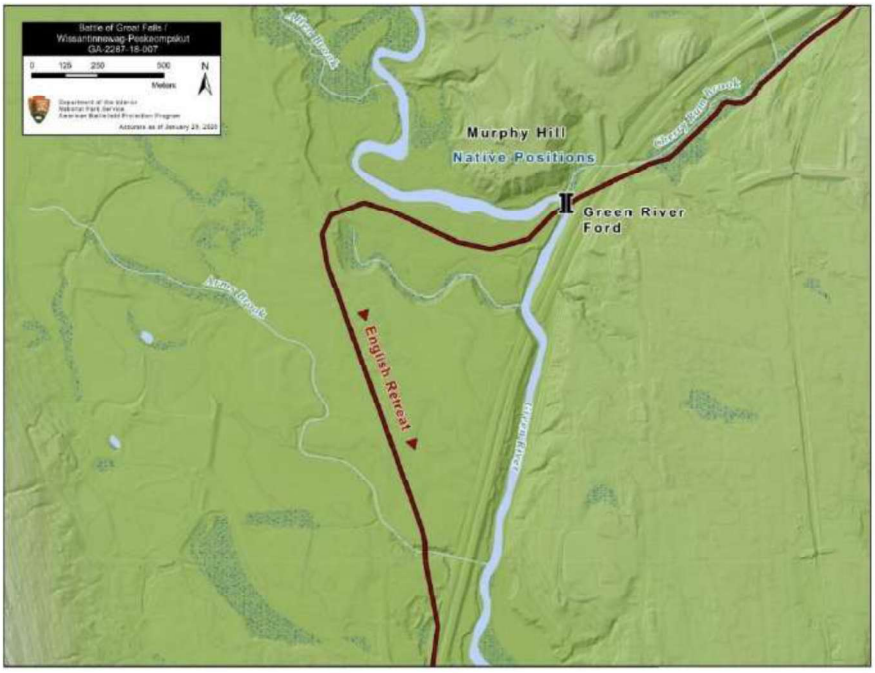


Figure 72. Green River Ford and English Retreat from Cherry Rum Brook and Mill Brook.

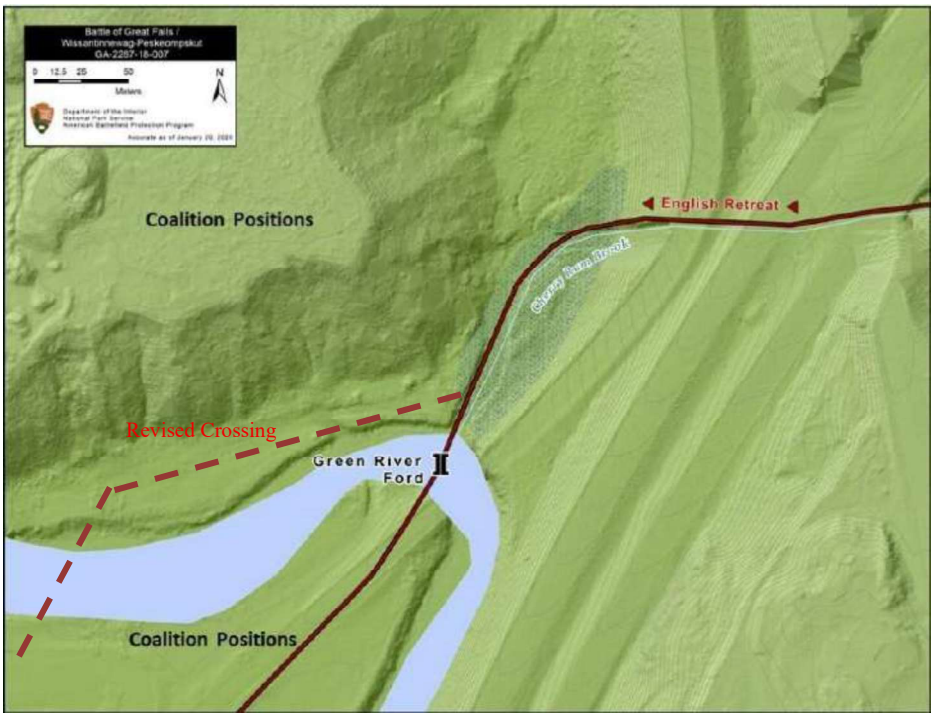


Figure 73. Battlefield Locus J, Green River Ford and Coalition Positions.

Captain Turner was killed on the west side of the ford as he attempted to lead English troops across the Green River. Both Native combatants and English burial parties reported the location of Turner's body on the west side of the Green River Ford:

> Within a few days after this, Capt. *Turners* dead Corps was found a small distance from the River.[226]

> John Wecopeak, on his Examination saith… that he saw Capt. Turner, and that he was shott in the Thigh, and that he knew it was him, for the said Turner said that was his name.[227]

Native Coalition forces appear to have successfully defended the ford from the advancing English column. Now under the command of Captain Holyoke, English troops retreated west along the north side of the Green River and at the base of the steep hill where Native Coalition troops were positioned behind the cover of trees and vegetation. English troops charged west while firing at Coalition forces on the hillside, eventually crossing the Green River approximately 150 yards west of the usual fording location. As Native Coalition forces displaced and repositioned to reengage

[226] Mather. *A Brief History*, P. 50.
[227] Easton. *A Narrative Of the Causes.* P. 179.

fleeing English troops, Holyoke led approximately 60-80 men west towards flat ground and the trail they followed during their route of approach hours earlier.



Figure 74. Green River Ford. Mill Brook at Left. View West to East.



Figure 75. High Terrace and Coalition Positions Overlooking Green River Ford. View West to East.

12. Green River (Battlefield Locus K; (Figure 76). Known as the Pukcommeagon River prior to English colonization, the Green River is a tributary to the Deerfield River and served as a transportation and communication corridor for the Native people in the middle Connecticut Valley. It extends more than 28 miles north and west into the Berkshire Mountains and Windham County, Vermont from its confluence with the Pocumtuck, or Deerfield River. The river was a minor obstacle for the English along their avenue of approach to Peskeompskut and their later avenue of retreat. Although there was a commonly used fording location near Mill Brook, the Green River could easily be crossed at any point because it was shallow, and the riverbank was not too steep. Based on English accounts Coalition forces continued to pursue and attack the English after they forded the Deerfield River.



Figure 76. Locus J Green River Ford. View West to East Facing Ford in Far Background. Flags Mark Musket Balls and English Crossing.

13. Locus K: Holyoke's Retreat (Battlefield Locus K; Figures 77-79). The route of English retreat west from the Green River Ford to the Deerfield River Ford was largely dictated by a series of deep gulleys or ravines that extended west from the Green River at regular intervals, cutting into the flat terraces along the Green River. These gulleys were impassable on horseback and the

closest distance to the Green River where they could be crossed ranged between 200 and 800 yards (Figure 77). Arms Brook runs southeasterly across the open plains to the Green River approximately a half mile south of the Green River Ford and its path is also marked by a gulley which becomes increasingly deep as it nears the Green River. Arms Brook was not only an obstacle for retreating English forces but also served as useful cover and concealment for Coalition Forces at times and may have also been used as a route of approach for pursuing Coalition troops.

This phase of the fighting is also characterized by Captain Holyoke taking overall command of retreating English forces who implemented a new strategy moving forward which was credited for limiting English casualties going forward. According to two separate sources, Captain Holyoke's personal example of being at the forefront of action, combined with keeping his remaining men in a tight formation (close order) rather than spread out in a thin column, saved English forces from destruction.

> But Captain *Holyoke* exhorted them not to be terrifiyed, saying God hath wrought hitherto for us wonderfully, let us trust in him still: and reducing his men into close order made a safe and a valiant retreat, and preserved the Souldiers under him; that there were but few of them slain.[228]

> And if Capt. *Holioke* had not played the man at a more then ordinary rate, sometimes in the Front, sometimes in the flank and reer, at all times encouraging the Souldiers, it might have proved a fatal business to the assailants.[229]

Based on the distribution of musket balls and terrain features, the terraces provided a significant advantage to the mounted English who had a superior line of sight riding atop horses and could outdistance their attackers if the opportunity existed. It also appears that Native Coalition forces had troops deployed to the terraces the English needed to traverse likely slowing their retreat or impacting their route of retreat. Musket balls, personal equipment (sword scabbard tip, brass spur fragments, buttons), and a possible seventeenth century horseshoe fragment, indicate that fighting continued unabatedly as Native Coalition forces attacked the English as the retreated in close order south towards the Deerfield River Ford.

[228] L'Estrange. *A True Acount*. P. 4
[229] Hubbard. *A Narrative of the Troubles*. P. 86.

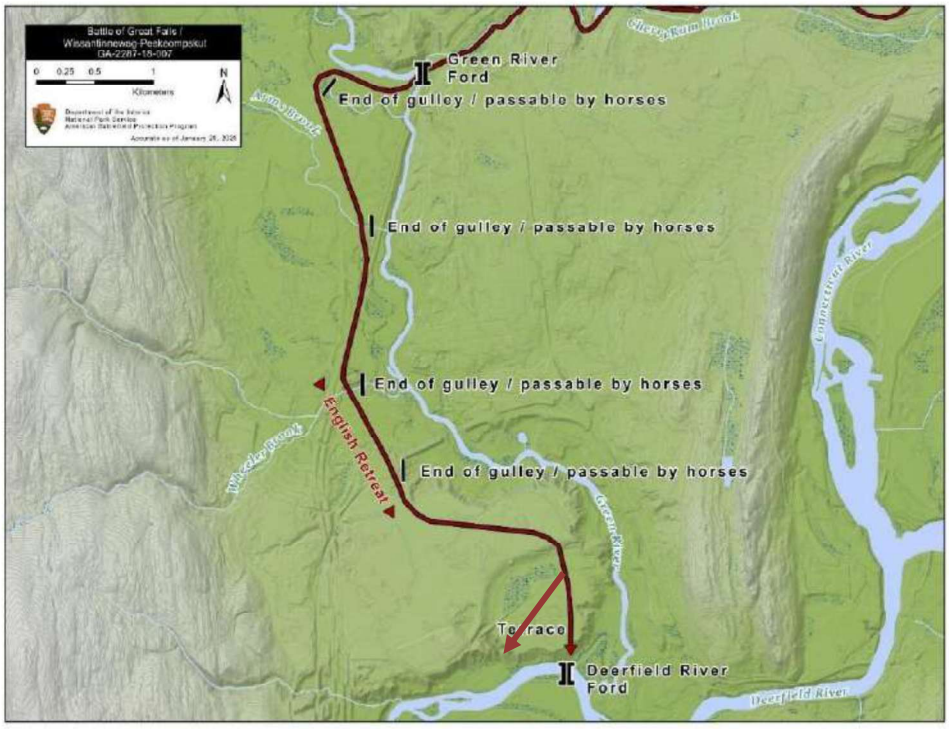


Figure 77. English Route of Retreat. Green River Terraces, Petty Plain. Green River Ford to Deerfield River Ford.



Figure 78. Terrace Edge, Steep Slope, and Gulley. View North to South from Nash's Mill Road.



Figure 79. Locus K Green River Terraces.
View South to North. Tree line in Background Marks Gulley.

14. Locus M: Petty Plain (Figures 80-82). On their retreat to the Deerfield River, English Forces under the command of Captain Holyoke advanced in a southwesterly direction keeping the Green River to their east. Approximately a mile south of Arms Brook, English forces crossed Smead Brook and ascended a hill immediately to their southwest in the vicinity of present-day Fairview Street. The hill then opened to an extensive, level, plateau which extends east to the Green River and South to the Deerfield River. This landscape feature includes extensive level sandy plains which historically was home to coniferous pinewood forests. The Petty Plain landscape feature is considered a Key Terrain Feature as English forces had to negotiate the hill and plateau in order to reach the fords that crossed the Deerfield River. At the time of the battle there likely existed several major footpaths that traversed the plateau while there were at least two fords to the south of the landform crossing the Deerfield River and at least one ford to the east crossing the Green River.

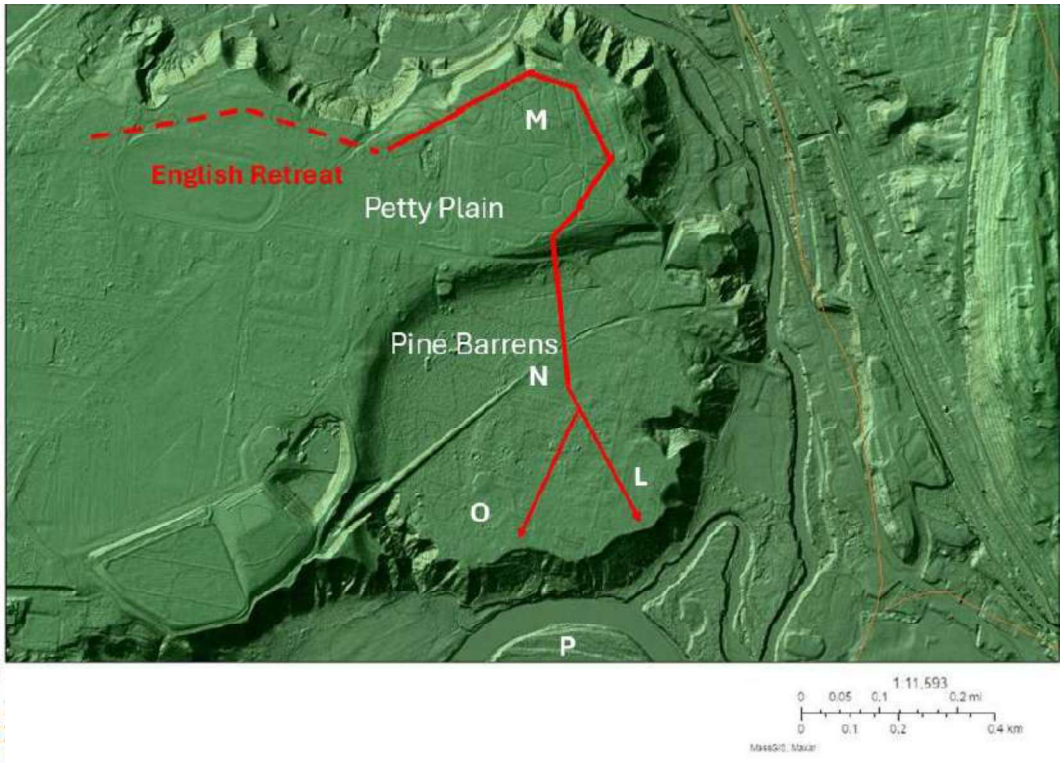


Figure 80. English Retreat, Petty Plain and Pine Barrens.

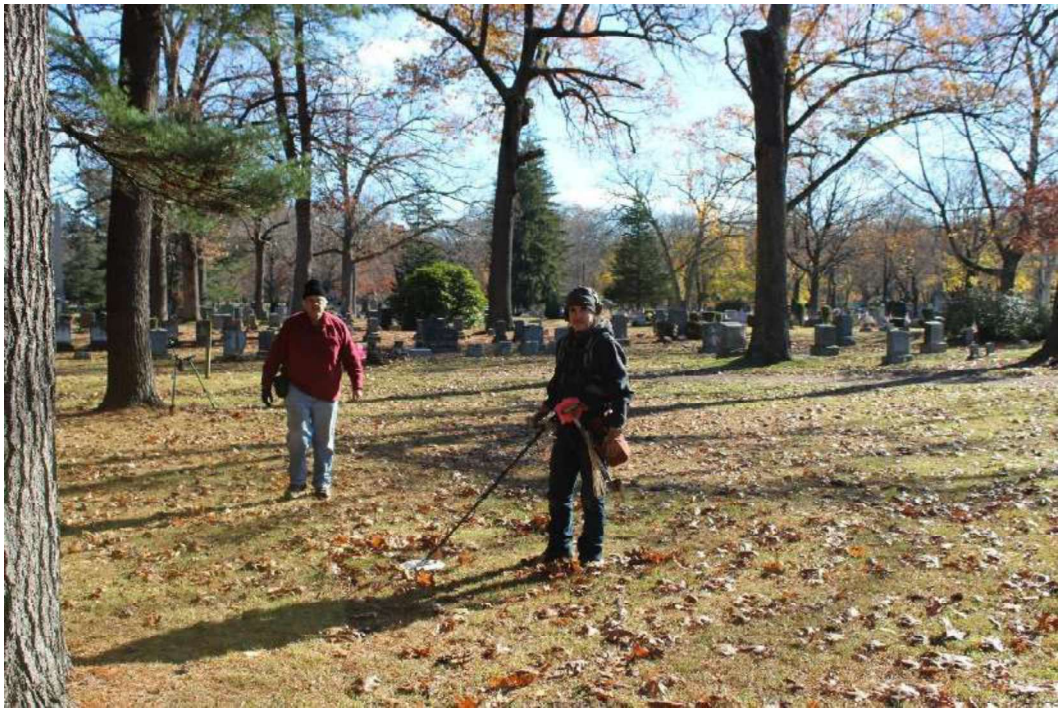


Figure 81. Locus M Petty Plain, Green River Cemetery.

The landform was referred to as “Petty Plain” by English colonists since at least the eighteenth century while much of the land was described as “Pine Barrens” through the nineteenth century. The soils are sandy and well drained while there are pockets of wetlands on the lower, southern end of the plateau. There are several rivulets and small streams that run off the landform and empty in the Green and Deerfield Rivers below which resulted in several deep gorges and significant erosion over time. Since the late eighteenth century Petty Plain was a source of pinewood and by the nineteenth century some lots were cultivated for agricultural purposes. In



Figure 82. Locus M. Ridge Defining Southern Boundary of Petty Plain. View South to North.

1848 the Franklin County Fair was established, which grew to encompass a large portion of northern Petty Plain while to the east the Green River Cemetery was founded in 1853 which covers much of the northeast portion of Petty Plain. A railroad was built in a southwest to northeasterly direction in the late nineteenth century to access the industrialized Green River but was abandoned after a few years of use. Much of the Petty Plain landform was developed with residential housing from the mid-nineteenth century through the post-World War II era.

As English forces crossed Petty Plain, Lieutenant Holyoke appears to have followed a less direct round across the plains opting to take a route closer to the northern and eastern edge of the plateau near the Green River as evident by the distribution of impacted lead shot marking their route. This strategy may have been designed to avoid established paths along Petty Plain where Coalition Forces may have been positioned and to lessen the chance of ambush. English forces the

retreated directly south as dictated by the eastern edge of Petty Plain. There they descended the upper plateau to the lower plain, often referred to in the historical record as the Pine Barrens.

15. Locus N: Light Skirmishing; (Battlefield Locus N; Figures 80, 83). The lower plains on the large plateau known as Petty Plain are not as extensive as the upper areas to the north and west of this feature. A neck of land that runs northeast to the southwest along the western portion of the lower plains abutted to the west by an extensive wetland and to the east by what was a small shallow pond or swamp. Further east was a gorge running west to east towards the Green River which also formed an obstacle to northern and southern movement along the eastern end of the plain. This area of Petty Plain was historically referred to as the "Pine Barrens" which also speaks to the landscape from the English perspective as being unproductive agriculturally (barren) but a source of pinewood. The land was likely forested by pine trees as well throughout the seventeenth century.



Figure 83. Locus N Light Skirmishing.

As the English were forced to advance through the lower, forested, region of Petty Plain they took fire from Native American Coalition forces prepositioned there. Locus N consists of a light concentration of lead shot south of the Green River Cemetery and Petty Plain Road in two

linear patterns of impacted musket balls, as well as a dropped Coalition musket ball. The fighting appears to have been brief. As the English continued south, they were forced to pass a large swamp on their western flank.

16. Locus O: Pine Barrens (Battlefield Locus O); Figures 80, 84, 85). As noted, this southern area of the Petty Plain landscape feature was referred to as the "Pine Barrens" since the eighteenth century and remained a local source for pine trees for many years. Locus O includes areas of flat terrain bounded to the west by a large swamp and wetlands, south by steep, rugged terrain and a deep gulley that leads to the Deerfield River, and a low former wetland area to the east. This landscape essentially forms a flat north-south corridor of traversable land between two swamps which meets the steep gulley that leads to the Deerfield River below. It is possible that the steep gulley that exists today was less treacherous in the seventeenth century and may have been a route of approach to one of the two fords that crossed the Deerfield. At the time of the battle the landscape was likely a pinewood forest.



Figure 84. Locus O Pine Barrens.



Figure 85. Locus O Pine Barrens. Flags Mark Coalition Buckshot Blast.

Locus O is a Key Terrain Feature as the constricted traversable ground afforded only one viable route of approach to the Deerfield River. The large swamp to the west and smaller wetland to the east provided cover and concealment for Native American Coalition forces. Locus O contains the highest density of lead shot recovered from any of the Loci which indicates that this area was the scene of some of the most intense fighting of the Battle of Great Falls/Peskeompskut. It is unclear if Captain Holyoke intended to advance directly south to the Deerfield River utilizing a trail or the gulley to descend the steep bank that ran the entire southern end of Petty Plain. In either case, based on the lead shot distribution English forces fought their way through Native Coalition forces that awaited them there and took an easterly route towards the southeast end of Petty Plain and trail which led to one of the Deerfield River fords.

17. Locus L: Deerfield River Ford East (Battlefield Locus L; Figures 80, 86-92). The primary

Deerfield River ford was located 250 yards west of the confluence of the Green and Deerfield Rivers. The English mistakenly used a secondary ford "30 rods" (170 yard; 155 meters) west of the confluence during their approach and may have used both fords during their retreat suggesting at least two groups of retreating English based on two separate distributions of musket balls and battle related objects. If there were two groups attempting to cross the Deerfield River, it is not known how far apart the crossings were (Figure 80).

The primary ford was guarded by Native Coalition forces from a nearby village and/or fort located in an area historically known as Cheapside (Figure 7). During the English approach on the evening of May 17, some Coalition sentries were close enough to the Deerfield River ford that they were alerted to the presence of the English as they crossed the stream "30 rods" upriver.

> This company went from Hatfield May 17, 1676 being Thursday near night, marched y^{e} dead of y^{e} night, by Deerfield and passd by y^{e} indians y^{t} dwelt at cheapside & y^{e} noise was heard by the indian watchman, who infromd y^{e} Indians y^{t} he heard horses pass along, upon which y^{e} indians went (wth a lightd torch) to …y^{e} usuall path y^{t} crossd Green River (but the army had missd y^{e} usuall path & crossd y^{e} river ab^{t} 30 rods [*500 ft*] higher) & not observing any tracks concluded y^{e} watchman was mistaken and y^{t} it was moose y^{t} he heard & so continud quiet & did not send to infrom y^{e} indians above wc^{h} they could easily have done.[230]

Another scenario is the two episodes of fighting may represent a single group of English who following the intense fighting in Locus O, English forces moved east towards the terrace overlooking the trail to the Deerfield River ford. They may have broken away from the Native Coalition forces to their west but soon had to fight to gain access to a trail that descended a steep slope to the Deerfield River Ford below. Upon reaching the southeastern end of Petty Plain near present-day Meridian Street, the surviving 60 or more English troops were massed on the terrace above as the men trickled single file down the narrow trail to the ford below as indicated by impacted and dropped shot on the upper terrace and along the trail leading to the ford.

The terrace overlooking the Deerfield River Ford rises 40-50 feet above the Green and Deerfield Rivers with a very steep slope that would have prevented horses from easily ascending or descending the slope except for a narrow swale leading from the ford to the terrace above (Figures 84-90). The approach to descend the swale to the ford was along a very narrow section of the terrace that was only wide enough for one horse at a time. During their retreat, the English

[230] Thomas. "Rev. Stephen Williams's Notebook." P. 13.

were probably bottlenecked on the edge of the terrace waiting their turn to descend to the ford. It appears Coalition forces knew the route the English intended to take during the retreat and positioned a significant number of troops near the trail that descends to the ford and/or attacked the English as they descended to the ford.

The terrace overlooking the Deerfield Ford (Figures 86-88) at Locus O also contains a number of seventeenth century Native domestic objects including brass scrap from reprocessed trade kettles, bottle glass, iron knife blades, earring, thimble, and spoons. The occupation is not believed to be contemporaneous with the battle.

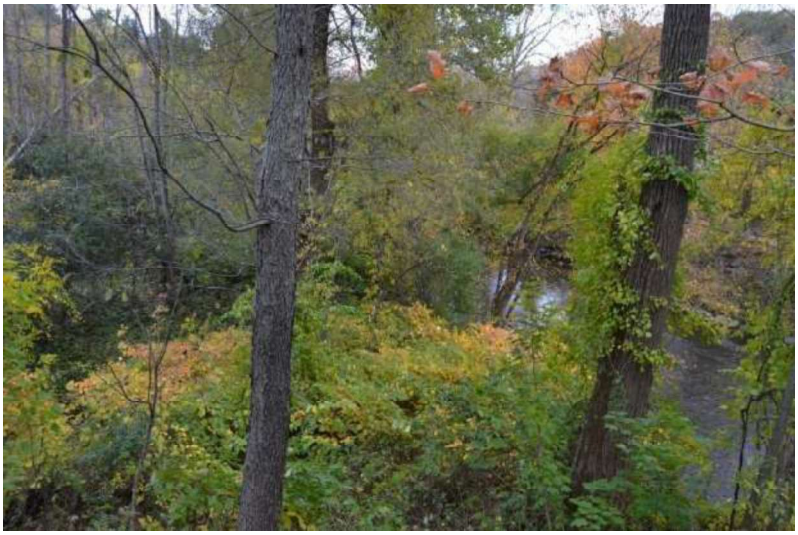


Figure 86. Terrace Edge Overlooking Green River 40’ Below. View South to North. Gulley to North.



Figure 87. Green River.

The battlefield survey confirmed the location of the secondary ford below the terrace based on the recovery of forty-one dropped and impacted musket balls leading down slope to the Deerfield River. musket balls along the terrace edge above the secondary ford, and dozens of musket balls that were recovered on the slope/swale leading to the secondary ford from the terrace. Native Coalition forces (perhaps from Cheapside) appear to have controlled the terrace overlooking the secondary ford for a period forcing the English to fight for control of the terrace and egress to the secondary ford.

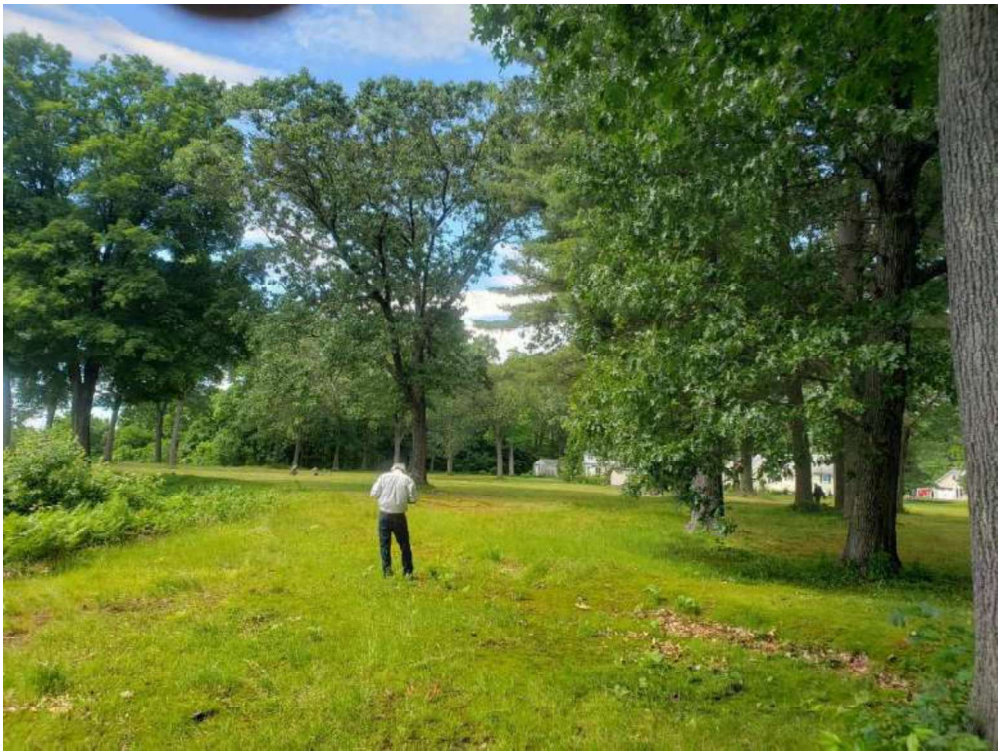


Figure 88. Battlefield Locus L, Terrace overlooking Deerfield River Ford. View North to South. Green River to Left, Deerfield River to Front.



Figure 89. Battlefield Locus L Terrace. Pink Flags Mark Musket Ball Finds.

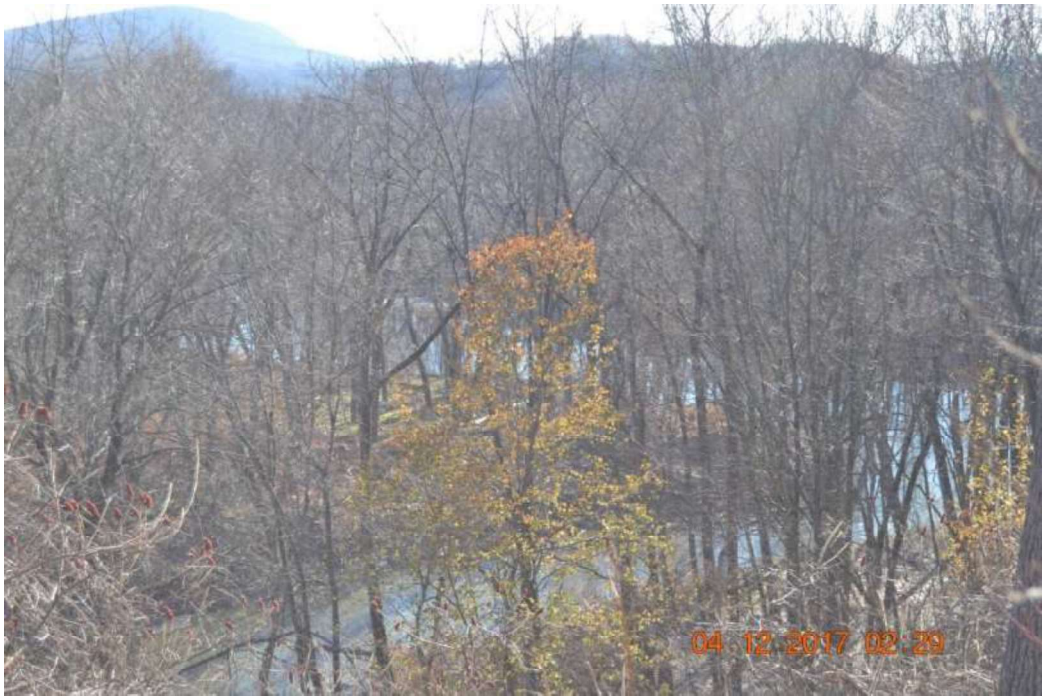


Figure 90. Confluence of Deerfield and Green Rivers. View from Locus L Terrace Edge. Cheapside to Left.

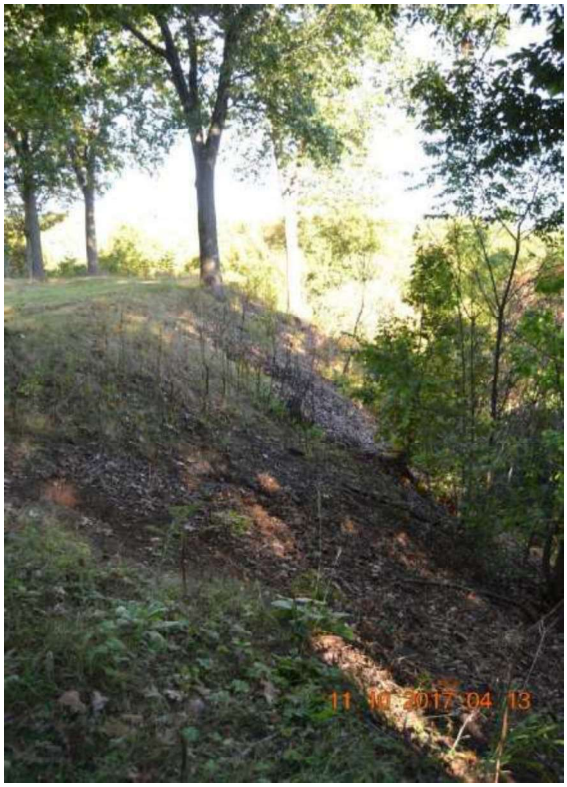


Figure 91. Battlefield Locus L, Terrace Slope Leading to Deerfield River Ford.

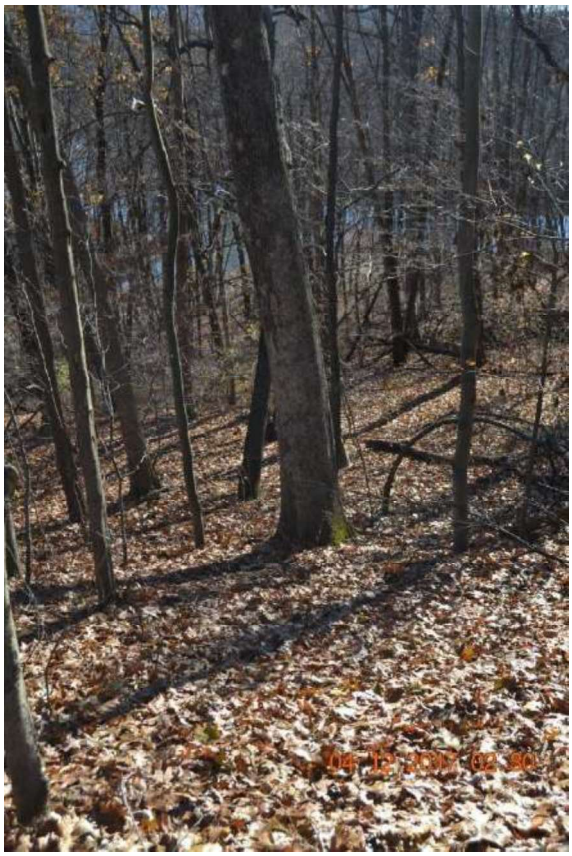


Figure 92. Swale leading to Deerfield Ford. View North to South.

18. Deerfield River (Figure 93). Known as the Pocumtuck River prior to English colonization, the Deerfield River served as a transportation and communication corridor for the Native people in the middle Connecticut Valley. It extends more than 25 miles north and west into the Berkshire Mountains from its confluence with the Connecticut River. The river was a minor obstacle for the English along their avenue of approach to Peskeompskut as it could only be crossed at a few fording locations. Based on English accounts Coalition forces continued to pursue and attack the English after they forded the Deerfield River.



Figure 93. Deerfield River facing north from the south bank.

19. Locus P: North Deerfield Meadows (Battlefield Locus P; Figures 94 & 95). As English troops under Captain Holyoke's command successfully forded the Deerfield River under fire from Native Coalition forces, they continued their retreat south through the northern Deerfield plains likely along the same trail or road they followed during their approach. The plains begin with steep banks along the southern side of the Deerfield River which open to a low floodplain which extends approximately 1,000 feet south before meeting a remnant river channel that seasonally floods along with a rising remnant riverbank. The ancient riverbank landscape remains steep on its western and eastern edges with the center of the bank containing a more gradual slope which may be the result of repeated agricultural usage and other human activities over the centuries. From here the landscape transitions into level flat plains that extend for over 15 miles south along the west side of the Connecticut River to the present-day Town of Hatfield where the river turns west

forming an oxbow. At the time of the battle the meadows were used as agricultural fields, by both Indigenous communities and English colonists, and remain highly productive farmland today.



Figure 94. Locus P North Deerfield Meadows. View North Toward Deerfield River.

Native American Coalition forces continued to engage the fleeing English as they forded the river and retreated south along the northern Deerfield meadows. It appears that at this point of the fighting there were no Coalition forces prepositioned south of the Deerfield River which enabled English forces to quickly move south which increased the distance between the combatants to the point that the fighting ceased somewhere north of the destroyed English settlement of Deerfield. Musket balls were recovered between the Deerfield River, floodplain, and the upper plains near present-day Pogues Hole Road which correspond with historical accounts that claim fighting ended in these fields.



Figure 95. Locus P North Deerfield Meadows. View S to N Toward Deerfield Village.

V. Battlefield Loci Analysis - Battle of Great Falls.

This section will examine the nature and distribution of musket balls, battle related, and domestic objects recovered from each battlefield loci. A total of 1,037 musket balls and 104 battle-related and domestic objects were recovered. Domestic or personal objects included artifacts such as, but not limited to, brass scrap, lead bar, molten lead, lead and brass beads, pewter buttons, spoon fragments, iron tool fragments, Jaw Harps, and rose head nails. Military objects included ram rod tips, horse tack (buckles, saddle rings), leather ornaments, spurs, and knife blades (see Appendix I: Artifacts Inventory). Table 5 illustrates the categories of objects and associated symbols depicted on battlefield maps.

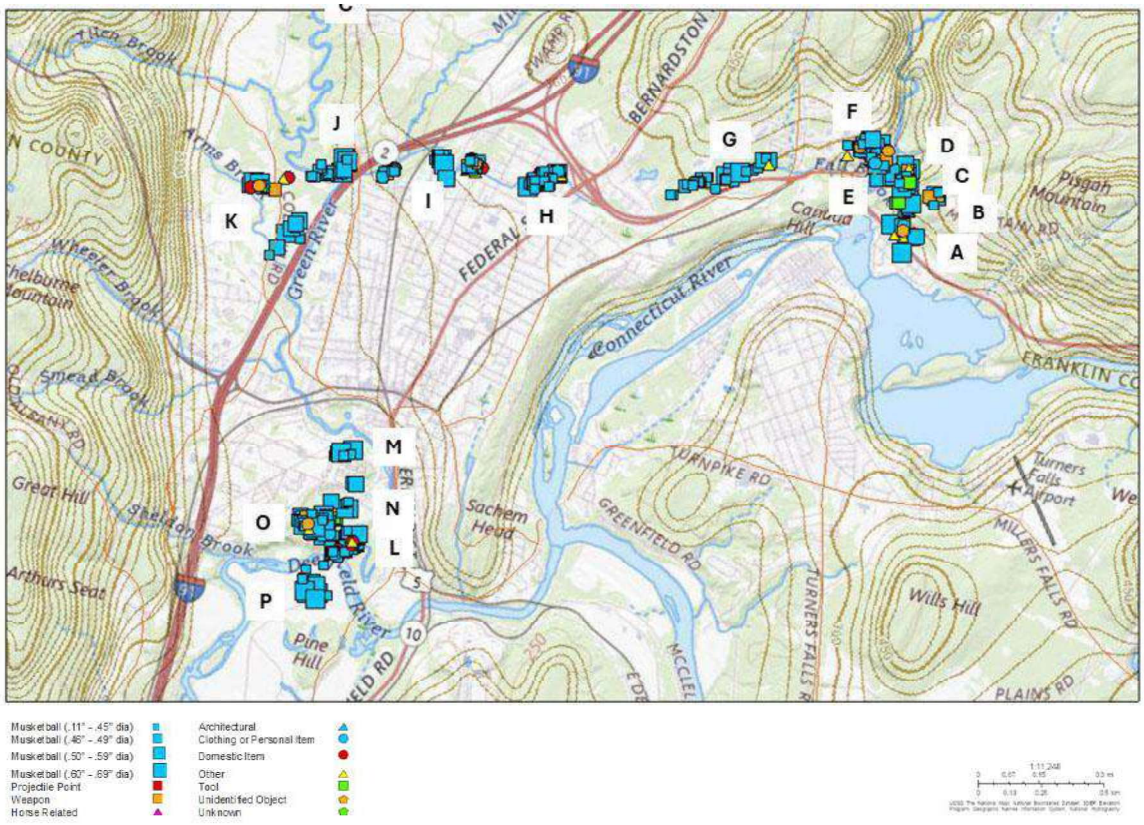


Figure 96. Battlefield Loci and Distribution of Personal, Domestic and Military Objects Battle of Great Falls.

Table 5. Artifact Categories

Military	
Musketball (.11" - .45" dia)	
Musketball (.46" - .49" dia)	
Musketball (.50" - .59" dia)	
Musketball (.60" - .69" dia)	
Projectile Point	
Weapon	
Horses Related	
Domestic and Personal	
Architectural	
Clothing or Personal Item	
Domestic Item	
Other	
Tool	
Unidentified Fragment	
Unidentified Object	
Unknown	

As discussed in Section II Methods, the diameters of musket ball were grouped into four diameter categories: .11" - .45," .46" - .49," .50" - .59," .60" – 69". These categories are considered

to reflect the tactical and weapon choices made by the combatants based on historical research and battlefield contexts. Musket balls in the .11”-.45” diameter range were often used as multiple loads of buckshot by English and Coalition forces and fired at close range. An analysis of the artifact distributions and combatant associations recovered from all battlefield loci indicates that small-shot loads fired by Coalition forces tend to be smaller diameter ball and have a wider range of variation (e.g. .15 - .32). English small-shot loads were generally between .32” – and .45” diameter and rarely used any diameters under .32”. Nineteen musket balls in the .30” - .48” diameter range sometimes used as pistol ball and seem to be associated with the English. Musket balls in the .50” -.54” diameter range were typically associated with Coalition forces. Musket balls in the .55”-.59” diameter range were associated with both Coalition and English forces, and musket balls in the .60” + diameter range were largely associated with English forces. However, there is some overlap in diameters and associated weapon types and tactics. For example, musket ball diameters in the high .30s” or .40” diameter range could be used as small shot (buckshot) while several musket balls in the .50” range could be fired from larger bore muskets with similar effect. This information is useful in interpreting combat actions associated with specific battle events. Overall 84 percent of recovered musket balls are in the small shot range while only 14 percent are in the carbine/musket range (Figure 97). This pattern strongly indicates that loads of 8 to 12 small diameter musket balls were the preferred musket load used by both combatants. There is additional evidence to support the idea of a preference for loading weapons with multiple rounds of small diameter musket balls as reflected by “facets” or dimples on small ball. Musket balls fired as loads of small shot” or “buckshot” exhibit characteristic “facets” on several sides or faces of the musket ball that result when the load of small shot is fired which both heats and compresses the balls against each other as they move through the musket barrel (Figure 16).

The purpose of the broader battlefield-wide musket ball analysis was to establish a baseline to compare the various musket ball distributions recovered from the sixteen battlefield loci or battlefield actions identified within the battlefield. This comparative analysis can help to determine if differences in the frequency and percentage of musket diameters within and between loci were influenced by the tactical decisions of the combatants and perhaps identify which combatants fired certain calibers of weapons and their tactics. Simply put, can patterns of musket ball diameters be attributed to either Native or English soldiers? For example, does a higher percentage of low diameter musket balls (.25”-.40” diameter; i.e., loading weapons with 8-12 small-shot) suggest

that Native soldiers were in close proximity to retreating English forces and therefore used small shot loads, or does the higher percentage of small shot along the retreat indicate the English were running low of "bullets" or larger diameter musket balls (i.e., .50" +). Many of these issues and their implications for reconstructing the battlefield were discussed in Section III. As most of the Coalition forces had not participated in the initial phase of the battle it is assumed that the projectiles fired were based on a tactical decision, not because of a low supply of a specific musket ball diameter.

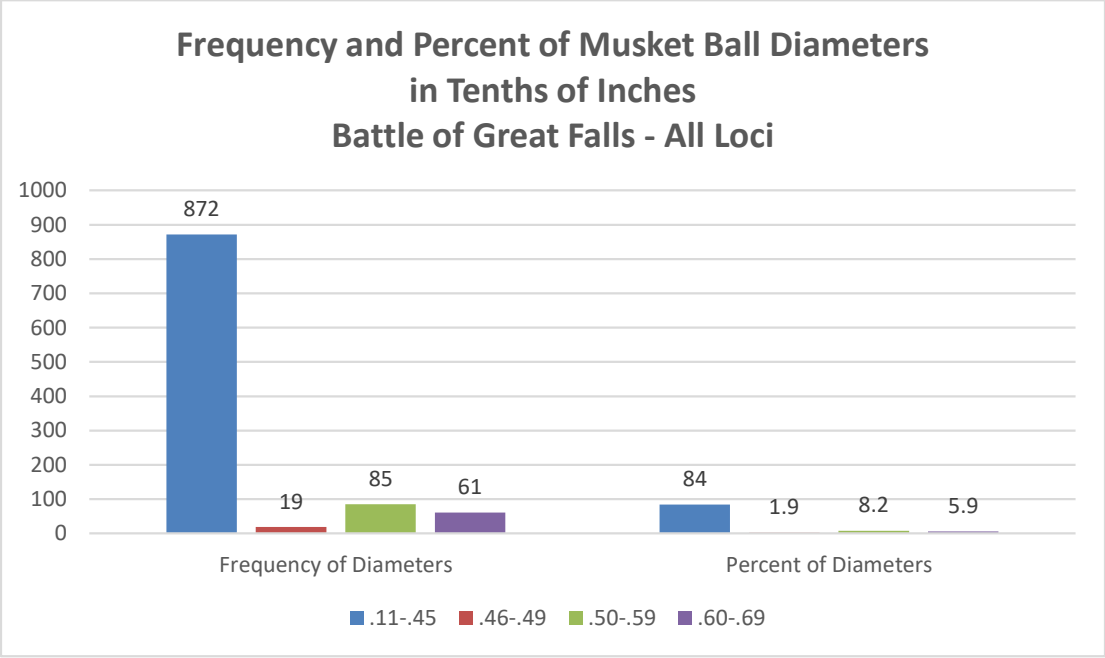


Figure 97. Battle of Great Falls Musket Ball Diameters.

Figure 98 depicts the frequency and percent of musket balls recovered from the Second Battle at Nipsachuck (July 3, 1676).[231] The assemblage is the most relevant comparison to the Battle of Great Falls as both date to King Philip's War, although the majority of the musket balls at the Battle of Great Falls are believed to be from Coalition fire and the majority of the musket balls from Nipsachuck are believed to be English fire. The Second Battle at Nipsachuck was one of the final engagements of King Philip's War and consisted of a mounted attack by 300 Connecticut dragoons (the only mounted attack by dragoons in the war) and 100 allied Pequot and

[231] Kevin McBride, David Naumec, Ashley Bissonette. Technical Report, Second Battle of Nipsachuck. National Park Service American Battlefield Protection Program. 2013.

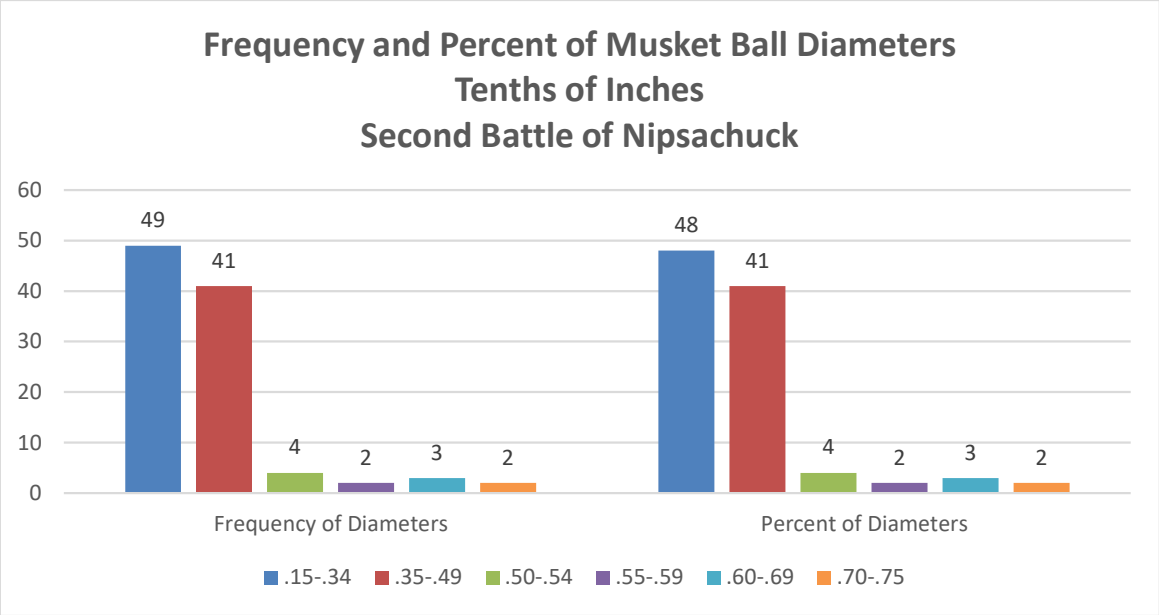


Figure 98. Frequency and Percent of Musket Ball Diameters, Second Battle of Nipsachuck.

Mohegan soldiers on the recently established village of the Narragansett Sunk Squaw Quiapan comprised of 140 women and children and 30 Narragansett men. Ironically Quiapan was returning to her homeland from Watchusett after leaving Watchusett after the Battle of Great Falls carrying letters to present to Massachusetts Bay to negotiate a peace plan.

A total of 101 musket balls were recovered from the Second Battle at Nipsachuck battlefield site, the majority fired by the attacking English-Allied forces. At Nipsachuck 48% percent of the musket balls were in the small shot category (.15"-.34" diameter,) and 41% in the pistol/carbine range (.35"-.49" diameter). Because of the very rocky terrain at Nipsachuck direction of fire could be determined and evidence indicates that a number of the small diameter shot were fired at the English by the Narragansett defenders, although many were also fired by the English. Perhaps most significant is the percentage of ball in the pistol/carbine range (41%) which is comparable to the Battle of Great Falls were shot in that range is believed to be associated with the English. The similarity of these patterns supports the contention at the Battle of Great Falls that shot in the .35" - .49" diameter range were fired from English pistols and/or carbines.

Sixteen distinct Loci or discrete battle events were identified for the Battle of Great Falls based on primary sources, the nature and distribution of musket balls (i.e. diameters, impacted vs. dropped), and their association with terrain features: Locus A - Peskeompskut Village and initial English attack; Locus B – Upper Peskeompskut Village and the initial English Retreat; Locus C

- The Mountain Gap; Locus D - Terraces; Locus E - English Assembly Area; Locus F - Upper Factory Hollow; Locus G - White Ash Swamp; Locus H - Cherry Rum Brook Engagement; Locus I - Cherry Rum Brook; Locus J - Green River Ford; Locus K - Holyoke's Retreat; Locus L – Deerfield River Ford East; Locus M – Petty Plain; Locus N – Light Skirmishing; Locus O – Pine Barrens and Deerfield River Ford West; and Locus P - North Deerfield Meadows. Loci A through D are in the Town of Gill, Massachusetts while Loci E through O are in the Town of Greenfield, Massachusetts, and Locus P is in the Town of Deerfield, Massachusetts (Figure 2).

No seventeenth-century battle-related objects were recovered during the survey in the Riverside area of Gill, the reputed site of the Peskeompskut village. As discussed above, the Riverside landscape was heavily impacted by cut and fill episodes, and a dense layer of iron objects distributed throughout the area which made metal detecting very difficult. In addition, a good portion of the village may now be underwater and inaccessible to survey. Three musket balls and a gunflint were recovered from the Riverside area which may be associated with the battle, one was a dropped .66" diameter and two were impacted (.58" and .70" diameter).

The gunflint is an English flint blade type likely made in England and shipped to the colonies and could be attributed to either the Native or English combatants. There is no provenience information on the two impacted musket balls or the gunflint other than they were collected in the Riverside area. A landholder in the Riverside neighborhood on Walnut Street found a dropped .66" diameter musket ball in her garden. The musket balls and gunflint are not sufficient evidence to identify the precise location of the Peskeompskut village, other than Riverside, and who may have fired them, or when.

Locus A: Upper Peskeompskut Village: Twelve musket balls were recovered from Locus A – Upper Riverside (Figures 96, 99-101). Eleven lead, brass, and iron objects were also recovered, considered to be domestic or personal and potentially associated with the battle and village (Figures 102-104; Appendix I). The locus is approximately 100 yards north of the Mohawk Trail / State Route 2 and east of Main Road.

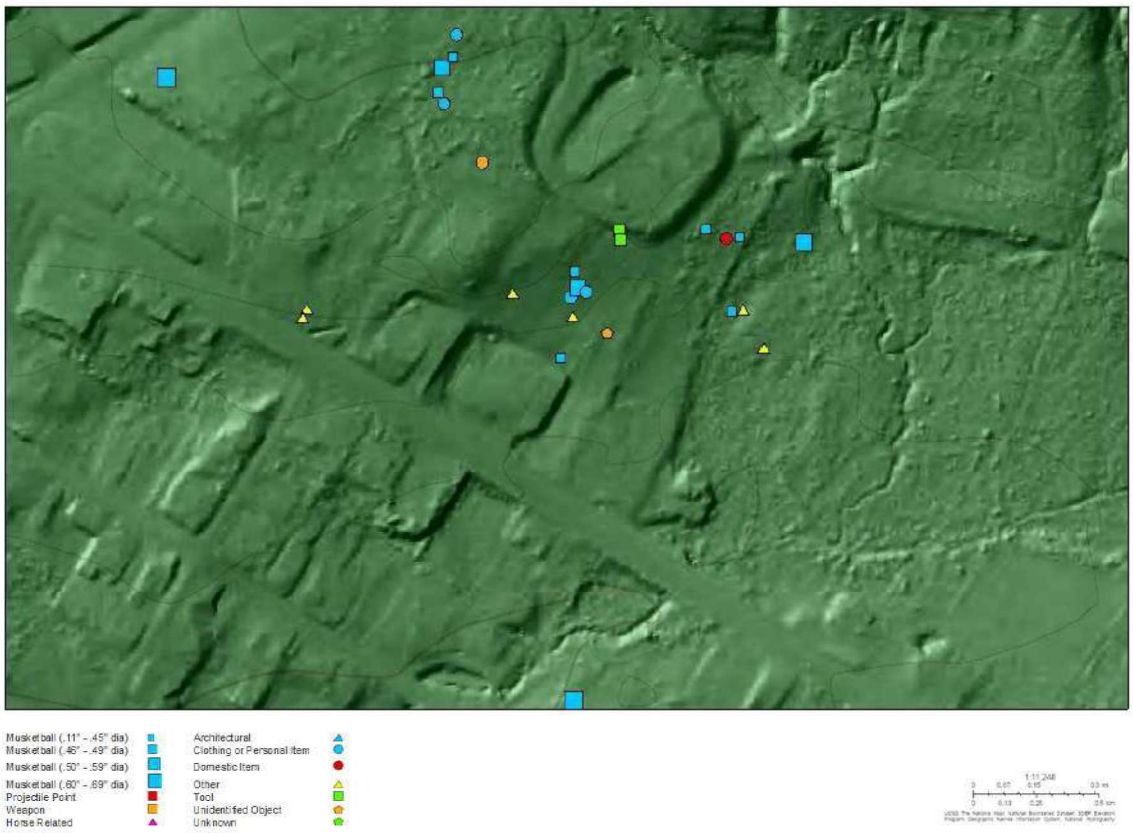


Figure 99. Locus A Peskeompskut Village.

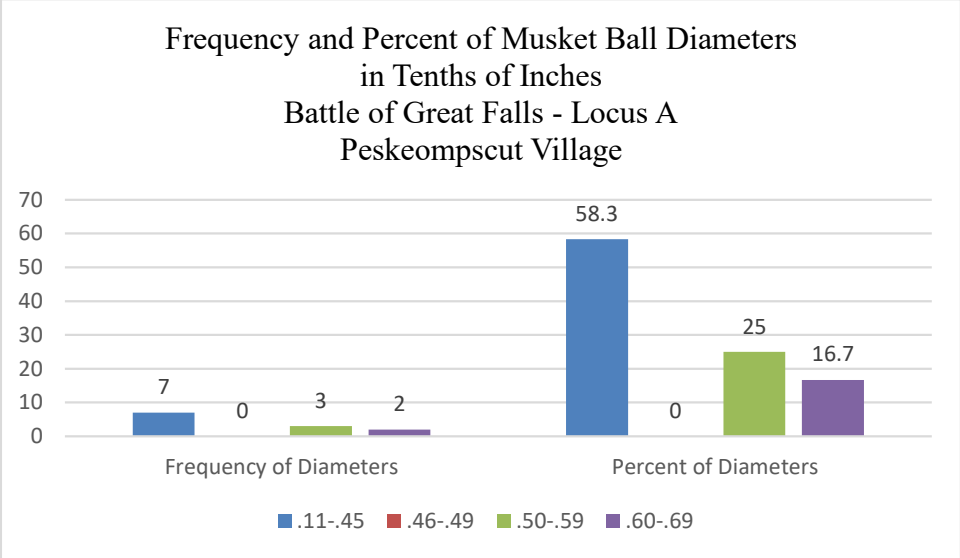


Figure 100. Frequency and Percent of Musket Ball Diameters, Locus A.

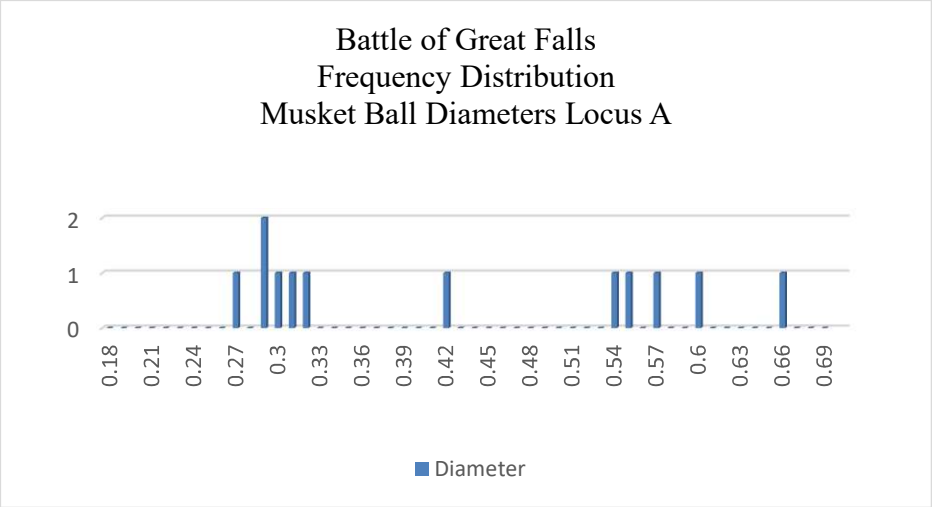


Figure 101. Frequency Distribution of Musket Balls, Locus A.

It is not clear if the domestic/personal objects represent the northern boundary of Peskeompskut proper or the "wigwam or two higher up than the rest". Similarly, the distribution of musket balls could either be associated with the English attack on the village, or the Coalition counterattack on Wells' group, or both. There is not enough of a sample to infer much from the musket ball diameters, although the majority (58%, n=6) were in the .27" - .32" diameter range. The higher percentage of small shot is usually identified as a Native signature, but evidence from other seventeenth century battlefields indicate the English used small shot when attacking Native villages.

The domestic/personal objects include two fragments of brass scrap, several fragments of lead bar or molten lead, two pewter buttons, an iron blade, a possible cast iron kettle fragment, a lead amulet, a possible iron kettle fragment and axe fragment, and lead scrap (Figures 100 – 102). Brass scrap is usually considered a signature of seventeenth-century Native domestic sites. The lead bar, molten lead, and brass scrap fragments may be associated with musket ball production or reprocessing brass kettles. The pewter buttons could be associated with either an English or Native combatant or they may not be related to the battle at all. The lead amulet would be associated with a Native person.

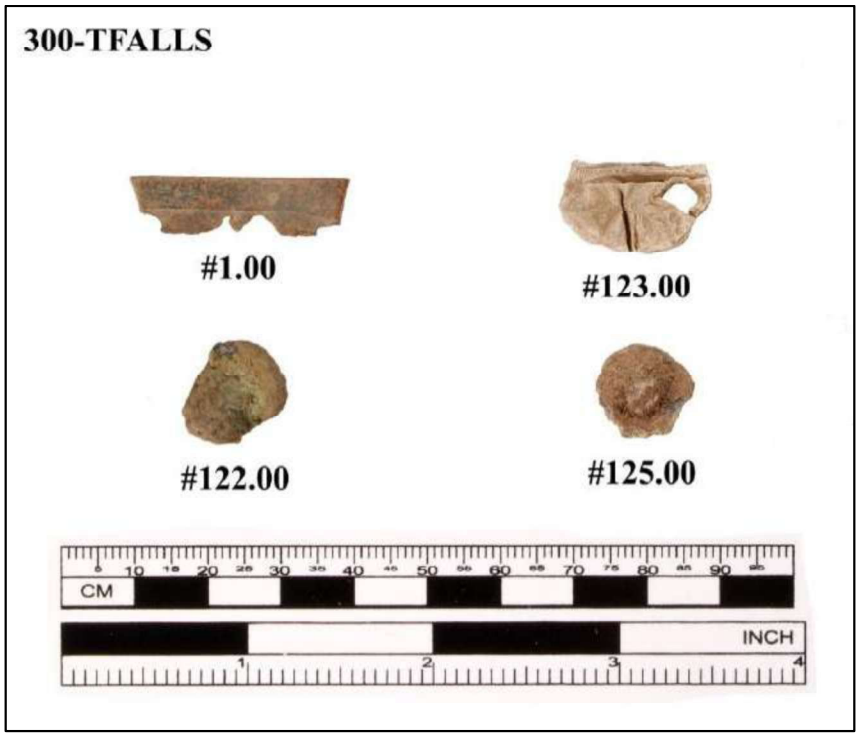


Figure 102. Locus A Domestic Objects. 1 & 122 Brass Scrap, 123 Lead Amulet, #125 Pewter Button.



Figure 103. Locus A Domestic Objects. #128 Iron Kettle Fragment, 146 Wrought Iron Fragment, 127 Iron Awl, 121 Iron Axe Fragment.

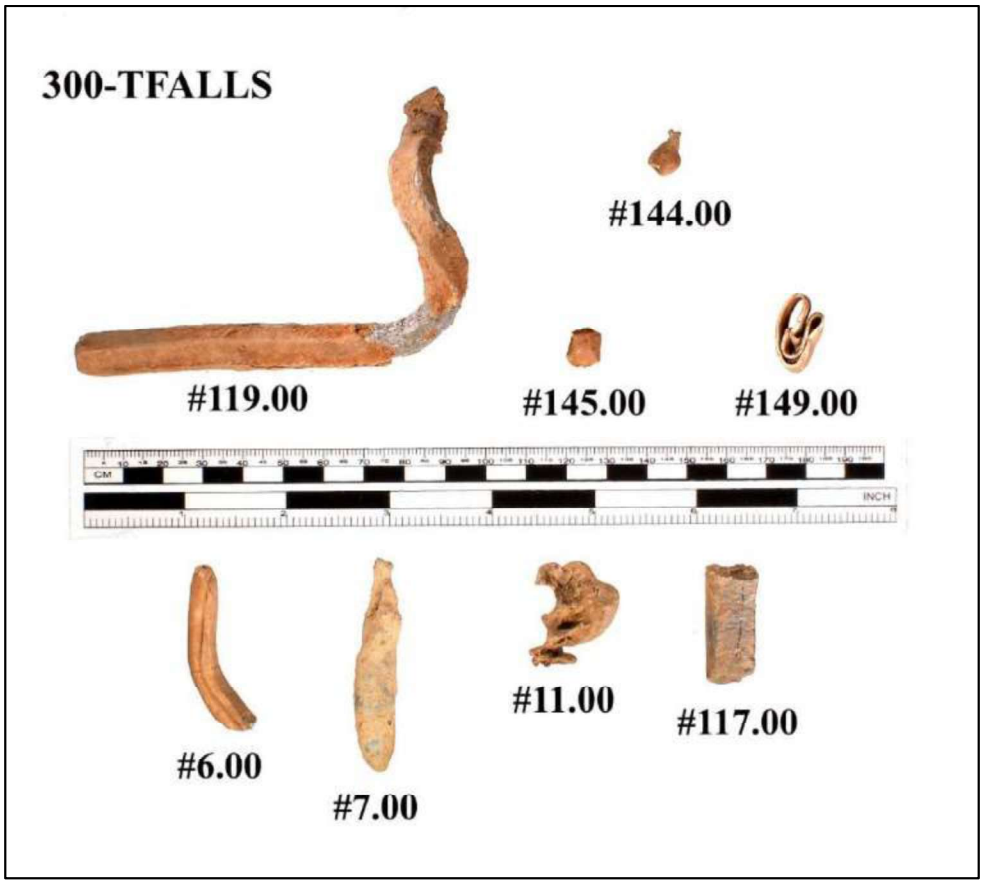


Figure 104. Locus A, Lead Bar and Molten Lead.

Locus B: Initial English Retreat: Twenty-nine musket balls were recovered from Locus B extending 250 yards west of Main Road in an area of approximately two acres. There were a few of outliers 200-275 yards to the north and west of the main concentration of artifacts consisting of two musket balls and a possible gun screw (Figure 105). The terrain is relatively flat in the eastern area and begins to rise steeply two hundred yards west of Main Road to the Mountain Gap one hundred yards to the northwest.

Four impacted musket balls were recovered on the southeastern face of the slope indicating fire from the southeast. The direction of fire indicates Native fire toward the English who were in front of them – likely Wells' group. Twenty-Seven musket balls ball in the .27" to .33" diameter range and 74% exhibited facets (Figure 106). Five musket balls were between .56" and .59" diameter suggesting Coalition fire. The musket ball distributions are likely the result of the initial English attack on the upper village, the wigwams mentioned higher up than the rest, and the subsequent Coalition counterattack.

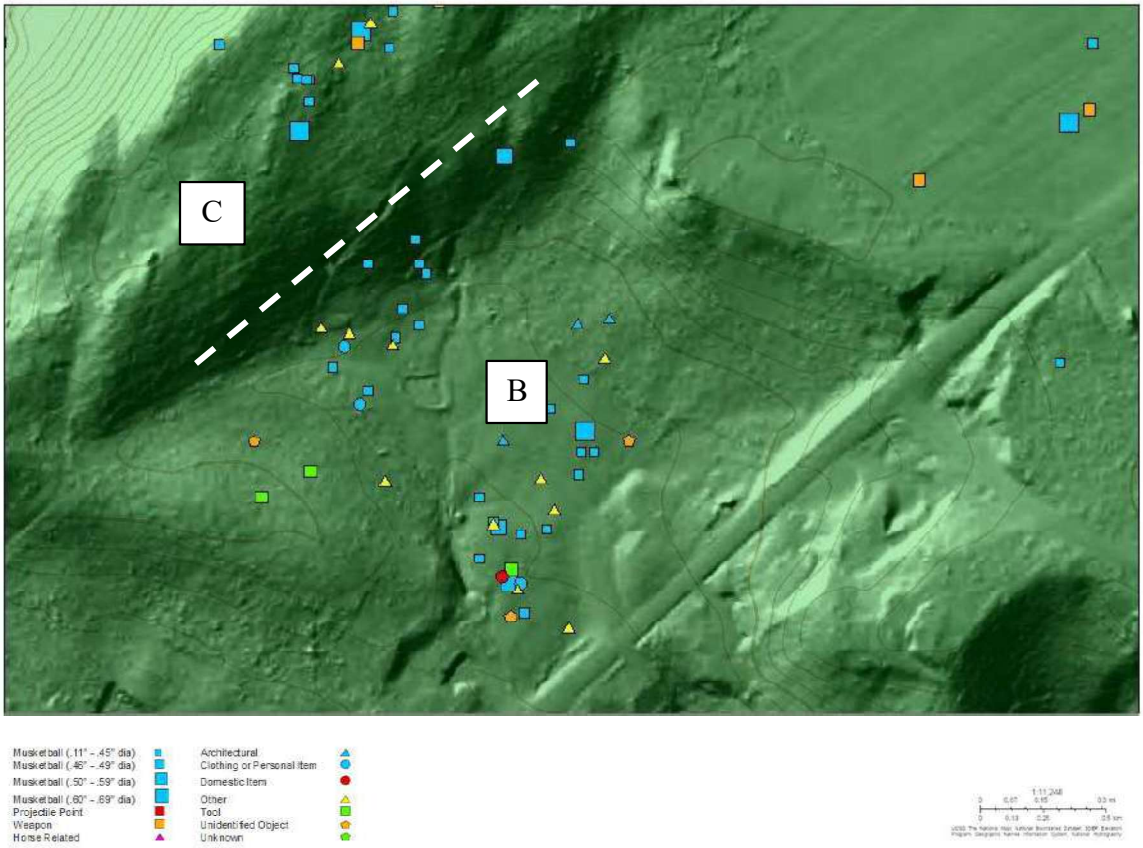


Figure 105. Locus B Upper Peskeompskut Village and Initial English Retreat.

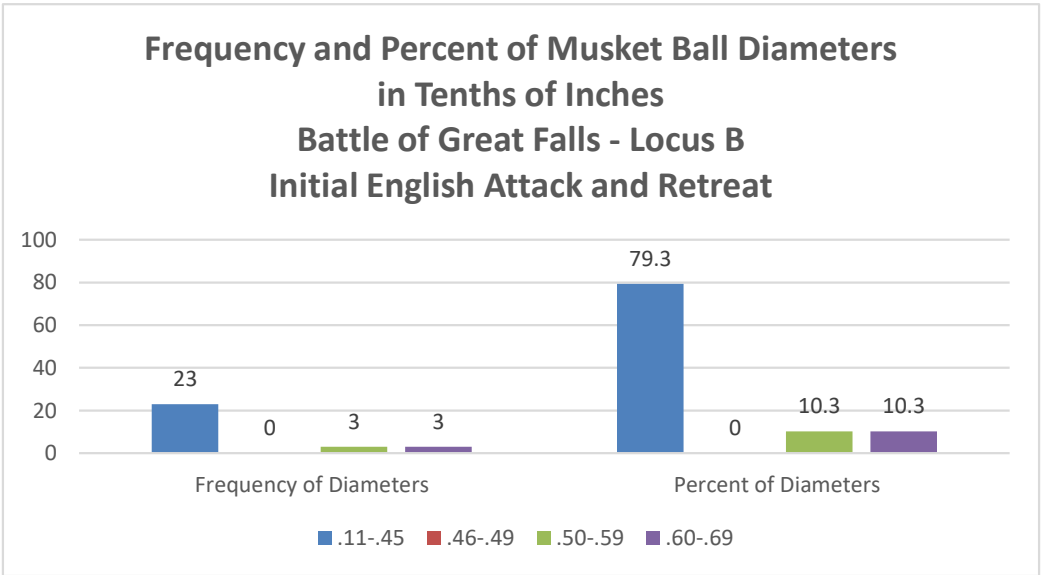


Figure 106. Locus B Distribution of Musket Ball Diameters.

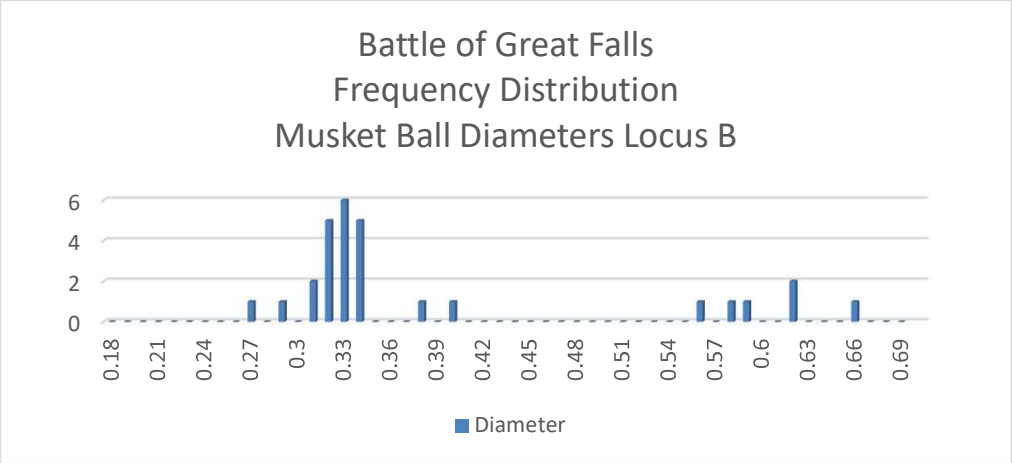


Figure 107. Locus B Musket Ball Frequency Distribution.



Figure 108. Locus B: Possible Lead Flint Wrap.



Figure 109. Locus B Domestic Objects. Top Left Button, Top Right Lead Bead, Bottom Left (2) Rose Head Nails, Far Right Pewter Button.

Several domestic/personal objects were recovered from the eastern section of Locus B including a possible lead flint wrap (Figure 108), several fragments of lead sheet and molten lead, a pewter button, a lead bead, an unidentified wrought iron object, a rose head nail, and an eyelet from a reprocessed iron hoe (Figures 109 & 110). The lead and eyelet suggest the possibility of a Native domestic area at this location, but the absence of scrap brass might suggest otherwise. An English or Native combatant could have dropped the pewter button and lead bead. In any event this distribution of domestic objects is not believed to be contemporaneous with the battle as none of the English narratives mention a Native village or domestic site so far from the main village at Peskeompskut.



Figure 110. Locus B: Possible Seventeenth Century Domestic Objects include Molten Lead #s 188, 137, 197, 199, 157; 111; 156; Pewter Button # 115; Lead Bead # 171; Rose Head Nail #189; Lead Sheet Scrap #162, 170, 149; Iron Hoe Eyelet #94; Unidentified Wrought Iron Object # 290.

Locus C: Mountain Gap: Sixty-One musket balls were recovered from Locus C, the Mountain Gap (Figures 96, 111 & 112). No personal or domestic artifacts were recovered. The "mountain" is a southwest-northeast trending bedrock ridge that parallels the Fall River 160 yards east of the river and runs for 0.6 miles in a northeasterly direction from the Connecticut River (Figures 111 & 112). The ridge is characterized by an extremely steep, almost vertical cliff face along the western edge that drops to a series of terraces leading to the Fall River. The only way to pass through the ridge and descend to the Fall River is through the narrow gap in the bedrock which allows passage for someone on foot. The Mountain Gap is only about fifteen yards wide and thirty yards long, significantly restricting movement through it to the terraces immediately to the west. Fifty-nine (97%) of the recovered musket balls were small shot in the .15" - .34" diameter range of which 32 (58%) had facets and believed to be Native fire (Figure 113 & 114). Two of the impacted musket balls were large (.62" & .63") and were likely fired by English soldiers at their Native pursuers.

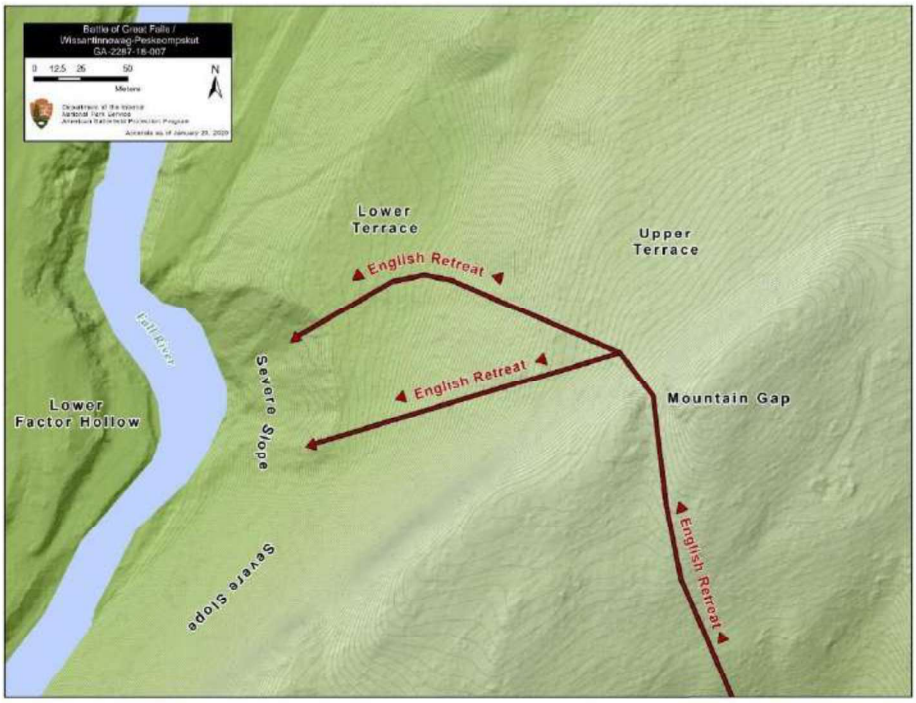


Figure 111. English Retreat from Mountain Gap to Fall River.

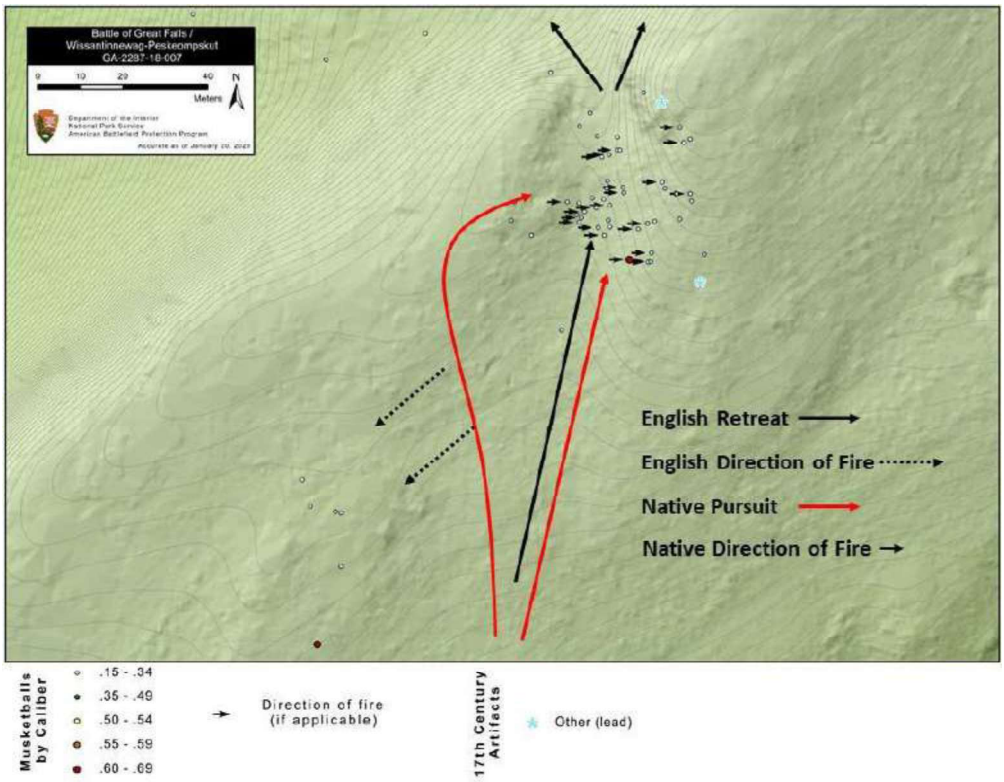


Figure 112. Locus C: Mountain Gap Overview.

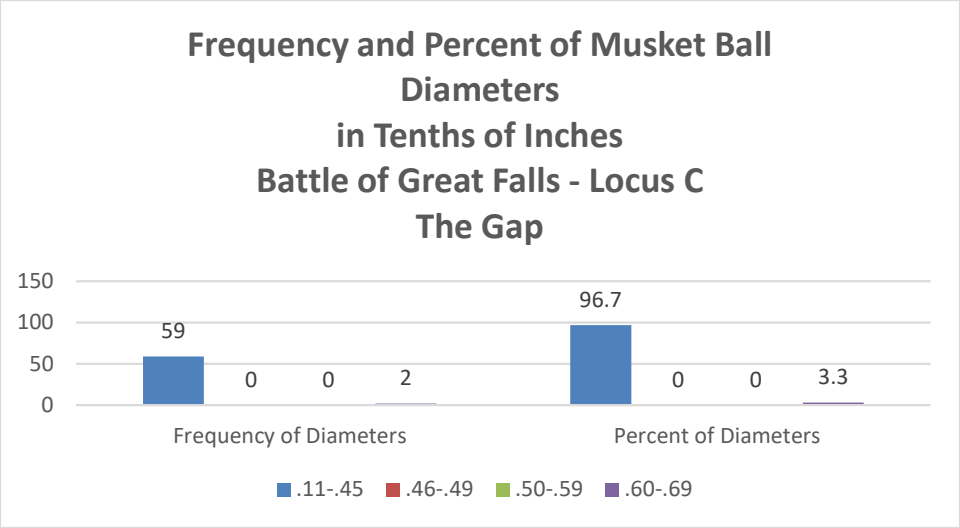


Figure 113. Locus C Frequency and Distribution of Musket Ball Diameters

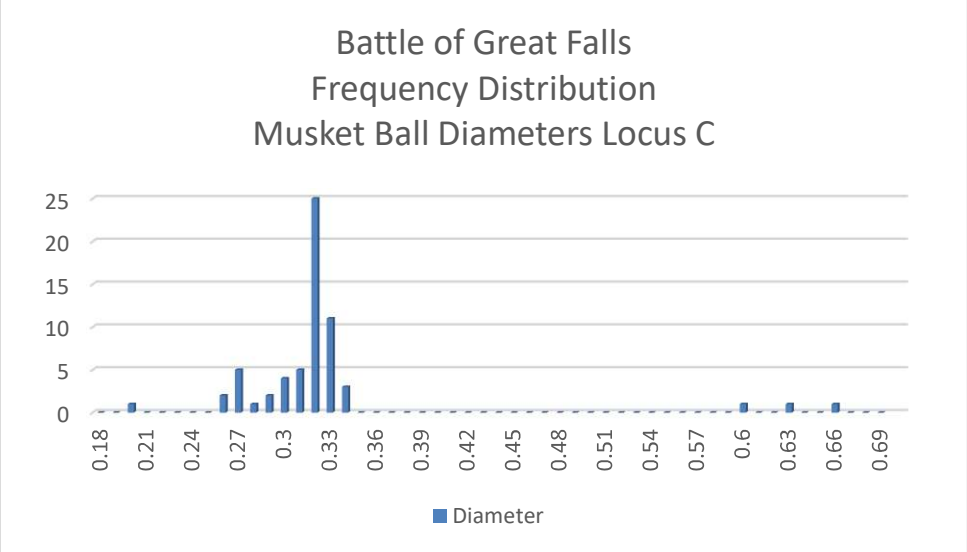


Figure 114. Locus C Frequency Distribution of Musket Balls.

During the English retreat from Peskeompskut two groups of English soldiers had to pass through the gap to descend the terraces to the west of the gap and cross the Fall River to reach their horses tied on the west side of the Fall River. The first group was comprised of the main body of approximately one hundred soldiers under the command of Captain Turner and Lieutenant Holyoke. It does not appear that Turner's company was attacked until they reached the English Assembly Area on the west side of the Fall River. The second group consisted of approximately twenty soldiers in Jonathan Wells' group who had "lagged" behind along the Connecticut River

shoreline where they exchanged fire with Native soldiers crossing the river by canoe.[232] At some point Wells' group disengaged from the fighting and retreated as well, pursued by Coalition forces who had crossed the Connecticut River. According to Wells' account his company of twenty men was forced to fight their way to their horses. Many of the battle actions in Locus C and D are believed to be the result of fighting between Wells' group and Native Coalition forces.

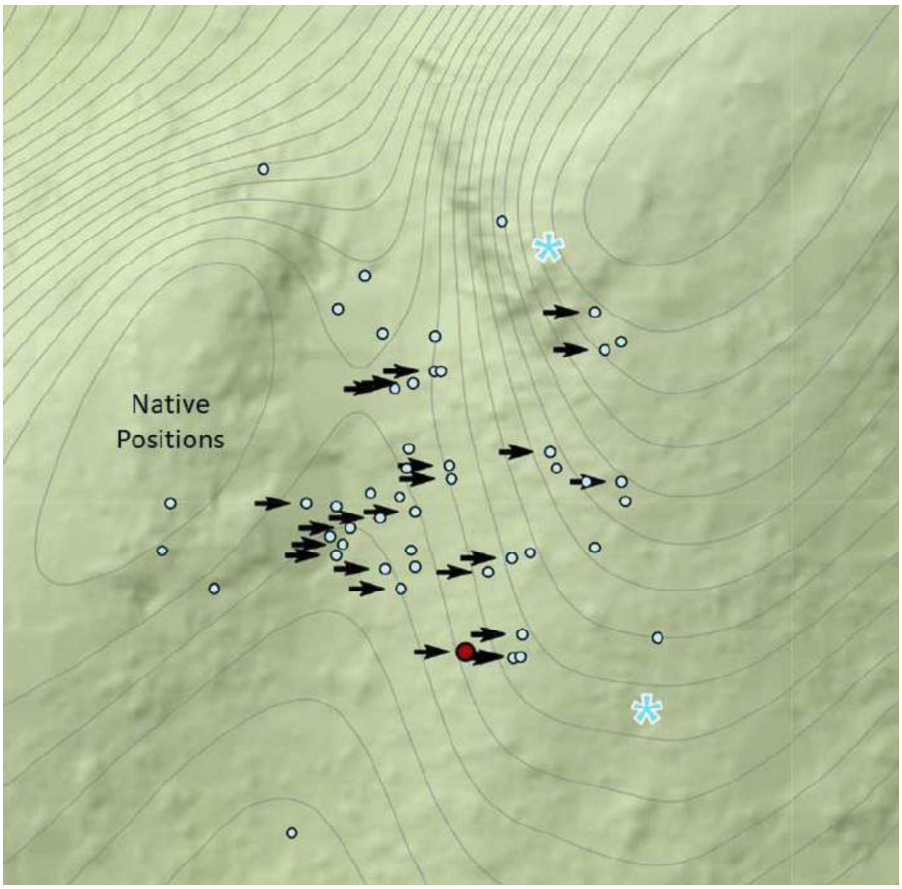


Figure 115. Locus C, Mountain Gap, and Native Direction of Fire.

The largest grouping of musket balls are concentrated within the gap and along the north side of the gap (Figure 115). Of the twenty-five small musket balls for which a direction of fire

[232] Jonathan Wells relayed his account of the Battle of Great Falls to the Reverend Stephen Wilson in his later years, circa 1730. Wells was a private solider from Hadley, MA who was part of the 20-man company which stayed in the village when the majority of the company retreated. Wells' company was nearly cut off in their retreat. He was wounded during his retreat but survived the encounter. See: Daniel White Wells and Reuben Field Wells, *History of Hatfield, Massachusetts, in three parts* (Springfield, MA: F.C.H. Gibbons, 1910); Thomas. "Rev. Stephen Williams's Notebook."

could be determined, all were fired from the southwest to northeast into the gap, clearly indicating Coalition forces shooting at the English as they passed through the gap (Figure 116).

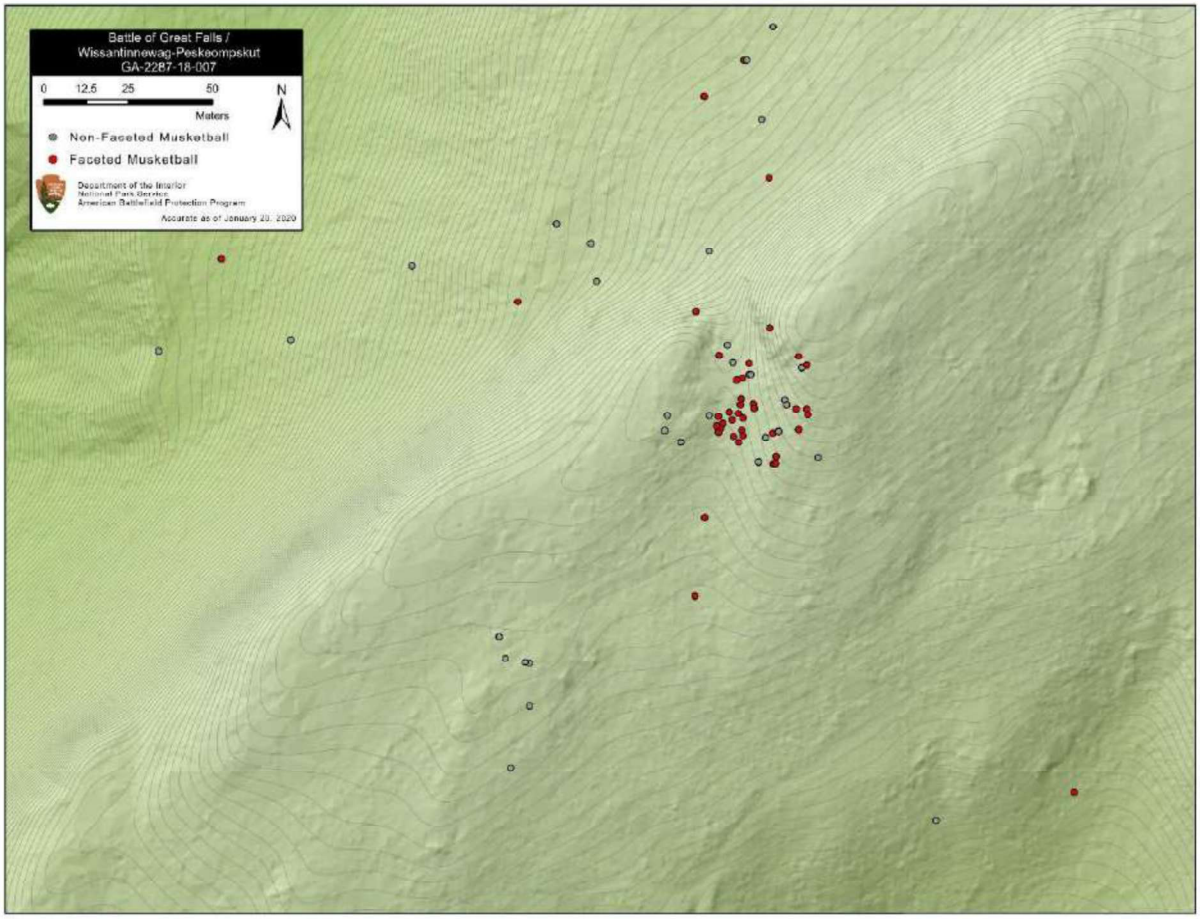


Figure 116. Locus C, Mountain Gap Musket Balls with Facets (Red).

The pattern of musket balls indicates that the Native soldiers who were pursuing Wells' group through Locus B separated as they neared the gap, with one group continuing to pursue the English from the rear to force them into the gap, and the second group moving to the west and then north in a flanking movement to ambush the English as they moved through the gap (Figures 115 & 116). Native soldiers positioned themselves on high ground along the southwest rim of the gap and poured volleys of small shot into the English soldiers as they moved through the gap. Although Wells does not mention any casualties, it seems likely the English took several based on the proximity and amount of concentrated fire.

Locus D: Terraces: Thirty-six musket balls were recovered from Locus D (Figures 96, 117 & 118). The majority of the musket balls are believed to be Coalition fire at retreating English. A few musket balls appear to be from the English firing at the pursuing Coalition forces. Twenty-nine (80.5%) were small shot of which 55% exhibited facets, probably reflecting Coalition fire. Four musket balls (11) were between .54" and .58" diameter also likely Coalition fire (Figures 117 & 118).

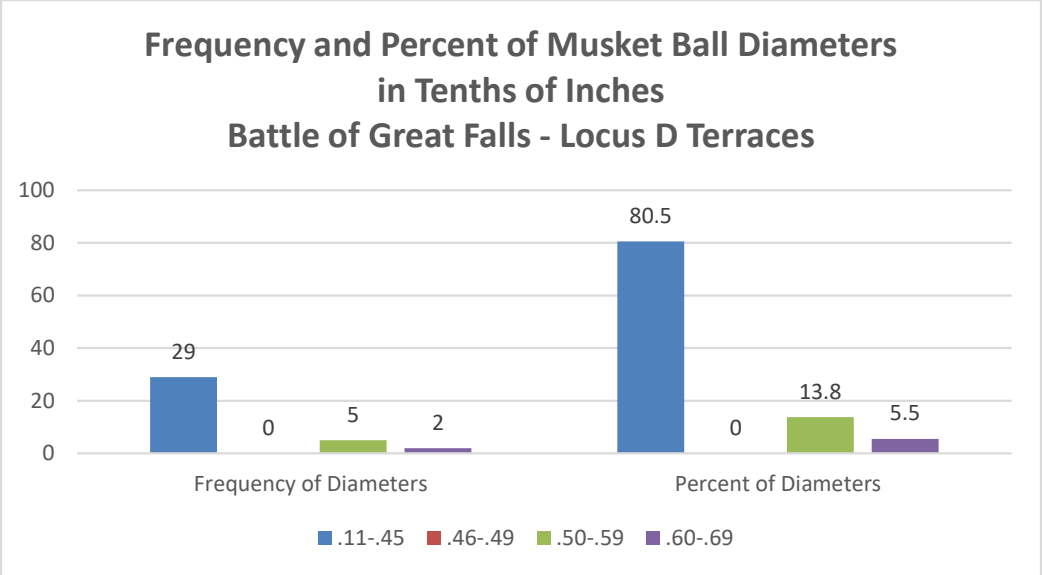


Figure 117. Locus D Frequency and Percent of Musket Balls.

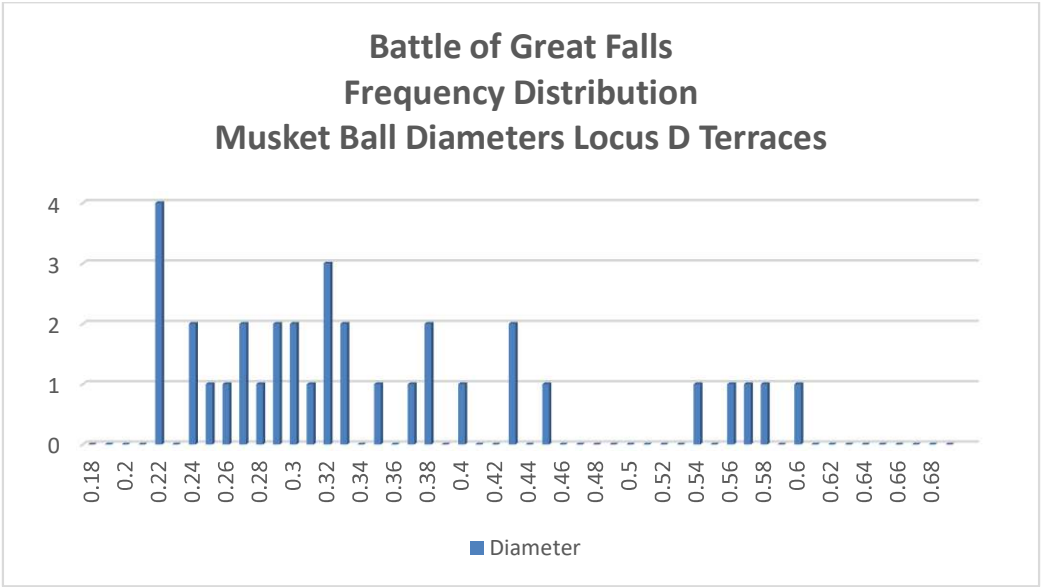


Figure 118. Locus D. Frequency Distribution of Musket Balls.

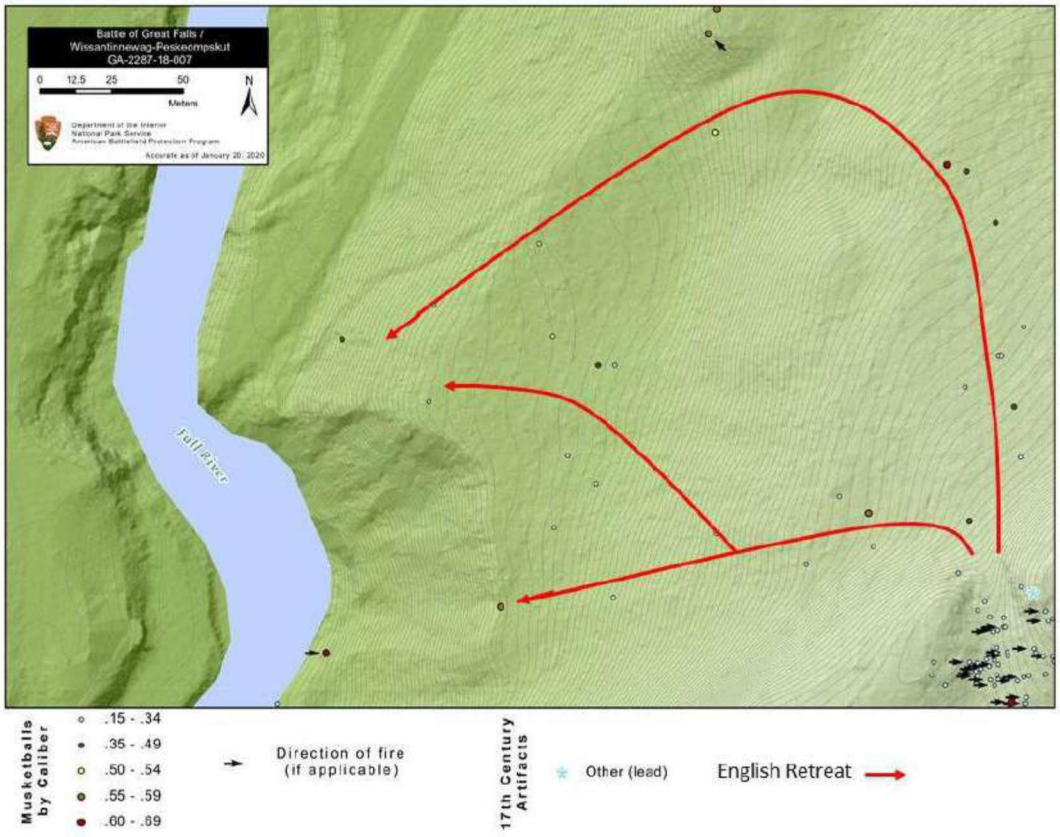


Figure 119. Locus D Musket Ball Distributions and English Retreat.

Based on the distribution of musket balls it appears that the 20 English soldiers in Wells' group split into two groups after exiting the gap and took two or three different routes across the terraces to descend to the Fall River (Figure 119). Whether this was the result of close pursuit by Coalition forces that split the group, or the soldiers retreated the same way(s) they traveled up the steep incline from the Fall River unclear, but they were being hotly pursued. There are only a few locations along the terrace edge where the English could safely descend to the Fall River, although if someone one was being fired upon they would attempt to make the descent anywhere. One group took a westerly path, and the second group took a northerly path before swinging to the west (Figure 119). One and perhaps two .56" diameter musket balls (the most northerly of the musket balls) appear to have been fired by Coalition forces from the southwest to northeast at the English along their northern route of retreat (Figure 119).

Locus E: English Assembly/Horse Hitching Area. The battlefield terrain associated with Locus E is characterized by a broad, gently sloping terrace that varies between 100 and 250 yards west of the Fall River to the base of a slope that rises steeply from the two hundred foot to the 260' contour interval to the edge of a terrace that demarcates the broad flat terrace at Locus F (Figure 120). The Lower Factory Hollow terrace stretches six hundred yards north along the Fall River from the confluence with the Fall Brook and encompasses an area of approximately thirteen acres (Figure 116). The area is more than sufficient space to secure 140 or so to the young trees described in the narratives.

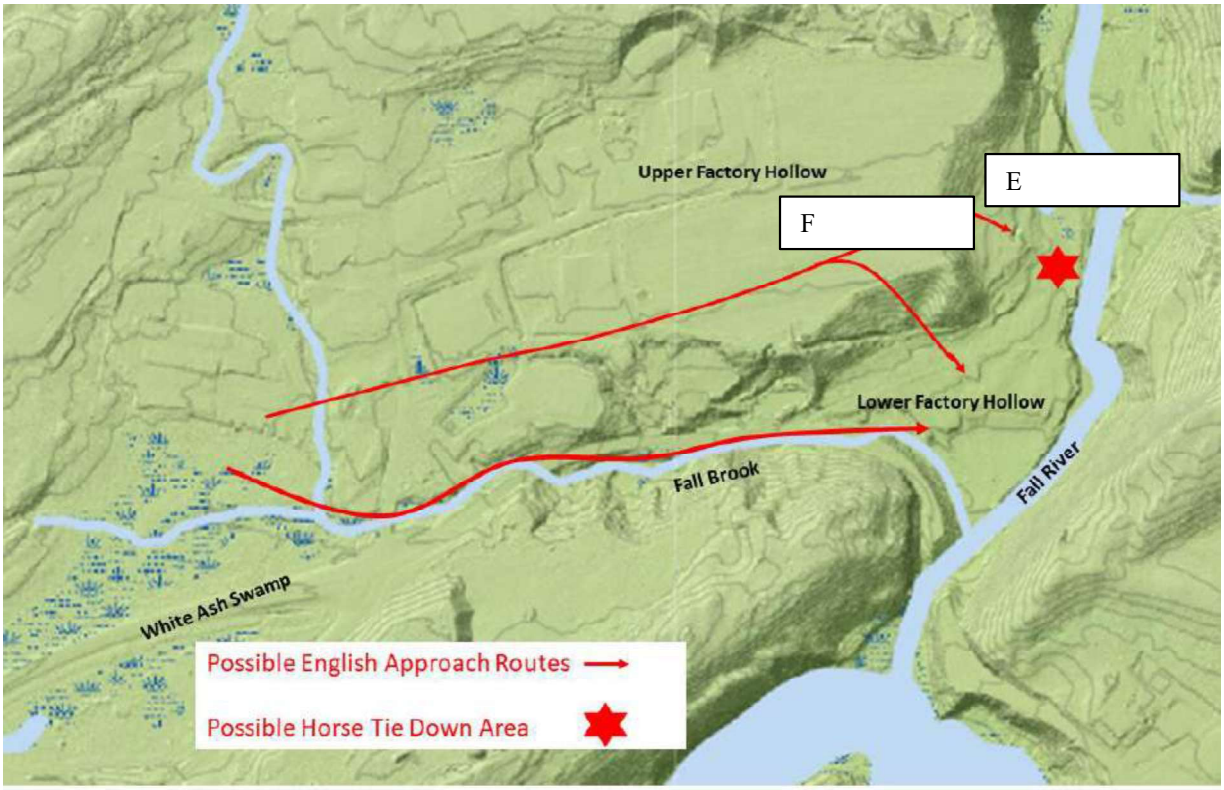


Figure 120. Locus E & F and Possible Routes of English Approach to Factory Hollow.

Two actions took place in Locus E; where the English dismounted and tied their horses to some small trees one quarter of a mile away from the village at Peskeomskut, and the counterattacks from two groups of Coalition forces; one pursuing Wells' group across the Fall River from the east, and a second group from Rawsons Island coming north up the Fall River to attack the English guarding the horses (Figure 42).

The only source that mentions the Horse Hitching area is Hubbard who does not indicate precisely where the horses were tied other than "When they came near the Indians rendezvous,

they alighted off their horses, and tyed them to some young trees at a quarter of a mile distance", which could refer to a location anywhere in the Lower Factory Hollow area. As discussed earlier it is unlikely the English crossed the Fall River on or leading horses as it would be difficult if not impossible to negotiate the slopes with horses.

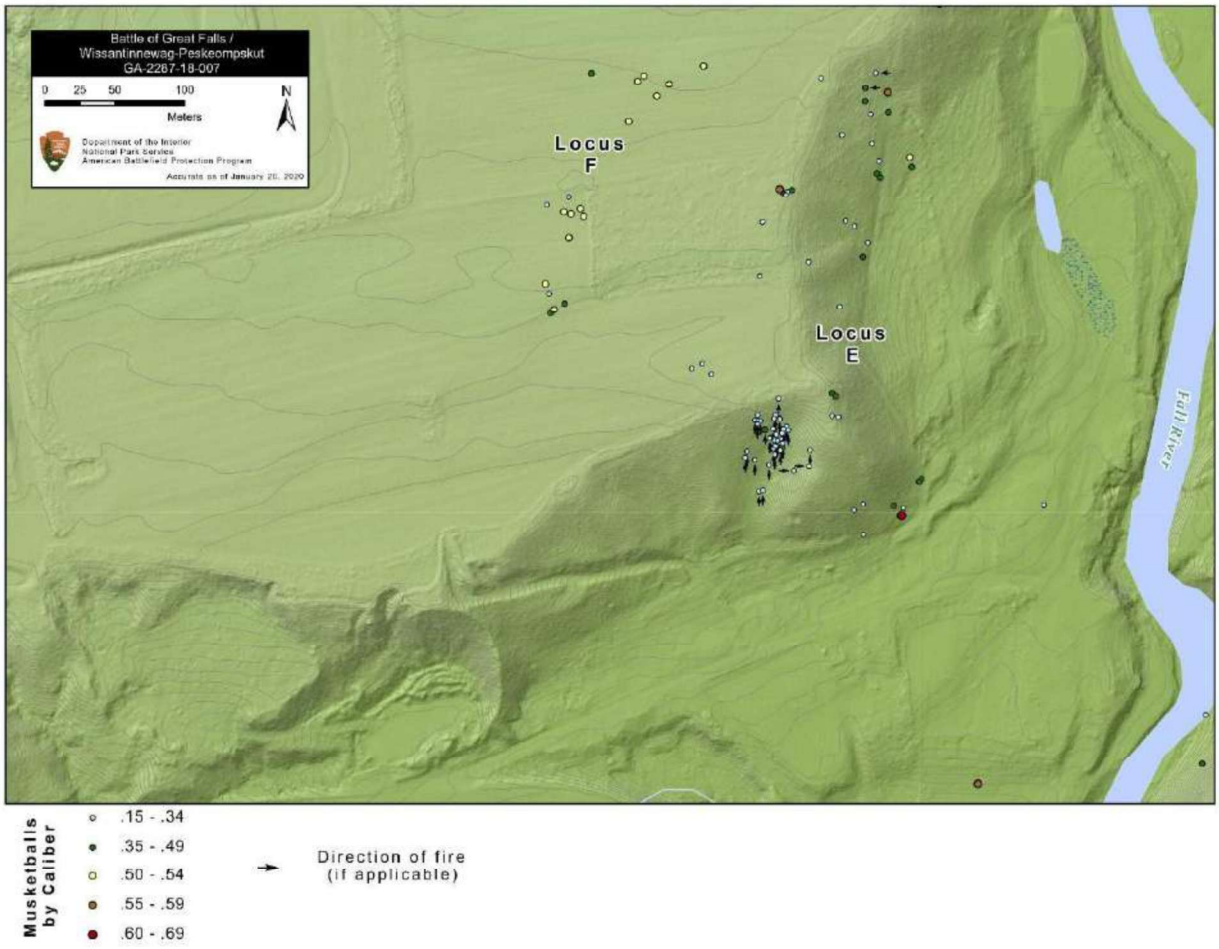


Figure 121. Loci E and F - Factory Hollow Musket Ball Distributions.

If the English descended the Fall Brook into Lower Factory Hollow and tied their horses one quarter of a mile from where they dismounted, the Horse Hitching Area would be located in the more northerly portion of Lower Factory Hollow (Figure 121). Alternatively, the English could have approached Lower Factory Hollow from White Ash swamp using the terrace and swales leading from Upper to Lower Factory Hollow but based on Hubbard's reference the Horse Tie Down Area would still be in the northern portion of Lower Factory Hollow.

The steep incline that connects Lower and Upper Factory Hollow rises sixty feet over 225 feet (one foot per yard with 25% slope) which would make it extremely difficult for mounted, or

even dismounted soldiers leading their horses, to ascend or descend. The slope does contain several east-west trending swales (areas of a depression or a hollow) of significantly less incline that mounted soldiers could easily ascend even at a gallop (Figures 121-122). The swales are spaced at varying intervals along a 325-yard stretch of the slope, and all contain concentrations of musket balls. This may indicate that the horses were dispersed throughout Lower Factory Hollow and when the English retrieved their horses, they retreated up the nearest swale to escape Coalition fire.

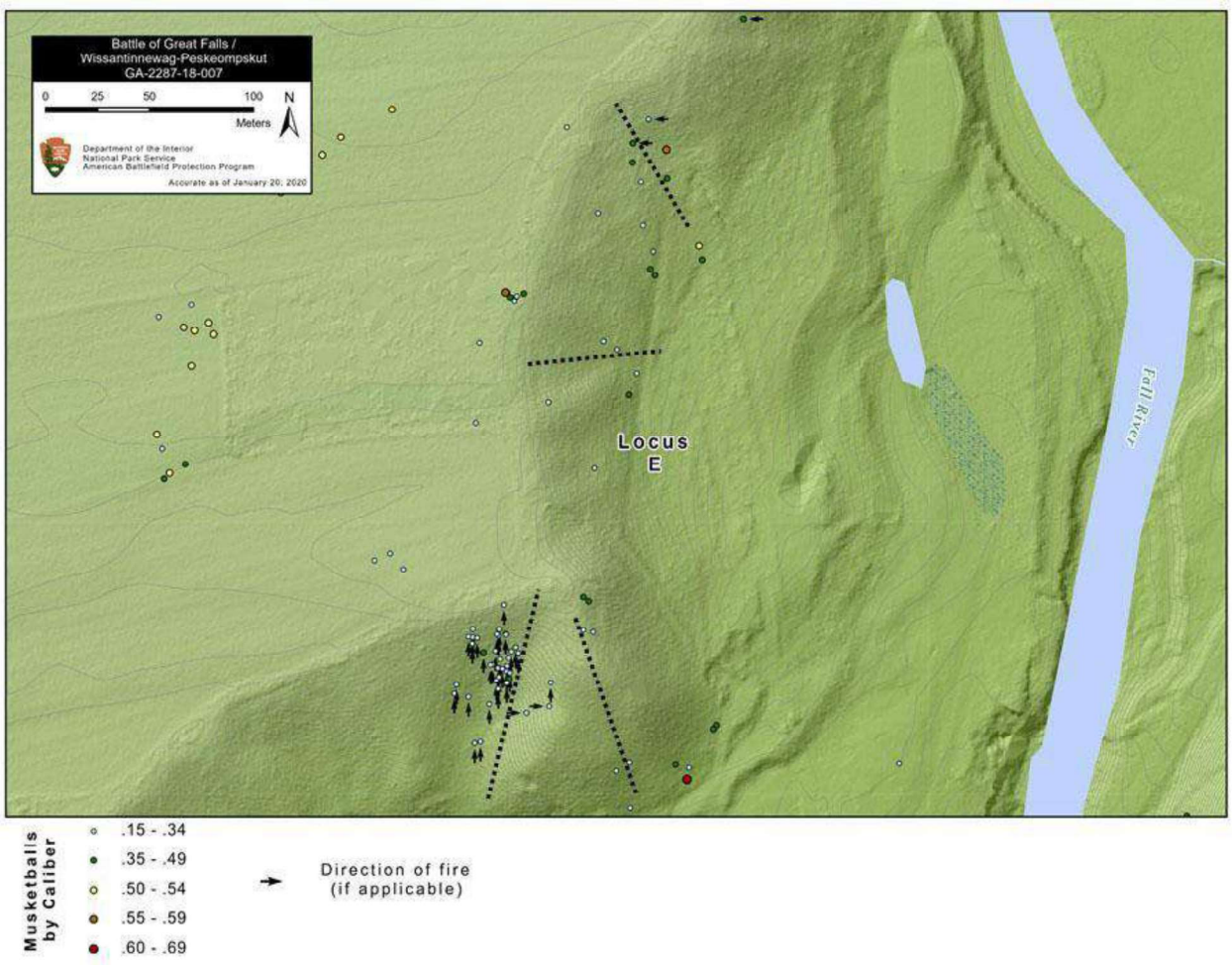


Figure 122. Locus E – Lower Factory Hollow Musket Ball Distributions, Direction of Fire and Swales.



Figure 123. Locus E Swale. Pink Flags Mark Musket Balls.

There are a few descriptions of the action(s) that took place in Lower Factory Hollow when the English reached the Horse Hitching Area to retrieve their horses:

…for some of the enemy fell upon the guards that kept the horses.[233]

[233] Hubbard. *Narrative of the Indian Wars*. P. 206.

> In the meanwhile, a party of Indians from an Island (whose coming on shore might easily have been prevented, and the Souldiers before they set out from Hadley were earnestly admonished to take care about that matter) assaulted our men.[234]

> …ab^{t} 20 men, y^{t} tarried behind to fire at some indians yt were comeing over y^{e} River and were left by y^{e} company, and were forcd to dispute ye point wth y^{e} Enemy a considerable time before y^{y} cd recover y^{t} horses.[235]

Turner's group of one hundred or so soldiers (not including the 30-40 men in Wells' group) reunited with the 20 men guarding the horses and who were under fire from Native Coalition troops who approached north along Falls River from their base at Rawson's Island. By the time Wells' group reached the horses the men had to go on the attack to recover their horses and escape to link up with the main body of men on their retreat west. Once mounted and retreating after Turner, Wells' group faced attacks from all directions.

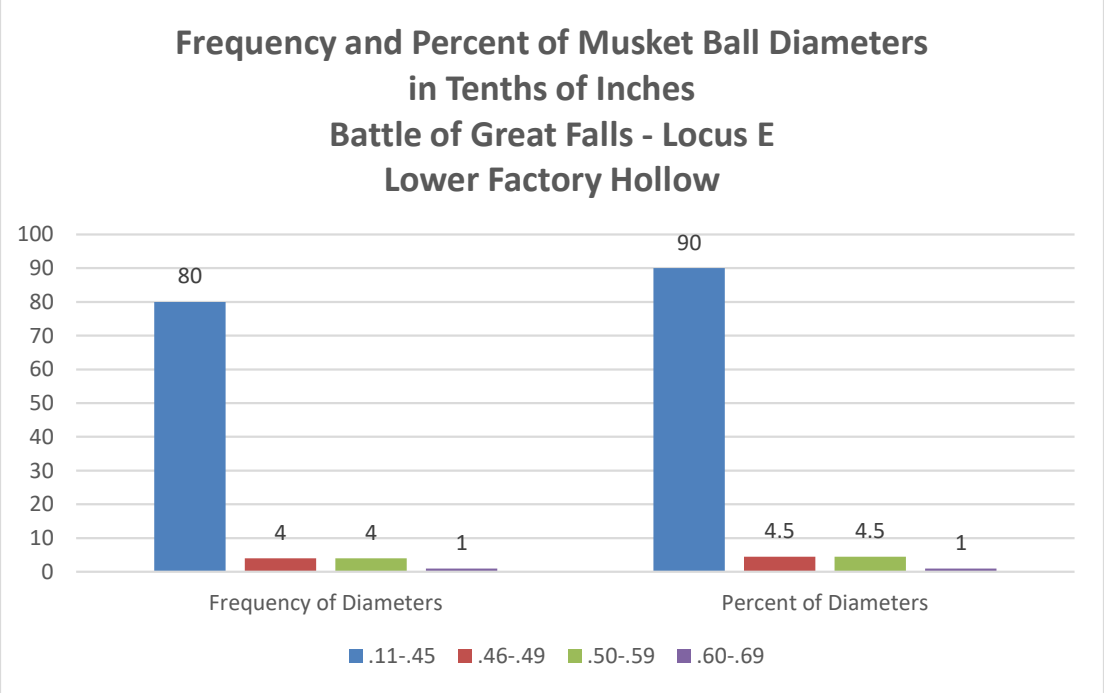


Figure 124. Locus E Frequency and Percent of Musket Ball Diameters.

[234] Mather. *Brief History*. P. 49

[235] Thomas. "Rev. Stephen Williams's Notebook." P. 15.

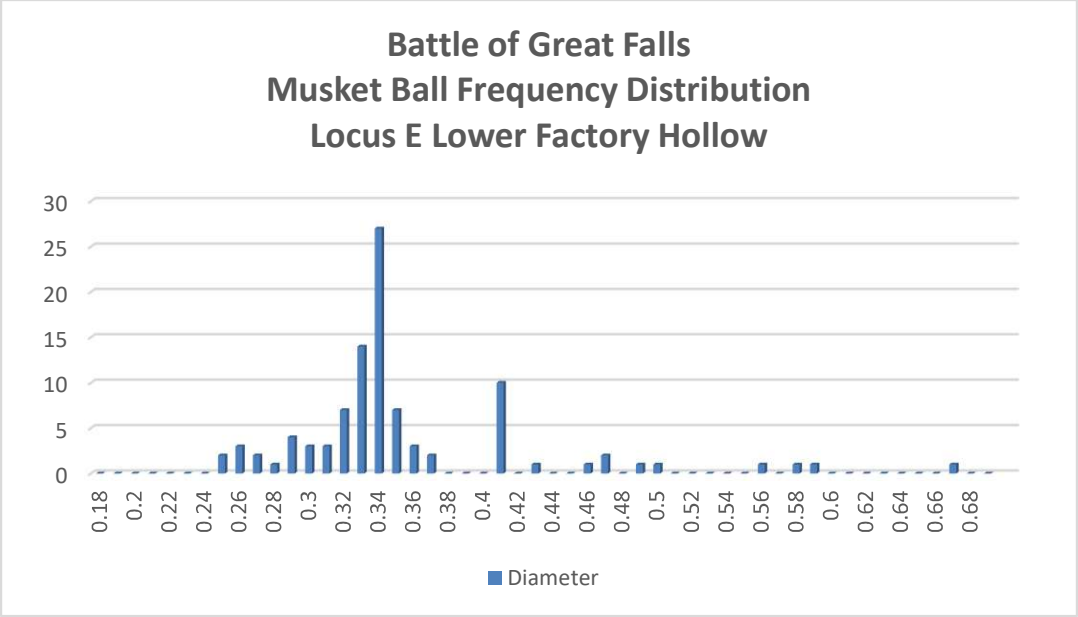


Figure 125. Locus E Lower Factory Hollow Musket Ball Frequency Distributions.

Eighty-nine musket balls were recovered from Locus E, 87 (98%) were recovered directly from the swales leading to Upper Factory Hollow or at the toe of the slope leading to the swales (Figures 124-125). These distributions reflect only the final phase of the fighting in Lower Factory Hollow as Coalition forces attacked the now mounted English as they were trying to escape from Lower Factory Hollow and had to use the swales as their only path of retreat. Unfortunately, there is little evidence of the Coalition attacks on Wells' group or the horse guard because any battle related objects are obscured by industrial activity and related artifacts that are distributed throughout Lower Factory Hollow. The soil is so saturated with non-battle-related iron, brass, and lead objects it proved nearly impossible to detect and recover any battle-related objects.

Seventy-Five percent (n=67) of the musket balls from Locus E were small shot (.15"-.34" diameter) and of those 57% (n=51) had facets, considered to be characteristic of Coalition fire (Figures 124-125). Of the small shot in the swales for which a direction of fire could be determined, all indicated a direction of fire upslope, consistent with the hypothesis that Coalition forces were chasing the mounted English up the swales as they attempted to escape from Lower Factory Hollow (Figures 122-123). The association of the musket balls with the swales, distributed over a 325-yard stretch, indicates that after the English retrieved their horses, they used the nearest swale to escape their Native pursuers. Nineteen percent (n=17) of the ball were in the pistol/carbine

caliber range (.35”-.49” diameter) and could be from English fire. A little over 5% of the ball (n=5) were in the .50+” diameter range and could be associated with either English or Coalition forces (Figures 124-125).

There should be a recognizable signature of musket balls in Lower Factory Hollow east of the slope to mark the location(s) where Well’s group and the horse guard fought Coalition forces, but only two musket balls were recovered due to the extensive post-battle disturbance; a dropped .37” diameter and an impacted .56” diameter ball (Figure 124). These musket balls could be associated with either Coalition or English forces, but more likely Coalition forces. Three musket balls (.31,” .37,” .60” diameter) were recovered at the toe of the slope on the east side of the Fall River and are also related to the fighting in Lower Factory Hollow (Figures 126 & 127). All three musket balls were impacted and fired from east to west across the Fall River presumably at the English descending the terraces. While they could be the result of fire from Wells’ group or the horse guard directed at Natives attacking from the east across the Fall River, or overshot from the general fighting in Lower Factory Hollow, the most probable scenario is that the fire was from Coalition forces who had come up the Fall River and directed their fire at Well’s group as they fled down the slope to escape the Native attackers in their rear.

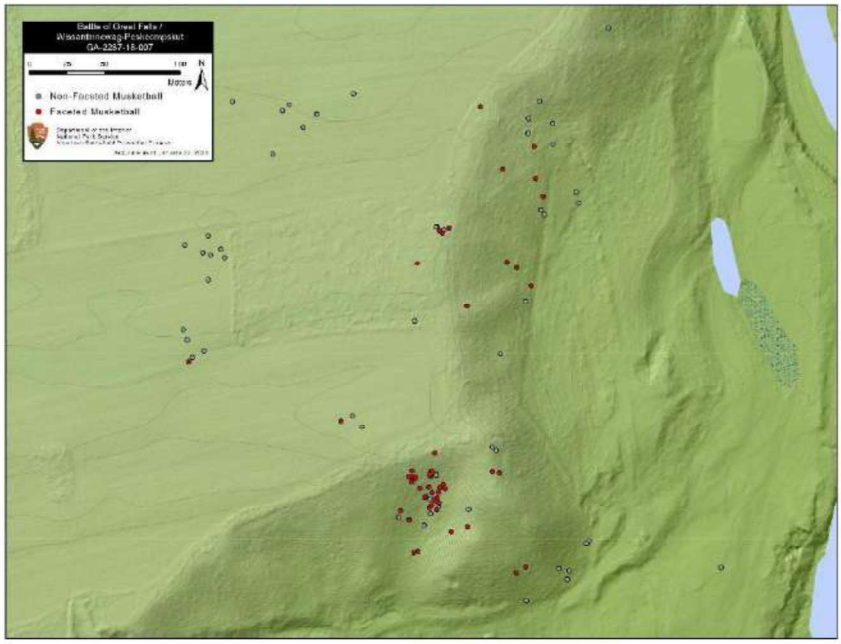


Figure 126. Locus E Musket Balls with Facets.

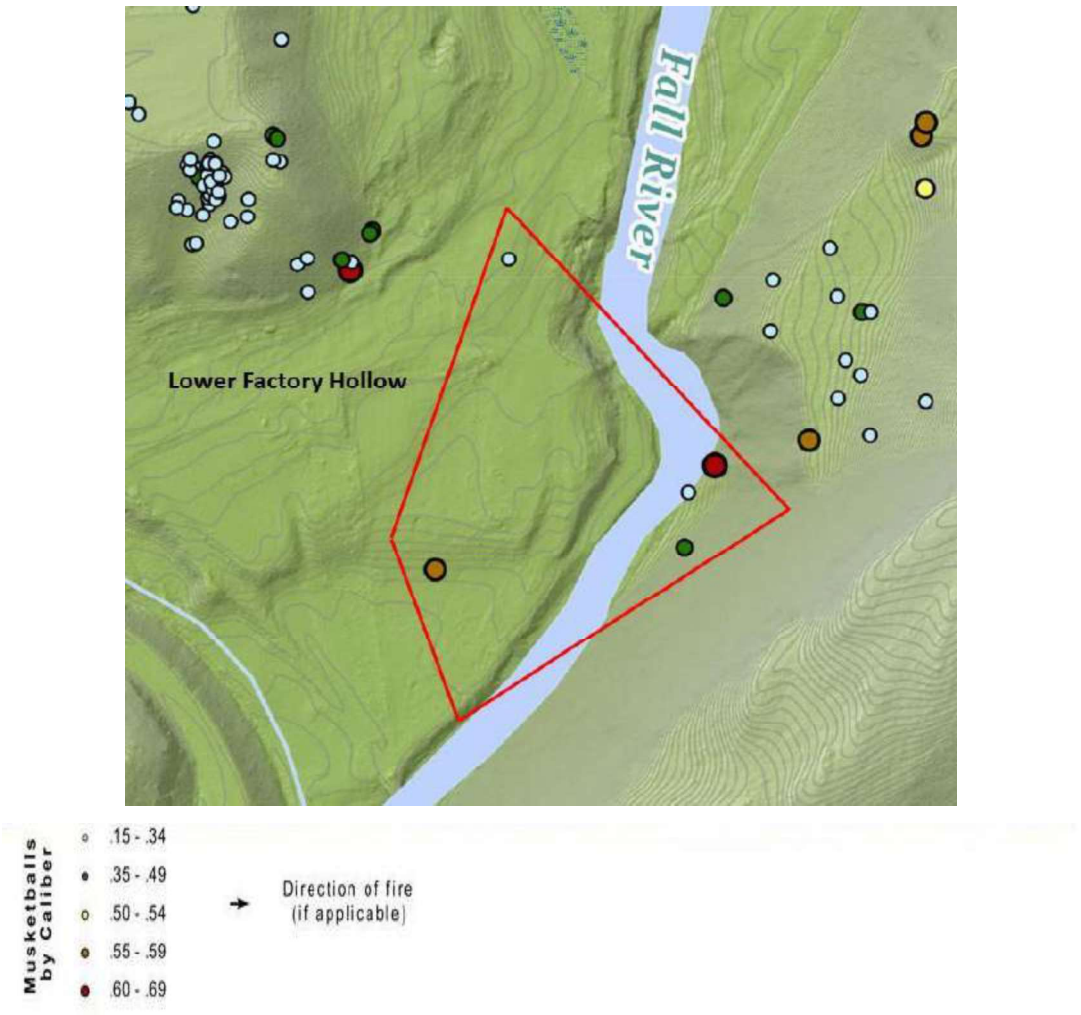


Figure 127. Locus D and E Musket Balls Associated with Fighting in Lower Factory Hollow.

Two horseshoes were recovered in Lower Factory Hollow. One was modern (cast), but the second was handwrought, suggesting it could be seventeenth century. Seventeenth-century horseshoes can be highly variable with respect to shape and width and are often (but not always) wider than later eighteenth and nineteenth century horseshoes. Figures 128 & 129 depict horseshoes from King Philip's War contexts. Figure 124 are horseshoes from the Wheeler's Surprise site (August 2-4, 1675) in New Braintree, Massachusetts. The site is where one hundred Quabaug and Nipmuck Indians ambushed a mounted contingent of 22 English and Praying Indians sent to negotiate with the Quabaug at the beginning of Philip's War. The group was ambushed as they were passing along a narrow trail between a steep hill and a swamp. Eight English and several horses were killed trying to escape up the hill. Both horseshoes, several musket balls, and a shoe

buckle were metal detected on the hillside and are on display in the New Braintree Historical Society. depicts horseshoes from the Second Battle of Nipsachuck (July 3, 1676) in North Smithfield, Rhode Island which are like the one recovered from Lower Factory Hollow.

The Second Battle of Nipsachuck consisted of a mounted attack and envelopment by three hundred Connecticut dragoons and one hundred Mohegan and Pequot on a Narragansett refugee village in North Smithfield, Rhode Island. Metal detected horseshoes and handwrought horseshoe nails were recovered from the battlefield.



Figure 128. Locus E Hand Wrought Horseshoe (L) and Modern Horseshoe (R).



Figure 129. Horseshoes from the Wheeler's Surprise Site, New Braintree, MA.

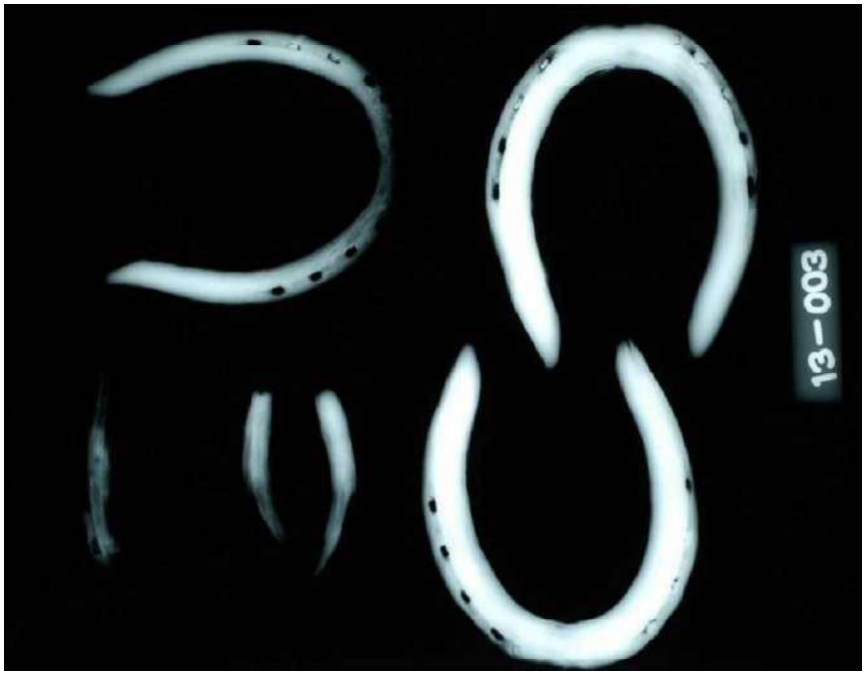


Figure 130. Horseshoes from the Second Battle of Nipsachuck.

Although the horseshoe from Lower Factory Hollow is narrow compared to most seventeenth century horseshoes, the from and width is like horseshoes recovered at Wheeler's Surprise and the Second Battle of Nipsachuck (Figures 129-130). Brass and iron rings and two hand wrought iron

buckles were also recovered from Lower Factory Hollow that could be horse tack but given the centuries of industrial activity in Factory Hollow the objects cannot be associated with the Battle of Great Falls with any degree of certainty.

Locus F: Upper Factory Hollow: Upper Factory Hollow is a large plain of 50 acres that measures 750 yards east to west and 350 yards north to south. Upper Factory Hollow is considered a key terrain feature as it provided the primary avenue of retreat for the English after they retrieved their horses and exited Lower Factory Hollow. The plain is bounded on the east and north by a very steep incline that forms the boundary with Locus E (Figure 131). Locus F is defined by a distribution of twenty-one musket balls and five battle-related objects of possible horse tack that were recovered in three distinct concentrations within a two-acre area (Figures 131 & 133). The distribution of musket balls and horse tack only extends for approximately 160 yards east to west and ends abruptly five hundred yards from the western end of Upper Factory Hollow (Figures 131 & 134). Although an additional five acres in Upper Factory Hollow were surveyed west of the concentrations, no musket balls or other battle related objects were recovered. This pattern suggests that most of the mounted English may have temporarily outdistanced their Native pursuers when they reached Upper Factory Hollow until they were ambushed at White Ash Swamp. It may also be the case that the Native fire evident in the musket distributions in Locus E and F were directed at the last of the English attempting to escape from Lower Factory Hollow. There is a fourth concentration of musket balls that is technically in Locus E and is located at the top of the slope leading from Lower Factory Hollow where a swale empties onto Upper Factory Hollow (Concentration #4; Figure 131; Table 9). Eighty-eight percent (n=7) of the ball were small shot indicating the target was very close.

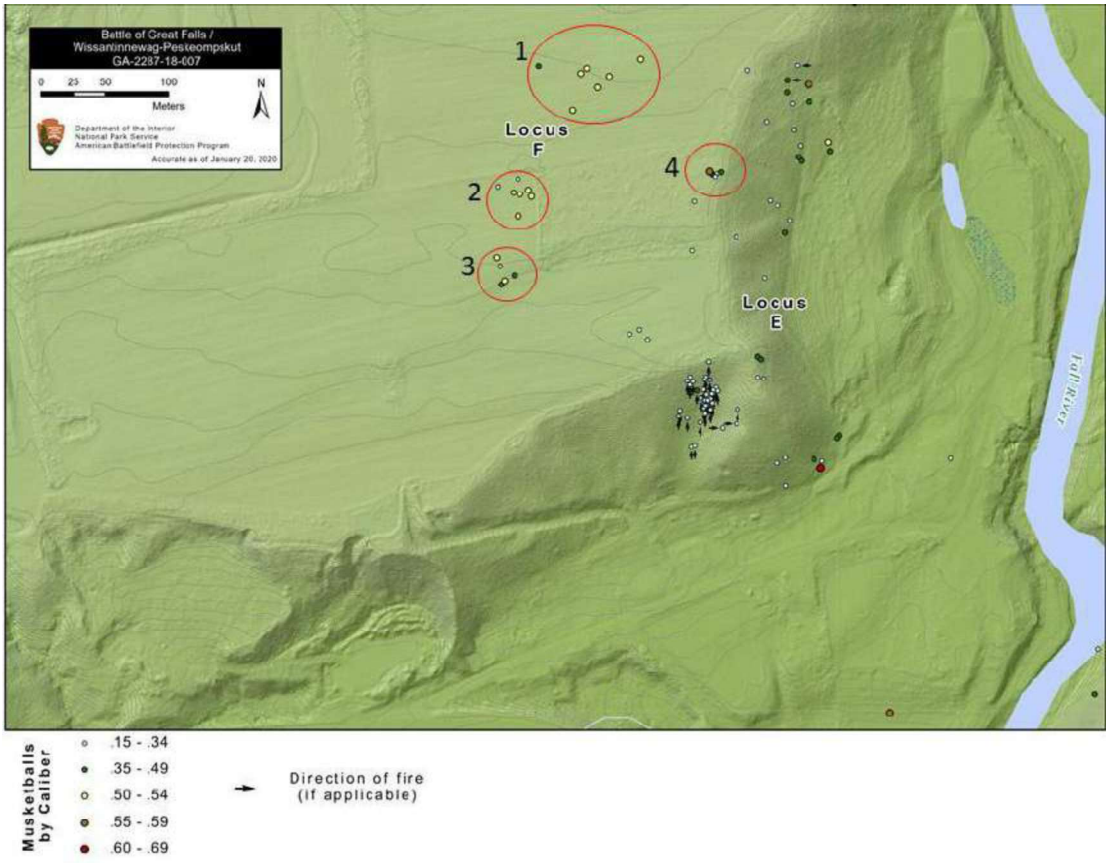


Figure 131. Locus E and F Musket Ball Concentrations.

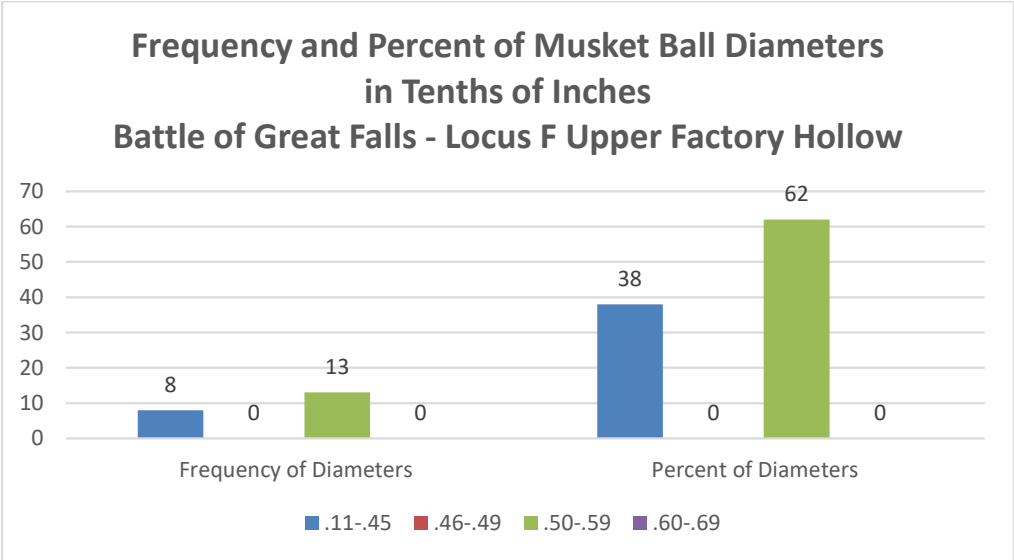


Figure 132. Locus F Frequency and Distribution of Musket Ball Diameters.

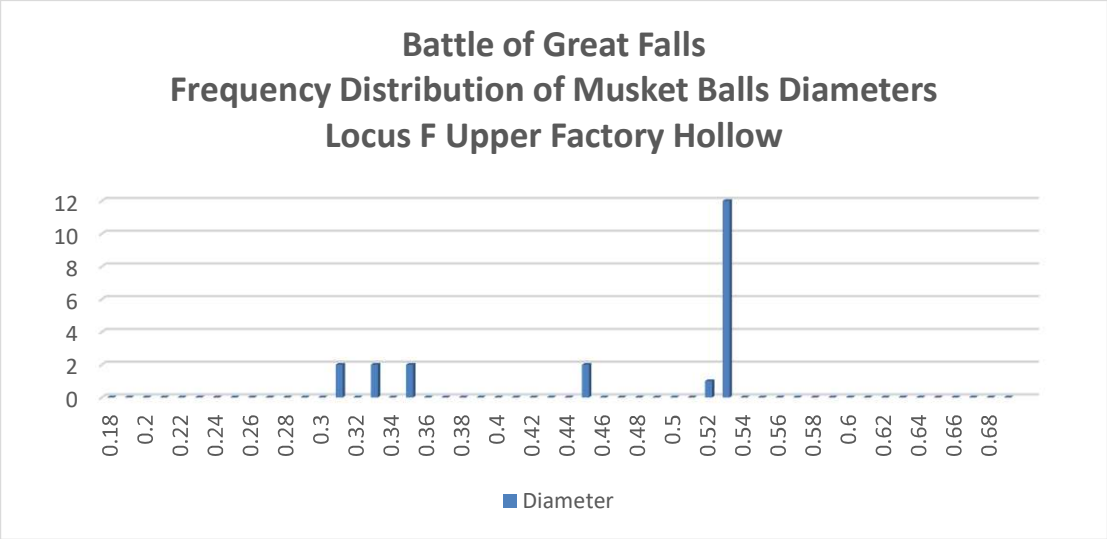


Figure 133. Locus F Frequency Distribution of Musket Ball Diameters.

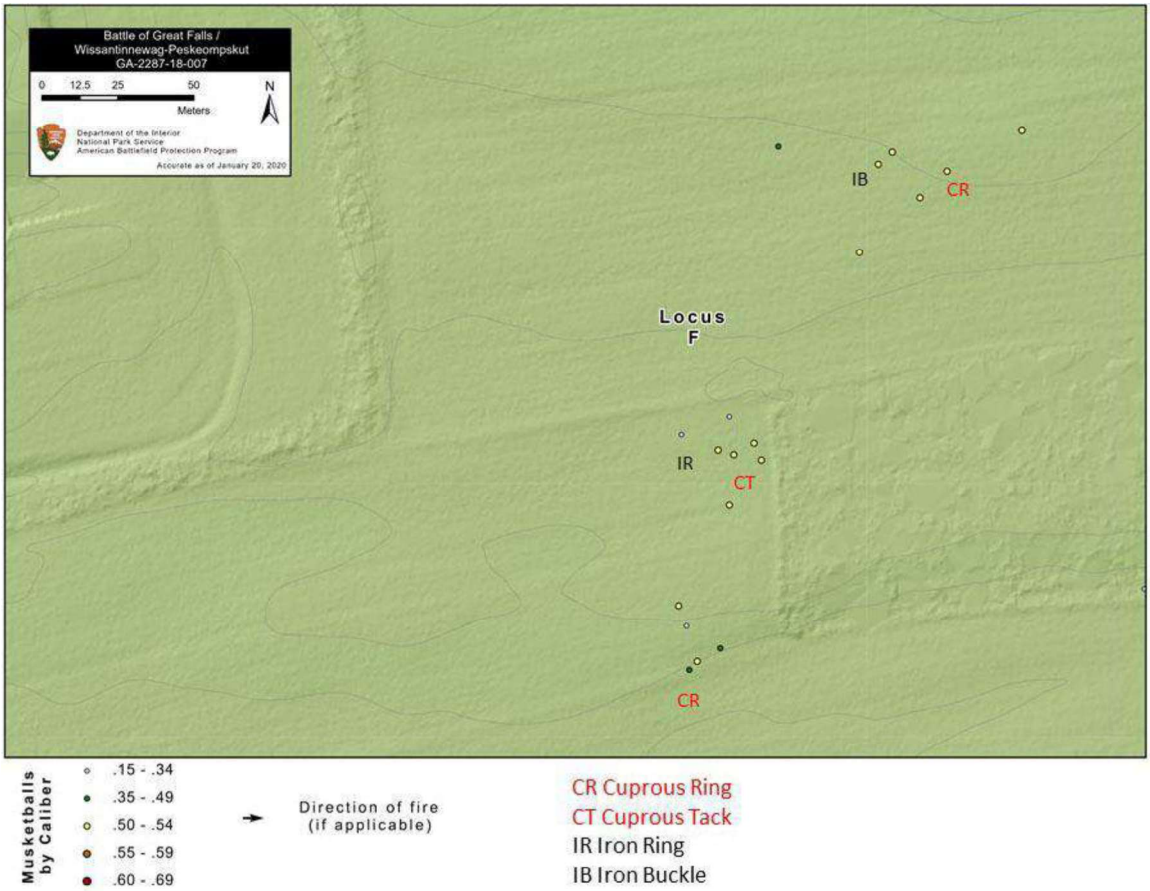


Figure 134. Locus F Musket Ball and Horse Tack Distributions.

Table 6 and Figures 134 and 135 depict the musket ball diameters and horse tack associated with each concentration (Figure 135). These concentrations, particularly numbers 1-3, are a unique

signature not seen elsewhere on the battlefield. In Locus F (concentrations 1-3), 74% (n=14) of the ball are larger diameter musket balls fired as a single round (Figure 134; Table 6). The only .45" diameter ball from Locus F included in this category has a firing hemisphere indicating that it too was fired as a single round either from a pistol or carbine.

Table 6. Locus E and F Musket Ball Diameters and Horse Tack by Concentrations.

Concentration #	.59" di.	.53". di	.52". di	.45". di	.35" di.	.33" di.	.32" di.	.31" di.	Horse Tack
1		5	1	1					2
2		4						2	2
3		2		1	1	1			1
4	1				2	2	3	1	0
Total	1	11	1	2	3	3	3	2	5

A section of Jonathan Wells' narrative describes the intense fighting that took place in Upper Factory Hollow. One passage in his narrative refers to an area "about a quarter of a mile [from] where they took their horses" before Wells reached the White Ash Swamp which places the location in Upper Factory Hollow assuming the Horse Hitching Area was somewhere in Lower Factory Hollow. The passage also indicates that both English soldiers and horses were being targeted:

> Jonathn Wells Esq. then abt 16 years and 2 or 3 months old, was wondd abt a quarter of a mile where they took yr horses being in ye rear shot by 3 indians. One bullet struck his thigh bone & one bullet brushd his hair, and ye other struck his horse behind, & broke part of ye bone which before had been broken by a cart wheel & never set but lapd & shatter part of ye bone & ye other part stuck where it lapd . J fond he had likd to have fallen but catchd hold of ye horse's main & kept ye indians back by presenting his gun once or twice & wn yy stopd to charge he got from ye & came up to ye capt: & psuadd him to turn & take care of ye men in ye rear but he sd he had better lose some than lose all & then he fell into the rear again & took wth a Small company yt Separatd from others yt ran upon a parsell of indians near a Swamp & were most of ye killd.[236]

There are several scenarios which could account for the pattern of musket balls and associated horse tack in three discrete locations. During this phase of the battle, mounted English soldiers ascended the steep slope from Lower Factory Hollow using the swales to escape the Native soldiers in close pursuit. Upon reaching the flat plateau at the top of the slope the English soldiers rode as rapidly as possible to put distance between they and their attackers, who reached the top

[236] Thomas. Notebook of Stephen Williams. P. 24.

of the slope soon after and opened fire on some of the English while they were still within musket range (i.e. 100 yards). Several English soldiers and/or their horses were hit and fell as they exited the swales which drew Native gunfire to their positions. The close association of large musket balls and horse tack indicates a battlefield event in which Native soldiers positioned one hundred yards to the east along the ridgeline concentrated their fire on at least three English soldiers who may have been taking cover behind their downed horses.

All four concentrations of musket balls are most likely the result of repeated and concentrated fire at a single target(s) otherwise the musket balls would be distributed in a wider pattern across the area. Concentrations 1-3 are located one hundred yards west of the ridge line and indicate longer-range musket fire from Native soldiers who were positioned just below and along the edge of the slope leading down to Lower Factory Hollow. The location of the musket ball concentrations one hundred yards west of the terrace edge, and the lack of any musket balls recovered in the 100-yard interval between the three concentrations, and the terrace edge indicates that there were no targets between the terrace edge and the three musket ball concentrations (Figure 134). The fact that the thirteen large musket balls in the three concentrations in Locus F are nearly identical diameter suggests they could have been fired from the same caliber weapon and perhaps fired by the same individual. While it is possible that one Native soldier fired and reloaded thirteen times at the targets, it is equally plausible that several Native soldiers with identical caliber weapons were firing and reloading.

Only 16% of the musket balls in concentrations 1-3 are small shot, also a unique signature compared to the rest of the battlefield loci. Small shot fired as buckshot is generally ineffective beyond 40 or 50 yards as the shot patterns spreads so far at those distances it would be hard to hit a target and would likely not do any damage as the load would lose considerable velocity over that distance. If loads of small shot were fired at a distance of one hundred yards it would also be spread over a large area. The presence of small shot only within the small, concentrated areas in Locus E and F suggests they were fired at close range. The English may have initially been fired upon with larger diameter ball and when they were disabled and out of action Native soldiers approached them and fired on them at closer range. It is doubtful that the downed English soldiers escaped from Upper Factory Hollow.



Figure 135. Possible Horse Tack Components**.**

Locus G: White Ash Swamp: White Ash Swamp is an east-west trending wetland that begins a few hundred yards west of Upper Factory Hollow and extends .75 miles west to within .2 miles of Cherry Rum Brook (Figure 136). The more level and dryer terrain along the northern boundary of the swamp could support horses and was used by the English as an avenue of retreat. A linear and evenly spaced pattern of musket balls and battle-related objects (brass ram rod sleeve Figure 136) were distributed along the northern edge of the swamp for .65-miles. Recovered battle related objects include forty-three musket balls and a few seventeenth century brass and pewter buttons, and two ramrod sleeves. One of the ramrod sleeves had an intentional 'V' shaped cut. The purpose of the cut is not known but it may have functioned as some kind of whistle (Figure 139). It is pure speculation but perhaps Coalition commanders used such a device to communicate with their troops.

The distribution of musket ball diameters is similar to most of the other battlefield loci; a high percentage of .15"-.34" diameter small shot (71%; n=32) and lesser amounts of 35"-.49" (11%; n= 5), .50.-54" (2.2%; n=1), .55"-.59" (9%; n=4), and .60"-.69" (6.5%; n=3) diameter musket balls (Figure 124). Fifteen (47%) of the small shot exhibited facets indicating they were fired by Coalition forces as buckshot. The few musket balls in the .35"-.49" diameter range and a few in the .60" - 55"- .69" suggests English fire (Figures 137-138). Generally, the overall pattern suggests intense Coalition fire from the swamp at the retreating English as they traversed the higher ground north of the swamp.

Several sources refer to the ambush at While Ash Swamp as the battle event that caused the most significant number of English Casualties and spread disorder through the column:

> and the Souldiers so cut off were supriz'd by a Party of the Enemy belonging to the *Indians* at *Deer-field-falls,* who having gotten before our forces had laid and Ambush, the chiefest execution of which was through too much fear of our Men whereby the disordered themselves.[237]

> On their route the Indians had laid ambush in a swamp, but as the English were not all together, only part of them went that way. The ambushing Indians slew many of that group, in fact, about thirty-eight.[238]

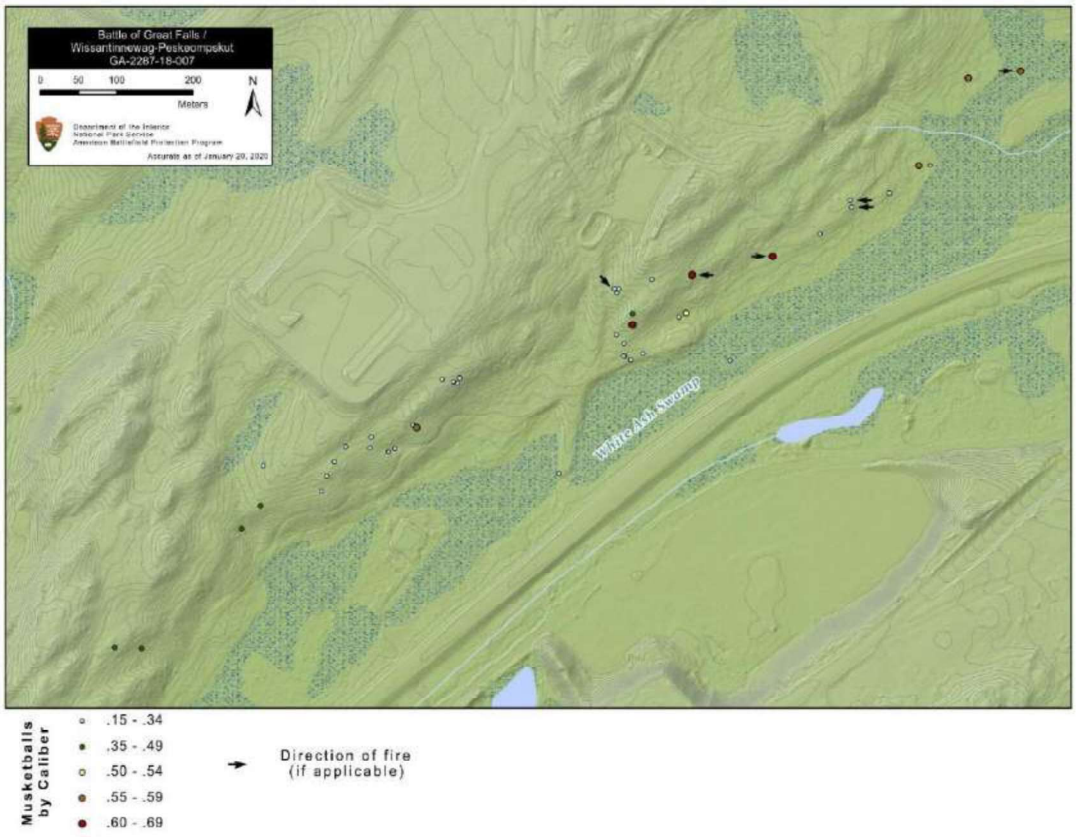


Figure 136. Locus G Musket Ball Distributions and Direction of Fire.

[237] L'Estrange. *A True Account*. P. 4.
[238] Leach. *A Rhode Islander Reports*. P. 80.

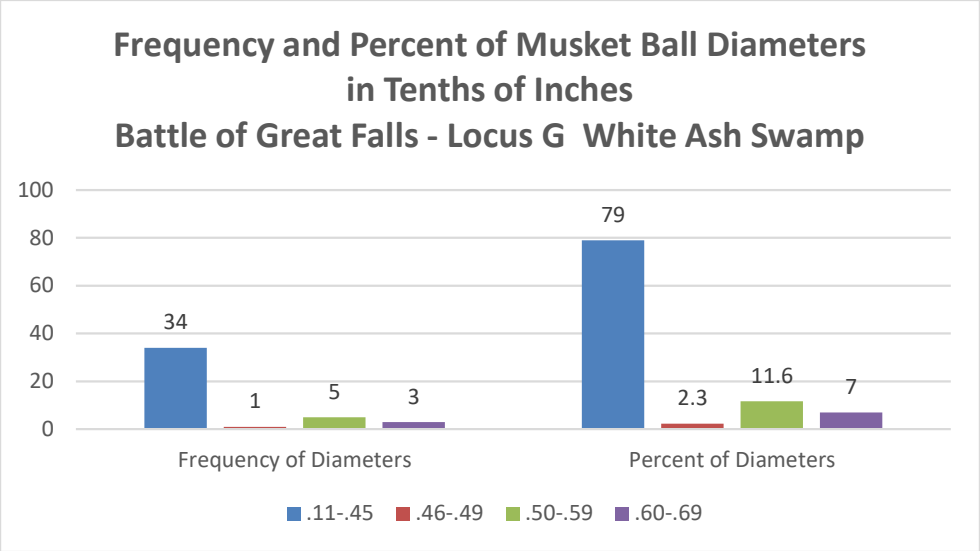


Figure 137. Locus G. Frequency and Percent of Musket Balls.

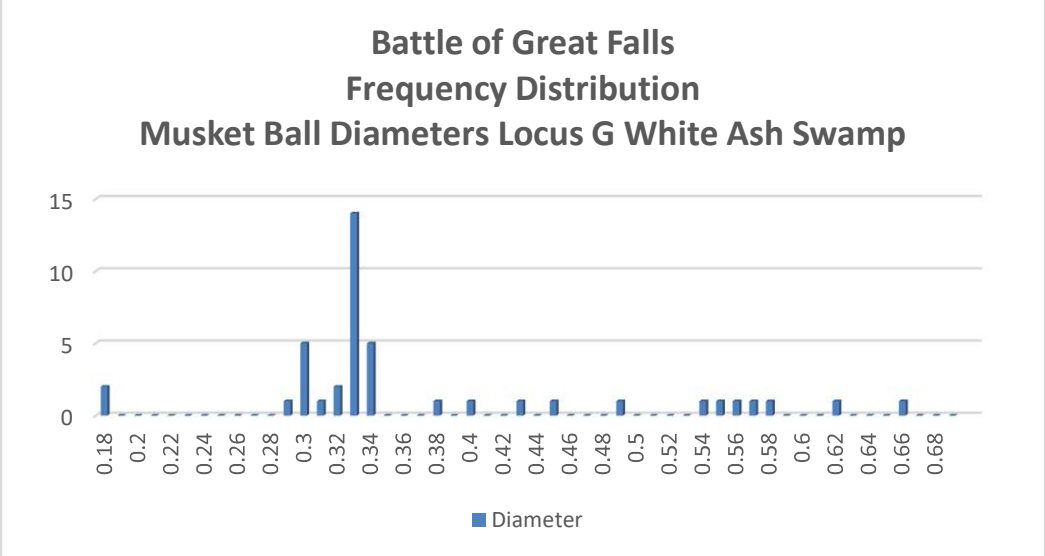


Figure 138. Locus G. Musket Ball Frequency Distribution.



Figure 139. Locus G Musket Ramrod Sleeve.[239]

> Wells fell into the rear again and took wth a small company yt separated from others y^{t} run upon a parcel of Indians near a swamp & was most of y^{m} killed. They then separated again & had about ten men left with him, and his horse failing considerably by reason of his wound, & himself spent wth bleeding, he was left with one John Jones, a wounded man likewise. He had now got about 2 miles from ye place where yy did y^{e} exploit in, & now y^{y} had left y^{e} track of y^{e} company & were left both by y^{e} Indians y^{t} persued y^{m} and by their own men that should have terried with y^{m}.[240]

At least two groups of English appear to have been ambushed in the swamp, a large group under Turner and perhaps Holyoke and a smaller group with Wells. Both Harris (Leach) and Wells indicate the English suffered very high casualties because of the ambushes. Harris claims all 38 of the English casualties were in the group "that went that way [i.e. swamp]. The 'group' he refers to may include all of the English that followed that avenue of retreat, the main body and Wells' group. Wells claims he was with a small company and not with the main body and that most of the soldiers in his group was killed in the ambush. Harris also refers to a group of English who had split from the main body before the ambush in the White Ash Swamp "but as the English were not all together, only part of them went that way."[241] Perhaps this was a group under Holyoke. L'Estrange does not mention the number of casualties but states that "the chiefest execution of which [ambush] was through too much fear of our Men whereby they disordered themselves". Regardless of how

[239] The 'V' shaped cut is purposeful and the object may have been used as a whistle.
[240] Thomas. *Notebook of Stephen Williams*. P. 24.
[241] Leach. *A Rhode Islander Reports*. P. 80.

these passages are interpreted it appears the English suffered significant (if not most) of their casualties in the swamp ambush.

None of the sources indicate precisely where the ambush took place along White Ash Swamp. Wells' reference that "He had now got about 2 miles from ye place where yy did y^{e} exploit" doesn't give a specific location either, only that he had traveled two miles from Peskeomskut where "now y^{y} had left y^{e} track of y^{e} company".[242] This passage does suggest that the ambush took place before Wells "left ye track".

It's tempting to assume that the ambushes took place in a single locale and that there would be high concentrations of musket balls to mark the location(s) of the ambush. However, the distribution of battle related objects indicates otherwise. It may be that there was not a specific location(s) where the ambush took place but occurred along the entire length of the swamp.

The distribution of musket balls in Locus G is evenly and continuously distributed along the entire .65 miles of the northern boundary of the swamp that was surveyed, with no evidence of a higher concentration of musket balls in a particular locale (Figure 136). However, approximately 170 yards at the eastern end of the swamp were not surveyed as the landowner did not grant permission and it is possible the area contains a higher concentration of musket balls. L'Estrange claims that the "Indians from Deerfield Falls having gotten before our forces had laid an Ambush." This indicates a separate group of Coalition forces than those who came up the Fall River or were pursuing Well's group from Peskeomskut. It is not known precisely where Deerfield Falls is located but the location may have been close enough to the battlefield to give Coalition forces sufficient time to set an ambush along the entire length of the swamp.

The direction of fire could be determined for several of the musket balls. Some were fired east to west from the swamp by Coalition forces and several larger diameter musket balls were fired from west to east in the direction of the swamp and are thought to be English fire. Based on the direction of fire associated with a few small diameter musket balls it appears that in some locations Coalition forces had the English 'sandwiched' between the swamp and uplands (Figure 136). Despite the narratives which give the impression the fight in the White Ash Swamp was one sided in favor of Coalition forces, it appears the English were beginning to mount a defense. Twenty-seven percent (n=12) of the musket balls were in the .35"-.49" and .55"-.69" diameter

[242] Ibid.

range which may be from English fire. Lieutenant Holyoke is credited with organizing his command into a cohesive unit that was better able to defend themselves:

> a fear possessed some part of the English, whereby they fell into a disorder, and thereby Captain *Turner* and several of his Souldiers were slain and others to the number of two and thirty. But Captain *Holyoke* exhorted them not to be terrifiyed, saying God hath wrought hitherto for us wonderfully, let us trust in him still: and reducing his men into close order made a safe and a valiant retreat, and preserved the Souldiers under him; that there were but few of them slain.[243]
>
> And if Capt. *Holioke* had not played the man at a more then ordinary rate, sometimes in the Front, sometimes in the flank and reer, at all times encouraging the Souldiers, it might have proved a fatal business to the assailants.[244]

L'Estrange also states that "the chiefest execution of which [swamp ambush] was through too much fear of our Men whereby the disordered themselves.[245] It is tempting to speculate that was the moment Holyoke stepped up and brought order to the column, but it is unknown which group Holyoke was with or even if he and his men took that avenue of retreat. However, it does appear that the English were better organized after the White Ash Swamp as the battlefield loci from the White Ash Swamp to the Deer River Ford indicate increasing amounts of English fire.

Locus H: Cherry Rum Brook Engagement: After the English reached the western end of the White Ash Swamp, they traversed three hundred yards from the end of the swamp to pick up the Cherry Rum Brook which served as their avenue of retreat to the Green River two miles away. Locus H is located .55 miles downstream from where the English picked up the brook. The three hundred yards between the end of the White Ash Swamp and the Cherry Rum Brook was not surveyed but based on the nearly continuous distribution of musket balls along the brook to the confluence with the Green River it is safe to assume that the English were under fire most of the way.

[243] L'Estrange. *A True Acount*. P. 4
[244] Hubbard. *A Narrative of the Troubles*. P. 86.
[245] L'Estrange. *A True Account*. P. 4.

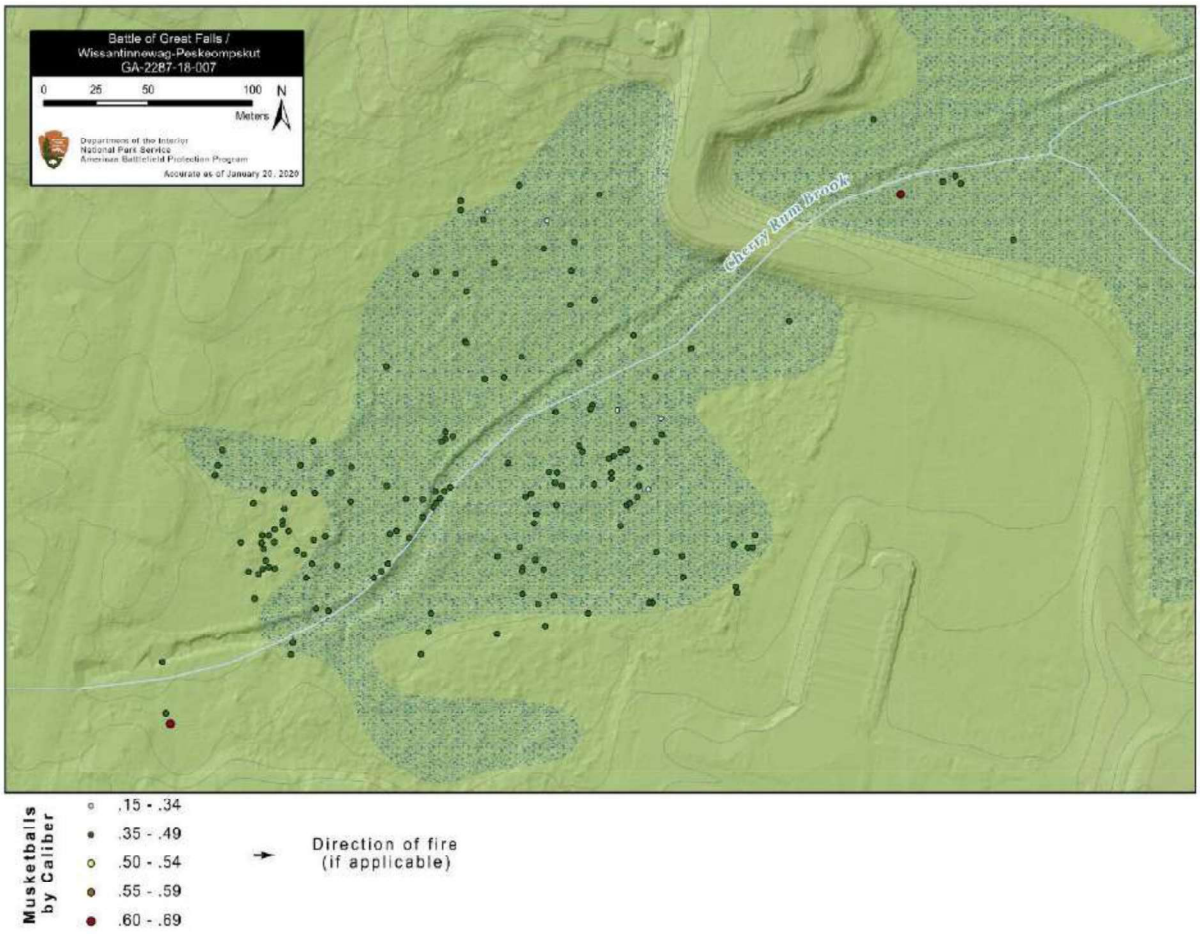


Figure 140. Locus H Spatial Distribution of Musket Balls.

The spatial distribution of musket balls in Locus H is largely associated with a six-acre portion of a 15-acre wetland bisected by the Cherry Rum Brook (Figure 140). There is a 70-yard gap in the distribution of musket balls toward the eastern end of Locus H, but that area was heavily impacted by the construction of Cherry Street and an elementary school. The survey at the western end of Locus H was never completed but nonetheless there does appear to be a lower density of musket balls at both the western and eastern ends of Locus H as if the intensity of fire increased and then abated from east to west (Figure 140). It is also interesting to note that the only large musket balls were located at the eastern and western ends of the wetland. The number of musket balls per acre in the eastern end of Locus H was 5/acre and in the 6-acre portion of the wetland in the middle portion of the locus the density was 25/acre. There is almost a perfect correlation between the distribution of the 166 musket balls recovered and the boundaries of the six-acre

portion of the wetland. There is a continuous distribution of musket balls that extends between a few yards to eighty yards on north and south sides of the brook. The stream bed is thirty feet wide and composed of a firm, packed gravel base which could easily support horses. The brook was wide enough in this area that the English could have ridden two abreast. Assuming the main body of English numbered sixty soldiers at this point in the battle, and they were riding two abreast, the column would have stretched between 320- and 350- yards along the brook.

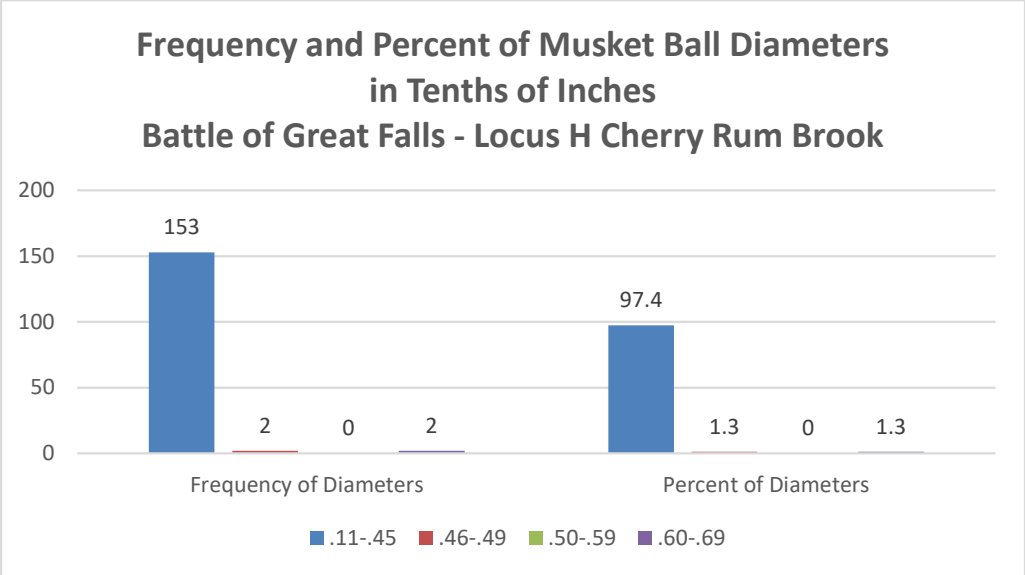


Figure 141. Locus H Frequency and Percent of Musket Balls.

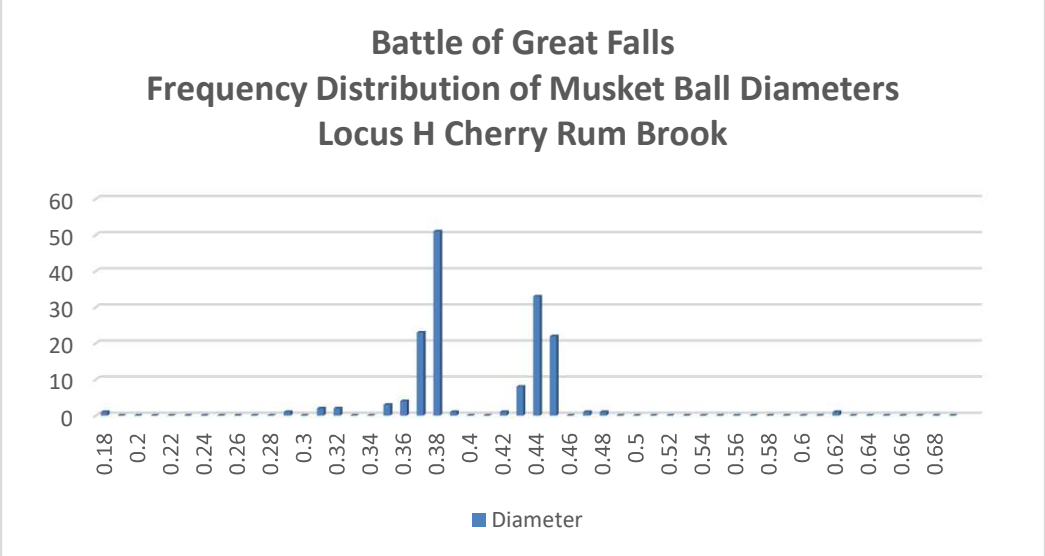


Figure 142. Locus H Musket Ball Frequency Distributions.

Locus H is unique compared to the other battlefield Loci in terms of the frequency and density of musket balls distributed over a relatively large area (6-acres). One hundred sixty-six musket balls were recovered ranging from .18" - .69" diameter. The relatively high frequency of musket balls in the .35" - .49" in diameter range (n=140, 84%), and the small number of musket balls in the .15" - .34" diameter range is unique compared to other battlefield loci (n=6, 3.5%; Figures 141 & 142). As discussed in the Methods section this range of musket ball diameters could be English fire from pistols or carbines, but the substantial number of musket balls suggests loads of buckshot rather than single shot. Neither of these explanations is satisfactory as only four musket balls exhibited facets, and one possible ram rod mark. In addition, only one ball was slightly misshapen the rest exhibited little evidence of impacts. Further, there is little evidence of Coalition fire. Two musket balls are in the .60"-.69" diameter range (.62" and .64") and are likely from English fire. Only four musket balls exhibited facets indicating they were fired as buckshot, although it is believed they were all fired as such given the number of musket balls. However, the five ball in this category were among the general distribution of musket balls in the .35"-.49" diameter range and may have been from English fire as well. Unlike other battlefield loci there is no compelling evidence to indicate a large amount of a Coalition fire.

None of the 140 musket balls in the .35-.49" diameter range exhibited facets suggesting they may have fired as a single projectile, although there are several factors which would preclude the presence of facets such as the amount of gunpowder, how closely packed the musket balls were, the lack of wadding, and the hardness or composition of the musket ball. Additionally, five ball in the .35-.49" diameter range showed evidence of ramrod marks and one .48" diameter ball exhibited a firing hemisphere further suggesting ball in that range were fired as a single shot from a pistol or possibly carbine.

The musket balls in the .15"-.34" and .60"-.69" diameter range were misshapen and clearly impacted. None of the musket balls in the .35"-.49" diameter range exhibited any obvious evidence of an impact and only upon close examination under a microscope the only impacts identified were in the form of slight striations and/or gouges. Obvious signs of impact usually occur if the musket ball is deformed by impacting against something solid such as a tree or rock, or if the musket ball skips along the ground for some distance, or if fired at an angle more horizontal to the ground surface. Generally, slight impacts such as were observed in the .35"-.49" diameter range musket

balls occur if the musket ball was fired at more of a down angle and hit the ground quickly and if the soils were largely devoid of gravel or stones. The soils in Locus H were fine silts and the only stone were small particles of grit.

The spatial distribution, limited range of musket ball diameters, and the general lack of obvious impacts raises numerous questions for which there are no ready explanations. The distribution of musket balls is correlated with wetlands. The English had been ambushed from a wetland (White Ash Swamp) shortly before. The English, particularly if they were on horseback, avoiding passing by or entering a wetland because the thick vegetation provided ideal cover for Natives to set an ambush, a strategy used by Native forces throughout King Philip's War. The English may have assumed the wetland may have concealed Coalition forces with the intention of ambushing the English and fired preemptively into the swamp. As there is little or no evidence of Native fire, the wetland was apparently not occupied by Coalition forces intending to ambush the English.

The similar distribution of musket balls on either side of the brook indicates that the English were riding in the brook and directed fire to their flanks (Figure 140). The fact that none of the musket balls exhibited any obvious signs of impact suggests they may have entered the ground quickly because they were fired at a down angle from soldiers on horseback. Another factor could be the musket balls did not have a lot of velocity because the English did not load their weapons with a full charge of gunpowder. Hubbard states that the English were low on gunpowder which contributed to the high casualty rate among the English as well as their general disorder:

> The loss that befell our men in the retreat, was occasioned principally by the bodily weakness of Capt. *Turner,* unable to manage his charge any longer, yet some say they wanted powder, which forced them to retire as fast as they could by Capt. *Tuners* order.[246]

Locus I: Cherry Rum Brook: Locus I is defined by a discontinuous distribution of musket balls in three concentrations recovered along a 1-mile stretch of the Cherry Rum Brook. Only .5 miles of the area was surveyed due to land disturbance and lack of landowner permissions. As such, it is likely that the discontinuous nature of the musket ball distributions is a factor of areas that were not surveyed rather than reflect actual distributions. A number of battle-related and domestic objects were recovered Loci I-1 and I-3 (Figures 143-157). Locus I-1 was of particular

[246] Hubbard. *A Narrative of the Troubles*. P. 86.

interest in this respect as it contained a combination of Native and English battle-related and domestic objects (pewter tack decoration (likely English), iron axe, brass button, unidentified pewter objects, lead bar, lead bale seal, brass tin-washed etched gorget or amulet, and a slip-in-the stalk brass spoon. The site does not fit the normal definition of a domestic site but could have functioned as a specialized Pocumtuck site for reprocessing raw materials. Fifty-nine musket balls were recovered from three loci (Figures 143, 149-150, 155-156). Most of the musket ball in all three loci were small diameter musket balls of a diameter suggesting Native fire. Locus I-2 contained five large musket balls ball in the .50" - .66" diameter range.

The Cherry Rum Brook meanders through the one-mile length of Locus I significantly increasing the danger and the amount of time if the English were traveling along the brook. The English could have shortened their route and avoided wetlands and potential ambushes in some areas if they cut across the meanders, yet they followed closely along the course of the brook. This suggests that they were moving through territory unfamiliar to them and the Cherry Rum Brook was the only landmark to guide them. In some areas the English appear to have traveled in the stream bed and in other areas they traveled along flat ground adjacent to the brook, or both. When direction of fire could be determined the fire was from east to west across the brook and sometimes from the English rear. Based on the musket ball distributions and direction of fire they were being pursued both from the rear and ambushed from the swamp simultaneously.

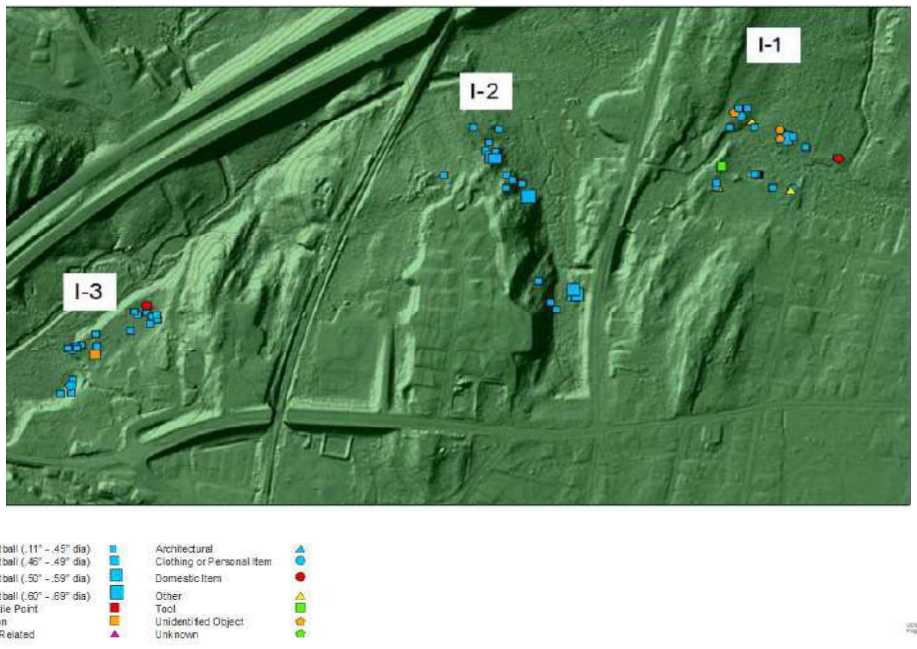


Figure 143. Locus I 1-3.

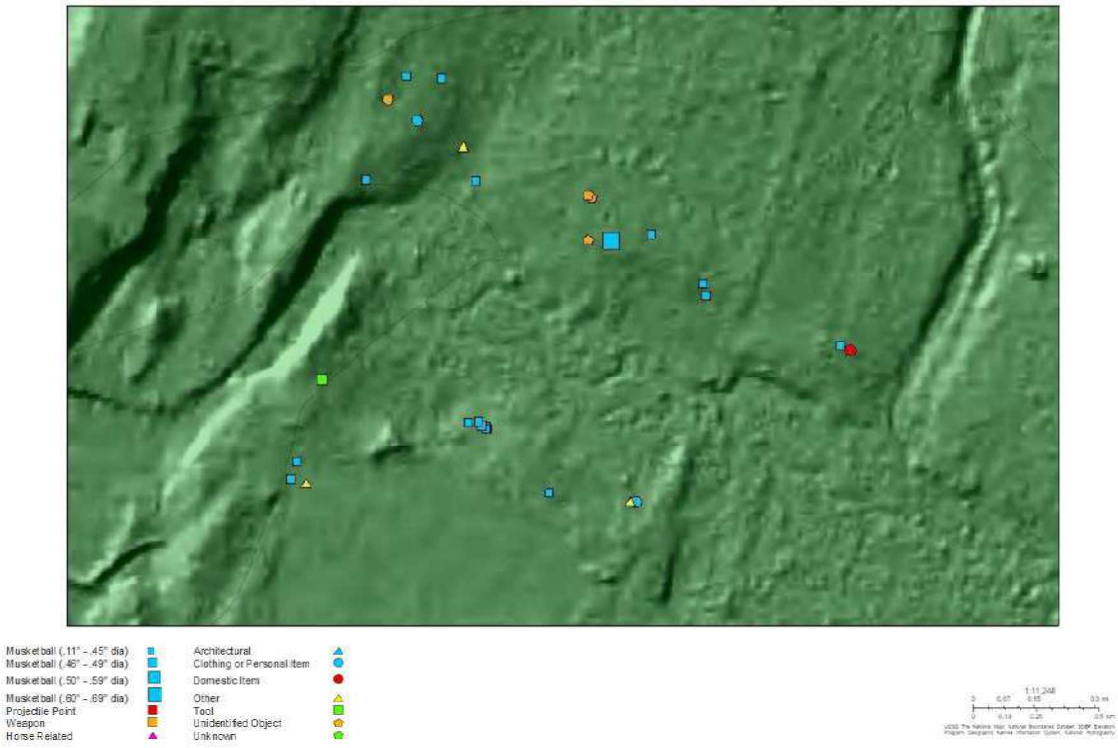


Figure 144. Locus I-1 Musket Ball Distributions and Domestic Objects.



Figure 145. Locus I-1 Iron Axe.



Figure 146. Locus I-1 Tin Washed Brass Gorget or Amulet.



Figure 147. Locus I-1, (1) Lead Bar, (2) Slip-in-Stalk Brass Spoon, (3) Unidentified Pewter Object, (4) Single Cast Brass Button.



Figure 148. Locus I-1, Miscellaneous Unidentified Pewter and Brass Objects.

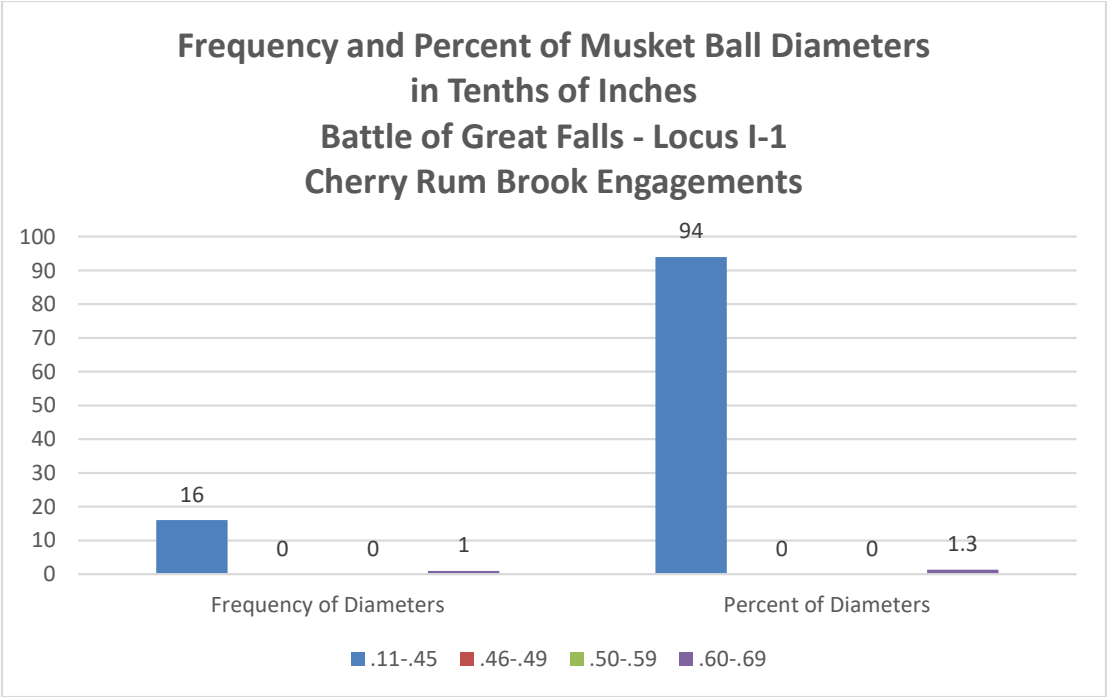


Figure 149. Locus I-1 Frequency and Diameter of Musket Balls.

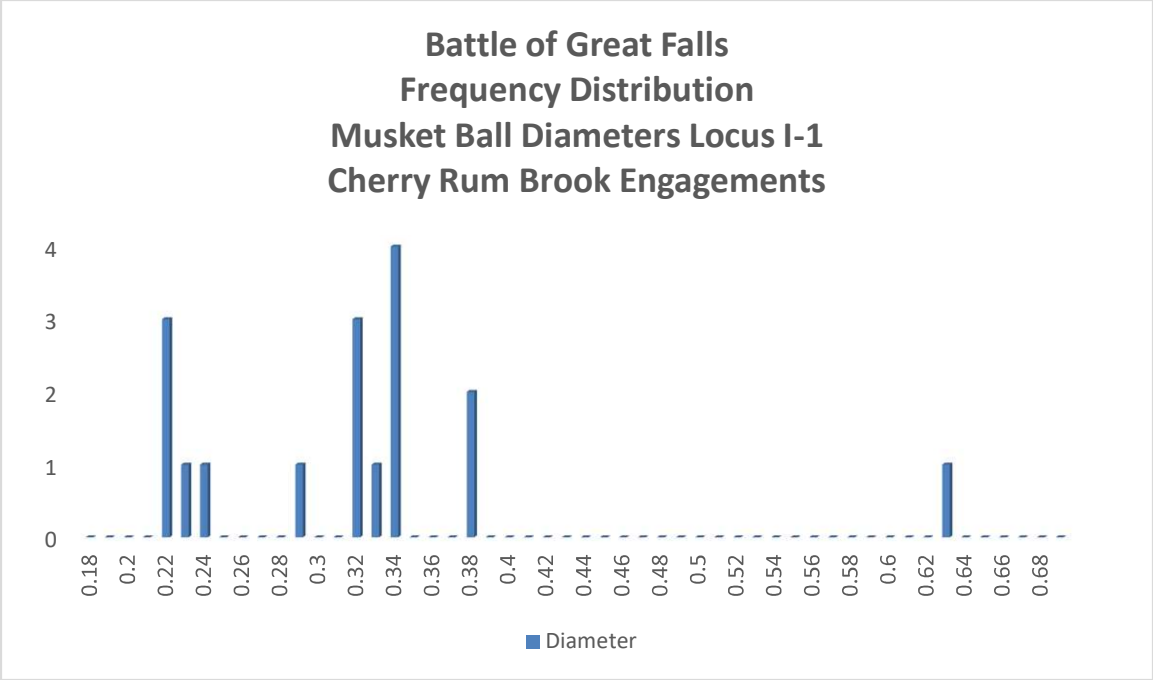


Figure 150. Locus I-1 Frequency Distribution of Musket Balls.

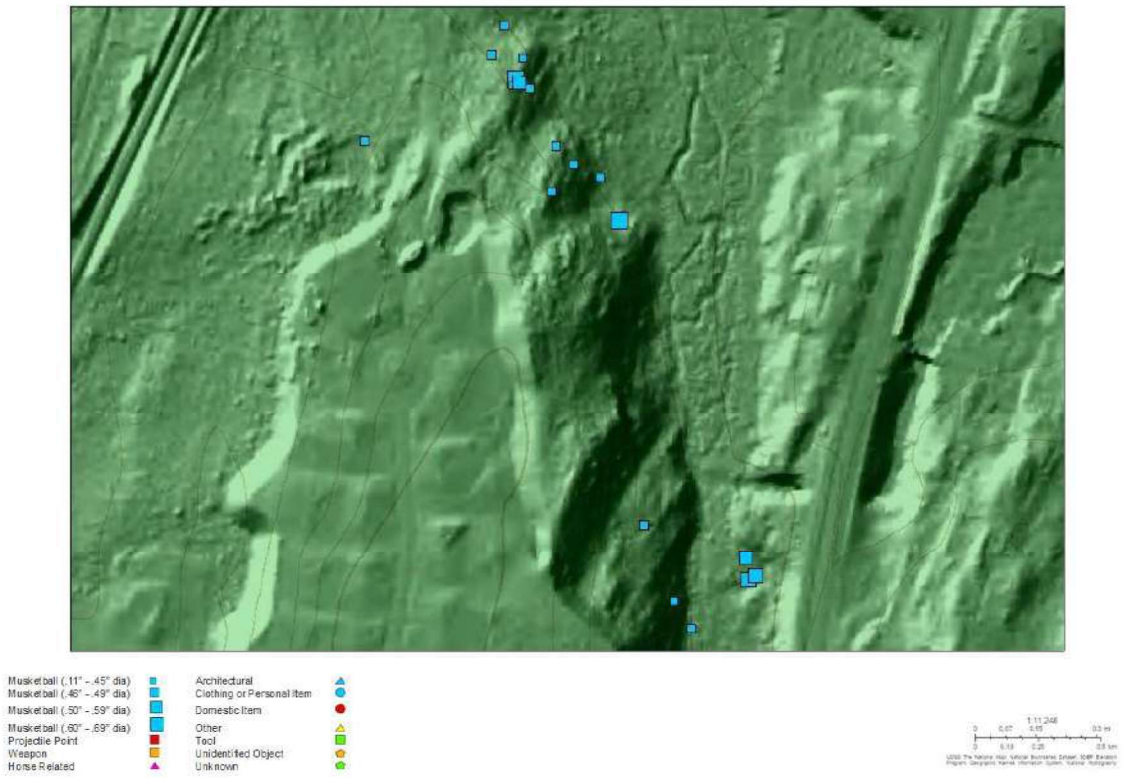


Figure 151. Locus I-2 Musket Ball Distributions.

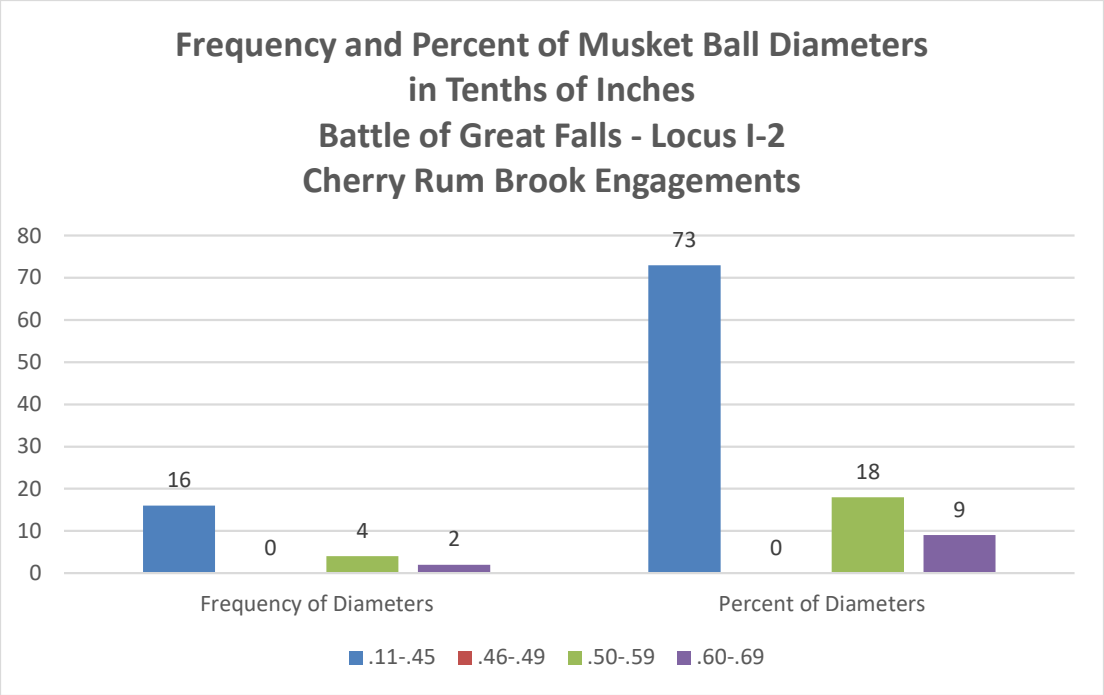


Figure 152. Locus I-2 Frequency and Diameter of Musket Balls.

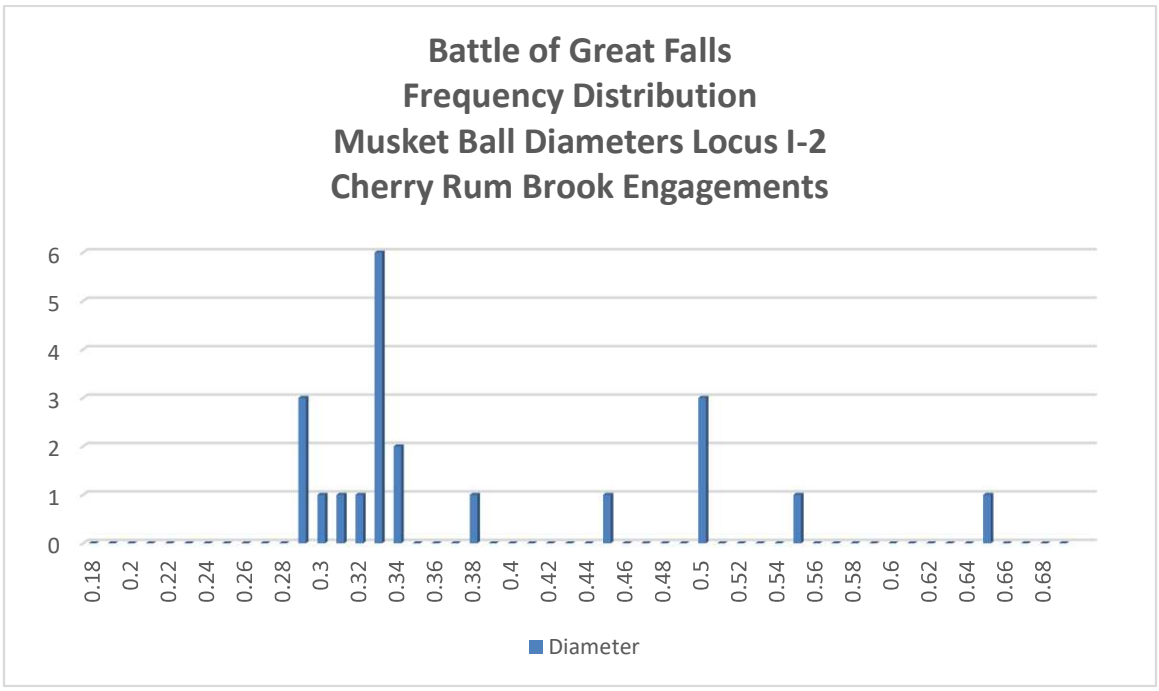


Figure 153. Locus I-2 Frequency Distributions of Musket Balls.

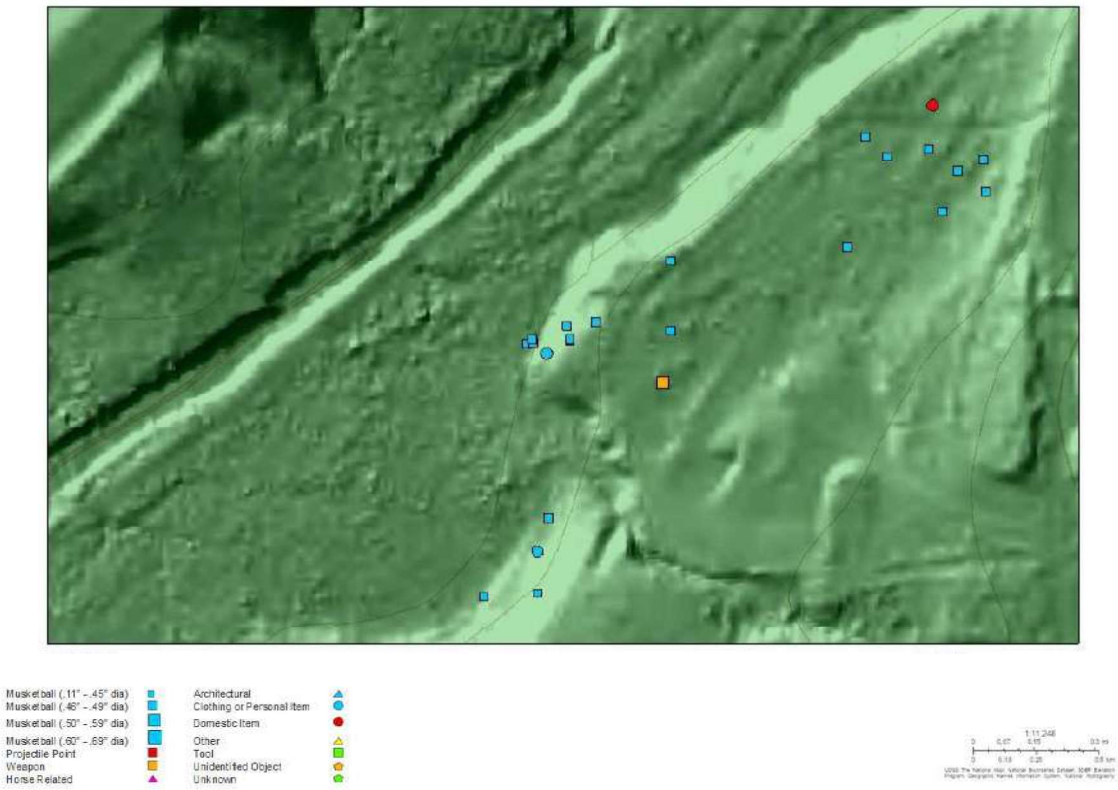


Figure 154. Locus I-3 Musket Ball Distribution.

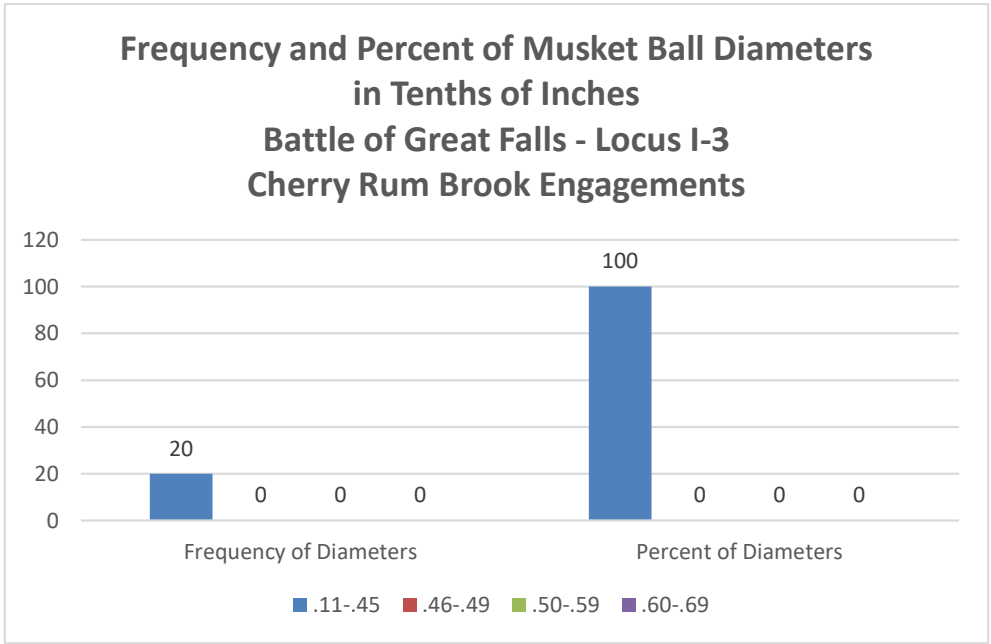


Figure 155. Locus I-3 Frequency and Diameter of Musket Balls.

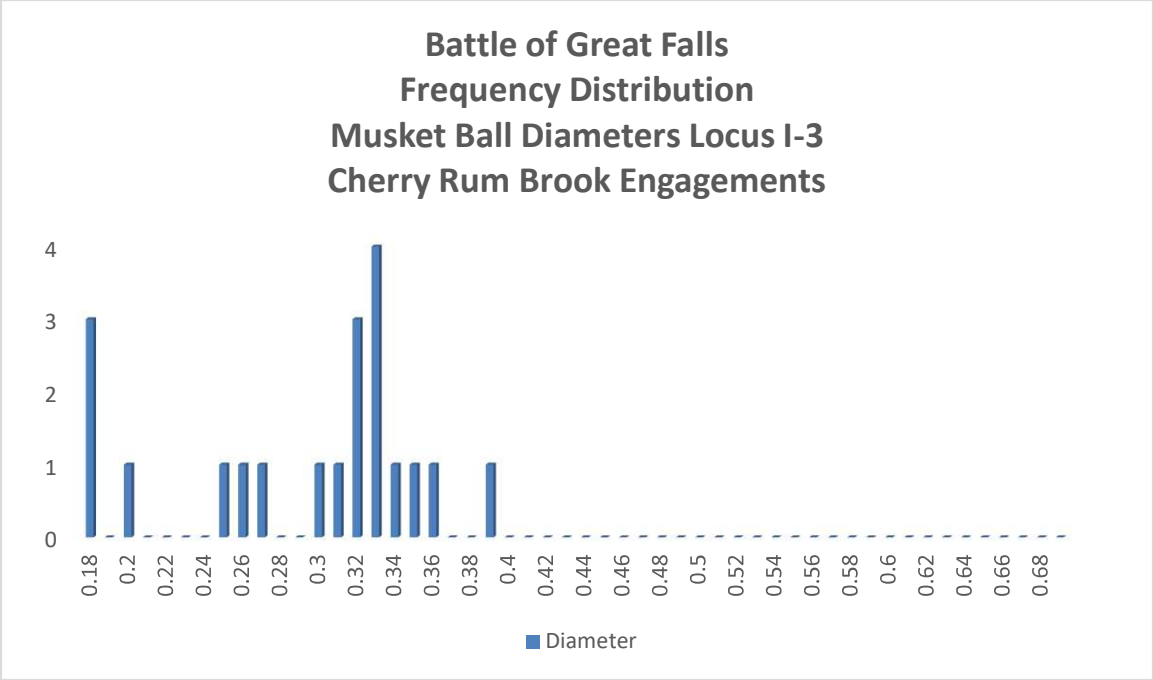


Figure 156. Locus I-3 Frequency Distribution of Musket Balls.



Figure 157. Locus I-3 Brass Ram Rod Sleeve.

In Locus I-3 the musket balls were recovered along the south bank of the brook on a flat terrace thirty feet above the brook and could have only been fired by Coalition forces to the rear

of the English. The frequency and distribution of musket ball diameters suggests a mix of Coalition and English fire. Thirty-nine musket balls ball (76.5%) were in the .15"-.34" diameter range, five (9.8%) in the .35"-.49," three (5.9%) in the .50"-.54", one in the .55"-.59", and two (3.3%) in the .60"-.69" diameter range. Based on the analysis presented in Section II, the musket balls in the .15"-.34" and .50"-.54" diameter ranges are considered Coalition fire, while ball in the .35"-.49" diameter range are considered English fire. Three impacted .50s" diameter musket balls were recovered from the south end of Area 2 believed to be from Coalition fire. All were recovered in a two hundred square foot area suggesting they were fired from the same weapon at a stationary target. The terrain is so rugged and steep it is not likely the English could put any distance between they and Coalition Forces.

Locus J: Green River Ford: The engagement at the Green River Ford is arguably one of the most significant actions of the Battle of Great Falls. Until this point in the battle the English were clearly in a disorganized retreat with no organized defense and had suffered heavy casualties It would have been exceedingly difficult to organize any kind of defense under these conditions with poorly trained and inexperienced horse mounted soldiers. Nonetheless, it appears that Lieutenant Holyoke managed to organize the men under his command into a cohesive unit during or just before the engagement at Locus J Nash's Mill Hill (likely before). Whether he took command just before or just after Captain Turner was killed as he crossed the Greenfield River is unclear. Based on circumstantial evidence it appears that Holyoke took command just before Turner was killed. The Nash's Mill Hill engagement clearly reflects a more aggressive stance on the part of the English than previously observed:

> if Captain [Lieutenant] Holyoke had not played the man at a more than ordinary rate sometimes in the front, sometimes in the flank and rear, at a fatal business to the assailants…and so carried off the soldiers without any further loss.[247]
>
> …a fear possessed some part of the English, whereby they fell into a disorder, and thereby Captain *Turner* and several of his Souldiers were slain and others to the number of two and thirty But Captain *Holyoke* exhorted them not to be terrifiyed, saying God hath wrought hitherto for us wonderfully, let us trust in him still: and

[247] Hubbard. *Narrative.* P. 207.

> reducing his men into close order made a safe and a valiant retreat, and preserved the Souldiers under him; that there were but few of them slain.[248]

The sources state that Holyoke organized the men under his command into 'close order' and instilled a calmness and order into the terrified soldiers. The term 'close order' in modern military terms refers to a formation where soldiers form close together with minimal space between them. The formation was used to concentrate firepower and improve unit cohesion. The concept was applicable in the seventeenth century as well. This may have been precisely what Holyoke did, which would have greatly improved the defensive and offensive capability of his unit. The tactic worked as reflected in the engagements at Locus J and Locus O, and sources state that very few men under his command were killed after he took command. Turner was killed on the south side of the Green River Ford just after he crossed the ford, indicating he was in the front of English formation when the main body took Coalition fire from the east slope of Nash's Mill Hill. Archaeological evidence indicates that the complexion of the English defense changed dramatically when the main body encountered Coalition forces positioned on the summit and eastern flanks of Nash's Mill Hill (Figures 158-159).

Figures 160-161 depict the nature and distribution of musket balls recovered in the Nash's Mill Hill engagement. Ninety percent (n=144) of the musket balls were small ball in the .11" - .45" diameter range (Figures 160-161). The majority of the 144 musket balls are in the .11" - .45" diameter range (n=120, 83%) and are believed to be English fire. Of those, 24 musket balls (15%) were in the .11" - .30" range and believed to be Coalition fire. Four large ball in the low .50s" diameter range may be Coalition fire.

The western end of Cherry Rum Brook turns into Mill Brook, named for the water-powered mills and mill pond that once existed at the eastern end of Nash's Mill Road and Silver Street (Figure 153). Mill Brook runs west until it descends sharply south at Nash's Mill Road through a narrow ravine until it meets the Green River. The terrain between Mill Brook and its confluence with the Green River is very constricted, flanked by Nash's Mill Hill on the west and steep slopes on the east. The terrain forced the English to stay within the ravine as they approached the Green River Ford (Figure 158). Coalition forces clearly anticipated the route of the English retreat, and the approaches to the Green River Ford was an ideal location to set an ambush. Coalition forces

[248] L'Estrange. *A True Account*. P. 4.

positioned themselves along the summit and eastern flanks of Nash's Mill Hill to fire down on the English as they passed through the Mill Brook Ravine in their attempt to reach the Green River Ford. Coalition forces also positioned a blocking force on the southern side of the ford to prevent English forces from crossing the ford. Captain Turner and the advance guard were repulsed at the Green River Ford which included the loss of Captain Turner and perhaps others at the head of the column. The Coalition blocking force on the south side of the Green River Ford forced Lieutenant Holyoke to lead the embattled survivors further west along the south base of the hill on the north side of the river to make the crossing of the Green River (Figure 163).

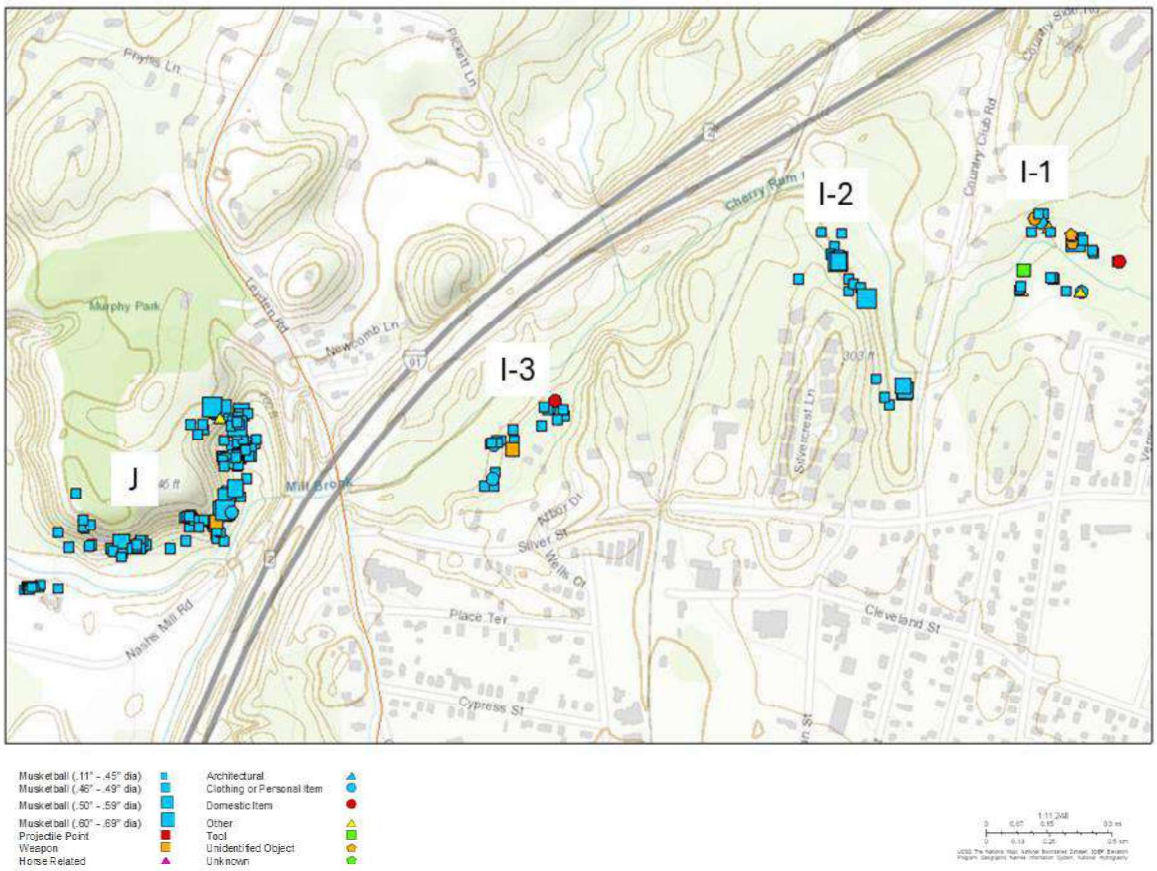


Figure 158. Loci I and J and Approach from Cherry Rum Brook.

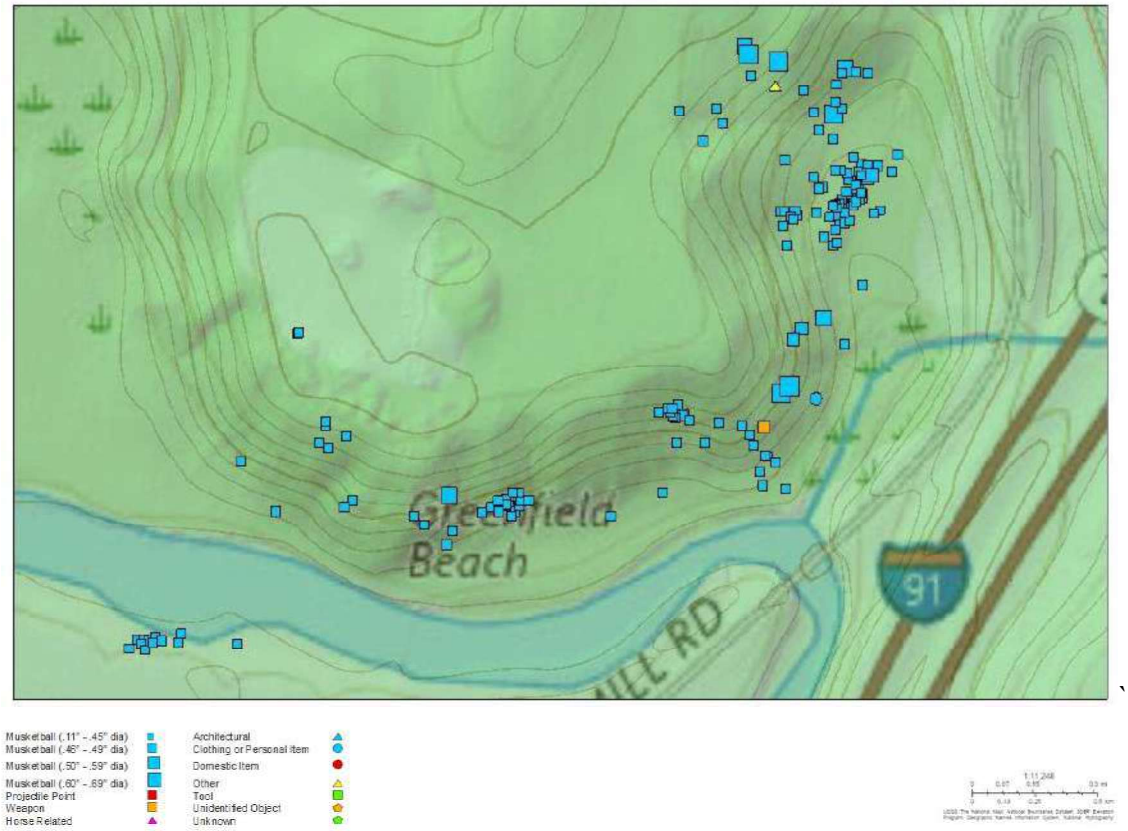


Figure 159. Locus J Nash's Mill Hill Musket Ball Distributions.

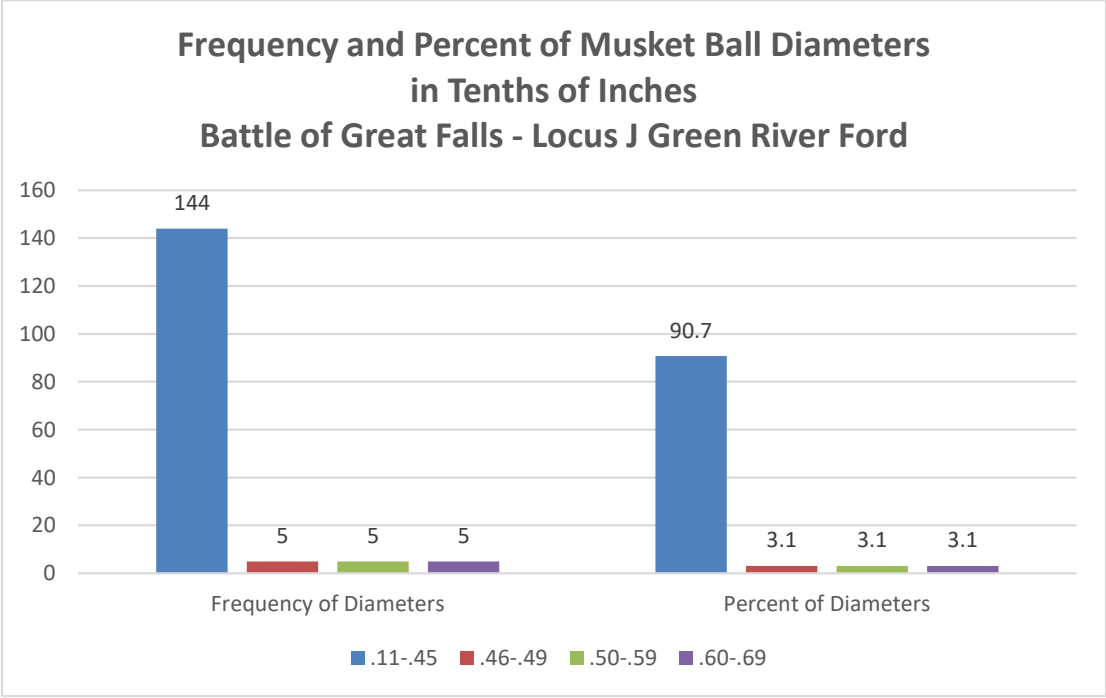


Figure 160. Locus J Frequency and Percent of Musket Ball Diameters.

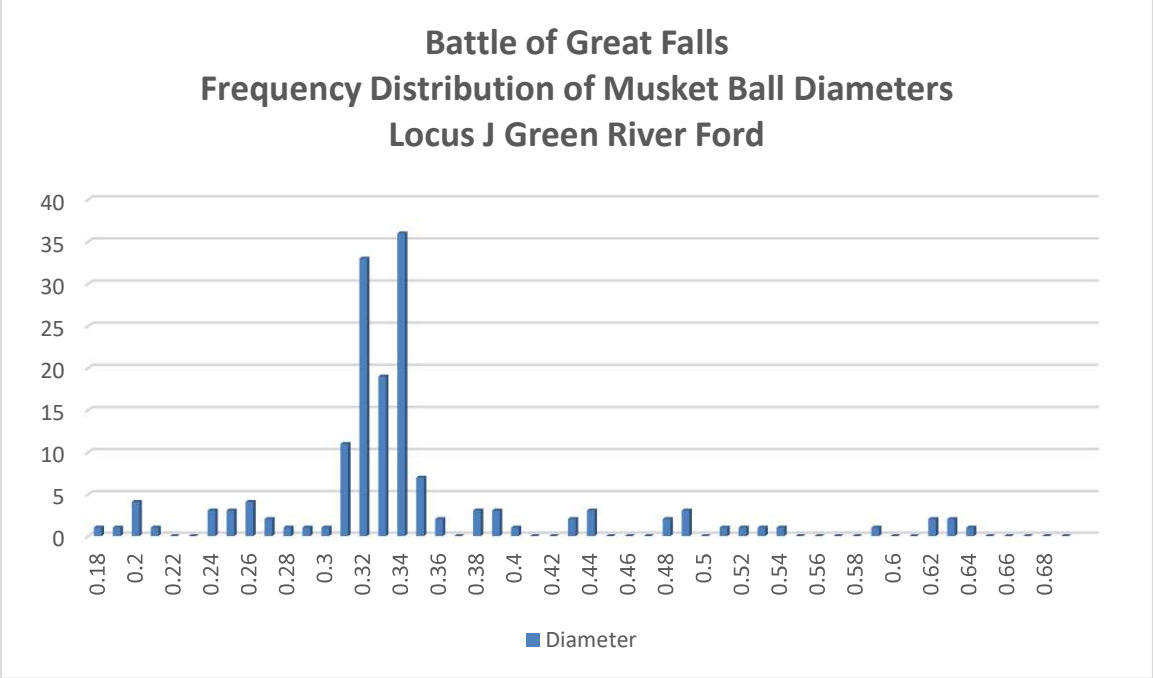


Figure 161. Locus J. Frequency Distribution of Musket Ball Diameters.

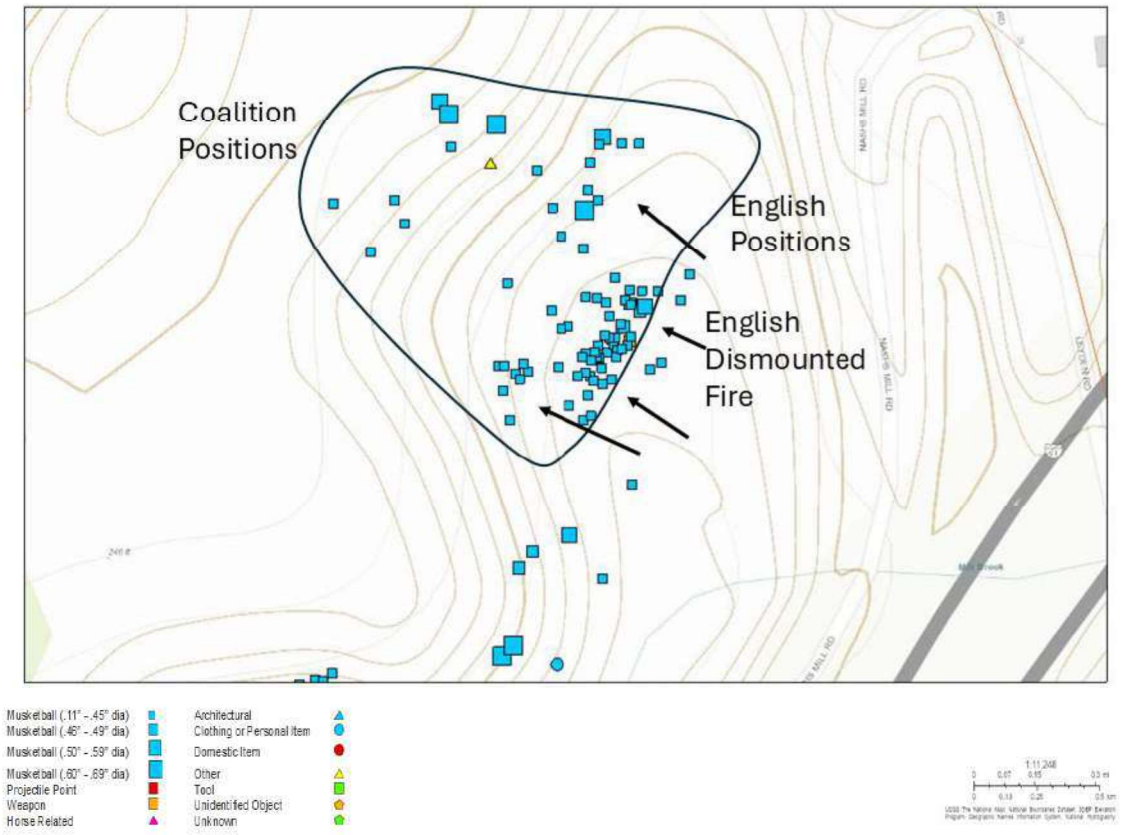


Figure 162. Locus J Nash's Mill Hill East.

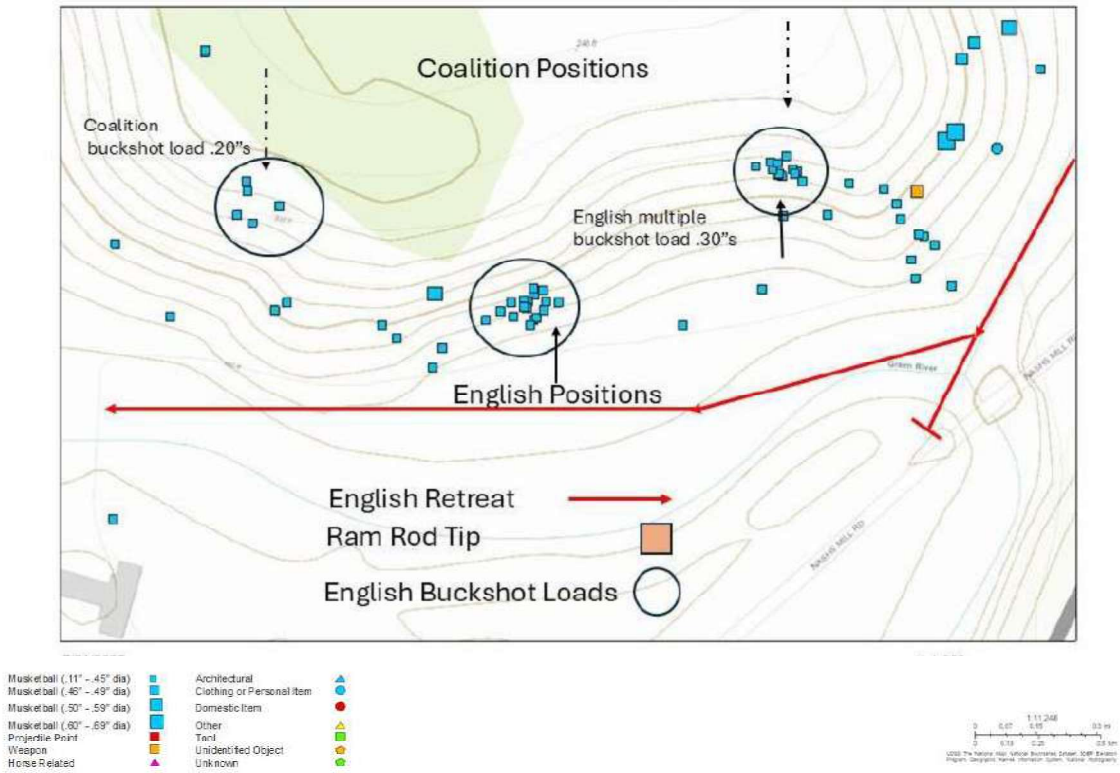


Figure 163. Locus J Nash's Mill Hill South. Circles Indicate loads of English Buckshot.

It is estimated that the main group of English following Captain Turner and Lieutenant Holyoke numbered between 60-80 soldiers. When any other groups of English passed by Nash's Mill Hill is unknown. The main body of English continued west paralleling Cherry Rum Brook along the south terrace, descended Mill Brook, and followed the brook into the constricted Mill Brook valley flanked by Nash's Mill Hill on the west and high ground to the east. The English essentially entered a bottleneck, a perfect ambush and killing ground for Coalition forces positioned on the top and the eastern flank of Nash's Mill Hill. Coalition forces may have let the column of English descend into the Mill River ravine before initiating the ambush, letting Turner reach the Green River Ford as Turner was across the Green River when he was killed, 180-200 yards from where the fighting began along the western flank of Nash's Mill Hill. No primary sources describe the fighting at the ford in any detail, only that Captain Turner was killed there after he crossed the ford to the west bank of the Green River:

> John Wecopeak, on his examination, saith…that he saw Capt. Turner, and that he was shot in the thigh, and that he knew it was him, for the said Turner said that was his name.[249]

> Within a few days after this [the battle], Capt. *Turners* dead Corps was found a small distance from the river; it appeared that he had been shot through his thigh and back, of which its judged he dyed speedily without any great torture from the enemy.

These statements indicate that Coalition forces were already on the west side of the Green River Ford contesting the English crossing at the same time they initiated the ambush from the top and western flank of Nash's Mill Hill. With Coalition forces blocking the west bank of the ford the English may have been forced west along the north side of the Green River before they could negotiate a crossing.

Most of the musket balls recovered from the eastern and southern slopes of Nash's Mill Hill were from English fire (Figures 158–159, 161). The nature, distribution, and direction of fire of the English musket balls along the eastern slope of the hill testify to the intensity and aggressiveness of English musket and pistol fire. A significant percentage of musket balls were in the English small shot range (.31" - .34") recovered in clusters of 10-13 musket balls (e.g., Figure 160-161). In many instances clusters of buckshot could only have been fired by dismounted English soldiers at relatively close range. The relatively high number of pistol balls also indicate the English were firing at close range (n=9; Figure 164). Large diameter musket balls were fired at targets further up the hill at distances of majority of the large diameter musket balls were fired 50-100 yards (Figure 165).

[249] Easton. *A Narrative of the causes.* P. 180.

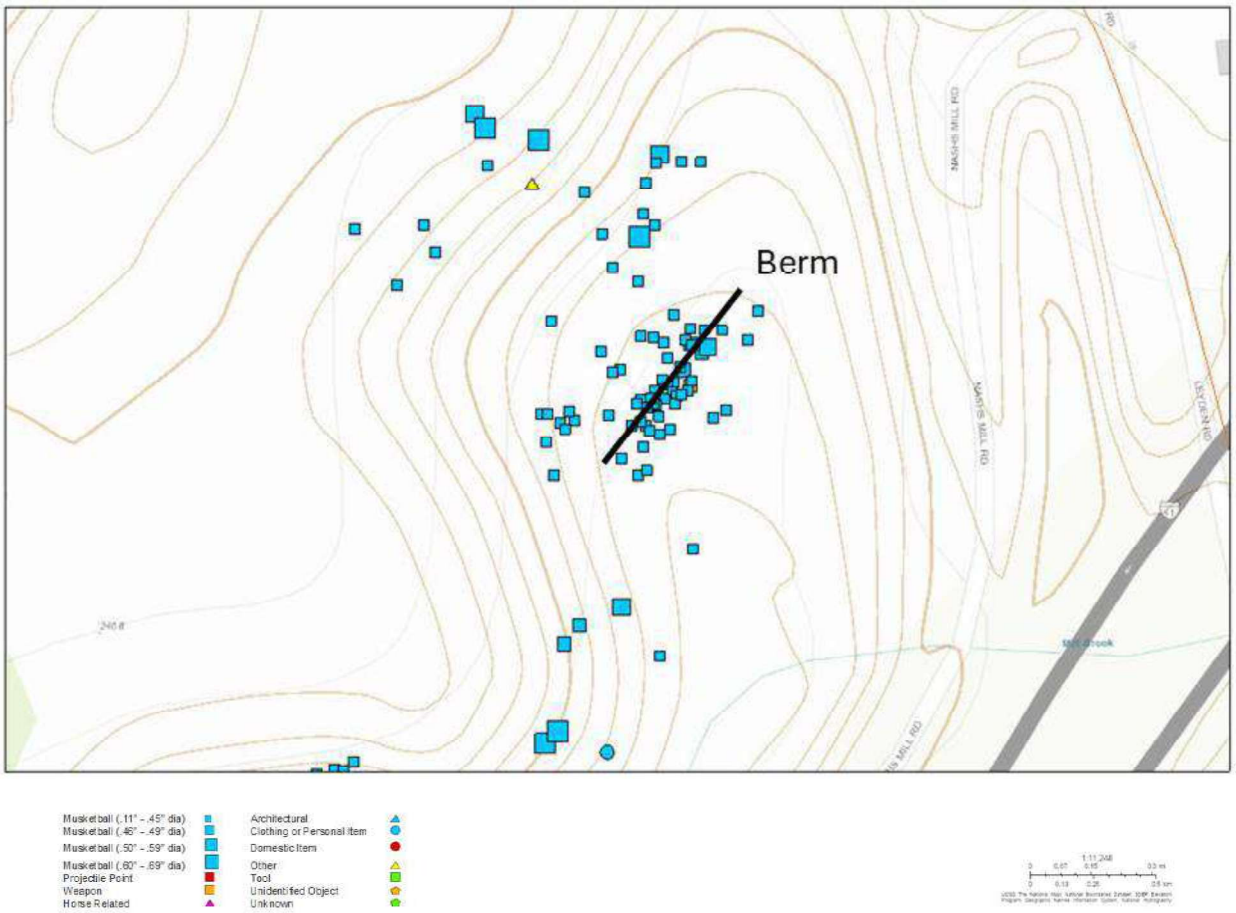


Figure 164. Locus J East Side of Nash's Mill Hill.

At this point in the battle, Holyoke had formed the English into a relatively effect fighting force. Given the confined nature of the valley with little room to maneuver against well-positioned Coalition forces, Holyoke must have decided that the best defense was to go on the offensive. A ram rod (presumably English) was found thirty yards up the slope of the hill indicating the English were advancing at least partway of the hill to confront the enemy (Figure 164). A natural berm at the base of the eastern slope of Nash's Mill Hill served as natural breastwork for Coalition forces for a time and provided cover and concealment for Coalition forces in the initial phase of the battle until the English drove them away as evidenced by the concentration of English small shot against the east face of the berm (Figure 164). Several buckshot blasts were impacted into the slope behind the berm and given the topography could only have been fired from the berm presumably after the English forced Coalition forces back. Evidence suggests that the south bank of the Green River



Figure 165. Locus J Pistol Balls.

Ford where Turner was killed was defended by Coalition forces and forced Holyoke to turn west along the southern flank of Nash's Mill Hill until they crossed somewhere further west. Holyoke appears to have made a tactical decision to avoid the heavily defended south bank of the ford where Turner was killed and opted to move the English west along the northern bank of the Green River. This scenario is evident in the continued distribution of musket balls that extends west along the south slope of the hill (Figure 163).

Locus K: Holyoke's Retreat

When the English crossed the Green River, they took advantage of the large expanse of relatively open and level ground along the western terraces of the Green River to take advantage of their horses and put some distance from the Coalition forces. The only impediments to moving directly south from the Green River Ford area were the wetlands at the base of the northern ridge at Locus K and the east-west trending gulley's extending hundreds of yards west from the Green River that the English had to avoid as the steep terrain could not be traversed horseback. The route the English took after crossing the Green River was a bit circuitous. The English could not move

directly south due to the steep slope or the wetlands at the northern end of the plain. The English had to ride an additional .25 miles west after crossing the Green River before they could swing south (Figure 166). The English then turned east to parallel the Green River and keep its steep terraces on their left to protect their flank (Figure 166).

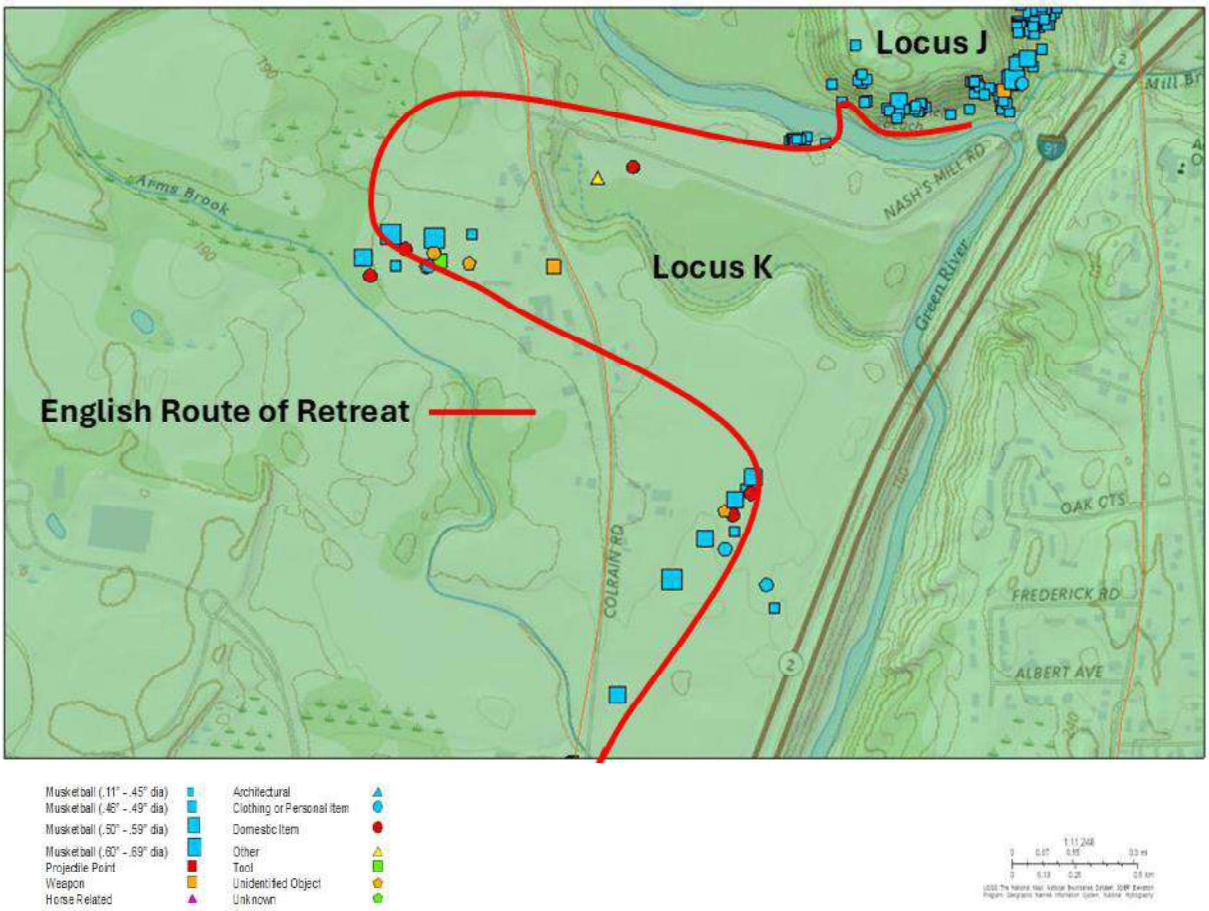


Figure 166. Locus K English Route of Retreat

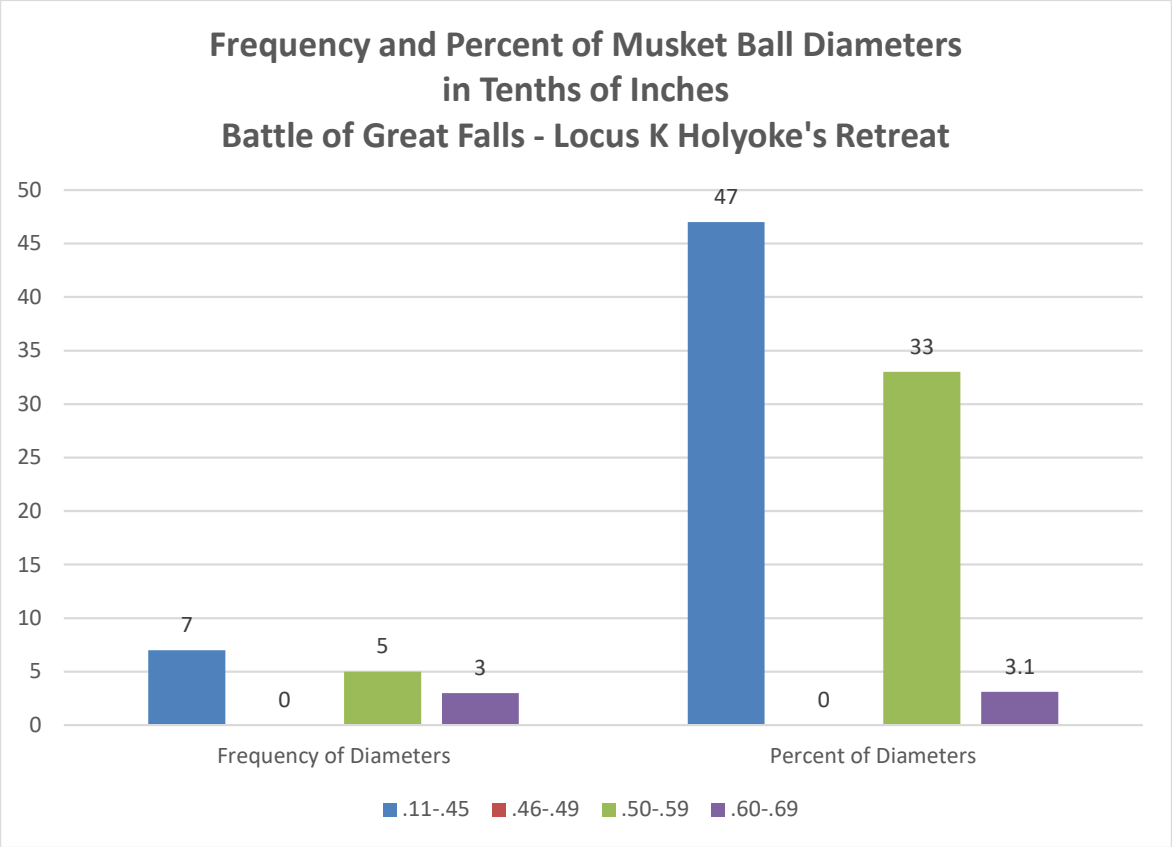


Figure 167. Locus K Frequency and Percentage of Musket Ball Diameters.

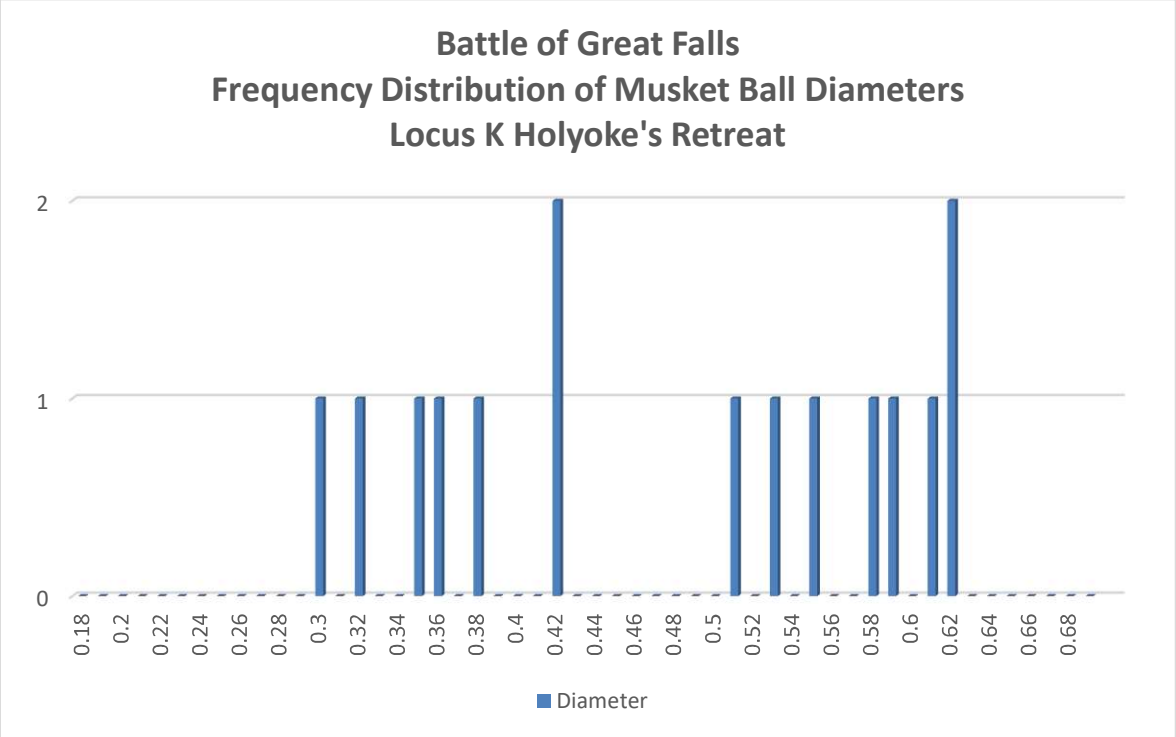


Figure 168. Locus K Frequency Distribution of Musket Ball Diameters.

Musket balls and battle-related objects were recovered in two areas of Locus K, immediately east of the Arms Brook and .25 miles to the southwest. The assemblage at Arms Brook consisted of a .32," .42," .55," .61," and .65" diameter impacted musket balls (Figures 166-168). The assemblage also yielded a brass spur, brass spoon handle, brass button, fragment of a folding knife, and a scabbard tip. The musket balls seem to be a mix of English and Coalition fire. It could not be determined if Coalition fire originated from the pursuing Coalition forces or from the area of Arms Brook, or both. The number and diversity of battle-related and personal objects recovered suggests a brief but intense episode of heavy fighting. The second area contained 10 impacted musket balls (.30," (2).38," .42", .51," .53," .58," .59," 65"). One musket ball was an impacted .58" diameter cylindrical shot which was not cast but made by hammering a .62" diameter round ball to fit the diameter of the maker's musket (Figure 170). The most interesting aspect of the musket ball assemblage recovered from Locus K is the high percentage of larger musket balls in the .53"–.65" diameter range (n=8, 53%) compared to other loci. The pattern suggests that all but one of the large musket balls may be Coalition fire. Large ball would have been fired against targets some distance away, from 50 to 100+ yards, supporting the contention that at this stage in the battle the English may be moving rapidly south.



Figure 169. Brass Spur



Figure 170. Locus K Impacted .58" diameter Cylindrical Shot.

Locus M: Petty Plain: The precise route of the English Retreat in the intervening mile between the south end of Locus K and the beginning of Petty Plain is unclear. Petty Plain is a broad flat 200-acre former floodplain of the Green River that rises 100 feet above the Green River (Figures 171-173). The northern, eastern, and southern boundaries of the landform are characterized by very steep slopes, impassable by horses and extremely difficult for humans to negotiate (Figures 173 & 174). The English took advantage of the protection offered by steep slopes of the landform to protect their flanks and make their way to the Pine Barrens and eventually the Green River Ford (Figures 171–173). The English entered Petty Plain from the northwest corner of the plain where the topography was characterized by more gentle slopes passable with horses. The English proceeded east and then west keeping the protection of the steep slopes of the plain on their flanks. They eventually descended the plain along its southern border where the terrain could be traversed by horses and the English descended into Petty Plain (Figures 173-174).

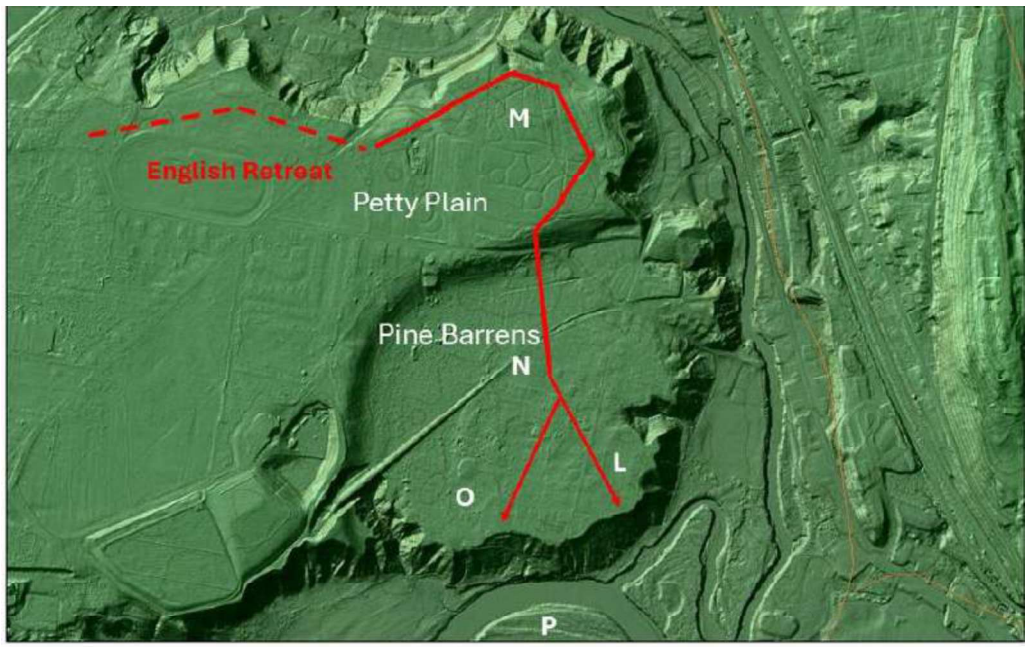


Figure 171. Locus M-P and English Retreat.



Figure 172. Locus M Musket Ball Distributions.



Figure 173. Locus M. Petty Plain Ridge Top and Slope.



Figure 174. Locus M Green River Cemetery.

The English route of retreat traversed sections of the Green River Cemetery and if the musket ball distributions are accurate primarily along the terrace edge. Given the sensitive nature of the cemetery landscape the metal detector survey was confined to the edges of the landform and

where roads and paths cut through the cemetery (Figure 172 & 174). No Musket balls were recovered in the interior sections of the cemetery, and it appears that the English did follow the terrace edge of Petty Plain during the retreat.

Nineteen Impacted musket balls were recovered from Locus K (Figures 167, 170 & 171). Eight musket balls (42%) were in the .20" - .32" diameter range considered to be the small shot preferred by Coalition forces. Four ball (21%) were in the .34"–.37" diameter range, perhaps indicative of English fire. Three musket balls in the northern section of the Locus M were between .59"–.66" diameter) and could be either Coalition or English fire. Four musket balls (21%; .43" (2), .49," .50) were recovered along the southern edge of the plain where the English descended onto the Pine Barrens (Figures 172, 175 & 176). The musket balls were recovered from the southern slope of the Locus K landform and were likely fired south to north by the English at pursuing Coalition forces. The next concentration of musket balls was recovered 150 yards to the south at Locus N indicating the English were continuing to retreat south into the Pine Barrens and eventually reached the Deerfield Ford (Figure 171).

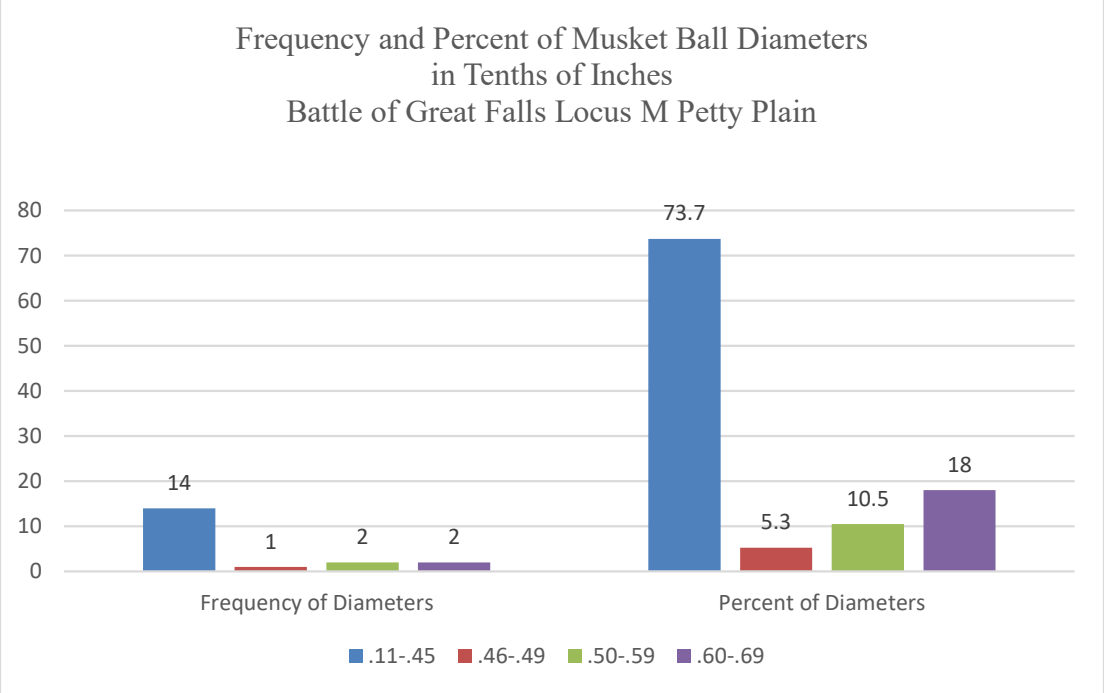


Figure 175. Locus M. Frequency and Percent of Musket Ball Diameters.

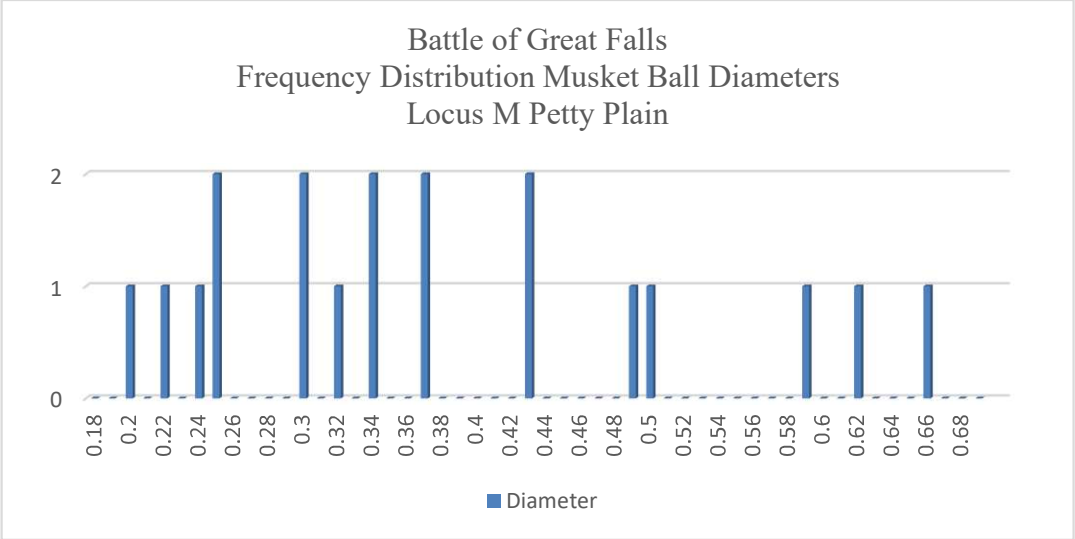


Figure 176. Locus M Frequency Distribution of Musket Balls.

Locus N: Light Skirmishing: Locus N is a significant event as it represents one of the few small unit engagements that can be identified in the Battle of Great Falls. Although it only lasted a few minutes and probably involved only a couple of dozen combatants but illustrates the tactical flexibility of the English and Coalition forces. As the formation of mounted English troops (approximately 60) advanced south from Petty Plain (present-day Green River Cemetery) they met a line of Native American Coalition skirmishers to their front. Fourteen musket balls were recovered but their distribution reflects Coalition fire at English positions as well as other Coalition troops along the left flank, or west side of the English positions (Figures 177-179). The northern distribution of musket balls is the result of English counter-fire on Coalition positions while the southern distribution of impacted shot is the result of Coalition fire at oncoming English troops marking their positions (Figure 177).

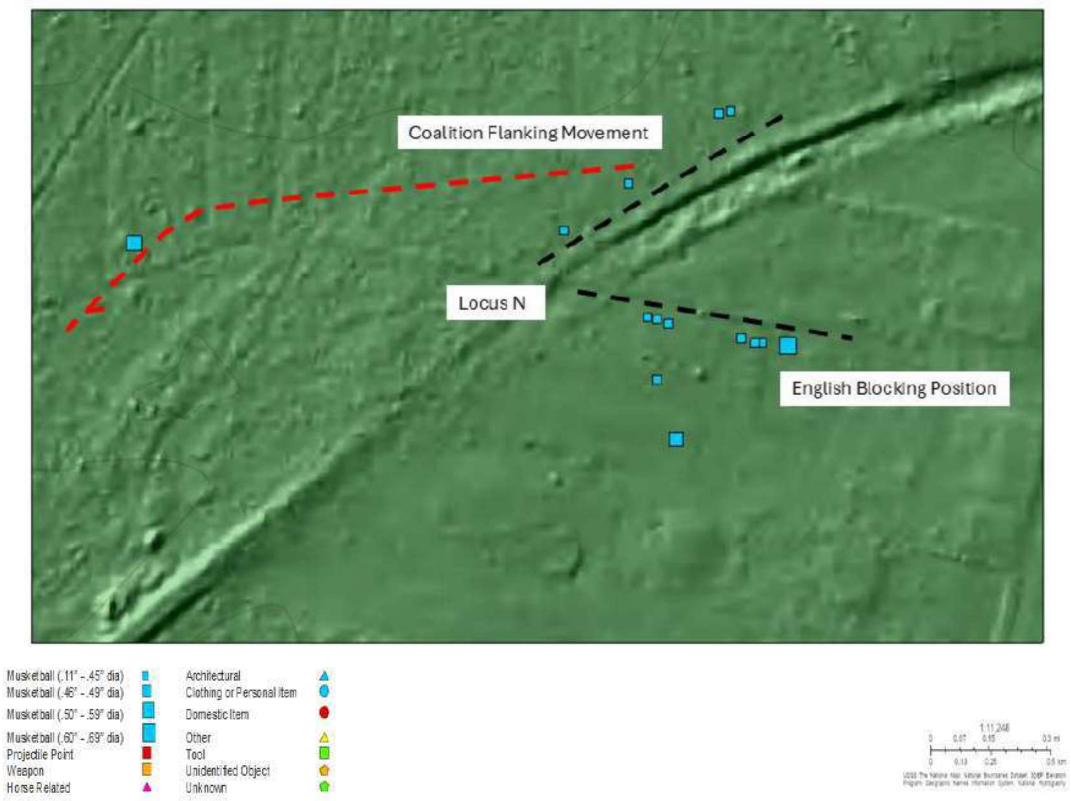


Figure 177. Locus N Coalition and English Positions.

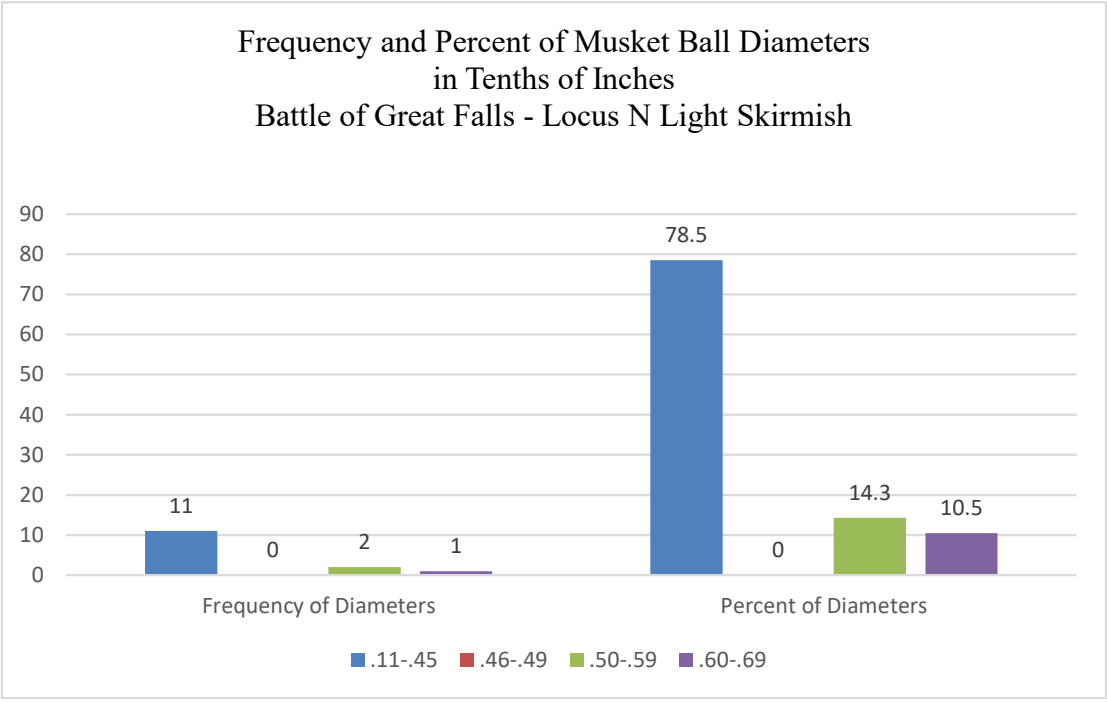


Figure 178. Locus N. Frequency and Percent of Musket Ball Diameters

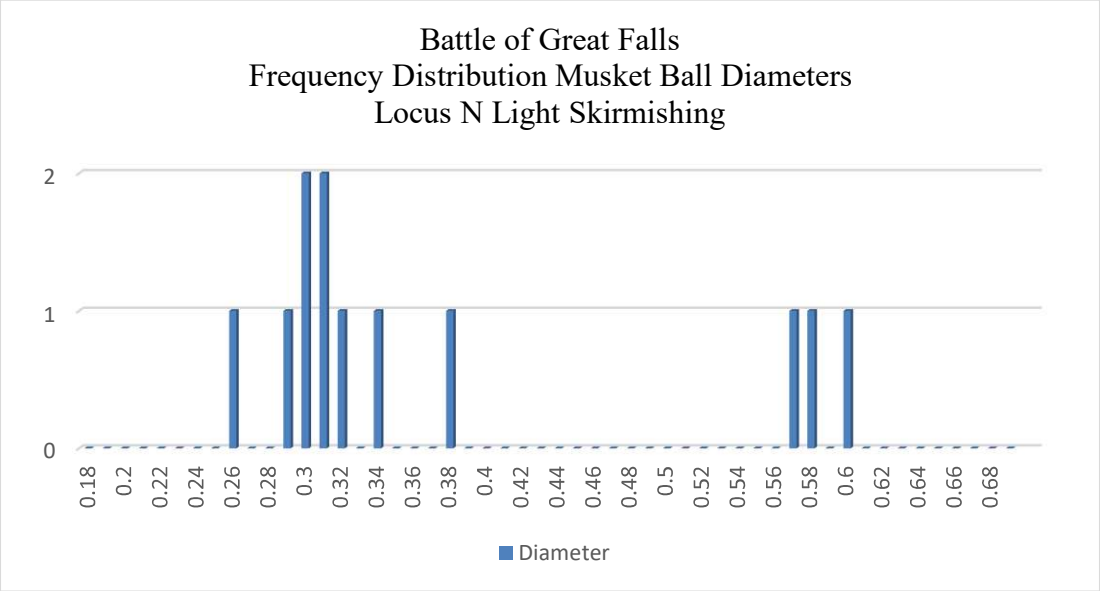


Figure 179. Locus N. Frequency Distribution of Musket Ball Diameters.

The pattern of musket balls suggests a small skirmish line of Coalition forces south across the trail English forces were retreating south along as well as Coalition troops positioned in the wetland to the west the English were forced to pass by. The skirmishers acted as a blocking or delaying force to slow the oncoming English column and alert the bulk of Coalition troops waiting at the southern end of terrace and in the pinewood forest the English had to traverse to reach the Deerfield River. Coalition forces still pursued the English from the North perhaps to envelop the English in a pincer movement. The northern line of musket balls is angled somewhat and there is a dropped Coalition .57" diameter musket ball in a wetland 120 yards west of the angled line. The pattern suggests Coalition forces were attempting to move along swamp to fire into the western flank of the Holyoke's men (Figure 177). The outcome of this maneuver is unknown, but soon after this brief skirmish action both Coalition and English forces were engaged in significant fight further south at Locus L and O to control the Deerfield River fords.

***Locus O: Pine Barrens*:** As discussed in the Locus L section it is an open question if Locus L and Locus O represents two separate groups of English and Coalition forces and two subsequent engagements or if the two loci represent the main body of English under Lieutenant Holyoke moving and fighting from the west (Primary Ford) to the east (Secondary Ford). In the latter scenario the English made their way to the Primary Ford, were repulsed by Coalition forces, and

then moved east to cross the Deerfield River at the Secondary Ford (Figures 180-189). The evidence does not support the single group scenario at present. The differences in the size and scale of the engagements at Locus L and O, as well as significant differences in tactics and munitions argue for two groups and two separate engagements.

Evidence suggests there were two groups of English converging on the Deerfield River fords at different times and two (or more) groups of Coalition forces positioned themselves to prevent the English from crossing at both fords. The distribution of musket balls at Locus O extends precisely to the edge of the eroded terrace leading to the Primary Ford (Figure 183). The original trail leading to the Primary ford is now badly eroded and impassable even on foot, but late nineteenth century maps indicate that a gentler slope existed that could be negotiated by horses. Unfortunately, any evidence that the English descended the slope has eroded away is gone, and the pattern of musket balls across the Deerfield River is inconclusive to support one scenario or the other.

The two-group scenario is based on several assumptions. When the English force splintered into several groups following the White Ash Swamp ambush, two groups of sufficient size emerged that could engage the Coalition forces at each of the fords. The amount and density of musket balls and battle-related objects indicates a prolonged fight at each locus. A small group of less than ten soldiers would probably not have been able to engage Coalition forces for any length of time. The differences in the number and density of musket balls between the two loci indicates that the English force fighting at Locus O was the larger group and probably the main body commanded by Holyoke. Who the other group was and how many soldiers comprised the group is unknown.

Other evidence also suggests there were two separate groups. There is a spatial separation of 200 yards between the two distributions of musket balls at Locus L and O (Figure 183). A comparison of musket ball diameters between the two loci suggests different tactics were employed by English and Coalition forces. Fifty-five percent (n=34) of the musket balls at Locus L were small diameter (.11”–.45”) and thirty-seven percent (n=23) were large ball (.50”–.69”). Comparatively, eighty-four percent (n=192) of the musket balls at Locus O were small diameter and sixteen percent (n=36) were large diameter musket balls. A comparison of the larger diameter musket balls between the two loci also suggests two different groups of English and Coalition forces (Figures 180-182). There is a higher number of musket balls in the .54”–.59” diameter range

at Locus O (n=14) compared to Locus L (n=5). There are six .61" diameter musket balls at Locus O and none at Locus L. Conversely there are six .62" diameter musket balls at Locus L and none at Locus O. Finally, at Locus O there are nine musket balls distributed over the .63"–.66" and .68" diameter range and only three balls in the .64" and .68" diameter range at Locus L. These patterns are likely due to differences between the caliber of weapons used in the two loci reflecting different combatants.

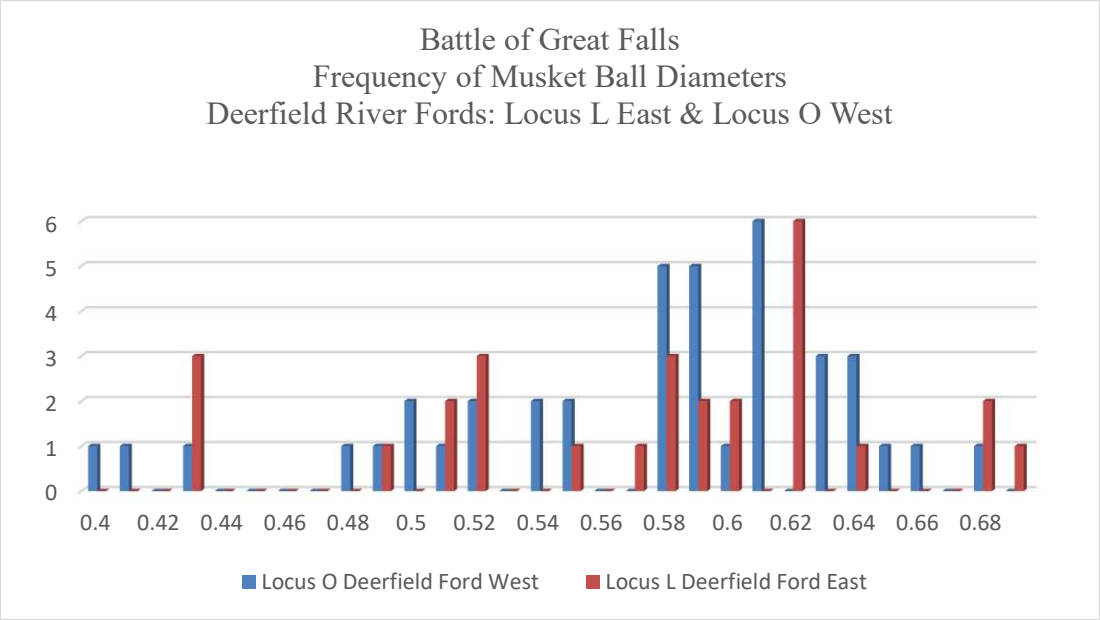


Figure 180. Locus L & O Comparison of Musket Ball Diameters.

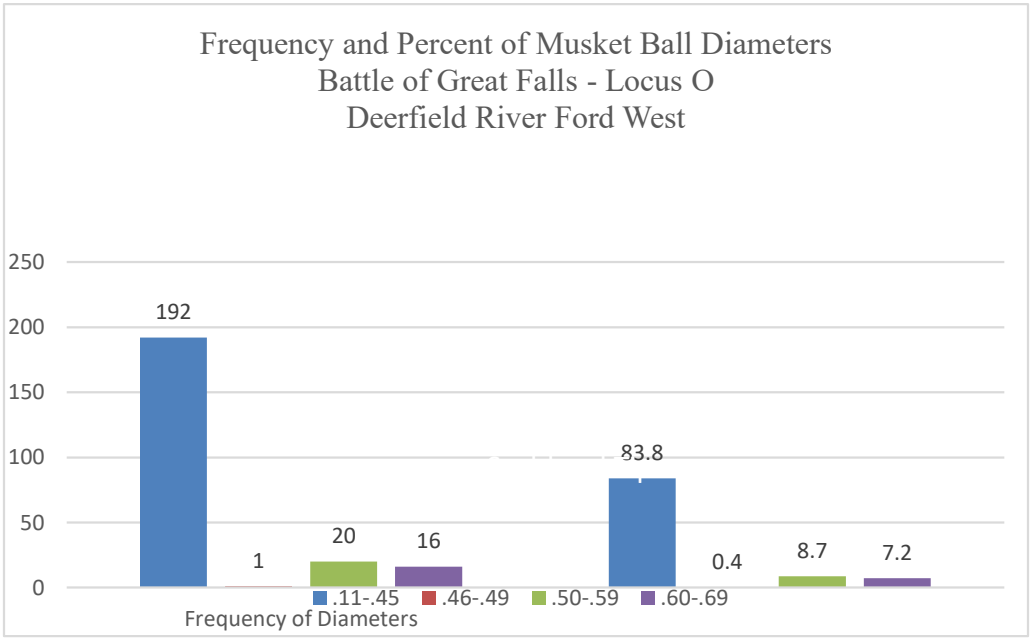


Figure 181. Locus O Frequency and Percent of Musket Ball Diameters.

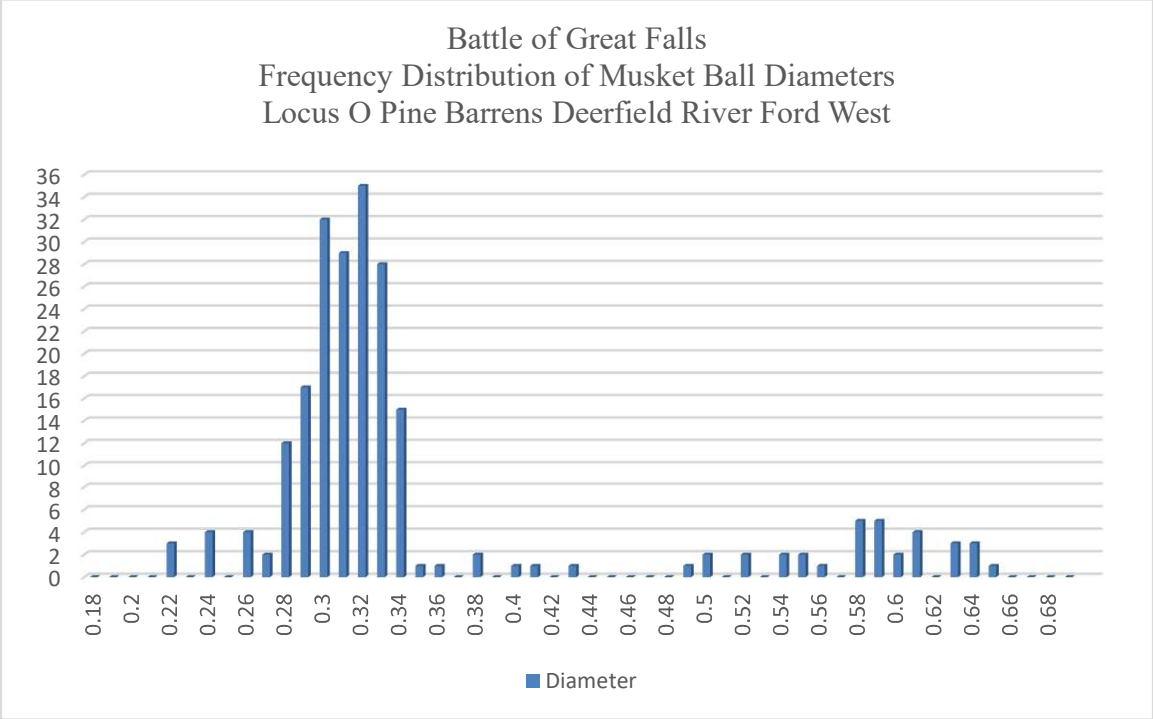


Figure 182. Locus O Frequency Distribution of Musket Ball Diameters.

It is arguable that Locus O represents actions by the main body of English and Locus L represents the actions of a second moderately sized group of English. This conclusion is based on several lines of evidence. The two distributions were separated by two hundred yards indicating the fighting was not continuous as would be expected if the English were fighting continuously from west to east. There are also significant differences in the number of musket balls between the two loci (Locus L = 62; Locus O = 229) and the percentage of small diameter (.1"–.45") musket balls between the two loci. Fifty-five percent of the musket balls at Locus L are small diameters while Locus O has 84% small diameter musket balls (n= 192; Figures 180-182). These patterns suggest differences in the tactics employed at each locus as indicated by the amount of recovered shot as well as the musket ball diameters used in combat. The differences in the percentages of small ball used as buckshot also suggests different tactics employed by the commanders at Locus L and O perhaps influenced by the number and disposition of Coalition forces between the two loci, and/or at Locus L.

Locus L has a higher percentage of large diameter musket balls suggesting the fighting between the two forces occurred at a distance. Eighty-four percent of the musket balls at Locus O

were small diameter musket balls fired as buckshot suggesting close order fighting. The relatively large number of battle-related and personal objects at Locus O such as a butt plate, ramrod sleeves, ramrod tips, scabbard tip, leather tack decorations, jaw harp, bracelet, earring, spoon fragments, thimble, knife, and buttons also attest to the intensity of the fighting (Figures 183-185).

The fighting at Locus O, as evidenced by the number and variety of musket balls and battle-related objects, was the most prolonged, chaotic, and intense of any of the battlefield loci. The many tight clusters of small musket balls fired as buckshot, the number of battle-related objects, and the number of dropped musket balls suggests the combatants were often with ten to thirty yards of one another, hurriedly reloading, and likely engaged in hand-to-hand fighting. It also appears that some of the English may have dismounted and fought on foot during the fight.

The battle also seems to have been very chaotic and more of a melee compared to other loci, with the positions of the combatants shifting back and forth and there are no set positions. Most of the other loci are best described as running battles characterized by heavy Coalition fire and limited English return fire. The exception was Locus J (Nash's Mill Hill), although unlike Locus O there were obvious English and Coalition positions. At Locus O it is impossible to determine any clear lines that demarcate English or Coalition positions. Careful analysis of impacted and dropped small musket ball distributions does indicate areas of concentrated fire and reloading by English and Coalition forces, particularly English fire near the edge of the terrace leading to the Primary Ford. This pattern suggests that Coalition forces had positioned themselves along the terrace edge before the English arrived. When the English arrived, they had to fight their way through Coalition forces to reach the path leading to the ford.

Impact marks on several of the small and large diameter musket balls suggest the fighting took place in a forested environment (i.e. Pine Plain or Pine Barrens). There are no boulders or bedrock at Locus O so none of the musket exhibited the distinctive signature of impacting against rock. A high percentage of musket balls at Locus O ball (16.5%, n=38) were flattened from impacting something hard such as wood (not rock), and several exhibited bark or wood impressions. In comparison, only 3.7% (n=6) of the musket balls at Locus J were flattened, 4.5% (n=4) at Locus E, and none at Locus L.

Although it is open to debate, the best scenario (at present) to characterize the fighting at Locus O as the main body of English under Holyoke decided to make their way to the Primary Ford to cross the Deerfield River. They were pursued by an unknown number of Coalition forces

as they retreated south through Petty Plain. The English may have established a small position at Locus N as a delaying action. An unknown, but fairly large number of Coalition forces had established themselves along the terrace to block English access to the ford. With Coalition forces in front and behind the English the fight took on the character of a melee with no clear lines or positions. Whether the English were able to break through the Coalition forces to access the Primary Ford and cross the Deerfield River is unclear. Unlike Locus L, there is no trail of musket balls leading to the ford from the top of the terrace. It was hoped that the musket ball distributions in the North Deerfield Meadows (Locus P). would indicate if one or both fords were used, but the data is inclusive.

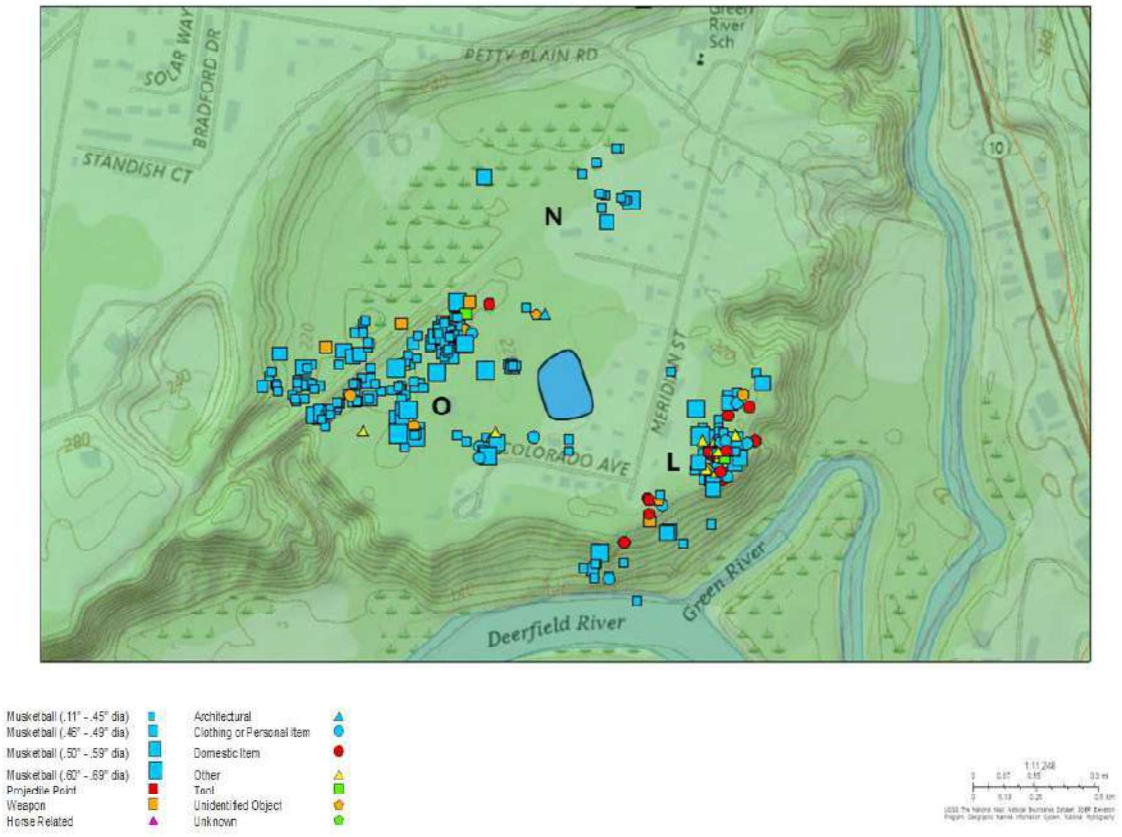


Figure 183. Locus L & O Musket Balls and Battle-Related Objects.

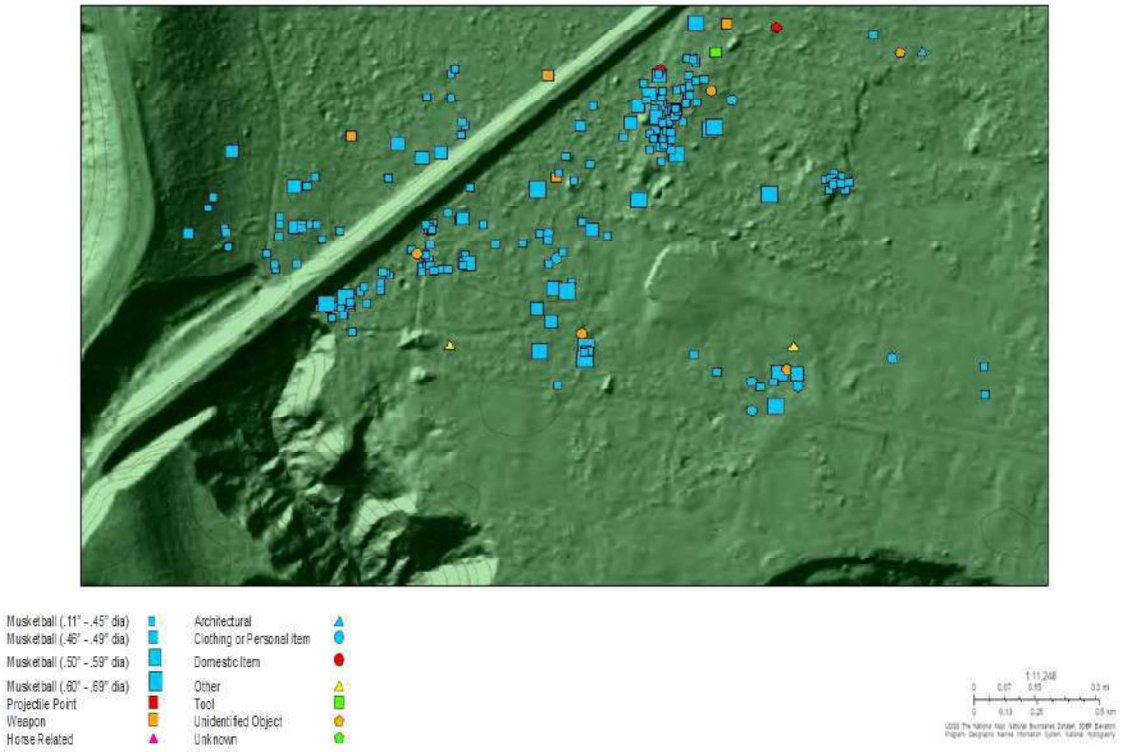


Figure 184. Locus O Musket Balls and Battle-Related Objects.

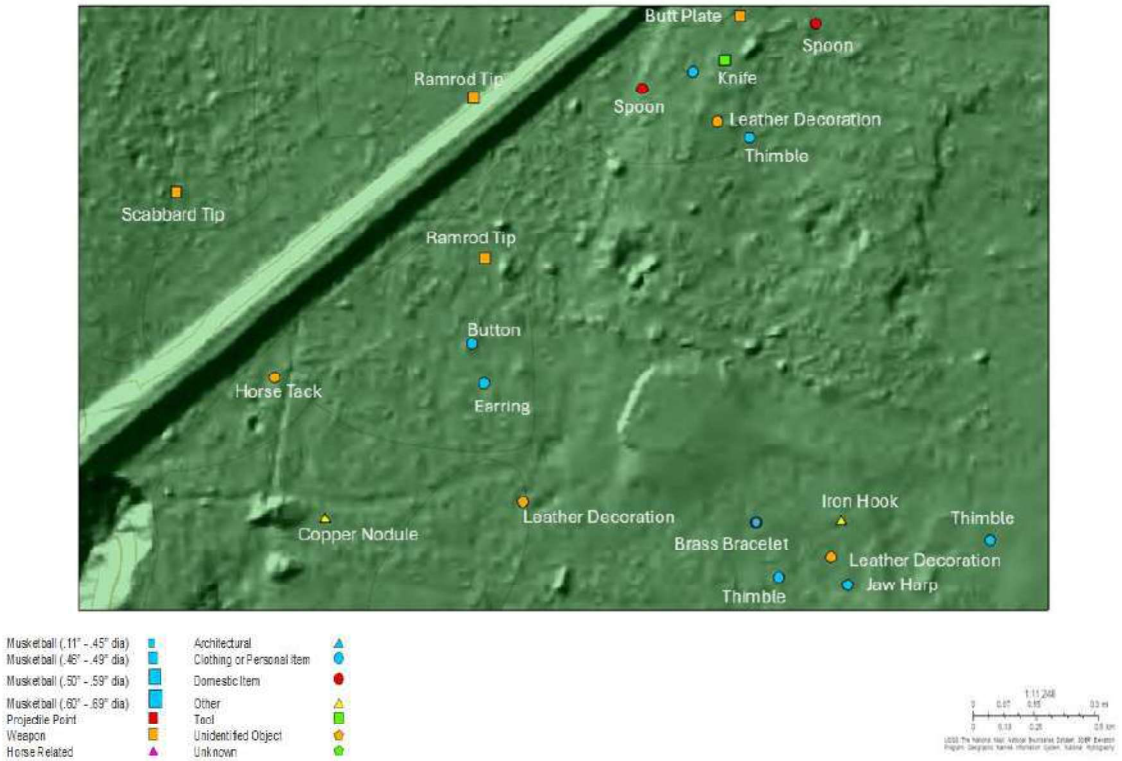


Figure 185. Locus 0 Battle-Related Objects.

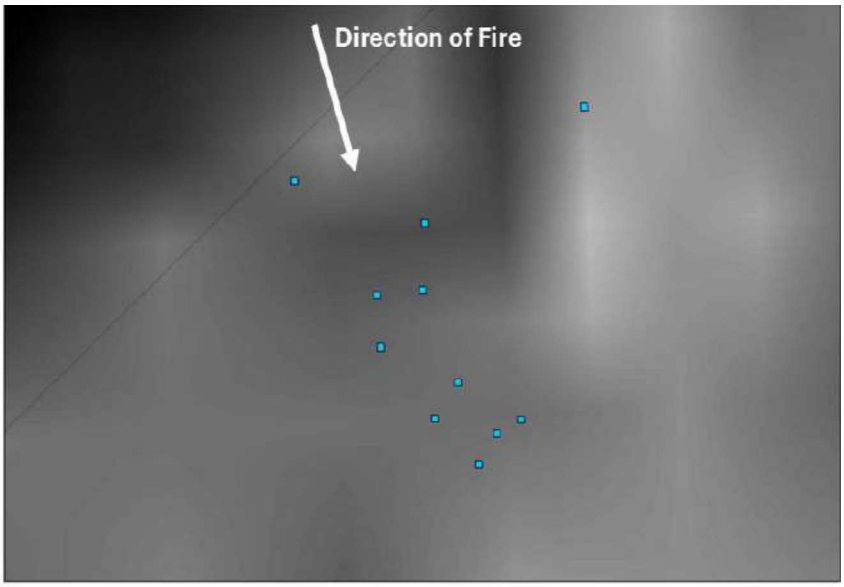


Figure 186. Locus 0 Coalition Single Blast of .27”–.29” Diameter Musket Balls.

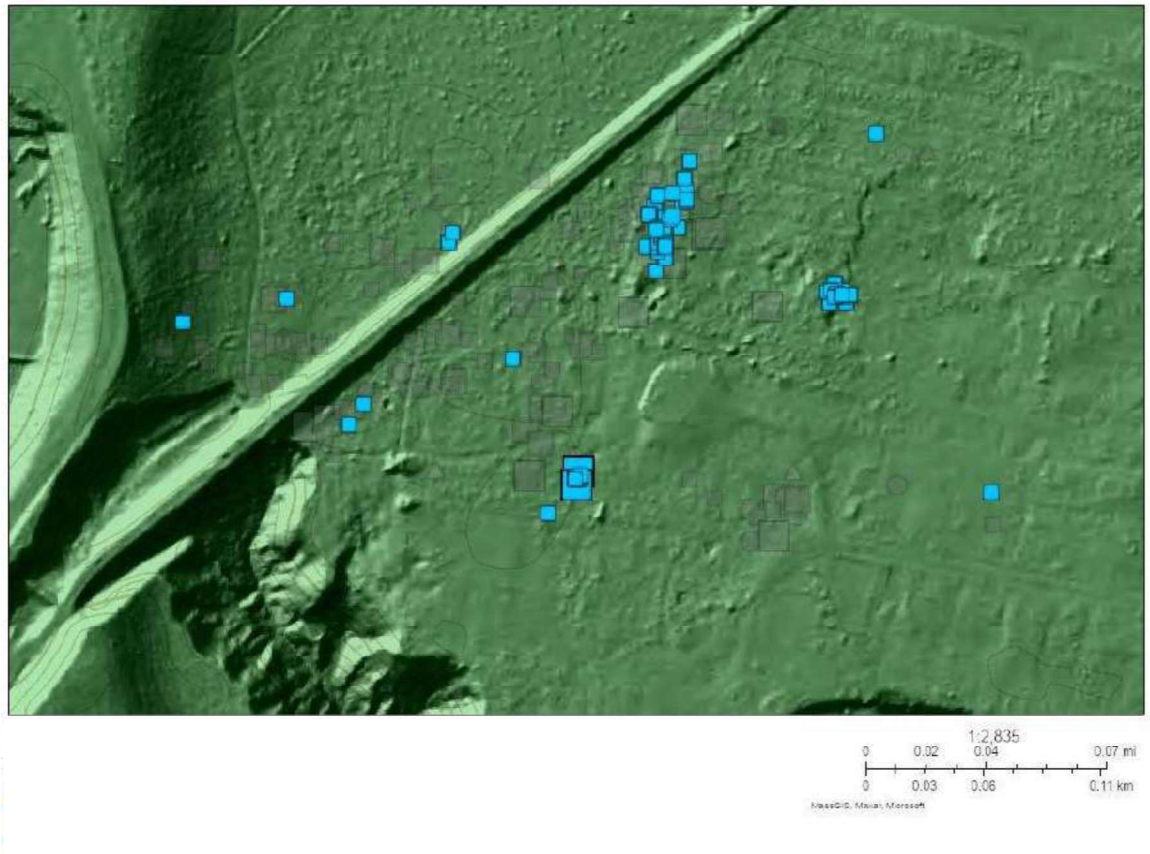


Figure 187. Locus O Dropped Ball.

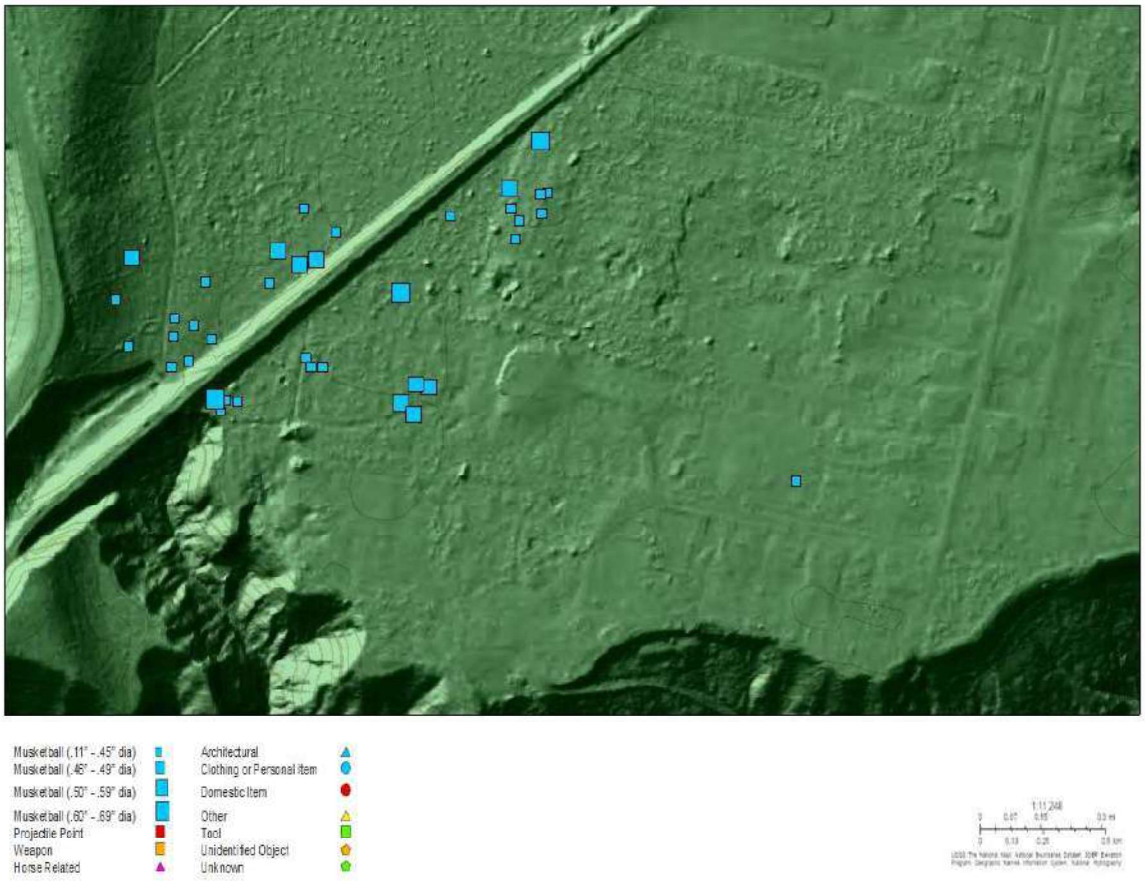


Figure 188. Locus O Musket Balls Impacted on Trees.



Figure 189. Locus O Brass Jaw Harp.

***Locus L: Deerfield River Ford East*:** Locus L is situated in the southeastern corner of a large terrace that is part of Petty Plain overlooking the Green River to the east and the Deerfield River to the south. The northern, eastern, and southern boundaries of Locus L were established by the distribution of musket balls and battle-related objects which were distributed on top of and downslope of the terrace encompassing an area of 11-acres (Figures 190-192). The area of most intense fighting took place within a three-acre area.

The nature and distribution of the battle-related objects recovered at Locus L were entirely influenced by the location of the Deerfield River Secondary Ford and trail leading to the Secondary Ford forty feet below the terrace and the need to control key terrain (Figures 191 & 193). The secondary Deerfield River Ford (east) was five hundred feet east of the primary ford, the latter originally intended to serve as the English route of advance to the Peskeompskut village. Having missed the Primary Ford, the English used the Secondary Ford located five hundred further east (Figures 191 & 193). The Secondary Ford then served as both an avenue of advance for the entire group of English and later an avenue of retreat for at least one group of English. The slope leading to the Secondary Ford is so steep that it is impossible to descend on horseback except by a very narrow trail that horizontally parallels the contours so that the steepness of the descent was minimized. Nonetheless the narrow trail and slope could only accommodate a single file of horsemen (Figure 198). This terrain feature created a bottleneck whereby the English had to wait their turn to descend to the ford and were vulnerable to Coalition attacks.

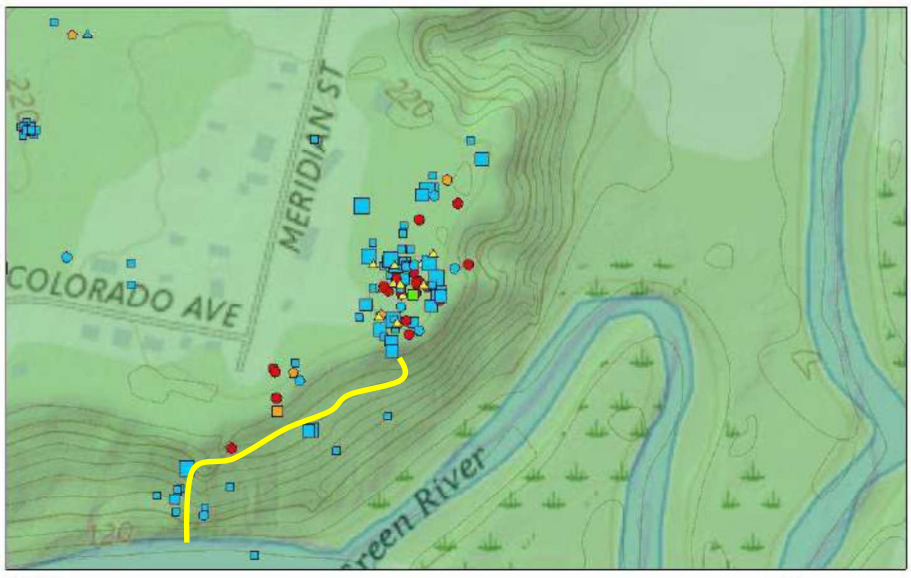


Figure 190. Locus L Battle-Related and Domestic Objects and trail to Deerfield River Ford.

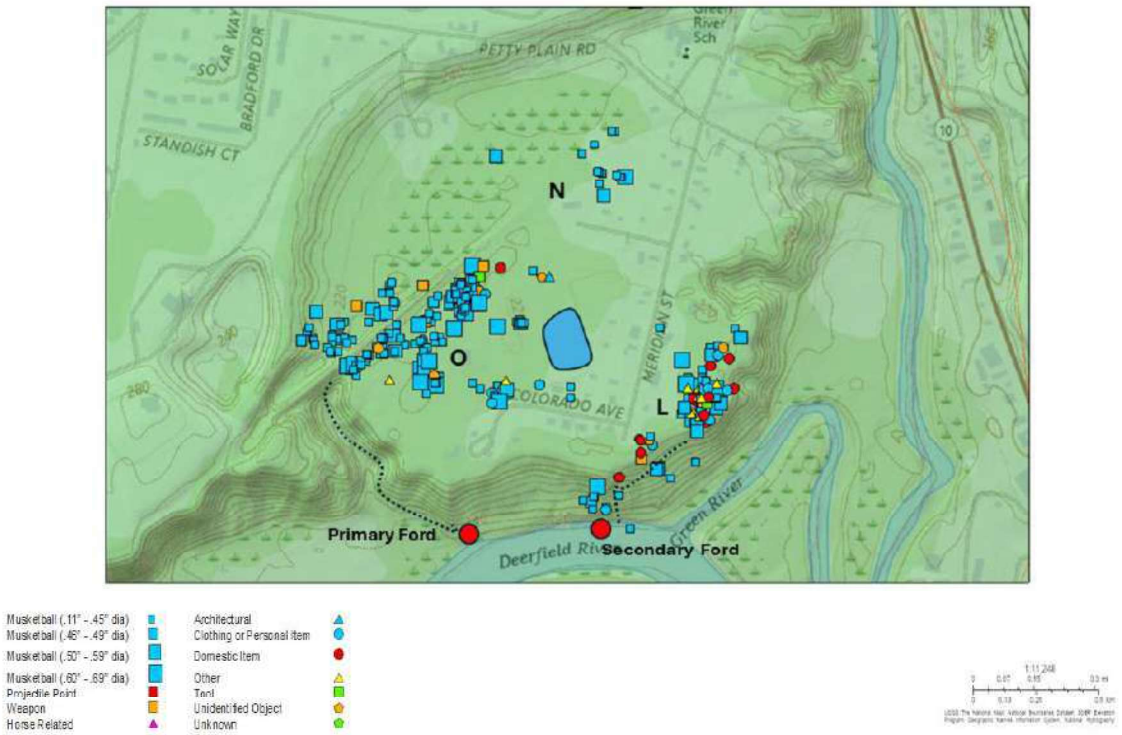


Figure 191. Locus L and O and Primary and Secondary Fords.

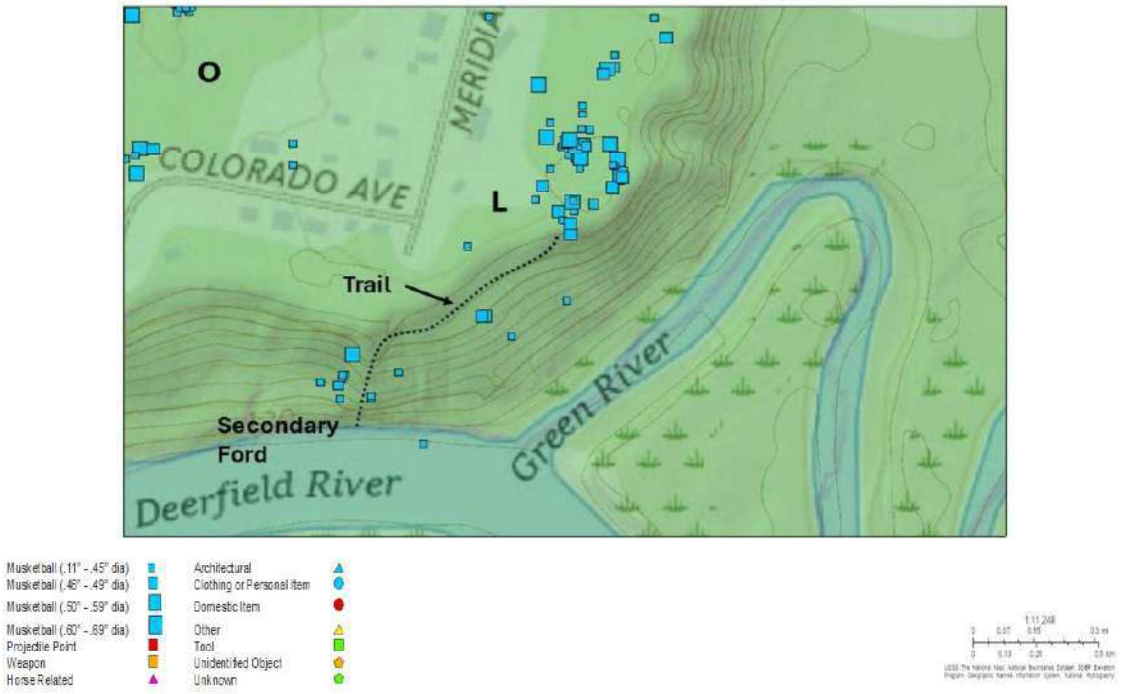


Figure 192. Locus L. Secondary Ford and Trail and Battle-Related Objects.

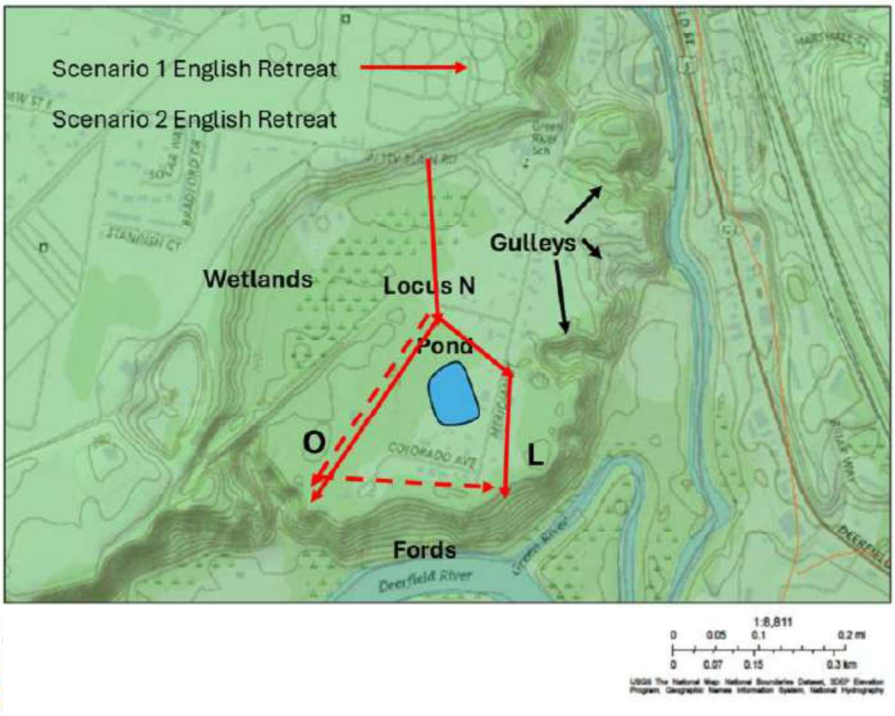


Figure 193. Locus L and O Retreat Scenarios.

Locus L and O represent the final major engagement(s) of the Battle of Great Falls (Figure 193). If the actions at Locus L and O are sequential and part of the same action or two separate actions is an open question. The two loci yielded 291 musket balls (Locus L = 62, Locus O = 229) and dozens of battle-related and personal objects (e.g. musket butt plate, ram rod tips, scabbard tip, leather tack decorations, horse-related objects, buttons, thimble, jaw harp).

The western and eastern edges of the two loci are separated by 200 yards devoid of battle objects, a sufficient distance to suggest the two loci represent two different events. However, that conclusion assumes that the intervening space was adequately metal detected, soil disturbance was moderate, and a sample of battle-related objects could have been recovered. Based on the distribution of battle related objects it is still not entirely clear if the two distributions represent two groups of English fighting their way through to or defend the access to the Primary and Secondary Fords against Coalition forces, or if the pattern represents the main English force moving from west to east engaging one or two groups of Coalition forces on their way to the Secondary Ford (Figure 194).

Locus L yielded 62 musket balls over an area of eleven acres (Figures 194, 197 & 198). A relatively high percentage of the musket balls of large diameter range on the terrace (approximately three acres, n = 48) were dropped (15% n = 6; .37" (2), .58", .64", .68", .69") suggesting the dropped musket balls are English and suggestive of stationary fighting and reloading as the English waited their turn to descend to the Secondary Ford.

The most interesting and perplexing aspect of the musket ball assemblage at Locus L is the almost equal amounts of large ball between .50" and .69" diameter and smaller ball between .22" and .46" diameter, a pattern not observed in other battlefield loci (Figures 197-198). Large and small diameter musket balls were evenly distributed throughout Locus L. Nine musket balls in the .15"-.34" range and four in the .35"-.49" diameter range (60%) exhibited facets suggesting close order fighting. Eleven of the faceted ball were recovered within a .8-acre area indicating they were fired as buckshot at close range. Two large diameter musket balls had unusual impact marks most likely from hitting a metal object with a sharp edge such as a sword, stirrup, or horse bit (Figure 200). Two musket balls were sandwich shot (.52" and .60" diameter) and one was a cylindrical .55" diameter shot re-fashioned from a .58" diameter round ball. Both are typically associated with Coalition forces (Figures 199 & 200).

The fighting that took place at Locus L was very different compared to other battlefield loci given that most of the musket balls were recovered in a very circumscribed area and a high percentage were large musket ball diameters. (60% n =29; Figure 197). Unlike many of the other battlefield loci, which are best characterized as running fights, Locus L (and Locus O were stationary fights that took place within a circumscribed area. The number of large and large dropped diameter musket balls supports this scenario.

The terrace, secondary ford, and path leading downslope to the secondary ford were key terrain features that provided a significant advantage to either the attacker (Coalition) or defender (English) if they could control the key terrain feature. Controlling access to the fords by either side would significantly impact the success of military operations by facilitating or preventing movement or hindering the enemy's ability to maneuver.

Two scenarios present themselves. The first is that Coalition forces, perhaps from the Cheapside area, occupied the terrace first to prevent the English from using the ford. When the English arrived, they were forced to drive them away and subsequently occupied the terrace continuing to receive fire from Coalition forces as they waited to descend the slope to the ford. A

more likely scenario (and consistent with two groups of English) is that the English occupied the terrace first having put some distance between themselves and Native forces once they crossed the Green River Ford. The distance from the Green River Ford to the Deerfield River Fords is 2.5 miles. If the English traveled at a slow canter (8-12 MPH) they could have reached the terrace in 12-18 minutes. It may have taken Coalition forces 20-25 minutes to cover that same distance at a jog, only 10-15 minutes behind the English. Many, but not all, of the English could have descended to the Deerfield Ford in that span of time perhaps leaving 20-30 men on the terrace waiting their turn to descend. This scenario may explain the more constricted battle area, and the fewer number of musket balls on the terrace (n = 48) suggesting a fewer number of combatants.

The second scenario is more probable, based on the number of dropped musket balls that are likely English based on their diameters. If so, it seems Coalition and English forces were receiving and giving fire within an area of a few acres. If Coalition forces occupied the terrace first it is doubtful they would have exposed themselves to English fire in such a close formation for an extended period. As such, all the impacted musket balls are considered Coalition fire and the dropped musket balls are English. The mix of small and large diameter musket ball also suggests there were two phases of the battle. Many of the English had already descended the slope leading to the ford by the time Coalition forces arrived, leaving only a small group of English on the terrace. When Coalition forces arrived, they exchanged fire with the remaining English at 100-150 yards. The percentage of smaller diameter ball with facets indicates that as the number of English dwindled Coalition forces closed in on the remaining English and exchanged fire at 30-40 yards. Most of the recovered musket balls leading downslope to the ford are Coalition forces firing at the retreating English. Once the English crossed the Deerfield River Ford, they continued to be pursued by Coalition forces through Locus P upper Deerfield Meadows).

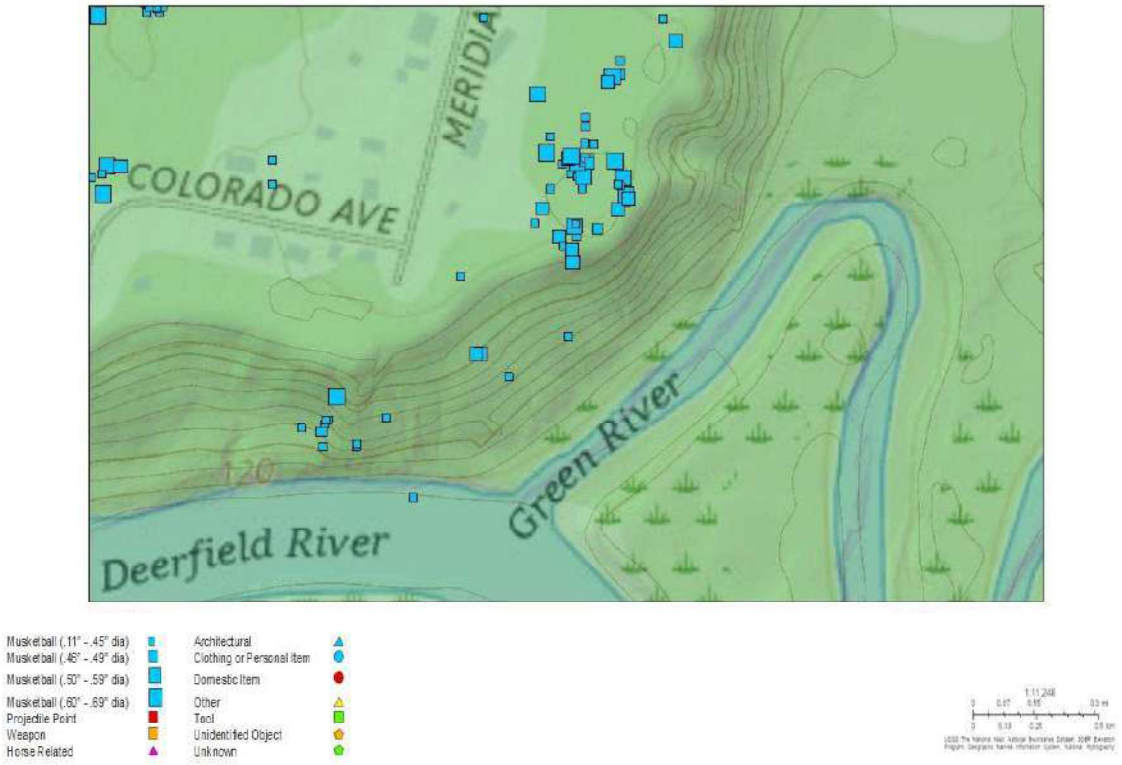


Figure 194. Locus L Musket Ball Distributions.

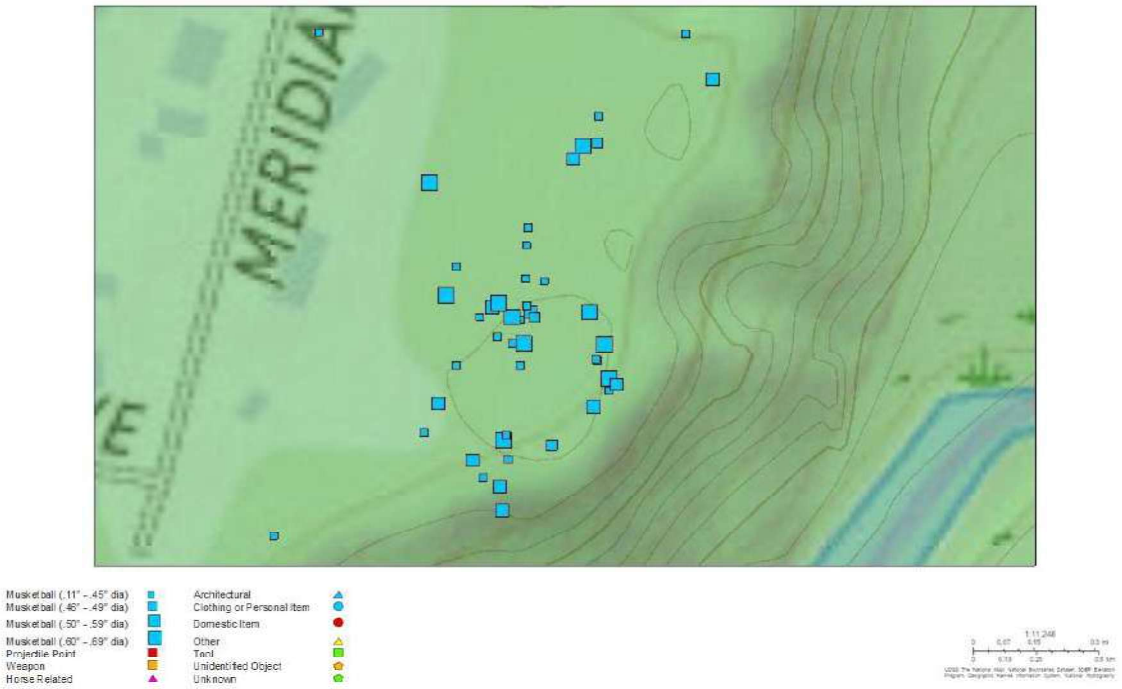


Figure 195. Locus L Musket Ball Distributions -Terrace.



Figure 196. Locus L Dropped Musket Balls.

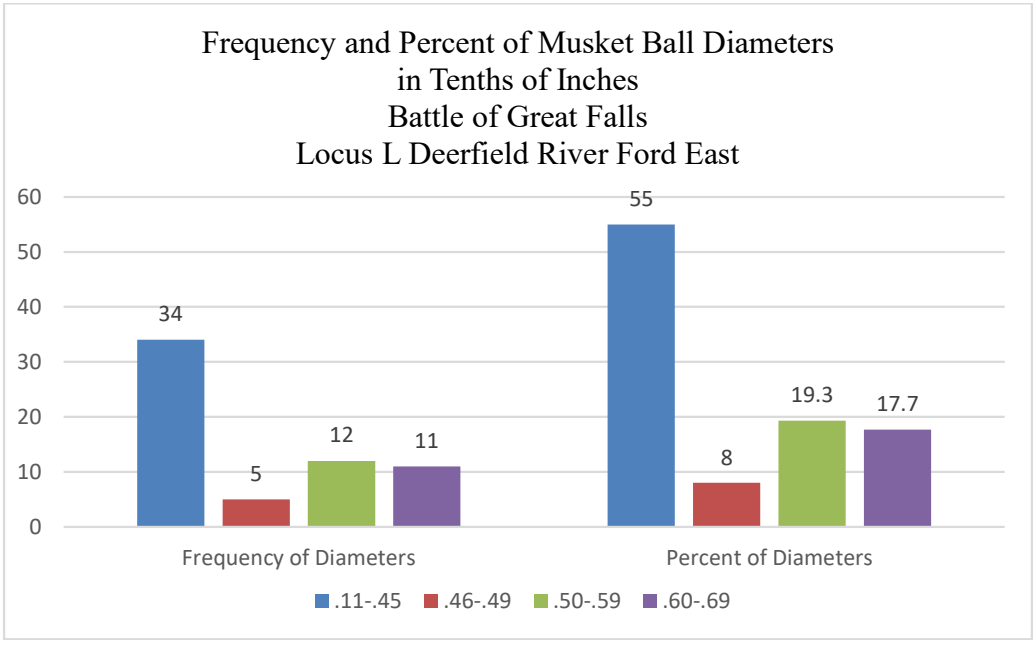


Figure 197. Locus L. Frequency and Percent of Musket Ball Diameters.

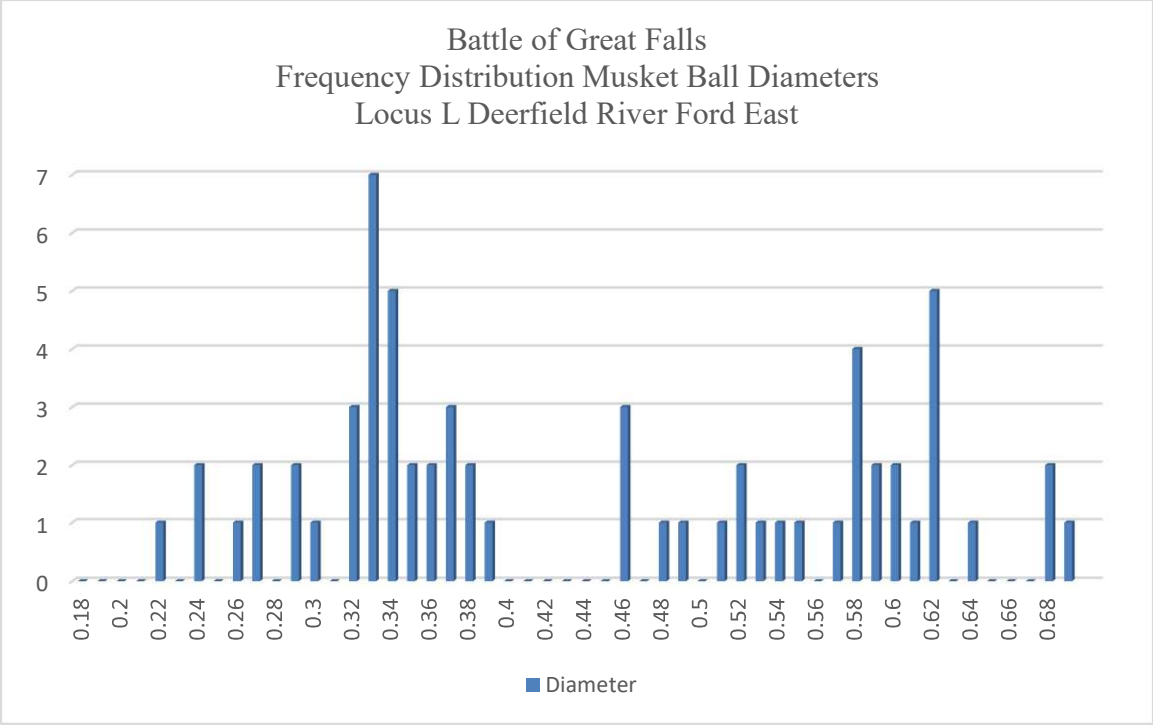


Figure 198. Locus L. Frequency Distribution of Musket Balls



Figure 199. Locus L Impacted Sandwich Shot.



Figure 200. Locus L .52 Inch (L) and .68 Inch (R) Impacted Musket Balls.

Pocumtuck Domestic Site: A seventeenth-century Native domestic site was identified at Locus L (Figure 201). Although the battle-related and Native domestic objects are closely associated spatially, the domestic site is not believed to have been occupied at the time of the battle. The date of occupation could not be determined beyond mid - to - late seventeenth century. The Globe and Shaft bottle fragment (Figure 207) indicates an occupation in the second half of the 17th century. The time frame of the site cannot be narrowed down any more precisely at this time. No shovel testing was conducted to minimize disturbance. The two non-metallic objects (earthenware and bottle fragment) were recovered from holes dug to recover metallic objects. Although only two non-metallic objects were recovered it suggests there could be many more.

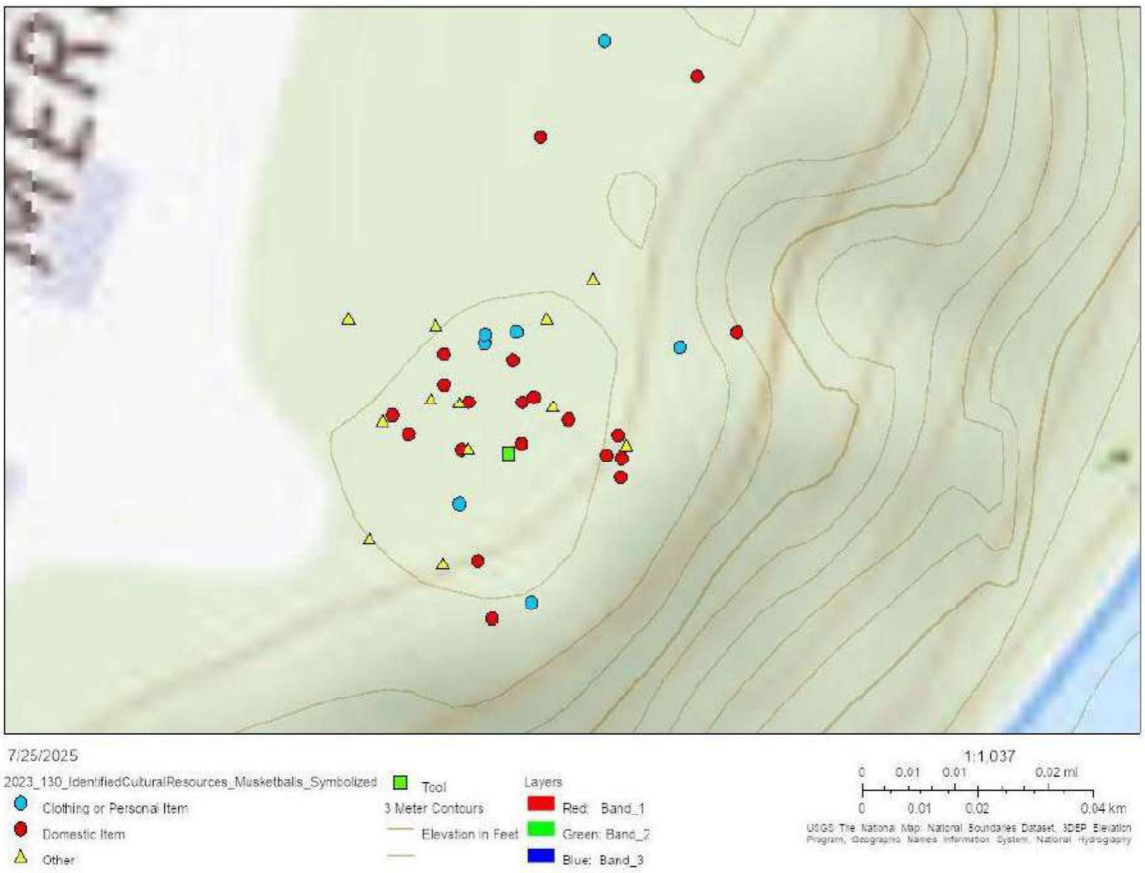


Figure 201. Locus L Native Domestic Objects

Fifty-three seventeenth century objects were recovered from an area of approximately 0.6 acres (Figure 201). The objects included 16 pieces of brass and five pieces of copper scrap from reprocessing brass and copper kettles (Table 6; Figures 201-207). A copper kettle handle, five cut copper kettle fragments, and a copper projectile point were also recovered as well as five raw copper nodules. Copper kettles were a common trade item, but copper objects or scrap are rarely identified in the archaeological record as the patina that develops for brass in archaeological contexts is identical for copper objects. The raw copper nodules are interesting as they are rarely observed at Native sites.[250] It is likely they are commonly dismissed as metal slag and not identified as copper (as we initially did). Raw copper nodules of various weights and sizes are formed in the red Triassic sandstones characteristic of the upper Connecticut River Valley (also where dinosaur footprints occur). It does not appear that any raw copper was modified or worked in any way, but

[250] Raw copper is common in the Triassic sandstones in the upper Connecticut River Valley.

their presence at the site indicates that the Pocumtuck inhabitants of the site brought the nodules to the site.

Other recovered objects include several fragments of lead scrap and molten lead suggesting production of lead objects, particularly musket balls. Iron knives, brass tacks, brass buttons, pewter and copper and brass spoons, brass buckles, and a brass thimble (Table 6 Figures 202–204). Some of the objects such as buckles, buttons, thimble, and knives could have been worn or carried by the combatants.

Table 6. Locus L Native Domestic Objects.

Count	Material	Identification	Details	Decoration
1	Brass	finger ring	complete	
1	Brass	Finger ring	Cast	
1	Brass	object	whole	punched
1	Brass	tool/awl		
1	Copper	projectile point		
1	Copper	kettle handle	complete	
16	Brass	scrap		
1	Brass	scrap	fragment	punched
1	Brass	spoon	bowl fragment	
3	Brass	tack	complete	
1	Brass	thimble		
5	Copper	scrap		
5	raw copper	nugget		
1	Cuprous	buckle	fragment	
2	Cuprous	buckle	fragment	
1	Lead	bale seal	complete	
1	Lead	bar	fragment	
2	Lead	scrap		
1	Lead	molten		
1	Lead	sheet	fragment	
1	Pewter		fragment	
1	Pewter	spoon bowl	fragment	
2	Iron	Knife	fragment	
1	Glazed coarse earthenware	base	fragment	
1	Globe and shaft bottle	base	fragment	



Figure 202. Locus L Brass Scrap.



Figure 203. Locus L Copper Kettle Handle & Copper Scrap.



Figure 204. Locus L Brass Buckle, Thimble, Buttons, Rings, Lead Bale Seal.



Figure 205. Locus L Raw Copper Nodules.



Figure 206. Locus L Brass Scrap with Score Mark.



Figure 207. Locus L Iron Knife Blades, Unidentified Iron Objects, Pewter Spoon Bowl. Globe & Shaft Bottle Fragment.

The Pocumtuck Domestic site likely represents a short-term occupation occupied by a few Pocumtuck families. The recovered artifacts suggest the inhabitants were engaged in processing, cooking and consumption of food, reprocessing brass and copper kettles for tools and other objects and perhaps processing lead for musket balls.

***Locus P: North Deerfield Meadows*:** A metal detector survey of North Deerfield Meadows was never considered as part of the Phase I, II or III surveys. Primary sources agreed that the English crossed the Deerfield River and were pursued by Native American Coalition forces until they reached the ruined Deerfield village. Therefore, it was assumed that nothing more could be learned by continuing the metal detector surveys across North Deerfield Meadows. That perspective changed as the distribution of impacted and dropped musket balls led to the Deerfield River. It seemed logical that additional lead shot could be recovered in the northern Deerfield Meadows if they remained intact and not eroded or covered with silt from annual flooding over the centuries since the battle. It was decided that a metal detector survey in North Deerfield Meadows may reveal patterns of musket balls leading from one ford or the other.

The metal detector surveys in North Deerfield Meadows were inconclusive. It was clear that Coalition forces pursued the English into and across the meadows, but it could not be determined if Coalition forces pursued one or two groups of English across the fords and into the meadows (Figure 208). The survey continued for .25 miles across North Deerfield Meadows but ended for concern that evidence of the later raids on Deerfield would be encountered.

Twenty-three musket balls were recovered from North Deerfield Meadows and appear to be a mix of English and Coalition Fire, although most muskets are considered to have been fired by the English based on musket ball diameters, direction of fire, and topography (Figures 209 & 210). Eighteen musket balls (78%) were small diameter suggesting a degree of close order fighting. The remainder (n=5, 22%) were large diameter musket balls (Figures 209 & 210). The distribution of musket balls suggests the English established a defensive position along the edge of the terrace overlooking the approaches from the fords and gave fire upon Coalition forces as they moved south from the fords to engage the English (Figure 208). The fighting ended shortly after as the English reached the relatively safety of what was left of Deerfield Village.

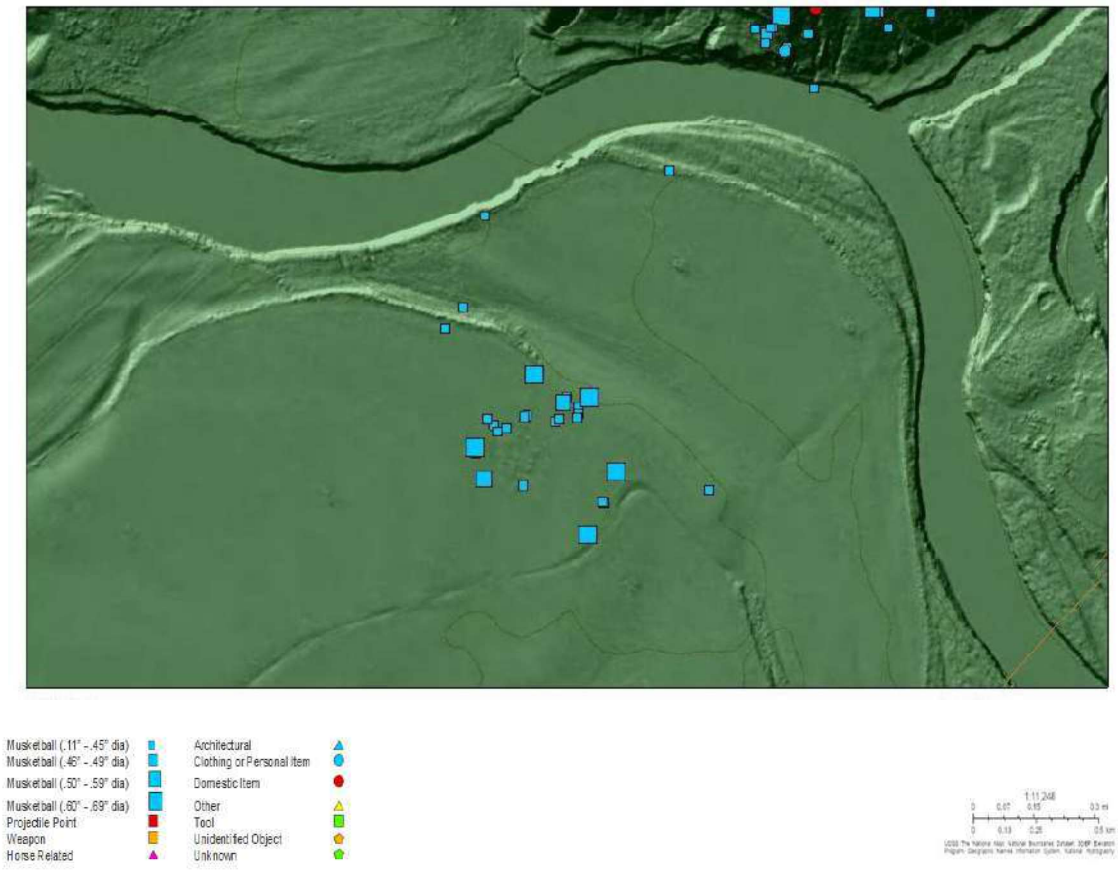


Figure 208. Locus P Deerfield North Meadows Musket Ball Distributions.

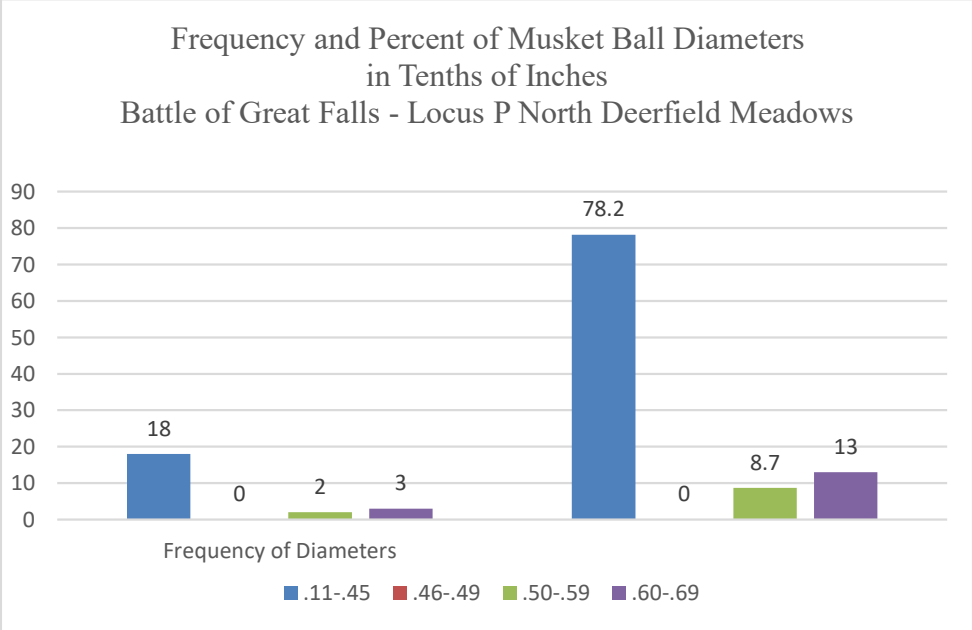


Figure 209. Locus P Frequency and Percent of Musket Ball Distributions.

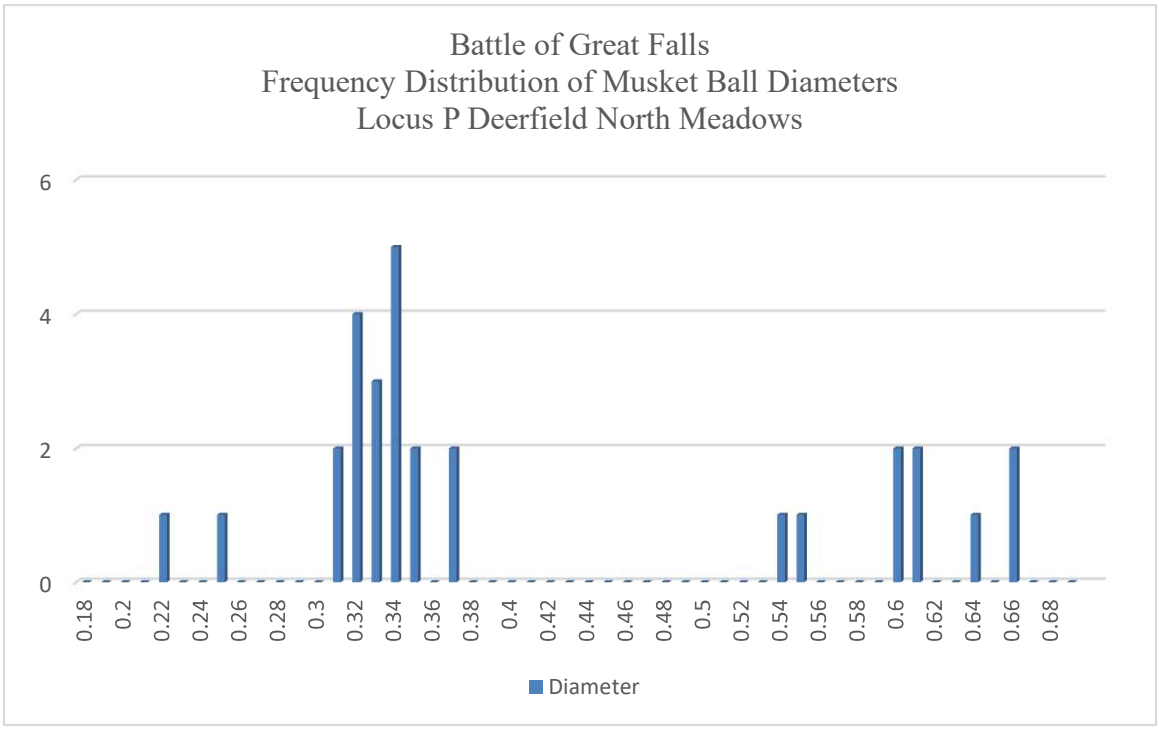


Figure 210. Locus P Frequency Distribution of Musket Ball.

Future Research

The battlefield Advisory Group has identified additional research questions that could be pursued in a future phase of the battlefield survey to provide a broader context for the Battle of Great Falls/Wissantinnewag-Peskeompskut:

a) COUNCIL FIRES: North along the Connecticut River on Falls Road (Massachusetts Route 63) near the intersection of Homer Road is an historic highway marker which commemorates, and approximately designates, the location where the male and female leadership are said to have gathered in the river valley to discuss the future course of the war effort. It is believed that, here for the first time in the Indigenous/Colonial experience, Tribes met to confirm whether a path of peace or war would be pursued as the course forward dealing with the colonial aggressors. Cursory research during the Phase III survey suggested the actual site may be further north although other King Philip's War era events likely occurred in the vicinity of the Council Fires marker. Landholder permission was not obtained during the Phase III survey to attempt a metal detecting survey of the area to recover evidence of seventeenth century activities. Future research could include an archaeological survey of the purported Council Fires site noted by the roadside marker as well as research into local land records and local historical accounts for other possible locations. Additional historical research could yield information regarding all known tribal leaders and participants involved in the meeting.

b) SURVEY GAPS IN THE DOCUMENTED BATTLEFIELD ROUTE: Although the English Approach and Retreat Routes are largely documented there are several significant areas that have not been surveyed due to lack of landholder permissions, impacts to the land itself rendering it too disturbed, and deadlines. This includes areas around the White Ash Swamp where considerable combat occurred and where English forces disintegrated into several groups. There remain several stretches of Cherry Rum Brook which would benefit from additional survey work. Large tracts of land along Colrain Road maintained as cleared agricultural fields were not surveyed as they were owned by a single landholder who refused permission at the time. The section of the English retreat route between College Drive off Colrain Road south to Robbins Road and Smead Brook could yield evidence of the English retreat with a careful survey of any intact properties along the way. A study of the east side of Interstate 91 on the west side of Petty Plain from approximately Fairview Street and running east along the northern edge of the landscape to Wisdom Way would help clarify the English retreat route towards Locus M has not been surveyed largely due to lack of time and landholder permissions. It is also unclear how far combat continued beyond the Deerfield River and into the Deerfield Meadows. While additional survey work could occur, it is possible that artifacts could be recovered from later Inter-Colonial War raids such as the 1694 raid during King William's War (1688-1697) and the 1704 raid during Queen Anne's War (1703-1713).

c) TRIBAL RETALIATIONS: Additional historical research concerning Native American Coalition strategies and actions following the Battle of Great Falls/Peskeompskut would expand the broader context of the battle itself. This could answer questions regarding the

nature and extent of tribal counterattacks that could have occurred in the weeks and months after the battle. The role of the Mohawk in the aftermath of the battle could also be studied in greater detail. Finally, research focuses on the long history of Tribal retaliations decades after the massacre at Peskeompskut.

d) WAR COLLABORATORS: What roles were played by Tribal and other European interests in this phase and the balance of the War?

VI. National Register Considerations

The information needed to submit a National Register nomination for the Battle of Great Falls/Peskeompskut is included in this section, but it is not in the final submission format. A formal National Register nomination in the correct format will be completed following the second phase of fieldwork. The National Register submission will address several questions raised during the historical and archaeological research; What were the routes of retreat used by the English and how many separate groups of English were there? How were the Native counterattacks coordinated and how effective were they at various points of the battlefield? What were the various tactics used by the Native combatants on different parts of the battlefield? How effective were the counter measures used by the English?

Based upon the evidence detailed below, a Battle of Great Falls/Peskeompskut Archeological District likely meets the criteria for nomination as a candidate for inclusion in the National Register of Historic Places. The district includes a non-continuous distribution of 375 battle-related artifacts distributed over 3.25 miles within a Battlefield Boundary of approximately 150 acres. The Battle of Wssatinnawaug/Peskeompskut encompasses the area where continuous fighting occurred within approximately a 6 to 8-hour span punctuated by episodes of more intense fighting and small unit actions. In addition to the linear and continuous distribution of battle-related objects several small engagements or actions were identified within the Battlefield Boundary. Furthermore, two potential seventeenth-century Native domestic areas were identified that may be associated with the battle. One seventeenth-century Native domestic site was identified and is not associated with the battle.

The Battlefield Boundary, Core Area(s), and National Register Boundary are completely congruent with one another. The battlefield district is discontinuous as sections of the battlefield have not been surveyed and modern roads and areas that lack integrity separate sections of the battlefield. Modern development occurs in several sections of the battlefield and while these areas have been impacted to some degree, previous battlefield surveys in residential areas have proven

that battlefields in suburban areas still retain a degree of integrity and can yield additional information. The areas of the Battle of Peskeompskut that has been surveyed still retains physical elements that convey a sense of the historic scene. Since the 1676 battle, houses and roads have impacted portions of the battlefield and the nature of the vegetation has certainly changed. It was likely a more open forest based on European descriptions of the area and thousands of years of Native land use and horticulture. However, the original terrain and geomorphology are largely unchanged based on an analysis of historic maps dating back to the nineteenth century and still provide a sense of the visual setting and key terrain features. The most significant impacts to the battlefield are those resulting from 340 years of land use after the battle. Post-battle artifacts recovered from the battlefield include hundreds of lead bullets, horse and ox shoes, quarry tools such as feathers and plugs, chain links, and personal items such as coins, buttons and harmonicas. While these activities resulted in thousands of objects deposited on the battlefield landscape and made the identification of battle and non-battle-related objects more challenging, they do not significantly affect the integrity of the battlefield.

Historic Context

The following historic contexts for the Battle of Great Falls/Peskeompskut (May 19, 1676) Archeological District are organized thematically and chronologically to convey the cultural and historical environments, as well as the varied perspectives associated with this period in American history. King Philip's War (June 1675 – August 1676), which includes the Battle of Great Falls, was the culmination of years of underlying tensions between Indians and the English in the middle Connecticut River Valley that had been smoldering for over 40 years over competing land claims, disputes over the grazing of colonial livestock, impacts on Native hunting, and fishing grounds, and agricultural fields, interracial insensitivities, and English cultural encroachment on Native lifeways. Therefore, the prelude and setting of the King Philip's War (and its associated battles) in the Connecticut River Valley spans nearly four decades (1635 - 1675) and stretches from Springfield (Agawam) to Northfield (Squakheage) Massachusetts. This time frame and geographic extent corresponds to the arrival of Dutch and English traders and English settlers until the conclusion of King Philip's War.

The historical contexts include: I) Contact and Trade in the Middle Connecticut River Valley (1635-1675); II) English settlement of the Middle Connecticut River Valley (1636-1673);

III) Inter-tribal and Native-colonial politics pursued by Native villages in the middle Connecticut River Valley (1635-1676); IV) King Philip's War 1675-1676); V) Battle of Great Falls/Peskeompskut (May 19, 1676.

Associated Property Types

Introduction

The associated property types for the Battle of the Great Falls / Peskeompskut Archeological District are categorized by the historic contexts outlined above. For this Archeological District nomination, a property type is a resource (or group of resources) with similar cultural and archeological elements that relate to the same historic context. The property types have been defined and identified based on the historical and archeological records and battle-related artifacts, and they incorporate elements of battlefield and historic landscapes as well as key terrain features extant during the Battle of Great Falls. It is anticipated that when the battlefield surveys of the remaining 5.5 miles the Great Falls battle have been completed additional properties and sites will be incorporated into the district.

The Battle of Great Falls/Peskeompskut Archaeological District property types includes: 1) Peskeompskut Village; 2) Ancillary Native villages that contributed men to the battle; 3) a linear running battle as defined by the continuous distribution of battle-related objects along the English route of retreat; 4) large engagements as defined by an increase in the density and area of battle-related objects within the linear route of withdrawal; 5) small unit actions as defined by battle-related objects distributed over a smaller area and reflect discrete actions such as flanking attacks and frontal ambushes; and 6) seventeenth-century Native domestic sites that are contemporaneous with the battle but provide information on the settlement history of the valley.

The four criteria for nomination to the National Register of Historic Places are: A) association "with events that have made a significant contribution to the broad patterns of our history," B) association "with the lives of persons significant in our past," C) properties that "embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction," and D) properties "that have yielded, or may be likely to yield, information important in prehistory or history." The Battle of Great Falls/Peskeompskut Archeological District is considered to meet the criteria for

nomination under Criteria A and D. The battlefield district is considered significant at the local and state level for its association with King Philip's War.

NAME OF PROPERTY TYPE: Description

The Battle of Great Falls/Peskeompskut Archeological District contains a variety of contributing resources distributed over seven miles (including the location of the Peskeompskut Village) and hundreds of acres. The district possesses a significant concentration of a physically proximate group of cultural resources which were historically significant to or were part of the landscape on the day of the Battle of the Great Falls/Peskeompskut (May 19, 1676). The boundaries of the Archeological District are defined by terrain features and the distribution of battle-related and domestic objects. The Battlefield Archeological District contains a discontinuous distribution of battle-related artifacts, (sometimes as long as 0.5 miles) including musket balls, broken and discarded weapons and weapon parts, equipment, and personal items associated with the English and Native combatants. Within the distribution of battle-related objects a number of spatially and temporally (only by hours) discrete associations of battle-related artifacts can be identified that can be attributed to individual engagements or battle events (e.g., small and large engagements) within the broader battlefield landscape. In addition to the Peskeompskut Village (yet to be located with demonstrated integrity) the district also contains at least one Native domestic archeological site which was not demonstrated to be contemporaneous with the battle.

The battlefield district retains physical integrity, and integrity of setting, location, feeling, and association with the historic battlefield landscape and key terrain features within the district. The battlefield district retains most of the historic and battlefield landscape elements, and key terrain features which were present during their period of significance. Intrusions such as post King Philip's War land use activities, buildings, structures, and roadways are present but their impacts to the battlefield district vary from high impact to low or no impact. In many areas of the battlefield post King Philip's War land use has not impacted on the visual setting and key terrain features associated with the battle. The physical landscape within the boundaries of the battlefield district can be demonstrated to be similar enough to its late seventeenth-century appearance to allow one to envision the scene of the actions and movements of the English and Coalition forces on the day of the battle. While the Historic Battlefield Archeological District and contributing properties contained within it have experienced post King Philip's War alterations, these impacts

have not significantly altered the historic appearance of the battlefield district or the contributing properties. The archeologically investigated sites and properties within the district contain features and artifacts related to the battle.

Statement of Significance

The Battle of Great Falls/Peskeompskut was one of the most significant battles of King Philip's War. While the English were certainly the victors at the attack on the Peskeompskut Village, killing hundreds of Native people and destroying critical food stores and supplies, the attack did not significantly reduce the military strength of Coalition forces nor seriously degrade their military leadership. The ability of Coalition forces to effectively and efficiently mount a series of seemingly well-planned counterattacks against the English is reflected in a casualty rate of 60 percent among the English forces. At the end of the day, Native Coalition forces controlled the battlefield and had exacted a steep price from the English for their attack on Peskeompskut. Nonetheless the battle was the beginning of a process that resulted in the dissolution of the Native Coalition and ultimately the piecemeal defeat of all the tribes in the Coalition. In the weeks and months following the battle, Native peoples abandoned the middle Connecticut River valley to seek refuge in Mahican territory or among the Abenaki to the north or returned home to their homelands in central and eastern Massachusetts or Narragansett country.

The Battle of Great Falls Historic Battlefield Archeological District may be nominated under Criteria A and D for its significance in the areas of Native and Colonial history, military history, and historic archeology. The Battle of Great Falls Peskeompskut Archeological District is associated with actions and engagements of varying degrees of strategic importance as part of the campaigns by Coalition and English forces in the middle Connecticut valley during King Philip's War. The contributing properties within the district have and will continue to provide important information for understanding and reconstructing the actions, movements, and engagements associated with the Battle of Great Falls during King Philip's War.

The Battle of Great Falls/Peskeompskut Archeological District is significant under Criteria A, for its association with a major event and period of significance in American history – King Philip's War (1675-1676) and the Battle of Great Falls/Peskeompskut (May 19, 1676). The Battle of Great Falls/Peskeompskut was one of the pivotal battles of King Philip's War, and during the

battle campaign the emblematic of the nature of weapons, tactics, and battlefield strategies employed by the English and Coalition forces during King Philip's War.

The battlefield survey has added an important perspective that is lacking in the battle narratives – evidence of a series of well-planned counterattacks that led to a Native victory in the final phase of the battle. The continuous and intense fighting along the first 0.75 miles of the battle is certainly not reflected in the battle narratives nor is the Native flanking and other movements that are only reflected in the distribution of battle-related objects recovered from the mountain gap, terraces, and swales. These series of counterattacks by the Native Coalition forces proved to be far more sophisticated than previously believed and has increased our knowledge and understanding of Native warfare and leadership.

The battlefield district is considered significant under Criteria D as it has yielded and will continue to yield important information for understanding the course and outcome of King Philip's War and the Battle of Great Falls. Battle-related objects associated with the Battle of Great Falls recovered from systematic metal detector and archeological surveys and excavations funded by the National Park Service American Battlefield Protection Program provide important information on munitions, weapons, equipment, and personal items associated with the European and Native combatants. Their distribution and associations provide important insights on Native and Colonial military and political organization and tactics during the early seventeenth-century (For addition detailed information regarding battlefield artifacts and information derived from the battlefield survey see Section IV. Battle of Great Falls/Peskeompskut - Battle-related and Domestic Objects and Section VII. Summary and Conclusion).

Categories of battle-related and domestic objects associated with the Battle of the Great Falls/Wissatinnewag-Peskeomskut Archeological District include:

1. Military artifacts such as musket balls of various diameters, firearms of various types (e.g., pistols, carbines, full muskets) and ignition systems (e.g., matchlocks, flintlocks, wheelocks), swords, knives, pikes, brass tipped arrows, and iron hatchets associated with the English and Native combatants.

2. Domestic and personal artifacts carried by English and Natives into battle including buttons, aglets, buckles, folding knives, straight knives, jaw harps, clay and brass pipes, brass and lead amulets, eating utensils, gaming pieces, bracelets and miscellaneous personal items.

3. Domestic artifacts associated with Native villages/sites including brass scrap, brass and glass beads, European and Pequot pottery and pipes, iron tools such

as hoes/mattocks, axes, sedges, and chisels, and food remains such as animal bone, maize, and shellfish, and features such as refuse pits, hearths, and post molds. Encampment sites are associated with pre- or post-battle activity with associated battle-related objects such as broken and discarded equipment, hearths and trash pits.

Registration Requirements

The Battle of Great Falls/Peskeompskut Archeological District possesses a significant concentration of a physically proximate group of cultural resources which were historically significant to the battle or were part of the landscape on the day of the battle (May 19, 1676). The boundaries of these groups of cultural resources are defined by historic sources, battlefield terrain, and the distribution of period battle-related and domestic objects. The Historic Battlefield Archeological District contains a nearly continuous distribution of period battle-related objects, and/or individual archeological sites (e.g., Native domestic sites) and groupings of spatially and temporally distinct battle-related objects that can be identified and associated with individual events (i.e., encampments, battlefield loci). Routes of approach and retreat/withdrawal are also considered contributing resources within the period of significance, limited to the day of the battle. Properties, sites, and artifacts associated with events following the day of the battle are not considered in the context of this district nomination.

Contributing properties to the Historic Battlefield Archeological District retain physical integrity, and integrity of setting, location, feeling, and association with the historic and battlefield landscape and key terrain features within the district. The Historic Battlefield Archeological District retains most of the historic landscape elements, battlefield landscape, and key terrain features which were present during their period of significance. Intrusions such as post King Philip's War land use activities, buildings, structures, and roadways are present but are few and can be demonstrated not to have a significant impact to the battlefield and have not impacted the visual setting and key terrain features associated with the battle. The physical landscape within the boundaries of the battlefield district is similar enough to its early seventeenth-century appearance to allow one to envision the scene of the actions and movements of the English-allied forces and Native Coalition combatants on the day of the battle.

The following evaluations of integrity were applied when assessing eligible cultural resources within the battlefield district.

Location – The Historic Battlefield Archeological District retains integrity of location as is the place where the Battle of the Great Falls took place and whose boundaries can be justified by historical and archeological research. The Battle of Great Falls utilized historical research and archeological investigations to identify the locations where the actual battles and engagements occurred and where sites were located.

Association – The Historic Battlefield Archeological District retains integrity of association as the district is the place where the battle or engagement occurred, and the district possesses a significant and continuous concentration of a physically proximate group(s) of battle-related objects from the day of the battle. The boundaries of the battlefield district are defined by historic sources and/or the distribution of period battle-related objects. Historical research, including battle narratives and distributions of battle-related objects overlaid across the modern and historic landscapes, identify the landscape as a battlefield. The documented battlefield locations and actions within the district have been confirmed to be associated with the Battle of Great Falls through archeological and historical analyses.

Setting – The Historic Battlefield Archeological Districts retains integrity of setting as the physical environment of the battlefield landscape and key terrain features associated with the battlefield district have been demonstrated to be largely intact. The battlefield landscape has changed in the 340 years since the battle in terms of vegetation, infrastructure, and impacts from residential construction and industrial activity. However, the key terrain features and visual settings and perspectives associated with the battlefield remain largely intact. The Historic Battlefield Archeological District associated with the Battle of Great Falls retains integral physical landscape components and visual settings associated with actions, engagements, and sites such as glaciated landscapes (e.g. lake boundaries associated with Pleistocene Lake Hitchcock, kame terraces, outwash plains), wetlands, streams, locations of Native domestic sites, and key terrain features (e.g. mountain/bedrock ridge gaps, rivers, river fords, swamps, terraces, and steep terrain). At the time of the battle there were large areas along the Connecticut River that had been cleared for agriculture by both Colonists and Natives. There were likely large areas of secondary growth as fields were left fallow to regenerate. The landscape within 10 miles of the battlefield was populated with thousands of Native people representing dozens of different bands and tribes residing in

upwards of 10 villages. While the vegetation has changed over the centuries the topography, geomorphology, locations of wetlands, stream, and rivers has not and still contributes to the overall character of the battlefield. Modern buildings do affect the visual integrity of some parts of the battlefield.

The key terrain features depicted in Figure 2 have remained unchanged since the battle. The sole exception is the Deer River Ford which has changed its location by a hundred yards due to shifts in the Deerfield River over the last few centuries. The key terrain features contribute to the character of the battlefield – the visual aspects and physical features that were part of the battlefield terrain at the time of the battle contribute to the significance of the battlefield. The key terrain features are described in detail in Section V: Battlefield Landscape and Key Terrain Features.

Feeling – The landscape within the battlefield district still conveys a sense of time and place associated with the period of significance during the Battle of Great Falls. Modern intrusions such as artifacts from post King Philip's War, buildings and structures, and road systems are present but they do not substantially affect the overall battlefield landscape and Core Area of the battlefield nor the overall battlefield terrain, key terrain features, visual setting (with the exceptions of modern buildings in some areas), or archeological integrity of the battlefield except within the Riverside area.

Criteria A Requirements

The Historic Battlefield Archeological District is directly associated with engagements associated with the Battle of Great Falls. The Historic Battlefield Archeological District's period of significance is within the beginning and end of the Battle of the Great Falls (May 18, 1767, 6:00 AM to 6:00 P.M.). The Historic Battlefield Archeological District has a strong association with the Battle of Great Falls and King Philip's War and exemplifies notable actions or engagements which had a direct bearing on the evolution and course of the Battle of Great Falls and King Philip's War.

The Key Terrain Features within the Historic Battlefield Archeological District are eligible under Criteria A as they existed at the time and place of the battle, influenced movements, tactics, or actions, or were utilized militarily by one or both forces (See Figure 40. Key Terrain Features;

Table 2. Key Terrain Features). These resources include rivers, brooks, elevated bedrock ridges, Native villages and fortifications, swamps, and ravines. The Historic Battlefield Archeological District retains integrity of setting, location, feeling, and association of its historic landscape features. The historic landscape within the district must possess sufficient integrity of these qualities to provide a sense of time and place from the Pequot War and the Battle of the English Withdrawal. The battlefield districts retain most of the landscape elements, which were present during their period of significance such as topography, key terrain, streams, riverbanks, swamps and wetlands. Intrusions from post King Philip's War buildings, structures, and roadways are present but they do not physically impact the battlefield terrain or key terrain features associated with the battlefield district.

Criteria D Requirements

The Historic Battlefield Archeological District is directly associated with engagements, battles, and sites from the Battle of Great Falls. The Historic Battlefield Archeological District contains surface or potential subsurface cultural or archeological deposits that are likely to yield information important to understanding the engagement, battle, Pocumtuck and other Native Coalition domestic sites.

The Historic Battlefield Archeological District retains integrity of setting, location, feeling, and association of the historic landscape features within the district. The historic landscape within the battlefield district possesses sufficient integrity of these qualities to provide a sense of time and place from the period of King Philip's War. The battlefield districts retain most of the historic landscape features which were present during their period of significance such as battlefield terrain, key terrain features, swamps, wetlands, and trails.

NAME OF PROPERTY TYPE: Battlefield

Description

The Battlefield is a defined and bounded area on and across the landscape where an engagement between the opposing Coalition and English forces took place. A Battlefield possesses a significant concentration of a physically proximate group of battle-related objects which were historically significant to the Battle the Great Falls (May 19, 1637). The boundaries of the battlefield are defined by historic sources, terrain features, and the distribution of period battle-

related objects. The battlefield contains a largely continuous distribution of battle-related objects and may contain groupings of spatially and temporally distinct battle-related objects that can be identified and associated with individual battle actions. Two subcategories of Battlefields identified within the district include Small Engagements and Large Engagements.

Small Engagement

A Small Engagement is defined as short term combat (less than one hour) between relatively small numbers of combatants (less than 50). A Small Engagement can either be a distinct area of fighting outside the bounds of a larger battlefield or a spatially and temporally distinct assemblage of battle-related objects within the bounds of a larger battlefield, associated either with a specific battle event (e.g., flanking attack or ambush) or related to the actions of smaller military units on the battlefield. Small Engagements may be considered seemingly insignificant due to the abbreviated duration of the combat and the fewer number of combatants and casualties, but they are often important in terms of the evolving nature of military strategies, and battlefield tactics. The Battle of Great Falls contains evidence of several small unit engagements, including Loci B – English Retreat, Loci C – Mountain Gap, Loci D – Terraces, Loci E – Swales, Loci F Upper Factory Hollow, Locus G – Cherry Rum Brook, and Locus F – Deerfield River Ford.

Large Engagement

A large engagement within the broader withdrawal is defined as a sustained combat action (greater than one hour in duration) involving more than 50 combatants. The attack on the village at Peskeompskut would be an example of a large engagement. The 6.5 running battle of the English Retreat could also be considered a large engagement which includes a series of small engagements.

Statement of Significance

Small and Large Engagements are significant under Criteria A and D for their contributions in the areas of military history and historic archeology. Small and Large Engagement Battlefields are associated with actions and engagements of varying degrees of strategic importance. These battlefield sites provide information important for understanding and reconstructing the actions, movements, and engagements associated with King Philip's War (1675-1676) and the Battle of Great Falls (May 19, 1676).

Small and Large Engagement Battlefields associated with the Battle of Great Falls are significant under Criteria A, for their association with a major period of significance in American history – King Philip's War. The Battle of Great Falls is considered a pivotal military operation of King Philip's War as it led directly and indirectly to the dissolution of Coalition forces, and the actions and which occurred during the battle are emblematic of the nature of weapons, tactics, and battlefield strategies employed by the English and Coalition forces during the war

Under Criteria D, Small and Large Engagement Battlefields within the Great Falls Battlefield District are significant for their information potential in understanding the course and outcome of the Battle of the Great Falls and King Philip's War. Battle-related objects associated with the Battle of Great Falls recovered from systematic metal detector and archeological surveys and excavations funded by the National Park Service American Battlefield Protection Program provide important information on munitions, weapons, equipment, and personal items associated with the European and Native combatants. Their distribution and associations provide important information about Native and Colonial military and political organization and tactics during the early seventeenth-century.

Given the nature of seventeenth-century battlefields and associated historical sources, the archeological and historical records on their own cannot reconstruct the nature and sequence of events. Each source contributes equally to the battlefield reconstruction if properly integrated into a battlefield timeline. The Battle of the Great Falls is significant because the reconstruction of events, movements, and tactics which resulted from the integration of the historical and archeological records has rarely been achieved for a seventeenth-century battlefield in North America. The conclusive results and documentation associated with the Battle of Great Falls Archeological District demonstrate that a thoughtful integration of both the historical and archeological records has the potential to yield important information on seventeenth-century warfare in northeastern North America. The detailed integration of both the historical and archeological records attributed to Battle of the Great Falls is significant because the reconstruction of events, movements, and tactics associated with Native combatants is rarely achieved in colonial military history, let alone a Native-associated seventeenth-century battlefield of North America.

NAME OF PROPERTY TYPE: Native Domestic Sites

Description

Three Native domestic site have been identified archeologically within the Battle of Great Falls/Wissatinnewag-Peskeomskut Archeological District but two are not associated with the battle event. The Peskeompskut Village is directly associated with the battle but retains little integrity. Five other Native villages/forts were occupied at the time of the battle around Great Falls. The locations of these villages are generally known but have not yet been identified. Native domestic sites located within the battlefield boundaries are considered contributing battlefield resources as they provide men for the Coalition counterattacks. These villages may vary in size from a few wigwams to several dozen.

Native domestic sites contain military objects such as brass arrow points, trade hatchets, and stone club heads, and domestic artifacts such as Native and European ceramics, firearm parts, lead bar and scrap, knives, buttons, musket balls, brass kettle fragments, brass scrap from recycling brass kettles, iron objects such as hoes/mattocks, pot hooks, kettles, axes, and chisel, iron scrap from recycling iron objects, brass beads, glass beads, clay and stone pipes, glass bottles, and domestic features such as hearths, storage and refuse pits, and middens.

Statement of Significance

Native domestic sites are significant under Criteria A for their strong association with the history of the King Philip's War and the Battle of Great Falls. Native domestic sites are significant under Criteria D as they contain a physically proximal group of military and domestic objects and features historically significant to the Battle of Great Falls and/or were part of the historic landscape on the day of the battle, and retain integrity of location, setting, feeling, and associations with the historic events and actions that occurred during the periods of significance, the Battle of the Great Falls and King Philip's War. Under Criteria D, Native domestic sites are significant if they contain information and retain a degree of integrity and can contribute to our understanding of the military role and the nature of trade and trade and interaction between other Native communities and Europeans in the Middle Connecticut River Valley at the time of the war.

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VIII. Appendices

Appendix I – Artifact Descriptions & Artifact Inventory

During the six-year project, the Mashantucket Pequot Museum and Research Center (MPMRC) and Heritage Consultants archeologists surveyed 7,0 miles of the Battle of Great Falls/Peskeompskut Core which yielded 0ver 1,200 lead musket balls, other battle-related and domestic objects. These objects were a mix of domestic (e.g., brass scrap, lead bar, molten lead, lead beads, spoon fragments, pewter buttons, iron awl, iron axe fragments, rose head nails) and non-domestic objects (e.g., buckles, horse tack). Lead musket balls was by far the most frequently encountered battle-related artifacts yielding almost 900.

In most cases, the military equipment, ammunition, and personal items recovered from the surveyed portions of the Battle of Great Falls/Peskeompskut Core Area (Site 300-TFALLS) could have been feasibly carried by either English or Native combatants. Examples include pewter buttons or buckle fragments (Figure 86). In some cases, some personal items were determined to be of Native origin based on their archeological context and because of comparative research. This includes several lead beads, a punched cuprous disk, and a lead ornamental object (Figure 87). Several pieces of Seventeenth-century horse tack are likely associated with English forces who were mounted during their approach and retreat from the Falls River. Since both English and Native soldiers were armed with similar firearm weaponry and therefore it is difficult to determine which firearm-related objects (lead shot, firearms parts, accoutrements) were originated from Native or English combatants (Figure 88). Ultimately, the context in which the artifacts appear is the most important factor in attributing the object to either. Comparing the physical landscape where the artifacts were located to the historical record, through the lens of KOCOA (**K**ey Terrain, **O**bstacles, **C**over and Concealment, **O**bservation, **A**venues of Approach and Retreat). analysis, many of the artifacts can be reasonably associated with Native or English combatants.[251] Although Native and English objects undoubtedly overlap on the battlefield, great efforts are made to associate recovered battlefield objects with the appropriate combatant.

[251] See Section VII. Battlefield Reconstruction.



Figure 211. European or Native Personal Items



Figure 212. Native personal items



Figure 213. Impacted musket balls.

Artifact Inventory List

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
6	Unidentified Object	Rolled lead	17th century	Native			Lead	GI-5
7	Musketball	Impacted .42" diameter musket ball	17th Century	unknown	.42	Impacted	Lead	GI-8
5	Musketball	Impacted .64" diameter musket ball	17th Century	Unknown	.64	Impacted	Lead	GI-11
31	Musketball	Impacted .33" diameter musket ball	17th Century		.33	Impacted	Lead	GR-13.1
36	Musketball	Impacted .31" diameter musket ball	17th Century	unknown	.31	Impacted	Lead	GR-18.1
37	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32	Impacted	Lead	GR-20.1
41	Musketball	Impacted .56" diameter musket ball	17th Century	unknown	.56	Impacted	Lead	GR-24.1
80	Other	Cuprous leather tack	17th century	English			Cuprous	GR-58.1
84	Clothing or Personal Item	Cuprous whirlygig	possibly 17th century	unknown			Cuprous	GR-65.1
93	Other	Molton lead	17th century	Native			Lead	GI-16
94	Tool	Iron hoe eyelet	17th Century	Native			Iron	GI-17
96	Musketball	Impacted .41" diameter pistol ball	17th Century	unknown	.41	Impacted	Lead	GI-19
98	Musketball	Impacted .38" diameter pistol ball	17th Century	unknown	.38	Impacted	Lead	GI-21
99	Musketball	Impacted .58" diameter musket ball	17th Century	unknown	.58	Impacted	Lead	GI-22
101	Musketball	Impacted .56" diameter musket ball	17th Century	unknown	.56	Impacted	Lead	GI-24
102	Clothing or Personal Item	Cuprous chain link	possibly 17th century	unknown			Cuprous	GI -25
103	Domestic Item	Lead bale seal	17th century	Native			Lead	GI-26
104	Musketball	Impacted .31" diameter musket ball	17th Century	unknown	.31	Impacted	Lead	GI-27
105	Other	Molton lead	17th century	Native			Lead	GI-28
106	Musketball	Impacted .33" diameter musket ball	17th Century	unknown	.33	Impacted	Lead	GI-29
107	Other	Lead rolled strip	17th century	Native			Lead	GI-30
109	Musketball	Impacted .29" diameter musket ball	17th Century	unknown	.29	Impacted	Lead	GI-32
112	Architectural	Iron handwrought nail	17th century	Native			Iron	GI-35
115	Clothing or Personal Item	1 Pewter button	17th Century	unknown			Pewter	GI-38
121	Tool	Iron celt	17th century	Native			Iron	GI-41

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
123	Clothing or Personal Item	lead amulet, perforated	17th Century	Native			Lead	GI-43
124	Musketball	Impacted .54" diameter musket ball	17th Century	unknown	.54	Impacted	Pewter	GI-44
125	Clothing or Personal Item	Pewter button	17th Century	unknown			Pewter	GI-45
126	Musketball	Impacted .31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	GI-46
127	Tool	Iron drill or perforator	17th century	Native			Iron	GI-47
119	Other	lead bar	17th Century	Native			Lead	GI-51
141	Musketball	Dropped .27" diameter musket ball	17th Century	unknown	.27	Dropped	Lead	GI-53
145	Other	Lead bar fragment	17th Century	Native			Lead	GI-57
136	Musketball	Impacted .31" diameter musket ball	17th Century	unknown	.31	Impacted	Lead	GI-60
137	Other	Molton lead	17th century	Native			Lead	GI-61
149	Other	lead strip	17th century	Native			Lead	GI-63
129	Domestic Item	Iron pot hook	17th Century	Native			Iron	GI-64
130	Musketball	Impacted 29" diameter musket ball	17th Century	unknown	.29	Impacted	Lead	GI-65
132	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32	Impacted	Lead	GI-67
133	Other	Lead bar fragment	17th Century	Native			Lead	GI-68
134	Other	Molton lead	Possibly 17th century	Native			Lead	GI-69
139	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GI-71
135	Musketball	Dropped .55" diameter musketball	17th Century	Native	.55	Dropped	Pewter	GI-72
151	Musketball	Impacted .34" diameter musket ball	17th Century	unknown	.34	Impacted	Lead	GI-74
152	Musketball	Impacted .33" diameter musket ball	17th Century	unknown	.33	Impacted	Lead	GI-75
153	Musketball	Impacted .33" diameter musket ball	17th Century	unknown	.33	Impacted	Lead	GI-76
154	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32	Impacted	Lead	GI-77
156	Other	lead bale seal	17th century	Native			Lead	GI-79
157	Other	Molton lead	17th century	Native			Lead	GI-80
158	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32	Impacted	Lead	GI-81
162	Other	lead strip	17th century	Native			Lead	GI-85

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
164	Musketball	Impacted .66" diameter musket ball	17th Century	unknown	.66	Impacted	Lead	GI-87
165	Weapon	Cuprous powder horn finial	Unknown	Native			Cuprous	GI-88
165	Musketball	Impacted .34" diameter musket ball	17th Century	unknown	.34	Impacted	Lead	GI-98
168	Musketball	Impacted .27" diameter musket ball	17th Century	unknown	.27	Impacted	Lead	GI-100
169	Musketball	Impacted .33" diameter musket ball	17th Century	unknown	.33	Impacted	Lead	GI-101
170	Other	Lead scrap	17th century	Native			Lead	GI-102
171	Clothing or Personal Item	Lead Bead	17th Century	Native			Lead	GI-103
173	Unidentified Object	Unidentified cuprous object	possibly 17th century	unknown			Cuprous	GI-105
175	Other	Lead scrap	17th century	Native			Lead	GI-107
86	Clothing or Personal Item	Pewter buckle fragment	17th Century	unknown			Pewter	GI-110
87	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	GI-111
88	Musketball	Impacted .57" diameter musket ball	17th Century	unknown	.57	Impacted	Lead	GI-112
91	Musketball	Impacted .30" diameter musket ball	17th Century	unknown	.30	Impacted	Lead	GI-115
92	Clothing or Personal Item	Pewter button	17th Century	Unknown			Pewter	GI-116
184	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32	Impacted	Lead	GI-118
188	Other	Molton lead	17th century	Native			Lead	GI-122
189	Architectural	Handwrought nail	17th century	Native			Iron	GI-123
190	Unidentified Object	Unidentified lead object	possibly 17th century	Native			Lead	GI-124
191	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32	Impacted	Lead	GI-125
192	Musketball	Impacted .34" diameter musket ball	17th Century	unknown	.34	Impacted	Lead	GI-126
193	Musketball	Dropped .60" diameter musket ball	17th Century	unknown	.60	Dropped	Lead	GI-126A
194	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-128
InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
195	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-129
199	Other	Molton lead	17th century	Native			Lead	GI-133
200	Other	Cuprous rivet	possibly 17th century	English			Cuprous	GI-134

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
203	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32	Impacted	Lead	GI-137
204	Musketball	Impacted .59" diameter musket ball	17th Century	unknown	.59	Impacted	Lead	GI-138
207	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-141
208	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-142
210	Musketball	Iimpacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-144
211	Musketball	Impacted .27" diameter musket ball	17th Century	Native	.27	Impacted	Lead	GI-145
212	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GI-146
213	Musketball	Impacted .32" diameter musket ball	17th Century		.32	Impacted	Lead	GI-147
214	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	GI-148
216	Musketball	Impacted .28" diameter musket ball	17th Century	Native	.28	Impacted	Lead	GI-150
217	Musketball	Impacted .31" diameter musket ball	17th Century	Native	.31	Impacted	Lead	GI-151
218	Musketball	Impacted .29" diameter musket ball	17th Century	Native	.29	Impacted	Lead	GI-152
219	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-153
221	Musketball	Impacted .26" diameter musket ball	17th Century	Native	.26	Impacted	Lead	GI-155
364	Architectural	Rose head nail	17th Century	unknown			Iron	GI-156.1
233	Musketball	Impacted .27" diameter musket ball	17th Century	unknown	.27	Impacted	Lead	GI-158
234	Musketball	Impacted .57" diameter musket ball	17th Century	Unknown	.57	Impacted	Lead	GI-159
235	Musketball	Dropped .29" diameter musket ball	17th Century	Unknown	.29	Dropped	Lead	GI-160
237	Musketball	Impacted .33" diameter musket ball	17th Century	English	.33	Impacted	Lead	GI-162
238	Musketball	Impacted .26" diameter musket ball	17th Century	Unknown	.26	Impacted	Lead	GI-163
240	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	Lead	GI-165
301	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-168.1
300	Musketball	Impacted .63" diameter musket ball	17th Century	English	.63	Impacted	Lead	GI-169

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
301	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-168.1
302	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GI-170
222	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	GI-171
222	Musketball	Impacted .29" diameter musket ball	17th Century	Native	.29	Impacted	Lead	GI-171
223	Musketball	Impacted .22" diameter musket ball	17th Century	Unknown	.22	Impacted	Lead	GI-172
225	Musketball	Dropped .35" diameter musket ball	17th Century	Unknown	.35	Dropped	Lead	GI-174
226	Musketball	Impacted .27" diameter musket ball	17th Century	Unknown	.27	Impacted	Lead	GI-175
227	Musketball	Impacted .58" diameter musket ball	17th Century	Unknown	.58	Impacted	Lead	GI-176
	Other	Unknown object brass and iron	Unknown	Unknown			Composite	GI-178
228	Musketball	Impacted .22" diameter musket ball	17th Century	Unknown	.22	Impacted	Lead	GI-179
244	Musketball	Impacted .24" diameter musket ball	17th Century	Unknown	.24	Impacted	Lead	GI-184
264	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GI-185
265	Musketball	Impacted .31" diameter musket ball	17th Century	Native	.31	Impacted	Lead	GI-186
266	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-187
267	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	GI-188
267	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	Lead	GI-188
269	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GI-190
270	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-191
271	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-192
245	Musketball	Dropped .43" diameter musket ball	17th Century	Unknown	.43	Dropped	Pewter	GI-193
246	Musketball	Impacted .28" diameter musket ball	17th Century	Unknown	.28	Impacted	Lead	GI-194
247	Musketball	Impacted .22" diameter musket ball	17th Century	Unknown	.22	Impacted	Lead	GI-195
248	Musketball	Impacted .24" diameter musket ball	17th Century	Unknown	.24	Impacted	Lead	GI-196

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
249	Tool	Cuprous awl	17th Century	Native			Cuprous	GI-197
250	Musketball	Impacted .25" diameter musket ball	17th century	Unknown	.25	Impacted	Pewter	GI-198
273	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GI-200
274	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GI-201
275	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GI-202
276	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-203
276	Musketball	Impacted .26" diameter musket ball	17th Century	Native	.26	Impacted	Lead	GI-204
278	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-205
279	Musketball	Impacted .31" diameter musket ball	17th Century	Native	.31	Impacted	Lead	GI-206
280	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-207
281	Musketball	Impacted .33" diameter musket ball	17th	Native	.33	Impacted	Lead	GI-208
282	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-209
282	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-209
283	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GI-210
251	Musketball	Impacted .43" diameter musket ball	17th Century	Unknown	.43	Impacted	Lead	GI-211
252	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GI-212
253	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GI-213
256	Musketball	Impacted .40" diameter musket ball	17th Century	Unknown	.40	Impacted	Lead	GI-216
257	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	Lead	GI-217
284	Unidentified Object	Lead disc	Possibly 17th century	Unknown			Lead	GI-219
285	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GI-220
288	Musketball	Impacted .34" diameter musket ball	17th Century	unknown	.34	Impacted	Lead	GI-224
290	Tool	Unidentified iron tool	17th century	Native			Iron	GI-226

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
292	Musketball	Impacted .62" diameter musket ball	17th Century	Unknown	.62	Impacted	Lead	GI-228
304	Weapon	Flint wrap	Possibly 17th Century	Unknown			Lead	GI-230
230	Musketball	Impacted .60" diameter musket ball	17th Century	Unknown	.60	Impacted	Lead	GI-181
294	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	GI-232
295	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-233
296	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-234
306	Musketball	Impacted .64" diameter musket ball	17th Century	Unknown	.64	Impacted	Lead	GI-238
308	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	GI-240
309	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GI-241
310	Musketball	Impacted .54" diameter musket ball	17th Century	Unknown	.54	Impacted	Lead	GI-242
313	Musketball	Impacted .56" diameter musket ball	17th Century	Unknown	.56	Impacted	Lead	GI-246
314	Musketball	Impacted .56" diameter musket ball	17th Century	Unknown	.56	Impacted	Lead	GI-247
	Weapon	Knife blade with tang	Possibly 17th Century	Unknown			Iron	GI-248
	Other	Horse shoe nail	Possibly 17th Century	English			Iron	GI-249
317	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GI-251
318	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GI-251
318	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	GI-252
318	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	GI-252
318.3	Musketball	Impacted .60" diameter musket ball	17th Century	Unknown	.60	Impacted	Lead	GI-255
319	Musketball	Impacted .31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	GI-261
319	Musketball	Impacted .31" diameter musket ball	17th Century	Native	.31	Impacted	Lead	GI-261
321	Other	Cuprous Rivet	possibly 17th century	English			Cuprous	GI-264

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
322	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-265
320	Musketball	Impacted .27" diameter musket ball	17th Century	Native	.27	Impacted	Lead	GI-266
320	Musketball	Impacted .27" diameter musket ball	17th Century	Native	.27	Impacted	Lead	GI-266
323	Other	Cuprous Rivet	possibly 17th century	English			Cuprous	GI-267
325	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GI-271
327	Musketball	Impacted .62" diameter musket ball	17th century	Unknown	.62	Impacted	Lead	GI-273
328	Weapon	Iron spear Point	17th century	Native			Iron	GI-274
329	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GI-275
330	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GI-276
331	Musketball	Impacted .27" diameter musket ball	17th Century	Native	.27	Impacted	Lead	GI-277
332	Musketball	Impacted .27" diameter musket ball	17th Century	Unknown	.27	Impacted	Lead	GI-278
333	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GI-279
335	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GI-281
336	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GI-282
347	Musketball	Impacted .26" diameter musket ball	17th Century	Native	.26	Impacted	Lead	GR-83.1
348	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GR-84.1
349	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-85.1
351	Musketball	Impacted .35" diameter musket ball	17th Century	Native	.35	Impacted	Lead	GR-87.1
352	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-88.1
353	Musketball	Dropped .35" diameter musket ball	17th Century	Unknown	.35	Dropped	Lead	GR-89.1
354	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-90.1
350	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-86.1
355	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-91.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
356	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-92.1
357	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-93.1
358	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GR-94.1
359	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-95.1
365	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-96.1
366	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-97.1
367	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-98.1
368	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GR-99.1
369	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-100.1
370	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-101.1
372	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GR-102.1
373	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-103.1
374	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-104.1
375	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	GR-105.1
377	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-107.1
378	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-108.1
379	Musketball	Impacted .31" diameter musket ball	17th Century	Native	.31	Impacted	Lead	GR-109.1
380	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GR-110.1
382	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-112.1
383	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-113.1
384	Musketball	Dropped .29" diameter musket ball	17th Century	Native	.29	Impacted	Lead	GR-114.1
389	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-119.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
390	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-120.1
391	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	GR-121.1
392	Horseshoe	Cuprous horse tack ring	17th century	English			Cuprous	GR-122
395	Musketball	Impacted .25" diameter musket ball	17th Century	Unknown	.25	Impacted	Lead	GR-132.1
393	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-123.1
394	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	Lead	GR-124.1
403	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-125.1
405	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-127.1
407	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-129.1
406	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-128.1
408	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-130.1
409	Musketball	Dropped .31" diameter musket ball	17th Century	Unknown	.31	Dropped	Lead	GR-131.1
404	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-126.1
397	Musketball	Dropped .46" diameter musket ball	17th Century	Unknown	.46	Dropped	Lead	GR-134.1
398	Musketball	Impacted .35" diameter	17th Century	Unknown	.35	Impacted	Lead	GR-135.1
400	Other	lead partially rolled strip	17th century	Native			Lead	GR-137.1
401	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-138.1
402	Musketball	Impacted .33" diameter musket ball	17th Century	unknown	.33	Impacted	Lead	GR-139.1
410	Musketball	Impacted .35" diameter musket ball	17th Century	Unknown	.35	Impacted	Lead	GR-140.1
399	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GR-136.1
343	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	GI-284.1
345	Musketball	Impacted .31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	GI-286
412	Musketball	Impacted .35" diameter musket ball	17th Century	Unknown	.35	Impacted	Lead	GR-142.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
413	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GR-143.1
414	Musketball	Impacted .31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	GR-144.1
415	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GR-145.1
416	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	GR-146.1
417	Musketball	Impacted .59" diameter musket ball	17th Century	Unknown	.59	Impacted	Lead	GR-147.1
418	Musketball	Dropped .47" diameter musket ball	17th Century	Unknown	.47	Dropped	Lead	GR-148.1
419	Musketball	Impacted .58" diameter musket ball	17th Century	Native	.58	Impacted	Lead	GR-149.1
443	Other	Cuprous tack	17th century	English			Cuprous	GR-150.1
420	Musketball	Impacted .31" diameter musket ball	17th Century	Native	.31	Impacted	Lead	GR-151.1
422	Musketball	Impacted .41" diameter musket ball	17th Century	Unknown	.41	Impacted	Lead	GR-153.1
423	Musketball	Impacted .26" diameter musket ball	17th Century	Native	.26	Impacted	Lead	GR-154.1
424	Musketball	Impacted .27" diameter musket ball	17th Century	Unknown	.27	Impacted	Lead	GR-155.1
425	Architectural	Iron rose head nail	17th Century	Unknown			Iron	GR-156.1
	Architectural	Rose head nail	Possibly 17th Century	Unknown			Iron	GR-156
426	Musketball	Impacted .26" diameter musket ball	17th Century	Native	.26	Impacted	Lead	GR-157.1
427	Musketball	Impacted .50" diameter musket ball	17th Century	Unknown	.50	Impacted	Lead	GR-158.1
428	Musketball	Impacted .49" diameter musket ball	17th Century	Unknown	.49	Impacted	Lead	GR-159.1
431	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	Lead	GR-162.1
433	Musketball	Impacted .35" diameter musket ball	17th Century	Native	.35	Dropped	Lead	GR-164.1
434	Musketball	Impacted .47" diameter musket ball	17th Century	Unknown	.47	Impacted	Lead	GR-165.1
435	Musketball	Impacted .35" diameter musket ball	17th Century	Unknown	.35	Impacted	Lead	GR-166.1
437	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	GR-168.1
438	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-169.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
439	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	GR-170.1
444	Horseshoe	Brass horse tack ring	possibly 17th century	English			Cuprous	GR-174.1
445	Musketball	Impacted .67" diameter musket ball	17th Century	Native	.67	Impacted	Lead	GR-175.1
447	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-176.2
449	Musketball	Impacted .36" diameter musket ball	17th Century	Unknown	.36	Impacted	Lead	GR-178.1
450	Musketball	Impacted .36" diameter musket ball	17th Century	Unknown	.36	Impacted	Lead	GR-179.1
451	Musketball	Impacted .35" diameter musket ball	17th Century	Unknown	.35	Impacted	Lead	GR-180.1
452	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-181.1
453	Musketball	Impacted .52" diameter musket ball	17th Century	Native	.52	Impacted	Lead	GR-182.1
454	Horseshoe	Iron trapazoidal horse buckle	17th Century	English			Iron	GR-183.1
455	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	GR-184.1
456	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-185.1
459	Musketball	Dropped .29" diameter musket ball	17th Century	Unknown	.29	Dropped	Lead	GR-188.1
460	Musketball	Impacted .43" diameter musket ball	17th Century	Unknown	.43	Impacted	Lead	GR-189.1
461	Musketball	Impacted .25" diameter musket ball	17th Century	Native	.25	Impacted	Lead	GR-190.1
462	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-191.1
463	Musketball	Impacted .37" diameter musket ball	17th Century	Native	.37	Impacted	Lead	GR-192.1
464	Horseshoe	Brass ring horse tack	17th century	English			Cuprous	GR-193.1
465	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-194.1
456	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	GR-195.1
441	Weapon	Cuprous ram rod tip	17th century	unknown			Cuprous	GR-172.1
467	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-196.1
468	Musketball	Impacted .45" diameter pistol ball	17th Century	Unknown	.45	Impacted	Pewter	GR-197.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
471	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-200.1
470	Musketball	Impacted .35" diameter musket ball	17th Century	Unknown	.35	Impacted	Lead	GR-199.1
476	Horseshoe	Cuprous ring possible horse tack	17th Century	English			Cuprous	GR-205.1
481	Musketball	Impacted .53" diameter musket ball	17th Century	Native	.53	Impacted	Lead	GR-210.1
483	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-212.1
485	Horseshoe	Iron horse tack ring	possibly 17th century	English			Iron	GR-214.1
486	Horseshoe	Iron ring horse tack	17th century	English			Iron	GR-215.1
492	Unidentified Object	Unidentified iron object	possibly 17th century	unknown			Iron	GR-221
493	Musketball	Impacted .28" diameter musket ball	17th Century	Unknown	.28	Impacted	Lead	GR-222.1
494	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	GR-223.1
495	Musketball	Impacted .36" diameter musket ball	17th Century	Native	.36	Impacted	Lead	GR-224.1
497	Weapon	Brass ram rod tip	17th century	unknown			Cuprous	GR-226.1
498	Musketball	Impacted .27" diameter musket ball	17th Century	Native	.27	Impacted	Lead	GR-227.1
498	Musketball		17th Century	Native	.27	Impacted	Lead	GR-227
503	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	GR-230.1
502	Musketball	Impacted .24" diameter musket ball	17th Century	Unknown	.24	Impacted	Lead	GR-229.1
504	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-231.1
505	Musketball	Impacted .27" diameter musket ball	17th Century	Unknown	.27	Impacted	Lead	GR-232.1
506	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	GR-233.1
507	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-234.1
508	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-235.1
509	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	GR-236.1
511	Musketball	Impacted .59" diameter musket ball	17th Century	Unknown	.59	Impacted	Lead	GR-238.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
512	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-239.1
513	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-240.1
515	Musketball	Impacted .46" diameter musket ball	17th Century	Unknown	.46	Impacted	Lead	GR-242.1
517	Musketball	Impacted .68" diameter musket ball	17th Century	Unknown	.68	Impacted	Lead	GR-244.1
518	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-245.1
519	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	GR-246.1
520	Clothing or Personal Item	Brass finger ring	17th Century	Native			Cuprous	GR-247.1
522	Domestic Item	Brass scrap	U17th century	Native			Cuprous	GR-249
523	Musketball	Dropped .46" diameter musket ball	17th Century	Unknown	.46	Dropped	Lead	GR-250.1
524	Musketball	Impacted .58" diameter musket ball	17th Century	Unknown	.58	Impacted	Lead	GR-251.1
526	Musketball	Impacted .51" diameter musket ball	17th Century	Unknown	.51	Impacted	Lead	GR-252.1
527	Musketball	Impacted .52" diameter musket ball	17th Century	unknown	.52	Impacted	Lead	GR-253.1
529	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-255.1
530	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-256.1
543	Musketball	Dropped .68" diameter musket ball	7th Century	Unknown	.68	Dropped	Lead	GR-257.1
554	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-258.1
546	Domestic Item	Cuprous spoon bowl fragment	17th Century	Native			Cuprous	GR-259.1
531	Other	Lead scrap	17th Century	Native			Lead	GR-260.1
547	Musketball	Dropped .64" diameter musket ball	17th Century	Unknown	.64	Dropped	Lead	GR-261.1
532	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-262.1
532	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-262.1
549	Other	Iron handwrought bar	17th century	Native			Iron	GR-264.1
533	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-265.1
550	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-266.1
551	Musketball	Impacted .62" diameter musket ball	17th Century	Native	.62	Impacted	Lead	GR-267.1
534	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-268.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
552	Musketball	Impacted .22" diameter musket ball	17th Century	Unknown	.22	Impacted	Lead	GR-269.1
553	Musketball	Impacted .60" diameter musket ball	17th Century	Unknown	.60	Impacted	Lead	GR-270.1
554	Musketball	Impacted .58" diameter musket ball	17th Century	Unknown	.58	Impacted	Lead	GR-271.1
555	Musketball	Dropped .34" diameter musket ball	17th Century	Unknown	.34	Dropped	Lead	GR-272.1
556	Musketball	Dropped .57" diameter musket ball	17th Century	Unknown	.57	Impacted	Pewter	GR-273.1
535	Musketball	Impacted .62" diameter musket ball	17th Century	Unknown	.62	Impacted	Lead	GR-274.1
558	Musketball	Impacted .62" diameter musket ball	17th Century	Unknown	.62	Impacted	Lead	GR-276.1
536	Other	Lead scrap	17th century	Native			Lead	GR-277.1
537	Other	copper nugget	17th century	Native			Cuprous	GR-278.1
559	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-279.1
560	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-280.1
561	Domestic Item	Pewter scrap	17th century	Native			Pewter	GR-281.1
538	Other	Lead scrap	17th Century	Native			Lead	GR-282.1
539	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-283.1
563	Musketball	Dropped .58" diameter musket ball	17th Century	Unknown	.58	Dropped	Lead	GR-285.1
540	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-286.1
564	Unidentified Object	Unidentified Iron object	17th century	Native			Iron	GR-287.1
565	Other	Bale seal	17th century	Native			Lead	GR-288.1
541	Musketball	Impacted .55" diameter cylindrical shot	17th Century	Unknown	.55	Impacted	Lead	GR-290.1
542	Musketball	Impacted .60" diameter musket ball	17th Century	Unknown	.60	Impacted	Lead	GR-291.1
545	Musketball	Impacted .52" diameter musket ball	17th Century	Unknown	.52	Impacted	Lead	GR-292.1
567	Musketball	Impacted .39" diameter musket ball	17th Century	Unknown	.39	Impacted	Lead	GR-293.1
569	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	GR-294.1
570	Domestic Item	Brass scrap	17th Century	Native			Cuprous	GR-295.1
571	Musketball	Impacted .35" diameter musket ball	17th Century	Unknown	.35	Impacted	Lead	GR-296
572	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	GR-297.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
573	Musketball	Impacted .20" diameter musket ball	17th Century	Unknown	.20	Impacted	Lead	GR-298.1
594	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	318
597	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	321
600	Musketball	Impacted .25" diameter musket ball	17th Century	Unknown	.25	Impacted	Lead	324
601	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	325
586	Musketball	Impacted .33" diameter musket ball	17th century	unknown	.33	Impacted	Lead	310
581	Musketball	Impacted .18" diameter musket ball	17th century	unknown	.18	Impacted	Lead	305
585	Weapon	Cuprous ramrod pipe	17th century	unknown			Cuprous	309
577	Musketball	Impacted .39" diameter musket ball	17th century	unknown	.39	Impacted	Lead	301
582	Musketball	Impacted .33" diameter musket ball	17th century	unknown	.33	Impacted	Lead	306
578	Musketball	Impacted .27" diameter musket ball	17th century	unknown	.27	Impacted	Lead	302
587	Musketball	Impacted .30" diameter musket ball	17th century	unknown	.30	Impacted	Lead	311
579	Clothing or Personal Item	lead amulet	17th century	Native			Lead	303
584	Musketball	Impacted .18" diameter musket ball	17th century	unknown	.18	Impacted	Lead	308
576	Musketball	Impacted .31" diameter musket ball	17th century	unknown	.31	Impacted	Lead	300
583	Musketball	Dropped .16" diameter musket ball	17th century	unknown	.16	Impacted	Lead	307
580	Musketball	Impacted .26" diameter musket ball	17th century	Native	.26	Impacted	Lead	304
653	Other	Cuprous horse tack	17th Century	English			Cuprous	642
654	Domestic Item	Scrap brass	17th Century	Native			Cuprous	643
655	Musketball	Impacted 24" diameter musket ball	17th Century	Unknown	.24	Impacted	Lead	644
656	Musketball	Impacted .46" diameter musket ball	17th Century	unknown	.46	Impacted	Lead	645
657	Horseshoe	Brass horse tack	17th Century	English			Cuprous	646.1
659	Tool	Brass tool	17th Century	Native			Cuprous	648
660	Other	Raw copper nodule	17th century	Native			Cuprous	649

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
661	Musketball	Impacted .59" diameter musket ball	17th Century	Native	.59	Impacted	Lead	650
662	Musketball	Dropped .37" diameter musket ball	17th Century	Unknown	.37	Dropped	Lead	651
653.1	Clothing or Personal Item	Lead bead	17th Century	Native			Lead	641
664	Clothing or Personal Item	Brass button	17th century	Unknown			Cuprous	653
665	Other	Copper nodule	17th Century	Native			Cuprous	654
666	Clothing or Personal Item	Brass button	17th century	Unknown			Cuprous	655
667	Musketball	Dropped .69" diameter musket ball	17th Century	Unknown	.69	Dropped	Lead	656
668	Other	Molton Lead	17th century	Native			Lead	657
659	Musketball	Impacted .35" diameter musket ball	17th Century	Unknown	.35	Impacted	Lead	659
681	Clothing or Personal Item	Cuprous shoe buckle fragment	17th century	Unknown			Cuprous	660
672	Domestic Item	Globe and shaft base	17th century	Native			Other	661
673	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	Lead	662
674	Clothing or Personal Item	Cast cuprous finger ring	17th century	Native			Cuprous	663
675	Domestic Item	Scrap brass	17th Century	Native			Cuprous	663.2
676	Clothing or Personal Item	Cuprous shoe buckle	17th Century	English			Cuprous	664
677	Horseshoe	Brass horse tack	17th century	Unknown			Cuprous	665
679	Musketball	Impacted .58" diameter musket ball	17th Century	Unknown	.58	Impacted	Lead	667
680	Other	Copper nodule	17th century	Native			Cuprous	668
681	Clothing or Personal Item	Cuprous buckle fragment	17th century	Unknown			Cuprous	669
682	Musketball	Impacted .62" diameter musket ball	17th Century	Unknown	.62	Impacted	Lead	670
683	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	671
603	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	679
608	Musketball	Impacted .33" diameter musket ball	17th century	Unknown	.33	Impacted	Lead	684
607	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	683
611	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	687
606	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	682

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
613	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	689
614	Musketball	Impacted .45" diameter musket ball	17th Century	unknown	.45	Impacted	Lead	690
615	Musketball	Impacted .65" diameter musket ball	17th Century	Native	.65	Impacted	Lead	691
616	Musketball	Impacted .29" diameter musket ball	17th Century	Native	.29	Impacted	Lead	692
618	Musketball	Impacted .33" diameter musket ball	17th century	Unknown	.33	Impacted	Lead	694
619	Musketball	Impacted .55" diameter musket ball	17th Century	Native	.55	Impacted	Lead	695
621	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	697
622	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	Lead	698
623	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	699
624	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	700
626	Musketball	Impacted .67" diameter musket ball	17th Century	Unknown	.67	Impacted	Lead	702
627	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	703
628	Musketball	Impacted .31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	704
629	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	Lead	705
631	Musketball	Dropped .50" diameter musket ball	17th Century	Native	.50	Dropped	Lead	707
632	Musketball	Impacted 50" diameter musket ball	17th Century	English	.50	Impacted	Lead	708
634	Musketball	Dropped .50" diameter musket ball	17th Century	Native	.50	Dropped	Lead	710
636	Tool	Iron hatchet with split eyelet	17th	Native			Iron	711
637	Other	Lead bale seal	17th Century	Native			Lead	712
638	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	713
639	Musketball	Impacted 34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	714
640	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	716
641	Clothing or Personal Item	Cuprous button	17th century	Unknown			Cuprous	717
643	Horseshoe	Pewter leather decoration	17th century	Unknown			Pewter	719

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
644	Musketball	Impacted 34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	720
645	Musketball	Impacted .63" diameter musket ball	17th Century	Unknown	.63	Impacted	Lead	721
646	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	722
647	Musketball	Impacted 32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	723
648	Domestic Item	Cuprous slip-top spoon	17th Century	Native			Cuprous	724
649	Other	Cuprous square	17th Century	Native			Cuprous	725
650	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	726
651	Musketball	Impacted .31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	727
652	Unidentified Object	Unidentified pewter object	17th century	Native			Pewter	728
684	Clothing or Personal Item	Cuprous tin washed gorget	17th century	Unknown	Native		Cuprous	729
685	Other	Lead bar	17th century	Native			Lead	730
686	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	731
687	Musketball	Impacted .24" diameter musket ball	17th Century	Unknown	.24	Impacted	Lead	732
688	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	733
689	Musketball	Impacted .22" diameter musket ball	17th Century	Unknown	.22	Impacted	Lead	734
690	Musketball	Impacted .23" diameter musket ball	17th Century	Unknown	.23	Impacted	Lead	735
691	Musketball	Impacted .22" diameter musket ball	17th Century	Unknown	.22	Impacted	Lead	736
692	Musketball	Impacted .22" diameter musket ball	17th Century	Unknown	.22	Impacted	Lead	737
694	Unidentified Object	Unidentified pewter object	17th century	Native			Pewter	739
695	Unidentified Object	Unidentified pewter object	17th Century	Native			Pewter	740
696	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	741
697	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	742
698	Musketball	Impacted .18" diameter musket ball	17th Century	Native	.18	Impacted	Lead	745
699	Musketball	Impacted .40" diameter cylindrical shot	17th Century	Unknown	.31	Impacted	Lead	746

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
700	Musketball	Impacted .30" diameter pistol ball	17th Century	Unknown	.30	Impacted	Lead	747
701	Musketball	Impacted ,31" diameter musket ball	17th Century	English	.31	Impacted	Lead	748
702	Musketball	Impacted .32" diameter musket ball	17th Century	English	.32	Impacted	Lead	749
703	Musketball	Impacted .31" diameter musket ball	17th Century	English	.31	Impacted	Lead	750
704	Musketball	Impacted .34" diameter musket ball	7th Century	English	.34	Impacted	Lead	751
705	Musketball	Impacted .32" diameter musket ball	17th Century	English	.32	Impacted	Lead	752
707	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	754
708	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	755
709	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	756
710	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	757
711	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	758
713	Musketball	Dropped .38" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	760
716	Musketball	Impacted .63" diameter musket ball	17th Century	English	.63	Impacted	Lead	763
717	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	764
718	Musketball	Impacted .38" diameter musketball	17th Century	Unknown	.38	Impacted	Lead	765
719	Musketball	Dropped .45" diameter musket ball	17th Century	Unknown	.45	Dropped	Lead	766
720	Musketball	Dropped .38" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	767
721	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	768
722	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	769
723	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	770
724	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	771
726	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	773

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
727	Musketball	Dropped .37" diameter musket ball	17th Century	Unknown	.37	Dropped	Lead	774
728	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	775
729	Musketball	Impactrd .Dropped .45 musket ball	17th Century	Unknown	.38	Impacted	Lead	776
730	Musketball	Dropped .45 musket ball	17th Century	Unknown	.37	Impacted	Lead	777
731	Musketball	Dropped 45 musket ball	17th Century	Unknown	.37	Dropped	Lead	778
732	Musketball	Dropped .45	17th Century	Unknown	.38	Impacted	Lead	779
734	Musketball	Dropped .38" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	781
735	Musketball	Dropped .62" diameter musket ball	17th Century	Unknown	.62	Unknown	Pewter	782
738	Musketball	Impacted .19" diameter musket ball	17th Century	Native	.19	Impacted	Lead	785
739	Musketball	Impacted .20" diameter musket ball"	17th Century	Native	.20	Impacted	Lead	786
740	Musketball	Impacted .32" diameter musket ball	17th Century	English	.32	Impacted	Lead	787
741	Musketball	Impacted .20" diameter musket ball	17th Century	Native	.20	Impacted	Lead	788
743	Weapon	Cuprous ram rod tip	Possibly 17th century	Unknown			Cuprous	790
745	Musketball	Dropped .38" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	792
747	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	794
748	Musketball	Dropped .38" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	795
752	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	799
753	Musketball	Dropped .43" musket ball	17th Century	Unknown	.43	Dropped	Lead	800
754	Musketball	Dropped .37" diameter musket ball	17th Century	Unknown	.45	Dropped	Lead	801
755	Musketball	Impacted .43" impacted musket ball	17th Century	Unknown	.43	Impacted	Lead	802
756	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	803
757	Musketball	Dropped .43" diameter musket ball	17th Century	Unknown	.43	Dropped	Lead	804
758	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	805
759	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	806

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
761	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	808
762	Musketball	Dropped .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	809
763	Musketball	Dropped .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	810
765	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	812
766	Musketball	Impacted .36" diameter musket ball	17th Century	Unknown	.36	Impacted	Lead	813
767	Musketball	Impacted .62" diameter musket ball	17th Century	English	.62	Impacted	Lead	814
768	Musketball	1 “d”? Pb ~ .45	17th Century	Unknown	.44	Impacted	Lead	815
769	Musketball	1 “I”? Pb ~ .45	17th Century	Unknown	.37	Impacted	Lead	816
770	Musketball	1 “d” Pb ~ .45	17th Century	Unknown	.38	Dropped	Lead	817
771	Musketball	1 “I” Pb ~ .45	17th Century	Unknown	.44	Impacted	Lead	818
772	Musketball	1 “I” Pb ~ .38	17th Century	Unknown	.37	Impacted	Lead	819
773	Musketball	Impacted .37" diameter pistol ball	7th Century	Unknown	.37	Impacted	Lead	820
774	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	821
777	Musketball	1 “d” Pb ~ .38	17th Century	Unknown	.37	Impacted	Lead	822
776	Musketball	1 “d”? Pb ~ .45	17th Century	Unknown	.44	Impacted	Lead	823
777	Musketball	Impacted .39" diameter musket ball	17th Century	Unknown	.39	Impacted	Lead	824
778	Musketball	1 “I”? Pb ~ .45	17th Century	Unknown	.37	Impacted	Lead	825
779	Musketball	1 “d” Pb ~ .45	17th Century	Unknown	.43	Dropped	Lead	826
780	Musketball	1 “I” ? Pb ~ .38	17th Century	Unknown	.37	Impacted	Lead	827
781	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Pewter	828
782	Musketball	1 “I” ? Pb ~ .45	17th Century	Unknown	.44	Impacted	Lead	829
783	Musketball	1 “i” Pb ~ .45	17th Century	Unknown	.45	Impacted	Lead	830
784	Musketball	1 Un.i Pb	17th Century	Unknown	.38	Dropped	Lead	831
785	Musketball	1 I? Pb ~ .45	17th Century	Unknown	.44	Impacted	Lead	832
786	Musketball	1 I? Pb ~ .38	17th Century	Unknown	.38	Impacted	Lead	833
787	Clothing or Personal Item	Copper Whizzer	possibly 17th century	Unknown			Copper	834
788	Musketball	Impacted .37" diameter musket ball	17th century	Unknown	.37	Impacted	Lead	835

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
790	Musketball	Impacted .29" diameter musket ball	17th Century	Unknown	.29	Impacted	Lead	837
791	Musketball	Impacted .31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	838
792	Musketball	1 I? Pb ~ .45	17th Century	Unknown	.45	Impacted	Lead	839
793	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	840
794	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	841
795	Musketball	Dropped .44" diameter musket ball	17th Century	Unknown	.44	Dropped	Lead	842
796	Musketball	Impacted .18" diameter musket ball	17th Century	Unknown	.18	Impacted	Lead	843
798	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	845
799	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	846
800	Musketball	Impacted .43" diameter musket ball	17th Century	Unknown	.43	Impacted	Lead	847
801	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	848
802	Musketball	Impacted 1 I Pb ~ .45	17th Century	Unknown	.43	Impacted	Lead	849
803	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Dropped	Lead	850
804	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	851
805	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	852
806	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	853
807	Musketball	Dropped .42" diameter musket ball	17th Century	Unknown	.42	Dropped	Lead	854
808	Musketball	Impacted .38" diameter pistol ball	17th Century	Unknown	.38	Impacted	Lead	855
809	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	856
810	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	857
811	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	858
812	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	859
813	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	860

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
814	Clothing or Personal Item	Pewter buckle fragment	17th	Unknown			Pewter	861
817	Musketball	Dropped "1 D? Pb ~ .38	17th Century	Unknown	.45	Dropped	Lead	864
818	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	865
819	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	866
820	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	867
821	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	868
822	Musketball	Impacted .43" diameter pistol ball	17th Century	Unknown	.43	Impacted	Lead	869
823	Musketball	Impacted .64" diameter musket ball	17th Century	Unknown	.64	Impacted	Lead	870
824	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	871
825	Musketball	Impacted .36" diameter pistol ball	17th Century	English	.36	Impacted	Lead	872
827	Musketball	1 d Pb ~ .38	17th Century	Unknown	.38	Impacted	Lead	874
830	Musketball	Impacted .35" diameter musket ball	17th century	Unknown	.35	Dropped	Lead	877
831	Musketball	Impacted .35" diameter musket ball	17th century	Unknown	.35	Impacted	Lead	878
832	Musketball	Impacted .44" diameter musket ball	17th century	Unknown	.44	Impacted	Lead	879
833	Musketball	1 D ~ .38	17th century	Unknown	.37	Impacted	Lead	880
834	Musketball	1 D Pb ~ .38	17th century	Unknown	.38	Impacted	Lead	881
836	Musketball	Impacted .36" diameter musket ball	17th century	Unknown	.36	Impacted	Lead	883
837	Musketball	1 D Pb ~ .38	17th century	Unknown	.38	Dropped	Lead	884
838	Tool	Iron scissor blade	possibly 17th century	Unknown			Iron	885
839	Musketball	1 D Pb ~ .38	17th century	Unknown	.38	Impacted	Lead	886
840	Musketball	1 I Pb ~ .38	17th Century	Unknown	.44	Impacted	Lead	887
841	Musketball	Impacted .38" diameter musket ball	17th century	Unknown	.37	Impacted	Lead	888
842	Musketball	Impacted .44" diameter musket ball	17th century	Unknown	.44	Impacted	Lead	889
843	Musketball	Impacted .44" diameter musket ball	17th century	Unknown	.44	Impacted	Lead	890
844	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	890.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
845	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Dropped	Lead	891
846	Musketball	Dropped .50	17th Century	Unknown	.44	Impacted	Lead	892
847	Musketball	Dropped .50	17th Century	Unknown	.45	Impacted	Lead	893
848	Musketball	Dropped .45	17th Century	Unknown	.38	Impacted	Lead	894
849	Musketball	Dropped .50 musket ball	17th Century	Unknown	.45	Impacted	Lead	895
851	Musketball	Impacted .Dropped 50	17th Century	Unknown	.44	Dropped	Lead	897
852	Musketball	Dropped .45	17th Century	Unknown	.38	Impacted	Lead	898
853	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.45	Impacted	Lead	899
854	Musketball	Dropped .45	17th Century	Unknown	.38	Impacted	Lead	900
855	Musketball	Dropped 50 m ball	17th Century	Unknown	.44	Impacted	Lead	901
	Musketball	Impacted 30s with facets	Unknown	Unknown	.26 - .40	Impacted	Lead	FKSP 1
856	Musketball	Dropped .45 m ball	17th Century	Unknown	.38	Impacted	Lead	902
857	Musketball	Dropped .45	17th Century	Unknown	.35	Dropped	Lead	903
858	Musketball	Dropped .45 m ball	17th Century	Unknown	.36	Impacted	Lead	904
859	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	905
860	Musketball	Impacted .45" diameter musket ball	17th Century	Unknown	.435	Impacted	Lead	906
861	Musketball	Dropped .38" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	907
862	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	908
863	Musketball	Dropped .50" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	909
864	Musketball	Dropped .45 m ball	17th Century	Unknown	.38	Dropped	Lead	910
865	Musketball	1 “l” Pb ~ .45	17th Century	Unknown	.45	Impacted	Lead	911
866	Musketball	1 I Pb ~ .38	17th Century	Unknown	.38	Impacted	Lead	912
867	Other	Lead strip	possibly 17th century	Unknown			Lead	913
870	Musketball	Dropped .47" diameter musket ball	17th Century	Unknown	.47	Dropped	Lead	916
871	Clothing or Personal Item	Cuprous whizzer	possibly 17th century	Unknown			Cuprous	917
872	Musketball	Dropped .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	921
873	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	922

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
875	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	924
878	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	926
879	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	927
880	Musketball	Impacted .48" diameter Pistol ball	17th Century	Unknown	.48	Impacted	Pewter	928
881	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	929
	Musketball	Impacted .38" diameter pistol ball	17th Century	Unknown	.38	Impacted	Lead	930
883	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	931
884	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	932
885	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	933
886	Musketball	Impacted .45	17th Century	Unknown	.45	Impacted	Lead	934
889	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	935
890	Musketball	Impacted .37" diameter musket ball	17th Century	Unknown	.37	Impacted	Lead	936
891	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	937
892	Musketball	Impacted .44" diameter musket ball	17th Century	Unknown	.44	Impacted	Lead	938
893	Musketball	Dropped .44" diameter musket ball	17th Century	Unknown	.44	Dropped	Lead	942
894	Musketball	Impacted .43" diameter musket ball	17th Century	English	.43	Impacted	Lead	943
895	Musketball	Dropped .44" diameter musket ball	17th Century	Unknown	.44	Dropped	Lead	944
896	Musketball	Impacted .43" diameter musket ball	17th Century	Unknown	.43	Impacted	Lead	946
847	Musketball	Dropped .38" diameter musket ball	17th Century	Unknown	.38	Dropped	Lead	947
898	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	948
899	Musketball	Impacted 31" diameter musket ball	17th Century	Unknown	.31	Impacted	Lead	949
900	Musketball	Impacted .56" diameter musket ball	17th Century	Unknown	.56	Impacted	Pewter	950
901	Musketball	Impacted .18" diameter musket ball	17th Century	Unknown	.18	Impacted	Lead	951

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
902	Musketball	Impacted .18" diameter musket ball	17th Century	Unknown	.18	Impacted	Lead	952
903	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	953
904	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	954
905	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	955
906	Musketball	Impacted .66" diameter musket ball	17th Century	Unknown	.66	Impacted	Lead	956
907	Musketball	Impacted .54" diameter musket ball	17th Century	Unknown	.54	Impacted	Lead	957
908	Musketball	Impacted .62" diameter musket ball	17th Century	Native	.62	Impacted	Lead	958
909	Musketball	Impacted 34" diameter musket ball	17th Century	Unknown	.34	Impacted	Lead	759.1
911	Musketball	Impacted 34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	761.1
912	Musketball	Impacted 33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	762.1
913	Musketball	Impacted .34" diameter musket ball	17th Century	English	.34	Impacted	Lead	763.1
914	Musketball	Impacted 34" diameter musket ball	17th Century	Native	.34	Impacted	Lead	764.1
915	Musketball	Impacted .33" diameter musketball	17th	Native	.33	Impacted	Lead	765.1
916	Musketball	30s impacted no facets	17th Century	Native	.33	Impacted	Lead	766.1
917	Musketball	Impacted 68" diameter musket ball	17th Century	English	.68	Impacted	Lead	767.1
923	Musketball	Impacted 58" diameter musket ball	17th Century	English	.58	Impacted	Lead	768.1
924	Musketball	Impacted 33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	769.1
926	Musketball	Impacted 33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	771.1
929	Musketball	Impacted 55" diameter musket ball	17th Century	Unknown	.55	Impacted	Lead	774
930	Musketball	Impacted 45" diameter cylindrical shot	17th Century	Native	.45	Impacted	Lead	775.1
932	Other	lead sheet	Possibly 17th century	unknown			Lead	777.1
934	Clothing or Personal Item	Brass shoe buckle	17th Century	English			Cuprous	779.1
936	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.36	Impacted	Lead	781.1

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
940	Musketball	Impacted 65" diameter musket ball	17th Century	unknown	.65	Impacted	Lead	785.1
942	Clothing or Personal Item	Cuprous buckle	Possibly 19th century	Unknown			Cuprous	787.1
918	Domestic Item	Brass scrap	17th Century	Native			Cuprous	946.1
	Other	Unid iron object	Unknown	Unknown				947
921	Musketball	Dropped .59" diameter cylindrical shot	17th Century	Native	.59	Dropped	Lead	949.1
922	Domestic Item	Brass scrap	17th Century	Native			Cuprous	950.1
944	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	998
945	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	999
946	Musketball	Impacted .34" diameter musket ball	17th Century	English	.34	Impacted	Lead	1000
947	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	1001
949	Musketball	Impacted.30" diameter musket ball	Likely 17th Century	Native	.30	Impacted	Lead	1003
950	Musketball	Impacted .57" diameter musket ball	17th Century	Native	.57	Impacted	Lead	1004
952	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	1006
953	Musketball	Impacted .32" diameter musket ball	17th Century	Unknown	.32	Impacted	Lead	1007
954	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	1008
955	Musketball	Impacted .29" diameter musket ball	17th Century	Native	.29	Impacted	Lead	1009
957	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	1011
958	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	1012
959	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	1013
960	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	Lead	1014
962	Musketball	Impacted .33" diameter musket ball	17th Century	Native	.33	Impacted	Lead	1017
963	Musketball	Impacted .49" diameter musket ball	17th Century	Native	.49	Impacted	Lead	1018
965	Musketball	Impacted .43" diameter musket ball	17th Century	Unknown	.43	Impacted	Lead	1020
966	Musketball	Impacted .38" diameter musket ball	17th Century	Unknown	.38	Impacted	Lead	1021

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
967	Musketball	Impacted .40" diameter pistol ball	17th Century	Unknown	.40	Impacted	Lead	1022
980	Musketball	Dropped .34" diameter musket ball	17th Century	unknown	.34	Dropped	lead	GR-1
978	Unidentified Object	unidentified pewter object	unknown	unknown			Pewter	GR-3
977	Architectural	brass nail	unknown	English			Brass	GR-4
981	Domestic Item	pewter tea spoon handle, with iron pin for repair	17th century	unknown			Pewter	GR-7
983	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	lead	GR-9
984	Musketball	Impacted .32" diameter musket ball	17th Century	Native	.32	Impacted	lead	GR-10
985	Musketball	Impacted .31" diameter musket ball	17th Century	Native	.31	Impacted	lead	GR-11
986	Musketball	Impacted .11" diameter musket ball	17th Century	Native	.11	Impacted	lead	GR-12
987	Musketball	Impacted .60" diameter musket ball	17th Century	unknown	.60	impacted	lead	GR-13
988	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	lead	GR-14
	Musketball	Impacted .30" diameter musket ball	17th	Unknown	.30	Impacted	lead	GR-15
	Musketball	impacted .30s	17th		.30s	impacted	lead	gr-15
989	Musketball	Impacted .29" diameter musket Ball	17th Century	Native	.29	Impacted	lead	GR-15
990	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.30	Impacted	lead	GR-16
991	Musketball	Impacted .58" diameter musket ball	17th Century	Native	.58	Impacted	lead	GR-17
992	Musketball	Impacted .32" diameter musket ball	17th Century	unknown	.32"	Impacted	lead	GR-18
993	Musketball	Impacted .54" diameter cylindrical shot	17th Century		.54"	Impacted	lead	GR-19
998	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	lead	GR-22
999	Musketball	Impacted .38" diameter musket ball	17th Century	Native	.38	Impacted	lead	GR-23
1000	Musketball	Impacted .26" diameter musket ball	17th Century	Native	.26	Impacted	lead	GR-25
1010	Musketball	Impacted .30" diameter musket ball	17th Century	Unknown	.30	Impacted	lead	GR-27
996	Musketball	Impacted .66" diameter musket ball	17th Century	Native	.66	Impacted	lead	GR-37
994	Musketball	Impacted .24" diameter musket ball	17th Century	Native	.30	Impacted	lead	GR-38

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
985	Musketball	Impacted .34" diameter musket ball	17th Century	Native	.34	Impacted	lead	GR-28
986	Musketball	Dropped .32" diameter musket ball	17th Century	Native	.32	Dropped	lead	GR-29
987	Musketball	Impacted .34" diameter musket ball	17th Century	Unknown	.34	Impacted	lead	GR-31
988	Musketball	Impacted .25" diameter musket ball	17th Century	Native	.26	Impacted	lead	GR-32
989	Musketball	Impacted .30" diameter musket ball	17th Century	Native	.32	Impacted	lead	GR-33
1000	Musketball	Impacted .59" diameter musket ball	17th Century	Native	.59	Impacted	lead	GR-34
997	Musketball	Impacted .20" diameter musket ball	17th Century	Unknown	.20	Impacted	Pewter	GR-35
1002	Musketball	Impacted .22" diameter musket ball	17th Century	Native	.22	Impacted	Pewter	GR-36
995	Musketball	Impacted. 30" diameter musket ball	17th Century	Native	.30	Impacted	lead	GR-41
999	Musketball	Impacted .37" diameter musket ball	17th Century	Native	.37	Impacted	lead	GR-42
993	Musketball	Impacted .62" diameter musket ball	17th Century	Native	.63	Impacted	lead	GR-43
974	Musketball	Impacted .37" diameter musket ball	17th	Native	.37	Impacted	lead	GR-44
969	Musketball	Impacted .43" diameter musket ball	17th Century	Native	.43	Impacted	lead	GR-45
970	Musketball	Impacted .49" diameter musket ball	17th Century	Native	.49	Impacted	lead	GR-46
971	Musketball	Impacted .43" diameter musket ball	17th Century	Native	.43	impacted	lead	GR-47
973	Musketball	Impacted .50" diameter musket ball	17th Century	Native	.50	Impacted	lead	GR-48
972	Musketball	Dropped .57" diameter musket ball	17th Century	Native	.57	Dropped	lead	GR-49
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-51
	Musketball	Impacted .24" diameter musket ball	17th	unknown	.24	Impacted	Lead	GR-53
	Musketball	Impacted .63" diameter musket ball	17th	unknown	.63	Impacted	lead	GR-54
	Horseshoe	Cuprous tack	17th century	English			Cuprous	GR-55
	Musketball	Impacted .32" diameter musket ball	17th century	unknowm	.32	Impacted	lead	GR-56
	Clothing or Personal Item	Cuprous thimble	17th century	unknown			cuprous	GR-57

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-58
	Clothing or Personal Item	Cuprous jaw harp	17th century	Unknown			Cuprous	GR-61
	Musketball	Impacted .59" diameter musket ball	17th	Unknown	.59	Impacted	Lead	GR-64
	Musketball	Impacted .66" diameter musket ball	17th	Unknown	.66	impacted	Lead	GR-65
	Musketball	Dropped .68" diameter musket ball	17th	unknowm	.68	Dropped	lead	GR-67
	Musketball	Dropped .61" diameter musket ball	17th	English	.61	Dropped	lead	GR-68
	Musketball	Dropped .30" diameter musket ball	17th	Unknown	.30	Dropped	lead	GR-70.13
	Musketball	Impacted .58" diameter musket ball	17th	unknown	.58	Impacted	lead	GR-72
	Musketball	Impacted .58" diameter musket ball	17th	unknown	.58	Ipacted	lead	GR-73
	Musketball	Impacted .58" diameter musket ball	17th	unknown	.58	impacted	lead	GR-75
	Musketball	Impacted .58" diameter musketball	17th	unknown	.58	Impacted	lead	GR-76
	Musketball	Impacted .54" diameter musket ball	17th	unknown	.54	impacted	lead	GR-77
	Horseshoe	Pewter leather horse tack ornament	17th century	English			Pewter	GR-78
	Musketball	Impacted .63" diameter musketball	17th	unknown	.63	Impacted	lead	GR-81
	Musketball	Dropped .30" diameter musket ball	17th century	unknown	.30	Dropped	lead	GR-82
	Musketball	Dropped .34" diameter musketball	17th	unknown	.34	Dropped	Lead	GR-83
	Clothing or Personal Item	Cuprous Button	17th century	unknown			Cuprous	GR-84
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	Lead	GR-85
	Musketball	Impacted .13" diameter musket ball	17th	unknown	.13	Impacted	Lead	GR-86
	Clothing or Personal Item	Cuprous earring	17th century	Native			cuprous	GR-87
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	Impacted	Lead	GR- 89
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	Lead	GR-90
	Weapon	Ramrod tip	17th century	unknown			Pewter	GR-91
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	Lead	GR-92

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	Lead	GR-93
	Musketball	Impacted .64" diameter musket ball	17th	unknown	.64	Impacted	Lead	GR-96
	Musketball	Impacted .30" diameter musket ball	17th		.30	Impacted	Lead	GR-97
	Musketball	Impacted .52" diameter musket ball	17th	unknown	.52	Impacted	lead	GR-100
	Musketball	Impacted .61" diameter musket ball	17th	unknown	.61	Impacted	lead	GR-101
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	impacted	lead	GR-103
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-104
	Musketball	Impacted .32" diameter musketball	17th	unknown	.32	Impacted	lead	GR-105
	Musketball	Impacted .36" diameter pistol ball	17th	English	.36	Impacted	Lead	GR-105.2
	Clothing or Personal Item	Cuprous thimble	17th century	Native			Cuprous	GR-106
	Weapon	Cuprous triangular arrow point	17th	Native			Cuprous	GR-107
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-108
	Musketball	Impacted .62" diameter musket ball	17th	unknown	.62	Impacted	lead	GR-109
	Musketball	Impacted .65" diameter musket ball	17th	unknown	.65	Impacted	lead	GR-110
	Musketball	Impacted .64" diameter musketball	17th	unknown	.64	impacted	lead	GR -111
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-112
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-113
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-114
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-116
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-115
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-117
	Musketball	Impacted .26" diameter musket ball	17th	unknown	.26	Impacted	lead	GR-118
	Musketball	Dropped .32"diameter musket ball	17th	unknown	.32	Dropped	lead	GR-121.6

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Dropped .32" diameter musketball	17th	unknown	.32	Dropped	Lead	GR-121.8
	Musketball	Dropped .32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-121.4
	Musketball	Dropped .32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-121.7
	Musketball	Dropped .32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-121.2
	Musketball	Dropped .32"diameter musketball	17th	unknown	.32	Dropped	lead	GR-121.11
	Domestic Item	Brass kettle handle	17th century	Native			Cuprous	GR-126
	Domestic Item	Iron knife blade	17th century	Native			Iron	GR-127
	Domestic Item	Brass scrap	17th	Native			brass	GR-128
	Musketball	Dropped .34" diameter musketball	17th	unknown	.34	Dropped	lead	GR-120
	Musketball	Dropped .32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-121.5
	Musketball	Impacted .63" diameter musket ball	17th	unknown	.63	Impacted	lead	GR-124
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-133
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	impacted	lead	GR-134
	Unidentified Object	Unidentified iron object	Possibly 17th century	Native			Iron	GR-135
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-136
	Domestic Item	Brass scrap	17th	Native			Cuprous	GR-137
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-139
	Musketball	Impacted .35" diameter musket ball	17th	unknown	.35	Impacted	lead	GR-141
	Musketball	Impacted .49" diameter musket ball	17th century	unknown	.49	Impacted	lead	GR-144
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-146
	Musketball	Impacted .27" diameter musket ball	17th	unknown	.27	Impacted	lead	GR-147
	Musketball	Impacted .36" diameter musket ball	17th	English	.36	Impacted	lead	GR-148
	Musketball	Impacted .37" diameter musket ball	17th century	unknown	.37	Impacted	lead	GR-150
	Clothing or Personal Item	Brass finger ring	17th century	Native			Cuprous	GR-149

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Dropped .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-140
	Other	Iron hook	17th century	unknown			Iron	GR-151
	Clothing or Personal Item	Cuprous bracelet	17th century	Native			Cuprous	GR-152
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-154
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-155
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-157
	Musketball	Impacted .33"diameter musket ball	17th	unknown	.33	impacted	lead	GR-156
	Musketball	Impacted .33" diameter musketball	17th	unknown	.33	Impacted	lead	GR-158
	Musketball	Impacted .38 diameter musket ball	17th	unknown	.38	Impacted	lead	GR-159
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	Lead	GR-160
	Musketball	Impacted .26" diameter musket ball	17th	unknown	.26	Impacted	Lead	GR-161
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-163
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-165
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	impacted	lead	GR-166
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-167
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-168
	Musketball	Impacted .55" diameter musket ball	17th	unknown	.55	Impacted	lead	GR-169
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-170
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-172
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-175
	Musketball	Impacted .56" diameter musket ball	17th	unknown	.56	Impacted	lead	GR-176
	Musketball	Dropped .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-177
	Musketball	Impacted .60" diameter musket ball	17th	unknown	.60	Impacted	lead	GR-178

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .48" diameter cylindrical shot	17th century	Native	.48	Impacted	lead	GR-179
	Musketball	Impacted .22" diameter musket ball	17th	unknown	.22	Impacted	Lead	GR-180.2
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-181
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	Lead	GR-162
	Musketball	Impacted .22" diameter musketball	17th	unknown	.22	Impacted	lead	GR-183
	Musketball	Impacted .32" diameter musketball	17th	unknown	.32	Impacted	lead	GR-184
	Musketball	Impacted .24" diameter musket ball	17th	unknown	.24	Impacted	lead	GR-197
	Musketball	Impacted 51" diameter musket ball	17th	unknown	.51	Impacted	Lead	GR-198
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	Lead	GR-199
	Musketball	Impacted .50" diameter musket ball	17th	unknown	.50	Impacted	Lead	GR-195
	Musketball	Impacted .59" diameter musket ball	17th	unknown	.59	Impacted	Lead	GR-194
	Musketball	Dropped .24" diameter musket ball	17th	unknown	.24	Dropped	lead	GR-193
R42-15-0	Musketball	Impacted .26" diameter musket ball	17th	unknown	.26	Dropped	Lead	GR-193.2
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	Lead	GR-192
	Musketball	Dropped.32" diameter musket ball	17th	unknown	.32	Dropped	Lead	GR-121.9
	Musketball	Dropped .32" diameter musket ball	17th	unknown	.32	Dropped	Lead	GR-121.10
	Musketball	Dropped 32" diameter musket ball	17th	unknown	.32	Dropped	Lead	GR-121.3
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-70.2
	Musketball	Dropped .30" diamater musket ball	17th	unknown	.30	Dropped	lead	GR-70.3
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-70.4
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-70.5
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-70.6

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-70.7
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-70.8
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-70.9
	Musketball	Dropped .28" diameter musket ball	17th	unknown	.28	Dropped	lead	GR-70.10
	Musketball	Dropped .29" diameter musket ball	17th	unknown	.29	Dropped	lead	GR-70.11
	Musketball	Dropped .29" diameter musket ball	17th	unknown	.29	Dropped	lead	GR-70.12
	Musketball	Impacted .43" diameter musket ball	17th	unknown	.43	Impacted	Pewter	GR-191
	Musketball	Impacted .24" diameter musket ball	17th	unknown	.24	Impacted	lead	GR-187
	Weapon	Pewter ramrod tip	17th	unknown			Pewter	GR-193.3
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-204
	Musketball	Impacted .59" diameter musket ball	17th	unknown	.59	Impacted	lead	GR-205
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-213
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-203
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-201
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-200
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	Lead	GR-215
	Musketball	Impacted .30" diameter musket ball	17th	English	.30	Impacted	lead	GR-207
	Musketball	Impacted .52" diameter musket ball	17th century	English	.52	Impacted	lead	GR-218
	Musketball	Impacted .26" diameter musket ball	17th	unknown	.26	Impacted	lead	GR-219
	Musketball	Impacted .54" diameter musket ball	17th	English	.54	Impacted	lead	GR-220
	Musketball	Dropped .36" diameter musket ball	17th	English	.36	Dropped	lead	GR-208
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-209
	Musketball	Impacted .41" diameter musket ball	17th	English	.41	Impacted	lead	GR-211

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-212
	Musketball	Impacted .24" diameter musket ball	17th	unknown	,24	Impacted	lead	GR-222
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-223.2
	Musketball	Dropped .35" diameter musket ball	17th	unknown	.35	Dropped	lead	GR-224
	Musketball	Impacted .49" diameter musket ball	17th	English	.49	Impacted	lead	GR-210
	Weapon	Cuprous Scabbard Tip	17th	English			Cuprous	GR-225
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-226
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-227
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	Impacted	lead	GR-218.2
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-219.2
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	Impacted	lead	GR-220A
	Musketball	Impacted .40" diameter musket ball	17th	unknown	.40	Impacted	Lead	GR-221
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-222A
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-224.2
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-225.2
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	Lead	GR-226.2
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-227.2
	Musketball	Impacted .61" diameter musket ball	17th	unknown	.61	Impacted	lead	GR-228
	Musketball	Impacted .66" diameter musket ball	17th	unknown	.66	Impacted	lead	GR-229
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-230
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-231
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-232
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-233

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Dropped .33" diameter musket ball	17th	unknown	.33	Dropped	lead	GR-235
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-236
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-237
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-239
	Musketball	Dropped .30" diameter	17th	unknown	.30	Dropped	Lead	GR-40
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	Impacted	lead	GR-242
	Musketball	Impacted .38" diameter musket ball	17th	unknown	.38	Impacted	lead	GR-244
	Musketball	Impacted .28" diameter musket ball	17th	unknown	,28	Impacted	lead	GR-245
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-246
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-247
	Musketball	Impacted .28" diameter musket ball	17th	English	.28	Impacted	lead	GR-248
	Musketball	Impacted .27" diameter musket ball	17th	English	.27	Impacted	lead	GR-249
	Musketball	Impacted .29" diameter musket ball	17th	English	.29	Impacted	lead	GR-251
	Musketball	impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-252
	Musketball	Impacted ..28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-253
	Musketball	Impacted .27" diameter musket ball	17th	unknown	.27	Impacted	lead	GR-254
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-255
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-257
	Musketball	Impacted .59" diameter musket ball	17th	unknown	.59	Impacted	Pewter	GR-258
	Musketball	Impacted .50" diameter musket ball	17th	unknown	.50	Impacted	lead	GR-259
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-261
	Musketball	Dropped.33" diameter musket ball	17th	Unknown	.33	Dropped	lead	GR-262
	Musketball	Dropped.33" diameter musket ball	17th	unknown	.33	Dropped	lead	GR-263

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .59" diameter musket ball	17th	unknown	.59	Impacted	lead	GR-264
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-265
	Musketball	Iimpacted .30" diameter musket ball	17th	unknown	.30	Impacted	lead	GR-266
	Musketball	Dropped .31" diameter musket ball	17th century	unknown	.31	Dropped	lead	GR-267
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-268
	Musketball	Dropped .32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-269
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-270
	Musketball	Dropped .32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-271
	Musketball	Dropped .29" diameter musket ball	17th	unknown	.29	Dropped	lead	GR-272
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-273
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-274
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-275
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-276
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-277
	Musketball	Dropped .29" diameter musket ball	17th	unknown	.29	Dropped	lead	GR-278
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-279
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-280
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-281
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28"	Impacted	lead	GR-282
	Musketball	Dropped .26" diameter musket ball	17th	unknown	.26	Dropped	lead	GR-283
	Musketball	Dropped .34" diameter musket ball	17th	unknown	.34	Dropped	lead	GR-284
	Musketball	Impacted .58" diameter musket ball	17th	unknown	.58	Impacted	lead	GR-286
	Domestic Item	Pewter spoon fragment	17th century	unknown			Pewter	GR-288

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-289
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-290
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-291
	Musketball	Dropped .34" diameter musket ball	17th	unknown	.34	Dropped	lead	GR-292
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-294
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-295
	Musketball	Impacted .55" diameter cylindrical shot	17th	unknown	.55	Impacted	lead	GR-296
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-297
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	Impacted	lead	GR-298
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-299
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-300
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-301
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-302
	Horseshoe	Brass horse tack rivet	17th century	English			Cuprous	GR-303
	Musketball	Impacted .31" diamater musket ball	17th	unknown	.31	Impacted	lead	GR-304
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-305
	Clothing or Personal Item	Lead earing	17th century	Native			lead	GR-306.2
	Musketball	Impacted .60" diameter musket ball	17th	unknown	.60	Impacted	lead	GR-307
	Weapon	Brass butt plate	17th century	unknown			Cuprous	GR-308
	Clothing or Personal Item	Thimble	17th century	unknown			Cuprous	GR-310
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-311
	Musketball	Iimpacted .31" diameter musket ball	17th	unknown	.31	Impacted	Lead	GR-312
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Dropped	lead	GR-313
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Impacted	lead	GR-314

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-315
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-316
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-317
	Musketball	Iimpacted .34" diameter musket ball	17h	unknown	.34	Impacted	lead	GR-319
	Musketball	Dropped .30" diameter musket ball	17th	unknown	.30	Dropped	lead	GR-320
	Clothing or Personal Item	Cuprous thimble	17th century	unknown			Cuprous	GR-322
	Tool	Iron knife with tang	17th century	unknown			Iron	GR-323
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-324
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-326
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-327
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-325
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-328
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-329
	Musketball	Impacted .31" diameter musket ball	17th	English	.31	Impacted	lead	GR-330
	Musketball	Impacted .31" diameter musket ball	17th	English	.31	Impacted	lead	GR-331
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-332
	Musketball	Impacted 32" diameter musket ball	17th	English	.32	Impacted	lead	GR-333
	Musketball	Impacted .29" diameter musket ball	17th	English	.29	Impacted	lead	GR-334
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	Impacted	lead	GR-89
	Musketball	Impacted .28" diameter musket ball	17th	English	.28	Impacted	lead	GR-335
	Musketball	Impacted .32"diameter musket ball	17th	English	.32	Impacted	lead	GR-336
	Musketball	Impacted .32"diameter musket ball	17th	English	.32	Impacted	lead	GR-337
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-338

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-339
	Musketball	Impacted .34" diameter musket ball	17th	English	.33	Impacted	lead	GR-343
	Musketball	Impacted .34" diameter	17th	English	.34	Impacted	lead	GR-342
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-344
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-345
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-346
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-347
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-348
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-349
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-350
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-351
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-352
	Musketball	Impacted 34" diameter musket ball	17th	English	.34	Impacted	lead	GR-355
	Musketball	Impacted .44" diameter musket ball	17th	unknown	.44	Impacted	lead	GR-356
	Musketball	Impacted .59" diameter musket ball	17th	unknown	.59	Impacted	lead	GR-357
	Musketball	Impacted .28" diameter musket ball	17th	unknown	.28	Impacted	lead	GR-358
	Musketball	Impacted .26" diameter musket ball	17th	unknown	.26	Impacted	lead	GR-359
	Musketball	Impacted .11" diameter musket ball	17th	English	.11	Impacted	lead	GR-360
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-370
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-371
	Musketball	Impacted .31" diameter musket ball	17th	English	.31	Impacted	lead	GR-372
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-373
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-374

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-340
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-341
	Musketball	Impacted .64" diameter musket ball	17th	unknown	.64	Impacted	lead	GR-111
	Musketball	Impacted 32" diameter musket ball	17th	unknown	.32	Dropped	lead	GR-121
	Musketball	Dropped .35" diameter musket ball	17th	unknown	.35	Dropped	lead	GR-396
	Musketball	Impacted .25" diameter musket ball	17th	Native	.25	Impacted	lead	GR-380
	Musketball	Impacted .26" diameter musket ball	17th	Native	.26	Impacted	lead	GR-382
	Musketball	Impacted .24" diameter musket ball	17th	Native	.24	Impacted	Lead	GR-383
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-389
	Musketball	Impacted .55" diameter musket ball	17th	unknown	.55	Impacted	lead	GR-390
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-387
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.35	Impacted	lead	GR-386
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-385
	Musketball	Impacted .37"diameter musket ball	17th	unknown	.37	Impacted	lead	GR-391
	Musketball	Impacted 32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-392
	Musketball	Impacted .61" diameter musket ball	17th	English	.61	Impacted	lead	GR-393
	Musketball	Impacted .64" diameter musket ball	17th	unknown	.64	Impacted	lead	GR-395
	Musketball	Impacted.33" diameter musket ball	17th	Native	.33	Impacted	lead	GR-379
	Musketball	Impacted .25" diameter musket ball	17th	Native	.25	Impacted	lead	GR-381
	Musketball	Impacted .42" diameter musket ball	17th	English	.42	Impacted	Lead	GR-375
	Weapon	Scabbard tip	17th century	English			lead	GR-384
	Musketball	Impacted .22" diameter musket ball	17th	unknown	.22	Impacted	lead	GR-188
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-202

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-206
	Musketball	Impacted .32"diameter musket ball	17th	unknown	.32	Impacted	lead	GR-216
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-217
	Musketball	Impacted .33" diameter musket ball	17th	unknown	.33	Impacted	lead	GR-408
	Musketball	Impacted 32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-407
	Clothing or Personal Item	Pewter button	17th	unknown			Pewter	GR-402
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-403
	Musketball	Impacted 34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-404
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-406
	Musketball	Impacted .60" diameter musket ball	17th	Native	.60	Impacted	lead	GR-400
	Musketball	Impacted .22" diameter musket ball	17th	Native	.22	Impacted	lead	GR-397
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-410
	Musketball	Impacted .34" diameter musket ball	17th	unknown	.34	Impacted	lead	GR-409
	Musketball	Impacted .32"diameter musket ball	17th	unknown	.32	Impacted	Lead	GR-221.2
	Musketball	Dropped .34" diameter musket ball	17th	unknown	.34	Dropped	lead	GR-240
	Musketball	Impacted .29" diameter musket ball	17th	English	.29	Impacted	lead	GR-250
	Musketball	Impacted 0.1" diameter musket ball	17th	unknown	.1	Impacted	lead	GR-260
	Musketball	Impacted .29" diameter musket ball	17th	unknown	.29	Impacted	lead	GR-285
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-297.4
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-297.5
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-297.6
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-297.7
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	Lead	GR-297.8

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-297.9
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-297.10
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-297.11
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-297.12
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-297.13
	Musketball	Dropped .31" diameter musket ball	17th	unknown	.31	Dropped	lead	GR-306.3
	Musketball	Impacted .24" diameter musket ball	17th	English	.24	Impacted	lead	GR-440
	Musketball	Dropped .44" diameter musket ball	17th century	Native	.44	Dropped	lead	GR-439
	Musketball	Impacted .51" diameter musket ball	17th	English	.51	Impacted	lead	GR-436
	Weapon	Iron flintlock battery arm	17th century	English			Iron	GR-410.2
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-412
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-413
	Musketball	Impacted .34" diameter musket ball	17th century	English	.34	Impacted	Lead	GR-414
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-416
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-423
	Musketball	Impacted .35" diameter musket ball	17th	English	.35	Impacted	lead	GR-422
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-428
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-426
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-425
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-427
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-430
	Musketball	Impacted .36" diameter musket ball	17th	English	.36	Impacted	lead	GR-433
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-429

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-431
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-434
	Musketball	Impacted .34" diameter musket ball	17th	English	.33	Impacted	lead	GR-445
	Musketball	Impacted .49" diameter musket ball	17th	English	.49	Impacted	lead	GR-446
	Musketball	Impacted .48" diameter musket ball	17th	English	.48	Impacted	lead	GR-447
	Musketball	Dropped .49" diameter musket ball	17th	English	.49	Dropped	lead	GR-455
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-460
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-458
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-459
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-457
	Musketball	Impacted .43" diameter musket ball	17th	English	.43	Impacted	lead	GR-461
	Musketball	Impacted .54" diameter musket ball	17th	English	.54	Impacted	lead	GR-463
	Musketball	Impacted .35" diameter musket ball	17th	English	.35	Impacted	lead	GR-462
	Musketball	Impacted .39" diameter pistol ball	17th century	English	.39	Impacted	lead	GR-464
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-466
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-451
	Musketball	Impacted .35" diameter musket ball	17th	English	.35	Impacted	lead	GR-450
	Musketball	Impacted .35" diameter musket ball	17th	English	.35	Impacted	lead	GR-449
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-448
	Musketball	Impacted .35" diameter musket ball	17th	English	.35	Impacted	lead	GR-452
	Musketball	Impacted .20" diameter musket ball	17th	English	.20	Impacted	Pewter	GR-454
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-467

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-468
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-469
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-470
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-471
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-472
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-473
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-474
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-475
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-476
	Musketball	Impacted .32" diameter musket diameter	17th	English	.32	Impacted	lead	GR-477
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-478
	Musketball	Impacted .26" diameter musket ball	17th	English	.26	Impacted	lead	GR-479
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-480
	Musketball	Impacted .27" diameter musket ball	17th	English	.27"	Impacted	lead	GR-411
	Musketball	Impacted .35" diameter musket ball	17th	English	.35	Impacted	lead	GR-414
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-415
	Musketball	fired south to north into berm; English fire, same load as GR-412-416, GR-421-423, range from .33"-.35" diameteracted .32" diameter musket ball	17th	English	.32	Impacted	lead	GR-417
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-418
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-419
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-420

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .21" diameter musket ball	17th	English	.21	Impacted	Pewter	GR-421
	Musketball	Impacted .35" diameter pistol ball	17th	English	.35	Impacted	lead	GR-432
	Clothing or Personal Item	unid cuprous coin						P-1
	Unknown	cuprous and iron unid object						P-2
	Unknown	iron rim frag						P-3
	Architectural	iron nail						P-4
	Architectural	hand wrought iron nail						P-5
	Architectural	he nail						P-6
	Clothing or Personal Item	glass inlaid button						P-7
	Other	well						P-8
	Architectural	he nail						P-9
	Other	Io ring and he nail						P,-10
	Domestic Item	pewter spoon handle						P-11
	Architectural	he nail						P-12
	Horseshoe	ox shoe						P-13
	Unidentified Object	unid pewter object						P-14
	Other	dry laid one foudion						P15
	Domestic Item	pewter handlefrag						P-17
	Other	he cuprous washer						P-18
	Domestic Item	iron skillet foot frag						P-19
	Architectural	he nail						P-20
	Other	cuprous strips						P-21
	Domestic Item	possible iron button						P-22
	Architectural	rose headnail						P-23
	Other	unid iron object						P-24
	Other	pit feature						P-27
	Other	south end of retaining wall and						P-30
	Domestic Item	iron						P-28
	Architectural	rectangular foundation						P-31
	Clothing or Personal Item	gold eaf earrig						P-26
	Other	north end retaining wall						P-29
	Architectural	hardware						P-25
	Unidentified Object	unid lead ring						P-32
	Clothing or Personal Item	two piece cuprous button						P-33
	Musketball	Impacted .38" diameter pistol ball	17th	English	.38	Impacted	lead	GR-435
	Musketball	Impacted .64" diameter musket ball	17th	English	.64	Impacted	lead	GR-437
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-438
	Musketball	Impacted .39" diameter pistol ball	17th	English	.39	Impacted	lead	GR-441

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .40" diameter musket ball	17th	English	.40	Impacted	lead	GR-442
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-443
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-444
	Musketball	Impacted .34" diameter musket ball	17th	English	.34	Impacted	lead	GR-453
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	lead	GR-465
	Musketball	Impacted .43" diameter musket ball	17th	English	.43	Impacted	lead	GR-463.2
	Musketball	Impacted .37" diameter musket ball	17th	unknown	.37	Impacted	lead	GR-481
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.32	Impacted	lead	GR-483
	Musketball	Impacted .33" diameter musket ball	17th	Native	.33	Impacted	Lead	GR-485
	Musketball	Impacted .32" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-484
	Musketball	Impacted .54" diameter musket ball	17th	unknown	.54	Impacted	lead	GR-489
	Musketball	Impacted .31" diameter musket ball	17th	unknown	.31	Impacted	lead	GR-488
	Musketball	Impacted .25" diameter musket ball	17th	unknown	.25	Impacted	lead	GR-486
	Musketball	Impacted .60" diameter musket ball	17th	unknown	.60	Impacted	lead	GR-482
	Musketball	Impacted .61" diameter musket ball	17th	unknown	.61	Impacted	lead	GR-491
	Musketball	Impacted .35" diameter musket ball	17th	unknown	.35	Impacted	lead	GR-490
	Musketball	Dropped .52" diameter cylindrical shot	17th	Native	.52	Dropped	Lead	GR-492
	Musketball	Impacted .39" diameter pistol ball	17th	English	.39	Impacted	Lead	GR-494
	Musketball	Impacted .38" diameter pistol ball	17th	English	.38	Impacted	Lead	GR-495
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	Lead	GR-496
	Musketball	Impacted .31" diameter musket ball	17th	English	.31	Impacted	Lead	GR-497
	Musketball	Impacted .20" diameter musket ball	17th	Native	.20	Impacted	Lead	GR-499

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .34" diameter musket ball	17th	Native	.34	Impacted	Lead	GR-509
	Musketball	Impacted .63"diameter musket ball	17th	English	.63	Impacted	Lead	GR-500
	Other	Rolled lead strip	Possibly 17th	Native			Lead	GR-501
	Musketball	Impacted .31" diameter musket ball	17th	English	.31	Impacted	Lead	GR-502
	Musketball	Impacted .62" diameter musket ball	17th	English	.62	Impacted	Lead	GR-503
	Musketball	Impacted .38" diameter pistol ball	17th	English	.38	Impacted	Lead	GR-505
	Musketball	Impacted .26" diameter musket ball	17th	English	.26	Impacted	Lead	GR-506
	Musketball	Dropped .48" diameter musket ball	17th	Native	.48	Dropped	Lead	GR-510
	Musketball	Impacted .49" diameter musket ball	17th	English	.49	Impacted	Lead	GR-511
	Musketball	Impacted .53" diameter musket ball	17th	English	.53	Impacted	Lead	GR-512
	Unidentified Object	Unidentified pewer object	possibly 17th century	unknown			Pewter	GR-514
	Horseshoe	Spur buckle fragment	17th century	English			Cuprous	GR-515
	Domestic Item	Brass scrap	17th century	Native			Cuprous	GR-516
	Musketball	Impacted .55" diameter musket ball	17th century	Native	.55	Impacted	Lead	GR-517
	Musketball	Impacted .32" diameter musket ball	17th century	unknown	.32	Impacted	Lead	GR-518
	Musketball	Impacted .65" diameter musket ball	17th	unknown	.65	Impacted	Lead	GR-519
	Musketball	Impacted .61" diameter musket ball	17th century	unknown	.61	Impacted	Lead	GR-520
	Musketball	Impacted .42" diameter musket ball	17th century	unknown	.42	Impacted	Pewter	GR-521
	Musketball	Impacted .51" diameter musket ball	17th century	unknown	.51	Impacted	Lead	GR-523
	Unidentified Object	unidentified lead cap	possibly 17th century	unknown			Lead	GR-524
	Musketball	Impacted .30" diameter musket ball	17th	unknown	.30	Impacted	Lead	GR-525
	Domestic Item	Cuprous thimble	17th century	unknown			Cuprous	GR-526
	Musketball	Impacted .38" diameter musket ball	17th century	unknown	.38	Impacted	Lead	GR-528
	Musketball	Impacted .53" diameter cylindrical shot	17th century	unknown	.53	Impacted	Lead	GR-530

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .32" diameter musket ball	17th	Native	.32	Impacted	lead	GR-531
	Musketball	Impacted .27" diameter musket ball	17th	Native	.27	Impacted	Lead	GR-532
	Tool	Cuprous folding knife scale with rivet	17th century	unknown			Cuprous	GR-533
	Clothing or Personal Item	Cuprous button	19th	English			Cuprous	GR-534
	Domestic Item	Cuprous spoon handle	17th century	unknown			Cuprous	GR-535
	Musketball	Impacted ..32" diameter musket ball	17th	Native	.32	Impacted	Lead	GR-536
	Musketball	Impacted .31" diameter musket ball	17th	Native	.31	Impacted	Lead	GR-537
	Musketball	Impacted .44" diameter musket ball	17th	Native	.44	Impacted	Lead	GR-538
	Musketball	Impacted .58" diameter musket ball	17th century	unknown	.58	Impacted	Lead	GR-541
	Musketball	Impacted .31" diameter musket ball	17th	Native, fired north to south across Green River	.31	Impacted	Lead	GR-543
	Musketball	Impacted .32" diameter musket Ball	17th	Native	.32	Impacted	Lead	GR-544
	Musketball	Impacted .33" diameter musket ball	17th	Native	.32	Impacted	Lead	GR-545
	Musketball	Impacted .31" diameter musket ball	17th	Native	.31	Impacted	Lead	GR-546
	Musketball	Impacted .32" diameter musket ball	17th	Native	.32	Impacted	Lead	GR-547
	Musketball	Impacted .25" diameter musket ball	17th	Native	.25	Impacted	Lead	GR-548
	Musketball	Dropped .11" diameter musket ball	17th	Native	.11	Dropped	Lead	GR-549
	Horseshoe	Cuprous Spur	17th century	English			Cuprous	GR-551
997.1	Musketball	Impacted .25"diameter musket ball	17th Century	Native	.25	Impacted	Pewter	GR-35.2
	Musketball	Impacted .61" diameter musket ball	17th Century	Unknown	.61	Impacted	Lead	GR-74
593	Musketball	Impacted .36" diameter pistol ball	17th Century	Unknown	.36	Impacted	Lead	317
592	Musketball	Impacted .33" diameter musket ball	17th Century	Unknown	.33	Impacted	Lead	316
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	Lead	GR-297.2
	Musketball	Impacted .33" diameter musket ball	17th	English	.33	Impacted	Lead	GR-297.3

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
	Musketball	Impacted .33" diameter musket ball			.33	Impacted	Lead	
	Musketball	Impacted .32" diameter musket ball			.32	Impacted	Lead	
	Musketball	Impacted .32" diameter musket ball	17th	English	.32	Impacted	Lead	GR-377
516	Domestic Item	Pewter tea spoon bowl	17th century	Native			Pewter	GR-243.1
363	Musketball	Impacted .34" diameter musket ball	17th century	Native	.34	Impacted	Lead	GR-95.4
362	Musketball	Impacted .34" diameter musket ball	17th century	Native	.34	Impacted	Lead	GR-95.3
361	Musketball	Impacted .34"diameter musket ball	17th century	Native	.34	Impacted	Lead	GR-95.5
371	Musketball	Impacted .34" diameter musket ball	17th century	Native	.34	Impacted	Lead	GR-101.2
961	Musketball	Impacted .32" diameter musket ball	17th century	Native	.32	Impacted	Lead	1015
751	Musketball	Impacted .38" diameter musket ball	17th century	English	.38	Impacted	Lead	798
376	Musketball	Impacted .34" diameter musket ball	17th century	Native	.34	Impacted	Lead	GR-106.1
433	Musketball	Impacted .31" diameter musket ball	17th century	unknown	.31	Impacted	Lead	GR-163.1
479	Musketball	Impacted .53" diameter musket ball	17th century	Native	.53	Impacted	Lead	GR-208.1
501	Musketball	Dropped .29" diameter musket ball	17th century	unknown	.29	Dropped	Lead	GR-228.1
508	Musketball	Impacted .34" diameter musket ball	17th century	unknown	.34	Impacted	Lead	GR-235.1
750	Musketball	Impacted .38" diameter musket ball	17th	English	.38	Impacted	Lead	797
760	Musketball	Impacted .44" diameter musket ball	17th	unknown	.44	Impacted	Lead	807
764	Musketball	Impacted .44" diameter musket ball	17th	unknown	.44	Impacted	Lead	811
789	Musketball	Impacted .36" diameter musket ball	17th century	unknown	.36	Impacted	Lead	836
797	Musketball	Impacted .44" diameter	17th century	unknown	.44	Impacted	Lead	844
826	Musketball	Impacted .38" diameter musket ball	17th century	unknown	.38	Impacted	Lead	873
850	Musketball	Impacted .38" diameter musket ball	17th century	unknown	.38	Impacted	Lead	896
70	Musketball	Impacted .40" diameter musket ball	17th century	unknown	.40	Impacted	Lead	GI-12

InventoryN	ArtType	Descript	Period	EngNat	MBDi	MBType	PrimaryMat	FieldID
196	Musketball	Impacted .32" diameter musket ball	17th century	Native	.32	Impacted	Lead	GI-130
243	Musketball	Impacted .22" diameter musket ball	17th		.22	Impacted	Lead	GI-183
297	Musketball	Dropped .20" diameter musket ball	17th	Native	.20	Dropped	Lead	GI-235
338	Musketball	Impacted .33" diameter musket ball	17th century	Native	.33	Impacted	Lead	GI-284
185	Tool	Silver plated ferrule	possibly 17th century	unknown			Silver	GI-119
360	Musketball	Impacted .34" diameter musket ball	17th	Native	.34	Impacted	Lead	GR-95.2
	Musketball	Impacted .24" diameter musket ball	17th century	unknown	.24	Impacted	Lead	GR-498
548	Domestic Item	Brass scrap	17th century	Native			Cuprous	GR-263.1
117	Other	Lead bar fragment	17th century	Native			Lead	GI-49
69	Horseshoe	Pewter leather ornament	17th century	English			Pewter	GR-54.1
298	Tool	Cuprous folding knife scale	17th	unknown			Cuprous	G_-167
	Other	Copper nodule	17th century	Native			Copper	GR-152
440	Clothing or Personal Item	Cuprous earring	17th century	Native			Cuprous	GR-171.1
665.1	Other	Copper nodule	17th century	Native			Copper	654.1
272	Musketball	Impacted .33" diameter musket ball	17th century	Native	.33	Impacted	Lead	GI-199
150	Horseshoe	Pewter horse tack ornament	17th	English			Pewter	GI-73
	Horseshoe	Copper Bit or Cheek Boss	17th century	English			Copper	GR-173

Appendix II – Order of Battle

ORDER of BATTLE: Battle of Great Falls/Peskeompskut[252]

Army: Native Allied Forces

Location: Pocumtuck Territory, Peskeompskut

Commanding Officer: Metacom

Date: May 19, 1676

Units	Troop Strength	Casualties
Peskeompskut Village	Approximately 60-80	Unknown
East Side of CT River Village	Approximately 60-80	Unknown
Smead Island Village	Approximately 60-80	Unknown
Cheapside Village	Approximately 60-80	Unknown
Soldiers from Northern Villages	Approximately 100	Unknown
Total:	Approximately 340-420	Approximately 60-80

Army: Captain Turner's Company

Location: Pocumtuck Territory, Peskeompskut

Commanding Officer: Captain William Turner
Lieutenant Samuel Holyoke

Date: May 19, 1676

Units	Troop Strength	Casualties
CPT Turner's Detachment	Approximately 60	Unknown
Militia Detachment - Holyoke	Approximately 88	Unknown
Springfield – LT Holyoke	Unknown	Unknown
Northampton – ENS Lyman	Unknown	Unknown
Hatfield – SGT Dickinson	Unknown	Unknown
Hadley – SGT Kellogg	Unknown	Unknown
Guides – Wait & Hinsdale	2	1
Reverend - Atherton	1	0
Total:	Approximately 151	Approximately 39 Killed, 29+ Wounded

[252] The troops strengths and casualties reflected in the Order of Battle were largely derived from the Notebook of Stephen Williams (Pocumtuck Valley Memorial Association Library Archives) as transcribed by Dr. Peter A. Thomas (2016) and research conducted by Mr. John S. Wilson in his unpublished manuscript "The Probable Composition Of Captain William Turner's Forces: February 20 – May 19, 1676" (2017).

Appendix III – European and Native Military Technology

Massachusetts Bay Forces

At the beginning of King Philip's War English Allied forces were armed with a wide array of weaponry with three main categories of firearms—matchlock, wheelock, and flintlock. Of these, the flintlock firearm was the primary armament for combatants on both sides in King Philip's War. The matchlock musket was a muzzle-loading firearm and was discharged by a pull of the trigger which mechanically lowered a burning match clasped into a serpentine arm into a pan of black powder. Once the powder ignited the arm fired. The matchlock musket had many disadvantages, the greatest of which was the use of a burning match to fire the arm. The matchlock was completely ineffective in mobile, woodland warfare as one could not "snap shoot" (i.e. quickly bring the weapon to bear, aim, and shoot at a moving target as someone using a flintlock could. Nevertheless, the matchlock continued to be used through King Philip's War most often by garrison troops who could use the long reach of a large caliber firearm to great advantage. [253]

The wheelock ignition system was developed after the matchlock and consisted of a spring-loaded arm in which a piece of iron pyrite was clamped. A serrated wheel was wound up with a key, known as a spanner, and when the trigger was pulled the wheel would spin on the pyrite creating a spark to ignite the powder in the pan. During King Philip's War, the wheelock was primarily used by mounted forces as it was safer and more reliable than other weapons of the day and could always be carried loaded and ready to fire.[254]

Flintlock arms employed an ignition system consisting of a flint and steel system. With the flintlock arm a pull of the trigger released a piece of flint screwed tightly between the jaws of the musket hammer snapped forward to strike the frizzen, or steel, which covered a pan of powder. When the flint hit the frizzen, a shower of sparks would fall into the now exposed pan which ignited the main powder charge in the barrel, firing the musket. Of all the musket designs the

[253] Harold L. Peterson, *Arms and Armor in Colonial America 1526-1783* (Harrisburg, PA: Stackpole Publications, 1956). Pp. 14-20; David Blackmore, *Arms & Armour of the English Civil Wars* (London, UK: Royal Armouries Publications, 1990). Pp. 68-69.

[254] Peterson, *Arms and Armor in Colonial America*. Pp. 22-24; Blackmore, *Arms & Armour of the English Civil Wars.* P. 50.

flintlock was the most effective and reliable weapon and, consequently, the one which the majority of English and Natives used.[255]

English colonial forces carried muskets (primarily flintlocks if they were operating in the field), as well as swords, hatchets, and knives, and powder horns and pouches. Full musket calibers, regardless of if they were a flintlock, matchlock, snaphaunce, or wheelock, usually ranged between .60 and .70 caliber and had four-foot barrels. Carbines usually had a barrel length of between two and three feet and usually ranged between .50 and .60 caliber. Regardless of the ignition system (match, flint, wheelock) smoothbore weapons had an effective range of 50-75 yards for shorter barreled weapons and a range of 100-150 yards for longer barreled weapons. Pistols, with calibers most often between .45 and -.55 caliber, only had an effective range between 30 and 50 yards.

Native Coalition

Native military tactics and technology had changed since the Pequot War when Native people had just begun to adopt European arms technology and had only a limited knowledge of English military capabilities. By 1670 Native men were well equipped with firearms, iron edged weapons, and brass-tipped arrows. They were not only skilled in the operation, repair, and care of firearms but were expert marksmen. Native men were very familiar with English military technology and understood English military training and tactics from years of working and residing in English communities. Some Native men may have even been enlisted in Massachusetts Bay trainbands as the General Council ordered that all Native men who either acted as English servants or resided in English towns were required to attend training days.[256]

Native enemy and allied forces were equipped with flintlock muskets, pistols, bows, short spears, knives, hatchets and powder horns or pouches in which to carry shot and powder. Native people had steadily acquired firearms in increasing numbers by the mid sixteenth century and were well armed when hostilities commenced in 1675.[257] There appears to have been a buildup of arms and ammunition by many Native communities in the years leading up to the war. The English observed an "accumulation of powder, shot, and arrows" by the Wampanoag who claimed that it

[255] Blackmore, *Arms & Armour of the English Civil Wars.* Pp. 32-38.
[256] Patrick M. Malone, *The Skulking Way of War: Technology and Tactics Among the New England Indians* (Lanham, MD: Madison Books, 1991). Pp. 50, 67-68.
[257] Malone, *The Skulking Way of War*. Pp.48-49.

was "a preparation against the Mohawks, but actually it was aimed at the English."[258] Native men were not only very experienced with firearms on the eve of the war, but many communities had blacksmiths who had the tools and knowledge to maintain and repair firearms.[259] Native blacksmiths also made bullet molds and cast lead bar into shot of various diameters but were not able to make gunpowder (nor could the Colonists, powder had to be imported from Europe). However, Native forces faced constant shortages of powder and shot throughout the war. Native allies of the English were either supplied by colonial forces or took powder and ammunition from enemies killed on the battlefield. Enemy forces relied on the Dutch, French or Native middlemen for their supplies or took them from English soldiers killed on the battlefield.

Native men also used bows and arrows throughout the war either as a weapon of stealth and surprise, to shoot fire arrows, or because they did not have enough firearms to arm every Native soldier. From various accounts it appears that Native Coalition forces had sufficient firearms to arm only one-third to one-half of their forces. Native arrow points were generally made from brass cut from brass kettles and while they could easily penetrate English clothing, they could not penetrate English buff coats unless fired at point blank range and were completely ineffective against armor. Native bows were most effective at a range of 40 yards to better aim and penetrate the weak spots in English armor or buff coats. The maximum range of Native bows was 120-150 yards if shot compass (at an arc) at a 45-degree angle. The bow and arrow may have been carried by all Native men as a secondary weapon when their supplies of power and shot ran out.[260] A single example of a southern New England bow survives picked up from the Sudbury battlefield during King Philip's War now in the collections of Harvard University. It is constructed of hickory, is approximately five and a half feet tall, and requires about forty-five pounds of strength to draw and fire.[261]

When King Philip's War began in the spring of 1675 the Pokanoket, Narragansett, and other tribes were well armed, and prepared to counter the English advantages in men, armor, and

[258] Leach, *Second William Harris Letter*. P. 23.
[259] Malone, *The Skulking Way of War.* Pp. 69-71.
[260] Peabody Museum of Archaeology and Ethnology Object Report, PMAE Number 95-20-10/49340; Karen Ordahl Kupperman, *Captain John Smith: A Selected Edition of his Writings* (Chapel Hill, NC; University of North Carolina, 1998). 144
[261] Peabody Museum of Archaeology and Ethnology Object Report, PMAE Number 95-20-10/49340; Karen Ordahl Kupperman, *Captain John Smith: A Selected Edition of his Writings* (Chapel Hill, NC; University of North Carolina, 1998). 144

firepower. Native forces often did so by laying ambushes, striking isolated English settlements, and launching coordinated, sustained, and innovative assaults on English towns. Native Coalition forces often attacked and laid siege to English towns for short periods of time killing or capturing any English who did not quickly retreat to the town's designated fortified house, and would routinely burn all the structures within the town and kill or take the livestock. They relied on the element of surprise and would decimate English units who could not react quickly enough to their tactics designed to separate and overwhelm the English. There were also many instances when Native forces had sufficient men, ammunition, and a tactical advantage to fight a sustained engagement against English soldiers. During the Battle of Great Falls, it appears that the vast majority of Native Coalition forces were armed with firearms based on the preponderance of expended lead shot and the lack of projectile points (See Appendix I).

Appendix IV – English Soldiers in the Battle of Great Falls

A HISTORY OF WILLIAM TURNER'S MARCHING AND GARRISON COMPANIES THROUGH EXAMINATION OF MILITARY PAY RECORDS

***By John S. Wilson, Senior Archaeologist/Historic Preservation Officer, Northeast Region, U.S. Fish & Wildlife Service (retired)*, 2020**

Introduction and Explanation of the Methodology:

The bedrock of this history is an extensive and intensive examination of military pay accounts originally set down by John M. Hull, Treasurer - at - War of Massachusetts Bay Colony from 1675 to 1678, as transcribed and published at turn of the previous century by a then well-known New England historian named George M. Bodge.[262] A veteran of the American Civil War, Bodge took an approach that was commonplace for regimental histories of that war, treating each company history as a separate narrative without consideration of whether the soldiers enrolled had seen previous service in earlier companies. In this new approach the author has substantially reconfigured Bodge's effort in an attempt to consider the military experience of individual soldiers upon the cumulative experience of the company. The core of the analytical process involved realigning Bodge's transcriptions of pay credits and translating each soldier's monetary pay into duration of service within each company, then tying those time ranges into known dates of events in which that company participated (ex.: the departure of MAJ Thomas Savage's Western Army from Marlborough on Feb. 29, 1676). The resulting database provides a considerably more precise estimate of company size at the time of a particular battle or campaign, determination of the company's location on a specific date and its speed of marching between locations, the level and quality of officer experience, and the proportion of veterans versus raw recruits. Those assessments may then be used to examine various aspects of command and control: including the company's probable morale in a particular period, its steadiness versus fragility under fire, as well as potential for commission of acts that would today be considered war crimes. All of which may, hopefully, provide a fuller and more accurate snapshot of combat operations during King Philip's War. A great debt is owed to George Bodge, not only for the diligence and accuracy of his transcriptions, but more significantly because his own tentative efforts to reconcile monetary payments with

[262] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), v – x.

broader company histories provided the direct inspiration for this approach.[263] I hope the current effort does some justice to his memory.

On the Battle of the Great Falls detachment roster provided below, each soldier's prior service in other companies or garrisons is listed sequentially under the names of those company commanders or garrison locations. Question marks obviously indicate uncertainties, usually minor in the case of dates. Specific residences are currently unknown for many of the original company, though we can safely assume that the majority were from Boston or its immediate surroundings (ex.: Cambridge, Charlestown, and Dorchester). The large number of soldiers later transferred into the company came from quite literally all over the colony, as their original companies had been raised in all corners of the colony. In most cases the residences of those soldiers are not revealed within records relating to Turner's company, but within records that relate to their service in earlier companies or garrisons. It should be noted that several other rosters of this type were produced in the course of this research effort, each providing a snapshot of company composition at various points in its relatively brief history (ex.: one showing its composition when first raised on Feb. 21, 1676 and another illustrating its composition upon arrival in Northampton 17 days later), but those have not been included here for sake of brevity.

A brief discussion of pay credit may be useful at this stage. The weekly pay rate of 6 s. to a common soldier (6 days at 10 d. and the 7th day at 1s.) calculates into an awkward per day rate of 10.29 pence.[264] Absent some sort of complex algorithm, any effort to determine how many Sunday pays at 1 s. were incorporated into a particular soldier's service would become very long and excruciatingly tedious. It has been found through repeated practice that assuming a rate of 10 d. and rounding up to the nearest full day provides a reasonably accurate estimate for any common soldier's duration of service, though not always his *precise date* of enlistment, transfer, or discharge. Confronted with those obvious challenges relating to pay rate of common soldiers, Bodge never attempted to determine any pay rates for officers, so those have also been estimated through repeated calculations (it should be noted that we do not know if officers also received a pay increase on the 7th day, a question that very likely also troubled the remarkably keen mind of George M. Bodge).

[263] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 45.
[264] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 45.

In consideration of the above issues, a plus or minus factor of 1-2 days appears advisable for many of the calculated dates of enlistment and discharge, most especially if a soldier served for many months between pay days as the range of error appears to be slightly cumulative. It is hoped that further refinement of the estimating process will clarify the issue. Further research would also seem worthwhile into pay rates of officers, as well as potential differences of pay within troops of horse, versus dragoons, versus foot companies. Also, the manner and extent of wound and death compensation, and the circumstances under which deductions may have been made for small acts of misbehavior (ex.: dereliction of duty or breaking of the Sabbath) or for lost and broken equipment, all common practice in European armies of the day.

Aside from determination of an individual soldier's duration of service in number of days, the resulting calculation of individual dates for start or end of service has proven extremely useful for discovery of the date on which a company was mustered or discharged (the direct historic record being often elusive as to one, the other, or both). It also helps in tracking a company's location on a specific day when such information is otherwise unrecorded. For example, Turner's date of arrival in Marlborough is not available in direct record but the calculated discharge date for 18 of his original soldiers confirms that the company must have arrived on the evening of Feb. 25, as all 18 of those men were discharged on the following day. Rate of marching can also be estimated through that process, which may in turn determine whether a company was mounted or on foot. Turner is documented as having arrived in Medfield late on Feb. 22 but his date of departure for Marlborough appears to be unrecorded. Taking his calculated date of arrival in Marlborough as Feb. 25 and considering that the minimal road distance between those two villages is 23 miles, we can say with considerable assurance that his company left Medfield on the morning of Feb. 24 and camped for one night on the road. Looking more broadly at mileages versus arrival and departure dates on the Bay Path, we find that the company's rate of travel ranged from a low of ca. 9 miles per day to a high of only 12 miles. On that basis, we can safely assume that Turner's soldiers were marching on foot during their entire journey from Boston to Hadley, also that most of the remainder of MAJ Savage's Western Army was also travelling on foot. That information, in turn helps to explain why Turner discharged 18 newly enlisted conscripts after only two days of marching. Most or all of them were probably unfit to march any further.

A Brief Biographical Sketch of William Turner

William Turner was born in Devonshire England in 1623, apparently emigrating at age 19 in 1642. A tailor by trade, he initially settled in Dorchester, married three times, was widowed twice, and produced several sons and daughters. In 1664 the family moved to Boston, where his business appears to have improved. A commonplace tale of 17th century middle class prosperity; but Turner's life would soon change in an unusually dramatic way. Despite his initial acceptance into Dorchester's Puritan congregation and presumably appearing a mainstream Puritan for the following 20 years, in 1665 Turner became a significant figure in establishment of the first Baptist congregation in the city of Boston. Religious conversion from one branch of Protestantism to another would barely attract notice today, but within the orthodox theocracy of Gov. Bellingham the simple act of holding a Baptist meeting was not only considered heresy, but also a form of treason. On July 31st of 1665 Turner and his entire family were legally banished from the colony, but rather than complying with that order he defiantly chose to accept a lengthy sentence to Boston gaol. Turner appears to have been an uncomplaining prisoner, and his passive acceptance seems to have been mistaken for remorse. As a result, he was released after only three months with expectation that he would now leave the colony. It was soon discovered that he not only had no plans to depart but had also defiantly resumed practice of the Baptist faith, having now become one of the most significant leaders of that congregation. Confronted with such unusual stubbornness and disobedience, the Puritan government saw no alternative but to really come down hard. Turner was again arrested on April 29, 1668, and not released until the summer of 1669. Still quietly defiant, Turner was arrested again in November of 1670. By this time, if not earlier, those very personal acts of quiet civil disobedience had inspired several other prominent Anabaptists to choose jail over banishment. Understandably admired and emulated by radical Baptist men and women, his example of personal martyrdom also touched the sympathy of more mainstream colonists. And several Puritan theologians on both sides of the Atlantic began to suggest that the Massachusetts Bay government take a more conciliatory approach toward religious dissenters, especially the prisoner William Turner. But Gov. Bellingham and his religiously conservative minority remained firmly against any compromise of any sort. It was not until Bellingham's death in December of 1672, followed by the election of John Leverett in May of 1673, that a slightly more tolerant government chose to release William Turner from his most

recent 2 ½ years in the familiar setting of Boston goal. Most of the previous seven years of Turner's life had been spent in a cold, damp, and vermin infested prison where his religious stand had become an all-consuming passion. It seems somewhat remarkable that in the following years Turner's mental state appears to have remained remarkably stable, his mind keen and his emotions surprisingly calm. But several authors suggest that the long terms of repeated imprisonment had caused irrevocable damage to his physical health which affected his performance on the Great Falls battlefield.[265]

THE UNITED COLONIES' SPRING OFFENSIVE: Failure has Many Recipes

In the weeks following the Dec. 19, 1675, storming of the fortified village in Rhode Island's Great Swamp it soon became clear to all colonial governments that the majority of Narragansett survivors had fled northwest into the ancestral lands of their Nipmuck allies, much as the Wampanoag had done in aftermath of the Pocasset Swamp fight. On Feb. 8, 1676 the War Council of the United Colonies, understandably fearful that spring would bring a renewal of attacks on the Connecticut Valley towns, enthusiastically voted to raise a new army of 600 soldiers, half from Massachusetts and half from Connecticut, with duel intent of engaging those retreating indigenous forces while also protecting the five surviving Massachusetts Bay Colony settlements in the Connecticut River Valley. The entire expedition would be directed by MAJ Thomas Savage, a politically popular officer with a combat record that completely belies his surname. Savage's first campaign experience had been as commander of the Massachusetts Bay contingent in the 1675 Mt. Hope expedition, during which his strategic and tactical decisions may be charitably described as both timidly ineffective and strikingly unimaginative. Now placed in command of an army with the conflicting missions of pursuing and engaging a highly mobile enemy while also protecting five widely dispersed settlements on a very distant frontier, it should be no surprise to discover that the 55-year-old major chose the more defensive mission as his top priority.

The War Council's fears of a renewed indigenous campaign quickly proved valid when the frontier town of Lancaster was hit by a very strong attack on Feb. 10, only two days after the army's mobilization order had been issued. Following an all too familiar pattern of "too little and too late" LT Edward Oakes' Troop of Horse was quickly sent to scout the frontier between

[265] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 232-234, & 254.

Lancaster and Medfield, where he of course found no sign of the enemy. On Feb. 15 CPT Samuel Mosley was ordered to re-raise his Company of Dragoons (4th in service since start of the war but now dominated by recently pressed men rather than veterans) and move to protect the equally vulnerable town of Sudbury. After less than a week in Sudbury Mosley's company was ordered to Marlborough, to become the initial combat unit of MAJ Savage's army. Most other units of the Massachusetts contingent appear to have not assembled until Feb. 21: a new Company of Foot nominally under MAJ Savage (commanded in practice by his son in law LT Benjamin Gillam, an officer with no prior campaign experience), and a new Troop of Horse under CPT John Whipple (who was later shown to be both incompetent and cowardly). The army also included six indigenous scouts accompanied by translator John Curtis. Despite having been specifically requested by MAJ Savage, the mere presence of a handful of Indians in an army sent to fight 'rebellious' Indians so aroused the xenophobic racism of CPT Mosley that he publicly disputed with his commander regarding their loyalty. One more newly raised Company of Foot would also be added before the end of that week. That final company, mostly composed of raw militiamen rounded up by the Boston area press gangs, would be under the significantly inexperienced command of a former militia Sergeant named William Turner.[266]

The Raising of Turner's Marching Company and a Chronology of its Campaign: Feb. 21 – April 12, 1676

Feb. 20, 1676: Despite his many years of mistreatment by the Puritan theocracy of Massachusetts Bay, at start of the war Turner proposed to raise an entire company of Anabaptists in proof of his own loyalty and that of others in the Boston congregation. That offer was declined, most likely because of the company's proposed composition, but by February of 1676 the winds of war had turned into a significant firestorm. Despite considerable reluctance, as most of his earlier volunteers had either become 'scattered' or far less enthusiastic, Turner was persuaded to accept a captain's commission in the army being raised by Major Thomas Savage for service in the Connecticut River Valley. Turner appears to have received that commission on Feb. 20. He was now 53 years old, a few years younger than most other militia captains, but had never held any higher rank than sergeant. His two eldest sons were at that time "common soldiers" in the

[266] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 97, 235, & 282 – 283; Douglas E. Leach, *Flintlock and Tomahawk: New England in King Philip's War* (New York, NY: W. W. Norton & Co., Inc., 1966), 161 -162.

Marlborough garrison. William, Jr., the younger of the two, left that garrison to enlist in his father's company.[267]

Feb. 21: Fate struck with a violent hand on the morning of Feb. 21 when a courier arrived in Boston with the frantic announcement that the frontier town of Medfield was under very serious attack. Turner's company was urgently assembled with the 64 soldiers who had so far been raised and sent to relief of that village. The company appears to have arrived in Dedham around sunset of the same day, still 10 miles short of Medfield after having marched approximately 11 miles.[268]

In his attachment to a letter dated April 25, 1676, Turner provided a complete roster of those 64 soldiers who "came out of Boston." Aside from a very serious shortage of what were simply called "soldiers," and possible absence of a drummer, the organizational structure is entirely typical for a 100-man Company of Foot: ten 'officers' in parlance of the time: captain (CPT), lieutenant (LT), ensign (ENS), 2 sergeants (SGT), 4 corporals (CPL), and a clerk (CLK). Aside from Turner himself the most senior of those officers was a Baptist of Turner's own congregation: LT Edward Drinker, a friend who had also endured imprisonment for his faith. There were probably a few other Baptist volunteers; and at least two servants of the Turner household (most likely employed in his tailor shop). One soldier, Ephraim Roper, appears likely to have volunteered out of a mix of personal revenge coupled with survivor guilt. Less than two weeks earlier he had been the sole person to escape from the famous attack on Lancaster's Rowlandson garrison house. His young wife and infant daughter had both been with him in that burning house and both had died there.[269]

Despite the above scattering of known or suspected volunteers, the majority of Turner's "common soldiers" (what we would now call privates) appear to have been pressed men from the county militia, the principal source of soldiers for nearly every company of that war. A significant factor affecting the morale of pressed soldiers was that they resented being conscripted into long and dangerous campaigns while other men in their militia company remained in garrison at home. Much of that unequal treatment was based on economic and social disparity; at least one of

[267] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 232-234, 237, & 254 -256.
[268] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 234.
[269] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 234 & 237.

Turner's original soldiers was an indentured servant forced to substitute for his master. It is unclear whether Turner's own servants freely volunteered or were forced to serve, though they probably felt little choice. Repeated impressment into multiple campaigns was another issue that created serious and understandable resentment. A rather shocking number of soldiers are recorded as serving in a succession of companies for more than a year and considering the dangers and privations of warfare in that age it seems very unlikely that all of that service was voluntary. In fact, it was not at all uncommon for a discharged soldier to experience only a few days of freedom before the local press gang forced him into some other company. Soon after most of Turner's original company was disbanded in Boston (Turner and a minority remaining in frontier garrison) two of his recently discharged soldiers are reliably recorded as having fled the colony to avoid being pressed into some other company for yet another campaign. It seems probable that there were actually more than two.[270]

Feb. 22: Turner's company left Dedham early in the morning and immediately fell victim to an opportunistic ambush, probably set by the same indigenous force that had attacked Medfield. No further details are provided in historic record, indicating that the exchange of fire was very brief, but one soldier named Robert Bryant was wounded so severely that he was immediately discharged and sent back to Dedham. Bryant's pay credits are of some interest as they reflect unusual governmental compensation for the wound he received on his very first day of service. In most cases a wounded soldier was only compensated through his last day of active duty, but on rare occasions we find wounded soldiers compensated as though they had served until the day their company disbanded. The rationale for such exceptional compensation remains unclear. Perhaps it was only applied when a wound was considered permanently disabling. Robert Bryant was paid all the way through April 14, the day on which Turner's original company appears to have been disbanded, a full 53 days after he was wounded. The fact that he performed no later military service may be some reflection of the seriousness of his injury.[271]

Once it became clear that the enemy had gone, the company regrouped and cautiously marched onward to Medfield, where a soldier named Nathan Adams was also discharged, having

[270] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 238-239.
[271] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 239 & 248,

somehow become very seriously ill. Another man named John Newton was also discharged in Medfield, having been "cleared" by a direct order sent from the Governor's Council.[272] Given the urgency of that action, the order presumably being delivered by fast courier, some political influence may have been in play.

Feb. 24: Turner's company appears to have departed Medfield on the morning of February 24. It then marched for a total of approximately 23 miles, camping for one night along the Bay Path, and arrived in Marlborough on the evening of Feb. 25. Turner's company was last to arrive at the rendezvous, on the same day in which MAJ Savage was officially placed in command of the Army.

Feb. 26: On its first full day in Marlborough Turner's company shed an additional 18 "cleared" men, reducing it to a temporary strength of only 44 soldiers. Bodge assumes that all of those "cleared" were pressed men who had suddenly and inconveniently completed their required term of service, but that appears very unlikely as Turner's original ensign was included in that group and more than half of the others appear to have seen no prior service of any sort. Most or all of them must have been released for some other reason, perhaps being found physically unfit after only six days of marching (a not uncommon situation for men who had been pressed into service). Most of those discharged soldiers were presumably from Boston or the towns that now constitute its immediate suburbs, but one man was from a part of Dedham that later became Walpole and two appear to have been from Sudbury. As both of those villages were then on the sharp edge of the frontier it may be understandable that the town governments offered up their least fit residents for colony-wide service, retaining the healthiest young men for local garrison duty. None of Turner's "cleared" soldiers saw any later service in any Massachusetts Bay Colony company, though they may perhaps have resumed duty in their county militia.[273]

Sometime during Turner's three days in Marlborough his most experienced combat officer, ENS Henry Timberlake, was unaccountably replaced by Edward Creek, an officer of militia artillery without any campaign experience. To bring his company up to strength, Turner was also provided with 47 "common soldiers" from the companies of CPT Samuel Wadsworth and LT

[272] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 239 & 248.
[273] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 239.

Nathaniel Reynolds. Wadsworth's company was one of several mustered-on Jan. 5, 1676 on Dedham Plain, thereafter serving in an entirely fruitless and logistically difficult campaign known as "The Hungry March." It joined the Marlborough garrison on Feb. 5 and on Feb. 10 had marched to the relief of Lancaster, successfully dispersing the attack in which Mary Rowlandson had been captured. Reynolds' company had spent the winter in garrison at Chelmsford. Despite that town's frontier location, it appears to have never experienced combat.[274] Those company histories may, however, be insignificant as it appears that the large number of their transferred soldiers had been pressed only 15 days before finding themselves in Turner's company. Considering that all of those men were so remarkably inexperienced, it is unclear whether they were selected for transfer because they were the most physically fit or because they may have been considered the most expendable.

Feb. 29: On this date the total force of Major Savage's Western Army, including Turner's considerably strengthened marching company, departed Marlborough for Brookfield (then known by the indigenous name of Quaboag). Turner's company now contained 89 soldiers, so it was near to full strength and included the full complement of officers for the foot company of the period, now definitely including a drummer.

March 3: After marching for four days and ca. 38 miles the army arrived at the Brookfield garrison where it rendezvoused with MAJ Robert Treat's forces from Connecticut totaling ca. 300 men including a substantial contingent of Mohegan and Pequot scouts.

March 4: The entire army now marched northwest in a very clumsy attempt to surprise the Nipmuck village of Wenimessit, approximately 10 miles away in the modern town of New Braintree. Turner now had 78 men, having left 11 "common soldiers" to strengthen the Brookfield garrison. Bodge's totals on p. 235 unaccountably omit these soldiers and his transcription of Turner's list on p. 240 fails to include John Glide among them.[275] Through context in Turner's April 25 letter it can be safely assumed that all of the 11 soldiers Turner left in Brookfield were

[274] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 219 – 220, 239 - 240, & 291.
[275] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 97-98, 118, 235, 240, & 357.

transfers from either Reynolds' or Wadsworth's company. They may have been found unfit to march further, comparably to the 18 soldiers left in Marlborough, but it was also very important to maintain strength in that garrison, as Quaboag was considerably the most vulnerable point on the entire Post Road between Boston and Hadley. In any case, we do not later see any of these 11 soldiers returned to Turner's company. Given the remarkably large size of his force, and probable noise associated with its movements, it should be no surprise that MAJ Savage found none of the enemy at Wenimessit. The indigenous scouts easily picked up their trail and mounted forces pursued the fleeing Indians for several miles northward but gave up when they reached the south bank of the Miller's River.[276]

March 5: After apparently camping for the night at Wenimessit, the entire army departed for the village of Hadley, ca. 35 miles to the west.

March 8: The army arrived in Hadley on this date and Turner's company was immediately sent across the river to defend the palisaded settlement of Northampton. Trumbull's History of Northampton appears perfectly accurate in saying that Turner's company had 89 soldiers when leaving Marlborough and left 11 in Brookfield so had 78 when it arrived there. On March 13 the Northampton garrison was further strengthened by Major Treat and two companies of Connecticut soldiers. The timing of their arrival turned out to be remarkably fortuitous.[277]

March 14: In a dawn attack that unaccountably surprised the entire garrison, many indigenous warriors managed to penetrate Northampton's flimsy palisade and began burning houses and barns before any general alarm could be raised. The table below conveys an accurate snapshot of Turner's original marching company at this moment in time. Of Turner's eleven officers only Sergeants Gilman and Knott had ever been in combat, both as veterans of the successful but costly and murderous Narragansett Fort campaign. Twenty -one "common soldiers" (27% of the company) appear to have also seen previous combat, though not always with positive results. Five

[276] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 97.
[277] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906),.235; James R. Trumbull, *History of Northampton, Massachusetts, from its settlement in 1654: Vol. 1* (Northampton, Ma: Gazette Printing Co., 1898) 305

are known to have run from a small ambush the previous November and several others were survivors of greater disasters that year.[278]

Considering the strength of Northampton's garrison, it is no surprise that the attacking force was quickly driven out, but the soldiers and settlers lost a total of 5 people killed. Only two of the dead were soldiers: James "Machrenell" of Turner's company (a Reynolds' company transfer of Scots birth or ancestry) and another named Increase Whetstone who was apparently in one of MAJ Treat's Connecticut companies. Five additional people are known to have been wounded during the attack, one probably being CPL Philip Squire of Turner's company. On March 17 Turner promoted a Marlborough transfer named John Newman to the rank of corporal, and Squire is the only one of the original four corporals to be discharged in this period. The remaining four wounded were presumably militiamen, Connecticut soldiers, or civilian non-combatants.[279]

Turner's Marching Company at the Defense of Northampton: March 14, 1676

RANK	***IN TURNER'S ORIGINAL COMPANY***	***MARLBOROUGH TRANSFERS***	***TOTALS***
CAPTAIN	William Turner		1
LIEUTENANT	Edward Drinker		1
ENSIGN		Edward Creeke/Crick	1
SERGEANTS	Ezekiel Gilman, William Parsons		2
CORPORALS	Thomas Barnard, Thomas Elliot, James Knott, ***Philip Squire (wounded)***		4
DRUMMER		John Chapple	1
CLERK	Thomas Skinner		1
COMMON SOLDIERS	32	35 ***(James Machrenell killed)***	67
TOTALS	41	37	78

Despite nine months of continuous warfare, combat experience was still surprisingly rare in the army of Massachusetts Bay, largely due to severe attrition that in turn required successive rounds of impressment.[280] By late autumn of 1675 all the marching companies contained a small core of veterans, but with each successive campaign those veterans, if they survived and remained

[278] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 55
[279] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 235 – 236
[280] Which could explain the large number of musket balls on some battlefields.

in good health, would immediately find themselves in an entirely new company filled up with newly impressed men (Samuel Mosley appears to have been the only commander who managed to retain a significant number from one campaign to the next). As result of those conditions Turner's company was now the most combat experienced of the four that had marched out from Marlborough, not because it had any significant number of veterans but simply because it was the only one that had yet seen any combat. Turner would soon receive a bitter reward for his successful defense of the Northampton palisade. In less than a month the company that he had personally raised, marched with for 100 miles, and now directed into combat would be thoroughly destroyed, not in battle with the indigenous enemy but because of a strategic decision made in Boston.

"THUS COMMITTING YOU TO GOD…" Abandonment of the spring campaign and Turner's effort to defend the settlements

Meanwhile, the already fragile situation along the eastern Massachusetts frontier had gone from bad to worse. The town of Groton was attacked three times in one week, resulting in its abandonment on March 18. On March 26 a raid on Marlborough led to that town's effective abandonment, though considering its role as a supply base a small garrison was maintained through the remainder of the war. Lancaster was finally abandoned after a second attack on the same day as Marlborough's. A considerable number of additional towns and garrisons were also attacked further east and south in Norfolk County, Plymouth Colony, and the mainland parts of Rhode Island. Perhaps most disturbingly, on the same fateful day of March 26 a full company of Plymouth Colony soldiers under CPT Michael Pierce was expertly ambushed and completely destroyed despite the experimental inclusion of 20 indigenous soldiers. With tales of defeat and disaster on every front, the general state of affairs in March of 1676 must have felt just like September of 1675.[281]

On the same date as Pierce's death and the Marlborough and Lancaster raids MAJ Savage received a pair of letters from the Governor's War Council. The first, dated March 14, conveyed that considering the recent attacks to eastern towns an anticipated reinforcement of 150 mounted soldiers would no longer be provided. The second letter, dated March 20, went so far as to suggest

[281] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 98 – 101; Douglas E. Leach, *Flintlock and Tomahawk: New England in King Philip's War* (New York, NY: W. W. Norton & Co., Inc., 1966) 165 – 168.

that the towns of Hatfield, Northampton, and Westfield should be completely abandoned; their settlers to be somehow lodged as refugees in Hadley and Springfield. A much more tangible blow fell on the same day as arrival of the War Council's letter. A party of 18 men, including a substantial detachment of Whipple's Horse, and a considerable number of women and children on their way to Sunday religious service was ambushed by only 7 – 8 raiders near the present town of Longmeadow. Rather than acting to protect the settlers, CPT Whipple and all of his soldiers fled in equally blind panic, an act of cowardice that resulted in the capture of two young mothers carrying infant children. A remarkably botched rescue attempt by the same troop of horsemen resulted in deliberate and very public murder of both infants and one of the women, the other surviving a hatchet blow to her head.[282]

Stung by the War Council's advice the Westfield settlers discussed evacuating to Connecticut rather than Springfield, as that colony seemed willing and able to provide better protection. Northampton's settlers not only asked for the 150-man reinforcement to be reconsidered but offered to pay and victual those additional soldiers, an offer that fell on deaf ears. The Connecticut government first advised the Westfield settlers to stay where they were but then produced an order for MAJ Treat's companies to march back to Hartford. By the end of March, the Valley's settlers had good reason to feel that they were being completely abandoned to a terrifying fate.[283]

The inevitable next step fell with a War Council letter that was perhaps appropriately dated April 1, though there was certainly nothing humorous in its content. It began by chiding the recalcitrance of the Hatfield, Northampton, and Westfield settlers for not abandoning their towns. It also dismissed Northampton's offer and reconfirmed that there would be *no* reinforcements. And concluded with the real bombshell: a very firm order directing MAJ Savage to immediately collect his army and march it eastward, after providing "soldiers to assist those townes not exceeding 150 men choosing such as are fittest for that service & and as neare as you can All single men Leaving Capt. Turner in Capt. Poole place." Though actually directed toward the well-being

[282] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 282 – 283.
[283] Douglas E. Leach *Flintlock and Tomahawk: New England in King Philip's War* (New York, NY: W. W. Norton & Co., Inc., 1966), 169 – 170.

of MAJ Savage, the piously formulaic closing words of the Council's letter sound today like the pronouncement of a death sentence: "Thus committing you to God…".[284]

The letter further ordered MAJ Savage to "endeav'r in ye returne to visit ye enemy about Bacquake (the vicinity of present-day Athol, MA where a strong indigenous army was rumored to be gathering) & bee careful not to bee Deserved by ye lapwing stratagems: by drawing you of from yr nest to follow some men" (a very convoluted way of saying: "Don't let yourself be decoyed into an ambush!"). The letter went on to advise that if MAJ Treat's Connecticut companies miraculously returned he could instead attack the other indigenous force already known to be camped at the Falls above Deerfield. It then turned round and re-advised "but if ye Conetect men returne not or after a returne draw of [off] again then or [our] expresse order is to bee upon yor march homewards & in ye returne to endeavor to visit the enemy as in or passed (our previous directive) was expressed" (so back again to "Backquake"). The finale of all those alternative instructions reads: "If you should not meet with the enemy then we order you to retreat to Marlborow and wait there for further orders." Presented with that long series of very explicit and highly detailed alternatives, also reluctant to march his still inexperienced soldiers into either of those two unmapped wildernesses, it should be no surprise that the ever - cautious major simply marched his army straight back to Marlborough. He there explained that his soldiers were too sick and ill supplied to have detoured toward "Backqake," nor to accomplish anything further. MAJ Savage was then politely discharged from further duty, along with all the rest of his army. Neither LT Drinker nor any of the other 44 soldiers from Turner's marching company would ever see any further service in the remainder of the war. Those left behind in the Valley would have a very different experience.[285]

The Formation and Composition of Turner's Garrison Company: April 7, 1676 (Total = 220 men) = CPT, 6 SGTS, 4 CPLS, Drummer, Clerk, & 207 Common Soldiers dispersed among five different garrison towns

On the morning of April 7, 1676, MAJ Savage's army departed for Marlborough, taking with it LT Drinker and 44 other soldiers of Turner's marching company. In the few days prior to

[284] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 98.
[285] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 98 – 99.

the army's departure, Turner had been charged with command of a new garrison company composed of his own 31 remaining soldiers together with a much larger number who had either previously been in other companies of Savage's force or else spent the winter in local garrisons under the command of CPT Jonathan Poole. On basis of a roster written in Turner's own hand on April 7, 1676, George Bodge made an understandable but false assumption that the newly formed Garrison Company contained a total complement of 153 soldiers: 50 in Hadley, 9 at the North Hadley Mill, 43 in Northampton, 41 in Hatfield, and 10 "sent to Springfield." Elsewhere in his text, Bodge unaccountably contradicted the details of his own transcription, saying there were only 151 soldiers in total: 51 in Hadley rather than 59 including those at the mill, 46 rather than 43 in Northampton, 41 rather than 45 in Hatfield, and 9 rather than 10 sent to Springfield.[286]

In actuality those minor discrepancies are of little significance, as the record of pay credits firmly documents that Turner had a total of not 150 but 220 soldiers in garrison. The 70 additional soldiers ***not*** reported on his April 7 roster were all stationed in the towns of Springfield and Westfield. Their absence from Turner's roster is best explained by his use of the words "Sent to…" in describing ten soldiers added to Springfield's garrison, while the other 140 on that roster were consistently listed as "Soldjers at" Hadley, Hatfield, or Northampton. It may appear baffling that Turner would neglect to report on the presence of those 70 additional soldiers. He certainly would not have forgotten that he had any soldiers in Westfield, and it would have been very strange to have stationed no more than ten soldiers in the important settlement of Springfield. The best explanation, unlikely as it may seem, was that CPT Turner and MAJ Savage colluded in deliberately concealing the presence of those 70 additional soldiers, a number that they both felt necessary for defense of the Valley but also the sort of number that the Governor's Council was firmly on record as considering excessive. Turner also neglected to report the presence of any garrison in the significantly vulnerable settlement of Westfield. Both CPT Turner and MAJ Savage may have feared that the War Council would order Turner to immediately remove that garrison, as the March 20 Council letter had recommended complete abandonment of that town. This seems to be one of many situations throughout history in which commanders on scene

[286] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 101, 237-238, and 240-241.

willfully ignored direct commands from some distant war council, sincerely believing they better understood the strategic situation within their own theatre of operations.[287]

The Commissioning of New Officers:

That letter ordering MAJ Savage's army to return east was signed on April 1, the minimal road distance between Boston and Hadley is at least 90 miles. A fast courier with horses would have needed at least two days, more likely three, to cover that distance. The most significant result of that passage of time was that it left Turner with only three to four days in which to organize a new company before his trusted lieutenant would march away, taking with him nearly 2/3 of his old company and almost all its other officers. It seems unlikely that Turner had any control over which officers stayed and which ones left, as the only ones who remained with him on April 7 were two Marlborough transfers: his drummer John Chapple, and a soldier named John Newman whom he had promoted to corporal on March 17. He also had SGT John Lamb in the Westfield garrison, a man who had soldiered under CPT Poole since the previous autumn. Aside from Turner himself, one sergeant, one corporal, and a drummer were clearly not enough to provide command and control for a company at twice the maximum strength of a marching company and scattered among five garrisons divided by a broad and unbridged river. Turner understandably promoted CPL Newman to sergeant; perhaps his first and easiest decision, Newman very likely having distinguished himself in the defense of Northampton. He also "took in exchange" a sergeant from one of the other companies that would soon march homeward: John Throp (variously spelled; probably Throope or Thrope in modern orthography). Throp was also an excellent choice as he had been a closely trusted sergeant and courier in the company of Major Samuel Appleton during both his western campaign of the previous year and in the subsequent Narragansett campaign. The soldier that Turner exchanged out was another Marlborough transfer, a "common soldier" named Philip Matoon who soon returned to the company and was present at The Falls Fight.[288]

Turner also promoted eight common soldiers, having little choice but to do so! One was from the remains of his old company and the other seven were soldiers that had been serving in other companies and were now left behind. That total still gave him only 13 officers to control a

[287] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 98.
[288] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 151 152, 236, & 239.

garrison company of 207 soldiers, just two more officers than ordinarily prescribed for a marching company of 100 men. Turner chose not to promote anyone to lieutenant, second in command of a normally constituted company, probably thinking that it was a position too high for any available candidate.[289] He instead provided himself with four additional sergeants, one of whom would soon be promoted to ensign. That remarkably unusual company organization of a single senior officer directing six sergeants made excellent sense for a garrison company intended to be split into 'penny packets" in defense of five widely separated settlements. A company organization that would have been disastrous for a marching company intended to campaign aggressively. The first of the newly promoted "common soldiers" had been serving with Turner ever since his company was raised, so may have been an easy choice. But it must have been difficult to decide who among the many others of equivalent rank to select for the other seven positions, a decision that could only have been based on recommendations by the three departing company commanders. Turner had no choice, and no choice but to act quickly.

CPT Poole appears likely to have played a significant advisory role. Not just because the Governor's War Council explicitly stated that Turner was to replace Poole as garrison commander, nor because most of Turner's promotions would turn out to be from Poole's company, but also because he and Turner had significant commonality of experience. In mid - November of 1675 Poole had been the least experienced company commander in MAJ Appleton's Western Army, having arrived more than a month after all the other commanders and having also been just recently promoted from lieutenant. As the Narragansett Swamp campaign was already being planned, and all the other commanders were both of longer service and more knowledgeable of woodcraft, Poole's recent promotion and lack of field experience best explains his being left to command all the five surviving Connecticut Valley garrisons. In April 1676 it was now Turner who had the least time in rank and least experience. And he was also now placed in the same situation as CPT Poole five months earlier. In those frantic few days prior to accepting his new command it is tempting to imagine that Turner consulted Poole more than any other colleague.

Turner's first and easiest promotion was probably his new clerk, a man named Richard Francis who had been transferred to his company as a 'common soldier' on February 29. Presumably gifted with decent penmanship and some sort of accounting background, a company

[289] Lieutenant Samuel Holyoke, Turner's second in command in the Battle of Great Falls/Wissatinnewag-Peskeompskut was already a Lieutenant in Springfield's militia company.

clerk was routinely exempted from patrol or guard duties and not ordinarily expected to serve in combat. Turner's second promotion was probably SGT Isaiah Tay (Toy, or Toye), as he had been an original "common soldier" of Turner's own company. Tay appears to have had no prior combat experience but may have been promoted due to some act of bravery in the defense of Northampton. Disregarding any such speculation, Turner certainly must have considered Tay a soldier of exceptional ability as on some date between April 25 and May 18 he was further promoted to the rank of ensign, bypassing the considerable seniority of Throp and lesser seniority of Newman. Tay's startlingly rapid elevation in rank placed him second in command of Turner's company and third in command at the Falls Fight, quite a jump in responsibility for a "common soldier" who prior to the first week of April had presumably shown little potential to become any sort of officer. Aside from his command responsibilities an ensign was also charged with carrying and protecting the company colours (a flag typically measuring 5 - 6 feet on each side), which made bravery a prerequisite as the carrier became an exceptionally conspicuous target. There is no specific record that the colours were carried into battle at The Falls, but in context of 17th century military tradition it seems very probable. Adding to the mystery of his promotion, ENS Tay's personal actions during the Falls Fight remain entirely unrecorded.

Newly promoted SGT Roger Procer was considerably the most combat - experienced officer in Turner's new company. Procer had been a "common soldier" under CPT Daniel Henchman at the very start of the war, then under CPT James Oliver at the horrific storming of the Narragansett fort (another battle that may be considered a "massacre" from any reasonable viewpoint). His most recent service had been under the command of a violently racist, remarkably insubordinate, perhaps even sociopathic dragoon commander named CPT Samuel Mosley (usually spelled Mosely, though Mosley is more accurate phonetically), whose recommendation might have felt like a mixed blessing to a man such as Turner. Considering Procer's substantial combat experience it is mildly surprising that he did not take part in the expedition to The Falls, either voluntarily or under an order from Turner.

The final man among the three "common soldiers" appointed to sergeant was Robert Bardwell, who had been left behind by Poole's company. Although he may have somehow distinguished himself at the defense of Hatfield in October, Bardwell was not nearly as combat experienced as Procer. And as a recent immigrant from the urban environment of London his knowledge of landscape and any sort of woodcraft was probably negligible. He had probably

volunteered to stay behind, having already formed strong connections with Hatfield residents while serving in defense of that settlement. Bardwell settled there after the company was disbanded, married into one of its families, and became a very prominent citizen. Those personal connections with Valley settlers may best explain why he was the only sergeant who went to the Falls Fight, almost certainly volunteering for the mission. The four new corporals were more of a mixed bag, though three of them had also wintered in garrison under Poole. Joseph Hartshorn had begun his service in CPT Richard Beers destroyed company and Robert Simpson and John Wildes under MAJ Samuel Appleton. The fourth corporal, Samuel Lane, had arrived in some other company of Savage's army and appears to have had no significant experience of combat. It is somewhat surprising that none of those four corporals went to the Falls, as command and control of the garrison company detachment might have benefitted by having just one more officer there.

GARRISON TOWN	***CAPTAIN***	***SERGEANT***	***CORPORAL***	***DRUMMER***	***CLERK***	***COMMON SOLDIER***	***TOTAL***
Hadley	Turner	Thrope & Newman	Hartshorn & Simpson	Chapple		51	57 (25 %)
Hatfield		Bardwell	Lane			39	41 (19 %)
Northampton		Tay	Wildes			41	43 (20 %)
Springfield		Prosser			Francis	35	37 (17 %)
Westfield		Lamb				14	15 (7 %)
Springfield *or* Westfield						27 (7 in Springfield ?) (20 in Westfield?)	27 (12 %)
TOTAL	1	6	4	1	1	207	220

The result of all those promotions left Turner's Garrison Company with the following configuration on April 7, 1676:

Although we know specifically that there were at least 37 soldiers stationed in Springfield and at least 15 more in Westfield, there are 27 additional soldiers who may have served in either garrison. During the previous winter CPT Poole had stationed 41 soldiers in Springfield and 31 in Westfield. If the proportions remained similar on April 7, Turner would have placed approximately 44 soldiers (20 % of his total) in Springfield on April 7, 1676, and 35 (16 %) in Westfield. As the strategic relationship between Springfield and Westfield was essentially

unchanged, those estimates may be fairly close to the reality. In any case, the estimated 35 soldiers in Westfield seems a reasonable minimum for any garrison at that time.[290]

Despite being very differently officered than a standard marching company, and still insufficiently officered for a force of double the usual size, the garrison company that William Turner constructed and staffed within the course of only 2 -3 days was very well suited for its purely defensive role: a sergeant to command each of the five garrisons and four corporals to assist in the largest garrisons. It seems probable that very soon after April 7 either Hartshorn or Simpson was sent to assist SGT Prosser in Springfield, though we have no direct evidence of that. The company clerk was in safe quarters at the least threatened settlement. And SGT Thrope and Drummer Chapple were stationed at Turner's headquarters in Hadley, well posted to directly assist Turner as he made his rounds of inspection within the defensive perimeter. That configuration provides the strongest direct evidence that through the first week of April there was not yet any plan to attack the indigenous encampment at The Falls, nor to take any other sort of aggressive action. All of which is unsurprising considering Turner's stated mission: the defense of five small settlements having negligible fortifications and divided by a wide and unbridged river.

NIGHT OF THE PLANTING MOON: "Now is the time to distress the enemy" - Rev. John Russell

The Valley became surprisingly peaceful throughout the month of April and into the first half of May, partly due to a sudden flurry of hostage and peace negotiations, but mostly due to more urgent priorities. Planting season had begun; an essential part of the annual round for most families on both sides of the war. The colonists in the Connecticut Valley began warily tilling their fields, a few here and there being ambushed and killed in the process. The indigenous nations also began to plant the traditional "three sisters" (maize, beans, and squashes) in more secluded locations, often very far from their traditional homelands. Many of them, mostly Narragansett and Nipmuck war refugees, had collected around the 'Upper Falls' of the Connecticut River (also known to local settlers as Deerfield Falls or simply "the Falls"), partly because it was close to the fertile plains of abandoned Northfield and Deerfield, but more especially for the ancient purpose of catching and drying anadromous fish. With most of both New England populations briefly

[290] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 152.

engaged in peaceful activity, a path to peace could perhaps also have been found, but local events intervened.

On the indigenous side a remarkable number of 70 cattle and horses were stolen from Hatfield meadow and driven to the abandoned meadow in Deerfield for later consumption at the Falls. Earlier in the war the theft of that much livestock would have only caused the settlers to hunker down in fearful defense, but at this point in its blood - filled history they had quite enough of indigenous harassment, not just harassment but a continuing cycle of arson and murder that continued to plague every community. In modern context the indigenous forces may with some justice be viewed as guerilla rebels fighting desperately against an oppressive colonial power, but the view from colonist side was quite the opposite. The contrast may be best summed up with a well - known phrase: "One man's freedom fighter is another man's terrorist."

A second trigger to action was provided by the sequential arrival of two young settlers and a soldier, each of whom had been individually captured and individually escaped from the fishing encampment at the Falls. The soldier and one of the settlers both conveyed that the encampment included many women, children, and old men but relatively few warriors. The other settler more disturbingly, but less precisely, conveyed that there was a very large encampment and the young men there were planning more attacks. Guerrilla warfare invariably produces civilian casualties, and counter- insurgency is frequently an excuse for genocide. From the perspective of those colonists, they hoped to strike a single blow that might put an end to their families' continual suffering. From indigenous perspective they were about to embark on the sort of military action that could very easily slip into a textbook example of military genocide, as would soon prove to be the case.[291]

An April 29 letter to the General Court fully outlines the plan of attack, the first solid evidence that any sort of attack was being contemplated. Though co-signed by Turner and several militia officers, its frequent invocation of religious metaphor reveals the principal author as Rev. John Russell of Hadley, a Puritan clergyman especially known for his strong opinions on not only religion and politics but also military tactics and strategy. The letter conveys a strong impression of both the nearness and supposed weakness of the enemy encampment, also specifically proposing a night march and pre-dawn attack. The letter dwelledat length upon the great local

[291] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 238 & 244

enthusiasm for such an attack. And it accurately suggested that driving the indigenous families from their fishing spot would deprive them of needed food supplies, also dividing the indigenous army and its supporting civilians into smaller groups that could be more easily attacked in the future. No reply of any sort is recorded from the Governor's War Council, and no reply appears to have been expected.[292]

Despite being a co-signatory of the letter there are several indications that CPT Turner was a reluctant participant in the plan, as he suggested in writing that the number of warriors at The Falls was probably being underestimated. Turner was also in such ill health that he had requested his own replacement in a letter dated only four days earlier, further suggesting that a considerable number of his soldiers had been in such long service that they also deserved to be sent home. He also pointed out that his soldiers were woefully short of clothing including shoes, an item essential to any military force in those days. Nonetheless, all the militia commanders appear to have been very keen on their attack plan. Despite being commander of all garrison forces in the Valley, Turner was in no position to veto such substantial militia action. He was also obviously expected to contribute soldiers to the enterprise, and it would have been militarily dishonorable to not himself lead the expedition. Having co-signed the letter, Turner now had several important decisions to make: deciding how many of his officers, and which ones, should accompany him on the expedition, how many soldiers could be safely drawn out of each garrison, and whether to have those men handpicked by their garrison commanders or instead ask for volunteers (he appears to have taken the latter approach). But he still had plenty of planning time as there would not be a full moon until the night of May 18th, and a full moon would be essential for the long march along narrow trails. By cruel irony the full moon of May was then traditionally, and remains for Algonkian nations, a time of joyful feasting in anticipation of a fruitful new year – the Night of the Corn Planting Moon. This year's Planting Moon would be very different.[293]

THE DISTRIBUTION AND FATE OF TURNER'S FORCES ON MAY 18 - 19, 1676

As the total attack force consisted of two military units under CPT Turner's overall direction (a detachment of his Garrison Company and a company strength detachment of the Hampshire County Militia Regiment), the presence of ENS Tay and at least one sergeant was

[292] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 242
[293] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 238

essential for command and control of the Garrison Company detachment. Tay was probably not given the choice of volunteering or declining to go on the expedition, though considering promotion history he almost undoubtedly volunteered. Turner did have a choice among five sergeants of roughly similar campaign experience, so he may have asked for a volunteer rather than simply selecting one of them. In any case, it is unsurprising to see Bardwell as the sergeant for this expedition. He was a landless immigrant who over the course of the preceding seven months had formed strong emotional connections with the frontier settlers of Hatfield, while Turner's other four sergeants were established Massachusetts Bay residents who had families awaiting their return. Considering personal history, it seems very likely that Bardwell volunteered; also, understandable that the other four sergeants would not have considered volunteering.

SUMMARY TABLES OF THE DETACHMENT OF TURNER'S COMPANY AT THE FALLS FIGHT: May 19, 1676

GARRISON TOWN	***CAPTAIN***	***ENSIGN***	***SERGEANT***	***GUIDE***	***COMMON SOLDIERS***	***TOTALS & TOTALS OF CASUALTIES***
Hadley	***William Turner (Killed)***			Thomas Read	16 men ***(5 killed & 2 wounded)***	18 (27 %) (26 % of total casualties, 39% of garrison contingent)
Hatfield			Robert Bardwell		4 men ***(1 killed & 2 wounded)***	5 (8 %) (10 % of total casualties, 60 % of garrison contingent)
Northampton		Isaiah Tay			16 men ***(10 killed)***	17 (26 %) (32 % of total casualties. 59 % of garrison contingent)
Springfield & Westfield					26 men ***(6 killed & 4 wounded)***	26 (39 %) (32 % of total casualties, 39% of garrison contingent)
TOTAL & TOTAL OF CASUALTIES	***1 killed***	1	1	1	62 men ***(22 killed, 8 wounded)***	66 (47 % casualties for the entire detachment)

In the above table it becomes clear that the percentage of casualties in Hadley and Hatfield garrisons reflects their proportional contribution to the detachment. That seems unsurprising as the detachment began retreat as a single formation rather than groups of separated garrison units. But the percentage of casualties in the Northampton garrison is noticeably greater than its percentage of the total, and the casualty percentage in Springfield and Westfield garrisons is

somewhat less than their contribution to the total (the relative numbers of soldiers in those two garrisons are not discoverable in record, only the total of both together).

The within-garrison casualty rate for Hadley and Springfield/Westfield garrisons are identical despite the difference in actual numbers of soldiers, which also makes sense. Northampton's within-garrison rate is surprisingly high, as is Hatfield's (though there is little statistical significance to the loss of three soldiers in a five-man contingent). It can be reasonably assumed that soldiers of the same garrison advanced side by side in the attack and tried to maintain group cohesion thereafter. In that light, the apparent difference between Northampton and Springfield/Westfield garrison contingents may reflect especially heavy fire against the Northampton contingent at some moment in the retreat, the Springfield/Westfield garrison soldiers coincidentally escaping such a fate. Differential combat experience and/or variations in group cohesion may have also played some role, and effectiveness of command and control probably played the greatest role. The former may be a worthwhile subject for further investigation, but the latter would be difficult considering the overall shortage of officers. We really do not know which garrison contingents were nearest to Turner, Tay, or Bardwell at any time during the retreat. It would seem intuitive that the Hadley garrison's soldiers would have sought proximity to Turner, the Northampton soldiers to Tay, and the Hatfield soldiers to Bardwell. And all three contingents may have started out that way by plan. But by the time their retreat reached the Green River Ford any such cohesion may have completely broken down and all three of those officers may have moved around quite a bit.

ENLISTMENT ORIGIN	***CAPTAIN***	***ENSIGN***	***SERGEANT***	***GUIDE***	***COMMON SOLDIERS***	***TOTALS & TOTALS OF CASUALTIES***
Original company & Marlborough transfers	***William Turner (killed)***	Isaiah Tay			8 men ***(3 killed, 3 wounded)***	10 (15 %) (23 % of casualties, 70 % of this enlistment category)
Transfers from CPT Poole's winter garrisons			Robert Bardwell		21 men ***(7 killed, 2 wounded)***	22 (33 %) (29 % of casualties, 41 % of this enlistment category)
Transfers from MAJ Savage's Spring army				Thomas Read	33 men ***(12 killed, 3 wounded)***	34 (52 %) (48 % of casualties, 44 % of this enlistment category)
TOTAL & TOTAL OF CASUALTIES	***1 (killed)***	1	1	1	62 men ***(22 killed, 8 wounded)***	66 (47 % casualties for the entire detachment)

The percentage of casualties for the two broad categories of Poole and Savage transfers appear to have little bearing overall, as both are very close to their percentage of the detachment. And the percentage of casualties within each of those two categories is also very similar, despite considerable difference in the numbers of soldiers both present and killed. That is a somewhat surprising result as most Poole veterans had significantly more combat experience than most of the Savage transfers. Put simply though: a veteran has no advantage over a raw recruit when both are simply fleeing the enemy. And from that man's perspective they are equal opportunity targets.

The proportion of casualties from Turner's old company is also not dramatically higher than its small proportion of the detachment. But the casualty rate within that smaller and narrower group is remarkably high. That 70 % rate may simply reflect small sample size but might also reflect the probability that those 8 – 10 soldiers formed a sub-group of long-serving comrades that at some moment came under especially devastating musketry (and if Turner or Tay were near or among the remaining eight, they would doubtless have drawn a significant amount of fire). A worthwhile future effort would be to examine the possibility that some of the soldiers in the "Poole" and "Savage" groups shared similar affinity and retreated as identifiable sub - groups (ex: neighbors and relations enlisted from the same town or veterans of a previous company who were stationed in the same garrison). It might also be informative to look more closely at the character of combat experience throughout the detachment (experiences that ranged all the way from cowardice in an ambush to storming of a fortified village) in search of more finely grained patterns relating to individual death or survival.

A COMPLETE ROSTER OF THE DETACHMENT OF TURNER'S GARRISON COMPANY AT THE FALLS FIGHT: May 19, 1676 (Total = 66 men) = CPT (killed), ENS, SGT, & 63 Common Soldiers including ex-captive Thomas Read (23 killed & 8 confirmed wounded, probably a few more)

Note: *Soldiers on this roster are shown in **bold red italics** if killed and **bold purple italics** if wounded.*

NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
6 Men of Turner's Original Co. =						

9 % (2 killed & 3 wounded)						
NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Turner, William CPT	***Hadley***	***Turner = 06/06/06 (partial payment)***	***43***	***2/21 - 4/3/1676 + 4/4 – 5/19/76 Killed***	***Turner – 8/24/1676***	***Boston***
Mann, Josiah (fled an ambush on 11/9/1675. See note)	***Hadley***	***Henchman = 00/17/02 Turner = 03/13/08***	***21 89***	***11/2 – 11/22/75 2/21 - 5/19/76 Killed***	***Henchman – 11/30/75 Turner – 8/24/1676***	***Boston***
Jessop, Phillip (with Henchman in Mt. Hope. See note re. identification of the wounded)	***Hadley***	***Henchman = 01/06/06 Turner = 03/13/08***	***32 89***	***6/24 – 7/25/1675 2/21 – 5/19/76 Discharged wounded***	***Henchman - 8/27/1675 Turner - 8/24/1676***	***Boston vicinity?***
Roper, Ephraim (a refugee from Lancaster. See note)	***Hadley***	***Turner = 04/10/10***	***109***	***2/21 – 6/8/1676***	***Turner - 6/24/1676***	***Charlestown, was in Lancaster***
Tay/Toy, Isaiah ENS (a Dutch surname; promoted to SGT by Turner on 4/7, & then to ENS sometime after 4/25/1676)	Northampton	Turner = 02 04 06 Hadley = 05/11/00	46 40? 32?	2/21 – 4/6/1676 4/7 – 5/17? /1676 SGT 5/18? – 6/18? /76 ENS	Turner – 6/24/1676 Hadley – 7/24/1676	Boston
Cheevers/Cheever, Richard	***Springfield or Westfield***	***Turner = 03/12/10***	***88***	***2/21 – 5/18/1676 Discharged wounded***	***Turner – 6/24/1676***	***Probably Cambridge***
4 Marlborough transfers = 6 % (2 killed)						
Griffin, Joseph (his dates in garrison are unclear; his spring service *may* have begun on or before 1/5/76. See note)	Hadley	Mendon = 02/04/06 & 04/07/09 Hadley = 07/16/00	54 106 188	7/15? = 9/6/1675 9/7 – 12/20 1675 2/15? – 2/28/1676 2/29 – 8/20/1676	Mendon garrison - 10/19 & 12/20/1675 Reynolds or Wadsworth Hadley – 9/23/1676	Roxbury
Veazy/Veze, Samuel (with Henchman in Mt. Hope, then with Mosley in Nipmuck country)	***Northampton***	***Henchman = 02/07/09 (includes Mosley) R or W = roster Turner = roster***	***58***	***6/24 – 8/7/1675 8/8 - 8/20/1675 2/15? – 2/28/1676 2/29 - 5/19/76 Killed***	***Henchman – 8/21/1675 Mosley Reynolds or Wadsworth Turner***	***Braintree***

NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Walker, John (Initially in a supply train under LT Cutler, with Watson & John Jones. See note for Watson)	***Northampton***	***Cutler = 00/09/04 Sill = 01/10/10 R or W = roster Turner = roster***	***12 37***	***10/12 - 10/23/75 10/24 – 11/29/1675 2/15? – 2/28/1676 2/29 - 5/19/76 Killed***	***Cutler = 9/23/1676 Sill - 8/24/1676 Reynolds or Wadsworth Turner***	***Charlestown***
Mattoon/Mattoon, Philip (age 24, Scots Huguenot; in autumn & Narragansett with Appleton, then R or W, & finally Turner)	Northampton	Appleton = 02/10/06 & 02/15/08 Northampton = 08/02/00	61 67 194	9/21 – 11/20/1675 & 11/21/75 - 1/26/1676 1/27 – 2/28/1676 2/29 – 8/7/1676	Appleton – 12/10/1675 &6/24/1676 Northampton – 9/23/76	? (later of Springfield & perhaps Hadley)
22 Who wintered with Poole = 33 % (7 killed & 2 wounded)						
Newbury, Tryall (See note re. his service sequence and credits)	Hadley	Hadley = 14/08/00	346	8/5/75 - 7/16/1676	Hadley - 7/24/1676 (includes Beers/Sill)	Boston
Watson, John (see note)	***Hadley***	***Cutler = 00/14/00 Poole = equipment Turner = roster***	***17***	***10/7 - 10/23/1675 10/24/75 – 4/6/1676 4/7 - 5/19/1676 Killed***	***Cutler – 6/24/1676 Poole – 12/10/1675***	***Cambridge***
Chamberlain, Benjamin (brother of Joseph; See note)	Hadley	Poole = 03/13/08 Hadley = 06/12/00	89 159	9/20? – 12/20/1675 12/21/75 – 6/24/76	Poole - 12/20/1675 (may include Beers/Sill) Hadley - 6/24/1576	Hingham? (Later of Hadley & Colchester, CT)
Chamberlain, Joseph (brother of Benjamin. See note)	Hadley (mostly in Westfield)	Poole = 01/04/00 Westfield = 14/08/00	29 346	8/5/75 – 9/3/1675 9/4/75 – 8/14/1676	Poole – 1/25/1676 (Beers/Sill pay) Westfield – 8/24/1676	Hingham? (later Hadley, Hatfield, Colchester, CT)
Pratt, John	Hadley	Hadley = 16/15/00	402	8/5/75 - 9/9/1676	Hadley – 9/23/1676 (includes Beers/Sill)	Malden
Poole, Benjamin	***Hadley***	***Hadley = 09/18/00***	***238***	***9/24/75 – 5/18/76***	***Hadley – 8/24/1676***	***Weymouth***

				Mortally Wounded		
NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Bardwell, Robert – SGT (age 28) (4/7 promoted to SGT by Turner)	Hatfield (mostly in Hadley)	Upham = 02/02/00 Hadley = 16/07/00	51 145 123	9/24 – 11/13/75 11/14/75 – 4/6/1676 4/7 – 8/6/1676 SGT	Upham – 12/20/1675 Hadley - 9/23/1676	A recent London immigrant (later of Hatfield)
Jones, John (Discharged wounded)	***Hatfield***	***Cutler =00/09/04 Poole = 06/18/00 Turner = roster***	***12 166***	***10/12 - 10/23/75 10/24/75 - 4/6/76 4/7 - 5/19/1676***	***Cutler - 7/24/1676 Poole – 3/24/1676 Turner***	***Cambridge***
Smith, Richard (See note re. his Mt. Hope duty)	Hatfield	Ammunition Guard = 00/03/00 Hatfield = 14/15/00	4 354	Late summer of 1675 8/5/75 – 7/24/76	Commissary - 9/14/75 Hatfield – 9/23/1676 (includes Beers/Sill)	Salisbury (a part of "Almsbury")
Burton, Jacob	***Northampton***	***Credited to Salem = 10/02/02***	***243***	***9/20/75 – 4/6/1676 4/7 - 5/19/1676 Killed***	***Salem - 8/24/76***	***Salem (born in Topsfield)***
Smith, John	Northampton (mostly in Springfield)	Willard = 02/06/04 Poole = 01/10/10 Springfield = 09/01/06 Turner = 00/10/02	56 37 219 13	8/4 – 9/28/1675 9/29 – 11/4/1675 11/5/75 - 6/23/76	Willard – 1/25/1676 Poole – 8/24/1676 Springfield – 6/24/1676 Turner - 8/24/1676	Salem
Whitteridge/Whiterage/ Witteridge, John (see note)	***Northampton***	***Turner = 11/08/00 (partial payment)***	***274***	***8/5/75 – 4/29/1676 + 4/30 - 5/19/76 Killed***	***Turner - 9/23/1676 (includes Beers/Sill)***	***Salem***
Beers, Elnathan (son of CPT Beers & a SGT in his and Sill's company; reduced to a Common Soldier by Poole or Turner; Bodge: pp. 250, 252. See note)	Northampton	Beers = 00/12/10 & 05/02/09 Sill = 00/14/06 Poole = no direct rec. Turner = roster	10 77 11	8/5 – 8/14/1675 SGT 8/15 - 10/30/75 SGT 10/31 – 11/10/75 SGT 11/11/75 - 4/6/1676	Beers - 10/5/1675 & 11/9/1675 Sill – 12/20/1675 Poole Turner	Watertown

				4/7 – post 5/19/76		
NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Lyon/Lyons, Thomas	***Northampton***	***Turner = 10/04/00***	***245***	***9/19/75 - 4/6/1676 4/7 - 5/19/1676 Killed***	***Turner - 9/23/1676***	***?***
Bradshaw, John (Discharged wounded)	***Springfield (not on roster)***	***Sill = 01/05/08 Springfield =10/14/04***	***31 258***	***8/5 – 9/4/1675 9/5/75 – 5/19/76***	***Beers/Sill - 1/25/1676 Springfield - 7/24/1676***	***Cambridge (later Medford)***
Pike, Joseph	***Springfield (not on roster)***	***Springfield =10/01/04***	***242***	***9/21/75 – 4/6/1676 4/7 - 5/19/1676 Killed***	***Springfield – 6/24/1676***	***Charlestown***
Fuller, Joseph (Sheldon: p. 159; Bodge: pp. 251, 252: see note)	Springfield (not on roster)	Beers (including Sill) = 03/07/08 Turner = Sheldon list	82	8/5 – 10/25/1675 10/26/75 – 4/6/1676 4/7 – post 5/19/1676	Beers/Sill – 11/20/1675 Poole (no direct record) Turner	Newton (then called "Newtown")
Gleason, Isaac (his recorded pay covers more days than the war; an apparent transcription error)	Springfield (not on roster)	Springfield = 17/04/09 (11/04/09?)	414!! (270?)	9/24/75? – 6/19? /76	Springfield – 6/24/1676	Springfield (ex – Cambridge, newly married)
Peirce/Pierce/Pearse, Nathaniel (Sheldon: p. 159; Bodge: pp. 249, 251)	Springfield (not on roster)	Beers = 03/05/02 Turner = Sheldon list	79	8/5 – 10/22/1675 10/23 – 4/6/1676 4/7 – post 5/19/1676	Beers/Sill - 12/20/1675 Poole (no direct record) Turner	Woburn
White, Henry (autumn with unknown commander, then mostly in Hadley garrison)	Springfield or Westfield	Hadley = 14/14/00	353	10/7? /75 – 9/23? /1676	Hadley – 9/23/1676	Hadley/Deerfield refugee
Hadlock, John (autumn with Appleton; then mostly in Hadley garrison)	***Springfield or Westfield***	***Hadley = 11/04/00***	***269***	***9/4/75 – 11/24/1675 11/25/75 - 4/6/1676 4/7- 5/19/1676 Killed***	***Hadley – 8/24/1676 (includes Appleton through 11/24/1675)***	***Roxbury***
Flanders, John (Sheldon: p. 159 Bodge: pp. 250, 253: See note)	Westfield	Poole = 02/14/10 (partial payment)	66	9/24/75 - 11/27/75 + 4/7 – post 5/19/1676	Poole - 9/23/1676 Turner	Salisbury (part of "Amesbury") (son in Kingston)

		Turner = Sheldon list				
34 Transfers from Savage's Army = 52 % (12 killed & 3 wounded)						
NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Read/Reed, Thomas (4/1/1676 captured near Hockanum in Hadley; escaped from The Falls 5/11? /1676	Hadley through 4/1/1676	Savage = 01/13/04 (Sheldon: p. 159 Bodge: pp. 251, 253)	40	2/22 - 4/1/1676 4/2 – 5/14/ 1676 5/15 – 5/19/1676	Savage – 6/24/1676 Captured & escaped Turner – acted as a Guide, no pay recorded	Sudbury (later of Westford)
Preston/Presson, John (age 22; Lathrop to Bloody Brook, unknown commander through autumn, Narragansett with Gardiner, unknown spri ng commander. See note)	Hadley	Lathrop = equipment Gardiner = 02/14/00 Turner = roster (Sheldon: p. 159 Bodge: pp. 251, 253)	65	7/23 – 9/18/1675 9/19 - 11/28/1675 12/3/75 – 2/5/1676 2/15? – 4/6/1676 4/7 – post 5/19/1676	Lathrop – 8/12/1675 Probably Mosley? Gardiner – 6/24/1676 Probably Mosley? Turner	Andover (son John later in Amesbury, a part of 'Almsbury')
Grover, Simon (His dates in garrison are unclear. See note regarding unknown spring commanders)	Hadley	Norton = 02/10/06 Turner = roster (Sheldon: p. 159 Bodge: pp. 250, 253)	61	7/16? – 9/14/1675? 2/21? – 4/6/1676 4/7 – post 5/19/1676	Norton garrison - 9/14/75 Unknown commander Turner	Boston (rel. to Stephen - not at The Falls; 1736 - son in Malden)
Tyley/Tyly/Tily/Tiley, Samuel (first in Northampton garrison)	Hadley	Northampto n = 08/02/00	195	2/21? – 9/1? /1676	Northampton – 9/23/76	Boston
Longbury/Langbury, John (with Lathrop to Bloody Brook, Mosley through autumn, spring commander unknown)	***Hadley (mostly in Northampt on)***	***Lathrop = 02/08/00 Mosley = 01/10/00 & 01/10/00 Turner = roster***	***58 36 36***	***7/23 – 9/18/1675 9/19 – 10/24/1675 10/25 - 11/29/1675 2/15? – 4/6/1676 4/7 - 5/19/1676 Killed***	***Lathrop - 11/09/1675 Mosley – 12/20/1675 & 1/25/1676 Probably Mosley? Turner***	***Essex Co.***
Arms, William (age 22)	Hadley	Turner = roster		2/21? – 4/6/1676	Unknown commander Turner	? (later Hatfield

		(Sheldon: p. 159 Bodge: pp. 250, 252)		4/7 - post 5/19/1676		Deerfield, & Sunderland)
NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Forster/Foster, John (initially in Northampton garrison)	***Hadley***	***Turner = roster***		***2/21? – 4/6/1676 4/7 – 5/19/76 Killed***	***Unknown commander Turner***	***?***
Lathrop/Lothrop, Benjamin (with Mosley in Mt. Hope, in Nipmuck country in early autumn, & again in spring)	***Hatfield (mostly in Hadley)***	***Mosley = 02/08/00 Hadley = 03/18/00***	***58 94***	***6/24 – 8/20/1675 2/15 – 4/6/1676 4/7 - 5/19/1676 Discharged Wounded***	***Mosley - 8/24/76 Mosley Hadley - 9/23/76***	***Charlestown***
Duncan, Jabez (Worcester was completely abandoned by 1676)	***Hatfield***	***Turner = roster***		***2/21? – 4/6/1676 4/7 - 5/19/1676 Killed***	***Unknown commander Turner***	***A refugee from Worcester***
Roberts, Thomas (with Henchman in Mt. Hope, Mosley in Nipmuck country, unknown commander in spring)	***Northampton***	***Henchman = 02/04/06 (includes Mosley) Turner = roster***	***54***	***6/24 – 8/7/1675 8/8 - 8/16/1675 2/15? – 4/6/1676 4/7 - 5/19/1676 Killed***	***Henchman = 8/21/1675 Mosley Probably Mosley? Turner***	***Boston vicinity***
Belcher, John (later hanged for abandoning a comrade in the retreat; dates in garrisons are unclear)	Northampton	Ponkapaug garrison = 00/06/04 Medfield garrison = 00/10/02 Turner = roster	8 13	1/31? – 2/7/1676? 2/8? – 2/20/1676? 2/21? – 4/6/1676 4/7 – post 5/19/1676	Ponkapaug garrison - 6/24/76 Medfield garrison - 7/24/76 Unknown commander Turner	Braintree
Salter, John (with Mosley in Mt. Hope, with Davenport in Narragansett, unknown spring commander, Turner; Sill in Nipmuck country)	Northampton	Mosley = 01/14/02 Davenport = 02/14/00 Turner = roster Sill = 00/09/04	41 65 12	6/24 - 8/3/1675 12/3/75 – 2/5/1676 2/15? – post 5/19/76 6/27 - 7/16/1676	Mosley – 8/24/1676 Davenport- 6/24/1676 Probably Mosley? Turner Sill - 9/23/1676	Cambridge (later of Charlestown)

NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Bushrodd, Peter (Trumbull: p. 574, Bodge: pp. 250, 252)	Northampton	Turner = roster		3/9? – 4/6/1676 4/7 - post 5/19/1676	Unknown commander Turner	Northampton
Howard, William (with Scottow in ME, dates unclear)	***Northampton***	***Scottow = 03/12/00 Turner = roster***	***87***	***9/5? – 11/29?/1675 2/21? - 4/6/1676 4/7 - 5/19/1676 Killed***	***Scottow – 1/25/1676 Unknown commander Turner***	***Salem***
Ashdown/Ashdowne, John	***Northampton***	***Turner = roster***		***2/21? - 4/6/1676 4/7 - 5/19/1676 Killed***	***Unknown commander Turner***	***Weymouth***
Rainsford, Samuel	***Northampton***	***Turner = roster***		***2/21? – 4/6/1676 4/7 - 5/19/1676 Killed***	***Unknown commander Turner***	***?***
Colby/Coleby, John (nephew of Samuel)	Springfield or Westfield	(Sheldon: p. 159 Bodge: p. 251)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Amesbury (”Amesbury”)
Colby/Coleby, Samuel (uncle of John)	Springfield or Westfield	(Sheldon: p. 159 Bodge: pp. 249, 252)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Amesbury (”Almesbury”)
Jones, Robert	Springfield or Westfield	(Sheldon: p. 159 Bodge: pp. 250, 253)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Amesbury (”Almesbury”)
James Harwood Discharged wounded (see Roper note; Bodge: pp. 250, 253, 448)	***Springfield or Westfield***	***Credits were all to Chelmsford = 04/11/00***	***110***	***2/21? – 4/6/1676 4/7 – 6/9?/1676 Discharged wounded***	***Chelmsford – 11/24/1676***	***Chelmsford (son later in Concord)***
Buckley (Bulkley?) George (initially in the Northampton garrison)	***Springfield or Westfield***	***(Sheldon: p. 159 Trumbull: p. 575 Bodge: p. 247)***		***2/21? – 4/6/1676 4/7- 5/19/1676 Killed***	***Unknown commander Turner***	***Possibly Concord?***
Jones, Samuel	***Springfield or Westfield***	***(Sheldon: p. 159 Bodge: p. 250)***		***2/21? – 4/6/1676 4/7 – 5/19/76 Killed***	***Unknown commander Turner***	***Dorchester (or Yarmouth?)***

NAME & ENLISTMENT SITUATION	GARRISON on April 7, 1676	PAY CREDITS (in £/s./d.) & SOURCE	DAYS PAID	PROBABLE DATES OF ALL SERVICE	RECORDED PAY DATE & SEQUENCE OF SERVICE	RESIDENCE
Leeds, Joseph	Springfield or Westfield	(Sheldon: p. 159 Bodge: pp. 250, 253)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Dorchester
Hunt, Samuel (with Appleton at Narragansett, unknown spring commander)	Springfield or Westfield	Appleton = roster Credited *to* Billerica = 08/04/00	197	12/3/75 – 2/5/1676 2/6 – 4/6/1676 4/7 – 6/16?/1676	Appleton in the Narragansett campaign Billerica - 12/25/1676	Ipswich, Billerica late 1676 (then Tewkesbury)
Simms/Symms, John	***Springfield or Westfield***	***(Sheldon: p. 159 Bodge: p. 247)***		***2/21? – 4/6/1676 4/7- 5/19/1676 Killed***	***Unknown commander Turner***	**Ipswich**
Chase, John	Springfield or Westfield	(Sheldon: p. 159 Bodge: pp. 249, 251)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Newbury
Burnett/Bennitt/Burnap, John	Springfield or Westfield	(Sheldon: p. 159 Bodge: pp. 250, 252)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Reading? (later of Windham, CT)
Scott, John (with Johnson in Narragansett, dates of Holbrook service are unclear. See note)	Springfield or Westfield	Johnson = 02/14/00 (Bodge: p. 254 Holbrook = 00/14/06)	65 18	12/3/75 – 2/5/1676 2/21? – 4/6/1676 4/7 – post 5/19/76 6/14? – 6/31?/1676	Johnson - 6/24/1676 Unknown commander Turner Holbrook - 8/24/1676	Roxbury (son in Palmer - then called "Elbows")
Pressey, John	Springfield or Westfield	(Sheldon: p. 159 Bodge: pp. 251, 253)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Salisbury (part of Almsbury")
Price, Robert (age 26)	Springfield or Westfield	(Sheldon: p. 159 Trumbull: p. 574 Bodge: pp. 251, 253)		3/9? – 4/6/1676 4/7 - post 5/19/1676	Unknown commander Turner	Northampton (son later in Glastonbury, CT)
Simonds, John	Springfield or Westfield	(Bodge: p. 251)		2/21? – 4/6/1676 4/7 – post 5/19/1676	Unknown commander Turner	Most likely Woburn?
Guerin/Gerrin/Jerrin/Jerring, Peter (initially in Northampton garrison)	***Springfield or Westfield***	***(Sheldon: p. 159 Trumbull: p. 575***		***2/21? – 4/6/1676 4/7- 5/19/1676***	***Unknown commander Turner***	***?***

		Bodge: pp. 247, 250)		***Killed***		
Eborne, George (Head wound Sheldon: pp. 159, 160)	***Westfield (not on roster)***	***Poole = 01/04/00 (partial pay)***	***29***	***2/1 - 4/6/1676 4/7 - 5/19/1676***	***Poole – 2/29/1676 Turner***	***Westfield***

FURTHER NOTES ON SPECIFIC INDIVIDUALS:

Josiah Mann was with CPT Daniel Henchman on Nov. 9, 1675, when his small Company of Mounted Foot was ambushed on a scouting mission near Hassanamessit. Henchman complained that almost all his soldiers immediately fled in panic, including Josiah Mann.[294] Several other soldiers in Turner's Garrison Company had also participated in that rout, but Mann is the only one who went to The Falls.

A combined total of 29 wounded is reported from all of Turner's force on May 19, 1676, but only two ***(John Jones and George Eborne)*** are directly documented within Turner's own contingent. Considering that they were all discharged on or soon after May 19: ***Philip Jessop, Ephraim Roper, Richard Cheevers/Cheever, John Bradshaw, Benjamin Lathrop/Lothrop, and James Harwood*** also appear very likely to have been wounded on that day. ***Cheever/Cheevers*** is the only one of those six who is also not confirmed as remaining in the Garrison Company after MAJ Savage's army returned to Boston, but his pay credits provide strong evidence that he stayed behind. Both ***Roper*** and ***Harwood*** were discharged a full three weeks after the battle, perhaps having received a wound or injury that did not initially incapacitate them but later became infected. No other soldiers of this detachment are known to have been discharged between May 19 and the arrival of a Massachusetts Bay relief force on June 14. ***Ephraim Roper*** was a Charlestown resident when enlisted but is firmly documented as the Lancaster man who alone escaped death or capture in the Rowlandson garrison on Feb. 10, 1676; his wife and infant daughter being among the dead. He was very likely a volunteer.

Joseph Griffin and two other Marlborough transfers are here assumed to have been enlisted on Feb. 15, 1676, as confirmed for ***Philip Matoon*** and several more. A much smaller number of transfers are known to have been enlisted on Jan 5; some perhaps earlier than that.

Considering Boston residence and August enlistment ***Tryall Newbury*** appears to have first been enlisted in CPT Richard Beers' Company of Foot, which continued under LT Sill after Beers was ambushed and killed on Sept. 4, 1675. He alternatively may have begun in the second

[294] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 55.

Company of Dragoons raised on Aug. 5 by CPT Samuel Mosley, then becoming one of 26 soldiers transferred to Beers on Aug. 15, 1675. Six other soldiers on this roster (all having starts of 8/5/1675), along with several more who did not go to The Falls, also appear to have begun service with Beers. Four more on this roster are fully confirmed as Beers' veterans, including his own son Elnathan who had been a sergeant under his father but reduced to a "common soldier" under either Poole or Turner. In broader sense, despite long service under multiple commanders it is not unusual to find most, or all a soldier's credits charged against a single garrison rather than itemized by names of commanders. In those instances, the duration of service, date of enlistment or final pay date, and location of the garrison are essential clues to discovery of the soldier's service history. There appears to be no direct record as to who was present in Beers' detachment at the time of his death on Sept. 4, 1675 versus the majority of his company who had remained in garrison with LT Sill, but the 11 veterans who went to The Falls seem most likely to have been present at that ambush on the tract of land that has ever since been known as Beers' Plain.

The identity of ***John Watson*** was initially complicated by presence of two soldiers having the identical name: one from Cambridge and the other from Roxbury. The solution appears in a seemingly insignificant part of Watson's record: CPT Poole's Dec. 10, 1675, payment for a pair of shoes. On Dec. 19, while Poole's ***John Watson*** was still breaking in his new shoes, the John Watson from Roxbury was with CPT Johnson attacking the Narragansett Fort. So, the Cambridge man, son of a prominent citizen, must have been the soldier who served in Poole's garrison force throughout the winter and spring. Additionally: Watson from Cambridge was paid 00/14/00 for 17 days under LT Cutler, who is reported as escorting supply trains throughout the war.[295] His service under Poole began after arriving with LT Cutler in a supply train that arrived on Oct. 23, 1675. John Jones and John Walker also arrived with that supply train.

The start of ***Benjamin Chamberlain's*** recorded service begins around the same time that Poole's company appears to have been raised (Sept. 24, 1675, on basis of pay credits). It seems intuitive that he would have been enlisted at the same time as his brother Joseph (below). In that case his credited pay would only extend through April 8, 1676, the remaining record being lost. Assuming that his final pay record has not been lost, he may have voluntarily enlisted with Poole in attempt to reunite with his brother, perhaps after hearing of the disaster that had befallen Beers.

[295]George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 285-286

Like Robert Bardwell, Benjamin and Joseph Chamberlain both chose to remain and settle in the Valley after the war. It is currently unclear whether they were related to John Chamberlain, a possible Hingham resident who did not go to The Falls.

Identically to Tryall Newbury (above), ***Joseph Chamberlain*** appears to have been first enlisted under Beers, then served under Sill, and was transferred to Poole along with all remaining soldiers when MAJ Appleton's army marched east on November 24. A small part of his Poole service was broken out separately from Westfield garrison, most likely the first month, during which he may have served in a different town.

The only calculation that fits ***John Jones'*** sequential history is arrival in the October 23, 1675, supply train led by LT Cutler, followed by service under Poole and Turner. ***John Watson*** and ***John Walker*** were also in that supply train. All three were assigned to Poole's company on Oct. 24.

The four days of ammunition guarding may have been performed by some other ***Richard Smith***, though the only recorded one is of Salisbury.

By great fortune we reliably know that the ***John Smith*** with Poole and Turner was a soldier from Salem, rather than one of the many alternatives. He also appears to have been the one who was with Willard at the relief of Brookfield, as Poole's company was present there on Sept. 30, 1675.

John Whiteridge/Whittridge's service record only makes sense if he was initially in Beer's company and his recorded credits only reflect part of his service. If so, his heirs were owed a final 20 days' pay, the record of which is now missing.

Elnathan Beers could potentially have gone back to Boston with MAJ Appleton's army on Nov. 24, 1675, but he more likely stayed in the Valley with most or all the other veterans of his father's dissolved company, his winter record under Poole now being lost. ***Joseph Fuller*** and ***Nathaniel Pierce*** have similar gaps in their service record. Both are assumed to have been in the Springfield garrison, as that had been the principal garrison for Beers/Sill veterans throughout the winter. Sill himself is known to have been sent east in late October without his company.

John Flanders is assumed to have been stationed in Westfield as that town was garrisoned throughout the previous winter by soldiers from CPT Poole's original company (including men who had arrived with LT Upham); also, several soldiers who had been in CPT Mosley's company.

John Preston/Presson was transferred to some other company between destruction of CPT Lathrop's on Sept. 18 and arrival of MAJ Appleton's army back in Boston on Nov. 29, 1675. Most of the few survivors of Bloody Brook appear to have been placed in Mosley's company, though some are recorded under Sill. ***John Preston*** and ***John Langbury*** are the only Lathrop survivors who were present at The Falls Fight, but seven more remained in garrison. In contrast with the soldiers of Beers' company, most of those nine men had marched east in autumn and returned in spring. It is tempting to suggest that they were all personal friends, that their return was voluntary, and that their spring service was in Mosley's fourth Company of Dragoons. In broader context, Preston is one of a disappointingly large number of enlistees whose 1676 pay records were written down in Hull's final book of accounts, which appears to have entirely vanished. Unless a particular soldier in that group was at the Battle of Great Falls we usually only know that he served past the date of Turner's Garrison Company roster (April 7, 1676), though most or all of them can be assumed to have served through at least mid-June. Some probably remained in garrison until September.

The commanders under which ***Simon Grover, Samuel Tyley,*** and many other soldiers served during MAJ Thomas Savage's Spring campaign remain unknown due to loss of record. The three alternatives are CPT Mosley whose fourth Company of Dragoons was raised on Feb. 15, MAJ Savage whose second Company of Foot appears to have been raised between Feb. 21 -23, or CPT Whipple whose Troop of Horse was raised sometime between Feb. 21 – 29, 1676. In this instance and many others "Feb. 21?" has been listed simply because it covers two of those three alternatives.

The precise dates of ***John Scott's*** service under CPT Holbrook are at this time unknown (as with two other soldiers of the Garrison Company who did not go to The Falls and served under Holbrook). Bodge only describes Holbrook as commander of a company that began scouting Nipmuck country on April 29, 1676; a date that directly conflicts with the Turner service of every one of those soldiers.[296] The only reasonable conclusion is that Holbrook undertook another mission in summer, most likely under CPT Daniel Henchman who led a force of at least two companies into Hadley on June 14, 1676 and soon afterward marched back into Nipmuck Country.

[296] George M. Bodge, *Soldiers in King Phillip's War* (Boston, MA: The Rockwell & Churchill Press, 1906), 280 – 282

<u>THE PROBABLE POSTING OF TURNER'S SOLDIERS LEFT BEHIND IN THE CONNECTICUT VALLEY GARRISONS</u> (Total = 154 men) = 4 SGTS, 4 CPLS, Drummer, Clerk, & 144 Common Soldiers

All four of Turner's non-local sergeants along with his drummer, clerk, and all four corporals *<u>did not</u>* go to The Falls but were left in five widely dispersed garrisons. Aside from relocating one sergeant to cover Northampton in absence of Tay (or perhaps Hatfield in absence of Bardwell) and earlier moving either Hartshorn or Simpson to better cover Springfield, it seems unlikely that Turner moved any of his other soldiers prior to the May 18th expedition. Containing only 14 soldiers less than Poole's winter garrisons, this configuration would probably have been sufficient to protect the five remaining towns for several more weeks even if all of Turner's detachment had been killed at the Falls.

In sharp contrast to both the militia company and Turner's detachment at the Falls, a remarkable number of these soldiers had seen prior service that included serious combat, often in more than one campaign. It can be safely assumed that they either declined to volunteer for the expedition, volunteered and were told they must stay behind, or had not even been given that opportunity. Leaving all his non-local NCOs and most of his more experienced "common soldiers" in garrison would be an understandable decision on Turner's part (though one must wonder if those experienced "common soldiers" would have freely volunteered). Very few of the soldiers who remained in garrison were at all familiar with the local geography, but their substantial combat experience would have been essential to protection of the Valley settlements if Turner's expedition turned into a military disaster. There is some irony that The Falls Fight was strategically a disaster to indigenous nations, and rightly considered a massacre in terms of non-combatant losses, but was also considered a disaster by local settlers in light of CPT Turner's death and the large number of casualties within their own very small population; a visceral response to one generation's personal loss that has colored both popular narrative and memorialization for over 300 years.

GARRISON TOWN	***SERGEANTS***	***CORPORALS***	***DRUMMER***	***CLERK***	***COMMON SOLDIERS***	***TOTAL***
Hadley	Throp or Newman	Hartshorn or Simpson	Chapple		33	36
Hatfield		Lane			35	36
Northampton	Throp or Newman	Wildes			25	27

Springfield	Procer	Hartshorn or Simpson		Francis	30	33
Westfield	Lamb				12	13
Springfield *or* Westfield					9 likely in Westfield	9 likely in Westfield
TOTAL	4	4	1	1	144	154

A Final Author's Note on Development of the Rosters:

Considering the vagaries of seventeenth century spelling and possibly transcription errors (ex: "h" and "y" for the "k" and final "s" in Sikes), alternative spellings have been provided from period record. Those alternatives are probably not all-inclusive, and a few may even be misleading.

Names of the soldiers listed as originally in Turner's marching company, the transfers from Reynolds' and Wadsworth's companies, as well as those specifically recorded in his Turner's garrisons on April 7, 1676, are assumed correct as those lists were written down by Turner himself. I have more broadly assumed that if one of Turner's men has the same name as a soldier in an earlier company or garrison, he is probably one and the same, most especially if both names are listed as resident in the identical town. I feel on very solid ground as to unusual names such as Timothy Froglie, Hugh Galloway, and One Siphorous Stanley; nearly as confident with names that are more common but have been found in association with only one man residing in one particular town (ex.: Thomas Poor/Poore/Pore), but not nearly so confident with a ubiquitous name that appears in multiple companies and resident in multiple towns (ex.: Smith and Jones).

For clarity's sake I have not chosen to clutter the rosters with bibliographical citations, reserving those for the text alone. The alternative approach would require at least one or two "Bodge" citations beside each name, more often five or six, in some cases ten or more. The principal source is Bodge supplemented by published local histories (ex: George Sheldon, 1895) for the 1675-76 residences of Hampshire County militiamen, including those of Deerfield and Northfield settlers who by 1676 were refugees in other local settlements. Two currently unpublished works by Dr. Peter A. Thomas were also significant in that regard. A comparable town history or genealogical volume occasionally provided the place of residence for men whose towns were either not listed by Bodge or for whom he lists a post-1676 residence. Experience shows that 21st century on-line genealogies (especially those found in amateur forums or web pages) are occasionally misleading and tend to copy each other without any assessment of veracity. But in a handful of instances, they proved to be sole source for a provisional determination of residence.

In the interest of clarity, I have used modern names for towns rather than names that at that time were shared by broader areas of indigenous settlement (ex.: Quaboag and Squakheage), or names went out of use in the next century (ex.: Newton rather than the 17th c. orthography of "Newtown") but have retained those names when citing original documents. Wherever possible I have tried to confirm residence at time of the war but that has sometimes proved impossible. A minority of men changed their town of residence during or immediately after the war and there are a few instances where someone is listed in early 18th c. record as resident in a town that did not even exist in 1676 (ex. "Elbows," now the town of Palmer, was not settled by colonists until 1715). In a handful of other cases the residence record names an expansive colonial grant that was later subdivided (ex.: "Almsbury," which included Amesbury, Newburyport, Salisbury, and several later towns along both sides of the Massachusetts - New Hampshire border).

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Appendix V – KOCOA Analysis

Battlefield landscapes consist of natural features (hills, streams, valleys, etc.) and cultural features (trails, fortifications, villages, etc.) that define the original battlefield landscape and also reflect the evolution of these features over time and their impacts to the original landscape. In order to identify, document, survey and map a battlefield, historians and archeologists must research all available and relevant historical accounts and identify the historic landscape that defined the battlefield in the field through terrain analysis and identification of natural and cultural features associated with the battlefield (Table 7).

Terrain Analysis

Terrain analysis is a critical aspect of battlefield surveys, so much so that the ABPP requires all grant recipients to use KOCOA (**K**ey terrain, **O**bservation, **C**over and concealment, **O**bstacles, **A**venues of approach), a military terrain model the U.S. Army developed to evaluate the military significance of terrain associated with a battlefield. By studying the military applications of the terrain using KOCOA, a battlefield historian or archaeologist can identify the landscape of the battlefield and develop a basis for judging the merits and flaws of battle accounts (See Section V. *Battlefield Landscape and Key Terrain Features*). The components of Terrain Analysis (KOCOA) include:

Observation and Fields of Fire: Observation is the condition of weather and terrain that allows a force to see friendly and enemy forces, and key aspects of the terrain. Fields of Fire is an area that a weapon or group of weapons may cover and fire into from a given position.

Avenues of Approach and Withdrawal: An avenue of approach is the route taken by a force that leads to its objective or to key terrain in its path. An Avenue of Withdrawal is the route taken by a force to withdraw from an objective or key terrain.

Key Terrain and Decisive Terrain: Key Terrain is any ground which, when controlled, affords a marked advantage to either combatant. Two factors can make terrain key: how a

commander wants to use it, and whether his enemy can use it to defeat the commander's forces. Decisive Terrain is ground that must be controlled in order to successfully accomplish the mission.

Obstacles: Obstacles are any features that prevent, restrict, or delay troop movements. Obstacles can be natural, manmade, or a combination of both and fall into two categories: existing (such as swamps, rivers, dense wood, town or village) and reinforcing (placed on a battlefield through military effort).

Cover and Concealment: Cover is protection from enemy's fire (e.g., palisade, stone wall, brow of a hill, wooded swamp), and Concealment is protection from observation and surveillance (e.g., ravines, swamps, intervening hill or wood).

The four steps in this process include: 1) identify battlefield landscapes; 2) conduct battlefield terrain analysis with KOCOA (**K**ey terrain, **O**bservation, **C**over and concealment, **O**bstacles, **A**venues of approach); 3) conduct battlefield survey (research, documentation, analysis, field visits, archeological survey and 4) define Study and Core Area, assess integrity and threats related to battlefield sites and map all relevant cultural and physical features on GIS base maps. The battlefield survey methods focused on the identification of relevant physical and cultural features using USGS 7.5" series Topographic Maps, aerial photographs, historic maps, and archeology – all of which are used to identify site locations and positions of combatants.

Table 7. Key Terrain Features

Battle of Great Falls/Wissantinnewag-Peskeompskut

Name	Location	Relevance to Battle	Field Comment	KOCOA Analysis	Integrity Assessment	Remarks
Terrain and Topographic Features						
Cheapside Neighborhood	A neck of land on the north bank of the Deerfield River abu the CT River to the east and the Green River to the west.	A Native observation outpost and possible fortification was established on this neck of land which forced the English to cross the Deerfield River further to the west. Native forces were alerted to the noise of horses and mobilized on the early morning of May 19, 1676, but did not encounter English forces.	Moderate Residential Development, Wooded, Public Roads	Key Terrain, Observation (Native), Obstacles, Fortified Place	Fair: Location, setting, feeling, association, material culture	Battle of Great Falls Study Area
Cherry Rum Brook	A brook that runs east to west from the White Ash Swamp to the east and empties into the Green River at the site of the Green River Ford to the west.	After crossing the Green River Ford, English forces followed Cherry Rum Brook in an easterly direction towards White Ash Swamp. It was also used as an avenue of retreat by English forces. Native forces may have ambushed the fleeing English at points along Cherry Rum Brook.	Moderate Residential Development, Wooded, Public Roads	Key Terrain, Obstacle (English & Native), Avenue of retreat & approach (English & Native)	Good: Location, setting, feeling, association, material	Battle of Great Falls Study Area & Core Area
Connecticut River	The CT River runs south from the border with Quebec, Canada and discharges at Old Saybrook, CT. The portion relevant to the battle begins: Lat/Long Points: South 42.563015, -72.556390; North 42.601187, -72.545404	The portion of the CT River beginning south at Deerfield and running north to Gill served as a major obstacle to English and Native forces	Substantial Industrial development around the towns of Gill and Montague, Open Space, Wooded	Key Terrain, Obstacle (English & Native), Avenue of retreat & approach (Native)	Good: Location, setting, feeling, association, material	Battle of Great Falls Study Area & Core Area
Deerfield Plains	On the Western side of the Connecticut River, approx. 2.5 miles.	English forces traveled north through Deerfield Plains on their approach to the Deerfield River	Moderate Residential Development, Open Space, Wooded, Public Roads	Key Terrain, Avenue of Approach & Retreat (English & Native)	Good: Location, setting, feeling, association, material	Battle of Great Falls Study Area

Deerfield River & Deerfield River Ford	Forms a boundary between present-day Deerfield and Greenfield. It is a tributary of the Connecticut River.	English forces need to cross the Deerfield River to proceed north to Wissantinnewag-Peskeompskut. There were at least two fords across the river.	Moderate Residential Development, Open Space, Wooded	Key Terrain, Obstacles, Avenue of Approach & Retreat (English & Native)	Good: Location, setting, feeling, association, material	Battle of Great Falls Study Area & Core Area
Factory Hollow Neighborhood	A natural terrace and a lower plain bounded to the east by the Fall River.	English forces dismounted and hitched their horses in the vicinity of the present-day Factory Hollow neighborhood. During their retreat following the attack on Peskeompskut Native forces were able to attack the horse guard prior to the arrival of Captain Turner's command. Once English forces mounted their horses they fled up a steep slope to the upper terrace and were able to out distance attacking Native forces.	Moderate Residential Development, Wooded, Public Roads	Key Terrain, Avenue of Approach & Retreat (English & Native)	Good: Location, setting, feeling, association, material	Battle of Great Falls Study Area & Core Area
Fall River	A tributary of the Connecticut River which empties just below the Great Falls.	English forces dismounted and left their horses and a small guard west of Fall River. The main force crossed Fall River and continued east.	Moderate Residential Development, Open Space, Wooded, Public Roads	Key Terrain, Obstacles, Avenue of Approach & Retreat (English & Native)	Good: Location, setting, feeling, association, material culture	Battle of Great Falls Study Area & Core Area
Green River & Green River Ford	A tributary of the Deerfield River that runs north through the Town of Greenfield, MA.	English forces forded the Green River south of Smead Brook. Captain Turner would later be killed in action during the English retreat while leading his men back across the Green River Ford.	Moderate Residential Development, Open Space, Wooded	Key Terrain, Obstacles, Avenue of Approach & Retreat (English & Native)	Good: Location, setting, feeling, association, material culture	Battle of Great Falls Study Area & Core Area
Petty Plain	Located north of the Deerfield River and west of the Green River	English forces forded the Deerfield River and crossed Petty Plain towards the Green River.	Moderate Residential Development, Open Space, Wooded, Public Roads	Key Terrain, Avenue of Approach & Retreat (English & Native)	Fair: Location, setting, feeling, association, material culture	Battle of Great Falls Study Area & Core Area

Peskeompskut	A 150-acre floodplain along the west bank of the river adjacent to the Great Falls.	The site of the Native encampment attacked and destroyed by English forces on the morning of May 19. 1676.	Moderate Residential & Industrial Development, Open Space, Wooded, Public Roads	Key Terrain, Obstacles, Avenue of Approach & Retreat (English & Native), Cover & Concealment (Native)	Poor: Location, setting, feeling, association, material culture	Battle of Great Falls Study Area & Core Area
Pisgah Mountain, SW Slope	Dominant landform in the area rising 715' (218 m) above the surrounding landscape.	English forces scaled this slope, passing through a series of terraces leading to "the mountain gap" and gathered on the southwestern slope of Pisgah Mountain within site of the Peskeompskut encampment. Later they would retreat through this "mountain gap."	Moderate Residential Development, Open Space, Wooded, Public Roads	Key Terrain, Observation (English), Obstacles, Avenue of Approach & Retreat (English & Native)	Good: Location, setting, feeling, association, material culture	Battle of Great Falls Study Area & Core Area
White Ash Swamp	White Ash Swamp is fed by Cherry Rum Brook and runs contiguous to Route 2. It is approx.5-mile northwest of the Connecticut River.	English forces likely maneuvered north of White Ash Swamp before dismounting from their horses before Fall River. During the English retreat Native forces held the swamp and decimated fleeing English. One group of English attempted to cut through the swamp and were killed or captured.	Low Residential Development, Open Space, Wooded, Public Roads	Key Terrain, Obstacles, Avenue of Approach & Retreat (English & Native), Cover & Concealment (Native)	Fair: Location, setting, feeling, association, material culture	Battle of Great Falls Study Area & Core Area

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