

Appendix A Battle History, Significance & Recent Planning

This appendix provides a historic overview of the battle and time sequence for the eastern Brandywine Battlefield where Americans moved into PA the days before battle, and two areas of combat ensued the day of battle, September 11, 1777. The eastern battlefield consists of strategic landscapes related to such activities including: Crown Force activities on Osborne Hill; combat activities in the Birmingham Road area; combat activities around Chadds Ford; as well as American movements into PA and encampment. (The third area of combat around Dilworthtown is discussed in the Rearguard and Strategic Retreat Plan.) This historic overview is adapted from 2013 Plan information using this projects' information. This appendix also provides an overview of recent battlefield planning projects.

Historical Overview of the Battle

The late summer of 1777 in the upper Delmarva Peninsula witnessed the start of the military campaign that resulted in the capture of Philadelphia by Crown Forces (25 September 1777). Two years of warfare had preceded the Philadelphia Campaign, with much of the principal military action on land occurring in New England, New York and New Jersey. Crown Forces setbacks occurred in December 1776 (First Battle of Trenton) and in early January 1777 (Battle of Princeton). These reversals resulted in the Crown Forces wintering in New York City and in the vicinity of New Brunswick and Perth Amboy, New Jersey, and American Forces taking up winter quarters around Morristown, New Jersey.

The inability of Gen'l Sir William Howe to force a decisive battle or outmaneuver Gen'l George Washington in New Jersey during May and June 1777 led to the movement by sea of the balance of Crown Forces from Staten Island to Elk Neck in Maryland. Numbering approximately 15,800 men, the Crown Forces were transported by the British fleet up the Chesapeake Bay and landed at the Head of Elk on 25 August. Their intent was to advance overland to capture Philadelphia, the fledgling capital of the United States (Black 1998:124).

In a series of hard-fought engagements, American and Crown forces battled each other across the landscape and on the waters of Northeastern Maryland and the Lower Delaware Valley. In a series of engagements – Cooch's Bridge (3 September), Brandywine (11 September), Battle of the Clouds (16 September), and Paoli (20-21 September) – Crown Forces maneuvered and fought their way to the colonial capital of Philadelphia, which was taken on 25 September (McGuire 2006). By far the largest of these engagements – both in terms of land area covered and numbers of troops actively involved – was the Battle of Brandywine.

The terrain between Head of Elk in Maryland and the Schuylkill and Delaware River valleys over which the two armies maneuvered in the late summer and early fall of 1777 was markedly different from the ground in central New Jersey where fighting had occurred in the early summer campaigning. There, as Gen'l Howe's army attempted to maneuver towards the rebel nation's capital of Philadelphia, Gen'l Washington's army had significantly higher round – the Watchung Mountains – to their rear, into which they could retire if forced to, and out of which Gen'l Washington could launch forays upon the rear and right flank of Crown Forces. In southeastern Pennsylvania and the adjacent counties of New Castle and Cecil, the rolling hills of the Piedmont were cut by generally northwest-to-southeast-flowing streams such as the Christina River, White and Red Clay Creeks, and Brandywine Creek. Gen'l Washington was able to use these drainages to his advantage, establishing a principal defensive line along the Red Clay Creek, and a secondary line closer to Wilmington along the lower reaches of the Brandywine Creek. Gen'l Howe avoided these defensive positions by continuously maneuvering to

his left, or west, thus outflanking the American positions (he did this along Red Clay Creek on 8 September, Brandywine Creek on 11 September, and in the forcing of the Schuylkill River fords on 22 September). Unlike American positions in New Jersey, Gen'l Washington had no natural anchor for his right, or west flank, thus making it difficult to defend against Gen'l Howe's maneuver (Taaffe 2003:63-64).

Gen'l Washington's position along East Branch Brandywine Creek clearly blocked the direct route of the Crown Force advance towards Philadelphia (today's Rt. 1 corridor), and, because of the broad valley and steep hills along the east side of the Creek, it was a strong post for his army. The Creek presented a major geographic obstacle for Gen'l Howe's army. In addition, the Americans enhanced this barrier by building temporary earthworks and preparing defensive positions along the Creek. While the Creek position provided a great opportunity for Gen'l Washington to offer battle, the principal drawback about Gen'l Washington's defensive line was that the Creek had multiple crossing points over which the Crown Forces could advance; too many crossing points to adequately defend, particularly on the West Branch of the Brandywine.

On September 11, 1777, Gen'l Howe's army launched a two-pronged attack on the American position along Brandywine Creek. One column commanded by Hessian Gen'l. Knyphausen departed Kennett Square along the Great Nottingham Road (current Rt. 1) and attacked Gen'l Washington's troops stationed at Chad's (18th century spelling) Ford. A second column, commanded by Gen'l Howe and Lord Charles Cornwallis, followed a more circuitous route, travelling north from Kennett Square, crossing Brandywine Creek first at Trimble's Ford¹ and then turning east and crossing the Creek again at Jefferis' Ford (the site of today's Jefferis' Ford Bridge). The column arrived at an area near Birmingham Rd in East Bradford and Birmingham Townships, and from there attacked Gen'l Washington's northern flank from its right rear. American formations responded to this maneuver by forming a series of defensive lines but were outmaneuvered. The final action of the day occurred along the Old Wilmington Road south of Dilworthtown when Maj. Gen'l Nathanael Greene positioned his brigade and the remnants of other American formations in a semi-circular line that was able to blunt the Crown Forces' advance. As evening approached and daylight waned, Gen'l Washington's Army retreated east along modern Rt. 1. His forces reformed near the City of Chester in what is now Delaware County, PA.

Time Sequence of Battle Events

Several assumptions in the 2013 Plan about eastern battlefield military-related events on September 11, 1777 are examined for this project. The following time sequence of military events is from the 2013 Plan and importantly does not necessarily reflect accurate times or events. The 2013 Plan time sequence/history assumptions are used as a starting point for Phases 1, 2, and 3 Strategic Landscapes project, which have been done to study such assumed timeframes and battle history. To understand what is studied for refinement in this Phase 3 project, time sequence/history assumptions from the 2013 Plan are in *italics* below. As well, time sequence/history assumptions studied in Phase 2/southern battlefield are in *italics* below and for Phase 1/northern battlefield is in *italics* below. A Rearguard and Strategic Retreat project time sequence/history assumptions from the 2013 Plan are also in *italics*.

Before 5:00AM: Crown Forces camp overnight near Kennett Square. Gen'l Cornwallis's troops (7,000 men) line up along Unionville Rd from Kennett Square to Doe Run Rd. In front are Ewald's Rangers (called Jaegers, Germans) followed by the British Light Infantry Brigade, British Grenadiers, Hessian Rangers (Germans), Hessian Grenadier Brigade (Germans), British Guard Brigade, British ^{3rd} Brigade, and British ^{4th} Brigade. Gen'l Knyphausen's troops (5,000 men) line up along State St through Kennett Square from Cedar Spring Rd to School House Ln. In front are Ferguson's Rifles and the Queen's Rangers, followed by the British ^{1st} Brigade, Grant's ^{2nd} Brigade, Stirn's Hessian Brigade, British Cannons, and British ^{71st} Regiment.

¹ Trimble's Ford is accessible today via open fields and farm paths on private property, or canoeing or kayaking on the west branch Brandywine Creek.

American patrol under Lt. Col. Ross [who spotted the British northern flank] *arrives in Marshallton near the Tavern* and begins to patrol the vicinity for British activity. Another patrol under Maj. Spear of the Chester County Militia (8th Battalion) was at the Tavern in the early morning or evening before the battle. Chester County Militia (1st Battalion) under Col. John Hannum established their headquarters at Martin's Tavern in the village of Marshallton, and were joined by Maj. Spear and by some pro-Independence civilians including Thomas "Squire" Cheyney the evening before the battle.

5:00 to 6:45AM –British form Two Columns of troops – a northern flanking column (northern battlefield) and an eastern column (southern battlefield)

5:00AM: Gen'l Cornwallis's Division forms into a northern flanking column, then moves from Kennett Square along Unionville Rd, then east along Marlboro Rd. As ordered by Gen'l. Washington, Maj. Spear leaves Martin's Tavern to scout for British formations, and before sunrise rides south to Welch's Tavern (later called Anvil Tavern) near present-day Rt. 1 and Longwood Rd (at Longwood Gardens) [where an American light infantry company is situated]. Spear sees no British troops [along his route]. Hessian Gen'l. Knyphausen's troops form an eastern column, then move toward Chadds Ford along the Great Nottingham Road (approximately modern Rt. 1). At the front of the column are Ferguson's Rifles (90 loyalists) and the Queen's Rangers (Capt. Wemys' 40th Regiment, 300 loyalists).

6:00AM: Near the intersection of Rt. 1/Lenape Rd, Ferguson's Rifles and the Queen's Rangers engage in fire with a company of American troops under Lt. Col. Maxwell who withdraw east and join the rest of Maxwell's troops.

6:30AM: Fire is again exchanged near the Anvil Tavern at Rt. 1 and Kennett Pike, after which Maxwell's Troops withdraw to a location along Rt. 1 near Hickory Rd.

7:00 to 7:45AM – Northern Column Continues advancing while there are Skirmishes along US 1 as Knyphausen Moves East

Cornwallis's Division continues to move north along Red Lion Road to Unionville-Wawaset Road. From there, they turn west onto Bragg Hill Road, which is the road that leads to Trimble's Ford. The rear of Cornwallis's Division is still on Unionville Road near Street Road.

7:00AM: Ferguson's Rifles and the Queen's Rangers exchange fire with Maxwell's Troops who take cover behind the western wall of the Old Kennett Meetinghouse. Maxwell's Troops withdraw to the east along Rt. 1.

7:15AM: At Rt. 1 and Hickory Hill Rd, Ferguson's Rifles and the Queen's Rangers again exchange fire with Maxwell's Troops. They skirmish along Rt. 1 near Chandler Rd.

7:30AM: At US 1 and Sunny Ridge Lane, Ferguson's Rifles and the Queen's Rangers again exchange fire with Maxwell's Troops. To the south, American Cannons are still lined up at Sunny Ridge Lane near Hillendale Road.

7:45AM: Knyphausen's Troops move east along US 1 to Brintons Bridge Road. The British 1st Brigade (1,330 British) then separates from the main column, and moves north onto Brintons Bridge Road. This is the road that leads to Brintons Ford.

8:00AM to 9:30AM – British northern flanking column crosses Brandywine Creek's west and east branches while Skirmishes continue along US 1 and British gather west of Brandywine Creek

8:00AM: Cornwallis' Division, specifically the Hessian Field Jaegers Corps and the British Light Infantry Battalions, begin crossing the Creek's western branch at Trimble's Ford. The back end of this column of troops is still on Red Lion Road near Haines Road. South of Martin's Tavern *near Northbrook Road and Strasburg Road*, American Col. Hannum and Squire Cheyney ride into the countryside from Martin's Tavern and witness *at an*

undefined location a cloud of dust rising from Cornwallis's Division approaching Trimble's Ford from the south to cross the Brandywine Creek. Cheyney rides to warn Gen'l Washington who is at the Ring Road House in Chadds Ford. At US 1 and Sunny Ridge Lane, Ferguson's Rifles and the Queen's Rangers continue to exchange fire with Maxwell's Troops, who are joined by the American Cannons positioned to the south along Sunny Ridge Lane.

8:30AM: While still under fire, Maxwell's Troops withdraw east across the Creek at Chadds Ford.

9:00AM: British 1st Brigade and British Cannons form a line west of Brintons Ford and north of Chaddwyk Lane.

9:30AM: Ross' Patrol of American light infantry (70 men) arrives in Marshallton near Martin's Tavern and begins scouting the area for British troops. Cornwallis's Division continue to cross the Creek at Trimble's Ford and begin to move east on Lucky Hill Road and then Allerton Road to Jefferis' Ford. Ferguson's Rifles form a line west of Chadds Ford. The Queen's Rangers seize the abandoned American Cannons. The rest of Knyphausen's Troops gather along US 1 from Chandler Road to Sunny Ridge Lane. Active combat in this front comes to a stop.

9:45AM to 11:45AM: Northern Column crosses fords while Knyphausen's Troops and Washington's Army Line up along the Creek

9:45AM: East of Chadds Ford, Stirling's Troops, Stephen's Troops, Maxwell's Troops, Greene's Troops, and American Cannons line up along Creek Road from Masters Way south to Murphy Road. Wayne's Troops are in the rear, near US 1 and Ring Road (Brandywine Battlefield Park). Armstrong's Milita line up east of Pyles Ford and Gibson's Ford, along Rocky Hill Road near Bullock Road. No British are across the Creek from Armstrong's Milita.

East of Brinton's Ford, Sullivan's Troops and American Cannons line up opposite the British 1st Brigade and British Cannons who are lined up west of the ford.

Most of Knyphausen's Troops line up on the west side of the Creek from Brintons Bridge Road south to Hillendale Road. The British 1st Brigade, Grants 2nd Brigade and the British 71st Regiment line up west of Chadds Ford along US 1. The Queen's Rangers line up near Hillendale Road.

10:00AM: Washington incorrectly believes he is facing the entire British Army. He orders American Cannons at Rocky Hill Road South of Creek Road to fire a warning shot west across the Creek towards Knyphausen's Troops.

10:45AM: Ross's Detachment moves south to Northbrook and North Wawaset Roads. Ferguson's Rifles move north from US 1 toward Brinton's Ford.

11:00AM: British's 4th Brigade is the last military formation of Cornwallis's Division to cross the Creek at Trimble's Ford. Ross's *Detachment exchanges gunfire with British's 4th Brigade at Trimble's Ford and a brief skirmish ensues.*

11:15AM: Ross sends a note to Gen'l Washington to report the British have crossed the Creek and are flanking to the north.

11:45AM: Cornwallis's Division begins crossing the Creek's eastern branch at Jefferis' Ford. Sir William Howe forces Emmor Jefferis, a Quaker farmer, to guide the British in fording the Creek. Cornwallis' Hessian Corps cross the Creek and then turn south onto Birmingham Road, while *6,000 of* Cornwallis' Division wait to cross at the ford. Squire Cheyney arrives at Chadds Ford and tells Washington that Cornwallis's Troops are marching to the north, but Cheyney is not believed.

Noon: Cornwallis's Division continues crossing the Creek at Jefferis' Ford. Gen'l Washington receives Ross's note stating that the British are to the north. Incorrectly believing his troops are confronting the majority of the British Army, Gen'l Washington forms an attack on British troops lined up on the west side of the Creek.

12:15PM: Maxwell's Troops under Maj. Gen. Greene move across the "Morass." They ford the Creek at Chadds Ford. *They attack Knyphausen's Troops near Hillendale Road south of US 1.*

12:30PM: Knyphausen orders the Queen's Rangers to attack Maxwell's Troops and fire is exchanged. Maxwell's Troops withdraw east, again fording the Creek.

12:45PM: Maj. Spear *incorrectly* delivers information to Maj. Gen. Sullivan of no British activity to the north. Sullivan conveys this information to Gen'l Washington, who thinking a trap reconsiders his strategy. *Sullivan's Troops cross the Creek at Brinton's Ford. Ferguson's Rifles and the British 1st Brigade defend their position. American Cannons along Creek Road from Street Road to US 1 fire east across the Creek at Knyphausen's Troops.*

1:00PM to 2:15PM - British northern flanking column arrive at Strode's Mill and halt to stage their attack while Washington realigns his troops in the Chadds Ford area

1:00PM: Joseph Townsend, a member of the Birmingham Meeting, witnesses the advance of Cornwallis's Division through Sconnelltown *at Birmingham Road and Sconnelltown Road*. Cornwallis's Division halts their advance and begin to organize near Strode's Mill at present-day Birmingham Road and PA 52. The British Light Infantry and the Hessian Corps line up on the south side of PA 52 just south of Strode's Mill.

1:15PM: Hessian Corps move south along Birmingham Road to near present-day County Club Road. Gen'l Washington orders troops to go north on Birmingham Road to near Meetinghouse Road where they see Cornwallis' troops. Washington orders Bland's Company north up Birmingham Road to near Meetinghouse Road where they see Cornwallis's Troops.

1:30PM to 2:15PM: Most of Cornwallis's Division reach and stop to rest on Osborne Hill north of PA 52 and west of Birmingham Road to prepare for battle. While they prepare for battle, Hessian Rangers move behind Ewald's Hessian Rangers along Birmingham Road near Country Club Road. Knyphausen's Troops maintain their position lined up on the west side of the Creek from Brintons Bridge Road south to Hillendale Road.

1:30PM: Hazen's Regiment leaves Buffington's Ford near Creek Road and Bridge Road South, and moves south along Creek Road to Wistars Ford near Lenape Road and Creek Road.

1:45PM: Bland's Company quickly move *south along Birmingham Road* to Chadds Ford where they warn Washington that Cornwallis's Troops are marching from the north. Washington realizes that he has been flanked and begins ordering troops to move north toward Brimingham Hill.

2:00PM: Stirling's Troops move *east more or less along Webb Road.* Stephen's Troops move *east along US 1 near Ring Road.*

2:15PM: British Guards move to north of PA 52 near Edgemill Way. British 3rd Brigade and British 4th Brigade move north of PA 52 near Darlington Drive.

2:30PM to 3:30 PM - American Troops Attempt to Line up along Meetinghouse Ridge while both Armies continue to battle at Chadds Ford

Most of Cornwallis' Troops maintain their position at Osborne Hill north of Lenape Road and west of Birmingham Road. British Guards Brigade move to just south of PA 52 near Chesterfield Farm Lane. British 3rd Brigade and the British 4th Brigade move to an area between Lenape Road near Osage Lane and Tigue Road. Hazen's Regiment moves south along Creek Road to Jones Ford near Street Road and Creek Road. There, they join with Hall's Company. Sullivan's Troops move north on Creek Road from Meetinghouse Road to Street Road where they absorb Hazen's Regiment and Hall's Company (at 3:15). They are unable to find Stirling's Troops, with whom they are supposed to form a line. Stirling's Troops and Stephen's Troops move east from US 1 near Painters Crossing Road, up Harvey Run to Oakland Road, from there north up Birmingham Road to south of Meetinghouse Road. Then (at 3:15), they line up on the ridgeline south of Meetinghouse Road.

Knyphausen's Troops (5,000 men) maintain their position lined up on the west side of the Creek from Brintons Bridge Road south to Hillendale Road. Nearly half of Washington's Army (8,000 men) maintain their position lined up on the east side of the Creek. American Cannons are aimed west across the Creek along Creek Road between Brintons Bridge Road and US 1. Wayne's Troops are along US 1 east of Chadds Ford. American Cannons and Greene's Troops are south of there, along Bullock Road near Rocky Hill Road. Armstrong's Milita are east of Pyles Ford and Gibson's Ford, along Rocky Hill Road near Bullock Road. No British are across the Creek from them.

3:15PM: A Company of Stephen's Troops moves north along Birmingham Road from Wylie Road to just south of Street Road, and are met by Ewald's Hessian Rangers who had just moved south along Birmingham Road from Ashwell Lane, and are now standing just north of Street Road.

3:45PM to 4:30 PM - British Northern Column Lines up South of Radley Run while both armies at Chadds Ford maintain their positions

Cornwallis' Troops unite to form a single line south of Radley Run in the area of Birmingham Road, Lenape Road, County Club Road, and Tigue Road. There is no change in either American or British troop positions.

3.45PM: A company of Stirling's Troops exchanges fire with Ewald's Rangers, who move west along Street Road to near Gen. Lafayette Blvd.

4:15PM: American Cannons are moved to the center of the American line (4,000 men) along Birmingham Road just east of Wylie Road. To make room for them, Stephen's Troops move east toward New Street. American Cannons are moved to New Street near Militia Hill, and are fired.

4:30PM: Sullivan's Troops, still trying to line up with Stirling's Troops, move east along Street Road, then turn southeast to Meetinghouse Road where the roadway bends.

4:45PM to 5:00 PM - British Northern Column Marches South to Street Road while there is little change in troop positions at Chadds Ford

British 3rd Brigade maintains their rear position along Birmingham Road near County Club Road. Hessian Grenadier Brigade and the British 4th Brigade maintain their rear position along Birmingham Road near Radley Run. The rest of Cornwallis' Troops attack, moving south as a line from Radley Run to Street Road. American Cannons along New Street near Militia Hill are fired. Sullivan's Troops, still trying to line up with Stirling's Troops, reverse direction and move west, then southeast, finally approaching Stirling's Troops lined up north of Wylie Run.

In the Chads Ford area, there is little change to American troop position, except that Greene's Troops move northeast from the area north of Bullock Road and Ring Road, to US 1 near Harvey Road. There is little change to the position of Knyphausen's Troops, except that Ferguson's Rifles move from Brinton's Bridge Road, south to US 1 near Sunny Ridge Lane. Meanwhile the Queen's Rangers move east from Hillendale Road toward the Creek.

5:15PM to 5:30 PM - British Attack on both Fronts

British 3rd Brigade maintains their rear position along Birmingham Road near County Club Road. The Hessian Grenadiers, the British 3rd Brigade, and the British 4th Brigade move south along Birmingham Road from near Radley Run to Street Road. The rest of Cornwallis's Troops attack, moving south as a line from Radley Run to Meetinghouse Road. Heavy fire is exchanged between them and the combined forces of Stirling's Troops and Stephen's Troops who are north of Wylie Run. The American Cannons along New Street near Militia Hill are fired and withdrawn, but Striling's Troops and Stephen's Troops hold their ground.

Knyphausen's Troops attack, moving east across the Creek. British Cannons and American Cannons exchange fire across the Creek. South of US 1, the Queen's Rangers ford the Creek and attack Maxwell's Troops. Fire is exchanged. Wayne's Troops hold their ground along US 1 between Creek Road and Webb Road. American Cannons continue to fire.

5:15PM: Sullivan's Troops fail to line up with Stirling's Troops, because they are attacked by the British Guards. Sullivan's Troops return fire while out of position, but then retreat south from Wylie Run to Brintons Bridge Road. Greene's Troops move northeast towards Dilworthtown from near Haybourne Road to near Oakland Road and Harvey Road. Armstrong's Troops move northeast from Rocky Hill Road near Bullock Road to north of Bullock Roar near Ring Road.

5:30PM: The British Guard Troops pursue Sullivan's Troops moving south from Meetinghouse Road to Wylie Run. In so doing, the British Guard Troops flank the left side of the American's lines. Stirling's Troops who are already taking fire from in front, are now vulnerable to face fire from the British Guard Troops who have moved to their left. American Troops around Chadds Ford begin to retreat.

5:45PM to 6:15 PM - American Army Begins a Disorganized Retreat

5:45PM: Sullivan's Troops retreat east along Brinton's Bridge Road from Penns Way to Cherry Farm Lane with the British Guard Troops pursuing them. They then change direction. They move west along Wylie Creek, then south. Queen's Rangers, Ferguson's Rifles, and the British 71st Regiment ford the Creek under fire south of US 1. They exchange fire with Maxwell's Milita Troops and Wayne's Troops along US 1 near Creek Road and Webb Road. Gen. Washington, Brig. Gen. Knox, Count Pulaski, and headquarters staff withdraw toward Dilworthtown. Washington stops near the 1704 House, and orders a defensive line to be formed to protect the retreating troops. He gives command of his personal bodyguard to Pulaski, and orders them to attack Cornwallis's Troops so as to slow their advance.

6:00PM: Some of Stephen's Troops (4th VA Brigade) retreat south along New Street from Militia Hill Road, and then east along Birmingham Road to Brintons Bridge Road. The rest of Stephen's Troops (3rd VA Brigade) exchange heavy fire with Cornwallis's Troops (Hessian Rangers), but then retreat down Radley Run east of South New Street. British Guard Troops previously in Birmingham Meeting Combat area move south along Creek Road to Brintons Bridge Road near Brintons Ford. They attack the American Cannons near there. American Cannons are then abandoned (at 6:15).

6:15PM: Some of Stirling's Troops (1st NJ Brigade) retreat southeast from Wylie Road and Firethorn Drive to Webb Road near Oakland Road. The rest of Stirling's Troops (PA 3rd Brigade) continue to exchange heavy fire with Cornwallis's Troops (the Light Infantry Battalion and the Hessian Rangers), along Birmingham Road west of South New Street. While the sun sets, some of Greene's Troops (Weedon's 2nd VA Battalion) form a line south of Chester Creek West Branch near Old Barn Drive, to fire at the left side of advancing British. Greene's Troops continue to move northeast from near Oakland Road and Harvey Road to US 202, east of its intersection with Oakland Road. Armstrong's Militia Troops retreat east along US 1 from Ring Road to east of US 202 heading toward the Concord Meetinghouse.

6:30PM to 7:00 PM - British Take Control of the Chadds Ford combat area

6:30PM: After the last of Sterling's Troops (PA 3rd Brigade) retreat from Meetinghouse Road, Pulaski leads Washington's personal bodyguard on a brief attack on the now tired British Troops near Brintons Bridge Road and Oakland Road. This action slows the British advance, allowing American Troops in the area to regroup. The American Troops left fighting on the Northern Front withdraw or retreat. Sullivan's Troops, followed by some of Stephen's Troops (3rd VA Brigade) and some of Stirling's Troops (3rd PA Brigade) retreat east along Dilworthtown Road from Birmingham Road then turn south on Thornton Road to near Cross-Fire Road.

Knyphausen's Troops begin to ford the Creek at Chadds Ford, while Wayne's Troops and American Cannons retreat east along US 1 from Webb Road to west of Painters Crossing Drive. American Cannons near Masters Road and Creek Road continue to fire across the Creek at Knyphausen's Troops, but then are abandoned.

6:45PM: The rest of Stirling's Troops (Scott's 4th VA Brigade) and American Cannons withdraw, reorganize, and form a line along Web Road from Biddle Brook Lane to Oakland Road. They attack some of Cornwallis's Troops (the British 4th Brigade), and fire is exchanged. Following Wayne's retreat, Knyphausen's Troops take control and combat along the Creek comes to a stop.

7:00PM: Some of Cornwallis's Troops (the British 4th Brigade and the some of the British 2nd Grenadier Brigade), move south along Oakland Road from Brintons Bridge Road to Webb Road. Striling's Troops (Scott's 4th VA Brigade) and American Cannons withdraw to an area south of Harvey Road and Oakland Road.

7:15PM to 7:45 PM - Greene's Rearguard Defense Ends the British Attack on Retreating Americans

7: 15PM: While the sunlight is fading, Maj. Gen. Greene takes command of some of Stirling's Troops (Scott's 4th VA Brigade), and some American Cannons. Then he joins them with his own troops (1st VA Brigade, Weedon's 2nd VA Brigade, and the 1st NC Brigade), who had already organized into a line. These four brigades are now Greene's Troops. They form a concave line of defense that extends from Brandywine Drive east of US 202, across US 202 west of Oakland Road, northwest to Old Barn Drive. The last of Cornwallis's Troops still engaged in active combat (the British 4th Brigade and the some of the British 2nd Grenadier Brigade), pursue the retreating American Troops. Cornwallis's Troops move to Oakland Road and Webb Road directly in front of Greene's Troops. Heavy fire is exchanged. Cornwallis's Troops suffer heavy casualties and are forced to stop.

Knyphausen's Troops continue to cross the Creek at Chadds Ford and control US 1 from the Creek to Ring Road near Brandywine Battlefield Park.

8:00PM to 9:15 PM - Greene's Troops Retreat and the British Army forms Two Camps

In the darkness, Greene's Troops who were scattered, reform into a column and conduct an orderly retreat from US 202 and Oakland Road, south to US 1 and State Farm Road. From there they join the rest of Washington's Army retreating east along us 202 toward Concord Meetinghouse. Maxwell's Troops were west of US 202 until 8:00PM, when they too retreat east.

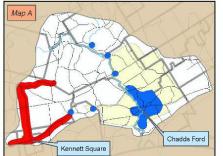
8:30PM: Cornwallis's Troops unite and form a camp of a rectangular form. Its width extends from Webb Road and Biddle Brook Lane, east to Oakland Road, and length extends from Webb Road south to Harvey Road and Glenn Knoll Drive.

8:45PM: Knyphausen's Troops unite and form a camp of a rectangular form. Its width extends from US 1 and Webb Road east to Harvey Road, and its length extends from US 1 north to Atwater Road and Hickory Lane.

Battle Action Summary

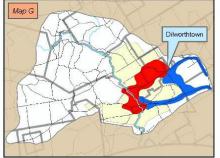
The Battle of Brandywine was a complicated, multi-phase event involving nearly 30,000 troops and lasting from sunup to sundown on September 11, 1777. Map 1.11 from the 2013 Plan (below)¹ provides a snapshot of what was a complex battle. Around 5 a.m. the morning of the battle, British Gen'l Howe's army launched a two-prong attack on the American position along Brandywine Creek. One column departed Kennett Square along the Great Nottingham Road and attacked American troops at Chadds Ford, as Gen'l Washington had expected (Map 1.11-A, B). A second Crown Force column followed a more circuitous route, travelling north from Kennett Square and then east, crossing the Creek further north than the Americans expected, first at Trimble's Ford and then again at Jefferis' Ford, arriving at Strode's Mill/Osborne Hill (Map 1.11-A, B, C, D, E) where they regrouped. From there the Crown Forces attacked to the south, confronting Gen'l Washington's late planned northern troop defense line and out-maneuvering American Forces from the side (Map 1.11-E, F). American Forces were pushed further south where they regrouped near the village of Dilworthtown to organize a last defensive stand (Map 1.11-G, H), using non-traditional 'guerrilla warfare', the first of many times Gen'l Washington would employ the tactic during the war. While the sun was fading in the evening, Maj. Gen'l Greene positioned his brigade and the remnants of other American formations in a semi-circular line that was able to hold off and blunt the Crown Forces' advance. This allowed American Forces to retreat east, reforming near the City of Chester.

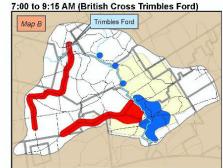
5:00 to 6:45 AM (British Begin to March)

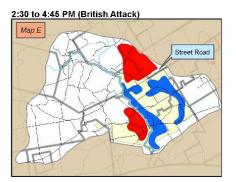


Noon to 2:15 PM (British Form Lines)

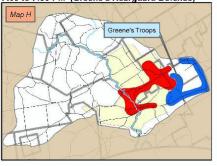
6:00 to 6:45 PM (American's Organized Retreat)



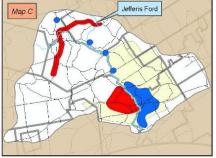


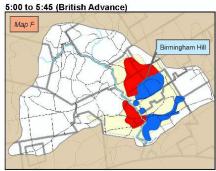


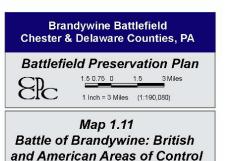
7:00 to 7:30 PM (Greene's Rearguard Defense)











1 Crown Forces are shown in red, American Forces in blue, 2010 Study battlefield boundaries in white and 1992 NHL planning boundaries in off-white.

Battlefield Significance

Brandywine was a defining battle of the American Revolution and, specifically, the British Campaign in 1777 to overtake and occupy Philadelphia, the colonial capital. The battle was significant as it involved the highest ranked officers of both the American Army and British Army, Gen'l Washington and Gen'l Howe. Although the Americans were unsuccessful in preventing British occupation of Philadelphia, the battle demonstrated the American Army had the ability to slow and withstand a direct engagement with the most organized and powerful army in the world at the time, and still rally to fight again. The battle did not result in Gen'l Washington's capture by the British nor the destruction of his army. Together, the Brandywine and Saratoga battles signify the turning point of the war in favor of the Americans, sparking the interest in allegiance from France for the American cause.

Brandywine represents one of the earliest and largest battles of the American Revolution in terms of the number of troops engaged in active combat and total battlefield land area involved (including troop movement, camp, skirmish, and combat sites). It extends through 15 municipalities in two counties, covering approximately 35,000 acres of land. As found through Phase 2 and this project, associated elements of the battle occurred in southern Chester County and northern Delaware in the days before the battle; these elements set the stage for battle events and locations, thus making the battlefield extent even larger in size. As a testament to its importance, the battlefield is a National Historic Landmark¹, the highest level of historic resource designation in the nation. The battlefield's importance as a local, state, and national resource is additionally recognized as: a 'Significant Historic Landscape' in Chester County's *Landscapes3*; the first designated 'Pennsylvania Commonwealth Treasure'; and a National Park Service 'Class A, Preservation Priority 1' Revolutionary War battlefield. Due to its significance and relative integrity, the battlefield is still used today for training soldiers in KOCOA military analysis (see below) and reading a battlefield landscape.

The 2013 Plan developed a 'Statement of Significance' for the battlefield that provides a summary explanation of reasons the battle is important, centering around three primary themes: 1) military events; 2) local (mostly Quaker) community and the battle's impact; and 3) the battle's role in the American Revolution, including the British capture of Philadelphia and diplomatic negotiations with the French. The 'Statement' guides historic resource identification and interpretation opportunities. Built features are examined as to whether they represent and contribute to the battlefield based on the extent to which they are associated with the themes.

Statement of Significance for the Brandywine Battlefield (from Brandywine Battlefield Preservation Plan, 2013)

The Brandywine Battlefield highlights one of the United States' most significant historical events when on September 11, 1777, General Howe and his well-armed professional army engaged the citizen soldiers led by General Washington for a day long battle along the banks of the Brandywine Creek. Although it was a loss for the Americans, it proved that they had the talent and resiliency to fight a long and difficult war. It demonstrated to the Americans that they would never win by fighting a conventional "European" war, forcing them to adopt an alternative defensive strategy that Washington dubbed the "War of Posts." Lastly, it convinced the French that Washington's newly formed rebel troops were reliable enough that they deserved assistance from the French Navy, and all the troops and munitions it could deliver.

When the two large armies, which together totaled 30,000 soldiers, marched into the Brandywine Valley, they instantly changed the character of what had been a quiet homogeneous farming community of some 350 residents, most of whom were Quakers. Since the Quaker faith forbade participation in war, even in a just war, the Brandywine Valley Quakers refused to take sides. Therefore, what essentially took place that day was an invasion of "Quaker country" by two outside armies, one British and one non-Quaker Americans. Local Quaker property was damaged or seized by both armies. And although the Quaker community did not cooperate with either side during the active combat, they spontaneously organized to provide medical care to the wounded immediately after the Battle, even turning their meetinghouses into hospitals.

¹ The National Historic Landmark designated in 1961 recognized the existence and importance of the battle to the course of the American Revolution. The boundary was later delineated to include the battlefield known at the time and includes areas where the fiercest battle action occurred. Numerous subsequent studies, each with additional found historical information, led to an increasingly better understanding of battle events and their locations, which extend well afield from the original boundary. The 2010 Study and the following 2013 Plan provide a compilation of 'best known' information to date and show the breadth of the battlefield as accepted by the ABPP. That information is supplemented with the undertaking of Battlefield Strategic Landscapes Plans, such as this plan, as also accepted by the ABPP.

A Living Cultural Landscape

Brandywine Battlefield is a one-of-a-kind cultural landscape that possesses a special authenticity among remaining battlefields on American soil. This uniqueness provides a foundation and catalyst for successful planning, interpretation, protection of resources, landscapes, and open spaces, and is vital to preserving Chester County heritage, quality of life, and sense of place, as well as promoting education, outreach, and heritage tourism, as appropriate. The battlefield is distinctive in retaining a visible 1777 landscape, including cultural aspects, historic structures, views, natural features, and open rural lands that document and commemorate the history of the nation, state, region, and local communities.

Cultural aspects of the 1777 landscape endure, most notably the local Quaker community who bring a cultural continuity to the landscape. Quakers lived in the battlefield well before and during the battle, and still live there today. Descendants of Quaker families who experienced the battle are present-day residents, some of whom still reside in their family battle-era homes. The same meetinghouses used for worship before the battle, and as make-shift field hospitals for the injured of both armies during and after the battle, continue in use for worship today.

Buildings, structures, and lands of the era also endure. Nearly half of the battlefield's approximately 35,000 acres remain open and undeveloped, and some tracts still have similar property lines as in the 18th century. Intact colonial-era structures, natural features and landforms, rural tracts and farms, roadways, and other physical elements endure and reflect the critical role that Chester and Delaware counties played in the founding of the nation. Colonial-era enclaves, such as Marshallton and Dilworthtown villages, remain as thriving small communities with associated surrounding rural lands that remain in agricultural, equestrian, low density housing, conserved land, and open land uses.

Historic natural features and landforms still characterize this cultural landscape, including challenging, sloped terrain. Obstacles, such as Brandywine Creek and its associated floodplains and wetlands, are referenced in accounts by British and American troops who had to cross or avoid them.

The battlefield is distinct in that is a living cultural landscape where people live and work in continuously-used, well-preserved battle-era structures and lands. Many have been sensitively updated or repurposed to meet modern needs, while still displaying battle-era character. Local, county, state, and federal agencies, nonprofit organizations, elected officials, residents, and businesses, along with or as members of Brandywine Battlefield Task Force (BBTF)¹, work to provide outreach, education, interpretation, preservation, and planning for the protection of this highly important national resource. The battlefield is not a museum collection of resources, and planning efforts recognize its continuation as a vital, working landscape that encompasses structures, features, and open spaces that speak to the 1777 landscape. Efforts to preserve and interpret the battlefield should not attempt to duplicate an outdoor undeveloped 'museum', such as Valley Forge National Military Park or Gettysburg National Historic Park. Rather, the battlefield is a living cultural landscape where the local community has an active role as its caretaker and steward as the battlefield is quite literally *their own back yards*.

Recent Planning Efforts

Battlefield planning, preservation efforts, and studies have occurred in the battlefield for decades, at least since the 1961 NHL designation. Recent ABPP-funded projects of the 2010 Study and 2013 Plan extended the previously assumed battlefield boundaries and provide the most holistic set of overall battlefield planning documents. The

¹ Formed in 1993, Brandywine Battlefield Task Force is a volunteer group of concerned organizations (including municipal, state, and federal representatives, as well as non-profit institutions) interested in working collaboratively to preserve and protect the Battlefield, its history, and its resources through raising awareness about the importance of the battle to American history, coordinating public-private partnerships, and promoting battle interpretation.

2010 Study mapped the newly understood full battlefield for the first time, and in doing so, found that the battlefield was much larger than previously mapped, including northern and southern areas. The 2013 Plan is a follow-up to and recommendation of the 2010 Study. Phase 1 indicated the northern battlefield strategic landscapes to be more expansive than previously known. Phase 2 found the southern battlefield to be more expansive in physical size and battle activity than previously understood, and, as such, the physical extent of the battlefield is also larger, including battle day areas (Lower Flank Northern and Eastern Advance Columns Strategic Landscapes) and associated areas in the days prior (Crown Force Approach and Encampment Strategic Landscapes). This Phase 3 found the eastern battlefield to be larger than thought prior and to also include American Approach in PA and Encampment Areas that are not as often covered/studied as well as extensive fording locations.

2010 Battlefield Study & Animated Map

Undertaken by Chester County staff, the 2010 Study inventoried historic resources, examined battle logistics, defined battlefield boundaries, mapped and animated troop movements and battle action, and provided an educational DVD about the battle.

Inventorying historic resources and lands -Chester County staff

Figure A-1: ABPP KOCOA Battlefield Evaluation System Definitions		
Battlefield Element	DEFINITION	Defining Feature Examples
Key Terrain	A portion of the battlefield, possession of which gives an advantage to the possessor.	Road junctions, fords, buildings, bridges, high ground
Observation and Fields of Fire	Any point on the landscape that allows observation of movements, deployments, and activity of the enemy, offers opportunity to see over an area and acquire targets, and allows flat-trajectory weapons to be brought to bear on the enemy.	High ground, sloping approaches to entrenched positions, clearings, roads
COVER AND CONCEALMENT	Landforms or landscape elements that provide protection from fire and hide troop positions from observation.	Walls, structures, woodlands, ravines, stream banks, hills, entrenchments
OBSTACLES	Landscape elements that hinder movement and affect the ultimate course of the battle.	Watercourses, walls, ravines, marshes, dense vegetation
AVENUES OF Approach	Corridors used to transfer troops between the core battle area and outer logistical areas.	Roads, paths, steam beds, railroads

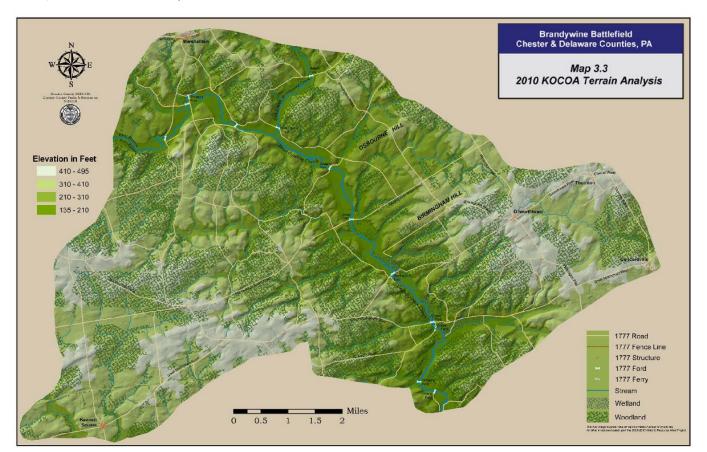
worked with municipal historic commission volunteers to complete a preliminary inventory of historic resources (battle-era and non-battle era). The results are individual municipal Historic Resource Atlases (of all identified historic resources) and a Battle of Brandywine Historic Resource Atlas (of only battle-era identified historic resources). It is the first-time historic resources were identified on such a widespread scale in the battlefield.

Examining battle logistics using KOCOA analysis – ABPP guidelines require battlefields be examined using KOCOA¹, a U.S. Armed Forces battlefield analytical technique. KOCOA is used to understand and map the physical extent of a battlefield, locations of battle elements (events and features), and how unique physical geography, cultural topography/settlement patterns, and communication routes affect military strategy. KOCOA examines land, natural, and built features to identify defining features, which are those features referenced in battle accounts, historic maps, or other sources that help locate battle events in the modern landscape. Figure A-1 shows defining feature examples and their KOCOA battlefield element category.

KOCOA looks at whether features present military obstacles or advantages in a battlefield landscape. Completing KOCOA allows understanding of engagement areas where combat occurred, approach routes taken by troops, and activities behind the lines where battle support actions occurred (e.g. army supply baggage trains, camp sites, non-combatant camp-followers, taverns used for meeting places, farms that provisions were taken from, and meetinghouses, residences, and barns used as field hospitals). The KOCOA analysis led to project mapping of battle events and defining features.

¹ KOCOA stands for Key Terrain; Observation/Fields of Fire; Cover/Concealment; Obstacles; and Avenues of Approach and Retreat. KOCOA has been used since World War II by the Army War College and was first used as a cultural landscape tool at Gettysburg National Military Park in 1996. ABPP uses KOCOA for evaluations of historic battlefields to establish a consistent baseline for battlefield analysis.

Mapping the battlefield extent - The 2010 Study mapped the extent of the battlefield in today's landscape for the first time. Prior to this, modern day mapping focused largely on the eastern battlefield combat areas. Using ABPP's 2007 Report to Congress on Revolutionary War battlefield sites as a starting point, in addition to KOCOA analysis and then recent research by the Study's historian of record, Tom McGuire, it was found through mapping that the battlefield encompasses a much larger area than previously understood, including parts of 15 municipalities in Chester and Delaware counties.¹ Per ABPP standards, known 'combat areas' and 'associated battle sites', which together make up a battlefield, were considered in determining the extent of the battlefield.² Follow-up strategic landscapes projects have provided additional insight and clarification about the battle, resulting in refinements and updated battlefield mapping and KOCOA analysis. The 2010 Study's KOCOA terrain analysis is shown in the map below.



Animated battle event mapping and educational DVD – The 2010 Study provided digital animated mapping of troop movements and battle action displayed over modern and 1777 landscape features. Using technology to interactively convey battle events, the 2010 Study innovatively provided an improved understanding of the battle and extent of its land area. The animated map has been widely used as an educational, interpretive, and planning tool for a broad audience including municipal officials, residents, business owners, and children. Animating battle events brings the battle, and its larger context and impact on the local 18th century community to life. An educational DVD offers a video presentation of the animated map and battle, including its context in the American Revolution.

¹ Kennett Square Borough, New Garden Township, East Marlborough Township, Newlin Township, Pocopson Township, West Bradford Township, East Bradford Township, Westtown Township, Thornbury Township, Birmingham Township, and Pennsbury Township in Chester County, and Chadds Ford Township, Thornbury Township, and Concord Township in Delaware County.

² Combat areas are where core battle combat occurred. Associated sites are actions, places, people, and structures impacted and/or needed for the battle to occur, including troop movements and camp sites (actions and places), farmhouses used as military headquarters and barns and meetinghouses used as field hospitals (structures), and camp followers to support soldiers and citizens as eyewitnesses to battle events (persons).

Key project outcomes – The 2010 Study and animated map have spurred increased local citizen and municipal support and excitement about the battle. The animated map has become a national model in battlefield outreach, education, and planning. The 2010 Study recommended a battlefield preservation plan as a follow-up project.

2013 Battlefield Preservation Plan

Building off the 2010 Study, the 2013 Plan further analyzed and identified battle-era cultural and historic resources, features, and landscapes throughout the battlefield and offered recommendations on a multi-municipal level. It provided the first holistic plan for the full battlefield area (combat areas and associated sites as delineated by the 2010 Study and accepted by the ABPP), as well as a compilation and summary of prior studies, plans, and information in one document. It provided guidance for continued collaborative work for education, outreach, interpretation, and preservation of battlefield resources and landscapes, as well as supports the goals of the regional planning group, Brandywine Battlefield Task Force. The 2013 Plan was undertaken by Chester County Planning Commission with Brandywine Battlefield Task Force input. Since much of the battlefield falls on privately owned lands, a balance between recognition and planning for this national resource and protection of



landowner privacy was a deliberate consideration. To this end, public meetings and outreach events (e.g. Task Force meetings and Chadds Ford Days) were part of the planning process and public comments were incorporated into the 2013 Plan.

The 2013 Plan addressed land conservation and historic resources identification, evaluation, and protection strategies; access to public historic sites; potential for pedestrian connectivity, heritage interpretation and educational outreach; and the potential role of heritage tourism. Its subtitle, 'Revolution in the Peaceful Valley', brings to the forefront the additional complication, conflict, and intrigue associated with the battle occurring in a largely Quaker pacifist community. It speaks to the two invading armies – one American and one British - that descended upon the Quaker agrarian countryside.

Key project outcomes – As noted in Chapter 1, a key finding of the 2013 Plan is the identification of Strategic Landscapes, which still reflect the 1777 landscape, represent significant elements of the battlefield, include battle elements that need further clarification, and are critical to battlefield understanding for purposes of history, interpretation, planning, and preservation. The 2013 Plan recommended further examination of Strategic Landscapes as key areas of the battlefield and to provide directed guidance for local planning and implementation. Landscapes' battle elements and battlefield defining features, from the 2013 Plan, are intended to be clarified through projects such as this plan.

The enduring resources and landscapes found within the battlefield highly contribute to the character and quality of life in southern Chester and Delaware counties, and the 2013 Plan is a critical tool for raising awareness about their value and importance, and helping plan for their continuation into the future.

Phase 1 Northern Battlefield Strategic Landscapes Project

Due to the battlefields land area, strategic landscapes planning is divided into phases. The 2010 Study's KOCOA analysis identified, and the 2013 Plan reiterated, northern battlefield strategic landscapes (Phase 1 study) as battlefield areas in need of additional analysis. Completed in 2015, Phase 1 produced 'Behind the Lines' Marshallton Strategic Landscape Plan, 'Breaching the Fords and the British Advance' Trimble's and Jefferis' Fords Strategic Landscapes Plan, and 'Preparing for Battle' Sconnelltown & Strode's Mill Strategic Landscapes Plan and a KOCOA analysis military historian Technical Report.

Marshallton Landscape involves 'behind the combat line' events of American reconnaissance that played a key role in battle outcomes. Trimble's and Jefferis' Fords Landscapes have key military events necessary for the successful Crown Force tactical flanking maneuver, leading to the battle outcomes. Sconnelltown/Strode's Mill Landscape is related to the battle with Sconnelltown as the final stage of the flanking march and Strode's Mill (and related nearby Osborne Hill Landscape) as preparation for battle areas; it played a role in key military events necessary for completing the successful British tactical flanking maneuver, leading to the battle outcomes.

Key project outcomes – Some of the key project findings included refining strategic landscape boundaries, correcting the route of the Crown Force march, locating Trimble's Ford and discovering it contained primary and secondary ford crossings, identifying the area of the Crown Force skirmish with the American front patrol under Lt. Ross, verifying the location of Jefferis' Ford, identifying 18th century building, landscapes, and natural features that are still visible today, and recreating a 1777-era northern battlefield plat displaying roads, properties, and property owners in 1777, as well as mapping recorded local property damages from troops. The project translates first-hand accounts into today's landscape setting; a setting that is so intact in places that first-hand accounts could be used as a guidebook to follow the steps of troops.

The project also indicates areas to the south – now identified as the southern battlefield through this plan – played a greater role in the battlefield, are more extensive, and exist with greater integrity than previously assumed. A major project finding is the previously assumed Crown Force route through the northern battlefield had been displayed on roads that were created after 1777, and so thus not yet existing at the time of the battle. The project finds and corrects the Crown Force route through the northern battlefield. The project recommended a next phase of battlefield strategic landscapes study to understand and clarify southern areas of the battlefield, which resulted in the Phase 2 project.

Phase 2 Southern Battlefield Strategic Landscapes Project

Due to the battlefields land area, strategic landscapes planning is divided into phases. The 2010 Study's KOCOA analysis identified, and the 2013 Plan reiterated, southern battlefield strategic landscapes (Phase 2 study) as battlefield areas in need of additional analysis. Completed in 2020, Phase 2 produced 'The Army Marched at Dawn' Southern Battlefield Strategic Landscape Plan and two KOCOA analysis military historian Technical Reports as well as updated interactive animated mapping for the southern battlefield area including the addition for the first time of areas in New Castle County, DE.

Phase 2 covers areas and pivotal timeframes related to Crown Force strategy the morning of battle ('Post-Dawn') and in the days prior/leading up to battle ('Pre-Dawn'). Together, four strategic landscapes form the southern Brandywine Battlefield where Gen'I Howe devised and began to execute his battle strategy - the Crown Force army moved from DE into PA on Sept. 8-10, 1777 ('Approach Landscape'), camped at Kennett Square the eve of battle ('Encampment Landscape'), and formed two columns ('Lower Flank Northern Column' and 'Eastern Column Advance' Landscapes) near dawn, Sept. 11, 1777, the day of battle.

Key project outcomes – Some of the key project findings included refining strategic landscape boundaries, understanding Crown Force movements in New Castle County, DE the days before the battle and how it helped form the battle strategy, locating Crown Force routes entering PA and understanding the divisions of forces into two groups, correcting the lower route of the Crown Force march, understanding skirmishes with Ross' scouting patrol along the northern column, understanding locations of the Crown Force encampment in the Kennett Square area, refining the 'running battle along Baltimore Pike' and four skirmish locations, and identifying the Crown Force Baggage Caravan locations, as well as identifying 18th century building, landscape, and natural features that are still visible today, recreating a 1777-era battlefield plat displaying roads, properties, and property owners in 1777, and mapping recorded local property damages from troops. The project translates first-hand

accounts into today's landscape setting; a setting that is so intact in places that first-hand accounts could be used as a guidebook to follow the steps of troops.

Phase 1 and Phase 2 project provide the lead up to combat the day of battle that occurred in three locations – Chadds Ford area, Birmingham Road area, and Dilworthtown area – and resulted in a next phase of battlefield strategic landscapes study to understand and clarify eastern areas of the battlefield as a Phase 3 project, including the American approach into PA and encampment both of which are lesser studied topics.