Chapter 4. History of Cultural Resource Investigations

Introduction

The Historic Properties Management Plan (HPMP) presented in this report has its roots in the Huntington District report entitled, "Cultural Resource Reconnaissance Report, Bluestone Lake, Summers County, West Virginia," issued in 1979. This early report presented basic background information for cultural resource management, including culture history and chronology, a summary of Solecki's early work from 1949, some soils information, and a detailed report by Jack Rich summarizing the removal of 153 burials from the Late Prehistoric village at 46Su9. At this time, only 28 sites were reported on Huntington District property at Bluestone Lake. Information from this initial report contributed to a more wide-ranging summary entitled *Social and Cultural Resources Report, Bluestone Lake, Summers County, West Virginia* issued by the Huntington District in 1983, that addressed wide-ranging social issues as well as cultural resources. In 1993, a Huntington District report provided individual site descriptions for the first time (USACE 1993). In 1994, the Huntington District issued its first formal HPMP, which relied heavily upon the initial report in 1979 and the 1993 site descriptions (USACE 1994). This first HPMP was updated in 1998 (USACE 1998) to include attempts to relocate known sites and obtain a GPS point for those sites. The HPMP presented in this report is based on the 1998 report, updating the earlier reports to include new information and to comply with current HPMP requirements.

No systematic archaeological survey of the Huntington District property at Bluestone Lake has been conducted. Archaeological sites were first officially reported by Solecki (1949) during his non-systematic survey of major open-air sites and rockshelters prior to the construction of the dam at Bluestone Lake. Members of the West Virginia Archeological Society (WVAS) have also conducted informal walkover surveys over the years, primarily during the 1980s. Surveys of threatened, sensitive areas adjacent to the New River in Giles County, Virginia, were conducted by Howard MacCord in the late 1960s and early 1970s. More recently, small, systematic surveys have been conducted by Huntington District archaeologists and private companies, focusing on small areas with planned construction impacts. More extensive (but still limited) test excavations have been conducted at some of the larger village sites. Overall, archaeological survey at Bluestone Lake has been informal and generally focused on riverine environments.

Previous Investigations

The first archaeological survey was conducted by Ralph Solecki of the Smithsonian Institution in 1948. Solecki (1949) recorded 28 sites within the project boundaries, surveying most of the floodplains and identifying major village sites. He also excavated a few test pits and/or trenches at several sites, including 46Su3, 46Su20, and 46Su24.

Under contract to the Huntington District in 1977, the University of Pittsburgh's Archaeological Research Program conducted testing at 46Su3, a Late Prehistoric village site now located on an island in the lake and periodically inundated (Adovasio et al. 1980). Testing was designed to evaluate the effects of constant inundation and to determine site boundaries. Additional testing was conducted at 46Su3 in 1978 and 1979 by the University of Pittsburgh. Site 46Su3 produced a total of 26 cultural features, including refuse/storage pits, fire pits, human burial pits, and several features of unknown function. Artifacts

recovered include lithics, ceramics, bone, and shell fragments.

As part of the same inundation study, excavations were conducted at 46Su9 and 46Su22 in 1979 by the University of Akron (Johnson 1984; Adovasio et al. 1980). Site 46Su9 yielded 13 cultural features including storage/refuse pits, two human burial pits, one possible collapsed wall/living floor, and one pit of unknown function. Site 46Su22 produced four cultural features including one possible living floor, one storage/refuse pit, one firepit, and one pit of unknown function. Artifacts from all three sites include projectile points, groundstone artifacts, groundstone and ceramic pipes, worked bone and shell implements, and ceramics (Johnson 1984).

Soil Systems, Inc. (SSI) completed an archaeological survey of gas transmission line corridors in several counties in West Virginia, including Summers and Monroe counties in the Bluestone Lake area. This report was completed for Columbia Gas Transmission Corporation in 1980 (SSI 1980). No sites were identified within the Huntington District boundaries at Bluestone Lake during this survey.

A Phase I survey of Line KA for the Columbia Gas Transmission Corporation was conducted by Archaeological and Historical Consultants, Inc. and Gray and Pape, Inc. (Tidlow et al. 1996). Sites recorded during this survey located within the Huntington District boundaries at Bluestone Lake include 46Su633, 46Su634, 46Su635, and 46Su636. Sites 46Su635 and 46Su636 were recommended as not eligible for the NRHP, but 46Su633 was recommended as potentially eligible for the NRHP. Following additional Phase I field and archival investigations, 46Su634 was also recommended as not eligible for the NRHP (Purtill et al. 1997). A Phase II archaeological evaluation of 46Su633 was conducted in 1997 by Gray and Pape (Putrill et al. 1997). Despite the presence of diagnostic artifacts dating from the Middle to Late Archaic period and a relatively intact subsurface deposit across the wooded portion of the site, 46Su633 was recommended as not eligible for the NRHP (Purtill et al. 1997).

A total of 41 sites have been recorded within the Huntington District boundaries at Bluestone Lake by Stephen Trail and Eugene Holland of the New River Chapter of the WVAS. These sites are generally known only from the information recorded on West Virginia Archaeological Site Forms. Trail recorded sites from 1981- 1982, 1984-1986, 1988-1989, and 1991. Holland and Trail recorded sites in 1983. The NRHP eligibility of these sites has not been evaluated, and only 25 were relocated during the 1998 GPS survey (USACE 1998).

Seven sites were recorded by Huntington District archaeologists in 1978 (USACE 1979). These sites include 46Su39, 46Su41, 46Su42, 46Su43, 46Su44, 46Su45, and 46Su54. Six additional sites were identified and included in a report on social and cultural resources at Bluestone Lake in 1983 (USACE 1983). These sites include 46Su325, 46Su326, 46Su327, 46Su328, 46Su329, and 46Su330.

Four sites that actually represent navigation cuts in the river bedrock (sluices) were identified by William Trout (1983) as part of his ongoing work with The Virginia Canals & Navigations Society (Trout 2003).

In 1985, *An Historical and Archeological Survey of the Bluestone River, Madam Creek, and the Jumping Branch/Nimitz Areas of Summers County, West Virginia*" was submitted to the Summers County Historical Landmark Commission by Paul Marshall and David Fuerst. No sites were recorded within the reservoir's boundaries during this survey.

Documentary research and a preliminary archaeological survey were performed on four late eighteenth-century fort sites within the project area in August 1991 by the University of Kentucky's Program for Cultural Resource Assessment (McBride, Updike & Bonshire 1991). This research covered Lafferty's Fort (46Su290), Farley's Fort (46Su19), Fort Byrd (46Su23, also referred to as Fort Field or Culbertson's Fort), and Cook's Fort (46Su5). The exact locations of the forts could not be

determined. There was little documentary information to confirm even the existence of Cook's Fort. It is possible that the Cook's Fort located at Indian Mills mentioned by Solecki (1949) has been confused with Valentine Cook's Fort in Monroe County, West Virginia.

A Phase I survey of construction areas associated with a West Virginia-American Water Company upgrade project was conducted by C. Michael Anslinger of Cultural Resource Analysts, Inc. in 1995. Three previously unrecorded sites (46Su616, 46Su617, and 46Su618) were identified (Anslinger 1995). Sites 46Su616 (a rockshelter) and 46Su617 were both considered potentially eligible for the NRHP, and recommendations were included for avoidance or Phase II archaeological evaluation of their NRHP eligibility. Attempts to relocate the previously identified rockshelter at 46Su2, located nearby according to WVSHPO maps, were unsuccessful. Site 46Su345 (the Robert Neely Grist Mill) was relocated during the survey, but was located well outside the project area. Since 46Su345 would not be impacted by the proposed project, no further investigation was recommended at the time (Anslinger 1995).

In March and April of 1998, a survey was undertaken to relocate sites recorded for the properties of Bluestone Lake as part of an update to the Bluestone Lake Historic Properties Management Plan (HPMP) (USACE 1998). The survey utilized a two-man crew equipped with Trimble Pathfinder Global Positioning equipment. Survey methodology included visiting the location of each site as plotted by the office of the WVSHPO on USGS topographic quadrangle maps. The Huntington District also provided a GIS overlay of archaeological sites within the Bluestone Lake properties that had been created for the Department of Natural Resources (DNR) (Schaefer 1997).

During the survey an attempt was made to verify the presence of prehistoric or historic artifacts at each site through pedestrian survey of locations with high ground visibility, or through limited shovel testing when visibility was limited or non-existent. Using the GPS equipment, the location of each site was recorded. Following data correction using Trimble Pathfinder software, the relocated sites were plotted onto the DNR GIS overlay and onto USGS topographic quadrangle maps for the area. The survey focused on providing confirmation of locations, and did not evaluate site dimensions. Not all sites were relocated, and some appeared to be situated some distance from their projected location. Observed differences between plots depicted on the DNR GIS overlay, the USGS topographic quadrangle maps at the WVSHPO and the GPS survey results are noted during the presentation of survey results in Appendix B (Table B-1).

Archaeological data from sites at Bluestone Lake have been used in a number of publications. A particularly rich outlet for research based on Bluestone Lake sites has been the New River Symposium. Articles related to Bluestone Lake sites appeared in the publication, *Proceedings, New River Symposium* from 1982 to 1991, as shown in Table 4-1.

Table 4-1. Articles Associated with Bluestone Lake Appearing in Journals and Other Published and Unpublished Sources.

Proceedings, New River Symposium	
Citation	***Title***
Dirkmaat and Siegel 1982:198-203	Effects of Prolonged Inundation on the Physical and Chemical Properties of Faunal Remains
Maslowski 1982:185-194	Archeology of the Bluestone Reservation
Marwitt 1982:195-197	Test Excavations at Three Late Prehistoric Village Sites at Bluestone Lake, Summers County, West Virginia
Rollins 1982:204-211	Molluscan Fauna at Three Bluestone Lake Sites: The Effects of Inundation upon Data Recovery
Maslowski and King 1983:69-88	Indian Pottery Types from the Bluestone Reservation
Lady 1983:183-201	Bluestone Lake - Past, Present, and Future
Maslowski and Woody 1984:183-192	Historic Sites in Crump's Bottom, Bluestone Reservation
Maslowski 1985:137-143	Beads and Ornamentation of the Bluestone Indians
Maslowski 1986:165-173	Relationship of Archaeological Sites to Soils in the New River Valley of West Virginia
Hill 1991:10-16	A Toponymic Study of the Lower New River
Other Works Associated with Bluestone Lake	
Citation	***Title***
River Basin Surveys 1948	Appraisal of the Archaeological Resources of Bluestone Reservoir, West Virginia
Solecki 1949	An Archaeological Survey of Two Rivers in West Virginia: The Bluestone Reservation
Perry n.d.	History of Bluestone Dam (manuscript on file)
Faulconer 1975	Fort Culbertson, Site of Indian Wars
Applegarth et al. 1978	46SU3 Revisited
Faulconer 1978	Indian Lore Preserved at Summers County Museum
USACE 1979	Cultural Resource Reconnaissance Report, Bluestone Lake, Summers County, West Virginia
Meador 1980	Aunt Nannie Meador and the Bluestone Dam
Johnson et al. 1980	Fort Ancient on the Frontier: A View From Bluestone Lake, West Virginia
Lenihan, et al. 1981	The Final Report of the National Reservoir Inundation Study, Volumes 1 and 2
Seidel 1981	Taxonomic Analysis of Pseudemyd Turtles (Testudines: Emydidae) from the New River, and Phenetic Relationships in the Subgenus Pseudemys
Applegarth and Davis 1982	A Dalton-Early Archaic Assemblage from Summers County, West Virginia
USACE 1983	Social and Cultural Resources Report, Bluestone Lake, Summers County, West Virginia
Johnson 1984	Archaeological Researches in the Bluestone Reservoir, Summers County, West Virginia
Maslowski 1985b	The Bluestone Monitor Pipe
Sanders 1991; Sanders 1992	A New River Heritage, Volumes I & II
USACE 1993	Cultural Resources Reconnaissance, Bluestone Lake Hydropower Study, Summer County, West Virginia
USACE 1994	Bluestone Lake Historic Properties Management Plan
USACE 1998	Bluestone Lake Historic Properties Management Plan Modified August 1998

Chapter 5. Cultural Resource Descriptions, Curation of Collections, and Radiocarbon Dates

Introduction

The Huntington District reported 126 known archaeological sites located on their property in 1988 (USACE 1998). In 1989, the Huntington District transferred administrative jurisdiction over 858.11 acres of property along the Bluestone River to the National Park Service (NPS) (Figure 2-1). This property included 11 archaeological sites (46Su346, 46Su379, 46Su380, 46Su381, 46Su384, 46Su386, 46Su387, 46Su388, 46Su389, 46Su390, and 46Su391). These sites are now on NPS property, and were not considered as part of the Bluestone Lake HPMP in 1998 (USACE 1998). In addition to the remaining 115 sites reported in 1998 (USACE 1998), 12 additional sites were noted during inspection of Virginia and WVSHPO archaeological site files, bringing the total within Huntington District boundaries at Bluestone Lake to 127 (Appendix A).

Some confusion regarding archaeological site numbering was discovered for sites located in Giles County, Virginia. In 1949, Solecki reported the results of his survey of the Bluestone Reservation, numbering the archaeological sites that he identified in Giles County, Virginia, as 44Gs1 sequentially through 44Gs11 (Solecki 1949). All of these sites were located along the New River at or *downstream* of Narrows, Virginia, and continuing *north* to the West Virginia border. In November 1950, the Smithsonian Institution accessioned the materials from this survey using Solecki's site numbers. However, the State of Virginia did not assign official numbers to Solecki's sites until April 1969. Solecki's numbers were changed at this time, as shown in Table 5-1, to accommodate an ongoing survey by C.G. Holland in Giles County.

In 1970, the Smithsonian Institution published C.G. Holland's report on his survey of southwestern Virginia, which included Giles County and the New River (Holland 1970). Holland had identified seven sites along the New River *upstream* of Narrows, Virginia, beginning at Ripplemead and continuing *south* to the border of Giles County with Pulaski County/Montgomery County, Virginia. Holland numbered these sites as Gs1 sequentially through Gs8. The Smithsonian Institution accessioned the materials from this survey using Holland's site numbers (Table 5-1).

As Table 5-1 demonstrates, the Smithsonian has accessioned collections from different archaeological sites under the same site number, but fortunately, under different accession numbers (Table A-2, Appendix A). Just as the Smithsonian has continued to use Solecki's original site numbers, so too have the WVSHPO, the DNR, and previous versions of the HPMP for Bluestone Lake (e.g., USACE 1998). For this updated version of the Bluestone Lake HPMP, Solecki's numbers have been replaced with the official State of Virginia archaeological site numbers. Note that a consistent site number has been maintained for one site, 44Gs10, throughout the various surveys.

Site locations are, for the most part, based on the results presented during the 1998 survey and update of the Bluestone Lake HPMP (USACE 1998). This report used three points of reference for site location. First, the term "SHPO plot" refers to a GIS plot of archaeological site locations based on the locations of sites recorded on topographic maps at the office of the WVSHPO, which is housed at the West Virginia Division of Culture and History (WVDCH). A second GIS-based plot of archaeological site locations

Table 5-1. Changes in Archaeological Site Numbers in Giles County, Virginia.

Solecki (1949)	Smithsonian Accession (in 1950)	VDHR (in 1969)	Holland (1970)	Smithsonian Accession (in 1971)
44Gs1	44Gs1	44Gs11	-	-
44Gs2	44Gs2	44Gs12	-	-
44Gs3	44Gs3	44Gs13	-	-
44Gs4	44Gs4	44Gs14	-	-
44Gs5	44Gs5	44Gs15	-	-
44Gs6	44Gs6	44Gs16	-	-
44Gs7	44Gs7	44Gs17	-	-
44Gs8	44Gs8	44Gs18	-	-
44Gs9	44Gs9	44Gs19	-	-
44Gs10	44Gs10	44Gs10	44Gs10	44Gs10
44Gs11	44Gs11	44Gs20	-	-
-	-	44Gs1	44Gs1	44Gs1
-	-	44Gs2	44Gs2	44Gs2
-	-	44Gs3	44Gs3	44Gs3
-	-	44Gs4	44Gs4	44Gs4
-	-	44Gs5	44Gs5	44Gs5
-	-	44Gs6	44Gs6	44Gs6
-	-	44Gs7	44Gs7	44Gs7
-	-	44Gs8	44Gs8	44Gs8

was provided for the 1998 relocation survey by the West Virginia DNR. Third, a series of single points were generated by a GPS survey of known sites at Bluestone Lake as part of the 1998 HPMP update. These points were taken at the spot where artifacts of structural remains were identified, and do not necessarily indicate the center point of the site. These were placed in a database and used as a third GIS layer for site location.

For the mapping that appears in this current update of the Bluestone HPMP, the site locations are based first on the GPS points recorded during the 1998 relocation survey. If the site was not relocated during the 1998 relocation survey, then the most representative point based on consideration of the WVSHPO map, the DNR GIS overlay, and the site elevation reported in the West Virginia State Archaeological Site Form is reported as the site location.

The remainder of this chapter presents a general summary of archaeological sites on Huntington District property at Bluestone Lake. Associated radiocarbon dates are presented in Chapter 6, and GPS survey data from 1998 (USACE 1998) is presented in Appendix B.

Archaeological Site Descriptions

The individual site descriptions below include the results of the relocation survey conducted in 1998 (USACE 1998). Additional data generated by that survey is included in Appendices A and B.

44Gs10: The Lurich site is a large Late Prehistoric village site located at an elevation of approximately 1520 ft amsl on a New River floodplain terrace. The site was identified by Solecki in 1949, but an archaeological survey form was not filed with the Virginia State Library (now transferred to the Virginia Department of Historic Resources (VDHR)) until 1965 when limited excavations were conducted by Col. Howard A. MacCord and L.D. Collins (Collins 1965). These excavations identified fourteen prehistoric features, numerous post molds, and a mix of shell, limestone, and sand-tempered pottery that is typical of other villages in the area, especially to the east.

The village is situated on broad, fertile bottom land along the west bank of a sharp bend in the river opposite Emanuels Hollow (Solecki 1949). A narrow swale is present

behind the site. The VDHR site form describes a 300-ft diameter circle of black earth, from which "pottery, points, scrapers, and chips" were recovered. Solecki's original survey also reports mullers, hammerstones, celt fragments, deer bones, and an adult human femur (1949:376). According to the VDHR site form, the collection from MacCord's 1965 survey was reviewed by MacCord in 1984. MacCord noted that the "predominant ceramics are limestone tempered, net and cord (marked), and mussel shell tempered, net and cord (marked)."

This site was not revisited by Cultural Resource Analysts, Inc. (CRAI) personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 44Gs10 is within the boundaries of the Huntington District's Bluestone Lake property (USACE 1973).

44Gs11: This site was originally reported as 44Gs1 by Solecki (1949) and is still referred to as such on the DNR GIS plots referenced for this update. In the official VDHR site files, however, archaeological site number 44Gs11 has been assigned to the site identified by Solecki's field site number 44Gs1. References in this revision of the 1998 HPMP will refer to the official VDHR site number.

The site is located on the east bank of the New River at an elevation of about 1520 ft amsl, just south of Rich Creek and opposite an island north of The Narrows (Solecki 1949). Solecki found cultural materials, including "pottery, points, and chips," scattered over 12 acres of cultivated farmland at the site. The valley begins to narrow south of 44Gs11, with floodplain terraces giving way to steeply-sloped ridges on either side as the river/lake approaches The Narrows.

This site was not revisited by CRAI personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 44Gs11 is within the boundaries of the Huntington District Bluestone Lake property (USACE 1973).

44Gs15: This site was reported as 44Gs5 by Solecki (1949), and continued to be referred to as such in previous HPMPs developed for Bluestone Lake (USACE 1998). In the official VDHR site files, however, archaeological site number 44Gs15 has been assigned to the site identified by Solecki's field site number 44Gs5. Map references in this revision of the 1998 HPMP have been corrected.

This is an open habitation site located at an elevation of 1520 ft amsl near the Glen Lyn Bridge, west of Manuels (formerly Emanuels) Hollow. The site lies on the east bank of the New River, and exhibits Archaic, Woodland, and Late Prehistoric temporal components. The site was originally identified on cultivated farmland and covered an area of about 15 acres. Artifacts include 22 ceramic sherds, one projectile point, six pieces of debitage, and scattered broken stones and mussel shells (USACE 1979; Solecki 1949).

This site was relocated by CRAI personnel on April 7, 1998 (USACE 1998). The site is located on a ridge within the floodplain on the northern side of the New River, northeast of Glen Lyn. The site area was in pasture. At the edge of the floodplain, there were several tree falls and groundhog holes that were inspected for artifacts. Lithic debris was observed around a groundhog hole. A GPS point was taken where artifacts were observed, near the center of the ridge.

44Gs17: This site was reported as 44Gs7 by Solecki (1949), and continued to be referred to as such in previous HPMPs developed for Bluestone Lake (USACE 1998). In the official VDHR site files, however, archaeological site number 44Gs17 has been assigned to the site identified by Solecki's field site number 44Gs7. Map references in this revision of the 1998 HPMP have been corrected.

The site is located at an elevation of about 1515 ft amsl, and exhibits Late Archaic and Woodland temporal components (USACE 1979; Solecki 1949). The site was originally identified as a small camp site, roughly one acre in size, located on both sides of the mouth

of Limestone Creek at the New River. Two ceramic vessel fragments and three pieces of debitage were recovered (Solecki 1949:375).

On April 7, 1998, this site was relocated by CRAI personnel. The site was located on a secondary terrace above the floodplain of the New River. Lithic debris and a limestone tempered potsherd were observed. A GPS point was taken near the approximate center of the site.

44Gs20: This site was reported as 44Gs11 by Solecki (1949), and continued to be referred to as such in previous HPMPs developed for Bluestone Lake (USACE 1998). In the official VDHR site files, however, archaeological site number 44Gs20 has been assigned to the site identified by Solecki's field site number 44Gs11. Map references in this revision of the 1998 HPMP have been corrected.

This is camp site located at an elevation of about 1505 ft amsl, on the west bank of the New River below Glen Lyn at the confluence of Smith Branch with the river. Three projectile points and several pieces of debitage were recovered (Solecki 1949).

On April 7, 1998, this site was relocated by CRAI personnel. The site was located on a ridge on the broad floodplain of the New River. The site was in pasture and shovel tests were excavated across the floodplain. A Lowe hafted biface base, dating to the Middle Woodland period was recovered in one shovel test. A GPS point was taken near the positive shovel test.

44Gs22: This site is located on a narrow floodplain terrace at the base of a steeply-sloped ridge along the east bank of the New River. The site elevation is about 1520 ft amsl. When the site was recorded on a VDHR site form by MacCord in 1974, it was situated within a roadside park about 0.2 mi. south of Rich Creek. The VDHR site form reports that debitage and Archaic points were recovered at a "depth of four feet under river alluvium" in a "test by unknown persons."

This site was not revisited by CRAI personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 44Gs11 is within the boundaries of the Huntington District's Bluestone Lake property (USACE 1973).

44Gs28: This Historic Period site is located on a hill overlooking the west bank of the New River at Glen Lyn, immediately north of U.S. Route 460 and just east of the Glen Lyn post office. Site elevation is about 1523 ft amsl. A historic cemetery with 15 graves was reported on the VDHR site form by MacCord in 1972, with a note that says to "refer to site notes in VRCA files from excavations in Sept. 1972," but those records could not be relocated. MacCord also notes that the area was to be disturbed by construction, so it is unclear if the cemetery remains in place.

This site was not revisited by CRAI personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 44Gs28 is within the boundaries of the Huntington District's Bluestone Lake property (USACE 1973).

44Gs41, 44Gs42, 44Gs43, and 44Gs44: These four sites all represent cuts into the river bedrock within the New River itself to form sluices and improve navigation. The cuts at 44Gs41 are located at Schumate Falls, which represented the head of navigation for the Huntington District's Greenbrier Division when construction on the navigation system was discontinued in 1882 (Trout 2003).

These sites were not revisited by CRAI personnel during the 1998 survey, and were not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that these four sites are within the boundaries of the Huntington District's Bluestone Lake property (USACE 1973).

44Gs48: This prehistoric site is located on the west bank of the New River, just south of 44Gs17 and Limestone Creek. The site is situated on a low ridge of the floodplain terrace between VA Route 649 and the New River. The site covers about two acres, and is situated at an elevation of about 1515 ft amsl.

Artifacts dating from the Woodland or Late Prehistoric period were recovered by MacCord (1984). These artifacts include limestone-tempered ceramic vessel fragments and one ceramic vessel fragment tempered with mussel shell. The limestone-tempered sherds are leached, with cordmarked and net-impressed surface treatments. The mussel shell-tempered sherd is cordmarked.

This site was not revisited by CRAI personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 44Gs48 is within the boundaries of the Huntington District's Bluestone Lake property (USACE 1973).

46Me19: This hamlet is located at an elevation of 1470 ft amsl, and includes a Woodland temporal component. The site was revisited by CRAI personnel on March 26, 1998 (USACE 1998). The site was in a campground area maintained in pasture. Dirt roads providing access to the campground provided limited visibility. Shovel tests yielded flakes. A GPS point was taken on the northern side of a drainage within the boundaries of the WVSHPO plot of the site. This site does not appear on the GIS overlay of archaeological sites at Bluestone Lake provided by the DNR.

46Me20: This prehistoric open habitation site is located at an elevation of 1470 ft amsl. On March 26, 1998, this site was revisited by CRAI personnel. The site area had been in cultivation. There was fire-cracked rock and ground stone observed, but no lithic debris or ceramics were visible. The site probably contains sparse lithic debris and has a low visibility. A GPS point was taken at the approximate center of the site. This site does not appear on the GIS overlay of archaeological sites at Bluestone Lake provided by the DNR.

46Me21: Site 46Me21 is a prehistoric open habitation site located at an elevation of 1470 ft amsl. This site was revisited by CRAI personnel on March 26, 1998 (USACE 1998). The site was in a cultivated field located on a linear ridge within the floodplain. Only one flake was observed. The site probably represents a sparse lithic scatter. A GPS point was taken at the approximate center of the site, southwest of the mapped WVSHPO plot location for this site. This site does not appear on the GIS overlay of archaeological sites at Bluestone Lake provided by the DNR.

46Me103: The Ford Hollow Branch Site is an open habitation site located at an elevation of 1460 ft amsl, on an east bank terrace of the New River north of Ford Hollow Branch. The site was recorded by Stephen Trail in 1989, and reported as a series of small campsites.

This site area was revisited by CRAI personnel on March 26, 1998 (USACE 1998). The area was plowed and flakes were observed across a long, linear ridge paralleling the New River channel. A GPS point was taken near the area where the flakes were observed. The site probably extends to the south of the GPS point. The GPS point is located north of the WVSHPO plot of the site area. This site does not appear on the GIS overlay of archaeological sites at Bluestone Lake provided by the DNR.

46Me121: The Ford Hollow Rockshelter (46Me121) is located at an elevation of 1600 ft amsl at the mouth of Ford Hollow Branch. The site is on the primary trail with the New River. The floodplain is located between the shelter and the river. The site was recorded by Stephen Trail in 1989.

This site area was revisited by CRAI personnel on March 26, 1998 (USACE 1998). There was an overhang present in Ford Hollow, but no artifacts or archaeological deposits were noted within the overhang. No GPS point was taken at this location during the 1998 relocation survey (USACE 1998).

46Su1: Site 46Su1 is a Late Woodland rockshelter located at an elevation of 1565 ft amsl. Late Prehistoric artifacts from the site include shell-tempered ceramics (Solecki 1949).

An attempt was made to locate the site on March 27, 1998, by CRAI personnel. The 1998 survey identified no exposed rock faces in the vicinity. The heads of several drainages

in the area were surveyed as well, but the rock shelter could not be relocated. No GPS point was taken at this location during the 1998 relocation survey (USACE 1998).

46Su2: This rockshelter is located at an elevation of 1400 ft amsl, permanently inundated by Bluestone Lake. Shovel tests in the area produced no cultural material, and the site could not be relocated (Anslinger 1995). The 1998 relocation survey (USACE 1998) also failed to relocate the shelter. This area was revisited by CRAI personnel on April 16, 1998 (USACE 1998). Several rock overhangs were discovered in the area, but none revealed any cultural material. There does not appear to be a shelter at the location as currently mapped, and no GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su3: The Barker Site, 46Su3, is a large Late Prehistoric village located on the southern tip of an island in the New River approximately eight km southeast of the confluence of the New River and the Bluestone at an elevation of 1408 ft amsl. Much of the site is inundated by Bluestone Lake (Adovasio et al. 1979), and briefly exposed during winter drawdown. The site includes Late Archaic, Late Prehistoric, and Protohistoric temporal components. This site is considered to be eligible for the NRHP but has not yet been nominated (USACE 1998).

The site has produced many artifacts and features, including burials. A flood in 1891 is reported to have exposed an ancient graveyard covering approximately 40 acres. The site also produced a sandstone turtle figure which is now housed at the Smithsonian Institution (Solecki 1949; Adovasio et al. 1980). Solecki (1949) excavated a 10 x 15 ft test trench and recovered 131 ceramic vessel fragments, along with few pieces of debitage and some worked bone.

The Cultural Resource Management Program of the University of Pittsburgh conducted testing at 46Su3 in 1977. The goals of the testing were to (1) gauge the effects of inundation; (2) delineate the extent of the archaeological deposits; and (3) gather artifacts and data on the prehistoric inhabitants of the Bluestone Reservation for a newly constructed interpretive center. Additional controlled surface collections and test excavations were conducted in 1978 and 1979 by the Cultural Resource Management Program for the Huntington District and the National Park Service. Many features were exposed during these excavations, including roasting, storage and trash pits, occupational floors, extensive midden areas, and burials (Adovasio et al. 1979; Adovasio et al. 1980). The University of Pittsburgh's excavations of 1977 produced 2,072 ceramic sherds, two pipe bowls, one gaming disc, and one scraper. Four radiocarbon dates were obtained during this work, ranging from AD 1190 +/ 45 to AD 1270 +/ 165 (Adovasio et al. 1980). Artifacts recovered from burials during winter drawdown include two gorgets, two bone pins, one bird bone bead, seven columnella tooth effigy pendants, one bird's head effigy pendant, 24 small tubular columnella beads, six cylindrical columnella beads and 3,088 Marginella shell beads (Maslowski 1985).

Feature I produced a radiocarbon date of AD 1190 +/-45. This feature was one of a series of five probable roasting pits. Fill material removed from the feature consisted of lithics, ceramics, bone, shell, fired rock, ash, and charcoal. Due to percolation, no stratification was evident in the feature (Adovasio et al. 1980).

Diagnostic artifacts recovered from the site include two Levanna and one Pee Dee projectile point, shell-tempered and New River series ceramics, and a glass trade bead (USACE 1983). Approximately 0.6 ft^3 of artifacts from the site are curated at the Delf Norona Museum in Moundsville.

This site was revisited by CRAI personnel and Bob Maslowski, Huntington District archaeologist, on March 17, 1998 (USACE 1998). GPS points were taken on the northern and southern extent of the artifact distribution on the eroded shoreline. The locations of the four auger holes and one excavation unit were recorded as GPS points. In addition, a GPS point was taken at the location of the old gas pipeline with the intent that this landmark

could be used to establish the locations of University of Pittsburgh excavation units on the current ground surface. Subsurface investigations included limited auger testing and the excavation of a 1-x-1-m test unit. The remainder of this section presents a summary of these investigations.

Site 46Su3 occupies an alluvial landform located on the west side of New River that is often partially inundated by the Bluestone Reservoir. A narrow forested section of the landform located above normal pool forms a small island. Over the years, mechanical processes (including water motion and wave action) appear to have negatively impacted cultural-bearing deposits. Data obtained in 1996 by personnel from the United States Corps of Engineers' Waterways Experiment Station (WES) indicates that this part of the site has experienced a net soil/sediment loss of about 1.0 m since the impoundment of the reservoir, while the forested part of the island (i.e. highest elevations above normal pool) has received a net sediment gain of several feet (Dunn et al. 1996:67, 70). As recorded in Huntington District and WVSHPO files, and by Applegarth et al. (1978) and others, the site has an irregular outline which excludes all the areas located above normal pool.

CRAI personnel visited 46Su3 to determine whether intact site deposits were located beneath the surface of the forested island. The exploratory investigation consisted of the excavation of three bucket auger cores and the cleaning of a small section of eroded bank. The auger was equipped with a bucket measuring 10 cm in diameter. Locations for the auger cores were randomly selected based on the distribution of cultural material exposed along the adjacent shorelines and accessibility. Cores were placed at approximate distances of 10 (C-3), 20 (C-2), and 30 (C-1) meters downstream from the island's southernmost point. Soil/sediment deposits recovered from the auger were carefully examined for cultural and natural inclusions.

Data generated during the investigation indicated that the southwestern part of the island (upstream section) contained buried Late Prehistoric deposits. C-2 and C-3 produced similar stratigraphic data, with approximately 0.7 to 1.1 m of post-occupational historic alluvium overlying the Late Prehistoric deposits. Texture of this stratigraphic unit varied with depth and location, ranging from sand to sandy loam to very fine-grained silty-clay. Organic debris including leaf litter and partially deteriorated pieces of wood was common throughout the deposit. Directly beneath the historic alluvium, a deposit of dark gray brown (10YR3/1-3/2) silty sand to sand loam containing debris associated with the Late Prehistoric occupation was encountered. Shell-tempered ceramics, small pieces of unburned bone, mussel shell, wood charcoal, and thermally-altered rock were identified. The artifact-bearing deposit appeared to be at least 30 cm thick. However, in C-3 the thickness of the cultural-bearing stratum was at least 70 cm (extending to a depth of about 1.8 meters below surface (mbs)), suggesting that a pit feature or midden anomaly was encountered.

The excavation of C-1 produced negative results. The relatively thick deposit of historic alluvium was identified overlying coarser grained deposits lacking cultural inclusions. The excavation of this core was terminated at approximately 1.8 m below surface.

Examination of a cut bank on the New River side of the island found a similar stratigraphic sequence as discussed above. A deposit of historic alluvium about 50-70 cm thick was positioned directly above a darker sandy loam that contained a wide range of cultural debris, including shell-tempered ceramics dating from the Late Prehistoric period. At this location the artifact-bearing deposit was approximately 20 cm thick.

Exploratory subsurface work conducted at 46Su3 in 1998 confirmed the presence of intact Late Prehistoric deposits located approximately 1.0 m beneath the surface of the upstream part of the island. Based on the distribution of artifacts along the eroded shorelines (New River and backchannel sides of the island), and data generated during

augering, as much as 200-400+ m^2 of intact deposits might be present.

46Su5: Cook's Fort is a historic fort site located at an elevation of 1525 ft amsl. The site has historic European and Late Archaic temporal components and Brewerton cultural components. There is much confusion concerning the existence of a Cook's Fort at Indian Mills. It is possible that this Cook's Fort is confused with a Valentine Cook's Fort in Monroe County, West Virginia, that is very well documented in archival research documents. Solecki's (1949) location produced "35 pieces of white and blue chinaware, one piece of crockery, three boar's teeth, and one probable piece of gun flint" (Solecki 1949:343).

Surface collections and metal detecting were conducted at an area on Indian Creek opposite the mouth of Stinking Lick (Solecki's 1949 location) by the University of Kentucky in August 1991. These efforts produced one table knife fragment, one horseshoe, and two unidentified iron/steel fragments. Surface collecting and metal detecting were also conducted at another likely area for the location of the fort and produced several ceramic, glass and kitchen fragments, nail fragments, metal fragments, and a single post-1902 U.S. Army button. No eighteenth-century artifacts were recovered from either location (McBride, Updike & Bonshire 1991).

Solecki's (1949) location for the fort also contained a prehistoric camp site. Artifacts recovered include one hammerstone, three projectile points, several broken flint artifact fragments, two white quartz flakes, and numerous pieces of debitage (Solecki 1949).

CRAI personnel visited the mapped plot of this site location on March 25, 1998 (USACE 1998). The WVSHPO mapped site position is situated on a terrace at the location of a cemetery. There was some ground visibility afforded by the cut bank of the road bed and spoil piles from newly excavated graves. Shovel tests were conducted around the perimeter of the cemetery. There were no prehistoric or historic artifacts observed. No GPS point was taken at this site.

46Su6: Site 46Su6 is an open habitation site. The site has Late Archaic, Middle Woodland, Early Archaic, and Late Prehistoric temporal components along with Savannah River, Brewerton, Buffalo, and Bluestone cultural components. Artifacts from the site include two Guilford, ten Savannah River, three Kirk, two MacCorkle, two Amos Corner Notched, two St. Albans Side Notched, one LeCroy, two "birdpoints", one Brewerton Corner Notched, one triangular, one Pee Dee, one Buffalo Expanding Stemmed, one Lamoka, one Hamilton, one Kirk Straight Stemmed, one Morrow Mountain, and one Levanna projectile point, one drill, and three scrapers (USACE 1983). Solecki's (1949) collections include one hammerstone, three projectile points, four "implements," and several flakes (Solecki 1949:380).

An attempt was made by CRAI personnel to revisit this site on March 18, 1998 (USACE 1998). The site description indicates an open habitation site; however, the topography at this location was very steep and not habitable. No GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su7: Site 46Su7 is an open habitation site with Late Prehistoric temporal components. The site is located at an elevation of 1460 ft amsl. Artifacts recovered consist of eight ceramic vessel fragments and several pieces of debitage (Solecki 1949).

The site location was revisited by CRAI personnel on April 2, 1998 (USACE 1998). The site lies just north of Round Bottom Creek along a ridge parallel to the New River. The site area is wooded. Shovel tests were conducted across the ridge and one flake was observed. A GPS point was taken near the location of the flake, as the center of the site was difficult to estimate given the topography and vegetation in the area. This site was not present on the DNR GIS overlay of archaeological sites.

46Su8: Site 46Su8 is an open habitation site with Late Prehistoric temporal components. The site is located at an elevation of 1535 ft amsl. Artifacts from the site include one hafted scraper and two MacCorkle

projectile points. Solecki's (1949) work produced one broken projectile point, a broken flint "implement," and one ceramic sherd.

This site was revisited on April 2, 1998, by CRAI personnel. The site lies on a terrace above the New River. Lithic debris was recovered in shovel tests at this location. Historic structural remains were also observed. The GPS point location was north of the WVSHPO mapped plot. A GPS point was taken at the approximate center of the landform.

46Su9: The Island Creek site is a village located at an elevation of 1464 ft amsl approximately 13 miles upstream from Bluestone Dam. The site has Late Prehistoric, Late Archaic, Early Archaic, and Middle Woodland temporal components and Bluestone Phase, Radford, and Savannah River cultural components. This site was tested by the University of Akron in May 1979. Two radiocarbon dates were obtained of AD 1220 +/ 40 and AD 1290 +/ 45 (Adovasio et al. 1980). The site has produced many burials and three complete Woodland ceramic vessels. This site is also considered eligible for the NRHP but has not yet been nominated by the WVSHPO. Solecki's (1949) collections include 447 ceramic vessel fragments, one antler tine point, two celts, three projectile point fragments, and 18 pieces of debitage. Other collections have produced ground stone implements, bone tubes and beads, shell pendants, bear tooth pendants, shell gorgets, turtle shell bowls, beamers, one fish hook, shell-tempered pottery, ceramic pipe fragments, olivella and marginella shells, a large marine shell gorget, and a sandstone effigy elbow pipe (USACE 1983).

One third of the 145 documented burials at this site contained grave goods consisting of shell necklaces, wrist and ankle bracelets, marine shells scattered throughout the graves believed to have been part of beaded breech cloths or skirts, and many bone and shell beads, gorgets, and effigy pendants (Maslowski 1985).

A possible refuse/roasting pit, Feature VIII, produced one radiocarbon date. Fill material from the pit consisted of burned and unburned bone, ceramics, lithics, shell, fire-cracked rock, stream cobbles, fire-reddened clay chunks, lumps, and flecks of charcoal and ash (Adovasio et al. 1980).

This site was relocated by CRAI personnel on March 26, 1998 (USACE 1998). The site currently is in pasture, near an isolated tree. Soil exposed in bare spots contained shell-tempered ceramics and lithic debris. The GPS point taken in the field and the location for the site on the current DNR archaeological site overlay are consistent. The WVSHPO plot of the site used during field work appears to be in error, located several hundred meters south of the accurate site plot.

46Su10: This village site is located at an elevation of 1444 ft amsl and has Late Prehistoric temporal and Bluestone Phase cultural components. Artifacts include two Buffalo Expanding Stem projectile points (USACE 1983). The site was relocated on March 10, 1998, by CRAI personnel at the approximate position shown on the mapped WVSHPO plot and on the DNR archaeological site overlay plot. A concentration of ceramics, lithic debris, and fire-cracked rock were visible in the plowed field. A GPS point was taken near the estimated center of the site. Subsequently, test units were excavated to ascertain the existence of sub-plowzone deposits at the site, and to record GPS points at the perimeter of the site. GPS points were taken at all excavation units and at three points forming the boundary of the site. The results of this limited testing are presented below.

Limited test excavation was conducted at 46Su10 on April 14, 1998, by CRAI personnel. This Late Prehistoric village site is located in the upstream section of Crump's Bottom and occupies a similar landscape position as 46Su22, another Late Prehistoric village located in Crump's Bottom that was also examined by CRAI personnel in the spring of 1998 (USACE 1998). Information provided in a report by Dunn et al. (1996:74) indicated that 46Su22 was receiving a net gain in sediment during periods of flood recession.

Data provided in their report indicated that during a February 1996 flood event approximately 3.0 cm of sediment was deposited at a point near the edge of terrace scarp (east side of site), while an area in the southwest part of the site received approximately 1.0 cm during that same event. The primary goal of the exploratory excavations conducted in 1998 was to determine whether floodplain accretion from overbank flooding was indeed an active mechanism for site burial that would aid in long-term site protection.

The investigation consisted of the hand excavation of four 0.5-x-0.5 m test units, with a total of 0.461 m^3 of soil removed but not screened. Bucket auger cores extending to a maximum depth of 2.02 m below surface were used to examine more deeply buried deposits. The four units were placed along an east-west baseline oriented perpendicular to the New River. TU-1 was located nearest the channel with TU-4 being the most distant. Because the site occupies a relatively level tract of terrace, TU-1, TU-2, and TU-3 had similar surface elevations. TU-4, on the other hand, was located at a slightly lower elevation on the eastern edge of a swale that roughly paralleled New River. Test unit data is provided in Table 5-2.

Examination of soil profiles and auger derived sediments indicated that the stratigraphy of TU-1, T-2, and TU-3 was similar, with only the stratigraphy of TU-4 being distinct. The first three units had a dark (Munsell color very dark gray brown 10YR3/1-3/2) Ap horizon with silt texture that occupied the upper 20-28 cm of the profile. The Ap was loose and contained rootlets and crop residue (e.g., partially deteriorated corn stalks). Cultural material including shell-tempered ceramics, chert tools and debitage, thermally-altered rock, and a small quantity of mussel shell was observed on the surface and throughout this soil horizon.

Positioned directly beneath the Ap was a deposit with nearly identical color and slightly coarser texture (i.e. contained some fine sand) that extended to a depth of 40-50 centimeters below surface (cmbs). This deposit was compact and contained a high density of cultural debris, including body sherds up to 15 cm in length. Based on the limited data at hand, it was not possible to make a definitive interpretation for this deposit. The degree of compactness, presence of large sherds, and lack of plow scars suggested that the deposit was not a plowzone. If accurate, this interpretation would indicate that a part of the site contains an A-horizon measuring about 40 cm thick, the upper 20-28 cm of which are incorporated in one or more plowzone(s). Taking into consideration the site's landscape position and history of occupation, it is not unreasonable to conclude that the formation of the thickened or accumalic A horizon resulted from a complex interaction of sedimentological, pedogenic, and human processes.

Table 5-2. Test Unit Data for 46Su10.

Test Unit	Depth Below Surface (m)*	Maximum Auger Depth Below Surface (m)	Distance West from Scarp (m)**	Volume Excavated (m^3)***
TU-1	0.42	1.42	15	0.105
TU-2	0.45	1.40	25	0.113
TU-3	0.42	2.02	35	0.105
TU-4	0.55	2.00	50	0.138
Total				0.461

*Maximum depth excavated by shovel/trowel (not screened); **A sharp, well-defined scarp is located in the treeline along New River; ***Does not include auger cores.

Although a limited amount of sub-A horizon deposits were examined by hand excavation, the primarily method of exploration was bucket augering. As a result, much of the evidence for soil structure was destroyed and the ability to distinguish clearly between B and C horizon deposits lost. Available information indicates, however, that texture generally becomes coarser (more and/or coarser sand) with depth. The B horizon was easily distinguished from the A horizon on the basis of color and texture. Munsell color of moist samples was typically in the range of Munsell color dark brown to dark yellowish brown (10YR4/6 to 10YR5/6), although more heavily-oxidized samples had brown and reddish hues of Munsell color 7.5YR and 5YR. The B horizon contained very low densities of artifacts that appeared to be confined to the upper most part of the horizon. Typically, the materials consisted of flecks of wood charcoal and other small items that might represent materials displaced from the A horizon via bioturbation or pedoturbation. Below 50 cm no evidence of cultural inclusions was found. At 1.35 mbs subangular and rounded pebbles were encountered, and at 1.42 mbs augering was terminated when large rocks were encountered in a very coarse-grained matrix. The latter is interpreted as New River channel deposits.

The soil profile exposed in TU-4 was distinct from the other three units in that the texture was plowzone contained a very low density of cultural material. The Ap was loose and contained large quantities of crop residue. The deposit had a Munsell color of dark brown (10YR3/3) and a fine, heavy silt texture. Depth ranged from 17-19 cm. Underlying the Ap and extending to a depth of about 42 cmbs was a more compact and coarser-grained deposit that did not contain crop residue. This dark brown deposit had a higher density of cultural material than the Ap. It was not clear whether these deposits represented a plowzone. Extending from the base of this deposit to a depth of 55 cmbs was a compact, very dark grayish-brown (10YR3/2) deposit containing a higher density of cultural debris including large pieces of thermally-altered rock, calcined bone, unburned bone, debitage, and ceramics. Examination of the small sherds indicated that they had cordmarked exteriors and were not shell tempered (temper type not determined). Auger coring to a depth of 2.0 mbs failed to find evidence for more deeply buried occupations. Below 60 cm soil/sediments became lighter in color (dark yellowish brown), and at approximately 1.5 mbs more heavily oxidized deposits with brownish and reddish soil colors with reddish and brown Munsell hues of 7.5YR to 5YR were encountered. Mineral staining and mottling were also documented.

Exploratory excavations at 46Su10 generated a limited body of data useful for discussing archaeological stratigraphy. It is evident that the dominant occupation is represented by a Late Prehistoric Bluestone component confined primarily to the upper 40-50 cm of the site. Much of the occupation is contained in plowzone contexts, although intact subplowzone deposits are also present. It is expected that feature deposits possibly including human interments extend to greater depth. The recovery of a Brewerton Side-Notched point from about 40 cmbs in TU-1 reflects a Late Archaic occupation. The point was recovered near the interface of A and B horizons. If the specimen was recovered from its primary depositional context it would indicate that the surface of the site has been relatively stable since Late Archaic times. Given the intensity of Late Prehistoric occupation at the site, it is possible that this artifact was excavated from deeper contexts during the Late Prehistoric occupation. However, as previously stated, auger coring failed to find evidence for more deeply-buried components. Finally, a Woodland component was recognized by the presence of several grit-tempered cordmarked sherds. Evidence for this occupation was restricted to TU-4 in the western part of the site, where several small non-shell-tempered sherds were recovered from a depth of approximately 42 cmbs.

46Su12: This rockshelter site is located at an elevation of 1525 ft amsl and also contains a pictograph. No cultural materials were

collected during Solecki's (1949) survey. Charcoal and ashes were noted, but no associations could be made because the site had been disturbed by looters. At that time, the pictographs were badly weathered and scaled. The drawings were made with some reddish ferruginous or natural iron ore material. The drawings cover an area of approximately three square feet. The site is located near an important crossing of the Indian trail on the New River (Solecki 1949:358).

This area was revisited by CRAI personnel March 13, 1998 (USACE 1998). The area was thoroughly searched. There are several small overhangs in the area; however, none of the overhangs contained artifacts. There were no pictographs observed. The shelter does not appear to be present where the site is currently plotted on the DNR GIS overlay and WVSHPO plots. No GPS points were taken.

46Su13: This is a rockshelter located at an elevation of 1540 ft amsl. A small test was made of the site during Solecki's (1949) survey. No cultural materials were recovered at that time. The floor of the shelter contained evidence of fire, and the rear wall was soot stained (Solecki 1949). This site area was revisited by CRAI personnel on March 25, 1998 (USACE 1998). There is limestone outcropping in the area; however, the site location as shown on the WVSHPO plot had no habitable shelters at that location. No GPS point was taken.

46Su19: Farley's Fort is a historic fort site located at an elevation of 1424 ft amsl. The site has Late Prehistoric and historic European components. Solecki's (1949) work produced one triangular prehistoric projectile point, four prehistoric pottery sherds, and 22 historic ceramic sherds. Solecki's (1949) location produced artifacts believed to date to the nineteenth or twentieth century (McBride, Updike & Bonshire 1991). The exact location of the fort could not be determined during the McBride, Updike & Bonshire (1991) survey. Shovel probes and metal detecting were used in two areas, one in the Bull Falls Campground area suggested by a local informant, and one just east of Tom's Run. Solecki's (1949) location was not checked. Shovel probes in the campground area produced 12 artifacts, none of which were of eighteenth century origin. These artifacts consist of one iron/steel wrench, one modern headed cut nail (post 1830), one wire nail, one .22 long cartridge ("U"), one unidentified iron/steel fragment, and seven clear glass container fragments. Artifacts from the Tom's Run area include one early headed cut or wrought nail (pre 1840), one modern headed cut nail (post 1830), two cut nail fragments, two unidentified square nail fragments, and nine unidentified iron/steel fragments (McBride, Updike & Bonshire 1991). The fort was built around 1775 and is reported to have been burned by the Indians in the spring of 1778 (USACE 1983).

The area of the site plot for 46Su19 was revisited. No historic artifacts were observed in the plowed field, although visibility was hampered by cornstalk debris littering the field. No GPS point was taken at this location because there were no artifacts observed that could be associated with the fort location. The location of the plot of this site is very close to 46Su53.

46Su20: Site 46Su20 is a village site located at an elevation of 1428 ft amsl with Late Prehistoric, Early Woodland, and Early Archaic temporal components, and Bluestone, Radford, and Savannah River cultural components. Solecki's (1949) surface collections produced 930 prehistoric pottery sherds, one flat celt, one ferruginous ball concentration, one bone bead, miscellaneous worked bone fragments, and many projectile points and point fragments, including Kirk Corner Notched and four Savannah River points (USACE 1983). Solecki (1949) excavated two test trenches and one test pit which produced numerous ceramic potsherds, debitage, projectile points and point fragments, one tubular clay pipestem, one carved turtle shell cup, numerous worked animal bone fragments, and human toe bones (Solecki 1949). The site has been taken out of agricultural cultivation. The site was last disked and planted in corn by Bluestone Farms

in 1993. The site was last visited by the Huntington District archaeologist and Bluestone Resource Manager on May 26, 1993.

This site was revisited March 10, 1998, by CRAI personnel. As currently plotted, the site lies on the eastern and western sides of an intermittent creek. Dense prehistoric material, including ceramic sherds and lithic debris, was visible on the western side of the drainage. This area was not planted in corn, and the ground surface was bare. On the eastern side of the drainage, the field was plowed and in corn debris and sparse lithic debris was visible. This site was revisited and test units were excavated to determine the presence of sub-plowzone deposits. GPS points were taken for each test unit and on the perimeter of the site. The results of this limited testing are presented below.

On April 15, 1998, CRAI personnel conducted exploratory excavations at 46Su20. The site is located in the downstream part of Crump's Bottom approximately 1.5 and 1.9 miles downstream from 46Su22 and 46Su10, respectively. According to information provided in a report by Dunn et al. (1996:77), the part of the terrace containing site 46Su20 is receiving less sediment during periods of flood recession than site 46Su22. Therefore, the primary goal of the 1998 investigation was to determine if intact cultural deposits were present and whether floodplain accretion from overbank flooding was an active mechanism for site burial. The investigation consisted of the hand excavation of four 0.5-x-0.5-m test units, with a total of 0.351 m^3 of soil removed but not screened. TU-1 and TU-2 were located in a cornfield on the west side of an intermittent stream that bisects the site, with TU-3 and TU-4 located on the opposite side of the stream in the eastern part of the site.

Examination of TU-1 and TU-2 resulted in the documentation of nearly identical soil profiles. In both units the upper 13-16 cm consisted of an Ap1 horizon with silt to silt loam texture and loose consistency. Crop residue and rootlets were common. Also present was a high density of cultural debris including thermally-altered rock, chert debitage, small shell-tempered body sherds, and small, poorly preserved pieces of calcined bone and wood charcoal. Positioned directly beneath the Ap1 was a roughly10-cm-thick deposit tentatively identified as an Ap2 horizon. The color and texture of the Ap2 could not be distinguished from that of the Ap1. However, modern crop debris was not identified in the Ap2 and the deposit was significantly more compact. Plow scars were not identified, but the basal margin of the Ap2 was sharp and linear, suggesting an artificial rather than natural origin. The Ap2 contained a similar assemblage of cultural material as the Ap1.

At an approximate depth of 25 cmbs the Bt horizon was encountered. The matrix of the Bt horizon was dark yellowish brown (10YR4/6), although dark brown (10YR3/3) mottles were present. Texture was coarser (i.e. higher sand content) than the overlying plowzones, and there was clear evidence for bioturbation in the form of infilled insect and rodent burrows. It appeared that the only cultural material in the Bt horizon was associated with displaced plowzone deposits.

The soil profile for TU-3 was similar to those recorded for TU-1 and TU-2, except it was not possible to clearly identify multiple plowzones. Based on consistency, however, there was some indication that discrete Ap1 and Ap2 horizons were present. TU-3 was located in a cornfield approximately 25-30 m form the terrace scarp. The plowzone was ~25 cm thick with silt loam texture. Rootlets and crop residue were abundant. Munsell color was brown (10YR4/3). Based on surface observations and information obtained during the excavation of the unit, the Ap appeared to contain a relatively low density of cultural debris. Diagnostic items were not recovered from TU-3, although shell-tempered ceramics were identified nearby on the surface. Below the Ap was a darker grayish brown (10YR3/2-3/3), more compact deposit approximately 20 cm thick. The density of cultural material in this deposit appeared to be higher than in the Ap horizon. Texture was slightly sandier. Information obtained from solid Oakfield

cores indicated that a mottled, lighter colored deposit was located beneath this deposit.

TU-4 was located inside the tree line near the edge of the terrace scarp. The unit was shovel excavated to a depth of 40 cm. The upper 32 cm of the profile consisted of post-occupational alluvium with a weakly developed A horizon at the surface (A/C profile). Munsell color was dark brown (10YR3/3) and texture varied from silt to silt loam. Roots were common, but the only evidence for cultural material consisted of a few pieces of debitage identified near the base the C horizon. Below this deposit and extending to a depth of at least 45-50 cm below surface was a darker, grayish brown (10YR3/2), more compact deposit containing a higher density of cultural material including shell-tempered ceramics. This deposit was classified as the historic A horizon. Examination of the uppermost part of the underlying Bt horizon failed to find evidence for cultural associations.

Information obtained from the exploratory excavations indicated that the majority of midden deposits on the west side of the intermittent stream are located in the plowzones, although plow-truncated pits and other types of features might be present. Given the slow rate of alluviation on this part of the terrace, the presence of two plowzones is likely the result of changing agricultural practices (i.e. deeper plowing in the past). On the east side of the steam evidence for intact deposits was discovered in both test units, although the vast majority of deposits are contained within the plowzone(s). Test unit data for 46Su20 is provided in Table 5-3.

46Su21: 46Su21 is an open habitation site located at an elevation of 1460 amsl. Artifacts collected during Solecki's (1949) survey include one notched dark flint projectile point and one flint flake.

This site area was revisited on March 12, 1998 by CRAI personnel. The site area is currently part of the Shanklin Ferry camping ground. Dirt roads throughout the camping area were pedestrian surveyed and sparse lithic debris was noted. One Kirk Corner Notched projectile point was recovered from the road bed. A GPS point was taken near the center of the camping ground.

46Su22: 46Su22 is a Late Prehistoric village site located at an elevation of 1441 ft amsl. The site has Late Prehistoric, Middle Woodland, and Late Archaic temporal components and Bluestone and Savannah River cultural components. The site was tested by the University of Akron in May 1979, producing radiocarbon dates ranging from AD 1410 +/ 50 to AD 1450 +/ 75 (Adovasio et al. 1980). Artifacts include 192 prehistoric pottery sherds, worked antler, worked turtle shell, one bone awl, one perforated shell bead, one nutting stone, one hammerstone, one triangular projectile point, one human tooth, three human femur fragments, and Lamoka and Armstrong points (USACE 1983; Solecki 1949:388). The site has been taken out of agricultural cultivation. The site was last disked and planted in corn by Bluestone Farms in 1993. The site was last visited by the Huntington District archaeologist and Bluestone Resource Manager on May 26, 1993.

Table 5-3. Test Unit Data for 46Su20.

Test Unit	Depth Below Surface (m)*	Maximum Auger Depth Below Surface (m)	Distance West from Scarp (m)**	Volume Excavated (m^3)***
TU-1	0.35	0.30	about 20	0.088
TU-2	0.35	0.34	about 28	0.088
TU-3	0.30	0.65	about 30	0.075
TU-4	0.40	0.70	about 4	0.100
Total				0.351

*Maximum depth excavated by shovel/trowel (not screened); **A sharp, well-defined scarp is located in the treeline along New River; ***Does not include Oakfield cores.

Feature II, a refuse pit, produced one radiocarbon date. Fill material contained sand, ash, chunks of charcoal, and abundant refuse (Adovasio et al. 1980:75).

This site was revisited on March 12, 1998 (USACE 1998). Ceramics and lithic debris were visible in a plowed field. The location of the artifact scatter appears to conform to current WVSHPO and DNR GIS site plots. Artifacts at this site were abundant, and a GPS point was taken. The site was visited again on April 8, 1998 (USACE 1998). Test units were excavated at this site to determine the presence of sub-plowzone deposits. GPS points were taken for each test unit and on the perimeter of the site area. The results of this investigation are presented below.

On April 15, 1998, CRAI personnel conducted exploratory excavations at 46Su22. This site was located in the upstream section of Crump's Bottom approximately 2000 feet downstream (northwest) from site 46Su10. Both of these sites occupy a nearly level terrace of New River. The primary goal of the investigation was to determine if intact deposits were present and whether floodplain accretion from overbank flooding was an active mechanism for site burial that would result in long-term site protection. Although not visited by the team from WES in 1996, the site's geographical proximity and similarity of landscape position to 46Su10, suggests that it too receives a net gain in sediment during periods of flood recession.

The investigation consisted of the hand excavation of four 0.5-x-0.5 m test units, with a total of 0.474 m^3 of soil removed but not screened. The four units were placed along an east-west baseline oriented roughly perpendicular to New River. TU-1 was located nearest the channel with TU-4 the most distant. TU-1 was located inside the treeline on the east side of a farm lane, with the remaining units located on the opposite side of the lane in an agricultural field used most recently to grow corn.

Data obtained for TU-1 suggested that the upper 10 cm of the soil profile was composed of overbank sediment lacking pedogenic development. Although not screened, careful examination of the excavated fill and inspection of the profile walls found no evidence for artifact inclusions. The deposit was fine-grained silt to clayey silt. Roots were abundant and there was no indication that the deposit had ever been plowed. Underlying this deposit of historic alluvium was a moderately compact, dark sand with a Munsell color of 10YR3/1 to 3/2 (very dark gray to very dark grayish brown). Thickness was approximately 30 cm. Tentatively identified as an Apb horizon, the deposit contained a high density of cultural debris including shell-tempered ceramics, chert debitage, wood charcoal, and small pieces of calcined bone. The base of this deposit was sharp and linear and sloped toward New River. The lowest soil horizon identified in TU-1 was a relatively loose sand loam with a Munsell color of dark yellowish brown (10YR3/6 to 5/6). Cultural material including several small shell-tempered body sherds was present in the upper part of the deposit. Whether these materials were in their primary context or whether they represented items dislocated via bioturbation from the overlying deposit could not be established. An Oakfield probe was used to examine deposits to a depth of 0.95 mbs. Evidence for more deeply buried cultural deposits was not found, and texture became slightly coarser with increasing depth.

TU-2, TU-3, and TU-4 had similar profiles. A distinct Ap horizon was identified in each unit. Texture was uniformly silt loam. The Ap was loose and contained a high density of crop debris. Also present was a high density of cultural material including chert debitage, thermally-altered rock, shell-tempered ceramics, and charcoal. The average thickness of the Ap was 25 cm. Directly beneath the Ap was a 7-8 cm thick deposit of highly compact silt loam that was coarser than the Ap but probably not a true sand loam. The basal margin of this deposit was linear and sharp, broken only by insect and earthworm burrows. The presence of several large (15-28 cm diameter) shell-tempered sherds suggested this did not represent an old plowzone. In TU-3 this deposit was 21 cm thick, suggesting the

possible presence of a pit feature and midden anomaly. The deposit is believed to represent part of the historic A horizon, only the upper part of which has been incorporated into the plowzone. Located stratigraphically beneath the A horizon was a yellowish-brown (10YR3/4-4/6) Bt horizon with sand loam texture that contain a low density of cultural material in its uppermost levels. Examination of deeper contexts by bucket augering failed to find evidence for more deeply buried cultural deposits.

Data generated by exploratory excavations at 46Su22 indicate that Late Prehistoric deposits containing a wide assortment of materials including floral and faunal remains are present in subplowzone contexts. Data for TU-1 confirms the fact that the surface of the terrace at the site location is slowly aggrading, with about 10 cm of post-occupational sediment resting directly on top of deposits with artifacts dating from the Late Prehistoric period. Direct evidence for historic/modern alluviation was not observed in the remaining units located in the agricultural field. Undoubtedly this was a reflection of active plowing, with post-occupational alluvium being incorporated into the plowzone. The net gain of sediment is probably insufficient to provide protection to site deposits alone. It is therefore critical that deep plowing not be conducted. Test unit data for 46Su22 is provided in Table 5-4.

46Su23: Fort Byrd, 46Su23 (also known as Fort Field or Culbertson's Fort), is a historic fort site located at an elevation of 1.435 ft amsl. The site also has Late Prehistoric and historic European components. Fort Byrd was built in 1774 near the mouth of Joshua's Run along Crump's Bottom. The name was changed to Fort Field in 1777, and was abandoned in 1778 (McBride, Updike & Bonshire 1991). Archival research revealed no precise locational information, other than Solecki's (1949), which places the fort near the mouth of Joshua's Run. Artifacts recovered during Solecki's (1949) work included five pieces of white chinaware, a piece of crockery jug, a fragment from the bottom of an iron kettle, debitage, burned and broken stones, occasional mussel shells, a piece of dark quartzite flaked blade, and two pieces of aboriginal pottery (Solecki 1949:342). Solecki's (1949) work also revealed an apparent prehistoric camp site. Artifacts recovered during surface collections include several pieces of debitage, two ceramic sherds, one triangular projectile point, and one crude flaked knife (Solecki 1949:388).

Archaeological investigations at this site during the McBride, Updike & Bonshire (1991) survey involved surface collecting and metal detecting in order to try to relocate Solecki's (1949) location. Work was conducted to the east and west of Joshua's Run, revealing historic ceramic fragments, nail fragments, unidentified metal fragments, glass fragments, miscellaneous hardware pieces, and one quartzite flake, suggesting a mid-nineteenth or early twentieth-century site. The exact location of the fort could not be determined (McBride, Updike & Bonshire 1991).

Table 5-4. Test Unit Data for 46Su22.

Test Unit	Depth Below Surface (m)*	Maximum Auger Depth Below Surface (m)	Distance West from Scarp (m)**	Volume Excavated (m^3)***
TU-1	0.55	0.95	15	0.138
TU-2	0.35	0.55	20	0.088
TU-3	0.55	0.85	35	0.138
TU-4	0.44	Not Augered	50	0.110
Total				0.474

*Maximum depth excavated by shovel/trowel (not screened); **A sharp, well-defined scarp is located in the treeline along New River; ***Does not include Oakfield cores.

This area was revisited by CRAI personnel on March 11, 1998 (USACE 1998). The location as plotted by WVSHPO, on either side of the mouth of Joshua's Run, was revisited. There was no historic debris visible on either side of Joshua's Run; however, there was lithic debris visible in the plowed field of the site area, primarily on the western side. A GPS point was taken on the western side of the run, as it appears to represent the prehistoric component of the site. Artifact density appears higher on the western side of the creek.

46Su24: This village site is located at an elevation of 1435 ft amsl. The site has Late Prehistoric temporal components. Artifacts from Solecki's (1949) limited test excavations include 307 prehistoric pottery sherds, lithic debris, one ceramic pipe stem, one bear tooth pendant, a sandstone whetstone, and various animal bone fragments (Solecki 1949:389). This site has not been relocated.

On March 12, 1998, CRAI personnel revisited the area of the site as currently plotted. The site area, as plotted, appears to follow a low ridge that trends east west. The site is plotted as being present on a secondary terrace to the southeast. The site crosses the eastern side of Tom's Run. The campground has several roads throughout the area affording some visibility. Roads in the vicinity were pedestrian surveyed, although gravel hampered visibility somewhat. There were no artifacts visible in the road beds. In addition to the pedestrian survey, three shovel tests were excavated across the ridge on the western side of Tom's Run, and four shovel tests were excavated on the eastern side of the drainage. No artifacts were located in the shovel tests. The site may be comprised of a sparse scatter of artifacts, difficult to relocate with shovel tests. No GPS point was taken at this site.

46Su28: This village site is located at an elevation of 1460 ft amsl. The site has Late Prehistoric, Late Archaic, Paleoindian and Terminal Paleoindian temporal components and Savannah River cultural components. Artifacts include 37 ceramic vessel fragments, one triangular projectile point, one stemmed white quartz point and point fragment, one pitted white quartz hammerstone, flint and quartz flakes, one stemmed point, two Charleston Palmer points, one Chesser Lowe point, one Savannah River point, two scrapers, several point fragments, and various bone and mussel shell fragments (Solecki 1949:390; Adovasio et al. 1980). The site was relocated by Terry Ballengee, and was visited by the Huntington District archaeologist on May 26, 1993.

This site area was revisited by CRAI on April 6, 1998 (USACE 1998). The area is in a campground with a dirt road running along the northern margin of the site area. The plowed field above the terrace has lithic debris. An error was made in acquiring the GPS signal and there was no GPS point collected. The DNR GIS plot of the site area is accurate.

46Su29: This open habitation site is located at an elevation of 1450 ft amsl. The site has Late Prehistoric components. Artifacts recovered during Solecki's (1949) surface collections include four ceramic potsherds, one flaked celt and several pieces of debitage. The site was visited by the Huntington District archaeologist on May 26, 1993.

An attempt was made to revisit this site on April 6, 1998, by CRAI. Excellent visibility was afforded by scraped roads for a campground at that location. Shovel tests were excavated in the vicinity, but no artifacts were observed. The area appears to be an excellent location for a prehistoric site; however, no artifacts were observed, and no GPS point was taken.

46Su39: This prehistoric open habitation site is located at an elevation of 1415 ft amsl. The site was recorded and surface collected by the Huntington District in 1977. The site has Late Archaic, Late Prehistoric, Terminal Paleoindian, Early Archaic, Middle Archaic, Early Woodland, Middle Woodland, and Late Woodland temporal components present, as well as Brewerton, Savannah, and Adena cultural components. Artifacts collected from the site include one Dalton projectile point, one Morrow Mountain I point, one Palmer Corner-Notched point, one Charleston Corner-

Notched point, two Kirk Corner-Notched points, small variety, one Dalton preform, two lanceolate bifaces, one triangular biface, one bifacially retouched blade, 13 laterally retouched blades, two biface fragments, three utilized blades, eight utilized flakes, 18 unifaces, one drill, and one retouched flake (Applegarth and Davis 1982:16).

This site was revisited by CRAI personnel on March 26, 1998 (USACE 1998). The site was located along the elevated terrace bank east of the Bluestone River near a drainage. A GPS point was taken at the estimated center of the site. The GPS point retrieved is north of the current WVSHPO plot for 46Su39. These two sites, 46Su41 and 46Su39, may represent one continuous scatter along this bank of the Bluestone River. This area needs to be systematically surveyed to clarify the relationship between the two sites.

46Su41: This open habitation site is located at an elevation of 1415 ft amsl. The site has Late Archaic, Early Archaic, Early through Late Woodland, Paleoindian, and Terminal Paleoindian temporal components and Brewerton, Savannah River, and Adena cultural components. Artifacts recovered include five Guilford, five Charleston Palmer, two St. Albans Side-Notched, two Kirk, nine Brewerton Side-Notched, seven Savannah River, four Lamoka, one MacCorkle, one Bradley Spike, two Levanna, two Madison, one Morrow Mountain, one Adena, one Hamilton, one Chesser Lowe (USACE 1983), two "birdpoints," one E Notch, one Hardaway Blade, one Big Sandy and one Kanawha Stemmed projectile point, 14 scrapers, five unifacial blades, and one humpback knife. The site was recorded by the Huntington District in 1978.

This site area was revisited March 26, 1998, by CRAI personnel. The site appears to be a long linear scatter on the eastern terrace above Bluestone Lake. Visibility was afforded by a jeep trail and bare spots along the ground surface. A GPS point was taken at the approximate center of the site. There appears to be some confusion over the site locations for 46Su39 and 46Su41. The GPS point is located at the position of the WVSHPO plot for 46Su39. See comments above for site 46Su39.

46Su42: This is an open habitation site located at an elevation of 1415 ft amsl. The site has Middle Woodland, Late Archaic, Late Woodland, Late Prehistoric, and Paleoindian temporal components. Artifacts include two Lamoka, two Levanna, three Chesser Lowe, one Madison, one Kirk, one Brewerton Side-Notched, one Brewerton Corner-Notched, one "birdpoint," 26 scrapers, and one drill. The site was recorded by the Huntington District in 1978.

This site was revisited by CRAI personnel on March 26, 1998 (USACE 1998). This site is a long linear scatter along the eastern bank of the Bluestone River. A possible feature and lithic debris were noted along the edge of the bank, and a GPS point was taken at this location as well as the estimated center of the site. One projectile point, a Late Archaic Brewerton Ear-Notched projectile point was recovered from the bank line.

46Su43: 46Su43 is an open habitation site located at an elevation of 1415 ft amsl with Late and Middle Archaic temporal components and Savannah River and Brewerton cultural components. Artifacts include one Savannah River, one Morrow Mountain, one Guilford, one "birdpoint," two Brewerton Side-Notched projectile points, and one scraper. The site was recorded by the Huntington District in 1978.

This site was relocated by CRAI personnel on March 26, 1998 (USACE 1998). This area is used as a camping area. Lithic debris was observed along the eroded edges of the terrace just above Bluestone Lake. A GPS point was taken in close proximity to the WVSHPO plot for the site.

46Su44: This open habitation site is located at an elevation of 1415 ft amsl and has Late Archaic, Early Archaic, Early Woodland, Late Woodland, and Late Prehistoric temporal components and Savannah River and Brewerton cultural components. Artifacts recovered include one Buffalo Straight

Stemmed, one Lamoka, one Hamilton, one Chesser Lowe, one MacCorkle, one St. Albans, five triangular, one LeCroy, two Guilford, three Brewerton Side-Notched, five Savannah River, and three Levanna projectile points, two unifacial blades, and three scrapers. The site was recorded by the Huntington District in 1978.

This site was revisited by CRAI personnel on March 26, 1998 (USACE 1998). The site area lies along the eastern bank of Bluestone Lake. Lithic debris was observed in eroded patches of ground along the edges of the bank. A GPS point was taken where lithic debris was observed.

46Su45: This open habitation site is located at an elevation of 1415 ft amsl and has Late Archaic, Middle Woodland, Early Woodland, Late Woodland, Late Prehistoric, and Terminal Paleoindian temporal components and Brewerton, Savannah River, and Adena cultural components. Artifacts include one Potts, one Adena, one Jack's Reef, one Levanna, one Madison, one Savannah River, one Charleston Palmer, one Pee Dee, two "birdpoints," three Guilford, and five Brewerton Side-Notched points, one drill, and two scrapers (USACE 1983). The site was recorded by the Huntington District in 1978.

This site was revisited March 26, 1998, by CRAI personnel. Lithic debris was observed along the eastern bank of the Bluestone River in eroded patches of ground. Visibility back from the bank line was very poor. A GPS point was taken where lithic debris was observed.

46Su47: This is an open habitation site located at an elevation of 1475 ft amsl with Woodland and Late Prehistoric components. There is some confusion over this site location. The site as shown on the WVSHPO plot lies on a steep embankment to the terrace west and above the floodplain of the lake. The GIS overlay for the site plots has the site well north at the base of the escarpment, at the western edge of the floodplain. Shovel tests were conducted below the WVSHPO plot in the floodplain, and lithic debris was observed. A GPS point was taken where lithic debris was observed in the floodplain, near the WVSHPO plot but south of the DNR GIS overlay position for the site. This area has several small drainages that do not appear on the USGS quadrangle as well as changes in vegetation which have taken place. There also appears to have been extensive prehistoric occupation in the vicinity and there is probably a nearly continuous scatter of artifacts across this floodplain.

46Su48: This open habitation site is located at an elevation of 1465 ft amsl and has Middle Archaic, Late Prehistoric, and Woodland components. There appears to be confusion over the location of this site. The WVSHPO plot has this site placed on the floodplain, southeast of the northern point of Wylie Island. The WVSHPO site form locates the site further south, on a west bank floodplain at the sharp bend in the river near the southern tip of Wylie Island. There is no DNR GIS overlay for this site. The WVSHPO plot is very close to the location of 46Su9 as shown on the Huntington District's GIS overlay. The area currently is in pasture. Eroded areas at the floodplain edge contained lithic debris and shell-tempered ceramics. One projectile point was collected resembling a Kirk Corner-Notched, dating to the Early Archaic Period.

This site as located on the WVSHPO plot was revisited by CRAI personnel on March 25, 1998 (USACE 1998). A GPS point was taken on the floodplain, labeled as 46Su48, near where the prehistoric artifacts were observed along the bank. However, since the location revisited was near 46Su9 rather than at the location plotted on the actual site form, this GPS point likely represents 46Su9 and not 46Su48.

46Su49: This site is a hamlet located at an elevation of 1457 ft amsl and has Late Prehistoric and Radford components. This site was not revisited by CRAI personnel. A lithic distribution was observed in the field at what was thought to represent the location of 46Su49, but it was actually 46Su48. This mistake was realized after the fieldwork had been completed. Given the intensive

prehistoric occupation for this area, it was considered highly likely that prehistoric material may be found near the location of the WVSHPO plot and the DNR GIS overlay site location.

46Su50: This open habitation/hamlet is located at an elevation of 1466 ft amsl and has Late Prehistoric components.

There appears to be some confusion over the location of this site. The area was revisited by CRAI personnel on March 25, 1998 (USACE 1998). The area was overgrown, and there were several small drainages that were difficult to correlate with the quadrangle map for the area. The WVSHPO plot for this site differs from the GIS overlay as well. The site area shown for the WVSHPO plot is now heavily overgrown, and five shovel tests were excavated at that location. No material was observed. Across the drainage, to the north, shovel tests yielded lithic debris. There were two GPS points taken that correspond to 46Su50. The GPS data above corresponds to the center of the current DNR GIS overlay. The site should extend beyond the DNR GIS overlay plot to the south, along the northern edge of a drainage into Bluestone Lake.

46Su52: This open habitation site is located at an elevation of 1470 ft amsl and has Savannah River cultural components. This site was revisited by CRAI personnel on March 10, 1998 (USACE 1998). The site has sparse lithic debris in a plowed field at the mapped location. The site lies on a circular ridge or knoll within the plowed field. A GPS point was taken at the center of the knoll. One artifact, a small triangular projectile point dating from the Late Woodland through Protohistoric Period was collected from the ground surface. The site as plotted on the DNR GIS overlay extends to the east.

46Su53: This site is an open habitation site with Late Archaic components located at an elevation of 1430 ft amsl. This site area was revisited on March 10, 1998 (USACE 1998). There is some confusion over the location of this site. The floodplain area had been plowed and there was good visibility. At the time of the field visitation, there did not appear to be a concentration of debris at the presumed location. There was a sparse scatter of lithic debris visible on the plowed ground surface northwest of the plot for 46Su53 as shown on the WVSHPO plot and the DNR GIS overlay. A GPS point was taken at the approximate center of the site.

46Su54: This site is an open habitation site with Early Archaic components located at an elevation of 1430 ft amsl. Artifacts recovered consist of one MacCorkle projectile point (USACE 1983). On March 10, 1998, this site was revisited by CRAI personnel. The site is located at the extreme northern edge of the campground area at Bull Falls. Visibility was good as the area was clear of vegetation due to road traffic. The area was pedestrian surveyed and no artifacts were observed. Artifacts were observed by Huntington District archaeologists at this location during the construction of a boat ramp, and a GPS point was taken at that location. This site probably is another example of a sparse lithic scatter along the floodplain terraces adjacent to the river.

46Su55: This site is an open habitation site with Woodland components located at an elevation of 1550 ft amsl. The area was revisited by CRAI personnel on March 24 1998. This site area at the time of visitation was in pasture. Five shovel tests were excavated and one yielded a single flake. The GPS point was recorded at the location of the positive shovel test. The DNR and WVSHPO plots do not conform at this site. The GPS point is located north of the WVSHPO plot and east of the DNR plot.

46Su56: This hamlet site has Late Prehistoric components and is located at an elevation of 1490 ft amsl. This site area was revisited by CRAI personnel on March 26, 1998 (USACE 1998). The site area was in cultivation and visibility was excellent. Lithic debris and fire-cracked rock were visible in an area north of the current DNR GIS overlay for the site. A GPS point was taken at the estimated center point of the artifact concentration.

46Su58: This hamlet site has Archaic, Woodland, and Late Prehistoric temporal

components, and is located at an elevation of 1485 ft amsl on the right bank of the New River opposite the southern point of Wylie Island. Artifacts collected include Radford Series ceramics and triangular projectile points. The site was recorded by Dave Dobbins in 1979.

This site area was visited by CRAI personnel on March 26, 1998 (USACE 1998). The site area is currently a campground facility, with dirt roads affording good visibility. Lithic debris was noted at the southern margin of the campground. A GPS point was taken at the southern edge of the DNR GIS overlay for the site.

46Su60: Site 46Su60 is located at an elevation of 1410 ft amsl. Its original function is unknown. The site contains Archaic, Middle Woodland, and Late Prehistoric temporal components. Ceramic debitage is present and the site also contains fire-cracked rock, hammerstones, pitted anvils/nutting stones, triangular points, and igneous celts. Artifacts have been found to be eroding from the riverbank. The site was recorded by Dave Dobbins in 1979.

This site was revisited by CRAI personnel on March 19, 1998 (USACE 1998). The site is currently wooded. Eroded patches of the bank line were surveyed and shovel tests were excavated inland. A midden-like soil containing fire-cracked rock was identified in shovel tests at a depth of about 30 cmbs. A GPS point was taken near the bank line, near the southeastern margin of the DNR GIS plot.

46Su61: This village/hamlet site is located on the left bank of the New River at an elevation of 1410 ft amsl. The site has Late Prehistoric temporal components. A green celt, scraper, and cordmarked shell-tempered pottery are reported to have been collected from the site. The site was recorded by Dave Dobbins in 1979.

This site was revisited by CRAI personnel on March 19, 1998 (USACE 1998). The area is heavily wooded. Seven shovel tests were excavated across the area encompassed by the WVSHPO plot. Fire-cracked rock was observed in a shovel test at the southern margin of the site, and a GPS point was recorded at that location.

46Su62: This open habitation site has Woodland temporal components and is located at an elevation of 1460 ft amsl. This site area was revisited by CRAI personnel on March 19, 1998 (USACE 1998). The area was heavily wooded. The terrain was sloped and it appears unlikely there is an open habitation site at this locality. Shovel tests were excavated south of the WVSHPO site plot and nor artifacts were observed. No GPS point taken at this locality.

46Su128: This open habitation site is located at an elevation of 1425 ft amsl. The WVSHPO site plot area was revisited by CRAI personnel on March 12, 1998 (USACE 1998). The plot area as shown is in a drainage where the topography precludes any type of prehistoric occupation. A picnic area and a boat ramp are located on a point of land where the drainage enters into the Bluestone Lake. Lithic debris was observed in eroded patches of ground. The area appears to have been disturbed from preparation for the picnic area. A GPS point was taken where lithic debris was observed, south of the DNR GIS and WVSHPO plots.

46Su165: This historic farm/open habitation site is located at an elevation of 1414 ft amsl and has Archaic and Woodland temporal components and Savannah River cultural components. This site was revisited by CRAI personnel on March 11, 1998 (USACE 1998). Historic domestic debris and architectural debris was visible in addition to sparse lithic debris. This historic material may overlap with the historic material observed for site 46Su325. A GPS point was taken at the approximate center of the site, which corresponds to the western edge of DNR GIS and WVSHPO plots.

46Su186: This open habitation site is located at an elevation of 1414 ft amsl and has historic European temporal components. This site was revisited by CRAI personnel on March 16, 1998 (USACE 1998). There are historic structural remains at the lake edge, at

the southwestern edge of the current WVSHPO and DNR GIS site plots. A GPS point was taken at the structural remains.

46Su187: This open habitation site is located at an elevation of 1414 ft amsl and has historic European temporal components. This site area was revisited by CRAI personnel on March 16, 1998 (USACE 1998). The area had recent refuse and trash and there were no historic structural remains observed. It is possible the area of the historic site was inundated at the time of the visit. No GPS point was taken at this site.

46Su188: This open habitation site is located at an elevation of 1415 ft amsl. This site area was revisited by CRAI personnel on March 27, 1998 (USACE 1998). This area is steeply sloped and it appears unlikely that a habitation site would be located in the near vicinity. The area was inundated at the time of the visit and no GPS point was recorded.

46Su189: This open habitation site is located at an elevation of 1420 ft amsl. This site area was revisited by CRAI on March 16, 1998 (USACE 1998). The site location, as plotted by the WVSHPO, is situated at the edge of a terrace in a campground area. The water level was high at the time of the visit and it appears that the site was inundated. No artifacts were observed in bare eroded spots within the campground and there were no artifacts observed in four shovel tests placed along the edge of the terrace overlooking the river to the southwest. No GPS point was taken at this site.

46Su191: The Stinking Lick site is an open habitation site located at an elevation of 1470 ft amsl near the bridge crossing Indian Creek. The site has Archaic and Woodland temporal components. The site was recorded by the Stephen Trail in 1981, and revisited by CRAI personnel on March 23, 1998 (USACE 1998). The site lies on a narrow floodplain of Indian Creek, where there is a small campground. Lithic debris was observed in dirt roads of the campground. A GPS point was taken at the estimated center of the site. This site is not on the DNR GIS overlay for Bluestone Lake.

46Su193: This open habitation site is located at an elevation of 1429 ft amsl on the New River immediately below the mouth of Indian Creek. Triangular projectile points were present. The site was recorded by Stephen Trail in 1981. This site area was revisited by CRAI personnel on March 23, 1998 (USACE 1998). The area is in pasture. The site area seemed excellent for prehistoric habitation, although no material cultural was recovered from eight shovel tests. No GPS point was taken at this site.

46Su194: This open habitation site is located at an elevation of 1460 ft amsl on the New River near Indian Creek. The site has Woodland and Archaic temporal components and Savannah River cultural components. The site was recorded by Stephen Trail in 1981, and was revisited on March 20, 1998 (USACE 1998). The site is located on an upland terrace in a campground overlooking Bluestone Lake. Lithic debitage was observed in eroded patches in the campground. A GPS point was taken at the estimated center of the site, although the site may extend back across the terrace landform.

46Su195: William Holland I (46Su195) is an open habitation site located at an elevation of 1429 ft amsl on a low terrace bordering Bluestone Lake. Triangular projectile points were present. The site was recorded by Stephen Trail in 1981, and revisited March 20, 1998 (USACE 1998). The site is currently used as a campground. Several access roads for the campground were inspected for cultural material. There was no lithic debris visible, and no GPS points were taken.

46Su196: This open habitation site is located on a terrace bordering the New River downstream from the mouth of Indian Creek at an elevation of 1429 ft amsl and has Woodland temporal components and Savannah River cultural components. The site was recorded by Stephen Trail in 1981. This site area was revisited March 23, 1998 (USACE 1998). The site area had been plowed and there was lithic debris visible in the field. A GPS point was taken at the estimated center of the site. This correlates

with the southern margin of the DNR GIS overlay for the site.

46Su198: Indian Mills I is an open habitation site located on a terrace of Indian Creek at an elevation of 1525 ft amsl. The site was recorded by Stephen Trail in 1981, and revisited on March 24, 1998 (USACE 1998). The site area had been plowed and lithic material was observed. There is no DNR GIS plot for this site. A GPS was taken at the estimated center of the site.

46Su199: Indian Mills II is an open habitation/military site located on a major trail near the New River crossing at an elevation of 1525 ft amsl and has Late Prehistoric, Archaic, Woodland, and historic European temporal components. The site was recorded by Stephen Trail in 1981. This site was revisited by CRAI on March 24, 1998 (USACE 1998). The area had been plowed and there was lithic debris visible in addition to historic material. The historic artifacts included clear container glass and wire nails, suggesting a twentieth-century association. A GPS point was taken at the estimated center of the site.

46Su200: The Bradshaw site is an open habitation located on Bradshaw Creek Road near the Seminole Road juncture near Indian Mills at an elevation of 1525 ft amsl and has Archaic and Woodland temporal components. The site was recorded by Stephen Trail in 1981. This site was revisited on March 25, 1998 (USACE 1998). The site is not plotted on the current Huntington District GIS overlay. The site is in pasture. The soils are well drained and suitable for prehistoric occupation, although no lithic debris was observed in five shovel tests across the presumed site location. No GPS point was taken at this site.

46Su202: This open habitation site is located at the junction of Indian Creek and the New River, inside the triangle formed by the merger of the two streams at an elevation of 1429 ft amsl. The site was recorded by Stephen Trail in 1981. When the site was revisited April 1, 1998, it had been recently inundated and there was a three cm layer of recent alluvium covering the ground surface. Sandy alluvium was identified up to a depth of 40 cmbs. Shovel tests encountered fire-cracked rock and fragments of ground stone. A GPS point was taken at the estimated center of the site. This site is currently not on the DNR GIS overlay. The field site plot and the WVSHPO site plot are consistent.

46Su206: This open habitation site is located on a terrace at the mouth of Indian Creek at an elevation of 1415 ft amsl. The site was recorded by Stephen Trail in 1981. This site is not on the current Huntington District overlay for Bluestone Lake. This site area, a long linear ridge parallel with the Bluestone Lake to the west, was revisited on April 1, 1998. The area appears to have been disturbed by bulldozing. Soils are sandy alluvium, but only one flake was observed in a bulldozer pile. A GPS point was taken at the estimated center of the site.

46Su207: This open habitation site is located on a terrace at the mouth of Indian Creek at an elevation of 1550 ft amsl. This site was revisited on April 1, 1998. The area was in pasture, situated on a terrace above the floodplain of Indian Creek. Four shovel tests were excavated. The soil was clayey, and there were no prehistoric cultural remains present. There were, however, historic structural remains present. A GPS point was taken at this location.

46Su208: This open habitation site is located on a terrace at the mouth of Indian Creek at an elevation of 1429 ft amsl and has Late Archaic and Late Prehistoric temporal components and Savannah River cultural components. The site was recorded by Stephen Trail in 1981, and was revisited April 2, 1998 (USACE 1998). The site is in sparse pasture grass that provided some ground visibility. There was sparse lithic debris noted northwest of the current GIS site plot. One GPS point was taken at the approximate center of the site area.

46Su212: This open habitation site is located near the mouth of Indian Creek on a high terrace on a major trail at an elevation of 1440 ft amsl and has Late Archaic, Middle Archaic, and Woodland temporal components

and Savannah River cultural components. The site was recorded by Stephen Trail in 1981, and was revisited by CRAI personnel on April 2, 1998 (USACE 1998). The site area is currently in pasture. Bare eroded edges of the pasture afforded some ground visibility. Lithic debitage was observed and a GPS point was recorded where lithic material was observed. There are the remains of a historic structure approximately 30 m east of the recorded GPS point.

46Su244: This open habitation site is located at the mouth of Lick Creek on a very low terrace at an elevation of 1520 ft amsl. One sugar quartz flaking tool, one scraper, and a light scatter of debitage have been recovered from the site. The site was recorded by Stephen Trail in 1982, and was revisited on March 16, 1998 (USACE 1998). The area is currently wooded, with gullies formed by erosion from inundation by the New River to the east. There were eroded patches of ground surface affording some visibility. Two shovel tests were excavated on level ground near the center of the site plot. No cultural material was observed. No GPS point was recorded for this location.

46Su270: This historic farm/residence site is located on a terrace on the western side of Lick Creek at an elevation of 1520 ft amsl and has historic European temporal components. This site represents the remains of a two-story log home constructed about 1855. The site was recorded by Stephen Trail in 1982.

The heavily-wooded area was revisited by CRAI personnel on March 16, 1998 (USACE 1998). There were no historic structural remains visible, and there was no historic material recorded in three shovel tests excavated on level ground in the presumed site area. The site was not relocated. No GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su271: The Mercer Salt Works site is located on a terrace on Lick Creek one-half mile above the junction of Lick Creek with the New River fronting a salt marsh at an elevation of 1520 ft amsl. This was the site of the Mercer Salt Works, a Civil War era salt manufacturing plant. The works were burned in 1861 by soon to be President Hayes and was rebuilt in 1862. The works was permanently closed in 1866 due to high fuel prices and competition from the Malden Salt manufacturer operation. The works consisted of a general store, water mill, blacksmith shop, and the salt works. Stones from the furnace, smoke stack, and foundations are all that remain. The works operated from about 1850 to 1866. The site was recorded by Stephen Trail in 1982.

This site was revisited by CRAI personnel on March 16, 1998 (USACE 1998). A linear pile of stones with iron bars was located and a GPS point was taken atop this feature. The site probably has numerous features reflecting the industrial activity taking place there. This feature appears to be near the center of the site area.

46Su272: The Mercer Salt Works Blacksmith Shop is an industrial site located on a terrace on Lick Creek at an elevation of 1520 ft amsl and has historic European temporal components. The shop dates to about 1855. The site was recorded by Stephen Trail in 1982.

This site was relocated by CRAI personnel on March 16, 1998. The site lies on a terrace above the location of the Mercer salt works. The site location has linear arrangements of stone lining the slope of a flat narrow terrace. It is possible these stones represent a road cut into the slope of the terrace and stabilized with the aid of the stones. A GPS point was taken near the center of the line of stones. It is assumed that the blacksmith shop should be in close proximity to the stones.

46Su273: The Mercer Salt Works Post Office and Merchandising Store site are located on a terrace on Lick Creek fronting a salt marsh at an elevation of 1520 ft amsl. The post office and store operated from about 1855 to 1906. The site was recorded by Stephen Trail in 1982. Trail (1982a) reported that the post office operated until about 1920.

This site was relocated by CRAI personnel on March 16, 1998 (USACE 1998). A large

square depression was evident which probably represents the cellar of the structure. A GPS point was taken at the center of this depression.

46Su274: The Anderson Shumate House is located on a terrace of Lick Creek just north of the Mercer Salt Works salt spring at an elevation of 1520 ft amsl. It was the site of a two-story unpainted frame house dating to about 1871. The site was recorded by Stephen Trail in 1982. The area was revisited by CRAI personnel on March 16, 1998 (USACE 1998). The site is believed to be north of the Mercer Salt Works (46Su271) and east of the associated blacksmith shop (46Su272). The house site was not relocated. It is possible there is confusion over the locations of the farmstead and the blacksmith shop. There was no GPS point recorded for this site.

46Su275: The site is on a large creek about one-half mile upstream from the confluence of Lick Creek and the New River. This historic industrial site is a salt marsh where salt was extracted located at an elevation of 1520 ft amsl. The site was recorded by Stephen Trail in 1982 and was revisited by CRAI personnel on March 16, 1998 (USACE 1998). A GPS point was taken just ten meters north of an area of ponded water adjacent to a pile of stones believed to be an industrial component of the Mercer Salt Works (46Su271). There were other areas of ponded water in the vicinity, and the locations and depths of these ponds surely change seasonally.

46Su276: The Falling Over Mill site is located on Lick Creek at the first major falls below the Mercer Salt Works at an elevation of 1500 ft amsl. The mill was built about 1840 and was destroyed by a flood around 1890. The large mill race is all that remains. A jeep trail runs over part of the mill race. The site was recorded by Stephen Trail in 1982, and was revisited on March 16, 1998 (USACE 1998). The mill race was relocated, and a GPS point recorded for that location. The GPS location is approximately 100 m northeast of the current site plot on the DNR GIS overlay.

46Su278: The Fort Pond Site is located at an elevation of 2140 ft amsl. The site is a natural bear wallow and is believed to have been used as a reference point to Fort Culbertson. The site is situated directly west of the reported location of Fort Culbertson on a high terrace overlooking Crump's Bottom. The site was recorded by Stephen Trail in 1982. This site was not revisited. The plotted map location lies directly south of the presumed fort location.

46Su279: This village site is located on the broad floodplain of the New River just southeast of the Crump mansion at an elevation of 1460 ft amsl and includes a Late Prehistoric component. A large circular area of darkened earth is reported to have been present at one time. The site was recorded by Stephen Trail in 1982, and was revisited on April 15, 1998 (USACE 1998). The area is currently heavily overgrown, and the field road shown on the contour map cannot be followed. Six shovel tests in the area failed to locate any cultural material. No GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su280: The Shockley's Rock site is located on a ridgetop near Bull Falls at an elevation of 1800 ft amsl and has historic European temporal components. It is a rock outcropping that is the reported site of the killing of a man named Shockley by the Indians. The site was recorded by Stephen Trail in 1982 and the site area was revisited by CRAI on April 17, 1998 (USACE 1998). There is a rock outcrop at that location, and a GPS point was recorded here; however, there is little chance of any archaeological correlates of a 200-year-old murder being preserved.

46Su281: The War Ford Post Office and General Store site is located on a terrace on the New River near the Bull Falls camping area at an elevation of 1441 ft amsl. The foundation is still extant, as well as the ferry anchor which was a large log buried in a fill of medium to large stones. This is the site of a ford and small settlement at the lower end of Crump's Bottom. The site was recorded by Stephen Trail in 1982. On March 10, 1998, the

site was revisited. GPS points were taken five m north of the structure, which is partially overgrown with vegetation.

46Su282: The War Ford Ferry site is located near the Bull Falls Camping Area at an elevation of 1440 ft amsl. All that remains is the stone fill of the anchor post. The War Ford paralleled the ferry, but the ford was considered to be rough and deep. The site was recorded by Stephen Trail in 1982.

This area was revisited on March 10, 1998, by CRAI personnel. The entire bank line where the site was plotted was searched during this relocation survey, without success. It was suggested that the lake level was too high to view the remains (USACE 1998). If so, either the recorded elevation is incorrect, or the lake was at least 30 ft above the normal pool elevation. No GPS point was taken at this location (USACE 1998).

46Su290: The Lafferty's Fort site is located on the east side of the New River at the mouth of Indian Creek at an elevation of 1415 ft amsl. It is the location of a pioneer fort which provided protection from the Indians. The fort is contemporaneous with Farley's Fort and Fort Byrd and is known to have been in use until at least 1781 (McBride, Updike & Bonshire 1991). McBride, Updike & Bonshire's (1991) work at this site consisted of the examination of four areas. The first area, a high point overlooking Indian Creek, contained a stone foundation and a large scatter of bricks. The area was surface collected and five shovel probes excavated. Artifacts recovered suggest a late nineteenth to early middle twentieth-century occupation. Artifacts included ceramic fragments, container and window glass fragments, one wire nail fragment, one post-1830 cut nail, one cut nail fragment, one brick and seven brick fragments, and other miscellaneous hardware items. The bricks were very thick (3 in) and are believed to be of local manufacture. The house was still standing as late as 1924, as it appears on a 1924 West Virginia Power Company map. A metal detector survey on either side of the ford road failed to produce any artifacts predating the mid-twentieth century. These two areas were used as picnic spots and contained much late metal refuse such as soda and beer can tabs. The last area examined was a knoll on the New River/Indian Creek floodplain. The area was walked over and no artifacts were reported (McBride, Updike & Bonshire 1991). The site was recorded by Stephen Trail in 1982.

This area shown on the DNR GIS overlay was revisited by CRAI on April 2, 1998 (USACE 1998). The area visited is presumed to be the location of the ford road. There were no historic artifacts observed in shovel tests at this location; however, lithic debitage was observed. This prehistoric occupation may overlap with the GPS location for 46Su208. No GPS points were recorded for the site of the fort.

46Su306: This open habitation site is located on a terrace on Indian Creek at an elevation of 1520 ft amsl. A major Indian trail is reported to have passed by this site. The site was recorded by Eugene Holland and Stephen Trail in 1983. This site was revisited by CRAI on April 9, 1998 (USACE 1998). The site area as plotted by the WVSHPO lies in pasture. This site is not plotted on the DNR GIS overlay. There were four shovel tests excavated, one of which contained lithic debris. A GPS point was recorded at that location.

46Su308: The Junta I site (46Su308) is an open habitation site located on a terrace overlooking the mouth of Indian Creek at an elevation of 1500 ft amsl. Artifacts recovered include a full groove axe, several points, and flakes. The site was recorded by Eugene Holland and Stephen Trail in 1983, and the area was revisited on April 2, 1998 (USACE 1998). The site area is currently in pasture and five shovel tests were excavated on level ground. The area seems suitable for prehistoric occupation; however, no artifacts were observed. No GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su309: Junta II is an open habitation site located on a high terrace overlooking the confluence of Indian Creek and the New River at an elevation of 1540 ft amsl. The site was

recorded by Eugene Holland and Stephen Trail in 1983, and the area was revisited April 2, 1998 (USACE 1998). The area of the mapped plot was considered too steep to have provided prehistoric occupation. Five shovel tests were excavated in the terrace above and one contained lithic debris. Since the GPS points contained errors, an estimated site plot revision is provided (USACE 1998).

46Su310: This open habitation site is located just north of the mouth of Dickinson Hollow on the east side of the New River at an elevation of 1420 ft amsl. The site was recorded by Eugene Holland and Stephen Trail in 1983. This site area was revisited on April 2, 1998 (USACE 1998). The terrace is currently in pasture and five shovel tests were excavated. No artifacts were observed. The area seems quite suitable for prehistoric habitation and the lack of artifacts probably represents a sparse lithic scatter. No GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su325: The Buck Smith site is a prehistoric open habitation site and historic homestead located on the second terrace south of Joshua's Run at an elevation of 1530 ft amsl. The site has been heavily collected. The site was recorded by the Huntington District in 1983.

On March 11, 1998, CRAI personnel revisited this site. The WVSHPO and DNR GIS site plot appears to roughly conform to a long linear ridge running in a northwest to southeast direction. Sparse lithic debris was visible, as well as fire-cracked rock along the ridge. A GPS point was taken at the center of this ridge. There was no historic material visible in the plowed field and no diagnostics were observed. Site 46Su165 lies to the northeast and contains historic material. Previous collections may have confused these sites, or the boundaries may overlap. One Late Archaic Brewerton Ear-Notched projectile point was recovered from the exposed ground surface.

46Su326: This prehistoric site is reported to be a series of scattered camps with a Euro-American occupation, including a possible Civil War component. The site also has Savannah River cultural components, historic European, Late Prehistoric, and Early and Late Archaic temporal components. The site is located on the second terrace south of Joshua's Run, just south of an unnamed stream at an elevation of 1425 ft amsl. The site was recorded by the Huntington District in 1983, and was revisited on March 11, 1998, by CRAI personnel. Lithic debris was visible in the plowed field in the vicinity of the site plot. A large expanding stem biface probably dating to the Late Archaic was recovered from the surface. A GPS point was taken at the approximate center of the site.

46Su327: This prehistoric open site is located on a high field north of Indian Run at an elevation of 1570 ft amsl. The site was recorded by the Huntington District in 1983, and was revisited on April 2, 1998, by CRAI personnel. The site area is currently in pasture and five shovel tests were excavated on level ground. The area seems suitable for prehistoric occupation, as did 46Su308 to the east; however, no artifacts were observed. No GPS point was recorded for this site.

46Su328: This site is reported to be a series of scattered camps with Euro-American historic material related to the Crump Mansion site. The site is located south of the Crump Mansion site at an elevation of 1520 ft amsl. The site was recorded by the Huntington District. When the site was revisited April 8, 1998 by CRAI personnel, the area had been cultivated and there was excellent ground visibility. Widely-scattered lithic debris was evident over the breadth of the field. A GPS point was taken at the approximate center of the site area.

46Su329: This prehistoric open habitation site is located on a high bench overlooking the southern end of Crump's Bottom at 1610 ft amsl. The site was recorded by the Huntington District in 1983. A field located at the south of Crump's bottom had been cultivated and was pedestrian surveyed. A GPS point was taken where a wide scatter of lithic debris was present. The recorded GPS location is situated well south of the mapped plot of the site

however, and it appears the mapped location of the WVSHPO and DNR GIS overlay sites are not consistent. These site areas should be revisited and a consistent plot recorded. The plots may represent two distinct sites.

46Su330: This prehistoric open habitation site is located on a bench overlooking the southern end of Crump's Bottom at an elevation of 1520 ft amsl and has Brewerton cultural components and Early and Late Archaic temporal components. The site was recorded by the Huntington District. A field located at the south of Crump's Bottom had been cultivated and was pedestrian surveyed. A GPS point was taken where a wide scatter of lithic debris was evident.

46Su331: The Crump Mansion is located at an elevation of 1500 ft amsl. The house was built about 1855 and was part of a plantation that is reported to have contained an ice house, smoke house, apple orchard, slave quarters, granary, and blacksmith shop (Maslowski and Woody 1984). The foundation and chimney stones are all that remain. The house contained 22 rooms and was built by slaves from brick made on the site. The timber in the house was predominantly walnut and cherry and the 40-foot front porch columns were solid poplar. The mansion had a full basement with a dirt floor and a plastered attic on the fourth floor. The four main rooms on the first and second floors each had a fireplace (Browning 1953). The kitchen was at the back of the house, separated from the main structure by a breezeway. The remains of the foundation stone and some of the handmade brick can still be identified and plotted. Some "store bought" brick, once used to build a new flue in the kitchen, is helpful in delineating the location of the kitchen. Reportedly there was a basement under the kitchen that was used as slave quarters. A flagstone path led from the porch to the road (Browning 1953; Maslowski and Woody 1984).

Immediately upriver and to the rear of the main house stood a wooden structure, possibly the original slave quarters, which was later used as a meat house. Two original granaries stood directly behind the house and consisted of a double corn crib with a wheat storage bin on top. The outhouse was off the back porch of the house. A depression from the spring house is still visible today. Water was carried from the spring near the spring house or from a spring in back of the house. A family cemetery was located in an area of tillable pasture nearby (Maslowski and Woody 1984).

This site area was revisited by CRAI personnel on April 9, 1998 (USACE 1998). The site area is now wooded. There was a scatter of handmade bricks evident on the ground surface and a GPS point was taken at that location. The GPS point conforms well to previous WVSHPO and DNR GIS site plots.

46Su345: The Robert Neely Grist Mill site is located on the west side of Pipestem Creek about one mile from the creek's mouth at an elevation of 1480 ft amsl. Some foundation stones and the millstone are still extant and are housed at the West Virginia Department of Natural Resources Bluestone Roadside Park. The mill house was a frame, two-story structure constructed of weather boarding. The mill had a large overshot water wheel made of wood which was approximately 12 feet in diameter. The site was recorded by Stephen Trail in 1984.

The site was also visited during a Phase 1 archaeological survey in 1995. Two foundation/wall remnants were located on the west side of the channel near the waters edge of Pipestem Creek. Both walls were constructed of large, rectangular stone blocks. A short distance downstream from the former walls, a remnant of a less formal wall made of natural stone slabs was identified (Anslinger 1995).

This site was revisited by CRAI personnel on March 16, 1998 (USACE 1998). The relocated structure was a rectangular foundation constructed from rectangular and irregular stones with the use of mortar or cement. A GPS point was taken at the northern end of the rectangular structure. The GPS point is located approximately 500 m south of the WVSHPO plot for this site.

46Su358: The Daniel Cook Cabin site is located on the right bank of Tom's Run on the lower end of Crump's Bottom near the Bull Falls camping area at an elevation of 1520 ft amsl. The cabin was erected around 1801, and was recorded by Stephen Trail in 1985.

The area of the site plot was revisited on March 11, 1998 (USACE 1998). Square stones, which may have been the remnants of a chimney or foundation, exist in association with historic domestic and architectural debris. Artifacts observed consisted of milk glass jar lid liners, container glass, and wire nails, indicating a twentieth-century occupation. This location is south of the plot shown currently for this site. A GPS point was taken and assigned this site name. However, this location may not be the same location as the earlier Daniel Cook cabin.

46Su360: The Captain Matthew Farley Home site represents the site of a double log cabin with a breezeway that was erected about 1770. It is located on the east side of the New River, east of the mouth of Buffalo Creek at an elevation of 1520 ft amsl. The site was recorded by Stephen Trail in 1985.

The jeep trail where this site is believed to be located was traveled during the 1998 relocation survey. The area of the supposed site is steeply graded. The area was surveyed for structural remains and none were visible. It appears unlikely the site is at this location. No GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su375: The Meador Campground is an open habitation site at an elevation of 1480 ft amsl with dimensions of approximately 100 m N S x 50 m E W. Shovel tests were conducted in 1984 by David Fuerst, producing six lithic flakes and one whiteware ceramic sherd. The site was recorded by Stephen Trail in 1986. This site was revisited on March 16 1998, at which time, the site area was inundated due to flooding, as was 46Su189 to the south. No GPS point was taken during the 1998 relocation survey (USACE 1998).

46Su385: The Bluestone River site represents the ruins of a private residence on the north side of the Bluestone River 1.75 miles from the lake located at an elevation of 1560 ft amsl and has Historic European temporal components. The site consists of the remains of a house foundation, fence, spring house, two rock walls, garage, and possible well. The site was recorded by Stephen Trail in 1986. CRAI personnel relocated this site March 3, 1998. The site has structural remains and a GPS point was taken. The site appears to be in good condition.

46Su405: The Sherman Ballard Recreation Area site is an open habitation site located at an elevation of 1560 ft amsl with Late Archaic temporal components. The site was originally reported by Stephen Trail in 1986. The site has produced one quartz scraper and two ferruginous sandstone flakes. The site area lies west of a recreation building associated with the Sherman Ballard Recreation Area, on a terrace overlooking the floodplain of the Bluestone River.

The site was revisited by CRAI personnel in 1998 (USACE 1998). The area was in pasture. Shovel tests located lithic debris, and a GPS point was taken at the estimated center of the site area.

46Su436: This site is located on an upper terrace above the New River at Bertha, near the Bluestone Conference Center, at an elevation of about 1580 ft amsl. The site was originally reported by Stephen Trail in 1988. Trail was shown a full groove axe, some points, and debitage collected by a local resident from the site while constructing a septic tank system.

This site was not revisited by CRAI personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 44Gs436 may be within the boundaries of the Huntington District Bluestone Lake property (USACE 1973).

46Su437: The Bertha II site is an open habitation site located on a high terrace overlooking the New River at an elevation of 1620 ft amsl. The site was recorded by the Stephen Trail in 1988, and was revisited by

CRAI personnel on April 9, 1998 (USACE 1998). The soils have been subject to erosion, and there has been disturbance in the area from camping and construction activities associated with the Bertha campground. Sparse lithic debris was observed where the ground surface was exposed. A GPS point was taken at the approximate center of the site.

46Su441: This prehistoric open habitation site is located in the Shanklin Ferry campground at an elevation of 1480 ft amsl. The site has been impacted by camper activity as well as privy installations. The site was originally identified by Stephen Trail in 1988. Trail reported recovering a Kirk projectile point from the site.

This site was revisited by CRAI personnel on March 26, 1998 (USACE 1998). Sparse lithic debris was observed along a dirt road running through a camping area. A GPS point was recorded at the estimated center of the site. The GPS plot is on the northeastern boundary of the DNR GIS overlay of the site.

46Su450: This open habitation site is located on the New River near the southern extremity of Crump's Bottom at an elevation of 1460 ft amsl. A village stain is reported to be evident. The site was recorded by the Stephen Trail in 1989.

When CRAI personnel revisited this site on March 26, 1998, the area was heavily overgrown (USACE 1998). Shovel tests were conducted in the vicinity of the WVSHPO plot. Soil was notably darker and sparse lithic debris was observed in two shovel tests south of the DNR GIS overlay plot. A GPS point was taken at the location where lithic material was observed.

46Su471: The Nathane Lilly Cabin site is located on a terrace just north of Joshua's Run at an elevation of 1520 ft amsl. The site was recorded by the Stephen Trail in 1989.

The site area was revisited March 11, 1998 by CRAI personnel. A pile of stones was located, which may be the remains of chimney fall. Historic debris was noted in one shovel test, including wire nails and plain whiteware. The artifacts suggest a late nineteenth-century origin for the site. A GPS point was taken, as the location was in the vicinity of the map plot. However, the site may post-date the Nathane Lilly cabin. The DNR GIS overlay and the WVSHPO plot cover a very large area.

46Su505: This site is located on a low terrace above the floodplain of Indian Creek, at an elevation of 1520 ft amsl, across from the confluence of Bradshaw Creek and Indian Creek. The site location was based on an interview of local resident Bill Walthall by Stephen Trail in 1989.

This site was revisited by CRAI personnel on April 6, 1998 (USACE 1998). The area of the WVSHPO plot was shovel tested and no artifacts were observed. The site is on the same landform as 46Su306, and it is likely that prehistoric material would be found across the terrace. No GPS point was taken as no artifacts were observed.

46Su506: The Indian Creek Mill is the site of a water-powered grist mill that was erected about 1890. The site is at an elevation of 1489 ft amsl. The mill is reported to have been a one- and one-half-story frame structure that was dressed with weatherboarding. The mill was destroyed during construction of the Bluestone project. The mill is reported to have ground mostly wheat with a water wheel with a diameter of 12-15'. The site was recorded by Stephen Trail in 1989.

This site area was revisited by CRAI personnel on April 1, 1998. The area is overgrown with briers and thick undergrowth, and visibility was extremely poor. A pedestrian reconnaissance was undertaken along Indian Creek and across the floodplain looking for structural remains. No structural remains were identified and no GPS point was recorded. An attempt should be made to relocate this site with a systematic survey because of the extremely poor visibility.

46Su507: The Junta Grist Mill site is located near the mouth of Indian Creek about 100 yards east of the Indian Creek Bridge at an elevation of 1450 ft amsl. The mill is reported to have had a wooden dam instead of an earthen dam so that during flood water

would pass over the dam instead of washing it away. The mill was reported to have been four stories high. It is reported the mill was built around 1890 and operated until about 1930. The site was recorded by Stephen Trail in 1989.

The site area was revisited on April 1, 1998. As with site 46Su506, the vegetation was a dense undergrowth of briars. Pedestrian survey was conducted along the creek bank and the floodplain but no structural remains were observed, and no GPS point was recorded. An attempt should be made to relocate this site with a systematic survey because of the extremely poor visibility.

46Su517: This site number was changed to 46Su601 on the WVSHPO site form. The site does not appear of WVSHPO or DNR GIS overlay plots.

46Su518: This site number was changed to 46Su602 on the WVSHPO site form.

46Su519: This site number was changed to 46Su603 on the WVSHPO site form. The site does not appear on WVSHPO or DNR GIS overlay plots.

46Su531: This site contains historic structural remains and is located on a low terrace above Indian Creek. There was no prehistoric material observed in shovel tests in the pasture. The site was originally reported by Stephen Trail in 1990.

The site was revisited by CRAI personnel on April 6, 1998 (USACE 1998). A GPS point was recorded near historic structural remains. The GPS point is located at the southern edge of the WVSHPO plot. This site does not appear on the DNR GIS overlay.

46Su549: This site contains historic structural remains and is located at the point of a high terrace overlooking Indian Creek. The site was recorded by Stephen Trail in 1992 as the Fowler Plantation Manor. Trail described a mid- to late-nineteenth-century plantation complex with a slave quarter, and included a photocopy of a photograph.

This site was revisited by CRAI personnel on March 19, 1998 (USACE 1998). A GPS point was recorded near the structural remains. The GPS point location conforms well to the WVSHPO plot. This site is not located on the DNR GIS overlay.

46Su592: This prehistoric site was reported by Stephen Trail in 1991. The actual WVSHPO site form locates the site along the shoreline of the New River floodplain between 46Su48 and 46Su50. The DNR GIS map agrees with this location, but places 46Su48 and 46Su50 well to the north of the site. Confusion regarding the location of 46SU48 is included with the previous description 46Su48.

This site was not revisited by CRAI personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 46Su592 is within the boundaries of the Huntington District Bluestone Lake property (USACE 1973).

46Su593: This prehistoric site was reported by Stephen Trail in 1991. A light scatter of debitage was noted on the east bank floodplain of the New River, opposite a sharp bend in the river across from the south end of Wylie Island.

This site was not revisited by CRAI personnel during the 1998 survey, and was not included in the 1998 survey report (USACE 1998). The 1973 MBL map indicates that 46Su593 is within the boundaries of the Huntington District Bluestone Lake property (USACE 1973).

46Su601: The previous version of the HPMP stated that this was a prehistoric site located along the bank of Bluestone Lake at an elevation of approximately 1440 amsl (USACE 1998). However, examination of the WVSHPO site form indicates that this is a nineteenth century historic site that was originally reported as 46Su517, but changed to 46Su601 (McBride 1993).

The area was revisited by CRAI personnel on March 10, 1998 (USACE 1998). Shovel tests were excavated in the vicinity of the WVSHPO plot, and no artifacts were observed. No GPS point was taken during the

1998 relocation survey (USACE 1998). The original source of the information identifying a prehistoric component is unknown.

46Su602: The previous version of this HPMP stated that 46Su602 represented the same site as 46Su518 and 46Su519 (USACE 1998), but this is incorrect. The site was reported as 46Su518 by McBride in 1991 (McBride, Updike, and Bonshire 1991), but has subsequently been changed on the WVSHPO site form to 46Su602. Site 46Su519 is actually the same site as 46Su603, a situation which is described below.

This site is described on the WVSHPO site form as a late nineteenth to early twentieth-century historic site; artifacts recovered include a decal porcelain sherd, six milk glass lid liners, one zinc lid, four wire nails, and one late cut nail (McBride 1993).

The site was revisited by CRAI personnel on March 18, 1998. The site, located at the tip of a terrace overlooking lower terraces and the floodplain of Indian Creek, contains substantial historic structural remains that appear to date to the nineteenth century. This plot conforms to WVSHPO plots for 46Su518 and 46Su602. The DNR GIS does not have a plot for this site.

46Su603: This site was previously reported as a prehistoric lithic scatter located on a terrace above Indian Creek, with lithic debris observed in shovel tests across the terrace (USACE 1998). CRAI personnel recorded a GPS point at the approximate center of the site, and the location conformed to the WVSHPO plot of the site location. However, examination of the WVSHPO site form indicates that the site, formerly numbered as 46Su519 but changed to 46Su603 in the site files, was originally reported as a historic domestic site occupied from the late nineteenth to early or middle twentieth century (McBride 1993). Artifacts reported on the WVSHPO site form for 46Su603 were previously reported as being from 46Su519 in the 1998 HPMP (USACE 1998). The artifacts recovered include three plain ironstone ceramic sherds, two plain whiteware sherds, one lustre decorated porcelain sherd, one amethyst "blow off top" fruit jar lip, one clear glass bottle body fragment, six milk glass jar lid liner fragments, one zinc fruit jar lid, one enameled tinware pot/pan handle, four window glass fragments, four modern headed cut nail fragments, nine wire nail fragments, one wood screw, one decorative glass knob, one cast iron stove fragment, one steel file fragment, one wire fragment, one rivet, one rubber washer, one post-1902 U.S. Army button, one composite button, one battery core, and 14 unidentified iron/steel fragments (McBride, Updike & Bonshire 1991).

The source of the prehistoric material is unknown. It may be that the 1998 relocation survey (USACE 1998) identified a prehistoric component of the historic site reported by McBride et al. (1991).

46Su616: This prehistoric rockshelter site is located at an elevation of 1600 ft amsl, situated on the east side of a small, unnamed intermittent stream approximately 244 m south of the Bluestone River. Four shovel test pits were excavated, of which three produced cultural material. Material recovered consists of a single projectile point fragment, four flakes, one possible eroded sherd, four small pieces of pelecypod shell, one piece of unburned bone, and several pieces of wood charcoal. A small eroded piece of fired clay was recovered from shovel test pit #2. Shovel test data indicate that intact cultural material of Woodland affiliation extends to a depth of at least 30 cm below surface. The site was considered to be potentially eligible for inclusion on the NRHP, and further testing and evaluation was recommended if project avoidance could not be accomplished (Anslinger 1995).

This site was relocated on April 16, 1998 (USACE 1998). The shelter is positioned within a drainage and it was not possible to take a GPS point at the exact location of the shelter. A point was taken 25 m west of the shelter. This site is not included in the DNR GIS overlay for Bluestone Lake.

46Su617: This open habitation site is located at an elevation of 1540 ft amsl on a

flat ridgetop bench overlooking the confluence of the Bluestone and New rivers and Pipestem Creek. Five shovel tests were excavated. Each produced a small quantity of chert debitage along with a small amount of fire-cracked rock. No evidence of ceramics, formal tools, features, or midden were found. Project avoidance was recommended for this site, and further testing and evaluation was recommended if the site could not be avoided (Anslinger 1995).

This site was revisited April 16, 1998, by CRAI personnel and a GPS point was taken at the estimated center of the site. This site is not included on the DNR GIS overlay for Bluestone Lake.

46Su618: This site is a single rock pile or cairn located on or near the Huntington District property line on the extreme southeast portion of Tract #15. The site is located near the terminus of an upland ridge at an elevation of 1640 ft amsl. The cairn is approximately 15 x 12 ft in size and measures one to two ft in height. There was no evidence of historic or prehistoric artifacts in association with the cairn, and shovel testing failed to produce any cultural remains. A NRHP determination for potential eligibility was not possible (Anslinger 1995).

This site was revisited by CRAI personnel on April 16, 1998 (USACE 1998). A GPS point was taken at the location of the possible rock cairn. This site is not included in the DNR GIS overlay for Bluestone Lake.

46Su633: This site was located during a power line survey for Columbia Power and consists of a lithic scatter on a terrace above Bluestone Lake. This site was revisited by CRAI personnel on April 1, 1998. This site is not present on the DNR GIS overlay for the site. A GPS point was taken where lithic debris was observed on bare ground surface. The GPS point lies 50 m west of the WVSHPO plot.

46Su634: This site was located during a power line survey for Columbia Power. The site consists of historic structural remains that appear to date from the late nineteenth to twentieth century. This site was revisited by CRAI personnel on March 31, 1998 (USACE 1998). The site is not on the DNR GIS overlay for the site. A GPS point reading was taken at the location of the historic structural remains. The GPS reading conforms to the WVSHPO plot for the site.

46Su635: This site consists of a lithic scatter located on a bench above Bluestone Lake. The site was located during a power line survey for Columbia Power. This site was relocated by CRAI on March 31, 1998 (USACE 1998). Shovel tests recovered lithic debris. A GPS point was taken at the estimated center of the site. The position of the GPS point is situated on a lower bench, well south (about 300 m) of the WVSHPO plot for this site. It is possible that the GPS point represents a new site.

46Su636: This site is a historic retaining wall, possibly for a spring, located off an old road bed on a narrow bench high above Bluestone Lake. The site was recorded during a power line survey for Columbia Power. The site was relocated by CRAI personnel on March 31, 1998 (USACE 1998). A GPS point was taken near the retaining wall. The position of the GPS point is lower on the slope than the WVSHPO plot for the site. This site is not shown on the DNR GIS plot of the site.

Curation and Collections

Artifacts from Solecki's survey (1949) and Holland's survey (1970) are housed at the Smithsonian Institution (Table C2, Appendix C). As noted in Chapter 5, some confusion regarding archaeological site numbering was discovered for sites located in Giles County, Virginia, and this confusion is reflected in the Smithsonian accession numbers. Fortunately, 44Gs10 was the only site identified by both Solecki and Holland, and the site number is the same in both Virginia and West Virginia, so the accession numbers for sites associated with Bluestone Lake are not affected.

In 1998, the Huntington District reported that materials curated at the Delf Norona Museum in Moundsville, West Virginia, included about one-half box of materials from

46Su3 equaling approximately 0.6 ft^3 (USACE 1998). Items collected from sites identified by the Huntington District have also been curated "at the Blennerhassett Historical Park Commission in Parkersburg and the West Virginia State Museum at the Division of Culture and History in Charleston, West Virginia" (USACE 1998:68). However, the State of West Virginia has not been accepting materials for curation since at least 1995 due to space limitations. Therefore, collections since at least 1995 (and perhaps prior) likely remain in the possession of the excavator/surveyor. In 1998 and 1999, Andrea Keller of the WVDCH completed an assessment of the Huntington District's collections at the Delf Norona Museum (Keller 2005). These materials are summarized in Table 5-5. It should be noted that artifacts are not accessioned by the State of West Virginia, and are labeled only with the site number rather than an accession number. The most recent site reported in these collections is 46Su208, identified by Stephen Trail in 1981.

Maslowski (1982) notes that a preliminary analysis of the unprovenienced "Martin collection" from the reservoir area was conducted at the Science and Culture Center in Charleston, now the WVDCH. The location of this collection is uncertain.

Keller (2005) also reported that some materials are known to be housed at the University of Pittsburgh, including 57 ft^3 of artifacts recovered by the University of Pittsburgh Cultural Resource Management Program from 46Su3, 46Su9, and 46Su22. These artifacts, as well as human remains, are currently curated at the University's Center for Cultural Resource Research (UPCCRR) near Pittsburgh, Pennsylvania. While plans to move the materials to the Delf Norona Museum are reportedly ongoing, this transfer has not yet occurred.

The curation of artifacts from 46Su633, 46Su634, 46Su635, and 46Su636 (Tidlow et al. 1996; Purtill et al. 1997) were "tentatively" set to occur at the WVDCH. Since these materials were not reported by Keller (2005) in her 1998 assessment of curated Bluestone Lake materials, the current location of these materials is unknown, but assumed to remain with the company conducting the excavations (Gray and Pape, Richmond, Virginia).

A number of unprovenienced artifacts exist in private collections. The Shumate collection is on display at Pipestem State Park. The Martin collection consists of artifacts collected by a local amateur during the 1950s and 1960s, and was at one time housed at the West Virginia Cultural Center (USACE 1979). Another unprovenienced collection in private hands includes the artifacts from 46Su9 discussed in Faulconer (1978).

Table 5-5. An Assessment of the Huntington District Collections at the Delf Norona Museum Through 1998 (Keller 2005)

Site(s)	Box Number	Weight (lbs)	Description of Contents	Condition (as of 1998)
46Su3	1	5	Pottery, shell	Packed in substandard (PVC) plastic with labels that will detach soon.
46Su3	2	28	Ground stone and other stone	Packed with what appears to be a large shredded plastic bag.
46Su3	3	11	No Description	Artifacts in paper bags.
46Su3	4	17	Animal Bone	Packed in substandard plastic bags.
46Su3	5	15	Pottery	Packed in substandard plastic bags - placed in better bags for containment.
46Su3	6	12	Diagnostic Pottery	Fragile. Packed in substandard plastic bags.

Table 5-5. An Assessment of the Huntington District Collections at the Delf Norona Museum Through 1998 (Keller 2005)

Site(s)	Box Number	Weight (lbs)	Description of Contents	Condition (as of 1998)
46Su3	7	11	Animal bone, shell, flint	Fragile. Packed in substandard plastic bags.
46Su3	8	16	Animal bone, pottery, shell, stone	Packed in substandard plastic bags.
46Su3	9	25	Stone (manuports, quartzite, possible hammer stones, primary reduction flakes, etc.)	Some separated in a box. Need padding - not bagged.
46Su3	"West Virginia State Museum Box # 3"	12	Bone, shell, ceramic, lithic	Substandard (PVC) plastic bags. Need to catalog and accession. Artifacts are labeled with site number.
46Su9 (?)	No Box Number	12	No Description	Artifacts not labeled. In paper bags. Includes a WV Geological And Economic Survey memo which states "Crump's Bottom SU9? Donated by Jean Jones". Should be Gene Jones.
46Su9 (?)	No Box Number	22	No Description	Substandard plastic and paper bags. Some belong to Huntington District, some do not. Need to be sorted. Not accessioned or cataloged
46SU009, 46ME019, 46ME020, 46ME021, 46SU020, 46SU022, 46SU028, 46SU047, 46SU048, 46SU049, 46SU050, 46SU052, 46SU053, 46SU055, 46SU056, 46SU208	No Box number	10	No Description	In substandard (PVC) plastic bags. Bags have been placed in other plastic bags in order to retain their labels. Needs padding.
46SU010, 46SU020, 46SU022, 46SU023, 46SU029, 46SU052, 46SU053, 46SU165, 46SU191, 44GS005, 46GS004, 46MC001	No Box Number	15	No Description	In substandard (PVC) plastic bags. Artifacts are not cataloged and accessioned. Robert Maslowski stated that these artifacts were collected by Huntington District archaeologists on field visits to these sites.

Table 5-5. An Assessment of the Huntington District Collections at the Delf Norona Museum Through 1998 (Keller 2005)

Site(s)	Box Number	Weight (lbs)	Description of Contents	Condition (as of 1998)
46SU003, 46SU008/9, 46SU008, 46SU009	No Box Number	14	No Description	In acceptable plastic bags. This box of artifacts was delivered to the collection by Robert Maslowski (Huntington District) in October 1998. It is part of the Gene Jones collection. According to Robert Maslowski, the Gene Jones Collection includes artifacts from Crump's Bottom, which probably consisted of three sites. Gene Jones' field notes should be located and checked - they may be at Marshall University or with Col. Howard MacCord.

Radiocarbon Dates

Radiocarbon dates were calibrated using the 1993 Quaternary Isotope Lab, University of Washington, Calib version 3.0 calibration program (USACE 1998). Samples were entered from the Data Input/Output Menu, with the lab error multiplier being "1."

Table 5-6. Radiocarbon Dates From Bluestone Lake Sites (USACE 1998).

Site	Context	Lab No.	Uncalibrated Date	Calibrated Date
46Su3	Feature B1	UGA-5595	AD 1312	AD 1310, 1360
46Su3	Feature B2	UGA-5596	AD 1541	AD 1460
46Su3	-	SI-3421	AD 1205	AD 1280
46Su3	-	SI-3422	AD 1610	AD 1520
46Su3	-	DIC-1555	AD 1270	AD 1300
46Su3	Feature FI	DIC-1556	AD 1190	AD 1280
46Su3	Feature F24	DIC-1652	AD 1480	AD 1440
46Su3	Feature F26	DIC-1653	AD 1380	AD 1400
46Su3	Feature F33	DIC-1654	AD 340	AD 430
46Su3	Feature F38	DIC-1655	AD 970	AD 1028
46Su9	-	IC-1557	AD 1290	AD 1300
46Su9	-	IC-1558	AD 1220	AD 1286
46Su22	-	IC-1562	AD 1450	AD 1430
46Su22	-	IC-1561	AD 1430	AD 1421
46Su22	-	IC-1557	AD 1410	AD 1410

Chapter 6. Impact Zones, Reservoir and Upland Processes, and the Physical Integrity of Cultural Resources

Introduction

During the twentieth century, the construction and inundation of freshwater reservoirs have undoubtedly impacted and destroyed a large diverse assortment of cultural resources in the United States. In an effort to mitigate impacts to cultural resources resulting from such undertakings, the Reservoir Salvage Act of 1960, as amended in 1974, was established. This piece of legislation requires the Secretary of the Interior to have cultural resource surveys conducted by the Department of the Interior or by the federal agency undertaking the project in advance of construction (Ware 1989). During the 1960s when large amounts of federal dollars were being spent on archaeology, the underlying premise of the Reservoir Salvage Act, i.e., that long term inundation of archaeological resources was a destructive process, came under increasing scrutiny. Although most archaeologists continued to argue for the continuation of survey and salvage efforts, some archaeologists and a growing number of reservoir managers and managing agencies argued that the silt and water column of freshwater reservoirs created conditions favorable or even ideal for the long-term preservation of archaeological resources (Jewell 1961; see Ware 1989).

In an effort to resolve this debate, the National Park Service, the Bureau of Reclamation, the U.S. Army Corps of Engineers, and the Soil Conservation Service, four federal agencies that had been actively involved in the construction of reservoirs, funded a five-year research program designed to conduct basic field and laboratory research on the effects of freshwater inundation on archaeological sites and materials. As discussed by Ware (1989) in a summary of the National Reservoir Inundation Study (NRIS), important conclusions reached by those involved in the study were: 1) that the impacts of freshwater inundation on archaeological sites and materials were overwhelmingly negative, 2) that not all types of deposits and contexts were similarly affected, 3) that only in certain circumstances could in situ preservation be considered a viable alternative to mitigation, and 4) that in order to address the complete range of adverse impacts mitigation plans should be incorporated into the earliest stages of reservoir construction planning (Lenihan et al. 1981; see Ware 1989:3-4).

Impact Zones

Using the NRIS as a model, the Huntington District property at Bluestone Lake was divided into three impact zones. The first zone (Zone A), defined as the conservation pool, is that portion of each reservoir at and below winter drawdown where landforms are permanently inundated (Table 6-1). For Bluestone Lake, the conservation pool is at or below 1406 ft amsl. The second zone (Zone B) is the area impacted by scheduled seasonal fluctuations in pool level, or the littoral zone, which at Bluestone Lake is the area confined to elevations between 1406 ft amsl (the conservation pool) and 1410 ft amsl (the normal pool) (Table 6-2). The third zone (Zone C) consists of the remaining portions of the property above the normal pool, designated as the upland zone (Tables 6-3 and 6-4). This zone includes all land located above 1410 ft amsl and incorporates the floodplain, terrace, upland slope, and hill/ridgetop areas.

The NRIS model does not categorize the area between the normal pool and the maximum flood control pool. During periods of high water, the reservoir is filled to a maximum pool elevation of 1520 ft amsl at Bluestone Lake (Perry n.d.). The maximum flood control pool is marked on all USGS 7.5 minute topographic maps that include the lake. Even though flooding above the normal pool level does not represent an event that is controlled or scheduled by the Huntington District at Bluestone Lake, it does represent a related event that can have both positive and negative impacts upon cultural resources in this zone. For example, information provided in a report by Dunn et al. (1996) indicated that 46Su22 was receiving a net gain in sediment during periods of flood recession. This site was relocated at an elevation of 1450.18 ft amsl (USACE 1998), well above the normal pool but within the maximum flood control pool. Data provided in Dunn et al. (1996) indicate that, during a February 1996 flood event, approximately 3.0 cm of sediment was deposited at a point near the edge of terrace scarp (east side of site), while an area in the southwest part of the site received approximately 1.0 cm during that same event. This indicates that overbank deposition, as described in the following discussion of site disturbance processes, can be an active process during these intermittent, larger-scale flood events. Therefore, cultural resources located in Zone C (above 1410 ft amsl) but still subject to uncontrolled flood events within the maximum flood zone (between 1410 and 1520 ft amsl) will be noted for the purposes of this plan.

The plotted location of a site and the reported elevation data were sometime in conflict. For example, the GPS point taken in 1998 for at 46Su617 places the site well below the 1520 ft amsl contour line and within the maximum flood control pool, in agreement with the plot on the WVSHPO map. However, the same GPS reading that located on the USGS topographic map also returned an elevation of 1531.78 ft amsl, also close to the original reported elevation estimate of 1540 ft amsl and above the elevation of the maximum flood control pool. In cases such as this, where there is disagreement between the reported elevation of a site and its plotted location, the decision was made to rely on the metric data as it currently exists rather than make judgments regarding the validity of the reported locations. In other words, the data will stand on its own until systematic survey is conducted to resolve data conflicts, and the reported elevation was used to categorize whether a site was within or not within any given impact zone. If two reported elevations exist for a given site, the lower elevation was used to assign the impact zone for that site.

Processes of Site Disturbance

Three basic modes of impact have been identified through the study of the effects of freshwater reservoirs on cultural resources (Ware 1989). These impact modes include 1) mechanical, 2) biochemical, and 3) human-related processes. Each process is discussed below.

Mechanical Processes

Mechanical processes that operate at Bluestone Lake can be divided into two broad categories; those that impact sites through physical erosion and those that impact sites through deposition. Processes in these categories may not be mutually exclusive, since some processes of physical erosion can also result in site burial. However, in some instances clear distinctions can be made between processes that operate within the reservoir as opposed to those that operate in the upland environment. Mechanical processes that operate in the conservation pool and littoral zones include the mechanisms of water motion, wave action, and saturation, and slumping of submerged and shoreline alluvial and colluvial units. These processes of physical erosion also play an important role in sedimentation and the redistribution of sediments within the reservoir basin, although silting from backshore runoff and stream inflow are generally cited as the primary processes of sedimentation in freshwater reservoirs. The upland impact zone is typically

not affected by these processes, although other mechanical processes (including mass movement, channel migration, and overbank deposition) have a potential to impact cultural resources.

Water motion. As a process of physical erosion, water motion has the potential to impact sites in each of the three impact zones identified for Bluestone Lake. In the environment of the reservoir physical erosion occurs as a result of nearshore currents and stream inflow. Nearshore currents have the potential to alter topography within the littoral zone of the reservoir. The effects of nearshore currents, which tend to be most prominent in large, broad reservoirs, are often negligible in many small reservoirs.

Another form of water motion at freshwater reservoirs is stream inflow. During winter months when pool levels are lowered, large areas of formerly inundated lake bottom become exposed, with alluvial and lacustrine sediments being susceptible to erosion from free-flowing streams. When reservoirs are at normal pool, the effects of stream inflow within the reservoir proper are diminished. The impacts of water motion on permanently inundated sites in the conservation pool are not well understood, although this process might play an important role in distributing sediment in the reservoir basin and hence site burial. In the upland environment, water motion in the form of free-flowing streams has the potential to impact cultural resources through channel erosion/migration and floodplain scouring and sedimentation during periods of overbank flooding.

Wave action. The mode of physical erosion with the greatest potential to impact archaeological sites located in the littoral zone is wave action. Waves can be generated by wind blowing over the surface of the lake and by human activities such as power boating. Although wave action probably has little if any effect on cultural resources that are deeply submerged, sites located at or in close proximity to a relatively stable shoreline can be impacted as a result of deflation and shoreline retreat. The erosive potential of wave action is conditioned by a number of important variables that include 1) slope and geometry of the shoreline, 2) geological composition of the shoreline, and 3) type and density of vegetation in shallows and along the shoreline. In reservoirs that are not subjected to seasonal fluctuations in pool level, shorelines may achieve a state of equilibrium or stability. This happens when fine-grained sediments eroded from the shoreline are translocated to deep water locations, while coarser-grained or heavier sediments accumulate and form off-shore shoals. Development of shoals changes the topography of the littoral, resulting in a decrease in nearshore wave energy and erosion. However, in flood control reservoirs where the seasonal changes in pool level can be dramatic, shoals are subjected to long periods of erosion and the shoreline may never reach a state of long-term stability. When the reservoir is at winter pool the effects of wave action are probably reduced as a result of smaller, lower energy waves (smaller surface area of lake and less boat traffic) and the presence of a post-inundation silt mantle at the shoreline. The greatest potential for wave action to impact sites in the conservation pool would probably occur during the initial and early period of impoundment before a thick silt mantle develops.

There is no size limit on boats and motors at Bluestone Lake, with boat access provided at six boat ramps and a slide ramp below the dam, clearly indicating an active boating population.

Saturation and slumping. Another process of physical erosion is saturation and slumping. Although not well documented for freshwater reservoirs, subaqueous failures of sloping landforms (e.g., talus slopes, alluvial fans) have been documented. Following impoundment, saturation of sediments can result in liquefaction, with large volumes of sediment being displaced in single, short-term events.

Overbank deposition. The process of overbank deposition takes place when streams overflow their banks and deposit relatively

fine-grained sediments on the valley floor. Under certain conditions, this type of deposition results in the formation of natural levees along the margins of active channels. Although overbank deposition can result in long-term burial of cultural deposits, significant amounts of erosion can also be associated with this process (see water motion above).

Mass movement. This process of erosion consists of the downslope movement of a portion of land surface and can include several specific processes, such as creep, landslide, or slip. The primary agent for movement of mineral, rock, and soil particles is gravity. Mass movement can result in the formation of colluvial fans and aprons at the base of valley walls and other steep slopes. Over long periods of time, this process has the potential to bury cultural deposits located in specific settings in the upland zone.

Biochemical Processes

When sites are inundated, the potential for certain classes of cultural remains (e.g., organic materials) and associated archaeological, geological, and pedological deposits to be differentially preserved or destroyed is related directly to the chemical and biological environment of the freshwater reservoir. Important variables that influence or control lake environments are climate, bedrock geology, soil chemistry, flora and fauna, human activity, and time (Ware 1989). Although significant synchronic, diachronic, and locational differences in water chemistry occur in large reservoirs, the long-term effects of differences on cultural resources is not well understood. In most instances, inundated sites are buried within a sediment matrix that owes its origin to pre-inundation (i.e., alluvial or colluvial) or post-inundation (lacustrine) processes. The depth of site burial within the sediment column will have a significant influence on oxygen-reduction potentials. Sites deeply buried in anaerobic sediments probably support conditions highly favorable for the preservation of many types of archaeological remains, although the effects of long-term burial under these conditions is poorly understood and documented. On the other hand, the decay of organic materials is much greater (or at least more rapid) at sites located in shallow littoral areas of the reservoir where aerobic conditions prevail.

As used for the purposes of this report, the category of biochemical processes for the upland zone is broadly defined to incorporate the plethora of mechanisms that, through biological and/or chemical means, have a potential to impact all or select parts of the archaeological record. Included are various forms of bioturbation, root action, soil/sediment chemistry, and the complex process of pedogenesis. These processes, acting singularly or in various combinations, can have significant impacts on the physical and contextual integrity of archaeological sites.

Human Processes

Included in this category are a wide range of processes that result from human activities. Processes directly related to reservoir construction and use include such large-scale undertakings as dam construction and reservoir clearing. These activities can result in the removal of enormous volumes of soil and sediment, as well as the destruction of all or select categories of cultural features (e.g., razing of historic period structures). Following impoundment, power boating and other recreational activities can increase the intensity and energy of wave action, resulting in an acceleration of shoreline erosion. Also, archaeological sites located in the littoral zone can be impacted by surface collecting and clandestine excavations during periods of pool drawdown, as well as by recreational activities such as off-roading with ATVs or 4X4 vehicles.

In the upland zone, undertakings such as mining, timbering, road and trail construction, agriculture, wildlife management programs, camping, and other developments involving recreational and maintenance facilities represent some of human processes that have a potential to impact archaeological sites. For example, 19 sites in the upland zone are located within or near campground areas. A

total of 34 sites are located within or partially within agricultural fields (Schaefer 1997). In addition, the intentional vandalism of archaeological sites through surface collecting and/or clandestine excavation can negatively impact or destroy site integrity.

Evidence for Impacts to Cultural Resources

The evidence for impacts from some of the processes described above is closely tied to the elevation of the site relative to certain benchmarks, including the conservation pool, the normal pool, and the maximum flood control pool. However, as the site descriptions presented in the previous chapter demonstrate, the location of the recorded sites can be variable, the elevation is based either on an estimated point or a point obtained from a GPS survey unit, and the overall size of most of the sites is unknown. Sites that are have been recorded at an elevation of 1414 ft amsl (46Su187), for example, may, or may not extend into the littoral zone (Zone B) between 1410 and 1406 ft amsl. The extent of these sites is unknown as there has never been a systematic survey of the Huntington District property at Bluestone Lake to record such data. Therefore, the following summary of potential impacts is greatly affected by generally poor location, elevation, and site size data.

Table 6-1. Impacts to Cultural Resources in Zone A (Permanently Inundated).

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Temporal Association	Known and Potential Impacts
46Su2	1400	-	Unknown	Water motion, wave action and saturation, slumping of alluvial deposits

Table 6-2. Impacts to Cultural Resources in Zone B (Seasonally Inundated).

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Temporal Association	Known and Potential Impacts
46Su3	1408	1410.509	LA; LP; PH	Water motion, wave action and saturation; slumping of submerged and shoreline alluvial and colluvial units; natural flooding; unauthorized collecting
46Su60	1410	1413.435	A; LW, LP	Water motion, wave action and saturation; slumping of submerged and shoreline alluvial and colluvial units; natural flooding; unauthorized collecting
46Su61	1410	1439.738	A; MW; LP	Water motion, wave action and saturation; slumping of submerged and shoreline alluvial and colluvial units; natural flooding; unauthorized collecting

A = Archaic; LA = Late Archaic; MW = Middle Woodland; LW = Late Woodland; LP = Late Prehistoric; PH = Protohistoric

Table 6-3. Impacts to Cultural Resources in Zone C (Rarely or Never Inundated) Within or Possibly Within the Maximum Flood Control Zone.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Temporal Association	Known and Potential Impacts
44Gs10	1520	-	LP	Mass movement, channel migration, overbank deposition, natural flooding; unauthorized collecting
44Gs11	1520	-	W/LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
44Gs15	1520	1504.941	A; W; LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
44Gs17	1515	1526.280	LA; W	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
44Gs20	1505	1482.635	W	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
44Gs22	1520	-	A	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
44Gs28	1523	-	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
44Gs41	1480	-	H	Channel migration
44Gs42	1480	-	H	Channel migration
44Gs43	1480	-	H	Channel migration
44Gs44	1480	-	H	Channel migration
44Gs48	1515	-		Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Me19	1470	1494.187	W	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Me20	1470	1485.151	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Me21	1470	1482.536	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Me103	1460	1486.470	P	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su7	1460	1472.323	LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su9	1464	1474.492	EA, LA, MW; LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su10	1444	1454.505	LA, W; LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su19	1424	-	LP; H	Mass movement, channel migration, overbank deposition, camping, agriculture, natural flooding, unauthorized collecting

Table 6-3. Impacts to Cultural Resources in Zone C (Rarely or Never Inundated) Within or Possibly Within the Maximum Flood Control Zone.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Temporal Association	Known and Potential Impacts
46Su20	1428	1429.187	EA, LA, LW; LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su21	1460	1472.487	EA	Mass movement, channel migration, overbank deposition, camping, agriculture, natural flooding, unauthorized collecting
46Su22	1441	1450.184	LA, MW; LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su23	1435	1437.454	P; H	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su24	1435	-	LP	Mass movement, channel migration, overbank deposition, camping, agriculture, natural flooding, unauthorized collecting
46Su28	1460	-	PI, LA, W; LP	Mass movement, channel migration, overbank deposition, camping, agriculture, natural flooding, unauthorized collecting
46Su29	1450	-	LP	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su39	1415	1421.756	PI; EA, MA, LA; EW, MW, LW; LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su41	1415	1438.376	PI; EA, LA; EW, MW, LW	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su42	1415	1423.780	PI; LA; MW, LW; LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su43	1415	1418.744	MA, LA	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su44	1415	1424.033	EA, LA; EW, LW; LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su45	1415	1438.540	PI; LA; EW, MW, LW; LP	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su47	1475	1473.780	W; LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su48	1465	1467.363	MA; W; LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su49	1457	-	LW; LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su50	1466	1514.879	LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su52	1470	1455.824	LA; W/LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su53	1430	1430.430	LA	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting

Table 6-3. Impacts to Cultural Resources in Zone C (Rarely or Never Inundated) Within or Possibly Within the Maximum Flood Control Zone.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Temporal Association	Known and Potential Impacts
46Su54	1430	1427.901	EA	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su56	1490	1471.047	LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su58	1485	1492.612	A, LW; LP	Mass movement, channel migration, overbank deposition, camping, agriculture, natural flooding, unauthorized collecting
46Su62	1460	-	W	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su128	1425	1442.796	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su165	1414	1441.083	LA, W; H	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su186	1414	1452.773	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su187	1414	-	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su188	1415	-	P	Mass movement, natural flooding, unauthorized collecting
46Su189	1420	-	P	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su191	1470	1503.590	A; W	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su193	1429	-	W/LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su194	1460	1461.769	LA; W	Mass movement, channel migration, overbank deposition, camping, agriculture, natural flooding, unauthorized collecting
46Su195	1429	-	W/LP	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su196	1429	1424.177	LA; W	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su198	1525	1511.208	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su202	1429	1469.590	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su206	1415	1449.056	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su207	1550	1434.984	P; H	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting

Table 6-3. Impacts to Cultural Resources in Zone C (Rarely or Never Inundated) Within or Possibly Within the Maximum Flood Control Zone.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Temporal Association	Known and Potential Impacts
46Su208	1429	1466.191	LA; LP	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su212	1440	1462.933	MA, LA; W; H	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su244	1520	-	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su270	1520	-	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su271	1520	1503.153	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su272	1520	1572.408	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su273	1520	1540.341	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su274	1520	-	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su275	1520	1493.330	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su276	1500	1486.162	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su279	1460	-	LP	Mass movement, natural flooding, unauthorized collecting
46Su281	1441	1448.698	H	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su282	1440	-	H	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su290	1415	-	P; H	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su306	1520	1510.236	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su308	1500	-	P	Mass movement, agriculture, natural flooding, unauthorized collecting
46Su310	1420	-	P	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su325	1530	1460.082	LA; H	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting
46Su326	1425	1456.487	EA, LA; LP; H	Mass movement, channel migration, overbank deposition, agriculture, natural flooding, unauthorized collecting

Table 6-3. Impacts to Cultural Resources in Zone C (Rarely or Never Inundated) Within or Possibly Within the Maximum Flood Control Zone.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Temporal Association	Known and Potential Impacts
46Su328	1520	1521.808	H	Mass movement, agriculture, natural flooding, unauthorized collecting
46Su330	1520	1547.044	EA, LA	Mass movement, agriculture, natural flooding, unauthorized collecting
46Su331	1500	1526.939	H	Mass movement, natural flooding, unauthorized collecting
46Su345	1480	1565.459	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su358	1520	1489.285	H	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su360	1520	-	H	Mass movement, natural flooding, unauthorized collecting
46Su375	1480	-	P; H	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su385	1560	1470.483	H	Mass movement, natural flooding, unauthorized collecting
46Su441	1480	1466.864	EA	Mass movement, channel migration, overbank deposition, camping, natural flooding, unauthorized collecting
46Su450	1460	1473.091	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su471	1520	1492.333	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su505	1520	-	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su506	1489	-	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su507	1450	1434.984	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su531	-	1498.127	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su592	1500	-	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su593	1480	-	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su601	1440	-	P	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting
46Su634	-	1453.852	H	Mass movement, channel migration, overbank deposition, natural flooding, unauthorized collecting

H = Historic; P = Prehistoric; A = Archaic; EA=Early Archaic; MA = Middle Archaic; LA = Late Archaic; W = Woodland; EW=Early Woodland; MW = Middle Woodland; LW = Late Woodland; LP = Late Prehistoric; PH = Protohistoric

Table 6-4. Impacts to Cultural Resources in Zone C (Rarely or Never Inundated) Above the Maximum Flood Control Zone.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Cultural Components	Known and Potential Impacts
46Me121	1600	-	None	Mass movement, unauthorized collecting
46Su1	1565	-	LW	Mass movement, unauthorized collecting
46Su5	1525	-	LA; H	Mass movement, unauthorized collecting
46Su6	1560	-	EA, LA, MW, LP	Mass movement, unauthorized collecting
46Su8	1535	1563.648	LP; H	Mass movement, unauthorized collecting
46Su12	1525	-	None	Mass movement, unauthorized collecting
46Su13	1540	-	None	Mass movement, unauthorized collecting
46Su55	1550	1583.589	W	Mass movement, agriculture, unauthorized collecting
46Su199	1525	1526.388	A, W, LP; H	Mass movement, unauthorized collecting
46Su200	1525	-	A; W	Mass movement, unauthorized collecting
46Su280	1800	2056.587	None	Mass movement, unauthorized collecting
46Su309	1540	-	P	Mass movement, unauthorized collecting
46Su327	1570	-	P	Mass movement, agriculture, unauthorized collecting
46Su329	1610	1578.081	P	Mass movement, agriculture, unauthorized collecting
46Su390	1600	-		Mass movement, unauthorized collecting
46Su405	1560	1567.858	LA	Mass movement, unauthorized collecting
46Su436	1600	-		Mass movement, unauthorized collecting
46Su437	1620	1618.169	P	Mass movement, camping, unauthorized collecting
46Su549	-	1593.140	H	Mass movement, unauthorized collecting
46Su602	-	1540.860	H	Mass movement, unauthorized collecting
46Su603	-	1522.297	P	Mass movement, unauthorized collecting
46Su616	1600	1565.594	P	Mass movement, unauthorized collecting
46Su617	1540	1531.782	P	Mass movement, unauthorized collecting
46Su618	1640	1726.532	None	Mass movement, unauthorized collecting
46Su633	-	1587.113	P	Mass movement, unauthorized collecting
46Su635	-	1532.766	P	Mass movement, unauthorized collecting
46Su636	-	1605.974	H	Mass movement, unauthorized collecting

H = Historic; P = Prehistoric; A = Archaic; EA=Early Archaic; MA = Middle Archaic; LA = Late Archaic; W = Woodland; EW=Early Woodland; MW = Middle Woodland; LW = Late Woodland; LP = Late Prehistoric; PH = Protohistoric

The Physical Integrity and Accessibility of Archaeological Sites

The known historic resources at Bluestone Lake are clustered in several areas (Figure 2-1). In West Virginia, these areas include sites at the New River/Bluestone River confluence and upstream along the Bluestone River. Along the New River, sites are clustered near the south end of the winter pool, in lower Crump's Bottom at Bull Falls, in middle Crump's Bottom at Joshua's Run, in Crump's Bottom at the mouth of Indian Creek, in upper Crump's Bottom, from Lick Creek to Island Creek, at Wylie Island, and from Wylie Island to the Virginia state line, as well as in the upper reaches of Indian Creek. In Virginia, sites are clustered along the New River from Wylie Falls to Smith Branch, and at Glen Lyn and Rich Creek. This clustering is attributable in part to the lack of systematic survey on the Huntington District property. Past surveys and informant-based site reporting have focused on easily accessible river floodplains, broad stream terraces, and river/stream confluences. These areas are often used for the development of recreational facilities, and the cultural resources in these areas often bear more direct impacts (e.g., campgrounds) than elsewhere. Other areas, such as the uplands surrounding the lake and less accessible terraces, are under-surveyed. The following discussion of physical integrity and accessibility will begin at the Bluestone Dam near Hinton, and proceed upstream to the end of the Huntington District Bluestone Lake property in Giles County, Virginia.

The physical integrity and accessibility of the archaeological sites will be examined within each of these 12 areas (Figures 6-1 through 6-12). Since little has been reported for most of these sites with regard to physical integrity, this section will focus primarily on issues of accessibility.

For the maps that appear in this chapter, the site locations are based first on the GPS points recorded during the 1998 relocation survey. If the site was not relocated during the 1998 relocation survey, then the most representative point based on the WVSHPO map, the DNR GIS overlay, and the site elevation reported in the WV Archaeological Site Form is reported as the site location.

Bluestone River/New River Confluence

Thirteen archaeological sites have been identified within Huntington District property along the Bluestone River to its confluence with the New River at Bluestone Lake (Figure 6-1, Table 6-5). All but one of these sites is within the upland zone (Zone C) above 1410 ft amsl. Site 46Su2 represents a permanently inundated rockshelter in Zone A.

Pipestem Creek and the Bluestone River share this confluence at Bluestone Lake, with State Route 20 crossing the Bluestone River just west of Pipestem Creek. Bluestone State Park is situated along the north side of the Bluestone River, and includes numerous trial heads, access roads, and camping sites. Cabins, park buildings, and access roads are situated on the ridge above Surveyors Branch near 46Su128. The Meador Camping Area includes trails, campsites, parking, and other facilities at the location of 46Su189 and 46Su375. A picnic area and marina are located at the mouth of Pipestem Creek near 46Su2, 46Su187, 46Su617, and 46Su618. The road to the marina off of Route 20 provides easy access to 46Su345. The East Shore Camping Area, accessible only by boat, is located near 46Su1 and 46Su188.

Site 44Su2 is a rockshelter originally identified by Solecki in 1949, when the conservation pool was still at 1391 ft amsl. The elevation on the WVSHPO site form of 1400 ft amsl suggests that it should be now be inundated, and in fact the site could not be relocated during surveys in 1995 (Anslinger 1995) and in 1998 (USACE 1998). The site location, as it currently appears on mapping available at WVSHPO, is well upstream on Pipestem Creek and at a much higher elevation from where Solecki (1949) indicated that it should be, and is probably not

Table 6-5. Archaeological sites Within Huntington District Property Along the Bluestone River to Its Confluence with the New River at Bluestone Lake.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su1	1565	-	C	Rockshelter	Rockshelter	LW
46Su2	1400	-	A	Rockshelter	Rockshelter	None
46Su128	1425	1442.796	C	River Floodplain Terrace	Unknown	P
46Su186	1414	1452.773	C	River Floodplain Terrace	Unknown	H
46Su187	1414	-	C	River Floodplain Terrace	Unknown	H
46Su188	1415	-	C	Upland Bench	Unknown	P
46Su189	1420	-	C	River Floodplain Terrace	Unknown	P
46Su345	1480	1565.459	C	Stream Terrace	Mill	H
46Su375	1480	-	C	River Floodplain Terrace	Unknown	P; H
46Su385	1560	1470.483	C	River Floodplain Terrace	Residential	H
46Su616	1600	1565.594	C	Rockshelter	Rockshelter	P
46Su617	1540	1531.782	C	Upper River Terrace	Unknown	P
46Su618	1640	1726.532	C	Ridgetop	Pile Of Rocks	None

correct. Originally recorded at an elevation of 1400 ft amsl, the rockshelter should be permanently inundated.

Site 46Su128 was originally plotted on WVSHPO maps and the DNR GIS overlay upstream from the mouth of Surveyor's Branch. The 1998 Huntington District relocation survey described this area as precluding any prehistoric occupation (USACE 1998). The survey instead identified this prehistoric site nearby at the mouth of Surveyor's Branch where it enters the Bluestone River, and it is presented in this plan as likely representing the true location of this site.

Sites 46Su187, 46Su188, 46Su189, 46Su375, were revisited by CRAI in 1998, but were apparently inundated. These sites could not be relocated at the time, nor could a GPS point be taken for the survey (USACE 1998). As shown in Appendix A, these sites are all above the normal pool elevation within Zone C, but within the maximum flood zone at an elevation of less than 1520 ft amsl.

Site 46Su186 was relocated at the edge of Bluestone Lake during the 1998 survey (USACE 1998). Although the elevation recorded during the survey is well above the normal pool elevation, the elevation estimate recorded on the WVSHPO forms prior to this survey are very close to the normal pool elevation. The proximity of this site to the current lake edge and the lower elevations of earlier estimates suggest that there may be an area of lower elevation for each of these sites that may fall within the seasonally inundated littoral zone (Zone B).

WVSHPO maps and the DNR GIS overlay locate 46Su385 within the Huntington District Bluestone Lake boundaries, but subsequent survey in 1998 (USACE 1998) obtained a GPS point outside of the boundaries, as shown on Figure 6-1. Since this site may actually be located on Huntington District property, it is included in this plan.

Site 46Su2, a rockshelter near the confluence of these rivers, has the lowest recorded elevation of any site at Bluestone Lake, and has likely been inundated since the construction of the dam. Nine sites are within or possibly within the maximum flood control pool. Sites located above the maximum flood

control pool include two rockshelters (46Su1 and 46Su616), an upland terrace site (46Su617), and a ridgetop site (46Su618).

New River, Bend at the South End of the Winter Pool

Sixteen archaeological sites have been identified within Huntington District property along the New River at the bend near the south end of the winter pool (Figure 6-2, Table 6-6). All but three of these sites are within the upland zone (Zone C) above 1410 ft amsl. Sites 46Su3, 46Su60, and 46Su61 are within the littoral zone (Zone B).

Numerous small, intermittent drainages flow down from Wolf Creek Mountain and across the floodplain on the outer bend of the river. The Bluestone Conference Center is located on the upper terraces above the river. The Bertha campground, consisting of 55 primitive sites, is located near 46Su42. The conference center, improved roads, and jeep trails provide easy access to the sites on the east bank. Sites 46Su60, 46Su61, 46Su634, 46Su635, and 46Su636 on the west bank are less accessible, but 46Su60 and 46Su61 represent two of the three sites at Bluestone Lake known to be within the littoral zone (Zone B). Site 46Su3, located on what is now an island in the lake represents the third Zone B site.

Table 6-6. Archaeological Sites Within Huntington District Property Along the New River, the Bend Near the South End of the Winter Pool.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su3	1408	1410.509	B	Island	Unknown; Village	LA; LP, PH
46Su39	1415	1421.756	C	River Floodplain Terrace	Dense Camp Areas	PI; EA, MA, LA; EW, MW, LW; LP
46Su41	1415	1438.376	C	River Floodplain Terrace	Dense Camp Areas	PI; EA, LA; EW, MW, LW
46Su42	1415	1423.780	C	River Floodplain Terrace	Dense Camp Areas	PI; LA; MW, LW; LP
46Su43	1415	1418.744	C	River Floodplain Terrace	Dense Camp Areas	MA, LA
46Su44	1415	1424.033	C	River Floodplain Terrace	Dense Camp Areas	EA, LA; EW, LW; LP
46Su45	1415	1438.540	C	River Floodplain Terrace	Dense Camp Areas	PI; LA; EW, MW, LW; LP
46Su60	1410	1413.435	B	River Floodplain Terrace	Dense Camp Areas	A; MW; LP
46Su61	1410	1439.738	B	River Floodplain Terrace	Village/Hamlet	LP
46Su436	1600	-	C	Upper River Terrace	Unknown	A
46Su437	1620	1618.169	C	Upper River Terrace	Unknown	P
46Su633	-	1587.113	C	Upper River Terrace	Unknown	P
46Su634	-	1453.852	C	River Floodplain Terrace	Unknown	H
46Su635	-	1532.766	C	Upland Bench	Unknown	P
46Su636	-	1605.974	C	Upland Bench	Retaining Wall	H

Sites 46Su39 and Su41-Su45 are situated in a near-continuous fashion on a terrace along an outer bend of the New River north of Crump's Bottom. Surveys by the Huntington District in 1977 and 1978 (USACE 1979) recovered a wide range of artifacts from these six sites, including diagnostic artifacts from every prehistoric cultural period from Paleoindian through Late Prehistoric. Two similar sites are located at 46Su60 and 46Su61 on a terrace opposite and just upstream from 46Su41. These sites are all located at the edge of the normal pool, and artifacts were reported eroding from the bank at nearly all of these sites (USACE 1998).

Sites located on the New River floodplain terraces (46Su3, 46Su39, 46Su41, 46Su42, 46Su43, 46Su44, 46Su45, 46Su60, 46Su61, and 46Su633) are all within the maximum flood control pool. Sites located on upper terraces (46Su390, 46Su436, 46Su437, and 46Su633) and upland benches (46Su635 and 46Su636) are all above the maximum flood control pool.

New River, Lower Crump's Bottom at Bull Falls

Twelve archaeological sites have been identified within Huntington District property along the New River in lower Crump's Bottom near Bull Falls (Figure 6-3, Table 6-7). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

The Bull Falls waterfall was drowned by construction of Bluestone Lake. Upstream from this bend at Bull Falls, the New River opens out into Crump's Bottom, a wide, fertile area rich in archaeological remains. The Bull Falls Campground, located near 46Su24, 46Su54, and 46Su281, consists of 25 primitive campsites. As Crump's Bottom opens upstream to the east, the wide floodplains have proven suitable for modern agriculture, and many sites are in field or pasture.

Site 46Su282, known as the War Ford Ferry site, was noted in the 1993 Huntington District cultural resources reconnaissance report as being located near the Bull Falls Camping Area, but the site location does not appear on WVSHPO maps or the DNR GIS overlay. Since the site was not relocated in 1998 (USACE 1998), its exact location is uncertain and could not be plotted on Figure 6-3. Site 46Su280 is a rock outcrop that may represent the site of a historic event, as described in Chapter 5, but has no identifiable archaeological components. Campground roads and trails associated with the Bull Falls Camping Area provide easy and ample access to the eight sites situated on the broad floodplain along the west side of the New River. Jeep trails across the floodplain at the mouth of Buffalo Creek provide access to 46Su62 and 46Su360. All of the sites are within the maximum flood control pool except 46Su280, located adjacent to the improved access road to the Bull Falls campground.

Table 6-7. Archaeological Sites Within Huntington District Property Along the New River, Lower Crump's Bottom at Bull Falls.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su19	1424	-	C	River Floodplain Terrace	Unknown; 18th C. Fort	LP; H
46Su20	1428	1429.187	C	River Floodplain Terrace	Unknown; Village	EA, LA, LW; LP
46Su24	1435	-	C	River Floodplain Terrace	Village	LP
46Su53	1430	1430.430	C	River Floodplain Terrace	Unknown	LA
46Su54	1430	1427.901	C	River Floodplain Terrace	Unknown	EA
46Su62	1460	-	C	River Floodplain Terrace	Unknown	W
46Su280	1800	2056.587	C	Ridgetop	Rock Outcrop	None
46Su281	1441	1448.698	C	River Floodplain Terrace	War Ford (Post Office/Store)	H
46Su282	1440	-	C	River Floodplain Terrace	War Ford Ferry	H
46Su358	1520	1489.285	C	River Floodplain Terrace	Cabin	H
46Su360	1520	-	C	Upland Bench	Unknown	H
46Su601	1440	-	C	River Floodplain Terrace	Unknown	P

New River, Middle Crump's Bottom at Joshua's Run

Eight archaeological sites have been identified within Huntington District property along the New River at Middle Crump's Bottom at Joshua's Run (Figure 6-4, Table 6-8). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

Wide floodplains at the base of steep bluffs are common in this area, and many of the sites are in agricultural fields or pasture. Route 20 and other unimproved roads provide access to the fields and the sites contained within them. All of the sites are within the maximum flood control pool.

Table 6-8. Archaeological Sites Within Huntington District Property Along the New River, Middle Crump's Bottom at Joshua's Run.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su23	1435	1437.454	C	River Floodplain Terrace	Unknown; 18th C. Fort	P; H
46Su165	1414	1441.083	C	River Floodplain Terrace	Unknown; Farm	LA, W; H
46Su195	1429	-	C	River Floodplain Terrace	Unknown	W/LP
46Su310	1420	-	C	River Floodplain Terrace	Unknown	P
46Su325	1530	1460.082	C	River Floodplain Terrace	Unknown	LA; H
46Su326	1425	1456.487	C	River Floodplain Terrace	Unknown	EA, LA; LP; H
46Su471	1520	1492.333	C	Stream Terrace	Residence	H

New River, Crump's Bottom at Indian Creek

A total of 21 archaeological sites have been identified within Huntington District property along the New River in Crump's Bottom at Indian Creek (Figure 6-5). All of these sites are within the upland zone (Zone C) above 1410 ft amsl. Although 23 sites appear in Table 6-9, two of these sites (46Su517 and 46Su518) are in fact the same site as 46Su602.

The Mouth of Indian Creek campground consists of two widely separated areas of primitive camping. One of these campgrounds is located near 46Su194 and 46Su212, and the other is located downstream of 46Su196. Access to this dense area of archaeological sites is provided via trails, dirt access roads, and improved roads. The archaeological sites are densely concentrated, many of them located on a series of floodplain and upper terraces now used for agriculture or pasture. Fourteen sites are located or possibly located within the maximum flood control pool at 1520 ft amsl or below (Table 6-9). Seven other sites are located on upper terraces, ridgetops, or within rockshelters above the maximum flood control pool.

Table 6-9. Archaeological Sites Within Huntington District Property Along the New River, Crump's Bottom at Indian Creek.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su6	1560	-	C	Upper River Terrace	Unknown	EA, LA, MW, LP
46Su10	1444	1454.505	C	River Floodplain Terrace	Unknown; Village	LA, W; LP
46Su12	1525	-	C	Rockshelter	Rockshelter w/Pictograph	None
46Su22	1441	1450.184	C	River Floodplain Terrace	Unknown; Village	LA, MW; LP
46Su52	1470	1455.824	C	River Floodplain Terrace	Unknown	LA; W/LP
46Su193	1429	-	C	River Floodplain Terrace	Unknown	W/LP
46Su194	1460	1461.769	C	River /Stream Terrace	Unknown	LA; W
46Su196	1429	1424.177	C	River Floodplain Terrace	Unknown	LA; W
46Su202	1429	1469.590	C	River Floodplain Terrace	Unknown	P
46Su206	1415	1449.056	C	River Floodplain Terrace	Unknown	P
46Su207	1550	1434.984	C	River /Stream Terrace	Unknown	P; H
46Su208	1429	1466.191	C	River /Stream Terrace	Unknown	LA; LP
46Su212	1440	1462.933	C	River /Stream Terrace	Unknown	MA, LA; W; H
46Su278	2140	-	C	Ridgetop	Bear Wallow	None

Table 6-9. Archaeological Sites Within Huntington District Property Along the New River, Crump's Bottom at Indian Creek.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su290	1415	-	C	River /Stream Terrace	Unknown; 18th C. Fort	P; H
46Su308	1500	-	C	Upper River Terrace	Unknown	P
46Su309	1540	-	C	Stream Terrace	Unknown	P
46Su327	1570	-	C	Upper River Terrace	Unknown	P
46Su507	1450	1434.984	C	Stream Terrace	Mill	H
46Su518	-	-	-	-	changed to 46Su602	-
46Su519	-	-	-	-	changed to 46Su602	-
46Su549	-	1593.140	C	Stream Terrace	Unknown	H
46Su602	-	1540.860	C	Stream Terrace	Residence	H

New River, Upper Crump's Bottom

Eight archaeological sites have been identified within Huntington District property along the New River at upper Crump's Bottom (Figure 6-6, Table 6-10). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

Most of these sites are located on a series of terraces within a sharp inner (western) bend in the river. These terraces are often used for agriculture and pasture, with several improved and unimproved roads providing access. Agriculture is also practiced on the wide, outer floodplain south of the bend. Cedar Branch campground is located on this side of the river, in the vicinity of 46Su28 and 46Su29. Only 46Su328 and 46Su329 (on the inner bend) are located on terraces high enough to be above the maximum flood control pool.

Table 6-10. Archaeological Sites Within Huntington District Property Along the New River, Upper Crump's Bottom.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su28	1460	-	C	River Floodplain Terrace	Unknown; Village	PI, LA, W; LP
46Su29	1450	-	C	River Floodplain Terrace	Unknown	LP
46Su279	1460	-	C	Upper River Terrace	Village	LP
46Su328	1520	1521.808	C	Upper River Terrace	Residential Outbuildings	H
46Su329	1610	1578.081	C	Upper River Terrace	Unknown	P
46Su330	1520	1547.044	C	Upper River Terrace	Unknown	EA, LA
46Su331	1500	1526.939	C	Upper River Terrace	Residential	H
46Su450	1460	1473.091	C	River Floodplain Terrace	Unknown	P

Upper Indian Creek

Eleven archaeological sites have been identified within Huntington District property along upper Indian Creek (Figure 6-7, Table 6-11). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

Many of these sites are cluster around the town of Indian Mills, including 46Su198 near the Indian Mills campground. Sites are commonly located within the agricultural fields and pastures on stream terraces, with easy access provided by roads (improved and unimproved) and jeep trails. Despite being located well upstream from the mouth of Indian Creek at the New River, all but four of these sites are within the maximum flood control pool below 1520 ft amsl.

Table 6-11. Archaeological Sites Within Huntington District Property Along Upper Indian Creek.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su5	1525	-	C	Upper Stream Terrace	Unknown; Eighteenth Century Fort	LA; H
46Su13	1540	-	C	Rockshelter	Rockshelter	None
46Su191	1470	1503.590	C	Stream Terrace	Unknown	A; W
46Su198	1525	1511.208	C	Stream Terrace	Unknown	P
46Su199	1525	1526.358	C	Stream Terrace	Unknown	A, W, LP; H
46Su200	1525	-	C	Stream Terrace	Unknown	A; W
46Su306	1520	1510.236	C	Stream Terrace	Unknown	P

Table 6-11. Archaeological Sites Within Huntington District Property Along Upper Indian Creek.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su505	1520	-	C	Stream Terrace	Unknown	P
46Su506	1489	-	C	Stream Terrace	Mill	H
46Su531	-	1498.127	C	Stream Terrace	Unknown	H
46Su603	-	1522.297	C	Stream Terrace	Unknown	P

[redacted]

New River and Lick Creek to Island Creek

Eleven archaeological sites have been identified within Huntington District property along the New River and Lick Creek upstream to Island Creek (Figure 6-8, Table 6-12). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

Saltwell Ridge is a prominent feature on the landscape separating these two creeks and overlooking the New River, but the ridge has never been surveyed. On the east bank of the lake across from the steep Saltwell Ridge is an area of wide river floodplains and several unnamed tributaries flowing into the lake. This area is known as the Sherman Ballard Recreation area, and includes one portion of the Shanklins Ferry Campground near 46Su21. Shanklins Ferry Campground consists of three widely separated areas of primitive camping; the other two areas are located upstream. On the west side of the New River, a jeep trail provides access to seven sites on the stream terraces of Lick Creek.

[redacted]

Table 6-12. Archaeological Sites within Huntington District Property along the New River and Lick Creek Upstream to Island Creek.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su21	1460	1472.487	C	River Floodplain Terrace	Large Camp Site	EA
46Su55	1550	1583.589	C	Upper River Terrace	Unknown	W
46Su56	1490	1471.047	C	River Floodplain Terrace	Unknown	LP
46Su244	1520	-	C	River Floodplain Terrace	Unknown	P
46Su270	1520	-	C	Stream Terrace	Residential/Farm	H
46Su271	1520	1503.153	C	Stream Terrace	Salt Works	H
46Su272	1520	1572.408	C	Stream Terrace	Salt Works (Blacksmith Shop)	H
46Su273	1520	1540.341	C	Stream Terrace	Salt Works (Post Office/Store)	H
46Su274	1520	-	C	Stream Terrace	Residential	H
46Su275	1520	1493.330	C	Stream Terrace	Salt Works	H
46Su276	1500	1486.162	C	Stream Terrace	19th C. Mill	H
46Su405	1560	1567.858	C	Upper River Terrace	Unknown	LA

Only two sites are definitely above the maximum flood control pool, situated on upper terraces above the New River floodplain (46Su55 and 46Su405). Sites 46Su272 and 46Su273 are located on the edge of the maximum flood control pool, and may be at least partially within it.

New River at Wylie Island

Eight archaeological sites have been identified within Huntington District property along the New River at Wylie Island (Figure 6-9, Table 6-13). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

Shanklins Ferry Campground consists of three widely separated areas of primitive camping, one of which is located in the vicinity of 46Su58 on the eastern floodplain of the New River across from Wylie Island. Access to this site is provided only by a jeep trail. The other seven sites are located on the floodplain terrace along the western bank of the New River. Sites 46Su9, 46Su47, 46Su48, 46Su49, and 46Su50 identified within agricultural fields along this floodplain. The floodplain is too narrow for agriculture further upstream at 46Su592, and 46Su8 is situated on an upper terrace.

Although access to this area is very limited, the very remoteness of the area has made it easier for unauthorized collecting to go undetected. For example, 46Su9, a Late Prehistoric village, has proven particularly susceptible to impacts from unauthorized collecting. Over the course of three years, two individuals excavated 153 burials from this village (USACE 1983). A report contained within a Huntington District cultural resources reconnaissance summary (USACE 1979) described the removal of the burials at 46Su9 (Rich 1979).

All but one of these sites are situated on floodplain terraces within the maximum flood control pool (below 1520 ft amsl); 46Su8 is located on an upper terrace above the maximum flood control pool.

Table 6-13. Archaeological Sites Within Huntington District Property Along the New River at Wylie Island.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Su8	1535	1563.648	C	Upper River Terrace	Unknown	LP; H
46Su9	1464	1474.492	C	River Floodplain Terrace	Unknown; Village	EA, LA, MW; LP
46Su47	1475	1473.780	C	River Floodplain Terrace	Unknown	W; LP
46Su48	1465	1467.363	C	River Floodplain Terrace	Unknown	MA; W; LP
46Su49	1457	-	C	River Floodplain Terrace	Hamlet	LW; LP
46Su50	1466	1514.879	C	River Floodplain Terrace	Hamlet	LP
46Su58	1485	1492.612	C	River Floodplain Terrace	Unknown; Hamlet	A, LW; LP
46Su592	1500	-	C	River Floodplain Terrace	Unknown	P

New River from Wylie Island to Roundbottom Creek

Eight archaeological sites have been identified within Huntington District property along the New River from Wylie Island to the Virginia State Line (Figure 6-10, Table 6-14). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

Site 46Su7 is located on the west bank floodplain of the New River, at the mouth of Roundbottom Creek. Site 46Su121 is a rockshelter at the mouth of Ford Hollow, above the eastern bank opposite 46Su7. Both sites are accessible by jeep trails or unimproved roads. The remaining six sites are spread out in agricultural field along the eastern bank floodplain. One of the three widely separated areas of primitive camping associated with Shanklins Ferry Campground is located in the vicinity of 46Su441 and 46Me19.

All of these sites except the rockshelter (46Me121) are located within the maximum flood control pool below 1520 ft amsl.

Table 6-14. Archaeological Sites Within Huntington District Property Along the New River from Wylie Island to Roundbottom Creek.

Site	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Landform	Function	Cultural Components
46Me19	1470	1494.187	C	River Floodplain Terrace	Unknown	W
46Me20	1470	1485.151	C	River Floodplain Terrace	Unknown	P
46Me21	1470	1482.536	C	River Floodplain Terrace	Unknown	P
46Me103	1460	1486.470	C	River Floodplain Terrace	Series of Small Camps	P
46Me121	1600	-	C	Rockshelter	Rockshelter	None
46Su7	1460	1472.323	C	River Floodplain Terrace	Unknown	LP
46Su441	1480	1466.864	C	River Floodplain Terrace	Unknown	EA
46Su593	1480	-	C	River Floodplain Terrace	Unknown	P

New River from Wylie Falls to Smith Branch

Five archaeological sites have been identified within Huntington District property along the New River from Wylie Falls to Smith Branch (Figure 6-11, Table 6-15). The floodplain terraces of the New River are more tightly restricted and difficult to access as the river twists and turns through a series of falls and rapids beneath steep-sided bluffs southward towards The Narrows.

While all of these sites are technically within the upland zone (Zone C) by definition (above 1410 ft amsl), four of these five sites represent navigations sluices or cuts for navigation sluices within the river bedrock itself and have been assigned to Zone A. Only 46Su20, located on a river floodplain at the mouth of Smith Branch, is not located within the river itself. An unimproved road provides access to 46Su20.

All of these sites are located within the maximum flood control pool below 1520 ft amsl.

Table 6-15. Archaeological Sites Within Huntington District Property Along the New River from Wylie Falls to Smith Branch.

Site (VDHR)	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Elevation (ft) amsl of Relocated Sites (USACE 1998)	Impact Zone	Landform	Function	Cultural Components
44Gs20	44Gs11	1505	1482.635	C	River Floodplain Terrace	Unknown	W
44Gs41	-	1480	-	A	River	Cut for Proposed Navigation	H
44Gs42	-	1480	-	A	River	Navigation Sluice	H
44Gs43	-	1480	-	A	River	Navigation Sluice	H
44Gs44	-	1480	-	A	River	Navigation Sluice	H

New River at Glen Lyn and Rich Creek

Seven archaeological sites have been identified within Huntington District property along the New River at Glen Lyn and Rich Creek (Figure 6-12, Table 6-16). All of these sites are within the upland zone (Zone C) above 1410 ft amsl.

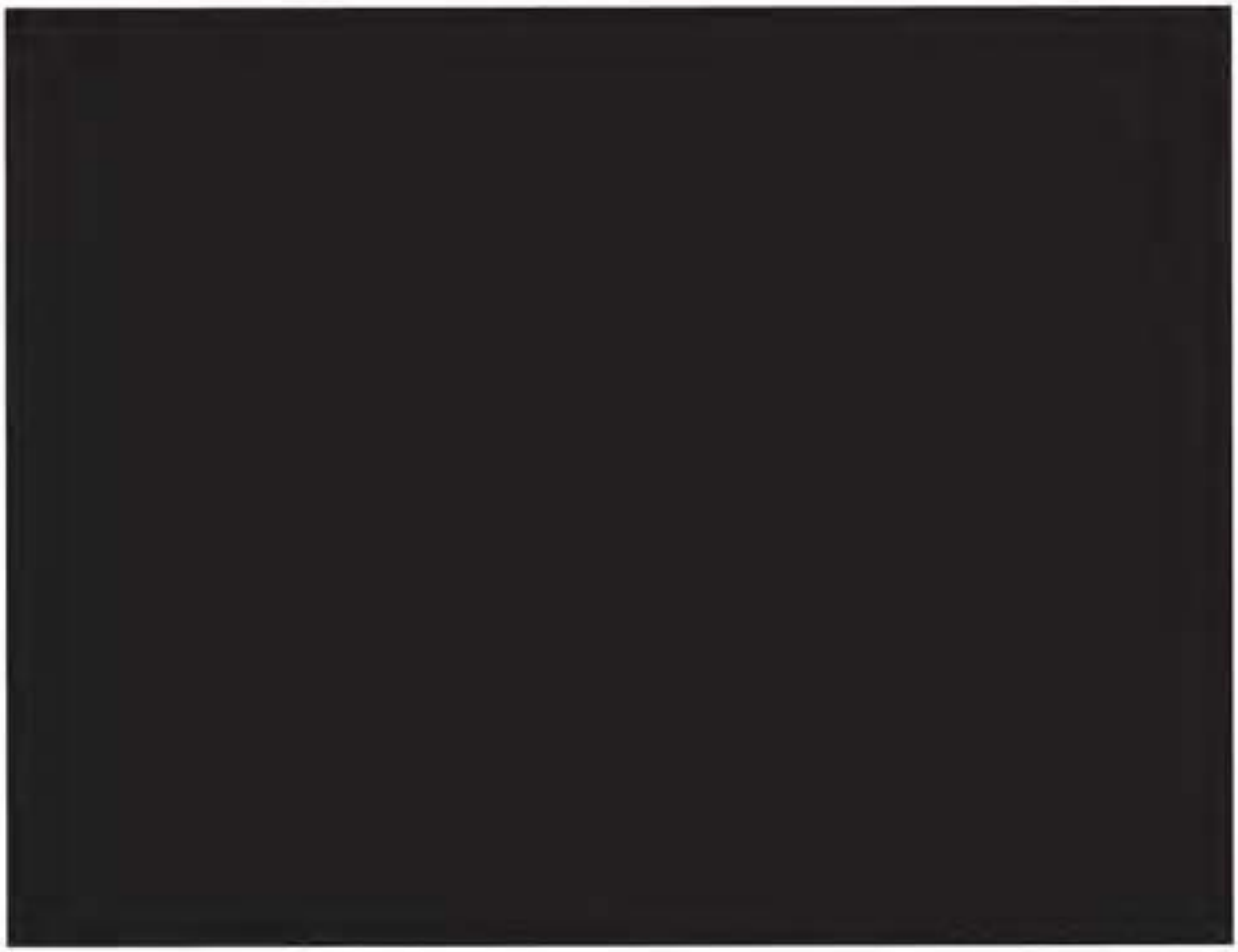
Site 44Gs28 is a historic cemetery located on a west bank floodplain terrace at Glen Lyn at the Route 460 bridge crossing. A total of 15 marked and unmarked plots were noted in an area described as "to be disturbed by construction" (MacCord 1972). The site form refers to notes from excavations in 1972, so it may be that the cemetery was relocated in advance of construction. These notes could not be relocated during archival research at VDHR.

Three sites are situated on east bank floodplains beneath Route 460, 464Gs15 at Glen Lyn and 44Gs11 and 44Gs22 at Rich Creek. Site 44GS22 is located within a Virginia Department of Transportation (VDOT) roadside Park. MacCord (1974) reports a deep test at the site by unknown persons that identified an Archaic level beneath river alluvium at a depth of four feet.

Two sites (44Gs48 and 44Gs17) are located on a narrow west bank floodplain beneath Route 649, near the mouth of Limestone Creek. Upstream from these two sites, 44Gs10 represents a major Late Prehistoric village located on a broad, inner bend floodplain below the town of Lurich. Unauthorized collecting has a long history at 44Gs10, where Solecki related local reports that "many collections" had been made at the site (1949:376). Collins (1965) also reports that a few local people knew about the site and collected from it, with some hinting that a small amount of digging had been done. All of these sites are located within the maximum flood control pool below 1520 ft amsl.

Table 6-16. Archaeological Sites Within Huntington District Property at Glen Lyn and Rich Creek.

Site (VDHR)	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Elevation (ft) amsl of Relocated Sites (USACE 1998)	Impact Zone	Landform	Function	Cultural Components
44Gs10	44Gs10	1520	-	C	River Floodplain Terrace	Village	LP
44Gs11	44Gs1	1520	-	C	River Floodplain Terrace	Unknown	W/LP
44Gs15	44Gs5	1520	1504.941	C	River Floodplain Terrace	Unknown	A; W; LP
44Gs17	44Gs7	1515	1526.280	C	River Floodplain Terrace	Unknown	LA; W
44Gs22	-	1520	-	C	River Floodplain Terrace	Unknown	A
44Gs28	-	1523	-	C	River Floodplain Terrace	Cemetery	H
44Gs48	-	1515	-	C	River Floodplain Terrace	Unknown	LW; LP



Chapter 7. Site Evaluations and the Identification of Archaeologically Sensitive Landforms

Introduction

This chapter begins with a summary of previously reported evaluations regarding the significance of archaeological sites at Bluestone Lake. This summary is followed by a discussion of the potential of certain landforms to contain intact cultural deposits.

A summary of archaeological site evaluations allows property managers and managing agencies to use information presented in previous chapters (including location, physical condition, and active and potential impacts) in the development of effective management plans for sites that are eligible or potentially eligible for the NRHP. In similar fashion, the identification of archaeologically-sensitive areas or landforms provides information important for the design and implementation of long-term development plans and other projects that involve earthmoving or activities that have a potential to impact sites.

Site Evaluations

All archaeological sites do not have the potential to provide important information. Criteria for evaluation to the NRHP are stated in 36CFR sec. 60.4 (also see page 2 of *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*). The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that: A) are associated with events that have made a significant contribution to the broad patterns of our history; B) are associated with the lives of persons significant in our past; C) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or D) have yielded, or may be likely to yield, information important in prehistory or history.

Criterion D is usually used to nominate archaeological sites to the NRHP because of their potential to address important research questions about human history through the analysis of material remains and contexts. However, a property must meet two requirements to be nominated under this criterion. First, the property must have, or have had, information to contribute to our understanding of human history or prehistory, and second, the information must be considered important. In order for these requirements to be met, a site must 1) retain sufficient physical/contextual integrity to yield the expected important information, and 2) retain sufficient data, in the form of artifacts and other cultural deposits. Sites meeting the above criteria are eligible for the NRHP and must be protected.

Sites for which NRHP evaluations have been conducted are listed in Table A-2 of Appendix A. Four levels of determination are summarized: ***1) eligible, 2) potentially eligible, 3) not eligible, and 4) unknown.*** For a site to be considered ***eligible*** it would need to have, or have had, important information to contribute to our understanding of human history or prehistory. It would also be necessary to demonstrate that a site retained a sufficient amount of physical integrity and data content to enable important research

questions to be answered. A determination of ***potentially eligible*** indicates that the site had a potential to provide important information. A determination of ***not eligible*** indicates that the site has been destroyed, or that existing information clearly demonstrates that the physical integrity and data content were not sufficient to address important research questions. Finally, a determination of ***unknown*** indicates that existing information is not sufficient to make one of the aforementioned determinations.

There are no archaeological sites at Bluestone Lake listed on the NRHP. Currently, three Late Prehistoric villages (46Su3, 46Su9, and 46Su22) have been determined eligible for inclusion on the NRHP. Two prehistoric sites (a rockshelter at 46Su616 and an open-air site at 46Su617) have been determined potentially eligible for listing to the NRHP. Two prehistoric (46Su633 and 46Su635) and two historic sites (46Su634 and 46Su636) have been determined not eligible. The eligibility could not be determined for 46Su618. This site is represented by a rock outcropping that may, or may not, represent the location of a historical event for which no archaeological materials are expected (see Chapter 5). The eligibility of the remaining 118 sites is unknown. While some sites with an "unknown" eligibility are likely eligible for the NRHP (notably some of the more prominent Late Prehistoric villages), based in the information presented in various sources, none have been formally evaluated with regard to their NRHP eligibility.

Although they do not have assigned archaeological site numbers, determinations of NRHP eligibility assessments have been conducted for both the Bluestone Dam and a section of Route 23 (which runs along the east side of the New River from Hinton southward) (Heritage Resources Inc. 1997). The Bluestone Dam is considered eligible for the NRHP under Criterion A. Route 23 was determined to be not eligible for the NRHP.

There are no extant structures at Bluestone Lake listed on the NRHP. Buildings related to the construction of the Bluestone Dam have been mentioned in some historical documents; given that the dam itself is considered eligible for the NRHP, it is likely that related buildings would be eligible as well. For example, prior to the beginning of the dam construction, the resident engineer for the Bluestone project and four other officials paid a visit to Hinton to study the construction site and to select a location for the office building that would house the Corps' engineering staff during construction of the dam. Construction began on this two-story wood-frame office building on November 28, 1941 (Hardlines Design 2002:39). This office building was located "about 1,000 yards below the site of the $22,000,000 New River flood control and hydro-electric project" (Perry n.d.:16).

The construction of nine buildings below the dam site to be used by the Dravo Corporation was to begin shortly after the February 18, 1942 (Perry n.d.:19). During the construction of these buildings, Dravo officials used an old frame building adjoining the new engineer's office building as their temporary headquarters. These nine buildings comprised part of the overall dam construction plant (Figure 7-1), as described by Hardlines Design (2002:40-43):

> The first train crossed over to the construction site on April 14, 1942. The following months were spent building the construction plant and other facilities necessary for the dam's construction. The construction plant was located on the east side of the Bluestone River on a 400-foot wide section of plain (see fig. 14). The facility was laid out according to a linear plan along small-gauge railroad tracks that led to the dam site. The construction plant consisted of 29 buildings, including personnel-related facilities, a concrete mixing plant, storage buildings, and various shop structures. Highlights of the portion of the plant immediately north of the dam included a multi-story concrete mixing plant immediately adjacent to the dam site, a series of shops and locker rooms

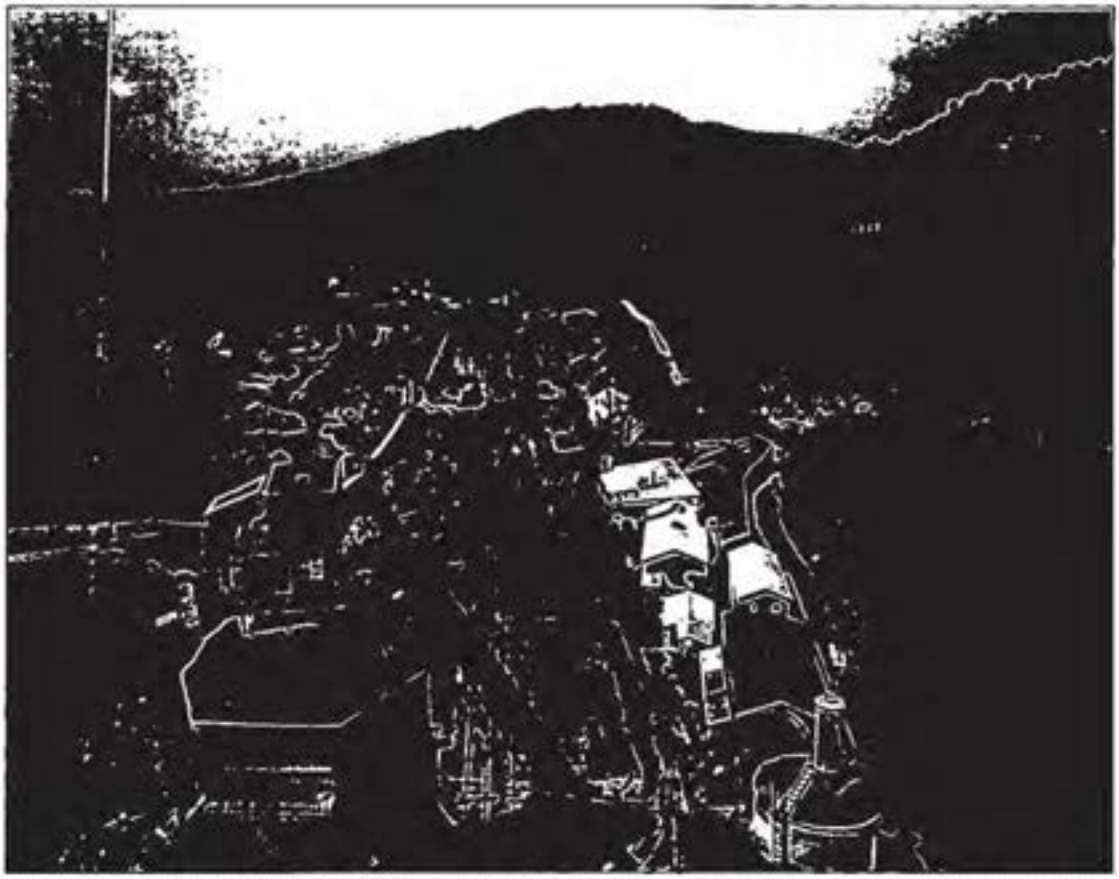


Figure 7-1. Historic View of the Bluestone Dam Construction Plant. View was probably taken from dam during later phases of construction (Hardlines Design 2002:41).

north of the concrete plant, and the contractor's office. The northern half of the plant featured U.S. Army Corps of Engineers offices, storage facilities, a sawmill, a large platform for carpentry layout and assembly, a boiler house, and a tractor and truck repair garage. Most of the construction plant buildings were hastily constructed wood-frame structures. Since electrically powered cranes, vibrators, and other equipment were to be used in the dam's construction, an electrical line was run to the site, and four electrical substations were built as part of the construction plant.

Dravo Corporation finished removal of its construction plant and completed site cleanup in January 1949 (Hardlines Design 2002). If any of these or any other dam-related buildings (including archaeological remains) still exist, they have not been documented or evaluated under NHRP criteria. Although the Bluestone Dam itself was evaluated under these criteria in 1997 and found to be eligible, the adjacent properties have not been evaluated (Heritage Resources Inc.:1997). Within the USACE boundaries of the Bluestone Reservoir, the properties on which these buildings are mostly likely situated are on the east side of the river just below (north) of the dam (Figure 2-1).

Identification of Archaeologically Sensitive Landforms

The identification of archaeologically sensitive landforms is important to property managers and managing agencies because it enables cultural resource potential to be considered within the scope of a comprehensive management plan for the property and in the formulation of long-term

development plans. However, the effectiveness of such planning is limited by the type, scope, and inherent biases of the archaeological surveys and reporting that have been conducted on the property. Older surveys, intermittent reporting by members of the WVAS, occasional informant-based reporting and site projection, and small-scale, focused cultural resource management surveys have combined to form a patchwork of non-systematic survey at Bluestone Lake that can be as confusing as it is informative. As the 1998 relocation survey demonstrated, many previously reported sites appear to be located well away from their reported location, or could not be relocated at all, at least through the low-impact, non-systematic methods employed during the survey to relocate the sites as expediently as possible (USACE 1998).

All of these factors combine to make a comprehensive summation of archaeologically sensitive landforms at Bluestone Lake difficult. Nevertheless, the cumulative effect highlights several areas that are of clear concern for management purposes.

The floodplain terraces of the New River clearly represent perhaps the most archaeologically-sensitive landform within the Huntington District boundaries at Bluestone Lake. An important component of this apparent sensitivity is that these floodplains comprise much of the flat or relatively flat land within the Huntington District boundaries at Bluestone Lake, and most of the land that is easily accessible to survey. A total of 66 archaeological sites have been identified on such landforms at Bluestone Lake, accounting for 52 percent of all sites identified to date (Table 7-1). If we include the upper river terraces above the floodplains along the New River, the frequency rises to 64% (n=82). Specific areas of concern along river terraces include areas that have been obvious for some time – the Bluestone/New River confluence, the Bertha area below the Bluestone Conference Center, the Indian Creek/New River confluence, Crump's Bottom, and the terraces downstream from The Narrows. Some of these areas exhibit near-continuous distribution of artifacts on the surface, and many of the sites represent large villages containing burials.

Tributary stream floodplains and terraces are often sensitive as well, accounting for 17% of the sites (n=22) at Bluestone Lake. Rockshelters have been identified less frequently, and are usually recorded simply because they represent possible shelters rather than for the presence of artifacts. Nevertheless, these can also represent highly sensitive areas, as illustrated by Solecki's (1949) excavations at the Sandstone Rockshelter (46Su17, north of Bluestone Lake and outside of the Huntington District boundaries) and Anslinger's (1995) results at 46Su616, a rockshelter that is potentially eligible for the NRHP. Upland benches and ridgetops have rarely been surveyed, so it is uncertain whether the low frequencies of sites on these landforms are typical or not.

Table 7-2 summarizes the temporal components identified at various sites within the Huntington District boundaries at Bluestone Lake by landform. Roughly 10,000 years of human history are represented by the temporal components identified at archaeological sites located on New River floodplain terraces. Archaic (27%), Woodland (24%), and Late Prehistoric (18%) components have been identified at similar frequencies on these landforms. Sites with identifiable temporal components on upper river terraces are far less numerous (due to the presence of fewer of these landforms), but include Archaic, Woodland, and Late Prehistoric components, as do the river/stream terraces at Indian Creek. Historic period sites tend to occur on the river floodplains and on stream terraces. Archaeological sites at Bluestone Lake have, to date, been most frequently identified on river floodplain terraces, regardless of temporal period.

Table 7-1. Landforms for Archaeological Sites Within Huntington District Property.

Landform	Total Sites	Percent
River Floodplain Terrace	66	52
Stream Terrace	22	17
Upper River Terrace	15	12
Rockshelter	6	5
River/Stream Terrace	5	4
River	4	3
Upland Bench	4	3
Ridgetop	3	2
Upper Stream Terrace	1	1
Island (former river floodplain)	1	1
	127	100

Table 7-2. Archaeological Components by Landform.

Landform	P	EA	MA	LA	A	EW	MW	LW	W	W/LP	LP	PH	P	H	None
River Floodplain Terrace	5	9	3	18	4	4	7	9	11	4	24	0	15	14	0
Upper River Terrace	0	2	0	3	0	0	1	0	1	0	3	0	6	3	0
River/Stream Terrace	0	0	1	3	0	0	0	0	2	0	1	0	2	3	0
Stream Terrace	0	0	0	0	3	0	0	0	3	0	1	0	5	15	0
Upper Stream Terrace	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
Island (former river floodplain)	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0
River	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Rockshelter	0	0	0	0	0	0	0	1	0	0	0	0	1	0	4
Upland Bench	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0
Ridgetop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	5	11	4	26	7	4	8	10	17	4	30	1	31	42	7

H = Historic; P = Prehistoric; A = Archaic; EA=Early Archaic; MA = Middle Archaic; LA = Late Archaic; W = Woodland; EW=Early Woodland; MW = Middle Woodland; LW = Late Woodland; LP = Late Prehistoric; PH = Protohistoric

Chapter 8. Management Priorities, Recommendations, and General Policies

Introduction

Data generated during this survey were used to identify processes of archaeological disturbance, to assess the physical integrity and information potential of some of the sites, and to update earlier HPMP documents concerning Huntington District property at Bluestone Lake. Collectively, this body of information provides the basis for the development of cultural resources management priorities and the recommendations for future investigations. Management priorities, recommendations, and general policies must take into account the body of federal and state law and regulations which govern the protection of historic resources. Pertinent federal and state legislation is summarized below, followed by a list of management priorities, recommendations for achieving those priorities, and general policies to guide the Huntington District's long-term management of historic properties at Bluestone Lake.

Federal and State Laws, Regulations, and Orders

A number of federal and state laws and regulations control the management of cultural resources on public land or property subject to federal jurisdiction. The Huntington District explicitly defines historic properties in Paragraph 4a of Engineer Regulation (ER) 1130-2-438 as "any prehistoric or historic district, site, building, structure, or object included or eligible for inclusion in the National Register of Historic Places" (Dunn et al. 1996:8). Relevant federal laws, regulations, and executive orders are summarized below.

Federal Level

The Antiquities Act of 1906 (16 U.S.C. 431-433)

The Antiquities Act of 1906 (the nation's earliest historic preservation law) prohibits the unauthorized excavation, removal, or vandalism of "objects of antiquity" on federal land and authorizes the president to withdraw land from multiple use status for purposes of creating national monuments. Congress passed additional legislation to address cultural resources after 1974, when the Ninth Circuit Court of Appeals declared the prohibition on removal of "objects of antiquity" as unconstitutionally vague because it did not specify what constituted such an object (449 F.2d 113 [9th Cir. 1974] cited in King 1998:21).

The Historic Sites Act of 1935 (16 USC 461-467), (as amended)

The Historic Sites Act established the National Park Service (NPS) as the federal government's paramount historic preservation advocate (King 1998:270). This act authorizes the NPS to identify, register, describe, document, and acquire full or partial title to historic properties determined to have national significance in the interpretation and commemoration of the nation's history (King 1998:14). While this act has no regulatory provisions, it provided the framework for the later establishment of the National Historic Preservation Act (NHPA). Under the general provisions of this act, the NPS created the National Historic Landmarks (NHL) and Historic American Buildings Survey (HABS) programs.

The Federal Records Act of 1950 (44 U.S.C 2101-2118, 2301-2308, 2501-2506, 2901-2909, 3101-3106, 3301-3324), (as amended)

The Federal Records Act (FRA) is intended to ensure the proper management of records produced by or in the possession of the federal government, including books, papers, maps, photographs, machine-readable material, and other documentary materials; its central purpose is to preserve evidence of the government's organization, functions, policies, decisions, operations, and activities, as well as basic historical and other information (King 1998:273). Implementation of the FRA is overseen by the National Archives and Records Administration, whose extensive regulations (36 CFR 1222-1238) require agencies to establish internal procedures for compliance, develop retention and disposal schedules, and manage records accordingly.

The FRA is one of the few cultural resource laws that carry fines and jail sentences. A federal official who violates the FRA can receive a sentence of up to three years in jail, a fine of $2,000.00, or both.

The Reservoir Salvage Act of 1960 (16 U.S.C. 469), (as amended)

The Reservoir Salvage Act authorizes the NPS to fund salvage archaeology in USACE reservoirs, specifically providing for the preservation of historical and archaeological data (including artifacts) which may be irreparably lost or destroyed as the result of "flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam" by any federal agency, or by any private person or corporation holding a license issued by any such agency (16 U.S.C. 469).

In 1974, the Archaeological Data Preservation Act (also known as the Moss-Bennett Act or the Archaeological and Historic Preservation Act) amended the Reservoir Salvage Act of 1960, to apply to all federal undertakings (including any federal construction project or federally licensed activity or program) that may result in any alteration of the terrain. It instructs the agencies to pay attention to their impacts on archaeological, historical, and scientific data and to fund the recovery of such data themselves or to support the NPS in doing so, authorizing the transfer of up to one percent of the cost of such a project to the NPS to defray its costs (King 1998:272).

The National Historic Preservation Act of 1966 (16 U.S.C 470 et seq.), (as amended)

The NHPA establishes the statutory responsibilities of federal agencies to manage cultural resources under their jurisdiction and provides for the creation of State Historic Preservation Officers (SHPO) to administrate state historic preservation programs and facilitate the implementation of federal cultural resource policy at the state level. The Secretary of the Interior is authorized to maintain a NRHP and the regulations (36 CFR Part 60) set forth the procedural requirements for listing properties on the NRHP.

The NHPA defines an "undertaking" as any "project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency" (16 U.S.C. 470w [7]). By design, the National Register serves as a planning tool for use by federal agencies with undertakings that may have effects on properties listed in or eligible for listing in the NRHP. The NHPA establishes the criteria for the evaluation process as well as procedures to be followed in removing properties from the NRHP. The regulations also detail tax benefits and grants-in-aid that owners of listed properties may use to maintain the integrity of historic properties.

Section 101 of the NHPA requires the development of preservation programs in a manner that ensures the consideration of tribal values to the extent feasible. Section 101 also recognizes that properties of traditional religious and cultural importance to American Indian tribes or Native Hawaiian organizations may be determined to be eligible for inclusion

on the NRHP and created the position of the Tribal Historic Preservation Officer (THPO) to serve as the SHPO on tribal lands.

Section 106 of the NHPA requires federal agencies to "take into account the effect of the undertaking on any district, site, building, structure or object that is included in or eligible for inclusion" in the NRHP (16 U.S.C. 470f). The NHPA, under Title II, established the Advisory Council on Historic Preservation (ACHP), whose role is to require and encourage agencies to consider, and where feasible, to adopt measures that will preserve historic properties that would otherwise be damaged or destroyed. Section 106 allows the ACHP to comment on federal undertakings as they pertain to historic properties, although it does not have the authority to halt or abandon projects that will affect historic properties. Its regulations (36 CFR 800) emphasize consultation among the federal agency, the SHPO, American Indian tribes, and other interested parties to agree upon ways to address adverse effects to affected properties.

Section 110 of the NHPA outlines agency responsibilities with respect to historic properties and requires preservation responsibilities to be balanced in a manner consistent with the federal agency's mission; these responsibilities include the establishment of, in consultation with the ACHP, the SHPO/THPO, local governments, American Indian tribes, and interested public, a program to include the identification, evaluation, and nomination of historic properties to the NRHP.

The 2000 amendment to this act altered Section 110 so that all federal agencies shall assume responsibility for the preservation of historic properties owned or controlled by those agencies. In accordance with Executive Order 13006, each federal agency shall use, to the most feasible extent, historic properties available to that agency prior to acquiring, constructing, or leasing buildings for agency use. The 2000 amendment also changed wording in Section 110(1) relating to undertakings subject to Section 106 which adversely affect properties included in or eligible for inclusion in the NRHP. Other changes extend the authorizations for the Historic Preservation Fund and the ACHP through 2005.

The National Environmental Policy Act of 1969 (42 U.S.C. 4330 et seq.)

The National Environmental Policy Act (NEPA) establishes, in Section 101(a), a national policy to "create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans" (Sec. 101 [42 U.S.C. 4331]). NEPA establishes a policy for all agencies of the federal government to use all practicable means to preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment which supports, for present and future generations, the widest range of beneficial uses, among other considerations, with diversity and variety of individual choice and without undesirable and unintended consequences (Sec. 101(b) [42 U.S.C. 4331]). Federal agencies are directed to report on adverse environmental effects that cannot be avoided should the proposed work be implemented, to detail the environmental impacts of proposed actions, and to provide alternatives to the proposed action. NEPA also requires the Council on Environmental Quality to govern the manner in which federal agencies carry out procedural requirements, in addition to conducting investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality, including cultural resources, so that "presently unquantified environmental amenities and values may be given appropriate consideration in decision making along with economic and technical considerations" (Sec. 102 [42 U.S.C. 4332]). The NEPA process provides an avenue to facilitate compliance with other statutory and regulatory requirements for cultural resources, although its applicability must be considered independently of these other requirements.

NEPA deals with cultural resources in the following ways:

- For cultural resources, it requires the determination of whether or not an undertaking has an adverse impact on a significant property.
- It requires documentation.
- It serves as a vehicle for laws, including cultural resource laws and mandates, without implementing guidelines.
- It does not apply exclusively to new undertakings; it applies if there are impacts, whether beneficial or adverse.
- Analysis must be site specific and scoped to the undertaking; the range of actions, alternatives, and impacts (including sociocultural aspects of the environment) are to be considered in an analytical fashion, not influenced by political or financial reasons, or for simplicity.
- Although analysis is site specific and scoped to the action, Section 1508.25 on project scoping protects against segmentation, wherein the significance of the environmental impacts of an action would not be evident if the action were to be broken into component parts and the impacts of those parts analyzed separately.

NEPA assessments include Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements (EIS). Categorical Exclusions are a category of actions determined by a federal agency to not have, individually or cumulatively, a significant effect on the human environment or in procedures adopted by that agency to implement these regulations; such procedures must "provide for extraordinary circumstances in which a normally excluded action may have a significant effect" (40 CFR 1508.4; King 1998:38). An Environmental Assessment provides analysis and sufficient evidence to warrant an EIS or finding of "no significant impact," assists an agency's compliance with the act when an EIS is not necessary, and aids in the preparation of the EIS when necessary (40 CFR 1508.27; King 1998:44-45). The EIS is required for any federal action that will result in a significant effect on the human environment; it provides a detailed description of the environment that will be impacted in the undertaking, an analysis and description of all reasonable alternatives to actions involving the undertaking, and the direct, indirect, and cumulative environmental impact of each (King 1998:52).

The Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa-mm)

The Archaeological Resources Protection Act (ARPA) establishes that archaeological resources are accessible, irreplaceable, and endangered parts of the nation's heritage and provides for the protection of archaeological resources that are at least 100 years old on public and American Indian lands. The act clarifies and outlines provisions for managing disturbances of archaeological resources and orders a permitting process for the excavation or removal of these resources from public or American Indian lands; it further authorizes the Secretary of the Interior to establish regulations for the custody and care of archaeological materials excavated or removed from these lands. In addition, the law details prohibited acts and establishes criminal and civil penalties for violations of ARPA.

ARPA calls for federal land managers to maintain confidentiality regarding the nature and location of archaeological sites, except where such disclosure would further the purposes of ARPA or the amended Reservoir Salvage Act (16 U.S.C. 469-469c-1); it authorizes federal land managers to provide such information to the governor of any state, upon request, provided the governor states a commitment to adequately protect the confidentiality of such information in order to protect the resource from commercial exploitation.

The Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601)

The intent of the Native American Graves Protection and Repatriation Act (NAGPRA) is to ensure the protection and rightful disposition of Native American cultural items and burials located on federal or American Indian lands, and in the federal government's possession or control. NAGPRA applies to all federal and state agencies receiving federal funds, including museums (excepting the Smithsonian Institution), universities, and repositories, and it establishes protocols for the return of ancestral human remains and associated cultural items to federally recognized tribes that can demonstrate genetic or cultural affiliation with such material (King 1998:273). The law addresses the removal or excavation of American Indian human remains or cultural items from federal or tribal lands, including the inadvertent discoveries of such remains or items, and makes it illegal to traffic in such materials. NAGPRA applies fines and imprisonment for violations of various sections of the law.

The American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)

The American Indian Religious Freedom Act establishes a policy for the federal government to protect and preserve the inherent rights of Native Americans to exercise their traditional religions. This law specifically allows American Indians, Eskimos, Aleuts, and Native Hawaiians to possess and use sacred objects and to access traditional sites for religious purposes. By the usual interpretation of this law, agencies must consult with, but not necessarily accede to the requests of, tribal organizations when planning any action that might affect the practice of traditional native religions (King 1998:272).

Protection and Enhancement of the Cultural Environment (Executive Order 11593)

This executive order, signed by President Richard Nixon in 1971, establishes policy for the federal government to provide leadership in preserving, restoring, and maintaining the historic and cultural environment of the nation. Executive Order 11593 orders federal agencies to treat historic properties eligible for inclusion on the NRHP as though already included and charges the NPS with issuing guidelines for how to make such determinations (King 1998:271). The executive order establishes specific responsibilities of federal agencies and the Secretary of the Interior to carry out its policies; it directs federal agencies to administer cultural properties under their control in a spirit of stewardship and trusteeship for future generations, to initiate measures for programs and plans to preserve, maintain, and restore significant cultural resources for the benefit of the public, and to insure that federal plans contribute to the preservation and enhancement of non-federally owned, significant cultural resources in consultation with the ACHP's instituted procedures (E.O. 11593).

Federal Space Management (Executive Order 12072)

This executive order, signed by President Jimmy Carter in 1978, relates to the consideration of cultural resources of all kinds in the context of urban centers. It directs federal agencies to prioritize locating their activities in central business areas in order to "conserve existing urban resources and encourage the development and redevelopment of cities" and requires the consideration of both the positive and negative cultural effects of such site selections, providing a legal basis for some social impact assessments (typically absorbed into the NEPA analyses) (E.O. 12072; King 1998:270).

Locating Federal Facilities on Historic Properties in Our Nation's Central Cities (Executive Order 13006)

This executive order, signed in 1996 by President William Clinton, emphasizes the revitalization of historic districts and supplements the NHPA and Executive Order 12072 by requiring federal agencies to

prioritize the use of historic buildings in historic districts within central business areas (King 1998:271). The executive order further states that "any rehabilitation or construction that is undertaken pursuant to this order must be architecturally compatible with the character of the surrounding historic district or properties" and, where no such appropriate property exists, federal agencies shall consider other developed or undeveloped sites within historic districts (E.O. 13006).

Protection and Accommodation of Access to "Indian Sacred Sites" (Executive Order 13007)

This executive order, signed by President William Clinton in 1996, assigns each executive branch agency that has federal land management responsibilities with the mandate to accommodate access to and ceremonial use of sacred sites by federally recognized American Indian tribes. In this case, sacred sites are defined as any location on federal land identified by an American Indian individual or tribe as representative of, or as sacred by virtue of its established religious significance to, or ceremonial use by an American Indian religion. The executive order also directs that federal agencies avoid adverse effects to the physical integrity of these sites. The scope of Executive Order 13007 differs from that of the NHPA in that these sacred sites may not necessarily be historic properties (King 1998:273).

Consultation and Coordination with Indian Tribal Governments (Executive Order 13175)

This executive order, signed by President William Clinton in 2000, recognizes the unique legal relationship of the federal government with American Indian tribal governments (as domestic dependent nations under the protection of the U.S. Government) and mandates that federal agencies consult and collaborate with federally recognized tribes as part of a process to strengthen government-to-government relationships with these tribes through "regular and meaningful consultation and collaboration" (E.O. 13175). The executive order establishes policies for reviewing applications for waivers of statutory or regulatory requirements by tribes and also establishes accountability practices for federal agencies in collaborating and consulting with tribal governments.

36 CFR Part 60

36 CFR Part 60 authorizes the Secretary of the Interior to establish and maintain the NRHP pursuant to Section 101 of the NHPA (16 U.S.C. 470a(a)) and sets forth the process and specific criteria by which properties may be added to or removed from the National Register, as well as the effects of listing properties under federal law. This part also specifies that federal agencies undertaking a project having an effect on an eligible or listed property must provide the ACHP a reasonable opportunity to comment pursuant to Section 106 of the NHPA and that, having complied with the ACHP's commenting responsibility (36 CFR Part 800), the federal agency must take into account and incorporate the ACHP's comments into its decisions regarding the property.

36 CFR Part 63

36 CFR Part 63 establishes a process for federal agencies to identify and evaluate the eligibility of properties for inclusion in the NRHP pursuant to the Historic Sites Act of 1935 (16 U.S.C. 462(K) and Section 101 of the NHPA (16 U.S.C 470a(l)). The regulations explain how to request a Determination of Eligibility from the Secretary of Interior under Executive Order 11593 and the regulations established by the ACHP (36 CFR Part 800).

36 CFR Part 79

36 CFR Part 79 establishes definitions, standards, procedures, and guidelines to be followed by federal agencies to preserve collections of prehistoric and historic material remains and associated records recovered under the authority of the Antiquities Act of 1906 (16 U.S.C. 431-433), the Reservoir Salvage Act of 1960 (16 U.S.C. 469-469c), Section 110 of the NHPA (16 U.S.C. 470h-2), and the ARPA (16 U.S.C. 470aa-mm). Such collections generally include those resulting

from an archaeological resource survey, excavation, or other study conducted in association with a federal action, assistance, license, or permit. Federal agency officials maintain responsibility for the long-term management and preservation of preexisting and new collections, subject to these regulations, and shall place these materials in a repository with adequate long-term curatorial capabilities appropriate to the nature and content of the collections (36 CFR 79.9).

36 CFR Part 800

The ACHP's regulations, 36 CFR 800, implement Section 106 of the NHPA and serve as the basic regulations that explain how federal agencies must account for the effects of their undertakings on historic properties listed in or eligible for listing in the NRHP. The regulations define how federal agencies are to identify historic properties, consult with the SHPO/THPO and other consulting parties, to establish NRHP eligibility of historic properties, to assess the effects of projects on historic properties, and to develop measures to avoid, minimize, or mitigate adverse effects on properties listed on or eligible for the NRHP.

33 CFR Part 325

Appendix C of 33 CFR Part 325 outlines procedures for the consideration of historic properties by the USACE in the processing of Department of the Army permits. These procedures fulfill the requirements set forth by NHPA, other applicable historic preservation laws, and presidential directives as they relate to the regulatory program of the USACE (33 CFR Parts 320-334), as well as NEPA (as outlined in 33 CFR Part 325, Appendix B) and the USACE's public interest review requirements (33 CFR 320.4). According to these regulations, the district engineer must consider historic properties in the decision to issue permits and will require, in most cases, that the applicant conduct any necessary investigation at his expense. The district engineer must request specific information concerning properties known to exist in the project vicinity which may be eligible for the NRHP or known sensitive areas likely to contain such resources, particularly where these determinations have a basis in data collected from other, similar areas within the general vicinity.

U.S. Army Regulation 200-4

U.S. Army Regulation 200-4, effective November 1, 1998, replaces Army Regulation 420-40 (1984) and updates the U.S. Army's policy for managing cultural resources to meet legal compliance requirements with regulations set forth in NEPA, NHPA, ARPA, NAGPRA, the American Indian Religious Freedom Act, 36 CFR 79, Executive Order 13007, Executive Order 11593, and the Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments, as well as those published by the ACHP and NPS. The regulation provides guidance for the implementation of policy requirements and defines all areas of applicability and responsibility under these requirements, provides summaries of the pertinent cultural resource laws, executive orders, memoranda, and regulations, and discusses the development of agreements, memoranda, funding activities, and installation management plans (Department of the Army 1998).

EP 1130-2-540

Chapter 6 of the Project Operations-Environmental Stewardship Operations and Maintenance Guidance and Procedures Engineer Pamphlet, EP 1130-2-540, provides detailed guidelines for managing the preservation, collection, and curation of cultural resources from USACE civil works water resource projects and outlines a Historic Preservation Program for construction, operations, and maintenance activities at these locations according to 33 CFR Part 325, Appendix C.

State Level

State statutes protecting archaeological resources have been compiled by Carnett (1995). The list of statutes for West Virginia presented in this publication was updated

through consultation of the West Virginia State Code. At the state level, the following must be considered:

Municipal and County Historic Landmarks Commissions (WVC §8-26A-1, §8-26A-4, §8-26A-5, §8-26A-9).

These articles in the West Virginia Code establish municipal and county historic landmark commissions.

Archaeology, Cave Protection and Permits for Excavation (WVC §20-7A-5)

This section of the West Virginia Code requires a person to obtain a permit from the Director of Natural Resources in order to excavate or remove a historic or prehistoric ruin, burial ground, archaeological or paleontological site, including saltpeter workings, relics, or inscriptions, fossilized footprints, bones, or other such features that may be found in a cave.

Historic Preservation (WVC §29-1-1, §29-1-6, §29-1-8, §29-1-12, §29-1-1a, and §29-1-1b)

These sections of the West Virginia Code create the State Historic Preservation Office (SHPO) within the Division of Culture and History and grants to it a number of duties, including the ability to locate, survey, investigate, register, identify, preserve, and protect historic, architectural, archaeological, and cultural sites, structures, and objects worthy of preservation. It also gives the section the ability to review all undertakings permitted, funded, licensed, or otherwise assisted by the state in order to protect historic resources.

Protection of Human Skeletal Remains, Grave Artifacts and Grave Markers (WVC §29-1-8a)

This section of the West Virginia Code prohibits a person from excavating, removing, destroying, or disturbing any historic or prehistoric ruin, burial ground, archaeological site, or human skeletal remains, unmarked grave, grave artifact, or grave marker of historic significance without a valid permit issued by the director of the SHPO of the Division of Culture and History.

Protection of historic and prehistoric sites (WVC §29-1-8b)

This section of the West Virginia Code prohibits the disturbance or destruction, unless permitted by the SHPO, of historic and prehistoric landmarks, sites, and districts on lands owned or leased by the state, or on private lands where the development rights have been acquired by the state.

Exemptions (WVC §29B-1-4a(6))

This section of the West Virginia Code establishes categories of information that are specifically exempt from disclosure, including records, archives, documents, or manuscripts describing the locations of undeveloped historic, prehistoric, archaeological, paleontological, and battlefield sites or constituting gifts to any public body upon which the donor has attached restrictions on usage or the handling of which could irreparably damage such record, archive, document, or manuscript.

Removal, Transfer and Disposition of Remains in Graves Located Upon Privately Owned Lands (WVC §37-13-1 through 7)

These sections of the West Virginia Code give the circuit court of any county jurisdiction and authority to permit and order the removal, transfer, and reinterment, or other disposition, of remains in any graves located upon privately-owned land within the boundaries of such county.

Management Priorities

As discussed by Thorne et al. (1987:6) the overall policy of the Huntington District with respect to cultural resources can be summarized as follows:

- The information contained within such cultural resources lies within the public interest as defined by legislation.

- The Huntington District has responsibility for the cultural resources on the lands it owns or manages.
- The preservation of cultural information in situ is an alternative management option to data recovery through excavation.
- Costs of such preservation activities are specifically authorized by legislation and regulations.
- Such cultural resources to be preserved should be significant, i.e., listed in the NRHP or eligible for such listing.

The issue of management of historic properties on lakeshores and in drawdown zones of federal reservoirs has been addressed more recently by two technical reports (Dunn 1996; Dunn et al. 1996). The first examined the impact of drawdown on historic properties, while the second report addressed effective management techniques for impacted historic resources. Historic properties are explicitly defined in Paragraph 4a of Engineer Regulation (ER) 1130-2-438 as "any prehistoric or historic district, site, building, structure, or object included or eligible for inclusion in the National Register of Historic Places" (Dunn et al. 1996:8).

Dunn et al. (1996) reaffirm that the Huntington District is required by federal law and its own regulations to protect historic properties on federal land, citing Section 110(a)(2) of the National Historic Preservation Act (NHPA), which clearly states that all cultural resources be evaluated for the NRHP (Dunn et al. 1996:8). However, their research indicated that this requirement has often been narrowly interpreted to mean that only those historic properties potentially affected by a Section 106 undertaking should be evaluated. Thus, funding for the evaluation of sites occurs only rarely, when sites will be affected by an impending construction project or permit application. Dunn et al. (1996) emphatically state that this stance is a distortion of the law. The applicable regulation for the inventory of eligible sites (recordation and evaluation) on federally-owned or managed properties is Section 110, not Section 106.

A review of data submitted for their research into effective management of historic properties in reservoir drawdown zones revealed that 63 percent of all archaeological sites documented on land managed by the Huntington District (in 1995) have never been evaluated for potential eligibility to the NRHP (Dunn et al. 1996). At Bluestone Lake, 92% (n=118) have never been evaluated for potential eligibility. This statistic is revealing because a site cannot be termed a 'historic property,' until it has been declared eligible. It cannot be determined eligible until it has been evaluated properly. Until the eligibility or potential eligibility of all cultural resources present on lands managed by the Huntington District is determined, the Huntington District cannot fulfill its legal responsibility.

With respect to its responsibility for cultural resources at Bluestone Lake, the Huntington District has undertaken several reports concerning cultural resources on their property (USACE 1979, 1983, 1993, 1996, and 1998), discussed in greater detail in Chapter 4. Based on the information at hand, it is possible to develop a list of management priorities and long-term goals for Bluestone Lake that are important for the preservation and management of cultural resources.

Priorities

These priorities are established to satisfy immediate concerns and to meet existing regulatory compliance requirements. These are defined as:

Priority 1: *Finalize and implement this HPMP.*

Priority 2: *Determine which sites at Bluestone Lake are historic properties.*

Priority 3: *Identify NRHP-listed and -eligible properties in need of preservation, protection, and maintenance.*

Priority 4: *Determine which NRHP-listed or -eligible properties will not be maintained due to programmatic reasons and to complete the*

necessary Section 106 and 110 consultations and documentation.

Priority 6: *Develop a maintenance/preservation plan for NRHP-listed and -eligible properties that takes into account the architectural, archaeological, and/or scientific elements that contribute to the eligibility of a property.*

The first priority, finalizing and implementing the HPMP, is important because the Huntington District will demonstrate its commitment to complying not only with the letter of the law but with the spirit of the law. To satisfy this goal, Huntington District management, the SHPO, the ACHP, and other interested parties, if warranted, must review and accept the HPMP.

Before the second priority can be met, all cultural resources at Bluestone Lake must be identified. Therefore, an immediate goal of the Huntington District should be the undertaking of a systematic cultural resource survey (archaeological and historic architectural survey) to inventory and accurately locate all cultural resources present on federally-owned or managed lands at Bluestone Lake (Phase I survey in West Virginia). This inventory should include, but not be limited to, archaeological sites, historic structures, buildings, and objects. The category of objects would encompass any architectural drawings, maps, and plans associated with the development and implementation of reservoir construction.

Priorities 3, 4, and 5 are part of a single process that involves the proper management and disposition of historical and archaeological properties in accordance with the NHPA, once these properties have been identified. Under the third priority, the Huntington District should protect sites that are eligible or potentially eligible for the NRHP (i.e. important cultural resources). As discussed previously, three sites at Bluestone Lake have been determined to be eligible, but none have actually been listed. However, based on the extant record, eligibility has not been determined for the majority of sites at Bluestone Lake. Once this has been established, the Huntington District must determine how best to preserve, protect, and maintain each site. Sites like 46Su3, for example, are seasonally inundated, but are accessible to unauthorized collecting at other times. Once sites have been determined to be historic properties, nominations can be prepared by the Huntington District, reviewed and approved by the WVSHPO, and ultimately accepted by the Keeper of the National Register.

Recommendations

It is recommended that all federal holdings at this reservoir not previously investigated should be subject to a Phase I survey to identify sites that are eligible or potentially eligible for the NRHP.

- The survey must be comprehensive, systematic, and designed to identify all cultural resources within the Huntington District boundaries at Bluestone Lake. Subsurface testing and, when possible, controlled surface collection should be sufficient to determine site boundaries, systematically sample artifact classes, and indicate the presence or absence of subsurface in situ cultural horizons.
- During this survey, close attention should be paid to those sites previously identified solely on the basis of collections or information provided on WVSHPO Archaeological Site Forms. Sites should be located in the field and systematically surveyed to determine their potential eligibility.
- The results of this survey should be directly compared with the paper records at the WVSHPO to resolve and correct errors.

It is recommended that Phase II assessment survey be undertaken at 46Su617 and 46Su618, as these sites have been determined to be potentially eligible for nomination to the NRHP.

It is recommended that all historic cemeteries within the Bluestone Reservoir area be documented.

It is recommended that site conditions should be reviewed periodically for 46Su3, 46Su9, and 46Su22, which have already been determined as historic properties.

It is recommended that no further work be done for 46Su633, 46Su634, 46Su635, and 46Su636, as these sites have been determined not eligible.

It is recommended that signage noting the legal consequences of unauthorized collecting at all park facilities in terms of ARPA and regulations set forth at 36 CFR 79, educational outreach programs on the archaeology of Bluestone Lake, and regular assessment of historic properties be considered as methods of protecting cultural resources.

It is also recommended that important historic documentation be archived in an appropriate collection facility. This includes maps, plans, blueprints, reports, articles, and other documentation associated with the construction of Bluestone Dam.

Long Term Goals

Long-term goals are established to ensure the proper management of cultural resources located on federal lands at Bluestone Lake, compliance with cultural resource laws and regulations, and the implementation of this HPMP. Long-term goals include:

- Maintaining compliance with cultural resource laws and regulations through the implementation of the methods and procedures contained within this HPMP (see below);
- Continuing to improve the effectiveness and efficiency of the Huntington District's cultural resources management program established by this HPMP; and
- Reevaluating Huntington District's federal properties for NRHP eligibility on a periodic basis.

Compliance with environmental laws and regulations that provide for protection of sensitive resources, including cultural resources, continues to be a major concern of the Huntington District and its management. Once finalized and implemented, the HPMP will serve as the standard for cultural resource compliance activities and the mechanism by which the Huntington District will maintain regulatory compliance at its facilities. The process of implementing the HPMP is anticipated to stimulate changes in the cultural resources management program to meet the needs and missions of the Huntington District, thereby creating an environment in which the second long-term goal will be satisfied. The third long-term goal will involve reevaluating Huntington District federal properties for NRHP eligibility as the age of the properties begins to reach the 50-year age criterion of the NRHP.

Methods and Procedures for Compliance

For all Huntington District undertakings at Bluestone Lake requiring and/or involving consultation with the SHPO, ACHP, Native American tribes, local governments, or other interested parties regarding cultural resources, the CRM coordinator for Bluestone Lake shall be the key point of contact. The level or degree of consultation and resulting documentation required for undertakings shall be dictated by the circumstances associated with the undertakings (e.g., the nature, extent, and proposed location of undertakings and the number and types of cultural resources that would be affected).

Consultation with the SHPO

In general, initial consultation activities for undertakings shall involve contact by the CRM coordinator or his/her designee with the SHPO either by telephone or in writing. Consultation with the SHPO shall involve (but not be limited to):

- Seeking the SHPO's guidance in identifying any individuals, organizations, or groups that may have a special interest in Bluestone Lake undertakings affecting cultural resources of which the Huntington District may not be aware;

- Notifying the SHPO that the Huntington District has identified an undertaking that could have an adverse effect on NRHP-listed or eligible properties;
- Notifying the SHPO that the Huntington District has identified an undertaking at Bluestone Lake that could affect NRHP-listed or eligible properties and, therefore, shall be applying the Criteria of Effect and Adverse Effect (36 CFR 800.9) to the undertaking;
- Contacting the SHPO to determine if a survey should be initiated for an undertaking at Bluestone Lake pursuant to 36 CFR 800, Section 5.1.1.3, Item C;
- Providing the SHPO with information regarding new surveys initiated and completed by the Huntington District at Bluestone Lake and requesting that the SHPO review and concur with survey reports and associated documentation (if any);
- Seeking the SHPO's concurrence with the Huntington District's determinations of effect for historic properties at Bluestone Lake pursuant to 36 CFR 800, Section 5.1.1.3, Items A.2.b.(1), A.2.b.(2), C.2.b.(1), and/or C.2.a.(2), and entering into MOAs with the Huntington District as warranted;
- Identifying and resolving ways to avoid or reduce effects to NRHP-listed or eligible properties at Bluestone Lake in accordance with 36 CFR 800, Section 5.1.4.2 and pursuant to Section 5.1.1.3, Items A.2.b(1), A.2.6.(2), C.2.b.(1), and/or C.2.a.(2); and
- Requesting that the SHPO, after agreeing with the Huntington District on how effects of undertakings at Bluestone Lake shall be taken into account, enter into an MOA with the Huntington District pursuant to 36 CFR 800.5(e)(4).

Consultation with ACHP

Consultation with the ACHP shall be conducted in the same manner as consultation with the SHPO in that the Huntington District's CRM coordinator for Bluestone Lake shall contact the ACHP either by telephone or in writing. However, the procedures set forth in 36 CFR 800, Section 5.1.1 above have been designed to streamline the Section 106 process and, therefore, to minimize the need for consultation with the ACHP (i.e., rely on the SHPO more heavily for guidance and compliance with cultural resource laws and regulations). Consultation with the ACHP shall involve, but not be limited to, the following:

- Seeking the ACHP's guidance on measures to avoid or minimize effects of undertakings on NRHP-listed or eligible properties at Bluestone Lake as warranted;
- Notifying the ACHP that the Huntington District has consulted with the SHPO and intends to prepare an MOA; and
- Requesting the ACHP's acceptance and/or participation in MOAs involving Huntington District undertakings at Bluestone Lake.

Consultation with Native American Tribes

The Huntington District shall make special efforts to consult with Native American tribes for undertakings at Bluestone Lake that are determined to have the potential to affect Native American cultural remains (e.g., mound sites). Consultation with Native American tribes shall involve, but not be limited to, the following:

- Notifying Native American tribes that the Huntington District has identified an undertaking at Bluestone Lake that could affect Native American cultural remains and seeking their guidance and/or input to avoid or mitigate adverse effects to the remains;
- Notifying Native American tribes when cultural remains have been located by a survey at Bluestone Lake and requesting their assistance in identifying the

affiliation and significance of the remains or material; and

- Requesting that Native American tribes participate in MOAs for undertakings at Bluestone Lake that affect or may affect Native American cultural remains.

Consultation with Interested Parties

Should the Huntington District, in consultation with the WVSHPO, identify an undertaking at Bluestone Lake that warrants consultation with organizations other than those internal to the Huntington District, the SHPO, ACHP, or Native American tribes, the Huntington District shall identify the interested parties (e.g., individuals, organizations, local government, and historical societies) and initiate consultation either by phone or in writing. Consultation with interested parties shall involve, but not be limited to, the following:

- Notifying interested parties that the Huntington District has identified an undertaking at Bluestone Lake that could be of special interest to the parties;
- Seeking input and/or comments from interested parties regarding undertakings at Bluestone Lake and incorporating their concerns or suggestions into the undertakings, as warranted; and
- Requesting that interested parties participate in Huntington District MOAs, as warranted.

General Policies

In addition to the specific recommendations discussed above, there are some general policies that would help insure the protection of important historic properties at Bluestone Lake. These policies include:

1) Designation of a Cultural Resources staff member for each reservoir.

- This individual should be trained in up-to-date historic preservation laws and regulations.
- This individual should have access to GIS mapping of each reservoir that includes a cultural resources data layer. This layer will allow an overview of cultural resources to be made for any federal undertaking, yearly updating of the conditions of historic properties, and provide any other pertinent information that will assist in the management of historic properties at each reservoir.
- This individual should work with other Huntington District staff and local and regional law enforcement agencies to protect those historic properties most vulnerable to vandalism.

2) All activities conducted within federal property at Bluestone Lake, whether they be maintenance of existing facilities or new constructions, should be examined for their potential to negatively impact historic properties.

- New constructions should be designed to avoid historic properties if possible.
- The preferred option for NRHP eligible sites is in situ preservation, with appropriate measures being taken to insure the long-term protection of the site and its information potential. This might include the use of riprap, geotextile filter cloth, or other preservation techniques.
- Historic properties selected for preservation should be examined annually to document their present status and evaluate the need for alternative preservation techniques.
- Training of Huntington District staff to recognize and conduct initial evaluations of archaeological resources at the lake.

References Cited

16 U.S.C. 431-433
1906 Antiquities Act. United States Code.

16 USC 461-467
1935 Historic Sites Act. United States Code.

16 U.S.C. 469
1960 Reservoir Salvage Act. United States Code.

16 U.S.C 470 et seq.
1966 National Historic Preservation Act. United States Code.

16 U.S.C. 470aa-mm.
1979 Archaeological Resources Protection Act. United States Code.

33 CFR Part 325
n.d. "Consideration of Historic Properties in the Department of the Army Permitting Process."

33 U.S.C. 1251-1376; P.L. 87-88
1961 Federal Water Pollution Control Act Amendments. United States Code.

36 CFR Part 60
n.d. "National Register of Historic Places."

36 CFR Part 63
n.d. "Determination of Eligibility for Inclusion in the National Register of Historic Places."

36 CFR Part 79
n.d. "Curation of Federally Owned and Administered Archaeological Collections."

36 CFR Part 800
n.d. "Protection of Historic and Cultural."

42 U.S.C. 1996
1978 American Indian Religious Freedom Act. United States Code.

42 U.S.C. 4330 et seq.
1969 National Environmental Policy Act. United States Code.

44 U.S.C 2101-2118, 2301-2308, 2501-2506, 2901-2909, 3101-3106, 3301-3324.
1950 Federal Records Act. United States Code.

Adovasio, James M., J. Donahue, W.C. Johnson, John P. Marwitt, Ronald C. Carlisle, J.D. Applegarth, Phillip. Fitzgibbons and J.L. Yedlowski
1980 *An Inundation Study of Three Sites in the Bluestone Reservoir, Summers County, West Virginia*. Prepared for the U.S. Army Corps of Engineers, Huntington District.

Adovasio, James M., W.C. Johnson, J.D. Applegarth, J.L. Yedlowski, and Phillip T. Fitzgibbons
1979 University of Pittsburgh Test Excavations in Mason and Summers Counties, West Virginia. Paper presented at the Annual Meeting of the West Virginia Archeological Society, Morgantown, West Virginia.

Adovasio, J.M., D. Pedler, J. Donahue, and R. Stuckenrath
1999 No Vestige of a Beginning or Prospect for an End: Two Decades of Debate on Meadowcroft Rockshelter. In *Ice Age Peoples of North America: Environments, Origins, and Adaptations of the First Americans*, edited by R. Bonnichsen and K.L. Turnmire, pp. 416-431. Oregon State University Press, Corvallis, Oregon.

Anderson, David G.
1996 Approaches to Modeling Regional Settlement in the Archaic Period Southeast. In *Archaeology of the Mid-Holocene Southeast*, edited by Kenneth E. Sassaman and David G. Anderson, pp 157-176. University Press of Florida, Gainesville.

Anslinger, C. Michael
1995 *Phase I Archeological Survey of Proposed West Virginia-American Water*

Company Improvement Areas at Bluestone Lake, Summers County, West Virginia. Prepared by Cultural Resource Analysts, Inc., Contract Publication Series WV 95-4, June 19, 1995.

1996 *Phase I and II Archaeological Excavations for the Marmet Lock Replacement Project, Kanawha County, West Virginia*. Prepared by Cultural Resource Analysts, Inc.. Submitted to Booker Associates Inc. of Kentucky Contract Publication.

1998 *Archaeological Investigations for the Section 14 Streambank Protection Project and the St. Albans City Park Special Legislation Riverbank Erosion Project at St Albans, Kanawha County, West Virginia*. Contract Publication Series WV98-1. Cultural Resource Analysts, Hurricane, West Virginia.

Applegarth, J.D., and C.M. Davis
1982 A Dalton Early Archaic Assemblage from Summers County, West Virginia. *West Virginia Archeologist* 33:3-36.

Applegarth, J.D., James M. Adovasio and J. Donahue
1978 46SU3 Revisited. *Pennsylvania Archeologist* 48 (Special Issue No. 1).

Baerreis, David A., Reid A. Bryson, and John E. Kutzbach
1976 Climate and Culture in the Western Great Lakes Region. *Midcontinental Journal of Archaeology* 1:39-57.

Ballweber, H. L., and R. L. Michael
1990 *Phase II Archaeological Testing of Nine CNG Transmission Corporation Tellus Project Sites, Kanawha, Boone, Logan, and Wyoming Counties, West Virginia*. NPW Consultants, Uniontown, Pennsylvania. Submitted to CNG Transmission Corporation, Clarksburg, West Virginia.

Bayes, G.R., and J.A. Bayes
Arden Acree Rock Shelter, 46CL15-1. *West Virginia Archeologist* 26:14-45.

Binford, Lewis R.
1980 *Willow Smoke and Dog's Tail: Hunter-Gather Settlement Systems and Archaeological Site Formations. In The Archaeology of Kentucky: Past Accomplishments and Future Directions*. State Historic Preservation Comprehensive Plan Report No. 1. Edited by David Pollack. Reprinted from American Antiquity 45: 4-20.

Boedy, Randall D.
1989 Ceramics. In *Phase III Excavations at the Niebert Site, Gallipolis Locks and Dam Replacement Project, Mason County, West Virginia*, edited by R. Berle Clay and Charles M. Niquette. Cultural Resource Analysts, Inc., Contract Publication Series 89-06.

Bonnichsen, R., and R.F. Will
1999 Radiocarbon Chronology of Northeastern Paleoamerican Sites: Discriminating Natural and Human Burn Features. In *Ice Age Peoples of North America: Environments, Origins, and Adaptations of the First Americans*, edited by R. Bonnichsen and K.L. Turnmire, pp. 395-415. Oregon State University Press, Corvallis.

Botwick, Bradford
1995 *Phase II Archaeological Investigations at Site 46RG175, City of Beckley, Raleigh County, West Virginia*. Submitted by Gray and Pape, Inc., Richmond, Virginia. Submitted to the United States Department of Agriculture, Natural Resources Conservation Service, Morgantown, West Virginia.

Brashler, Janet G., J. Steven Kite, and Nicholas Freiden
1994 Recent Research at the St. Albans Site: 46KA27. In *The First Discovery of America*, edited by William S. Dancey, pp. 133-143. Ohio Archaeological Council, Inc., Columbus.

Broyles, Betty J.
1966 Preliminary Report: The St. Albans Site(46KA27), Kanawha County, West

Virginia. *West Virginia Archeologist* 19:1-43.

1967 Editor's Notes, Fluted Points in West Virginia. *West Virginia Archeologist* 20:46 - 56.

1969 Kanawha Basin Comprehensive Study Appendix L. Appraisal of Archaeological and Historical Resources. National Park Service.

1971 Second Preliminary Report: The St. Albans Site, Kanawha County, West Virginia, 1964-1968. *Report of Archaeological Investigations* 3, West Virginia Geological and Economic Survey, Morgantown, West Virginia.

Brown, James A., and Robert K. Vierra
1983 What Happened to the Middle Archaic?: Introduction to an Ecological Approach to Koster Site Archaeology. In *Archaic Hunters And Gatherers in the American Mid-West*, edited by James . L. Phillips and James. A. Brown, pp. 165-196. Academic Press, New York.

Browning, H.L.
1953 "Ancient Civilization" Marked by Deserted Crump Mansion. *Beckley Sunday Register*, 30 August:8.

Burdin, Sheldon R.
2004 *An Archaeological Reconnaissance of the Gauley River National Recreation Area, Fayette and Nicholas Counties, West Virginia*. KAS Report #85. Submitted by the William S. Webb Museum of Anthropology, University of Kentucky, and the Kentucky Archaeological Survey, Lexington. Submitted to the National Parks Service, Glen Jean, West Virginia.

Campbell, E.R., and Alan H. Cooper.
A Clovis Point from Ohio County. *West Virginia Archeologist* 35(1):57.

Carr, Kurt W., and William M. Gardner
1979 *A Preliminary Prehistoric Archaeological Resources reconnaissance of Berkeley County, West Virginia*. Report prepared by Thunderbird Research Corporation, Front Royal, Virginia.

Chapman, Jefferson
1985 *Tellico Archaeology: 12,000 Years of Native American History*. Report of Investigations No. 43. Department of Anthropology, University of Tennessee, Knoxville.

Collins, L.D.
1965 Lurich Site, Giles County, Virginia. VDHR Report #GS2. Manuscript on file, Virginia Department of Historic Resources, Richmond, Virginia.

Cultural Resource Analysts, Inc.
1998 *Bluestone Lake Historic Properties Management Plan*. Report prepared for U.S. Army Corps of Engineers, Huntington District, Huntington, West Virginia.

Curran, M. L.
2000 Exploration, Colonization, and Settling In: The Bull Brook Phase, Antecedents, and Descendants. In *The Archaeological Northeast*, edited by M.A. Levine, K.E. Sassaman, and M.S. Nassaney, pp. 3-24. Bergin & Garvey, West Port, Connecticut.

Cutler, H.C., and L.W. Blake
1984 Appendix C: Plant Materials from the Fairchance Site. *West Virginia Archaeologist* 36(1):65-68.

Delcourt, H. R.
1979 Late Quaternary Vegetational History of the Eastern Highland Rim and Adjacent Cumberland Plateau of Tennessee. *Ecological Monographs* 49(3):255-280.

Delcourt, Paul A., and H. R. Delcourt
1981 Vegetation Maps for Eastern North America: 40,000 BP to the Present. In *Geobotany II* edited by R.C. Romans pp.123-165. Plenum Publishing, New York.

Dent, Richard J., Jr.
1995 *Chesapeake Prehistory: Old Traditions, New Directions*. Plenum Press, New York.

Denton, G.H., and W. Karlen
1973 Holocene Climatic Variation: Their Pattern and Possible Cause. *Quaternary Research* 3:155-205.

Dirkmaat, D., and M.L. Siegel
1982 Effects of Prolonged Inundation on the Physical and Chemical Properties of Faunal Remains. *Proceedings, New River Symposium* May 6-8, Beckley, West Virginia pp. 198-203. National Park Service, Oak Hill, West Virginia.

Dobbins, Dave
1979 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

Donnelly, S.
1960 Memoirs of the Late L.P. Campbell, I, II, III. *Beckley Post Herald* 15 January.

Dragoo, Donald W.
1958 The Archaic Peoples of the Upper Ohio Valley. *Annals of Carnegie Museum* 34, Pittsburgh.

1976 Some Aspects of Eastern North American Prehistory: A Review 1975. *American Antiquity* 4(1):3-27.

Dunn, R. A., L. M. Smith, H. H. Allen, and H.M. Taylor
1996 Managing Historic Properties in Drawdown Zones at Corps of Engineers Reservoirs: Three Case Studies. *Technical Report EL-96-14*, US Army Corps of Engineers, Waterways Experiment Station, Vicksburg.

Dunnell, Robert C.
1967 An Additional Note on Two Fluted Points from West Virginia. *West Virginia Archeologist* 20:42-45.

1979 An Ohio County Fluted Point. *West Virginia Archeologist* 28:53-55.

DuVall, Glyn D.
1999 *Phase II Archaeological Investigations of Site 46RG154, Samples Mine, Raleigh County, West Virginia*. Prepared by DuVall and Associates, Inc., Franklin, Tennessee. Prepared for Catenary Coal Company, Eskdale, West Virginia.

Evans, Clifford
1955 *A Ceramic Study of Virginia Archaeology*. Bureau of American Ethnology, Bulletin No. 160, Smithsonian Institution.

Executive Order 11593
1971 Protection and Enhancement of the Cultural Environment. President Richard Nixon.

Executive Order 12072
1978 Federal Space Management. President Jimmy Carter.

Executive Order 13006
1996 Locating Federal Facilities on Historic Properties in Our Nation's Central Cities. President William Clinton.

Executive Order 13007
1996 Protection and Accommodation of Access to "Indian Sacred Sites." President William Clinton.

Executive Order 13175
2000 Consultation and Coordination with Indian Tribal Governments. President William Clinton.

Faulconer, J.
1975 Fort Culbertson, Site of Indian Wars. Wonderful West Virginia 39(6):18.

1978 Indian Lore Preserved at Summers County Museum. *Wonderful West Virginia* 42(10):12-14.

Fenton, James P. and Susan C. Andrews
1999 *Phase IA Overview of Archaeological Resources in the Proposed East Beckley Transportation Improvement Project, Raleigh County, West Virginia*. Submitted by Wilbur Smith Associates, Lexington, Kentucky. Submitted to the West Virginia Department of Transportation, Charleston.

Ford, Richard I.
1977 Evolutionary Ecology and the Evolution of Human Ecosystems: A Case Study from the Midwestern U.S.A. In

Explanation of Prehistoric Change edited by J.N. Hill, pp. 153-184. University of New Mexico Press, Albuquerque.

Frankenberg, Susan R., and Grace E. Henning
1994 *Phase III Data Recovery Investigations of the Cotiga Mound (46MO1) Mingo County, West Virginia.* Prepared by GAI Consultants, Inc. for West Virginia Department of Transportation Division of Highways, Charleston.

Fritts, H.C., G.R. Lofgren, and G.A. Gordon
1979 Variation in Climate Since 1602 as Reconstructed from Tree-rings. *Quaternary Research* 12:18-46.

Fuerst, David N.
1981 *A Cultural Research Project: The New River National River, Prehistory,* vol. 1 and vol. 3. Paul D. Marshall and Associates, Charleston, WV.

1988 West Virginia Woodland Study Unit Report. Manuscript on file at West Virginia Division of Culture and History, Historic Preservation Unit. Charleston, WV.

2004b Communalism Among the Late Prehistoric/Protohistoric Intermontane and Monongahela Cultures. Paper presented at the second joint Southeastern Archaeological Conference/Midwest Archaeological Meetings, St. Louis.

2005 Communalism Among the Intermontane and Monongahela Cultures. *Archaeology of Eastern North America,* in press.

Funk, Robert E.
1978 *Post-Pleistocene Adaptations.* In Handbook of North American Indians: Northeast (Vol. 15), edited by B.G. Trigger, pp. 16-27. Smithsonian Institution, Washington, D.C.

Funkhouser, William D.
1925 Wildlife in Kentucky. Kentucky Geological Survey, *Geological Reports Series 6,* Vol. 34.

Gallivan, Martin D.
2003 *James River Chiefdoms: The Rise of Social Inequality in the Chesapeake.* University of Nebraska Press, Lincoln.

Gardner, William M.
1977 Flint Run Paleo-Indian Complex: Pattern and Process During the Paleo-Indian to Early Archaic. In *The Flint Run Paleo-Indian Complex: A Preliminary Report, 1971-1973 Seasons,* edited by William M. Gardner, pp. 5-47. Catholic University of America, Department of Anthropology, Archaeology Laboratory, Occasional Publication No. 1, Washington.

1987b *Paleoindian and Archaic in West Virginia: An Overview for the State Historic Preservation Plan.* Ms. on file, Historic Preservation Unit, West Virginia Division of Culture and History, Charleston, West Virginia.

1989 *An Examination of Cultural Change in the Late Pleistocene and Early Holocene (circa 9200 to 6800 B.C.).* In Paleoindian Research in Virginia: A Synthesis, edited by J. Mark Wittkofski, and Theodore R. Reinhart, pp. 5-52. Special Publication No. 19. Archeological Society of Virginia, Richmond.

Goodyear, A.C.
1999 The Early Holocene Occupation of the Southeastern United States: A Geoarchaeological Summary. In *Ice Age Peoples of North America, Environments, Origins, and Adaptations of the First Americans,* edited by R. Bonnichsen and K.L. Turnmire, pp. 432-481. Oregon State University Press, Corvallis.

Graybill, Jeffrey R.
1981 The Eastern Periphery of Fort Ancient (A.D. 1050-1650): A Diachronic Approach to Settlement Variability. Unpublished Ph.D. dissertation, Department of Anthropology, University of Washington, Seattle.

1986 Fort Ancient—East: Origins, Change, and External Correlations. Paper

presented at the Midwestern Archaeological Conference, Columbus, Ohio.

Gremillion, Kristen J.
1994 Evidence of Plant Domestication From Kentucky Caves and Rockshelters. In *Agricultural Origins and Development in the Midcontinent*, edited by William Green, pp. 87-103. Report 19, Office of the State Archaeologist, Iowa City.

Hardlines Design
2002 *Historic Documentation Report, Bluestone Dam, Hinton Vicinity, Summers County, West Virginia.* Prepared for the U.S. Army Corps of Engineers, Huntington District.

Hemmings, E. Thomas
1985 West Virginia Radiocarbon Dates and Prehistory. *West Virginia Archeologist* 37(2):35-45.

Henderson, A. Gwynn
1986 Type Descriptions for Armstrong and Lick Creek Series Ceramics. *West Virginia Archeologist* 38(2):40-47.

Hill, R.T.
1991 A Toponymic Study of the Lower New River. *Proceedings, New River Symposium*, April 11-14, Pipestem, West Virginia, pp. 10-16. National Park Service, Oak Hill, West Virginia.

Holland, C.G.
1970 *An Archaeological Survey of Southwest Virginia.* Smithsonian Contributions to Anthropology, No. 12.

Holland, Eugene, and Stephen Trail
1983 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

Ison, Cecil
1988 The Cold Oak Shelter: Providing a Better Understanding of the Terminal Archaic. In *Paleoindian and Archaic Research in Kentucky*, edited by David Pollack, Thomas N. Sanders, and Charles Hockensmith, pp 125-138. Kentucky Heritage Council, Frankfort.

Ison, C.R., J.R. Railey, A.G. Henderson, B.S. Ison, and J. Rossen
1985 *Archaeological Investigations at the Green Sulphur Springs Site Complex, West Virginia.* University of Kentucky, Department of Anthropology, Archaeological Report 108.

Jefferies, Richard W.
1996 Hunters and Gatherers After the Ice Age. In *Kentucky Archaeology*, edited by R. Barry Lewis, pp. 39-77. University Press of Kentucky, Lexington.

Jefferies, Richard W., and B. Mark Lynch
1983 Dimensions of Middle Archaic Cultural Adaptation at the Black Earth Site, Saline County, Illinois. In *Archaic Hunters and Gatherersin the American Midwest*, James L. Phillips and James A. Brown editors. Academic Press, New York.

Jewell, D. P.
1961 Freshwater Archaeology. *American Antiquity* 26(3):414-416.

Jillson, Willard Rouse
1968 *The Extinct Vertebrate of the Pleistocene in Kentucky.* Roberts Printing Company, Frankfort.

Johnson, Leland R
1977 *Men, Mountains and Rivers: An Illustrated History of the Huntington District, U.S. Army Corps of Engineers.* Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

Johnson, W.C.
1984 Archeological Researches in the Bluestone Reservoir, Summers County, West Virginia. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Pittsburgh.

1996 *Cultural Resources Draft Technical Report For the Proposed New River Parkway, Draft Environmental Impact Statement, Interstate 64 to Hinton, Raleigh and Summers Counties, West Virginia.* Cultural Resources Section,

Virginia Polytechnic Institute and University of Pittsburgh, Pittsburgh.

Johnson, W.C., J.M. Adovasio, and J.P. Marwitt
1980 Fort Ancient on the Frontier: A View From Bluestone Lake, West Virginia. A paper presented at the 45th Annual meeting of the Society for American Archaeology, Philadelphia, Pennsylvania, May 1 3, 1980.

Johnston, D.E.
1906 *A History of the Middle New River Settlements and Contiguous Territory*. Huntington, West Virginia.

Jones, Emory E., Jr.
1987 Archeological Investigations at the Snidow Site (46MC1), Mercer County, West Virginia. *West Virginia Archeologist* 39(1):1-20.

Joyer, Janet E., and Donna C. Roper
1980 Archaic Adaptations in the Central Osage River Basin: Second Preliminary assessment. In, Archaic Prehistory on the Prairies Plains Border, edited by A.E. Johnson. *University of Kansas Publications in Archaeology* 12:13-23.

Justice, Noel D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington.

Kerr, Jonathan P., Richard W. Yerkes, Gary D. Crites, Albert M. Pecora, and Robert B. Hand
1991 *Late Woodland Archaeology at the Parkline Site (46PU99) Putnam County, West Virginia*. Culture Resource Analysts, Inc., Lexington, Kentucky.

Kerr, Jonathan P., and Steven D. Creasman
1995 *Phase III Investigations at the Martin Justice Site (15PI92), Pike County, Kentucky*. Contract Publication Series 95-24. Cultural Resource Analysts, Lexington, Kentucky.

King, Thomas F.
1998 *Cultural Resource Laws and Practice: An Introductory Guide*. Altmira Press, Walnut Creek, California.

Lady, C. Lynn
1983 Bluestone Lake - Past, Present, and Future. *Proceedings, New River Symposium* April 14-16, Blacksburg, Virginia pp.183-201. National Park Service, Oak Hill, West Virginia.

Ledbetter, R. Jerald, and Lisa D. O'Steen
1991 *The Grayson Site, Phase III Investigations of (15CR73), Carter County*, Kentucky. Southeastern Archeological Services, Inc. Athens, Georgia.

Lenihan, D.J., T.L. Carrell, S. Fosberg, L. Murphy, S.L. Rayl and J.A. Ware
1981 The Final Report of the National Reservoir Inundation Study, Volumes 1 and 2. National Park Service, Southwest Cultural Resources Center, Santa Fe, New Mexico.

Lewis, Thomas M. N., and Madeline Kneberg Lewis
1961 *Eva: An Archaic Site*. A University of Tennessee Study in Anthropology. University of Tennessee Press, Knoxville.

MacCord, Howard A. Sr.
1972 Virginia Archaeological Site Survey Forms. Virginia Department of Historic Resources, Richmond.

1974 Virginia Archaeological Site Survey Forms. Virginia Department of Historic Resources, Richmond.

1984 Virginia Archaeological Site Survey Forms. Virginia Department of Historic Resources, Richmond.

Marshall, P.D., and David N. Fuerst
1985 *A historical and Archaeological Survey of the Bluestone River, Madam Creek, and the Jumping Branch/Nimitz Areas of Summers County, West Virginia*. Report submitted to the Summers County Historical Landmark Commission.

Marwitt, John P.
1982 Test Excavations at Three Late Prehistoric Village Sites at Bluestone Lake, Summers County, West Virginia. *Proceedings, New River Symposium* May 6-8, 1982, Beckley, West Virginia, pp. 195-197. National Park Service, Oak Hill, West Virginia.

Maslowski, Robert F.
1982 Archeology of the Bluestone Reservation. *Proceedings, New River Symposium* May 6-8, 1982, Beckley, West Virginia, pp. 185-194. National Park Service, Oak Hill, West Virginia.

1985 Woodland Settlement Patterns in the Mid and Upper Ohio Valley. *West Virginia Archeologist* 37(2):23-34.

1985a Beads and Ornamentation of the Bluestone Indians. *Proceedings, New River Symposium* April 11-13, Pipestem, West Virginia, pp. 137-143. National Park Service, Oak Hill, West Virginia.

1985b The Bluestone Monitor Pipe. *West Virginia Archeologist* 37(1):41.

1986 Relationship of Archeological Sites to Soils in the New River Valley of West Virginia. *Proceedings, New River Symposium* April 10-12, Wytheville, Virginia, pp. 165-173. National Park Service, Oak Hill, West Virginia.

Maslowski, Robert F., and Robin M. King
1983 Indian Pottery Types from the Bluestone Reservation. *Proceedings, New River Symposium* April 14-16, Blacksburg, Virginia. National Park Service, Oak Hill, West Virginia, pp. 69-88.

Maslowski, Robert F., And Jodi L. Woody
1984 Historic Sites in Crump's Bottom, Bluestone Reservation. *Proceedings, New River Symposium* April 12-14, 1984, Boone, North Carolina pp. 183-192. National Park Service, Oak Hill, West Virginia.

1992 Historic Sites in Crump's Bottom, Bluestone Reservation. In *A New River Heritage, Volume II*, pp. 25-36. McClain Printing Company, Parsons, West Virginia.

Maslowski, R. F., C. M. Niquette, and D. M. Wingfield
1995 The Kentucky, Ohio and West Virginia Radiocarbon Database. *West Virginia Archeologist* 47(1&2).

Maxwell, J.A., and M.B. Davis
1972 Pollen Evidence of Pleistocene and Holocene Vegetation on the Allegheny Plateau, Maryland. *Quaternary Research* 2:506-530.

Mayer-Oakes, William J.
1955 *Prehistory of the Upper Ohio Valley.* Annals of the Carnegie Museum, Anthropological Series, 2.

McAvoy, J.M., and L.D. McAvoy
1997 *Archaeological Investigations of Site 44Sx202, Cactus Hill, Sussex County, Virginia.* Virginia Department of Historic Resources, Research Report Series No. 8.

McBride, Kim A. (editor)
1994 *Phase II Archaeological Investigations at the McKenzie Farmstead (15JO67): A Multiple Component Occupation in Johnson County, Kentucky.* Archaeological Report No. 334. Program For Cultural Resource Assessment, Department of Anthropology, University of Kentucky, Lexington.

Mcbride, W. Stephen, William D. Updike, and Todd A. Bonshire
1991 A Cultural Resource Survey of Frontier Forts in the Bluestone Reservoir, New River Valley, Summers County, West Virginia. Cultural Resource Assessment, University of Kentucky, Archaeological Report 257.

McMichael, Edward V.
1962 Preliminary Report on Mount Carbon Village Excavations, 46FA7. *West Virginia Archaeologist* 14:36-51.

1965 Archeological Survey of Nicholas County, W. Va. *West Virginia Geological and Economic Survey Archeological Series* 1.

1968 *Introduction to West Virginia Archaeology* (2nd revised edition). West Virginia Geological and Economic Survey, Educational Series.

McMichael, E.V., and Oscar L Mairs
1963 Salvage Excavation of the Leslie Mound (46PU3), Putnam County, West Virginia. *West Virginia Archeologist* 15:23-40.

1969 Excavations of the Murad Mound, Kanawha County, West Virginia, and an Analysis of Kanawha Valley Mounds. *Report of Archeological Investigations, No. 1*, West Virginia Geological and Economic Survey, Morgantown.

Meador, M.
1980 Aunt Nannie Meador and the Bluestone Dam. Goldenseal 6(1):24-30.

Miller, J.H.
1908 History of Summers County, West Virginia. Hinton.

Milner, George R.
1998 *The Cahokia Chiefdom: The Archaeology of a Mississippian Society.* Smithsonian Institution Press, Washington, D.C.

Muller, Jon D.
1986 *Archeology of the Lower Ohio River Valley*. Academic Press, New York.

Niquette, Charles M. (Editor)
1989 Woodland Settlement Patterns in the Kentucky-West Virginia Border Region. Paper presented at the 54th Annual Meeting of the Society for American Archaeology in Phoenix, Arizona.

1992 Woodland Settlement Patterns in the Kentucky/West Virginia Border Region. In *Cultural Variability in Context: Woodland Settlements of the Mid-Ohio Valley*, edited by M.F. Seeman, pp 15-17. Midcontinental Journal of Archeology Special Publication,. Kent State University Press, Kent, Ohio.

Niquette, Charles M., and T.K. Donham
1985 *Prehistoric and Historic Sites Archeology in the Proposed Yatesville Reservoir, Lawrence County, Kentucky. Cultural Resource Analysts.* Contract Publication Series 85-13. Copies available from Cultural Resource Analysts, Lexington, Kentucky.

Niquette, Charles M., Albert M. Pecora, Richards W. Yerkes and Kathryn J. Saul
1991 Test Excavations at the Glasgow Site: A Stratified Terminal Early and Late Archaic Site in Kanawha County, West Virginia. *West Virginia Archeologist* 43(1&2):1-56.

Olafsen, Sigfus
1959 A Fluted Point from Pleasants County, W. VA. *West Virginia Archaeologist* 11:8.

O'Malley, Nancy
1985 *Prehistory Along The Greenbrier: Archaeological Investigations at Pence Springs, Summers County, West Virginia.* Archaeological Report 132, Department of Anthropology, University of Kentucky, Lexington.

1988 Adena Mound Ceramics in Retrospective. In *New Deal Era Archaeology and Current Research in Kentucky*, edited by D. Pollack and M. L. Powell, pp. 46-62. Kentucky Heritage Council, Frankfort.

1990 In: Childers and Woods: Two Late Woodland Sites in the Upper Ohio Valley, Mason County, West Virginia. *University of Kentucky, Program for Cultural Resource Assessment Archeological Report No. 200.*

Perry, J.L.
n.d. History of Bluestone Dam. Manuscript on file, U.S. Army Corps of Engineers, Huntington, West Virginia.

Petersen, James B.
1995 Preceramic Archaeological Manifestations in the Far Northeast: A Review of Recent Research. *Archaeology of Eastern North America* 23:207-230.

P.L. 101-601.
1990 Native American Graves Protection and Repatriation Act. Public Law.

P.L. 391.
1938 Flood Control Act. 70th Congress. Public Law.

Pollack, David and George Crothers (editors)
2005 *Archaeological Overview And Assessment Of New River Gorge National River, West Virginia.* Research Report No. 8, Part 1. William S. Webb Museum of Anthropology, and the University of Kentucky, Lexington, and the Kentucky Archaeological Survey, Frankfort.

Potter, Stephen R.
1993 *Commoners, Tribute and Chiefs: The Development of Algonquian Culture in the Potomac Valley.* University Press of Virginia, Charlottesville.

Prufer, Olaf H.
2001 The Archaic of Northeastern Ohio. In *Archaic Transitions in Ohio and Kentucky Prehistory*, edited by Olaf H. Prufer, Susan E. Pedde, and R.S. Meindl, pp. 183-209. Kent State University Press, Kent, Ohio.

Purtill, Matthew, Debra McClane, E. Jeanne Harris, and Susan T. Goodfellow
1997 Management Summary: Phase I and II Archaeological Investigations at Sites 46SU633 and 46SU634, Columbia Gas Transmission Corporation's Market Expansion Project – Line KA Flat Top, Summers and Monroe Counties, West Virginia. Gray & Pape Inc., Project No. 96-0115. Report prepared for Columbia Gas Transmission Corporation, Charleston, West Virginia

Railey, R.A.
1996 Woodland Cultivators. In *Kentucky Archaeology*, edited by R.B. Lewis, pp.161-182. The University of Kentucky Press, Lexington.

Railey, J.A., and A.G Henderson
1986 Middle and Late Woodland Occupations at Green Sulphur. *West Virginia Archeologist* 38(2):22-39.

Rich, Jack
1979 46Su9 – A Fort Ancient Site. In *Cultural Resources Reconnaissance Report, Bluestone Lake, Summer County, West Virginia,* prepared by the Huntington District, U.S. Army Corps of Engineers, Huntington, West Virginia, Appendix I, pp. 45-74.

Richardson, H.A.
1949 Raleigh County, West Virginia in the Civil War. *West Virginia History* 10(3):213 298.

River Basin Surveys
1948 *Appraisal of the Archeological Resources of Bluestone Reservoir, West Virginia.* Smithsonian Institution, Washington, D.C.

Rollins, H.B.
1982 Molluscan Fauna at Three Bluestone Lake Sites: the Effects of Inundation Upon Data Recovery. *Proceedings, New River Symposium* May 6-8, Beckley, West Virginia, pp. 204-211. National Park Service, Oak Hill, West Virginia.

Sanders, William
1991 *A New River Heritage, Volume I.* McClain Printing Company, Parsons, West Virginia.

1992 *A New River Heritage, Volume II.* McClain Printing Company, Parsons, West Virginia.

Schaefer, Sandra
1997 *Bluestone Lake WMA GIS Project Final Report.* Technical Support Unit, West Virginia Division of Natural Resources, Charleston.

Seeman, Mark F.
1986 Adena "Houses" and Their Implications for Early Woodland Settlement Models in the Ohio Valley. In *Early Woodland Archaeology*, edited by Kenneth B. Farnsworth, and T. E. Emerson, pp. 564-580. Kampsville Seminars in Archaeology No. 2. Center for American Archeology Press, Kampsville, Illinois.

Seidel, Michael E.
1981 A Taxonomic Analysis of Pseudemyd Turtles (Testudines: Emydidae) from the New River, and Phenetic Relationships in the Subgenus Pseudemys. *Brimleyana* No. 6:25-44.

Sheldon, Gregory, and Myra A. Hughes
1990 *A Coal Mine Survey Along Kay Fork and Eversole Creek in Breathitt and Perry Counties, Kentucky*. Cultural Resource Analysts, Inc. Lexington, Kentucky.

Sherwood, Sarah C., Boyce N. Driskell, Asa R. Randall, and Scott C. Meeks
2004 Chronology and Stratigraphy at Dust Cave, Alabama. *American Antiquity* 69 (3):533-554.

Smith, Bruce D.
1992 *Rivers of Change: Essays on Early Agriculture in Eastern North America*. Smithsonian Institution Press, Washington, D.C.

Snow, Dean
1994 *The Iroquois*. Blackwell Press, Cambridge, Massachusetts.

Solecki, Ralph S.
1949 An Archeological Survey of Two Rivers in West Virginia: The Bluestone Reservation. *West Virginia History* 10(4):319 432.

SSI (Soil Systems, Inc.), Earth Systems Division
1980 *Archaeological Survey of New and Existing Gas Transmission Line Corridors Projects 808 and 802, Mingo, Logan, Lincoln, Cabell, Summers, Wyoming and Monroe Counties, West Virginia*. Report prepared for Columbia Gas Transmission Corporation, Charleston, West Virginia.

Stafford, C. Russell
1994 Structural Changes in Archaic Landscape Use in the Dissected Uplands of Southwestern Indiana. *American Antiquity* 59(2):219-237.

Stafford, C. Russell, Ronald L. Richards, and C. Michael Anslinger
2000 The Bluegrass Fauna and Changes in Middle Holocene Hunter-Gatherer Foraging in the Southern Midwest. *American Antiquity* 65(2):317-336.

Stathakis, Steven A.
2001 *Phase I Archaeological Resources Survey of the Proposed Bluestone-Lilly Parking Area and Phase II Archaeological Testing of Site 46Su672 (LB-1, NERI- 292) in Bluestone Scenic River Park, Summers County, West Virginia*. Big Blue Archaeological Research, Inc., Morgantown, West Virginia.

Struever, Stuart, and Kent D. Vickery
1973 The Beginnings of Cultivation in the Midwest Riverine Area of the United States. *American Anthropologist* 75:1197-1220.

Styles, Bonnie W., Stephen R. Ahler, and Melvin L. Fomler
1983 Modoc Rock Shelter Revisited. *Archaic Hunters and Gatherers in the American Midwest*, edited by J. L. Phillips and J. A. Brown, pp. 261-297. Academic Press, New York.

Tankersley, Kenneth B.
1990 Paleoindian Period. In *The Archaeology of Kentucky: Past Accomplishments and Future Directions*, edited by David Pollack. State Historic Preservation Comprehensive Plan Report No. 1, Kentucky Heritage Council, Frankfort.

1994 Was Clovis a Colonizing Population in Eastern North America? In *The First Discovery of America: Archaeological Evidence of the Early Inhabitants of the Ohio Area*, edited by W.S. Dancey, pp. 95-116. The Ohio Archaeological Council, Columbus.

1996 Ice Age Hunters and Gatherers. In *Kentucky Archaeology*, edited by R. Barry Lewis, pp.21-38. The University Press of Kentucky.

Thorne, R.M., P.M. Fay, and J.J. Hester
1987 *Archaeological Site Preservation Techniques: A Preliminary Review.* Environmental Impact Research Program, Technical Report EL-87-3. U.S. Army Corps of Engineers, Washington, D.C.

Thwaites, R.G., and L.P. Kellogg
1905 *Documentary History of Dunmore's War 1774.* Wisconsin Historical Society, Madison, Wisconsin.

Tidlow, Evelyn M., Susan Goodfellow, and George L. Mankowski, Jr.
1996 *Phase I Cultural Resources Survey for Columbia Gas Transmission Corporation's Proposed Construction of 16 Miles of Line KA in Summers and Monroe Counties, West Virginia.* Prepared for Columbia Gas Transmission Corporation, Charleston, West Virginia.

Trader, Patrick D.
2003 *Archaeological Data Recovery on a Portion of Site 46Su 672, Proposed Lilly/Bluestone Parking Lot, New River Gorge National River, Summers County, West Virginia.* Technical Report No. 479. Program for Archaeological Research, Department of Anthropology, University of Kentucky, Lexington.

Trail, Stephen
1981 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

1982 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

1982a "Notes on the Mercer Salt Works". Manuscript on file, West Virginia Division of Culture and History, Charleston.

1984 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

1985 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

1986 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

1988 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

1989 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

1991 West Virginia Archaeological Site Survey Record Forms. West Virginia Division of Culture and History, Charleston.

Trout, William E. III
1983 Virginia Archaeological Site Survey Forms. Virginia Department of Historic Resources, Richmond.

2003 *The New River Atlas: Historic sites on the New in NC, VA and WV and the Greenbrier.* The Virginia Canals & Navigations Society, McLean, Virginia.

Truncer, James J.
2004 Steatite Vessel Age and Occurrence in Temperate Eastern North America. *American Antiquity,* 69 (3): 487-513.

Turner, David A.
1998 *More about the Hansford Ballfield Site.* Privately printed 1980, revised and reprinted with additional illustrations in 1998.

Updike, William D., C. Michael Anslinger, and Andrew P. Bradbury
2000 *National Register Evaluations for Four Sites Located Within the Marmet Lock Replacement Project, Kanawha County, West Virginia.* Cultural Resource Analysts, Inc. Contract Publication Series WV00-02. Submitted to U.S. Army Corps or Engineers, Huntington District.

Copies available from Cultural Resource Analysts, Inc., Hurricane, West Virginia.

USACE (United States Army Corps Of Engineers)

1973 *Bluestone Lake, Mercer, Monroe, and Summers Counties, West Virginia, and Giles County, Virginia, Monumentation and Boundary Line Map*. Report prepared by U.S. Army Corps of Engineers, Huntington District, Huntington, West Virginia.

1975 *The Master Plan for Bluestone Lake, New River, West Virginia*. Draft report prepared by U.S. Army Corps of Engineers, Huntington District, Huntington, West Virginia.

1979 *Cultural Resources Reconnaissance Report, Bluestone Lake, Summers County*. Report prepared by U.S. Army Corps of Engineers, Huntington District, Huntington, West Virginia.

1983 *Social and Cultural Resources Report, Bluestone Lake, Summers County, West Virginia*. Draft report prepared by U.S. Army Corps of Engineers, Huntington District, Huntington, West Virginia.

1993 *Cultural Resources Reconnaissance, Bluestone Lake Hydropower Study, Summers County, West Virginia*. Report prepared by U.S. Army Corps of Engineers, Huntington District, Huntington, West Virginia.

1994 *Bluestone Lake Historic Properties Management Plan*. Report prepared by U.S. Army Corps of Engineers, Huntington District, Huntington, West Virginia.

USDA (United States Department of Agriculture)

1979 *Soil Survey of Mercer and Summers Counties, West Virginia*. U.S. Government Printing Office, Washington, D.C.

1981 Land Resource Regions and Major Land Resource Areas of the United States. *Agricultural Handbook* 296, United States Department of Agriculture, Soil Conservation Service.

Ware, J.A.

1989 *Archaeological Inundation Studies: Manual for Reservoir Managers. Environmental Impact Research Program, Contract Report EL-89-4*. US Army Corps of Engineers, Washington, D.C.

Warren, Robert E.

1982 Prehistoric Settlement Patterns. In *The Cannon Reservoir Human Ecology Project - An Archaeological Study of Cultural Adaptations in the Southern Prairie Peninsula*, edited by M.J. O'Brien, R.E. Warren and D.E. Lewarch, pp. 337-368. Academic Press, New York.

Warren, R., and M. J. O'Brien

1982 Holocene Dynamics. In *The Cannon Reservoir Human Ecology Project - An Archaeological Study of Cultural Adaptations in the Southern Prairie Peninsula*, edited by M.J. O'Brien, R.E. Warren, and D.E. Lewarch, pp. 71-84. Academic Press, New York.

Webb, T., III, and R. A. Bryson

1972 Late and Post Glacial Climate Change in the Northern Midwest, USA: Quantitative Estimates Derived from Fossil Pollen Spectra by Multivariate Statistical Analysis. *Quaternary Research* 2:70-115.

Whitehead, D. R.

1973 Late-Wisconsin Vegetational Changes in Unglaciated Eastern North America. *Quaternary Research* 3:621-631.

Wilkins, Gary R.

1977. *Cultural Ecology of Prehistoric Mountain Top Sites in the Kanawha Basin, West Virginia*. Unpublished Masters thesis, University of Arkansas, Fayetteville.

1978 Prehistoric Mountaintop Occupations of Southern West Virginia. *Archaeology of Eastern North America* 6:13-40.

1985 The Hansford Site: An Archaic site in Kanawha County, West Virginia. *West Virginia Archeologist* 37(1):21-26.

Winters, Howard D.
1969 *The Riverton Culture*. Published Jointly by Monograph, Illinois Archaeological Survey No. 1, and Reports of Investigations, No.13, Illinois State Museum.

Wright, Henry E., Jr.
1968 History of the Prairie Peninsula. In *The Quaternary of Illinois*, edited by R. E. Bergstrom, pp. 78-88. University of Illinois, College of Agriculture.

WVC (West Virginia Code) (§8-26A-1, §8-26A-4, §8-26A-5, §8-26A-9)
n.d. Municipal and county historic landmarks commissions.

WVC (West Virginia Code) (§20-7A-5)
n.d. Archaeology, Cave Protection and Permits for Excavation.

WVC (West Virginia Code) (§29-1-1, §29-1-6, §29-1-8, §29-1-12, §29-1-1a, and §29-1-1b)
n.d. Historic Preservation.

WVC (West Virginia Code) (§29-1-8a)
n.d. Protection of human skeletal remains, grave artifacts and grave markers.

WVC (West Virginia Code) (§29-1-8b)
n.d. Protection of historic and prehistoric sites.

WVC (West Virginia Code) (§29B-1-4a(6))
n.d. Exemptions.

WVC (West Virginia Code) (§37-13-1 through 7)
n.d. Removal, transfer and disposition of remains in graves located upon privately owned lands.

Youse, Hillis J.
n.d. The Hansford Ballfield site (46KA104). Unpublished manuscript in possession of the author.

1969 Excavation of the Young Mound and Identification of Other Mounds in Dunbar, West Virginia. *West Virginia Archeologist* 22:5-30.

1985 Comments and Corrections Concerning Amos Points. *West Virginia Archeologist* 37(2):46.

1992 Hansford Ballfield Site – (46KA104). *West Virginia Archeologist* 44(1&2):40-56.

APPENDIX A

Chapters 6-8 F OF EP 1130-2-540

CHAPTER 6 - CULTURAL RESOURCES STEWARDSHIP

6-1. Purpose. This chapter establishes the policy for the management and protection of cultural resources at operating civil works water resources projects for which the U. S. Army Corps of Engineers is responsible.

6-2. Policy.

a. Curation and Management of Archaeological Collections.

(1) Mandatory Center of Expertise (MCX). The Corps MCX for Curation and Management of Archaeological Collections at St. Louis District shall manage Corps-wide curation needs assessments and design services for the curation of archaeological collections. The MCX shall review the status of Corps-wide curation of collections and associated documents and ensure USACE compliance with the provisions of 36 CFR Part 79 (Curation of Federally-Owned and Administered Archaeological Collections). Costs for compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) will be handled through the annual budget request process established by the MCX. The MCX in coordination with the Curation Field Review Group (CFRG) will review these requests, prioritize them, and provide funding to districts based on the funding priorities established. The MCX has established standard operating procedures which detail its responsibilities.

(2) Data and Material. Data and material from historic properties (defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places) that could be impacted as a result of civil works undertakings shall be investigated, evaluated, recovered, and preserved. Specific guidance on collection management is provided in EP 1130-2-540.

(3) Collection Availability. District commanders shall ensure that collections are available for scientific and educational uses by qualified professionals, including access for study, loan, and use for such purposes as in-house and traveling exhibits, teaching, public interpretation, scientific analysis and scholarly research. Human skeletal material shall not be placed on display or exhibited for public viewing in any fashion. At the discretion of the Commander, collections may also be loaned for religious uses by interested groups with a demonstrated affiliation to the materials in the collection. District commanders are also responsible for consultation with Native Americans and repatriation of human remains and associated funerary objects to appropriate Indian tribes or Native Hawaiian organizations as required by NAGPRA.

(4) Cost Estimates. Line item cost estimates for collections management and curation shall be included in all cost estimates prepared for investigations that will result in collection of material remains and associated records.

(5) Tribal Consultation.

(a) Consistent with PL 95-341, American Indian Religious Freedom Act and PL 103-141, Religious Freedom Restoration Act of 1993, commanders shall consult with affected tribes, groups, or individuals regarding appropriate action for project effect upon sacred sites, important to the practice of traditional Native American religion. Native American consultation topics may

include, but not be limited to, access to sites, use and possession of sacred objects, freedom to worship unburdened except when there are compelling government interests, and suitable preservation measures.

(b) NAGPRA requires Federal agencies to compile documentation on specific materials in archaeological collections and consult with recognized Indian tribes on these efforts. Section 3 of the Act also requires tribal consultation when cultural items, as defined by the Act, are inadvertently discovered in federally controlled or owned lands.

(c) Tribal consultation pursuant to cultural resource law may require, but not be limited to, Native American and/or Native Hawaiian attendance at meetings, on-site visits, and the sharing of information akin to intellectual property. Commanders shall ensure that Native Americans/Hawaiians who are invited to participate, by the Corps, in consultation proceedings receive appropriate compensation for their activities. Existing authorities allow for the preparation of Invitational Travel Orders and the issuance of purchase orders, not exceeding $2,500.00, for the purpose of sharing critical information important for the furtherance or completion of consultations required by Federal laws.

(6) Repatriation.

(a) Cultural items, as defined by NAGPRA, may be repatriated or provided for reinterment to recognized Indian tribes or Native Hawaiian Organizations. Prior to repatriation, commanders must meet the procedural requirements established by NAGPRA and repatriation claims must satisfy the conditions of authenticity established by the Act. At the request of a recognized Indian tribe or Native Hawaiian Organizations, the Corps of Engineers may assist in the reinterment of NAGPRA cultural items.

(b) Undertakings by the Corps which may result in the discovery of cultural items are subject to the provisions of Section 3 of NAGPRA, including the potential for repatriation and reinterment of specific items. Specific guidance on repatriation and reinterment of human remains and associated funerary objects is provided in EP 1130-2-540 and 43 CFR Part 10, Final Rule implementing NAGPRA.

(7) State of Origin. Except as may be required by special management purposes, every effort shall be made to curate and manage archaeological collections within their state of origin.

b. Cultural Resources Management Plans. In accordance with provisions of the Archaeological Resources Protection Act (ARPA) of 1979, as amended, and the National Historic Preservation Act (NHPA) of 1966, as amended, district commanders shall ensure that a Cultural Resources Management Plan (CRMP), where appropriate, is developed for USACE projects. Specific guidance on the content and format of the plan is presented in EP 1130-2-540.

(1) Lands Held In Fee Title. Consistent with the CRMP or other management requirements, the District Commander shall implement a program, upon availability of funds, to accomplish an inventory of historic properties and site evaluation at each civil works water resource project under his/her jurisdiction and administration to comply with Section 110(a)(2) of the NHPA. Historic properties located on civil works water resource project fee owned lands shall be managed and maintained in a way that considers the preservation of their historic, archaeological, architectural and cultural values in compliance with Section 106 of the NHPA and

gives special consideration to the preservation of such values when historic properties have significance.

(2) Lands Held In Less Than Fee Ownership. On lands held in less than fee by the Federal government, but under Corps of Engineers jurisdiction, the District Commander shall give full consideration in planning for the preservation of historic properties that may be potentially affected by Corps activities. If Corps action will impact the property, the Corps shall be empowered to acquire necessary real estate interests to enable it to carry out the intent of Congress in mitigating adverse impacts to historic properties resulting from Corps activities.

c. Surveys on Corps Leased Lands. The responsibility for compliance with ER 405-1-12 rests with the Corps when real estate grants are proposed for lands that have not been examined for historic properties. However, the District Commander may allow or require the grantee to conduct necessary surveys at his own convenience and expense. Where the grantee assumes responsibility for conducting such investigations, the proposed plan of action and choice of investigator shall be approved by the District Commander.

d. Historic Properties FDM. When the construction of new, or major modification of existing, civil works projects will result in major impacts on significant historic properties, a Feature Design Memorandum (FDM) shall be required. This FDM shall be a major management tool guiding the proper treatment of historic properties throughout the Construction and initial Operational phases. FDMs shall be fully coordinated with Construction, Operations, Real Estate, and other Divisions to ensure compatibility among these elements. It is expected that a Historic Properties FDM may be required only in the event of one or more of the following:

(1) the project will require mitigation of an unusually large number, or a number of unusually complex, historic properties beyond that previously anticipated; or

(2) a significant Post-Authorization Change (PAC) in the project which dramatically alters the anticipated number or type of historic properties to be affected; or dramatically increases the estimated cost or scope of the anticipated historic properties mitigation plan; or increases mitigation costs above the one percent limitation such that specific Congressional authorization or waiver of the one percent limitation is required.

6-3. Cultural Resources Protection Policy.

a. Site Location Disclosure. In accordance with Section 9 of the ARPA (16 USC 470 hh) and Section 304 of the NHPA (16 USC 470 w-3), commanders shall restrict access to associated records that contain information relating to the nature, location, or character of a prehistoric or historic resource unless the commander determines that such disclosure would not create a risk of harm, theft, or destruction to the resource or to the area or place where the resource is located.

b. ARPA Permits. Requests by other agencies or persons to conduct historic or archaeological investigations of any type on Corps managed or controlled lands, sites, or properties, shall be in accordance with the requirements of guidance which implements the permit requirements of ARPA. Procedures for the development of permit requests as well as review and approval of permits for these investigations can be found in ER 405-1-12.

(1) Although not subject to the civil or criminal penalties of ARPA, the collection of

arrowheads or other artifacts from the surface of the land for private purposes without a permit shall be prohibited.

(2) ARPA permits are not required by Corps personnel acting in an official capacity, or by Corps contractors pursuant to contract requirements.

c. Enforcement.

(1) Violators of protected properties shall be prosecuted under 36 CFR Part 327, 14(a), which provides protection for historic properties and public property, or ARPA.

(2) Enforcement under 36 CFR Part 327, Title 36, Part 327.14(a), provides protection for historic properties and public property, although the maximum fine for the offense, if convicted, is $5000.00 and/or six months imprisonment. Since the value of historic properties and associated costs resulting from unauthorized activities sometimes exceed the maximum fine under Title 36, the enforcement actions necessary to investigate, prepare cases, and apprehend violators may be more appropriately handled by others under provisions of the Archaeological Resources Protection Act.

(3) ARPA provides for criminal penalties up to $100,000 and/or five years imprisonment, and allows for forfeiture to the Federal government of equipment and vehicles used in unauthorized activities. In addition, civil penalties may be assessed to recover Federal costs in repairing or restoring historic properties, accomplishing research, and preparing reports. For ARPA enforcement actions and investigations, commanders shall follow procedures outlined in ER 190-1-50 to obtain services of the Criminal Investigation Command (CID). Commanders may also seek counsel and assistance from the appropriate U.S. Attorney and obtain services of the appropriate U.S. Marshal for immediate attention to suspected or known felony acts.

d. Use of Metal Detectors on Water Resource Projects. The use of metal detectors shall be allowed on beaches, or other previously disturbed areas, that do not contain or would not reasonably be expected to contain archaeological, historical, or paleontological resources. Digging shall be limited to hand tools that can be used by one hand only. Hand tools shall be limited to four (4) inches wide and twelve (12) inches long. District commanders are authorized to restrict metal detector use in these areas, until completion of a cultural resources survey. If upon completion of the survey, archaeological, historical, or paleontological resources are found, district commanders are authorized to restrict the use of metal detectors in these areas.

e. Found Items. Nonidentifiable items, such as coins (of nominal value less than $25) that are found, with or without the aid of a metal detector, do not need to be deposited with the Operations Project Manager or a Ranger. All identifiable items, such as rings, watches, etc., or items of greater than nominal value (i.e., $25 or greater) shall be deposited with the Operations Project Manager or a Ranger for disposition in accordance with 36 CFR Part 327.15, 36 CFR Part 327.16, and subsequent revisions. All archaeological, historical, or paleontological items found shall be deposited with the Operations Project Manager or a Ranger.

f. In addition to the requirements of ARPA, the Federal land manager should refer to the Native American Graves Protection and Repatriation Act (PL 101-601) and its implementing regulations (43 CFR Part 10) for the disposition of the lawful removal of human remains and the items (funerary objects, objects of cultural patrimony, and sacred objects) as defined in the Act

and for the procedures to follow those cases where human remains are discovered.

FOR THE COMMANDER:

1 APPENDIX
See Table of Contents

OTIS WILLIAMS
Colonel, Corps of Engineers
Chief of Staff

APPENDIX C

Summary Tables Describing General Site Information, Eligibility, Curatorial Facility, and Accession Numbers for Archaeological Sites Located in USACE-Managed Areas at Bluestone Lake

Table C-1: General Site Information

Table C-2. Location, NRHP Eligibility, Curatorial Facility, and Accession Numbers.

Table C-1. General Site Information for Archaeological Sites Located in USACE-Managed Areas at

Site	Figure Reference	WVSHPO Elevation (ft. amsl)	USACE 1998 Elevation (ft. amsl)	Impact Zone	Context	Landform	Within Maximum Flood Zone?	
44Gs10		1520	-	C	New River	River Floodplain Terrace	Yes	
44Gs11		1520	-	C	New River	River Floodplain Terrace	Yes	
44Gs15		1520	1504.941	C	New River	River Floodplain Terrace	Yes	
44Gs17		1515	1526.280	C	New River	River Floodplain Terrace	Possibly	
44Gs20		1505	1482.635	C	New River/Smith Branch	River Floodplain Terrace	Yes	
44Gs22		1520	-	C	New River	River Floodplain Terrace	Yes	
44Gs28		1523	-	C	New River	River Floodplain Terrace	No	
44Gs41		1480	-	C	New River	River	Yes	
44Gs42		1480	-	C	New River	River	Yes	
44Gs43		1480	-	C	New River	River	Yes	
44Gs44		1480	-	C	New River	River	Yes	
44Gs48		1515	-	C	New River	River Floodplain Terrace	Yes	
46Me19		1470	1494.187	C	New River	River Floodplain Terrace	Yes	
46Me20		1470	1485.151	C	New River	River Floodplain Terrace	Yes	
46Me21		1470	1482.536	C	New River	River Floodplain Terrace	Yes	
46Me103		1460	1486.470	C	New River	River Floodplain Terrace	Yes	Se
46Me121		1600	-	C	Ford's Hollow Branch	Rockshelter	No	
46Su1		1565	-	C	New River	Rockshelter	No	
46Su2		1400	-	A	Pipestem Creek	Rockshelter	Yes	
46Su3		1408	1410.509	B	New River	Island	Yes	
46Su5		1525	-	C	Indian Creek	Upper Stream Terrace	No	Un
46Su6		1560	-	C	New River/Indian Creek	Upper River Terrace	No	
46Su7		1460	1472.323	C	New River/Roundbottom Creek	River Floodplain Terrace	Yes	
46Su8		1535	1563.648	C	New River	Upper River Terrace	No	

Table C-1. General Site Information for Archaeological Sites Located in USACE-Managed Areas at

Site	Figure Reference	WVSHPO Elevation (ft.amsl)	USACE 1998 Elevation (ft.amsl)	Impact Zone	Context	Landform	Within Maximum Flood Zone?	
46Su52		1470	1455.824	C	New River/Horse Fork Branch	River Floodplain Terrace	Yes	
46Su53		1430	1430.430	C	New River	River Floodplain Terrace	Yes	
46Su54		1430	1427.901	C	New River	River Floodplain Terrace	Yes	
46Su55		1550	1583.589	C	New River	Upper River Terrace	No	
46Su56		1490	1471.047	C	New River	River Floodplain Terrace	Yes	
46Su58		1485	1492.612	C	New River	River Floodplain Terrace	Yes	U
46Su60		1410	1413.435	B	New River	River Floodplain Terrace	Yes	D
46Su61		1410	1439.738	B	New River	River Floodplain Terrace	Yes	
46Su62		1460	-	C	New River	River Floodplain Terrace	Yes	
46Su128		1425	1442.796	C	Bluestone River/Surveyor's Branch	River Floodplain Terrace	Yes	
46Su165		1414	1441.083	C	New River	River Floodplain Terrace	Yes	
46Su186		1414	1452.773	C	Bluestone River	River Floodplain Terrace	Yes	
46Su187		1414	-	C	Bluestone River	River Floodplain Terrace	Yes	
46Su188		1415	-	C	New River	Upland Bench	Yes	
46Su189		1420	-	C	Bluestone River	River Floodplain Terrace	Yes	
46Su191		1470	1503.590	C	Indian Creek	Stream Terrace	Yes	
46Su193		1429	-	C	New River/Indian Creek	River Floodplain Terrace	Yes	
46Su194		1460	1461.769	C	New River/Indian Creek	River /Stream Terrace	Yes	
46Su195		1429	-	C	New River	River Floodplain Terrace	Yes	
46Su196		1429	1424.177	C	New River	River Floodplain Terrace	Yes	
46Su198		1525	1511.208	C	Indian Creek	Stream Terrace	Possibly	
46Su199		1525	1526.388	C	Indian Creek	Stream Terrace	No	
46Su200		1525	-	C	Bradshaw Creek	Stream Terrace	No	
46Su202		1429	1469.590	C	New River/Indian Creek	River Floodplain Terrace	Yes	

Table C-1. General Site Information for Archaeological Sites Located in USACE-Managed Areas at

Site	Figure Reference	WVSHPO Elevation (ft. amsl)	USACE 1998 Elevation (ft. amsl)	Impact Zone	Context	Landform	Within Maximum Flood Zone?	
46Su327		1570	-	C	New River/Indian Creek	Upper River Terrace	No	
46Su328		1520	1521.808	C	New River	Upper River Terrace	Possibly	Res
46Su329		1610	1578.081	C	New River	Upper River Terrace	No	
46Su330		1520	1547.044	C	New River	Upper River Terrace	Possibly	
46Su331		1500	1526.939	C	New River	Upper River Terrace	Possibly	
46Su345		1480	1565.459	C	Pipestem Creek	Stream Terrace	Possibly	
46Su358		1520	1489.285	C	New River/Tom's Run	River Floodplain Terrace	Yes	
46Su360		1520	-	C	New River	Upland Bench	Yes	
46Su375		1480	-	C	Bluestone River	River Floodplain Terrace	Yes	
46Su385		1560	1470.483	C	Bluestone River	River Floodplain Terrace	Yes	
46Su405		1560	1567.858	C	New River	Upper River Terrace	No	
46Su436		1600	-	C	New River	Upper River Terrace	No	
46Su437		1620	1618.169	C	New River	Upper River Terrace	No	
46Su441		1480	1466.864	C	New River	River Floodplain Terrace	Yes	
46Su450		1460	1473.091	C	New River	River Floodplain Terrace	Yes	
46Su471		1520	1492.333	C	Joshua's Run	Stream Terrace	Yes	
46Su505		1520	-	C	Indian Creek	Stream Terrace	Yes	
46Su506		1489	-	C	Indian Creek	Stream Terrace	Yes	
46Su507		1450	1434.984	C	Indian Creek	Stream Terrace	Yes	
46Su517		-	-	-	-	-	-	ch
46Su518		-	-	-	-	-	-	ch
46Su519		-	-	-	-	-	-	ch
46Su531		1600	1498.127	C	Indian Creek	Stream Terrace	Yes	
46Su549		1560	1593.140	C	Indian Creek	Stream Terrace	No	

Table C-1. General Site Information for Archaeological Sites Located in USACE-Managed Areas a

Site	Figure Reference	WVSHPO Elevation (ft. amsl)	USACE 1998 Elevation (ft. amsl)	Impact Zone	Context	Landform	Within Maximum Flood Zone?	
46Su592		1500	-	C	New River	River Floodplain Terrace	Yes	
46Su593		1480	-	C	New River	River Floodplain Terrace	Yes	
46Su601		1440	-	C	New River	River Floodplain Terrace	Yes	
46Su602		-	1540.860	C	Indian Creek	Stream Terrace	No	
46Su603		-	1522.297	C	Indian Creek	Stream Terrace	No	
46Su616		1600	1565.594	C	Bluestone River	Rockshelter	No	
46Su617		1540	1531.782	C	New River/Pipestem Creek	Upper River Terrace	No	
46Su618		1640	1726.532	C	Upland	Ridgetop	No	
46Su633		-	1587.113	C	New River	Upper River Terrace	No	
46Su634		-	1453.852	C	New River	River Floodplain Terrace	Yes	
46Su635		-	1532.766	C	New River	Upland Bench	No	
46Su636		-	1605.974	C	New River	Upland Bench	No	

H = Historic; P = Prehistoric; A = Archaic; EA=Early Archaic; MA = Middle Archaic; LA = Late Archaic; W = Woodland; EW=Ea
Middle Woodland; LW = Late Woodland; LP = Late Prehistoric; PH = Protohistoric

Table C-1. General Site Information for Archaeological Sites Located in USACE-Managed Areas a

Site	Figure Reference	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Context	Landform	Within Maximum Flood Zone?	
46Su206		1415	1449.056	C	New River/Indian Creek	River Floodplain Terrace	Yes	
46Su207		1550	1434.984	C	New River/Indian Creek	River /Stream Terrace	Possibly	
46Su208		1429	1466.191	C	New River/Indian Creek	River /Stream Terrace	Yes	
46Su212		1440	1462.933	C	New River/Indian Creek	River /Stream Terrace	Yes	
46Su244		1520	-	C	New River/Lick Creek	River Floodplain Terrace	Yes	
46Su270		1520	-	C	Lick Creek	Stream Terrace	Yes	
46Su271		1520	1503.153	C	Lick Creek	Stream Terrace	Yes	
46Su272		1520	1572.408	C	Lick Creek	Stream Terrace	Possibly	Salt W
46Su273		1520	1540.341	C	Lick Creek	Stream Terrace	Possibly	Salt W
46Su274		1520	-	C	Lick Creek	Stream Terrace	Yes	
46Su275		1520	1493.330	C	Lick Creek	Stream Terrace	Yes	
46Su276		1500	1486.162	C	Lick Creek	Stream Terrace	Yes	
46Su278		2140	-	C	Uplands	Ridgetop	No	
46Su279		1460	-	C	New River	Upper River Terrace	Yes	
46Su280		1800	2056.587	C	New River/Tom's Run	Ridgetop	No	
46Su281		1441	1448.698	C	New River/Tom's Run	River Floodplain Terrace	Yes	War R
46Su282		1440	-	C	New River	River Floodplain Terrace	Yes	
46Su290		1415	-	C	New River/Indian Creek	River /Stream Terrace	Yes	Ua
46Su306		1520	1510.236	C	Indian Creek	Stream Terrace	Yes	
46Su308		1500	-	C	New River/Indian Creek	Upper River Terrace	Yes	
46Su309		1540	-	C	Indian Creek	Stream Terrace	No	
46Su310		1420	-	C	New River	River Floodplain Terrace	Yes	
46Su325		1530	1460.082	C	New River	River Floodplain Terrace	Possibly	
46Su326		1425	1456.487	C	New River	River Floodplain Terrace	Yes	

Table C-1. General Site Information for Archaeological Sites Located in USACE-Managed Areas a

Site	Figure Reference	WVSHPO Elevation (ft amsl)	USACE 1998 Elevation (ft amsl)	Impact Zone	Context	Landform	Within Maximum Flood Zone?	
46Su9		1464	1474.492	C	New River	River Floodplain Terrace	Yes	
46Su10		1444	1454.505	C	New River	River Floodplain Terrace	Yes	
46Su12		1525	-	C	New River	Rockshelter	No	Roc
46Su13		1540	-	C	Indian Creek	Rockshelter	No	
46Su19		1424	-	C	New River	River Floodplain Terrace	Yes	U
46Su20		1428	1429.187	C	New River	River Floodplain Terrace	Yes	
46Su21		1460	1472.487	C	New River	River Floodplain Terrace	Yes	
46Su22		1441	1450.184	C	New River	River Floodplain Terrace	Yes	
46Su23		1435	1437.454	C	New River/Joshua's Run	River Floodplain Terrace	Yes	U
46Su24		1435	-	C	New River/Tom's Run	River Floodplain Terrace	Yes	
46Su28		1460	-	C	New River	River Floodplain Terrace	Yes	
46Su29		1450	-	C	New River/Cedar Branch	River Floodplain Terrace	Yes	
46Su39		1415	1421.756	C	New River	River Floodplain Terrace	Yes	D
46Su41		1415	1438.376	C	New River	River Floodplain Terrace	Yes	D
46Su42		1415	1423.780	C	New River	River Floodplain Terrace	Yes	D
46Su43		1415	1418.744	C	New River	River Floodplain Terrace	Yes	D
46Su44		1415	1424.033	C	New River	River Floodplain Terrace	Yes	D
46Su45		1415	1438.540	C	New River	River Floodplain Terrace	Yes	D
46Su47		1475	1473.780	C	New River	River Floodplain Terrace	Yes	
46Su48		1465	1467.363	C	New River	River Floodplain Terrace	Yes	
46Su49		1457	-	C	New River	River Floodplain Terrace	Yes	
46Su50		1466	1514.879	C	New River	River Floodplain Terrace	Yes	

Table C-2. Location, NRHP Eligibility, Curatorial Facility, and Accession Numbers for Archaeological Sites Loca
Areas at Bluestone Lake.

Site	NRHP Eligibility	Place of Curation	Accession #	References
44Gs10	Unknown	SI; VDHR	187541(SI), 298894 (SI); None	River Basin Surveys 1948; Solecki 1949;Hol
44Gs11	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
44Gs15	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
44Gs17	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
44Gs20	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
44Gs22	Unknown	Unknown	None	MacCord 1972
44Gs28	Unknown	Unknown	None	MacCord 1972
44Gs41	Unknown	N/A	N/A	Trout 1983; Trout 2003
44Gs42	Unknown	N/A	N/A	Trout 1983; Trout 2003
44Gs43	Unknown	N/A	N/A	Trout 1983; Trout 2003
44Gs44	Unknown	N/A	N/A	Trout 1983; Trout 2003
44Gs48	Unknown	VDHR	None	MacCord 1984
46Me19	Unknown	WVDHC	None	WVDCH Site Files
46Me20	Unknown	WVDHC	None	WVDCH Site Files
46Me21	Unknown	WVDHC	None	WVDCH Site Files
46Me103	Unknown	Unknown	Unknown	Trail 1989
46Me121	Unknown	Unknown	Unknown	Trail 1989
46Su1	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
46Su2	Unknown	N/A	N/A	River Basin Surveys 1948; Solecki 19
46Su3	Eligible	SI; UPCCRR; WVDCH	187541 (SI); None	River Basin Surveys 1948; Solecki 1949; Applegarth et al. 1978; et al. 1980; Marwitt 1982; Johnson 1984; Maslowski 1
46Su5	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
46Su6	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
46Su7	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19
46Su8	Unknown	SI	187541	River Basin Surveys 1948; Solecki 19

Table C-2. Location, NRHP Eligibility, Curatorial Facility, and Accession Numbers for Archaeological Sites Loca
Areas at Bluestone Lake.

Site	NRHP Eligibility	Place of Curation	Accession #	References
46Su56	Unknown	WVDHC	None	WVDCH Site Files
46Su58	Unknown	Unknown	Unknown	Dobbins 1979
46Su60	Unknown	Unknown	Unknown	Dobbins 1979
46Su61	Unknown	Unknown	Unknown	Dobbins 1979
46Su62	Unknown	Unknown	Unknown	WVDCH Site Files
46Su128	Unknown	Unknown	Unknown	WVDCH Site Files
46Su165	Unknown	Unknown	Unknown	WVDCH Site Files
46Su186	Unknown	Unknown	Unknown	WVDCH Site Files
46Su187	Unknown	Unknown	Unknown	WVDCH Site Files
46Su188	Unknown	Unknown	Unknown	WVDCH Site Files
46Su189	Unknown	Unknown	Unknown	WVDCH Site Files
46Su191	Unknown	Unknown	Unknown	Trail 1981
46Su193	Unknown	Unknown	Unknown	Trail 1981
46Su194	Unknown	Unknown	Unknown	Trail 1981
46Su195	Unknown	Unknown	Unknown	Trail 1981
46Su196	Unknown	Unknown	Unknown	Trail 1981
46Su198	Unknown	Unknown	Unknown	Trail 1981
46Su199	Unknown	Unknown	Unknown	Trail 1981
46Su200	Unknown	Unknown	Unknown	Trail 1981
46Su202	Unknown	Unknown	Unknown	Trail 1981
46Su206	Unknown	Unknown	Unknown	Trail 1981
46Su207	Unknown	Unknown	Unknown	Trail 1981
46Su208	Unknown	WVDHC	None	Trail 1981
46Su212	Unknown	Unknown	Unknown	Trail 1981
46Su244	Unknown	Unknown	Unknown	Trail 1982
46Su270	Unknown	Unknown	Unknown	Trail 1982
46Su271	Unknown	Unknown	Unknown	Trail 1982
46Su272	Unknown	Unknown	Unknown	Trail 1982

Table C-2. Location, NRHP Eligibility, Curatorial Facility, and Accession Numbers for Archaeological Sites Loc
Areas at Bluestone Lake.

Site	NRHP Eligibility	Place of Curation	Accession #	References
46Su273	Unknown	Unknown	Unknown	Trail 1982
46Su274	Unknown	Unknown	Unknown	Trail 1982
46Su275	Unknown	Unknown	Unknown	Trail 1982
46Su276	Unknown	Unknown	Unknown	Trail 1982
46Su278	Unknown	Unknown	Unknown	Trail 1982
46Su279	Unknown	Unknown	Unknown	Trail 1982
46Su280	Unknown	Unknown	Unknown	Trail 1982
46Su281	Unknown	Unknown	Unknown	Trail 1982
46Su282	Unknown	Unknown	Unknown	Trail 1982
46Su290	Unknown	Unknown	Unknown	Trail 1982
46Su306	Unknown	Unknown	Unknown	Holland and Trail 1983
46Su308	Unknown	Unknown	Unknown	Holland and Trail 1983
46Su309	Unknown	Unknown	Unknown	Holland and Trail 1983
46Su310	Unknown	Unknown	Unknown	Holland and Trail 1983
46Su325	Unknown	Unknown	Unknown	USACE 1983
46Su326	Unknown	Unknown	Unknown	USACE 1983
46Su327	Unknown	Unknown	Unknown	USACE 1983
46Su328	Unknown	Unknown	Unknown	USACE 1983; McBride and McBride
46Su329	Unknown	Unknown	Unknown	USACE 1983
46Su330	Unknown	Unknown	Unknown	USACE 1983
46Su331	Unknown	Unknown	Unknown	Maslowski and Woody 1984
46Su345	Unknown	Unknown	Unknown	Trail 1984
46Su358	Unknown	Unknown	Unknown	Trail 1985
46Su360	Unknown	Unknown	Unknown	Trail 1985
46Su375	Unknown	Unknown	Unknown	Trail 1986
46Su385	Unknown	Unknown	Unknown	Trail 1986
46Su405	Unknown	Unknown	Unknown	Trail 1986
46Su436	Unknown	Unknown	Unknown	Trail 1988

Table C-2. Location, NRHP Eligibility, Curatorial Facility, and Accession Numbers for Archaeological Sites Loc
Areas at Bluestone Lake.

Site	NRHP Eligibility	Place of Curation	Accession #	References
46Su9	Eligible	SI; ; UPCCRR; WVDCH	187541 (SI); None	River Basin Surveys 1948; Solecki 1949; Adavasio et al. 1980; J Johnson 1984;
46Su10	Unknown	SI	187541	River Basin Surveys 1948; Solecki 1
46Su12	Unknown	N/A	None	River Basin Surveys 1948; Solecki 1
46Su13	Unknown	N/A	None	River Basin Surveys 1948; Solecki 1
46Su19	Unknown	SI	187541	River Basin Surveys 1948; Solecki 1
46Su20	Unknown	SI; WVDHC	187541; None	River Basin Surveys 1948; Solecki 1
46Su21	Unknown	SI	187541	River Basin Surveys 1948; Solecki 1
46Su22	Eligible	SI; UPCCRR; WVDCH	187541 (SI); None	River Basin Surveys 1948; Solecki 1949; Adavasio et al. 1980; J Johnson 1984
46Su23	Unknown	SI	187541	River Basin Surveys 1948; Solecki 1949; Fa
46Su24	Unknown	SI	187541	River Basin Surveys 1948; Solecki 1
46Su28	Unknown	SI; WVDCH	187541; None	River Basin Surveys 1948; Solecki 1
46Su29	Unknown	SI	187541	River Basin Surveys 1948; Solecki 1
46Su39	Unknown	Unknown	Unknown	USACE 1979; Applegarth and Davis
46Su41	Unknown	Unknown	Unknown	USACE 1979; Applegarth and Davis
46Su42	Unknown	Unknown	Unknown	USACE 1979; Applegarth and Davis
46Su43	Unknown	Unknown	Unknown	USACE 1979
46Su44	Unknown	Unknown	Unknown	USACE 1979
46Su45	Unknown	Unknown	Unknown	USACE 1979
46Su47	Unknown	WVDHC	None	WVDCH Site Files
46Su48	Unknown	WVDHC	None	WVDCH Site Files
46Su49	Unknown	WVDHC	None	WVDCH Site Files
46Su50	Unknown	WVDHC	None	WVDCH Site Files
46Su52	Unknown	WVDHC	None	WVDCH Site Files
46Su53	Unknown	WVDHC	None	WVDCH Site Files
46Su54	Unknown	Unknown	Unknown	USACE 1979
46Su55	Unknown	WVDHC	None	WVDCH Site Files

Table C-2. Location, NRHP Eligibility, Curatorial Facility, and Accession Numbers for Archaeological Sites Loca Areas at Bluestone Lake.

Site	NRHP Eligibility	Place of Curation	Accession #	References
46Su437	Unknown	Unknown	Unknown	Trail 1988
46Su441	Unknown	Unknown	Unknown	Trail 1988
46Su450	Unknown	Unknown	Unknown	Trail 1988
46Su471	Unknown	Unknown	Unknown	Trail 1988
46Su505	Unknown	Unknown	Unknown	Trail 1989
46Su506	Unknown	Unknown	Unknown	Trail 1988
46Su507	Unknown	Unknown	Unknown	Trail 1988
46Su519	Unknown	Unknown	Unknown	McBride, Updike, and Bonshire 199
46Su531	Unknown	Unknown	Unknown	Trail 1990
46Su549	Unknown	Unknown	Unknown	Trail 1992
46Su592	Unknown	Unknown	Unknown	Trail 1993
46Su593	Unknown	Unknown	Unknown	Trail 1993
46Su601	Unknown	Unknown	Unknown	McBride, Updike, and Bonshire 1991; McB
46Su602	Unknown	Unknown	Unknown	McBride, Updike, and Bonshire 1991; McB
46Su603	Unknown	Unknown	Unknown	McBride, Updike, and Bonshire 1991; McB
46Su616	Potentially Eligible	CRAI-WV	None	Anslinger 1995
46Su617	Potentially Eligible	No Material Collected	None	Anslinger 1995
46Su618	Indeterminate	No Material	None	Anslinger 1995
46Su633	Not Eligible	GP	None	Tidlow et al. 1996; Purtill et al. 199
46Su634	Not Eligible	GP	None	Tidlow et al. 1996; Purtill et al. 199
46Su635	Not Eligible	GP	None	Tidlow et al. 1996
46Su636	Not Eligible	GP	None	Tidlow et al. 1996

SI = Smithsonian Institution; VDHR = Virginia Department of Historic Resources; WVDCH = West Virginia Division of Culture an University of Pittsburgh Center for Cultural Resource Research; GP = Gray and Pape, Inc., Richmond, Virginia; CRAI-WV = Cultur West Virginia Office.

APPENDIX D

Scope of Work

SCOPE OF WORK
HISTORIC PROPERTIES MANAGEMENT PLAN
Bluestone, Grayson, Paint Creek,
and North Fork Pound Lakes

1. Background.

The Huntington District, Corps of Engineers proposes to develop new or updated Historic Properties Management Plans (HPMPs) for Bluestone Lake (update) in West Virginia, Grayson Lake (update) in Kentucky, Paint Creek Lake (new) in Ohio, and North Fork Pound Lake (new) in Virginia at which the District has fee-owned property and easements.

2. Services Required.

The services required of the Contractor shall consist of completing four Historic Properties Management Plans incorporating information on all known cultural resources on lands in Bluestone Lake, Grayson Lake, Paint Creek Lake, and North Fork Pound Lake project areas owned in fee by the Corps of Engineers or subject to easements to which the Corps of Engineers is the grantee. The HPMPs shall comply with requirements set forth in Chapter 6-8 f of EP 1130-2-540, a copy of which is attached, and shall fully address the following topics: project Description and Background; Environmental Setting; Culture History; History of Cultural Resource Investigations; Cultural Resource Descriptions; Curation, Collections and Radiocarbon Dates; Impact Zones, Upland and Reservoir Processes and the Physical Integrity of Cultural Resources; Site Evaluations and the Identification of Archaeologically Sensitive Landforms; Management Priorities, Recommendations and General Policies. The HPMPs shall be of a quality and depth of coverage consistent with HPMPs prepared by the contractor for Dillon Lake (Church 2004) and Flannigan Reservoir (Morgan 2004).

Research for the HPMPs shall include a literature and records search, review of all contract reports, publications, papers, and other documents pertaining to cultural resources at the four reservoirs.

3. Materials provided by the Government.

The Huntington District will provide the contractor with the following:

A. Available maps depicting the project areas
B. Copy of the 1998 Bluestone HPMP document and copy of the 1998 Grayson HPMP document held by the Huntington District office and access to pertinent files and maps at that office
C. Access to pertinent documents at the reservoir office.

4. Reports.

A. The Contractor shall prepare a draft report for each of the four named lakes for the District and other agency review, and a final report for each of the four named lakes that addresses all the comments resulting from the review and comment process.

C. Both draft and final reports shall be printed on 8 $^1/_2$ x 11 inch paper with 1 inch top and bottom margins, and a 1 $^1/_4$ inch binding margin. The text shall be in an easily readable type such as 10 or 12 point Arial or Times New Roman. The final report text shall be single-spaced and pagination shall conform to standard front-to-back printing requirements. The final report shall be printed on fully white, 20 lb. offset paper. The reports shall be carefully proofread and edited by the Contractor to be reasonably free of error.

D. Photographs and illustrations shall be included when appropriate. All photographs included in the final reports shall be good quality; the draft reports may use good quality photocopy reproductions. Oversized figures shall be formatted to an 11 x 17-inch page size with adequate margins.

E. Report submittal. Three (3) copies of each of the four draft reports (two bound and one unbound) shall be submitted to the District for review and comment. One original unbound final copy and five (5) bound final copies of each of the four reports shall be submitted to the District. Each of the four final reports shall be accompanied by one floppy disk, zip disk or CD, formatted on an IBM compatible computer, containing a copy of the report using Microsoft Word software.

F. Publishing Restrictions. Neither the Contractor nor his representative shall release or publish any sketch, photograph, report, or other material of any nature obtained or prepared under this contract without specific written approval of the Contracting Officer or his authorized representative. Records of site locations are considered to be internal documents and are not for public distribution. All reports, drawings, maps, photographs, notes, and other material developed in the performance of this contract shall be and remain the sole properties of the Government and may be used on any other work without additional compensation to the Contractor. The contractor agrees not to assert any rights and not to establish any claim with respect thereto.

5. Schedule of Work.

The contractor shall follow this schedule:

Notice to Proceed	Begin Work
January 27, 2006	Submit Draft Reports
March 31, 2006	Submit Final Reports

6. REFERENCES CITED

Church, Flora
2004 Historic Properties Management Plan for Dillon Lake in the Muskingum River Watershed, Ohio. Cultural Resource Analysts, Inc. Hurricane, WV.

Morgan, Vera E.
2004 Historic Properties Management Plan for John Flannagan Reservoir, Dickenson County, Virginia. Cultural Resource Analysts, Inc., Lexington, KY.

Determination of Eligibility Assessments of Bluestone Dam and County Route 23, Vicinity of Hinton, Summers County, West Virginia

January 15, 1997

Prepared for:

U.S. Army Corps of Engineers
Huntington District
Huntington, WV

For more information contact:
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ABSTRACT

Determination of Eligibility Assessments were conducted for Bluestone Dam and for an abandoned section of the former County Route 23, both located in the vicinity of Hinton, Summers County, West Virginia. The purpose of this investigation was to evaluate these structures according to the minimum requirements for inclusion to the National Register of Historic Places. The research and field visit for these eligibility assessments were completed in July and August of 1996.

Bluestone Project was authorized in 1935 by Executive Order 7183-A, signed by President Franklin D. Roosevelt, as a multipurpose project for flood control and generation of hydroelectric power. (Authorization was later expanded to include recreation and fish and wildlife enhancement.) Due to litigation (U.S. *v.* Appalachian Power Co.), dam construction did not commence until January 1942. The dam was completed in 1948. This dam was the first flood control dam built in West Virginia by the U.S. Army Corps of Engineers, Huntington District. Tygart Dam, built near Grafton by the Pittsburgh District of the U.S. Army Corps of Engineers, was the first flood control dam built in West Virginia.

Bluestone Project includes the dam, the reservoir (Bluestone Lake) and adjacent lands. The determination of eligibility was performed for Bluestone Dam, a feature of the Bluestone Project. Features of the dam include a concrete gravity dam, spillway, stilling basin and outlet works. The dam is a concrete gravity structure with a maximum height above stream channel of 165 feet. The overall top length is 2,048 feet at elevation 1,535 feet. All work was completed for the Bluestone Project, to which recreational purposes had also been added, in 1952.

The Bluestone Dam has saved hundreds of millions of dollars as a direct result of flood control in the New River and Kanawha River Valleys. Bluestone Project employed many of the people from the region during its construction and continues to have a positive economic impact by attracting over one million visitors a year. Bluestone Dam is eligible for the National Register under Criterion A for the themes of law, politics and government, economics, and conservation. Additional work is recommended to identify contributing and non-contributing resources associated with the Bluestone Project and identify boundaries if impacted.

County Route 23 was originally a secondary road that provided a transportation thorofare for people living in the rural areas along the east side of the New River from Hinton southward. The road was built prior to 1873. The section of County Route 23 under study was paved with concrete sometime between 1908 and 1937. The road surface is a concrete slab measuring up to 9 feet wide, 4 inches thick, and approximately 0.2 miles long. The road was modified during construction of the Bluestone Project (1935-52). The road is not associated with an event (Criterion A) or person (Criterion B) important to the region. The road will not significantly add to our understanding of road construction technology

(Criterion C) nor will it significantly contribute to our understanding of the history of the region (Criterion D). Therefore, the road does not appear to meet the minimum criteria for listing on the National Register of Historic Places. No additional work is recommended for this structure.

2.0 BLUESTONE DAM DETERMINATION OF ELIGIBILITY

2.1 Summary Statement

Bluestone Dam is a concrete gravity dam located on the New River approximately 0.7 miles upstream from the mouth of the Greenbrier River in Summers County, West Virginia (Figure 1). Bluestone Dam and Reservoir (Bluestone Lake) and some adjacent property is owned by the U.S. Army Corps of Engineers. The dam, reservoir and adjacent properties comprise the Bluestone Project. The determination of eligibility was performed for the dam, not for Bluestone Project. Bluestone Dam was the first flood control dam built by the Huntington District of the U.S. Army Corps of Engineers in West Virginia, and is still the longest concrete gravity dam operated in the state by the district. Tygart Dam, built by the Pittsburgh District of the U.S. Army Corps of Engineers, was the first flood control dam built in West Virginia. The Bluestone Project was authorized by Executive Order of President Franklin D. Roosevelt on September 12, 1935, and the Flood Control Acts of June 22, 1936, and June 28, 1938, as a multipurpose project that included flood control and production of hydroelectric power (U.S. Army Corps of Engineers 1950). Currently, Bluestone Dam provides flood control downstream along the New River, and with other dams on the Gauley and Elk Rivers, flood control throughout the Kanawha River Valley. The topography of the region above and below the dam is characterized generally by deep stream valleys and steeply sloping hillsides. The setting of the Bluestone Reservoir is similar to a Norwegian fjord in terms of appearance and beauty (Lady 1983). Dravo Corporation was awarded the contract to build the dam in January 1942. Due to other strategic demands from World War II, work on the Bluestone Project was suspended from March 1944 to January 1946 (U.S. Army Corps of Engineers 1950:3). The dam was completed in November 1948 but other work relating to the project was not completed until 1952 at a total cost of about $28.6 million (U.S. Army Corps of Engineers 1950:3; 1981). Bluestone Dam is approximately 2,048 feet long, 165 feet high, 16 feet wide at the top and 200 feet wide at the base. Water discharge is controlled by 16 sluices, 21 crest gates, and a stilling basin. Six penstocks for future hydroelectric power generation were built into the dam but are not utilized as power is not generated. Operating purposes of the project were modified by the Flood Control Act of 1944 (PL 78-534) to include recreational activities and by the Fish and Wildlife Coordination Act of 1958 (PL 85-624) to include fish and wildlife enhancement. Neither of these later purposes have affected the dam itself. A few minor modifications have been made to the dam since its completion. These changes have not affected the integrity of the dam, which is excellent.

2.2 Description of Bluestone Dam

Bluestone Dam is a concrete gravity dam with an ogee spillway (U.S. Army Corps of Engineers 1949:4). The dam is on the New River just south of Hinton in Summers County, West Virginia. The dam was designed for flood control and hydroelectric power generation. Bluestone was one of four proposed dam sites recommended to control

3.0 COUNTY ROUTE 23 DETERMINATION OF ELIGIBILITY

3.1 Summary Statement

A section of County Route 23 (Route 23) is located on the east side of the New River between Bellepoint and Bluestone Dam in Summers County, West Virginia. This road section, lying wholly within the U.S Army Corps of Engineers property, is approximately 0.2 miles in length. It extends from the south end of Cedar Avenue in Bellepoint southward to a bridge across Packs Branch, an intermittent stream which empties into the New River (Figure 5). This abandoned road section is not shown on most recent maps (Figure 1). This north-south trending road was cut into the side slope of hills lining the New River Valley. Bluestone Dam and its reservoir inundated most of Route 23 between Bluestone Dam and the mouth of Indian Creek to the south. The U.S. Army Corps of Engineers built a new road to service the area formerly accessed by Route 23 as part of the work associated with constructing the Bluestone Project. This small section of Route 23 under evaluation was below the dam itself and was not inundated. The road section can be accessed on its southern end from a U.S. Army Corps of Engineers service road. The north end is blocked off by a guard rail which prevents access from Bellepoint by motorized vehicles. This section of Route 23 is reputed to be the first concrete road in Summers County (Saunders 1984). The road has a 2- to 3-foot-wide berm on the west side and a 3-foot-wide drainage ditch along the east side. The concrete surface varies in width between 8.5 to 9.0 feet and is 4 inches thick. The concrete is comprised of a high proportion of large, angular aggregate material. Currently, various portions of the road are either undercut by erosion, broken-off, cracked, and/or grass covered. This section of Route 23 was paved sometime between 1908 and 1937 and has been unchanged by man since 1952 when the Bluestone Project was completed.

3.2 Description of County Route 23

This section of County Route 23 is approximately 0.2 miles in length running from the south end of Cedar Avenue in Bellepoint southward to a bridge across a small stream referred to as Packs Branch. Approximately 14 to 15 feet of hillslope was leveled to create this road including up to 9 feet for the road surface, 3 feet for a drainage ditch along the east side of the road, and up to 3 feet for a berm on the west side of the road. The road lies just above the floodplain of the New River at an elevation of 1,410 feet to 1,425 feet Above Mean Sea Level. The concrete slab forming the road varied from 8.5 feet to 9.0 feet in width. This road width appears to be atypical since sections of West Virginia Route 3, located nearby and paved between 1917 and 1930, varied in width from 16 to 30 feet (State Roads Commission of West Virginia 1941: 481). A narrow (9-foot-wide) road would have made it difficult for two-way traffic. Therefore, this road section probably had a light volume of traffic. The drainage ditch observed along the east side of the road edge would have been necessary to prevent runoff from the hillslope from washing out the road. Portions of the road base on this side have been washed away,

4.0 SUMMARY

Determination of Eligibility Assessments were conducted on Bluestone Dam and an abandoned section of the former County Route 23, both located in the vicinity of Hinton, Summers County, West Virginia. The purpose of this investigation was to evaluate whether these structures meet the minimum requirements for inclusion to the National Register of Historic Places. The research and field visit for the eligibility studies were done in July and August, 1996.

Bluestone Project was authorized in 1935 by an Executive Order 7183-A signed by President Franklin D. Roosevelt as a multipurpose project that included flood control and generation of hydropower. Due to legal complications, the actual work on the dam did not commence until January 1942. The litigation (U.S. *v.* Appalachian Power Co.) led to a landmark decision by the U.S. Supreme Court which expanded the control of the Federal government over the nation's waterways. During this interim period of litigation, work was restricted to land acquisition, field studies, land clearing, project design and modeling studies. The dam was not completed until 1948 due to a work suspension during part of World War II.

This dam was the first flood control dam built in West Virginia by the U.S. Army Corps of Engineers, Huntington District. The dam is a concrete gravity dam measuring 2,048 feet wide and 165 feet high. All work for the Bluestone Project, except for the hydropower component but including recreational facilities, was completed in 1952. The Bluestone Dam has saved hundreds of millions of dollars as a direct result of its flood control in the New River and Kanawha River Valleys. The Bluestone Project employed many people from the region during its construction and continues to have an additional positive economic impact by attracting over one million visitors a year.

Bluestone Dam is eligible for the National Register under Criterion A for the themes of law, politics and government, economics, and conservation. Additional work is recommended to identify contributing and non-contributing resources associated with the Bluestone Project and identify boundaries if impacted.

County Route 23 was originally a secondary road that provided an early thorofare for people living in the rural areas on the east side of the New River from Hinton southward. The road was built prior to 1873. The small section of County Route 23 in this investigation was paved with concrete sometime between 1908 and 1937, making it one of three paved roads in the county in 1937. The road surface is a concrete slab measuring up to 9 feet wide, 4 inches thick, and approximately 0.2 miles long. The road was modified during design and construction of the Bluestone Project (1935-52).

The road is not associated with an event (Criterion A) or person (Criterion B) important to the region. The road will not significantly contribute to our understanding of road construction technology (Criterion C) nor to our understanding of the history of the region

(Criterion D). Therefore, the road does not appear to meet minimum criteria for listing on the National Register of Historic Places. No additional work is recommended for this structure.

WEST VIRGINIA DIVISION OF
CULTURE AND HISTORY

October 8, 1997

Mr. James S. Everman
Chief, Planning Division
Dept. of the Army
502 Eighth Street
Huntington, WV 25701-2070

RE: Bluestone Dam and County Route 23

FR# 94-314-SU

Dear Mr. Everman:

We have received the above referenced project for review as required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties."

We accept the recommendations of the Determination of Eligibility Assessments of Bluestone Dam and County Route 23 with one qualification. The report does not directly discuss the application of Criterion C for the Dam. In Section 2.6 it is recommended that a study be undertaken to identify contributing and non-contributing resources and to evaluate appropriate boundaries. We concur with that suggestion. This study should include the evaluation of Criterion C for the dam. In conclusion, we concur that the Dam is eligible and that County Road 23 is not. We appreciate the opportunity to be of service. If you have any questions, please contact me.

Sincerely,

Susan M. Pierce

Susan M. Pierce
Deputy State Historic Preservation
Officer for Resource Protection

SMP:ts

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WEST VIRGINIA DIVISION OF
CULTURE AND HISTORY

July 14, 2000

Mr. A. B. Borda, Jr.
U.S. Army COE
Attn: CEORH-PD-B
502 Eighth Street
Huntington, WV 25701

RE: Bluestone Dam and County Route 23
FR#: 94-314-SU-12

Dear Mr. Borda:

We have reviewed "Determination of Eligibility Assessments of Bluestone Dam and County Route 23, Vicinity of Hinton, Summers County, West Virginia" report for the above mentioned project to determine its effects to cultural resources. As required by Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

The current project was the subject of a meeting held on July 11, 2000 at the Bluestone Dam and attended by Ms. Susan M. Pierce and Mr. Marc Holma, both of the West Virginia State Historic Preservation Office, and Dr. Robert Maslowski and Messrs. David Eskridge and Sandy Nessmith, all of the Army Corps of Engineers. At this meeting the representatives from the WV SHPO concurred with the subject report that states the Bluestone Dam is eligible for listing in the National Register under Criterion A for its significance in the themes of law, politics, government, economics, and conservation. The assembled parties also agreed that the proposed improvements to the resource constitute an *Adverse Effect* and that a Memorandum of Agreement (MOA) is necessary in order to mitigate the undertaking's impacts to the Bluestone Dam.

The follow stipulations were discussed and tentatively consented to at the July 11th meeting.

Stipulation 1: Development of a detailed history of Bluestone Dam covering its planning, engineering, construction, and significance in the above referenced themes.

Stipulation 2: Revision of the Corps of Engineers' web site to include historical information and historic photographs of the Bluestone Dam.

Stipulation 3: Development of a brochure on the history of Bluestone Dam for distribution to visitors and school groups.

Stipulation 4: Upgrade and improvement of displays at the Visitors Center once these projects are complete.

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Stipulation 5: Incorporate into the new design an area where visitors can view Bluestone Lake from the dam once the project is complete.

Please submit the draft MOA for our review and comment at your earliest convenience.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please call Marc Holma, Senior Structural Historian for Review and Compliance, at (304) 558-0220, Ext. 723.*

Sincerely,

Susan M. Pierce

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP: mh

cc: Dr. Robert Maslowki
Archaeologist
U. S. Army Corps of Engineers
502 8th Street
Huntington, West Virginia 25701

1997 Phase I Cultural Resources Report

94-314-54-1

Phase IA Cultural Resources Investigation for the Bluestone Dam Safety Assurance Program

by

Gloria Gozdzik
Shelley C. Birdsong
L. Jesse Rouse

Prepared for

the U.S. Army Corps of Engineers
Huntington District
Huntington, WV

Prepared by

Horizon Research Consultants
Rt. 4, Box 320
Morgantown, WV 26505
(304) 599-5799

September 30, 1997

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers (COE), Huntington District, proposes to modify the Bluestone Dam, Hinton, West Virginia, so that it will safely accommodate the probable maximum flood. Three alternatives are under consideration. An Environmental Impact Statement is being written to assess the effect of each alternative. The National Historic Preservation Act of 1966, Section 106, requires that the COE "take into account" how the proposed modifications could affect historic properties located in the study area. This Phase IA cultural resources investigation was conducted to determine baseline conditions for the study area. The study area extends from Narrows, Virginia, to Point Pleasant, West Virginia.

Materials researched for this literature review include the archeological and historic site files at the West Virginia Division of Culture and History, Historic Preservation Office (WVDCH), and the Virginia Department of Historic Resources (VDHR). Additionally, the COE database of archeological sites from the Bluestone Reservoir was reviewed. Several cultural resource management reports from Phase I, II, and III investigations in and near the area encompassed by the Bluestone Dam Safety Assurance (DSA) Program study area were reviewed to gain an understanding of the type of identified sites which may be affected.

Library searches were conducted at the Wise and Colson Libraries at West Virginia University, the Hillman Library at the University of Pittsburgh, and the National Park Service New River Gorge Park Office Library at Glen Jean, West Virginia. Materials researched included journals and magazines such as *West Virginia Archeologist*, various numbers of the *Proceedings of the New River Symposium*, *Goldenseal*, *Pennsylvania Archeologist*, *Wonderful West Virginia*, and *American Antiquity*. Several local and county histories were reviewed as well. References were supplemented by the use of various sources on the Internet, including the World Wide Web and its menu-driven text browser, Gopher. Other libraries and collections were accessed via these electronic sources and searched for relevant materials (e.g., the West Virginia Archeological Research Library, the National Archeological Database, and the National Center for Preservation Technologies and Training (NCPTT) Gopher site).

U.S. Geological Survey (USGS) 7.5 Minute Series quadrangle maps, West Virginia State Historic Preservation Office site files, Virginia Department of Historic Resources site files, and county files containing location data for archeological sites and historic structures in the study area were examined. The locations and agency designations of all recorded archeological resources and National Register historic districts were transferred to project maps. Site forms for prehistoric properties were reviewed, and National Register properties were reviewed and tabulated. A field review was not conducted to discover or assess other potentially eligible prehistoric or historic properties which could be located within the study area.

Many cultural resource surveys have been conducted in the region downstream of Bluestone Dam extending to the Ohio River, but only one has been conducted upstream of the dam (Solecki, 1949). To date, only three archeological sites (46SU3, 46SU9 and 46SU22) have been significantly tested in the upstream area. The most recent test excavations of these sites are from the 1970s and provide the only source of interpretation on the prehistoric use of the upstream area.

The study area contains a full range of cultural resources, including prehistoric and historic archeological sites, historic structures, and designated historic districts. The study area has been divided into four geographic areas which are identified as Reconnaissance Areas 1, 2, 3, and 4. Within Reconnaissance Area 1 there are 235 prehistoric and historic archeological sites, 3 historic districts, and 14 historic properties. Within Reconnaissance Area 2 there are 24 prehistoric and historic archeological sites, 1 historic district, and 26 historic properties. Within Reconnaissance Area 3 there are 133 prehistoric and historic archeological sites, 7 historic districts, and 67 historic properties. Within Reconnaissance Area 4 there are 154 prehistoric and historic archeological sites, 2 historic districts, and 112 historic properties.

5.0 CONCLUSIONS

The Bluestone Dam was evaluated by the U.S. Army Corps of Engineers (COE) to determine if it complied with state-of-the-art design criteria with respect to hydrologic and seismic adequacy. The COE proposes to modify the dam so that it will safely accommodate the probable maximum flood (PMF). In the event of the PMF, the proposed modifications could cause changes in inundation patterns in Virginia and West Virginia.

This literature review was performed to identify cultural resources which could be potentially impacted by modifications to Bluestone Dam and subsequent inundation in the event of the PMF. The review consisted of a compilation of pertinent literature related to archeological and historical research in and near the study area, which extends from Narrows, Virginia, to Point Pleasant, West Virginia. Limits of the study area and major features identified during this study are indicated on the maps provided in Attachment 8-II.

According to information in "The New River in the Bluestone Project Area Narrows, VA-Bluestone Lake, WV," prepared in 1993, "[t]he cultural features of the New River in the Bluestone Project Area are not as well known as those on other sections of that river," (National Committee for the New River, 1993: 22). In addition, authors of the "New River Parkway Concept Plan" stated: "The settlements and farms in the remote ridges, valleys, and narrow bottoms remain much as they were many years ago. The history of this region is evident in the cultural and natural landscape of today," (New River Parkway Authority, 1991: 17).

The study area contains a full range of cultural resources including prehistoric and historic archeological sites, historic structures, and designated historic districts. Based upon records maintained by the West Virginia State Historic Preservation Office, the Virgina Department of Historic Resources, the National Register of Historic Places, and other published and unpublished literature, these cultural resources are distributed throughout the study area. Although many cultural resource surveys have been completed in the downstream area, only one has been conducted upstream of the dam (Reconnaissance Area 1) (Solecki, 1949). Excavations of these upstream sites from the 1970s provide the only source of interpretation on the historic use of the area.

The study area was divided into four geographic areas identified as Reconnaissance Area 1, 2, 3 and 4. Within Reconnaissance Area 1 there are 235 prehistoric and historic archeological sites, 3 historic districts and 14 historic properties. Within Reconnaissance Area 2 there are 24 prehistoric and historic archeological sites, 1 historic district and 26 historic properties. Within Reconnaissance Area 3 there are 133 prehistoric and historic archeological sites, 7 historic districts and 67 historic

properties. Within Reconnaissance Area 4 there are 154 prehistoric and historic archeological sites, 2 historic districts and 112 historic properties.

WEST VIRGINIA DIVISION OF
CULTURE AND HISTORY

February 2, 1998

Mr. James S. Everman
Chief, Planning Division
Dept. Of the Army
502 Eighth Street
Huntington, WV 25702-2070

RE: Bluestone Safety Assurance Program;
Phase IA Cultural Resources Study
FR: 94-314-SU

Dear Mr. Everman,

We have reviewed the following final report: "Phase IA Cultural Resources Investigation for the Bluestone Dam Safety Assurance Program", submitted by Horizon Research Consultants. In accordance with Section 106 of the National Historic Preservation Act, we submit our comments on the above referenced project.

We find the final report to be comprehensive and acceptable. We look forward to working with the Huntington District to the completion of this Project.

We appreciate the opportunity to review this project. If you have any questions, please contact Patrick Trader, Senior Archaeologist.

Sincerely,

Susan M. Pierce

Susan M. Pierce
Deputy State Historic Preservation
Officer for Resource Protection

SMP:PDT

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