

An Archaeological Survey and Assessment  
of The Proposed  
Carolina Power and Light Mayo Creek  
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## ABSTRACT

During March and April 1977, the Research Laboratories of Anthropology, under contract with the Carolina Power and Light Company, conducted an archaeological survey and impact assessment of the proposed Mayo, also referred to as Maho, Creek Reservoir Project. The major feature of the project was the reservoir itself, which at flood capacity will inundate some 2,800 acres of the Mayo Creek valley in the northeast corner of Person County. The lake will be approximately nine miles long and extend from a point about one half mile south of the North Carolina-Virginia border to a point roughly three miles south of the Mayo Creek-N.C. 49 crossing. Normal pool elevation will be 434 feet (MSL). An ash pond comprising some 250 acres is planned for the area immediately west of the dam site, and a power plant is to be located on approximately 20 acres in the vicinity of the SR 1501 and SR 1502 intersection.

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## INTRODUCTION - METHODOLOGY

The first step in developing a survey strategy for the project was to check the North Carolina Archaeological Site Files at the Research Laboratories of Anthropology to determine if any known prehistoric or historic sites were within the impact zones. A review of the files indicated that there were no previously recorded sites involved, however, some sites had been discovered in the general vicinity of the project site. By studying these sites and associated specimens, it was possible to develop some tentative ideas concerning what to expect within the impact areas and to develop an effective, as well as efficient, survey methodology.

After reviewing the available records and materials, the survey area was visited, and one entire day was spent driving and walking through it for the purpose of making additional notes. All dirt roads and farm trails were located, and those not indicated on the available maps were plotted in. Attempts were made to talk to local residents whenever possible, and a general "feel" for the area was acquired. This initial visit not only provided the investigators with needed cartographic familiarity, but more importantly, the overall topography and environment assessed in terms of its potential influence on the location and preservation of aboriginal and historic settlements.

Based on this initial reconnaissance and the review of sites in the general vicinity, the impact area could be divided into three broad environmental zones, each with varying potential for producing significant

archaeological data. The zone considered to offer the most productive possibilities was the flood plain along Mayo Creek. It ranged in width from a little over half a mile near the dam site to less than a tenth of a mile in the southern reaches of the impoundment area (Plates I & II). The broad flat fields lying along both sides of SR 1501 in the northern part of the reservoir were considered to offer a very high probability for concealing intact prehistoric cultural deposits (Plate II). On the other hand, the narrow, sometimes swampy, bands of alluvium south of SR 1512 were assigned a much lower probability (Plate I).

The environmental zone considered to be second in importance was comprised of the gently rolling bluff tops which flanked the flood plain on both sides of Mayo Creek and rose directly from the narrow valleys and gulleys which provided channels for several small intermittent feeder streams. This zone also dominated the landscape at the power plant and ash pond sites. Based on considerable experience with North Carolina Piedmont archaeology, it was felt that there was a good chance that many of these bluff tops had been utilized by aboriginal peoples, but at the same time, experience has shown that sites of this nature are usually thin and severely disturbed by plowing and erosion. Consequently, these sites normally lack contextually meaningful inter-specimen spatial relationships, as well as even ephemeral evidence of structures or features. Finally, it should be noted that this zone, after the initial reconnaissance, appeared to be a favorite location for structures with potential historical significance.



Plate I  
Narrow Flood Plain in the Southern Part of the Reservoir



Plate II  
Broad Bottoms Near the Dam Site

The final environmental zone was defined by the moderate to steeply sloping bluff flanks. This zone was the most prevalent in terms of area but offered the least likelihood of producing significant historic or prehistoric sites. Since there were no rock shelters in the area, even if these slopes were occupied, the possibility of this evidence being preserved in any significant context was infinitesimal.

After carefully studying the maps and determining the extent and potential of each of the environmental zones, a two-man survey team returned to the field to conduct an on-foot survey of all the impact areas. A large portion of the bottom land and bluff tops had been recently plowed, while other sections were somewhat ensconced by the initial weed sere of old field succession. But, in general, ground surface visibility varied from good to excellent and allowed for more than adequate inspection. The bluff slopes, however, were normally populated by hardwood stands, and the ground surface was usually concealed by leaf litter and humus. To compensate for the lack of ground surface visibility, the 01 and 02 horizons were removed at regular intervals along the slopes with moderate incline between SR 1512 and SR 1501 and in the vicinity of the ash pond and the plant site. Erosional patches, stump holes, cattle trails, and any other naturally occurring bare surfaces were checked for historic and prehistoric materials throughout the project area.

## ENVIRONMENT - GENERAL

This survey area is within the region termed the Piedmont Plateau, and is characterized by moderate, low lying relief, well rounded hills, and gently sloping valleys (Laney 1917:60). The elevation in Person County ranges from 400 to 650 feet above sea level (Jurney, Bacon, and Morgan 1928:31). Streams in the region are well graded, and most are not swift flowing. The underlying rocks, of Paleozoic and pre-Cambrian origin, are igneous and sedimentary types that have suffered intense dynamic metamorphism, changing into schists and gneisses. The area has been considered stumps of ancient mountains that have been worn away (Laney 1917:60). Under pristine conditions, the extensive weathering of this region would lead to a thick soil covering the underlying decomposed rocks.

The major relief in the survey area is the Virgilina ridge, running north-northeast to south-southwest, slightly to the east of Mayo Creek. Some rivers which cross the ridge have rugged topography, the most marked example being the Dan River which crosses the rocks perpendicular to the strike of the schistosity, causing steep slopes. The Dan River is joined by the Bannister, Roanoke, and Hyco Rivers. The Hyco River receives Blue Wing, and Mayo Creek from the east (Laney 1917:3). During portions of the year when rainfall is heavy, smaller streams are numerous and during the late spring-early summer rains, the streams frequently overflow their banks, flooding considerable portions of their valleys (Laney 1917). Thus, the area is dominated by a well defined dendritic drainage pattern.



As mentioned, the geology of the area consists of igneous and highly metamorphosed rocks. The Virgilina District includes metamorphic gneisses and schists; volcanic rocks and volcano-sedimentary material; intrusive rocks such as gabbro and granite; and red-brown sandstones (Laney 1917:14). In the survey area, the main rock types are Hyco Quartz Porphyry, Aaron Slate, and Virgilina Greenstone.

The Hyco Quartz Porphyries occur in narrow bands, which lie above mica and hornblende gneisses. These rocks are quartz which has been changed by metamorphism into quartz sericite schist. They are highly siliceous, being somewhat similar to rhyolite, and have a light gray color. These rocks would be suitable for flintknapping, but few natural outcrops occur, and generally the quartz porphyries are exposed only by stream channels. In some areas relatively unaltered quartz veins are found (Laney 1917:20-22).

Aaron Slate is a mixture of andestic volcanic ash and ordinary land waste, which has been metamorphosed into "hybrid slate." The rock ranges in quality from a pure greenstone to argillaceous sandstone and slate, with some of the material producing a conchoidal fracture. This formation overlies the Hyco Quartz Porphyry, but generally does not outcrop (Laney 1917:19).

The Virgilina Greenstones are altered porphyritic andesite flows and tuffs (a tuff is volcanic ash and dust). The color is a grayish-green, and natural outcrops are not plentiful.

Three major soil types are found in the Mayo Creek area: Congaree silt loam, Alamance silt loam, and Georgeville silty clay loam. The Congaree silt loam is found only in the immediate valley of Mayo Creek,

covering about a quarter of a mile on either side of the creek. This is an alluvial soil, formed by the deposition of sediment (mainly Georgeville soils) carried by the runoff waters from the slopes, and from fine materials washed from upland soils. The Congaree soils are frequently flooded for brief periods, and drainage in low areas is inadequate. The slope of land characterized by this soil type is 0 to 2 percent. The soil is low in organic matter, and is slightly acidic (pH 6.5). A typical soil profile indicates an Ap horizon, 6 to 10 inches thick, of brown silt loam, followed by a B horizon of a lighter brown, heavier soil. The water table fluctuates at about 2.5 feet below the surface, at 3 feet the soil grades into blue-gray silty clay, and at a depth of five feet bedrock is hit (Jurney and Davis 1930; Jurney, Bacon, and Morgan 1928; USDA 1939).

The Alamance silt loam is found in only a limited portion of the survey area, on the bluffs situated on the right bank of Mayo Creek, east of Bethel Hill. The soil is generally found on broad interstream divides, and rarely on slopes. Drainage is moderate, and a typical soil profile reveals a light gray silt loam to 2 inches, and a pale yellow friable silt loam to eight inches, composing the Ap horizon. Below this is yellow friable silty clay to 2 feet, and a mottled brown and gray soft, decomposed rock below that (Jurney, Bacon, and Morgan 1928:19). Fragments of platy and angular slate, and quartz are locally present (USDA 1939:1064).

The Georgeville silty clay loam soils make up 85 percent of the survey area, and have slopes of 2 to 15 percent. This upland soil was formed under forest vegetation from phyllite and Carolina slates. As

a result the soils are low in inherent fertility, and organic content. The pH of the soils ranges from 5.1 to 5.5, and much of the "red land" is rocky (Kirby 1976:14). The Ap horizon is a red-brown silty clay, usually 5 to 7 inches thick, followed by a B horizon of red smooth clay or silty clay to a depth of three feet. Below is a soft, decomposed slate rock (Jurney, Bacon, and Morgan 1928:15-16).

These soils, with the exception of the Congaree Series, were formed from the underlying rocks, generally fine-textured slates. As a result, the original soils were high in silt content. Today there are numerous changes as a result of surface configuration and rainfall. Erosion and gullying is common, changing not only surface features, but also the texture of the soil (Jurney, Bacon, and Morgan 1928:31). The top soil (A horizon), a sandier, siltier material, is gone, exposing the underlying heavier material of the B horizon. Thus, most of the cultivated soil today is rocky, with the plowing exposing more of the underlying decomposed slates and quartz (Plate III).

The extant vegetation of the survey area is oak-pine-hickory, and the area belongs to the Oak-Pine forest region (Braun 1950, Kuchler 1964) (Plate IV). This area is transitional between the Oak-Hickory region and the Southern Evergreen forest region, but was apparently dominated by oaks and hickories in pre-contact times (Braun 1950). The pines persist from an earlier successional stage on poorer soils, and in drier sites. The large number of pines in the Piedmont today is a result of the extensive clearing; pines are usually the first invaders of abandoned fields. Forest succession may also have direct impact on prehistoric settlement



Plate III  
Rocky Soils Typical of Bluff Tops



Plate IV  
Vegetation Typical of Survey Area

patterns. It is repeatedly observed that Archaic sites are frequently situated on "hilltops," and thus Braun's (1950:264) remark that "originally the pines were confined to hilltops" may be of importance.

Oosting (1942:106) distinguishes a postclimax forest on stream bottoms. Paralleling Mayo Creek there is a bottomland community of river birch, black willow, cottonwood, sycamore, and sweet gum.

There has been considerable divergence in the type of vegetation present in the survey area today, and that which existed from 8000 B.C. to contact. Col. William Byrd, surveying the North Carolina-Virginia border in 1728-29, mentioned that the soil was "cloath'd with large trees of Poplar, Hicory and Oak." Recently De Vorsey (1971) examined early maps and plat records along the Ogeechee River in the Georgia Piedmont, finding dramatic changes.

Of these (original forest cover), 80% were hardwoods with oaks alone accounting for 57% of the total number. Only 18% of the identified trees were pines. A check of recent aerial photography of the study area revealed that hardwoods account for only about 40% of the cover with pines accounting for 60% of the total (De Vorsey 1971:281).

This would indicate a fifty percent "loss" of hardwoods, and a 300 percent "gain" of pines.

The climate of Person County today is moderate, with mean temperatures ranging from 43.3 degrees F in the winter to 78.5 degrees F in the summer. There is a frost free season of 192 days, and the snow usually occurs in January and February (Jurney, Bacon, and Morgan 1928:3; Laney 1917:3). Precipitation averages 50 to 55 inches a year, and is well distributed, with the heaviest rainfall occurring in the early spring and

late fall. Laney (1917:4) states, "It is therefore feasible to carry on out-of-door work throughout the whole year with little or no loss of time because of inclement weather."



## SURVEY RESULTS - SITE SUMMARIES

The following is a summary of all the sites within or adjacent to the project areas. Since no evidence of prehistoric or historic occupations were present in the ash pond or plant areas, all the sites were necessarily associated with the reservoir (Figure 1).

Pr<sup>v</sup>7. This site consisted of a light scatter of waste flakes over a small area approximately 20' in diameter. The material was located in the northwestern section of a large field north of SR 1501. Since the specimens lacked diagnostic traits, cultural-temporal placement was impossible. This site has minimal archaeological significance and further considerations are not necessary.

Pr<sup>v</sup>8. The evidence for this site was almost identical to that described above, a light scatter of waste flakes within a 10' by 30' area. The site was located south of Pr<sup>v</sup>7 on the opposite side of SR 1501. Again, no further action is warranted prior to impact.

Pr<sup>h</sup>9. A relatively large, 50' in diameter, concentration of probable nineteenth century brick fragments were observed immediately south of Pr<sup>v</sup>8 along the edge of the field. Since no other artifacts were present, it appears that the brick were dumped in the area for some reason that is no longer readily apparent.

Pr<sup>h</sup>10. This site was located at the end of a field road on the east side of an unnamed branch of Mayo Creek. It consisted of a collapsed log structure with puddled clay chinking and an unpainted slab slate foundation. It was probably constructed during the latter part of the nineteenth century and occupied until quite recently. The

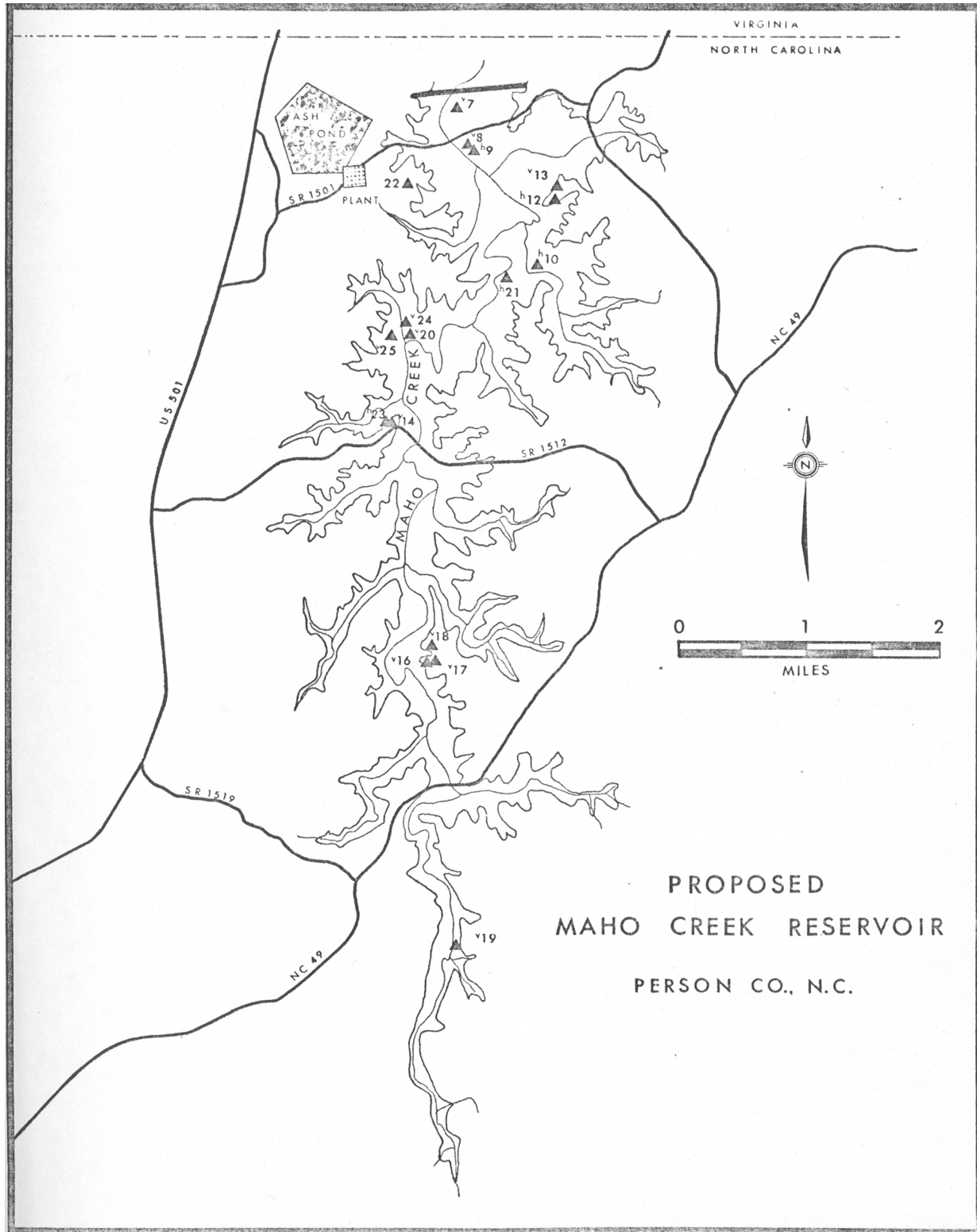


Figure 1

chimney was twentieth century, and remains of electrical outlets were also present. These fairly small log structures were fairly common throughout Person County, and the condition of this site would seem to minimize any historical value it might have.

Pr<sup>h</sup>12. A scatter of small fragments of eighteenth century brick, a late eighteenth century British Soft Paste Porcelain sherd, a modern sherd, and a brown lead glazed crockery fragment were found scattered over an area approximately 100' in diameter. The site appeared to have long been disturbed by continuous plowing and erosion. This fact, in addition to its location immediately outside the impact zone, makes additional investigation unnecessary.

Pr<sup>v</sup>13. This site was almost identical to the other prehistoric sites in that it consisted of a light distribution of undiagnostic debitage collected from an area roughly 50' in diameter. Impact mitigation is not necessary because of the nature of the site, and the fact that it lies just outside the reservoir pool.

Pr<sup>v</sup>14. A small distribution, 30' in diameter, of indistinctive flakes were collected from an overgrown field on the north side of SR 1512, one quarter mile west of Mayo Creek. No further investigations are recommended.

Pr<sup>v</sup>15. This site produced a hammerstone, a core fragment along with a few unmodified chips. It was located at the end of a field road on a bluff just outside the reservoir limits. Additional work is unwarranted.

Pr<sup>v</sup>16. The tip of a Late Archaic Savannah River projectile point (2000 B.C.), a possible spokeshave, and a small collection of lithic debris was collected from a bluff top immediately south of a field road off N.C. 49. Again, the material was discovered a short distance away from the reservoir perimeter. The small collection of material, in addition to its location, makes further work unnecessary.

Pr<sup>v</sup>17. A hammerstone, one utilized flake, and a moderate number of waste materials were discovered approximately 100' east of Pr<sup>v</sup>16. This material too fell outside the immediate impact area. Consequently, additional investigations are unwarranted.

Pr<sup>v</sup>18. Another moderate concentration of waste flakes was discovered along the same ridge as Pr<sup>v</sup>16 and Pr<sup>v</sup>17, but further to the north and on the opposite side of the field road. No diagnostic artifacts were present, and because of the site's location, as well as its lack of potential for producing additional information, mitigation is not required.

Pr<sup>v</sup>19. This site was located on a slight rise in the narrow flood plain on the east side of the creek north of SR 1556. A moderate amount of debitage and a medium-sized triangular projectile point were collected from an area approximately 100' by 50' along the crest of the rise. Heavy plowing and moderate sheet erosion negate the possibility of subsurface features or intact cultural strata being preserved. This lack of contextual integrity makes further investigation unnecessary.

Pr<sup>v</sup>20. A Badin projectile point (500 A.D.), two Guilford preforms (3500 B.C.), an ax, a hammerstone, and a moderate amount of debitage was discovered along a slight rise in the flood plain of Mayo Creek south of SR 1502. As with Pr<sup>v</sup>19, this site had been badly disturbed by years of plowing and erosion, making additional study unproductive.

Pr<sup>h</sup>21. This was perhaps the most significant site discovered during the course of the survey. It was represented by the remains of an old grist mill, the Davis Mill, located on the east bank of Mayo Creek, west-southwest of Pr<sup>h</sup>10. Old Davis Mill Road approaches the site from the opposite side of the creek and today is hardly more than an erosional trace. Structural remains included a stone dry-wall foundation some 60' square and a mill race approximately 300' long (Plates V, VI, VII). No artifacts were found associated with the structure, but it appears to have been in use during the latter part of the nineteenth century.

Pr<sup>h</sup>22. This three-story frame structure was located immediately east of the plant site off SR 1502. It probably dates from the latter half of the nineteenth century. No collection was made as the site lies outside the impact zone.

Pr<sup>h</sup>23. This site, a hand-hewed two-story log structure, was located on the north side of SR 1512 on a bluff just above the reservoir pool (Plate VIII). Although the roof, part of the chimney, and the exterior facade of the fireplace were modern, the remaining structural elements dated at least to the latter part of the last century (Plate IX).

Pr<sup>v</sup>24. A graver and a small amount of debitage was collected from a slight rise on the east bank of an unnamed branch feeding Mayo Creek. The material was scattered over an area measuring 75' north-south by 30' east-west and was located roughly 90' north of SR 1502. The sparseness of material, along with its obviously disturbed nature, makes further work unnecessary.



Plate V  
Pr<sup>h</sup>21, Mill Foundation



Plate VI  
Pr<sup>h</sup>21, Mill Race





Plate VII  
Pr<sup>h</sup>21, Close Up of Foundation Wall



Plate VIII  
Front View of Pr<sup>h</sup>23



Plate IX  
Fireplace in Pr<sup>h</sup>23, Note Modern Facade

Pr<sup>v</sup>25. This site was located southwest of Pr<sup>v</sup>24 on the west bank of the same feeder stream near its confluence with Mayo Creek. A small stemmed projectile point, a side scraper, and a few unused flakes were scattered over a large area roughly one acre in extent. This site too was severely disturbed and, consequently, warrants no further work.

## RECAPITULATION - RECOMMENDATIONS

Although a total of eighteen sites were discovered, only twelve were prehistoric. This was a small number considering the near optimum survey conditions and the total coverage of all the impact zones. However, when relevant environmental and cultural factors are considered, the small number of sites is understandable and predictable. The bluff tops where many of the Archaic camp sites were expected had simply been plowed and eroded down to the B Horizon surface, and the prehistoric sites, at least, had been destroyed by this process along with the overlying A Horizon (see page 8). The flood plain was generally narrow and swampy except in the immediate vicinity of the dam site, and here the bottoms were simply never utilized except for a couple of brief archaic encampments. The current evidence seems to suggest that the later Woodland agriculturalists preferred the broad flood plains of the major rivers, such as the Dan, rather than the relatively smaller valleys of the tributary streams.

Except for the mill site, the six historic sites either lie outside the impact zones, or have little historical significance, e.g. Pr<sup>h</sup>9, 10, 12. Although mitigation is not recommended in the case of the old mill, additional historical research should be undertaken in order to ascertain its role in the development and history of the Mayo Creek communities.

None of the prehistoric or historic sites inventoried were significant enough, in terms of adding new or additional information to the man's past record, to be considered worthy of further study prior to impact. Because of this absence of sites worthy of National Registry consideration, clearance for the project is recommended.

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