



Mr. Richard Yarnell
Biological and Cultural Compliance
Tennessee Valley Authority
400 W. Summit Hill Drive
Knoxville, TN 37902

June 15, 2015

RE: Cultural Resources Information, Small Modular Reactor (SMR) Alternate Sites Project Covering the Tennessee Valley Authority (TVA) Oak Ridge Reservation (ORR) Sites 2, 5, and 8, in Roane County, Tennessee and Redstone Site 12 in Madison County, Alabama.

INTRODUCTION

At the request of Tennessee Valley Authority (TVA), Tennessee Valley Archaeological Research (TVAR) conducted a background search for previously recorded cultural resources information associated with the Small Modular Reactor (SMR) Alternate Sites project covering Oak Ridge Reservation (ORR) Sites 2, 5, and 8 located in Roane County, Tennessee and Redstone Site 12 located in Madison County, Alabama (Figures 1-2). The purpose of this study was to compile a list and supporting documentation of all recorded archaeological sites, historic properties, National Register of Historic Places (NRHP) listed sites, and associated surveys within the four selected sites. Supporting documentation for these resources consists of NRHP nominations, appropriate survey forms, and cultural resource management reports.

In addition, the project also called for a list of all NRHP-listed properties located within a 10-mile radius surrounding each site boundary. For the three ORR sites, this study encompassed the following Tennessee 7.5' USGS quadrangles: Bacon Gap, Beardan, Bethel Valley, Camp Austin, Cave Creek, Clinton, Concord, Elverton, Harriman, Lenoir City, Loudon, Louisville, Lovell, Meadow, Petros, Philadelphia, and Windrock within Anderson, Blount, Knox, Loudon, Morgan, and Roane Counties. For the Redstone Site 12, the following Alabama 7.5' USGS quadrangles were examined: Capshaw, Center Grove, Decatur, Farley, Greenbrier, Huntsville, Jeff, Madison, Mason Ridge, Meridianville, Newsome Sinks, Somerville, Tanner, and Triana within Limestone, Madison, and Morgan Counties. This study resulted in the development of GIS shapefiles and accompanying attribute tables for all previously recorded cultural resources. Attribute data is also provided in a spreadsheet format.

METHODOLOGY

TVAR staff, under the direction of Principal Investigators Hunter Johnson and Ted Karpyne, identified and documented cultural resource information filed at the Tennessee Division of Archaeology (TDOA) and the Tennessee Historical Commission (THC) in Nashville, Tennessee.

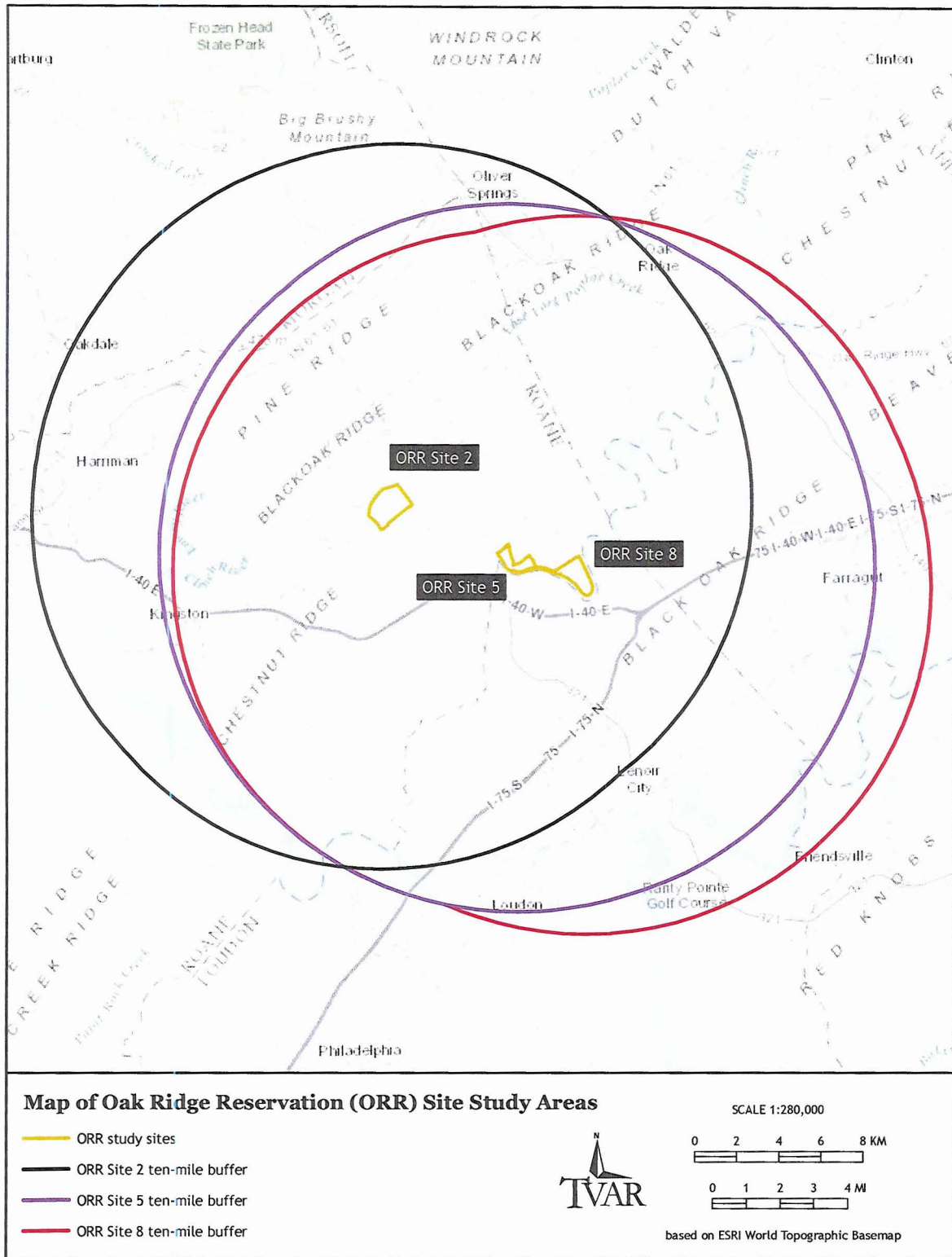


Figure 1. TVA SMR Oak Ridge Reservation Sites 2, 5, and 8.

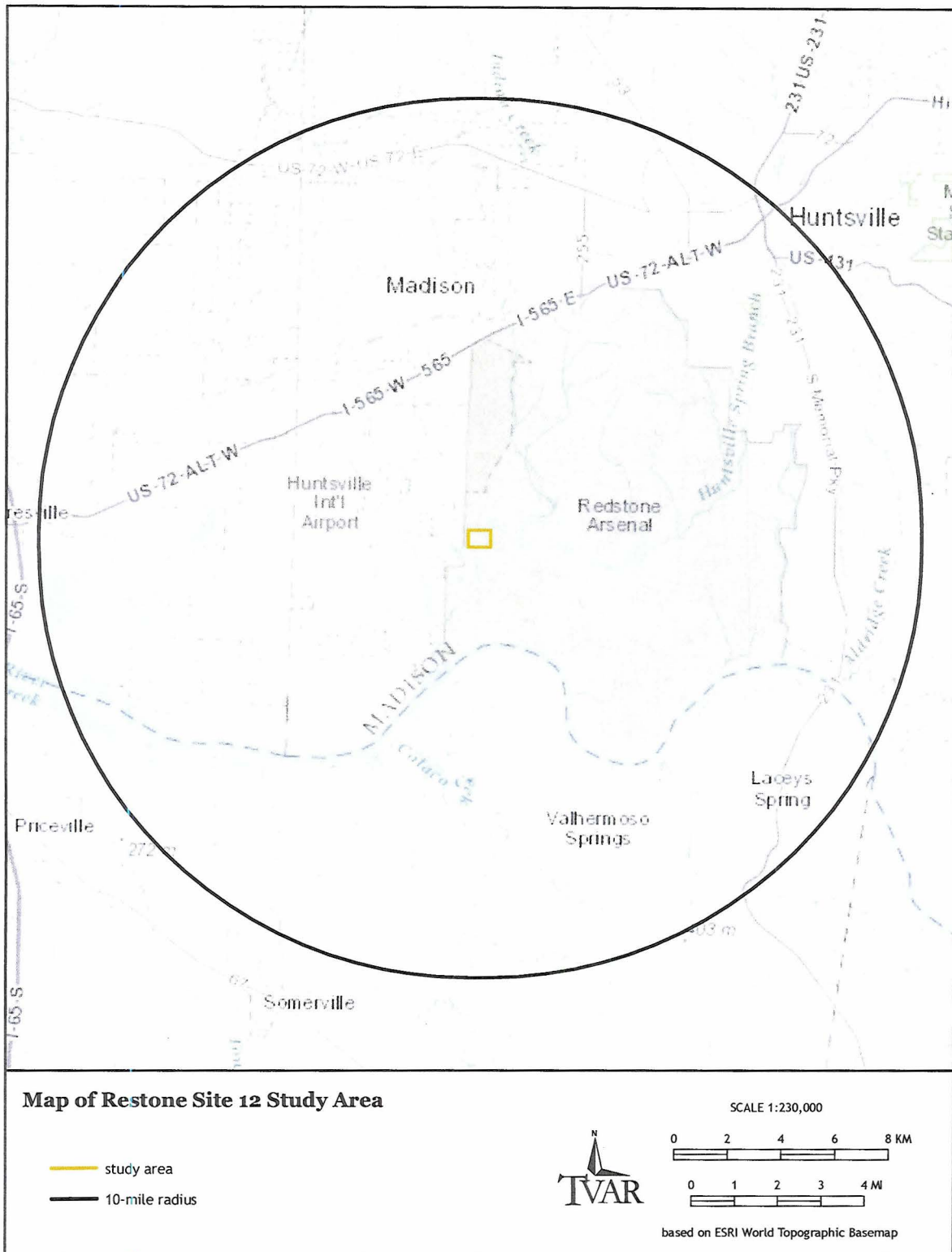


Figure 2. TVA SMR Redstone Site 12.

For information regarding previously documented cultural resources information associated with Redstone Site 12, TVAR staff reviewed files housed at the Alabama Historical Commission (AHC), located in Montgomery, Alabama and on the Alabama Online Cultural Resources Database (AOCRD).

GIS shapefiles and accompanying attribute tables were developed for all identified NRHP-listed resources in the study area obtained from information housed at the TDOA, THC, AOCRD, and AHC. These shapefiles provide a current inventory of cultural resources located within the study area. All shapefiles and attribute tables were developed by TVAR based on a review of NRHP files, archaeological site forms, architectural survey forms and reports in which these resources were documented. Documentation varied for each resource depending on when that resource was recorded and by whom. Resource information was sometimes incomplete. This letter reflects the current data filed at the TDOA, THC, AOCRD, and AHC.

RESULTS

The results of the site file, background, and literature searches resulted in the identification of seven previously recorded archaeological sites within the footprints of the ORR SMR alternate sites, and 31 NRHP-listed architectural resources and two NRHP-listed archaeological sites within the designated 10-mile study radii associated with the ORR sites. A total of 12 reports related to archaeological investigations were documented for the ORR sites. Regarding the SMR Redstone Site 12, TVAR's background research revealed five previously recorded archaeological sites within the site footprint, and 50 NRHP-listed architectural resources and one NRHP-listed archaeological site located within the designated 10-mile study radius. Additionally, three architectural survey reports and three archaeological reports are associated with the SMR Redstone Site 12 site boundary. At times, documentation concerning NRHP eligibility for cultural resources was unclear. TVAR, in coordination with TVA, developed a sensitivity variable that is aimed at providing a coded variable that is easily interpreted. Four sensitivity variables were defined and assigned to each resource within the RSA. The variables are as follow:

- a. Red – for listed or eligible properties where there is high confidence in the NRHP eligibility recommendation. Cemeteries are also coded as red in the attached spreadsheets as a result of the specific legislations protecting them. They are not necessarily considered eligible for listing the NRHP.
- b. Yellow – for undetermined properties or properties that are listed as eligible, ineligible, or unevaluated, but sufficient data is unavailable to verify the assessment.
- c. Green -- for properties that are clearly ineligible or non-extant. This variable is used very conservatively.
- d. Grey – for properties where there is no confidence in the existing eligibility recommendation and data is insufficient for TVAR to provide a tentative eligibility recommendation.

ARCHAEOLOGY

TVAR utilized original site file forms and survey reports to identify archaeological sites and surveys within the four selected SMR Alternate Sites. TVAR identified 12 cultural resource surveys and seven archaeological sites within the SMR ORR site footprints (Site 2 [n=5], Site 5 [n=1], and Site 8 [n=1] ; Figures 3-5; see associated tables). In terms of NRHP status, TVAR recommends four sites as eligible,

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Figure 3. TVA SMR ORR Site 2 archaeological resource map.

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Figure 4. TVA SMR ORR Site 5 archaeological resource map.

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Figure 5. TVA SMR ORR Site 8 archaeological resource map.

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Figure 6. TVA SMR Redstone Site 12 archaeological resource map.

two sites as undetermined, and one site as ineligible. Additionally, TVAR identified two NRHP-listed archaeological sites (40LD17 and 40RE119) within the designated 10-mile study radii associated with the ORR sites (see Figures 12 and 19). For SMR Redstone Site 12, TVAR identified three cultural resources surveys and five archaeological sites within the footprint (Figure 6; see associated tables). In terms of NRHP status, TVAR recommends four sites as undetermined and one site as ineligible. Lastly, TVAR identified one NRHP-listed archaeological site (1MA535) within the designated 10-mile study radius of Redstone Site 12 (see Figure 20).

ARCHITECTURE

TVAR's review of THC architectural survey files yielded no NRHP-listed properties located within the footprint of SMR ORR Sites 2, 5, and 8. Additionally, THC records indicate no additional architectural documentation, such as completed survey reports or individual architectural resources that have been previously documented within the footprints of the SMR ORR alternate sites. However, a total of 31 NRHP-listed architectural resources were identified as being located within the combined 10-mile study areas of the SMR ORR alternate sites (Figures 7-19). It should be noted that given the close proximity of each of the three alternate sites, portions of the 10-mile study radius of each site boundary overlap each other. As a result, some NRHP-listed architectural resources are located within the 10-mile study radius of more than one site. Only maps containing NRHP-listed properties are presented. The breakdown of architectural resource data for each SMR ORR alternate site is as follows:

SMR ORR Site 2 features 18 NRHP-listed architectural resources located within the 10-mile study radius of the site boundary. THC records indicate no additional architectural documentation, such as completed survey reports or individual architectural resources that have been previously documented within the SMR ORR Site 2.

SMR ORR Site 5 features 18 NRHP-listed architectural resources located within the 10-mile study radius of the site boundary. THC records indicate no additional architectural documentation, such as completed survey reports or individual architectural resources that have been previously documented within the SMR ORR Site 5.

SMR ORR Site 8 features 21 NRHP-listed architectural resources located within the 10-mile study radius of the site boundary. THC records indicate no additional architectural documentation, such as completed survey reports or individual architectural resources that have been previously documented within the SMR ORR Site 8.

TVAR's review of AHC architectural survey files yielded no previously documented architectural resources or NRHP-listed properties located within the site boundary of Redstone Site 12. However, AHC records indicate three completed architectural survey reports that covered the Redstone Site 12 site footprint. Additionally, a total of 50 NRHP-listed architectural resources were identified as being located within the 10-mile study area of the SMR Redstone Site 12 (Figures 20-26). Of these, five have been designated as National Historic Landmarks (NHL).

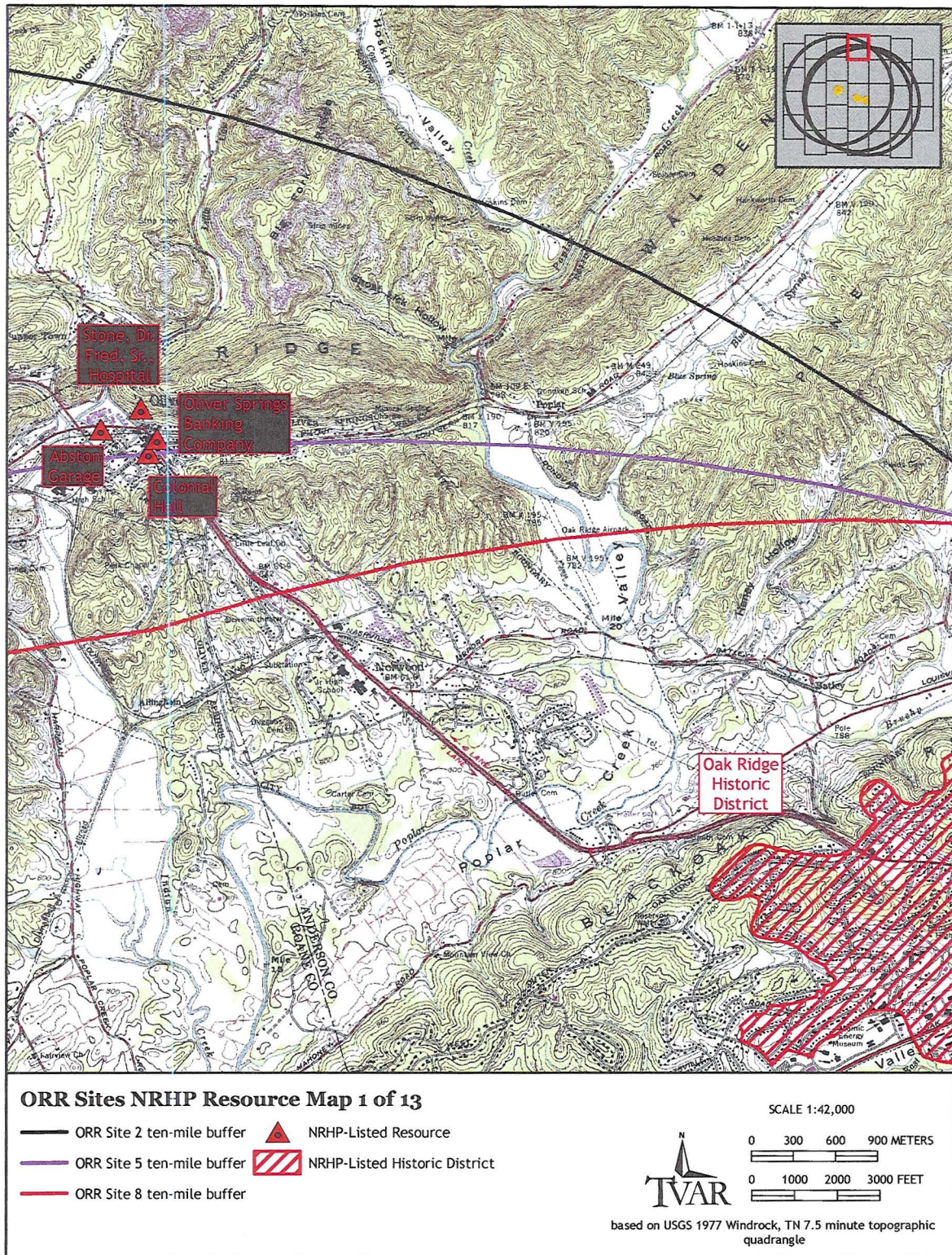


Figure 7. TVA SMR ORR Alternate Sites NRHP-listed resource Map 1 of 13.

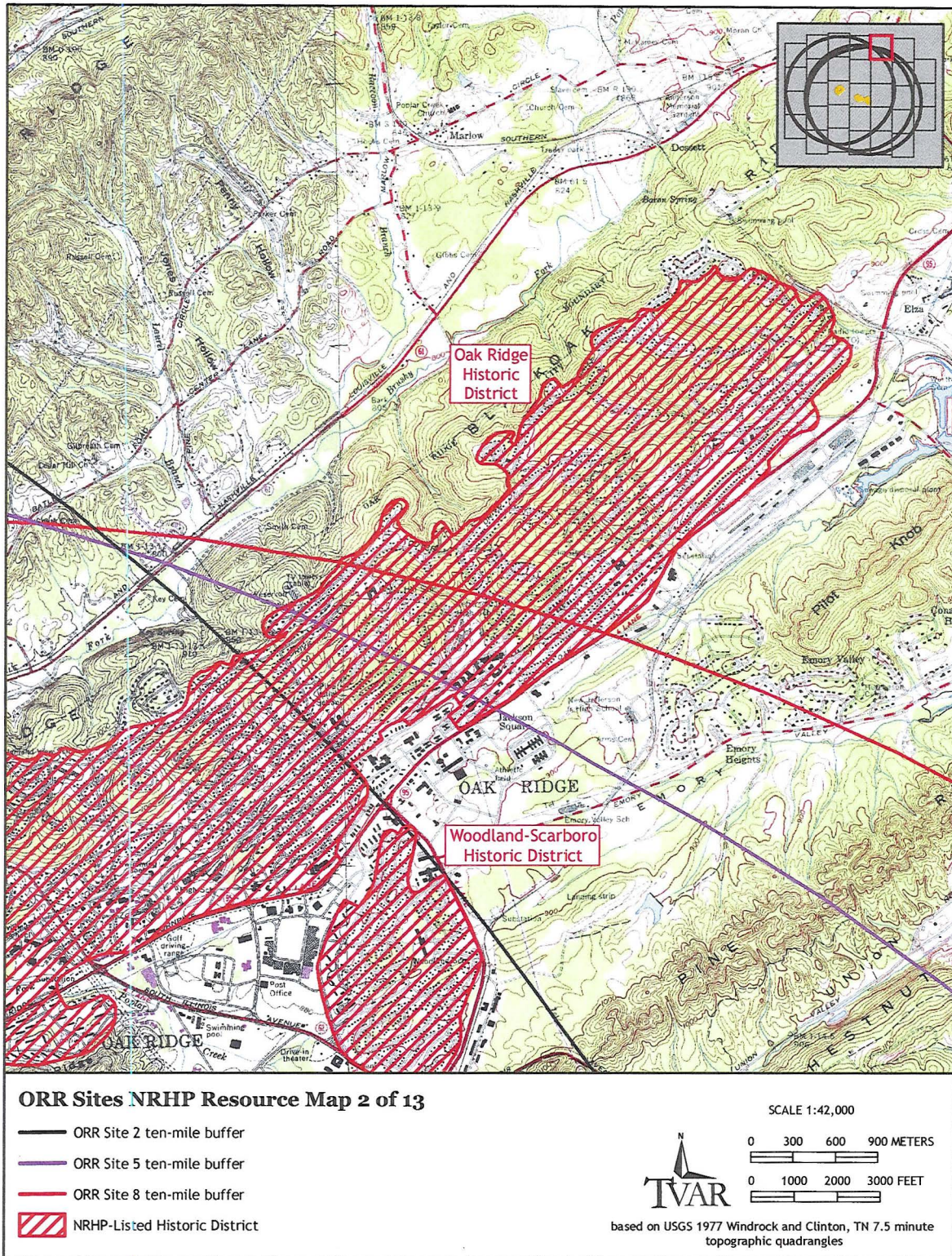


Figure 8. TVA SMR ORR Alternate Sites NRHP-listed resource Map 2 of 13.

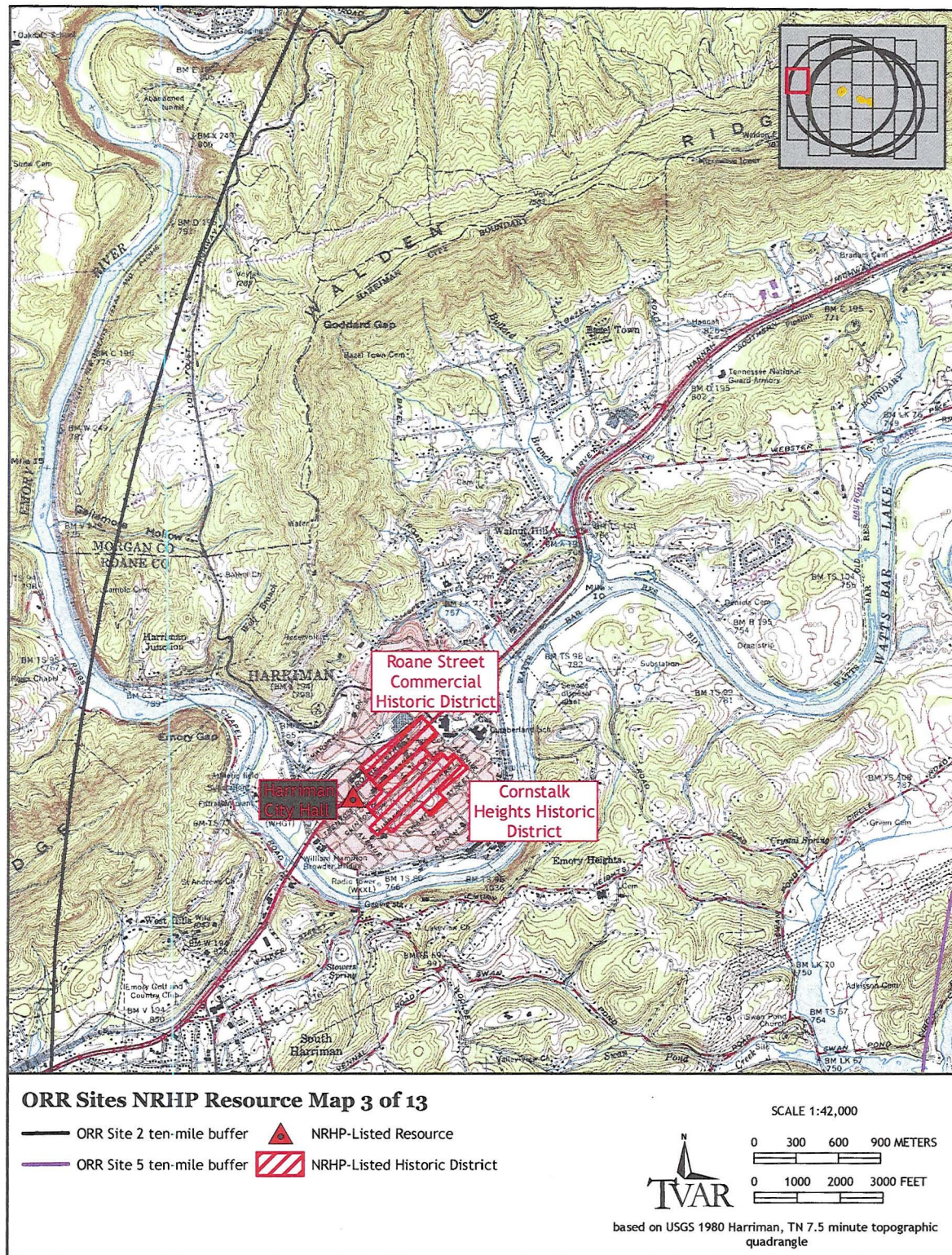


Figure 9. TVA SMR ORR Alternate Sites NRHP-listed resource Map 3 of 13.

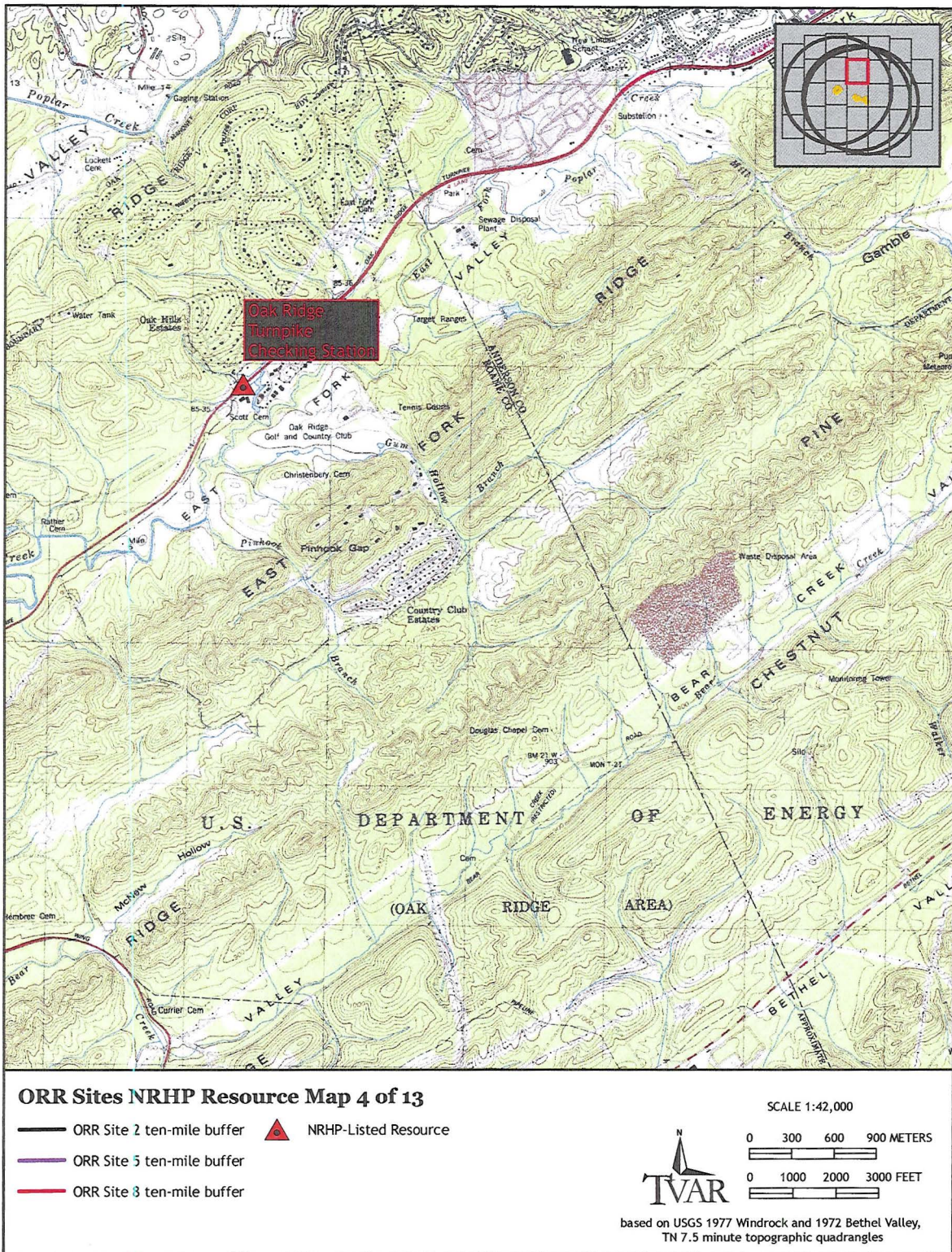


Figure 10. TVA SMR ORR Alternate Sites NRHP-listed resource Map 4 of 13.

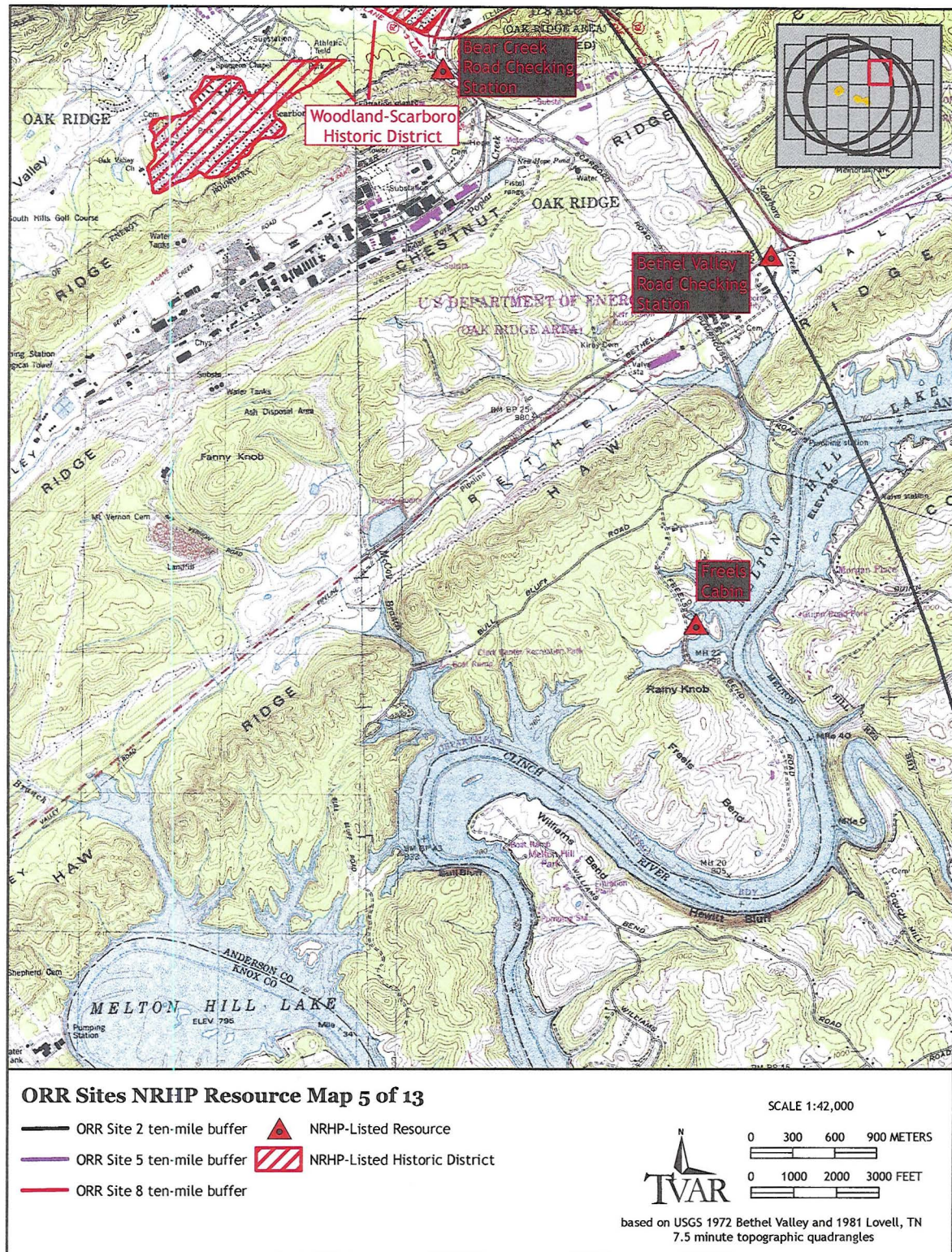


Figure 11. TVA SMR ORR Alternate Sites NRHP-listed resource Map 5 of 13.

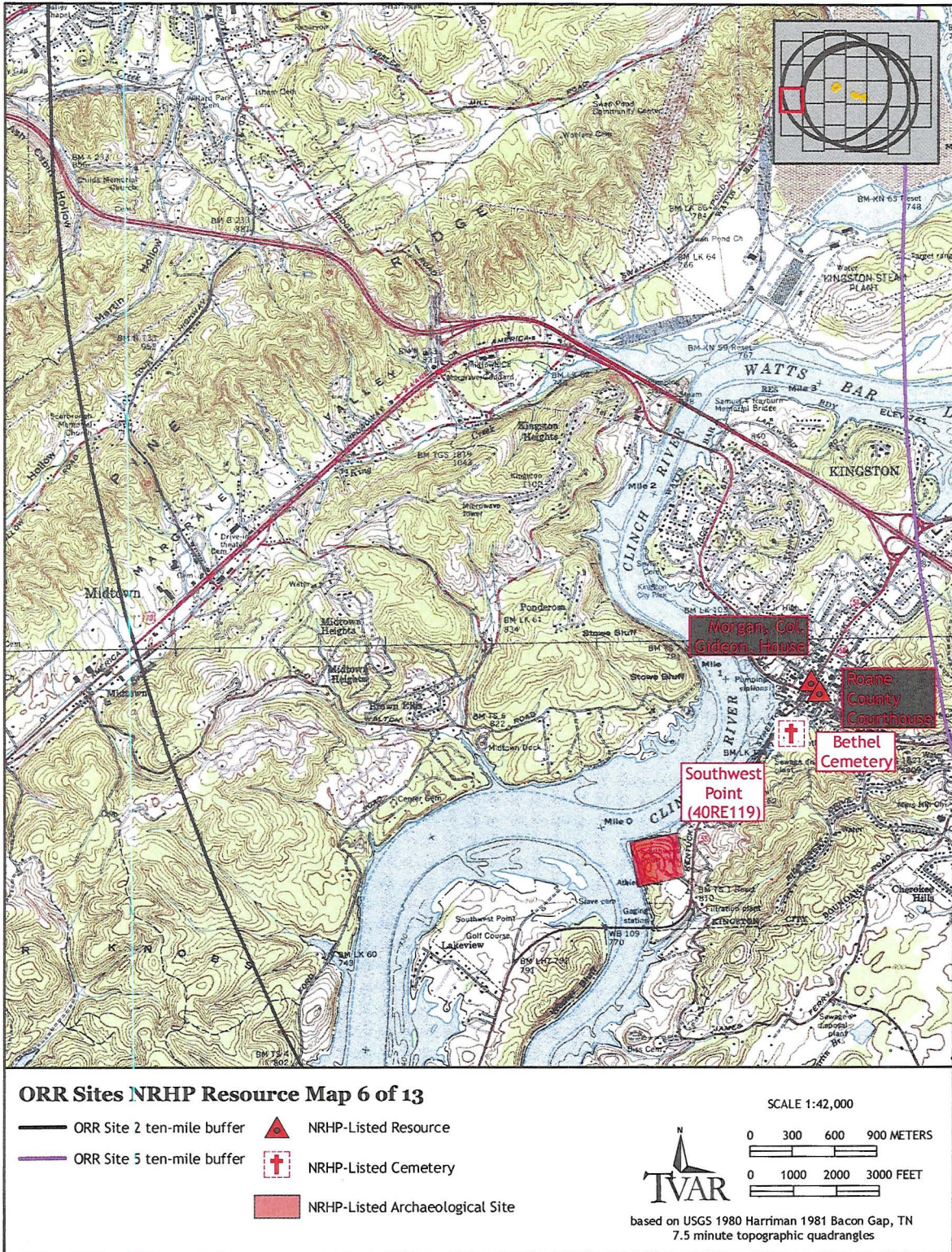


Figure 12. TVA SMR ORR Alternate Sites NRHP-listed resource Map 6 of 13.

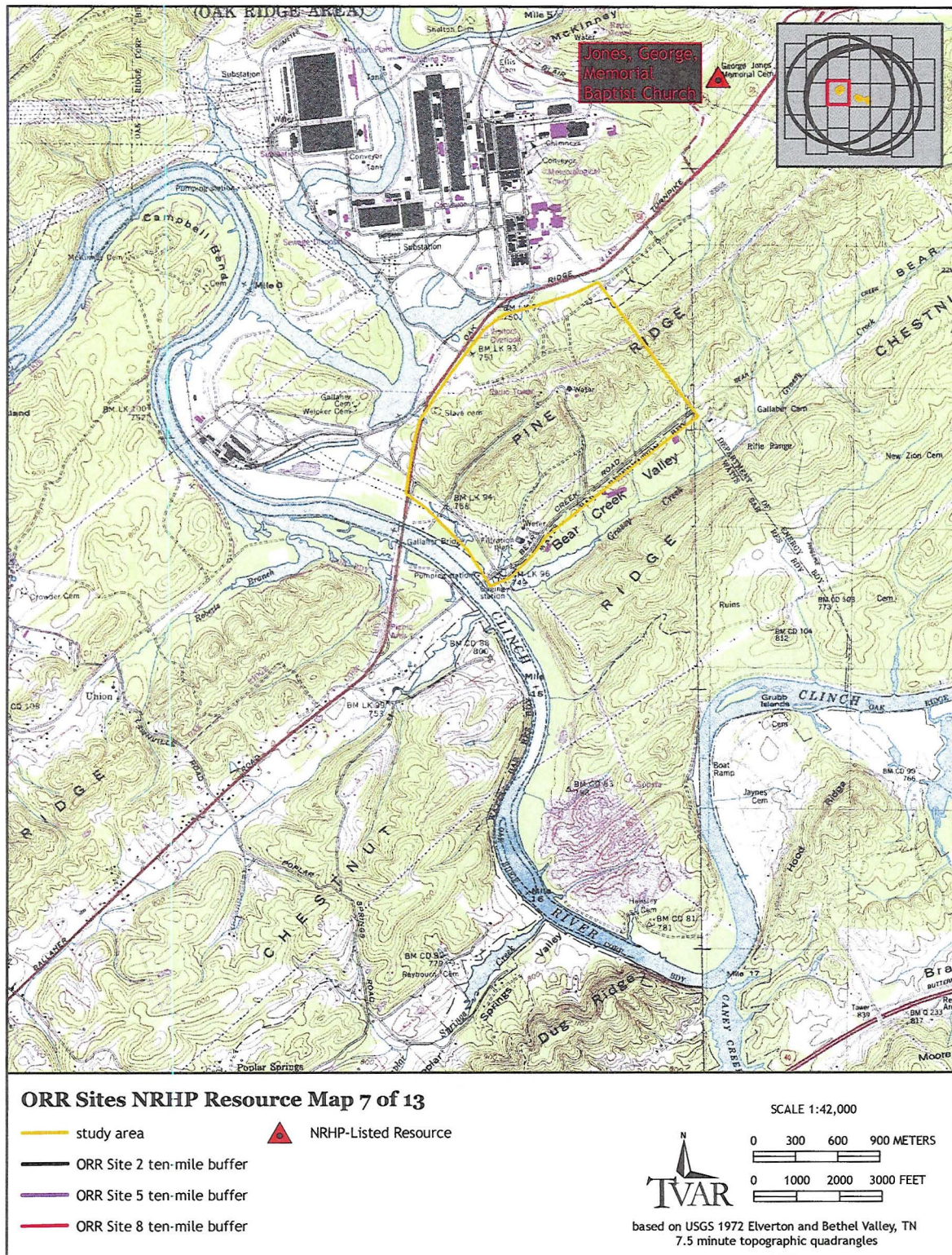


Figure 13. TVA SMR ORR Alternate Sites NRHP-listed resource Map 7 of 13.

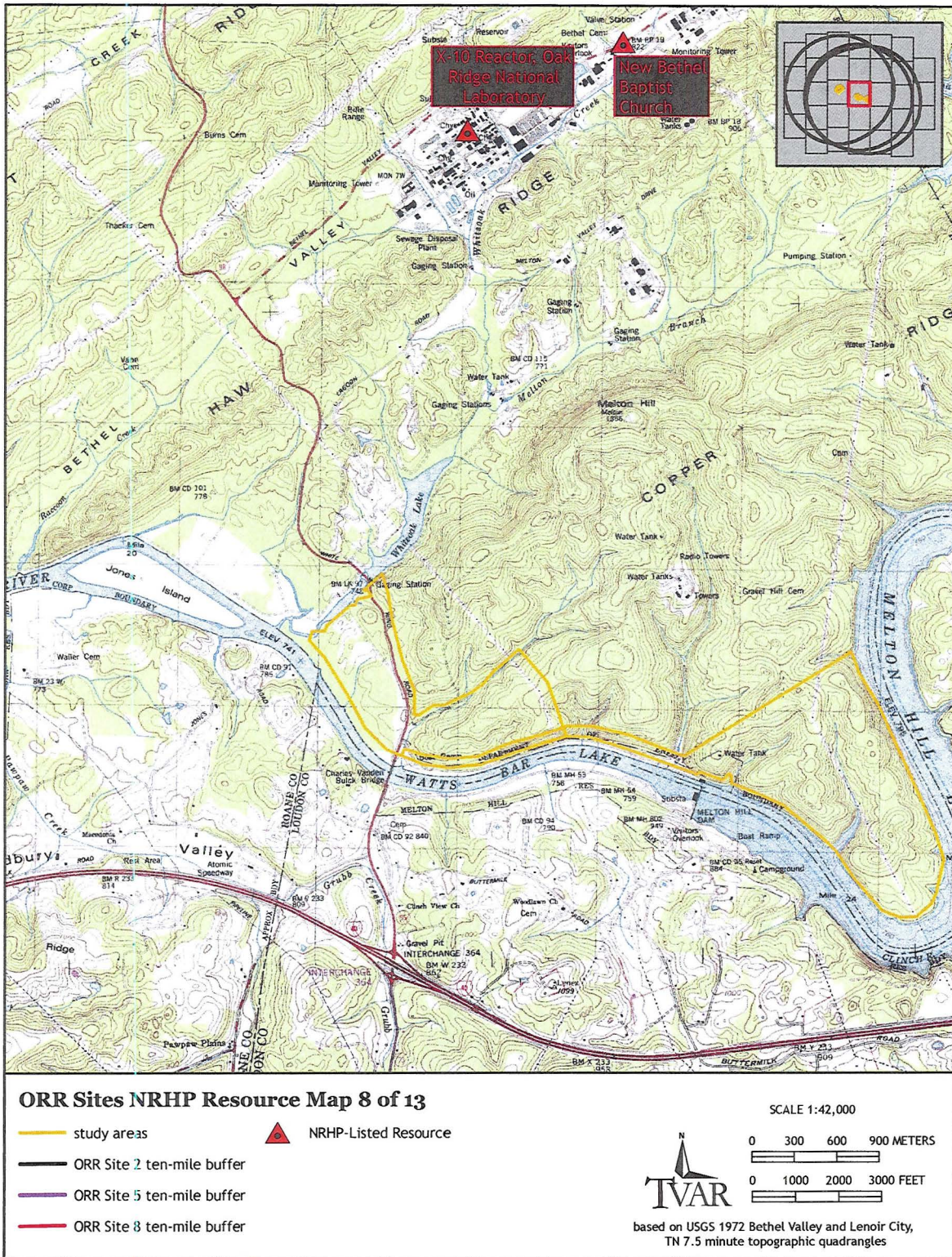


Figure 14. TVA SMR ORR Alternate Sites NRHP-listed resource Map 8 of 13.

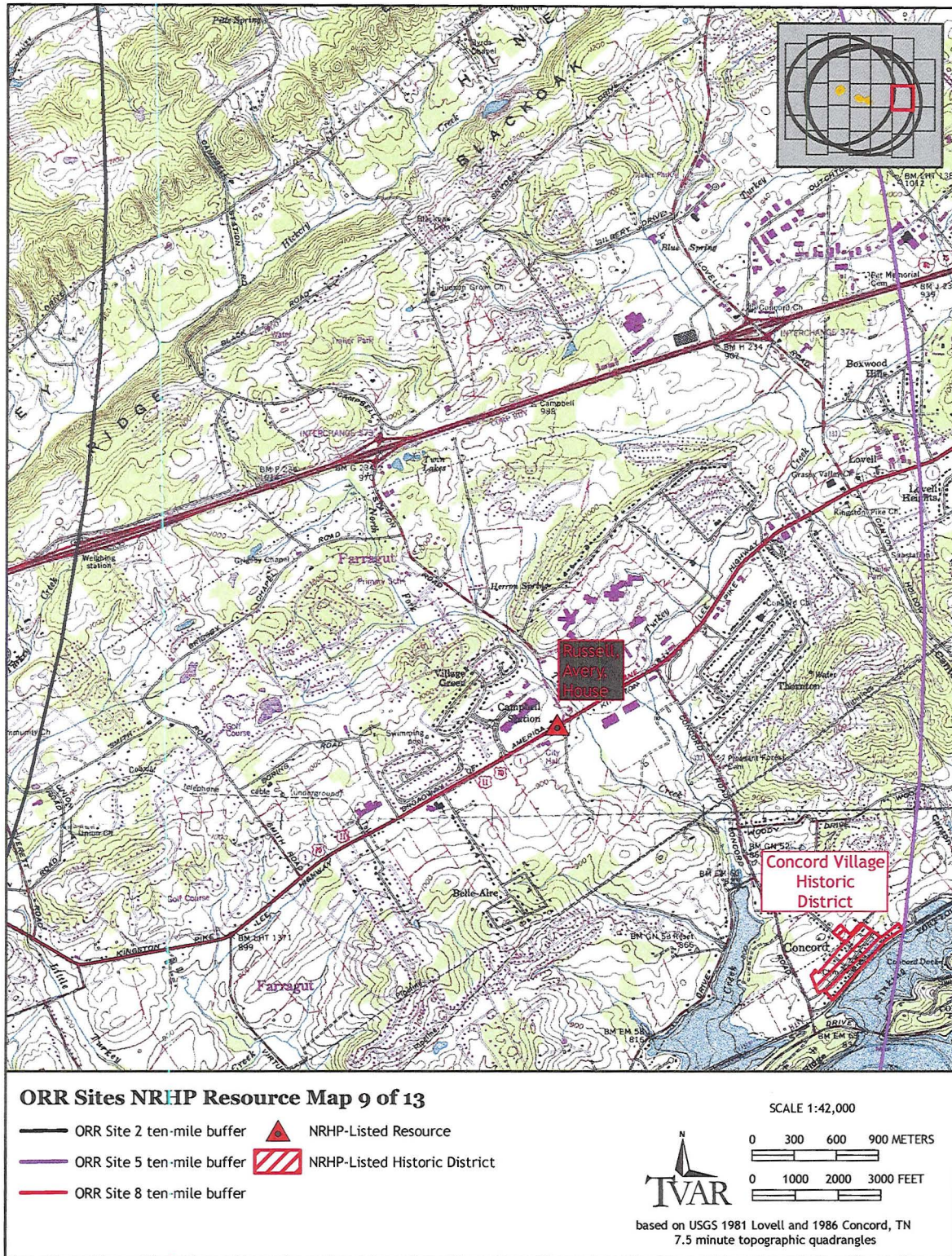


Figure 15. TVA SMR ORR Alternate Sites NRHP-listed resource Map 9 of 13.

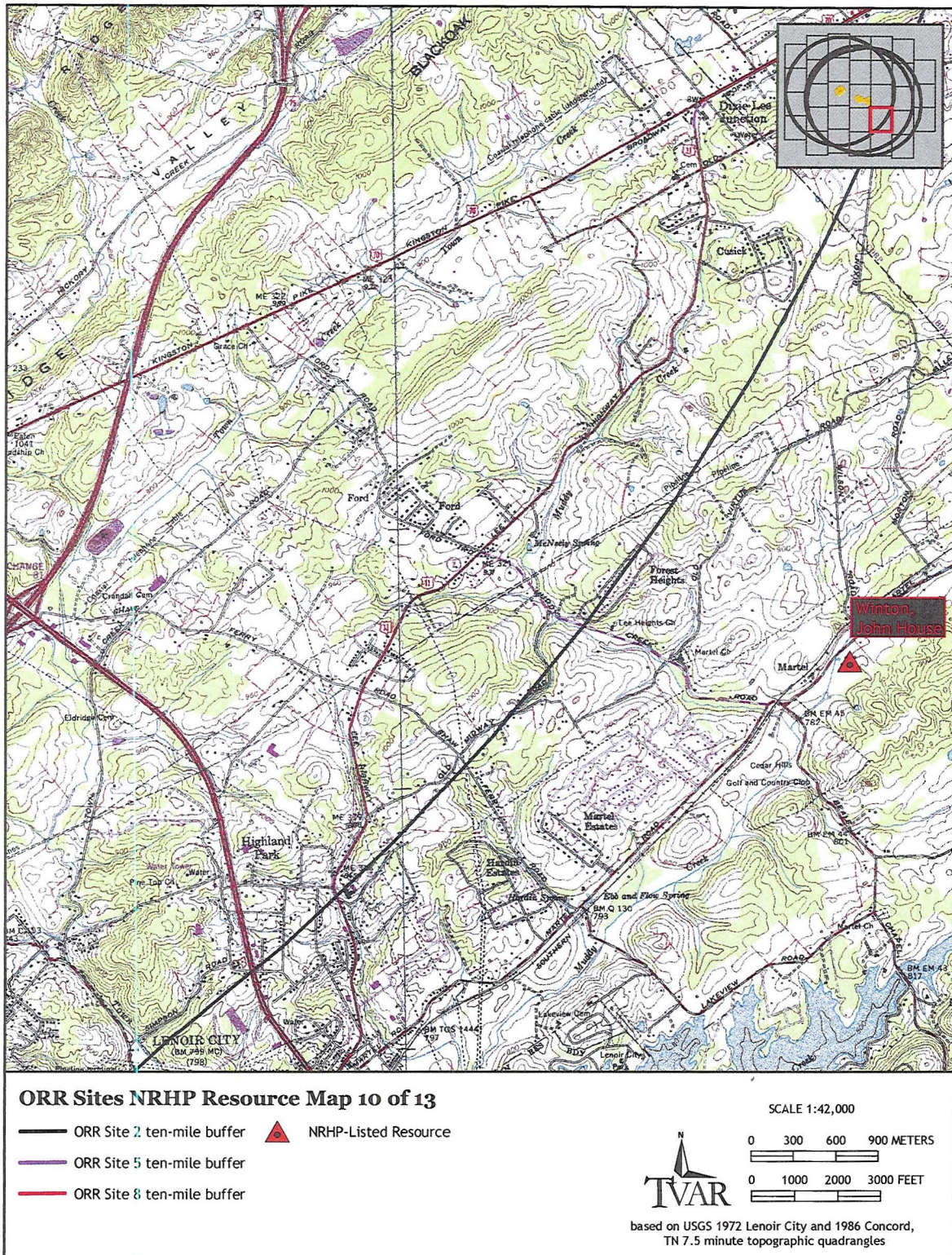


Figure 16. TVA SMR ORR Alternate Sites NRHP-listed resource Map 10 of 13.

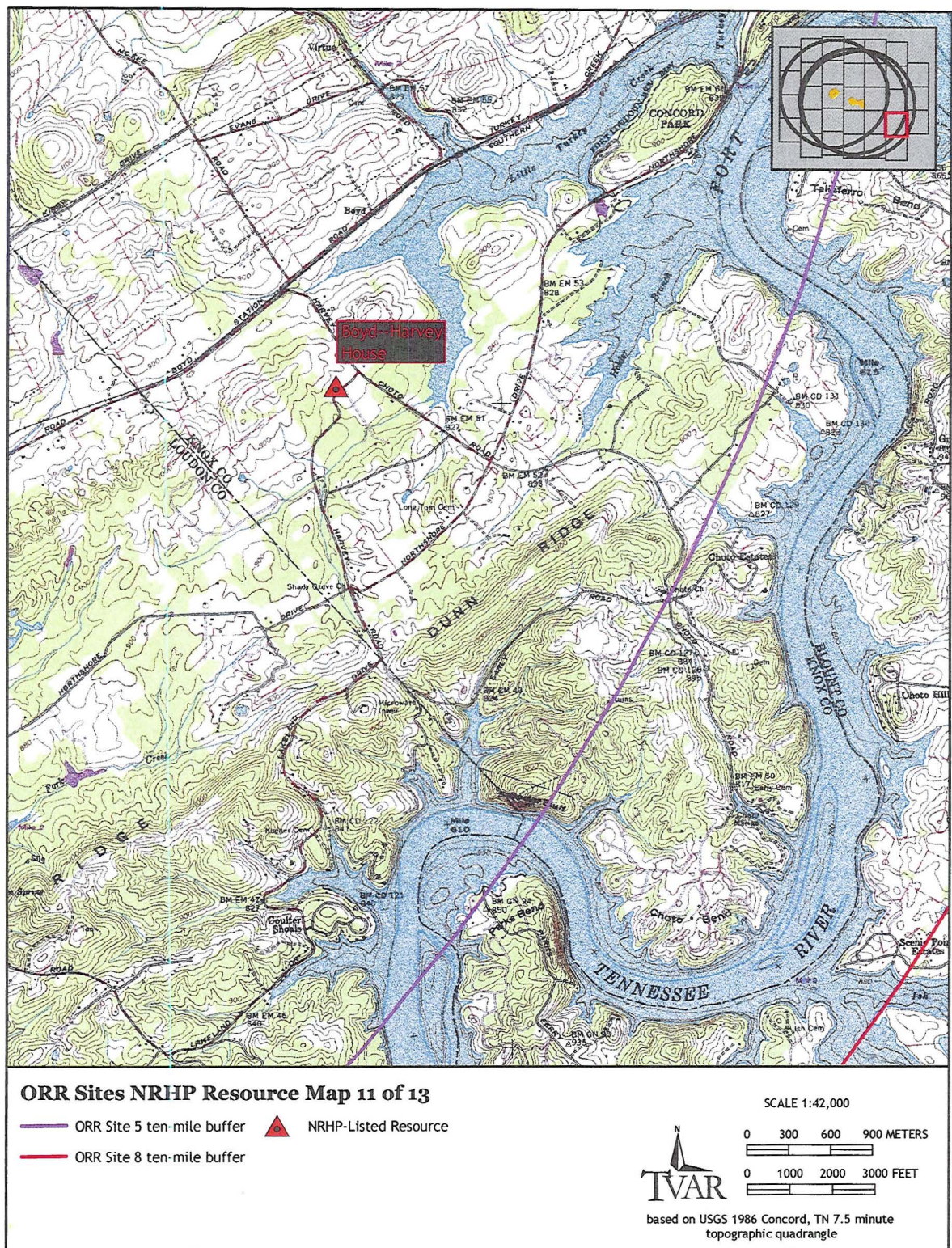


Figure 17. TVA SMR ORR Alternate Sites NRHP-listed resource Map 11 of 13.

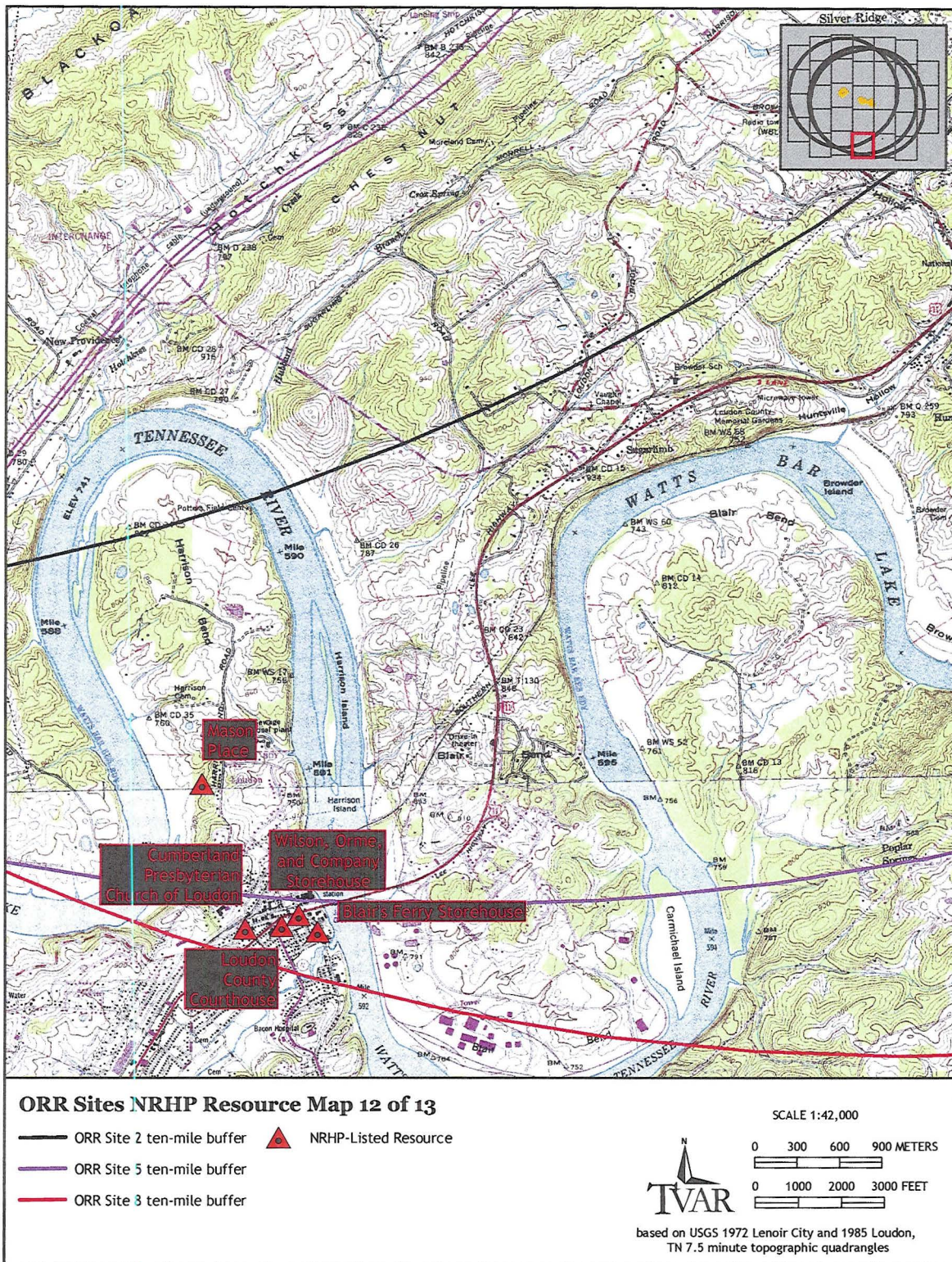


Figure 18. TVA SMR ORR Alternate Sites NRHP-listed resource Map 12 of 13.

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Figure 19. TVA SMR ORR Alternate Sites NRHP-listed resource Map 13 of 13.

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Figure 20. TVA SMR Redstone Site 12 NRHP-listed resource Map 1 of 7.

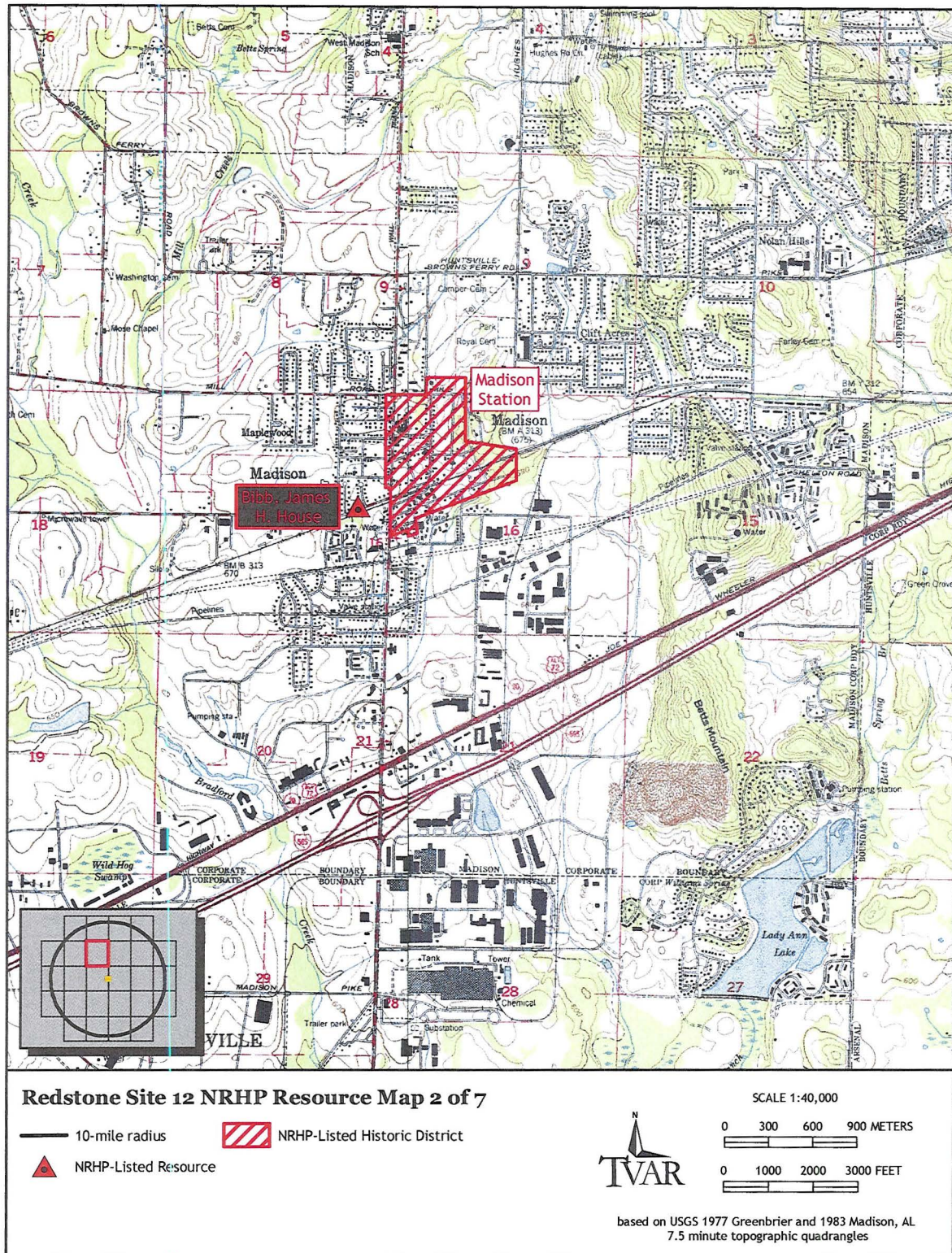


Figure 21. TVA SMR Redstone Site 12 NRHP-listed resource Map 2 of 7.

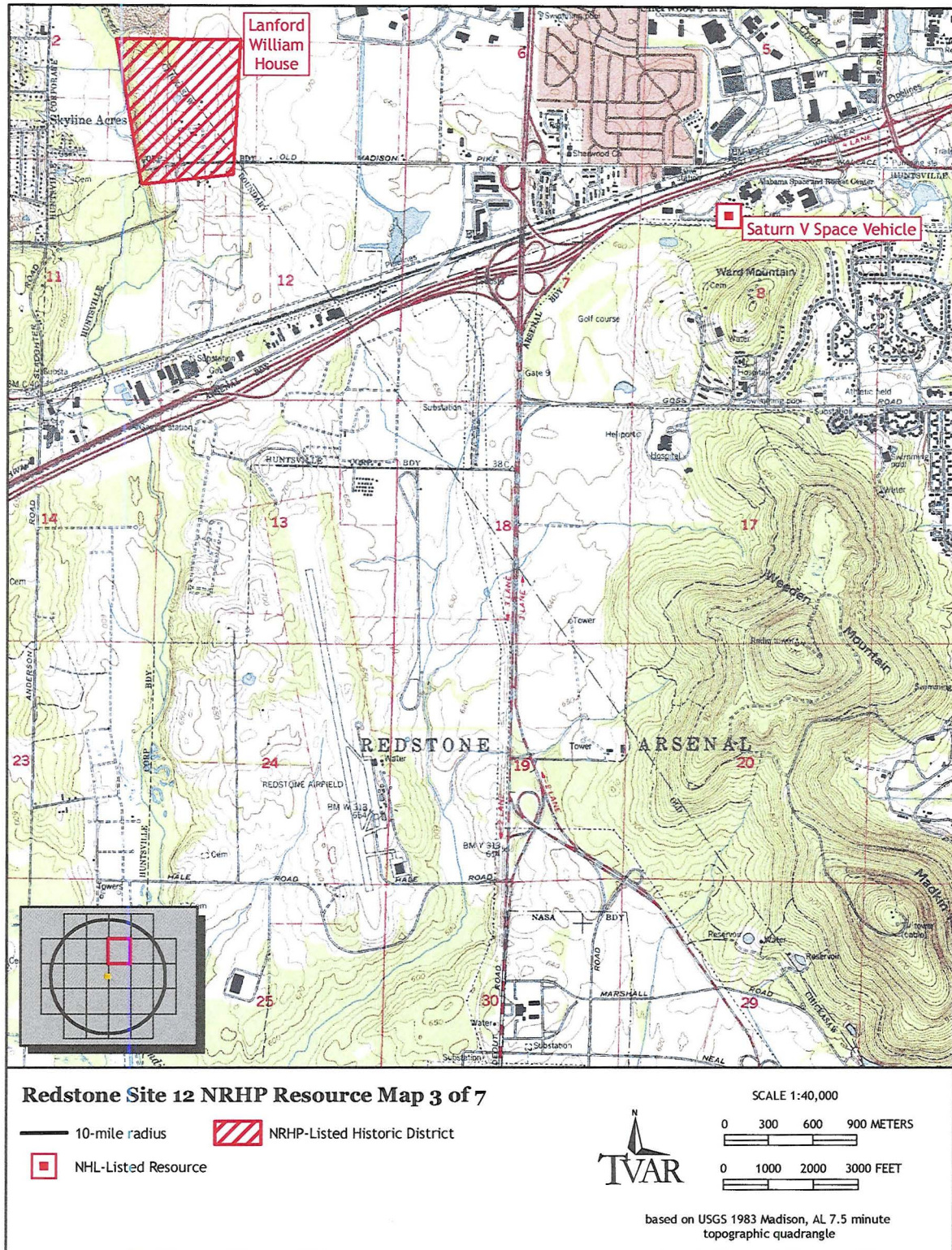


Figure 22. TVA SMR Redstone Site 12 NRHP-listed resource Map 3 of 7.

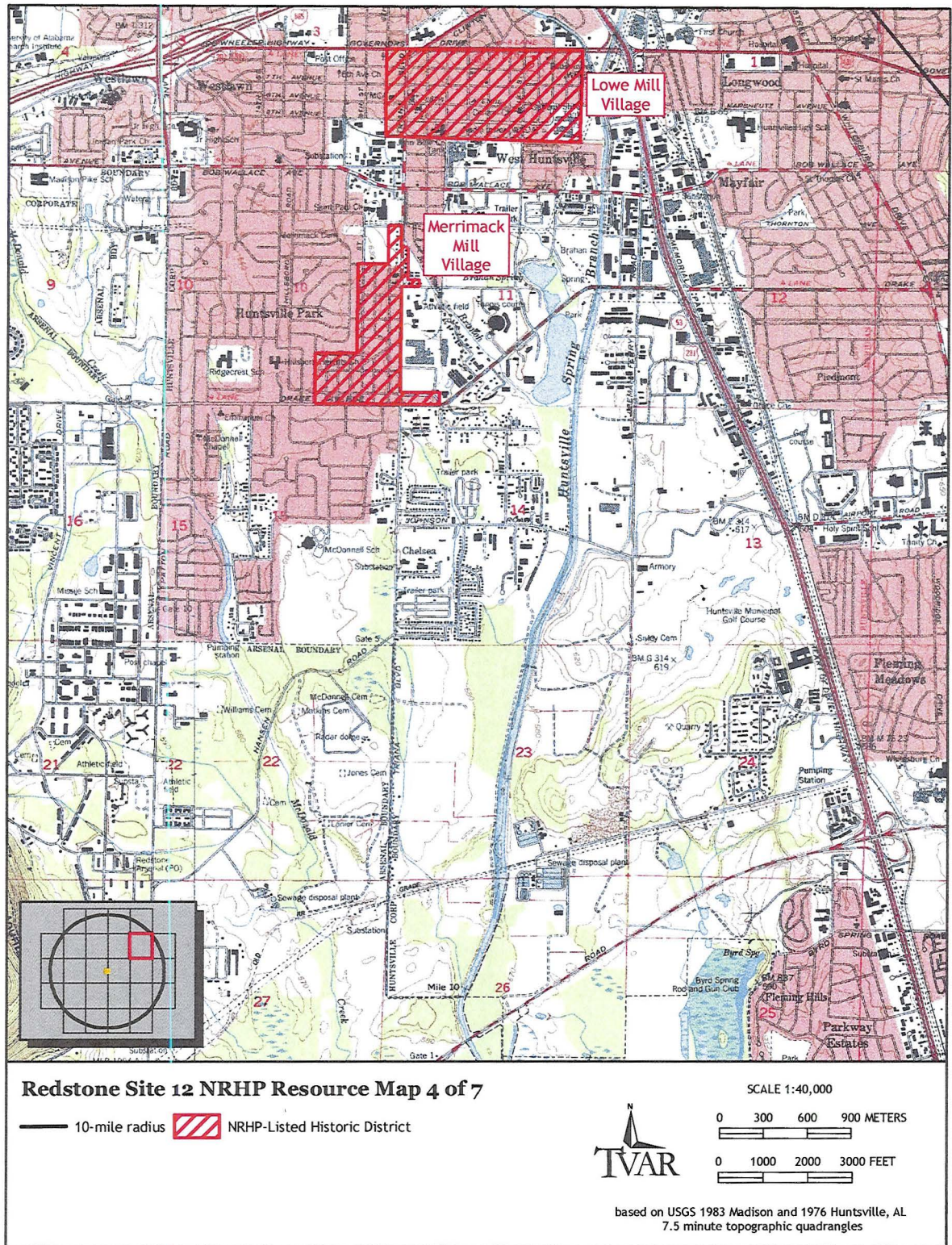


Figure 23. TVA SMR Redstone Site 12 NRHP-listed resource Map 4 of 7.

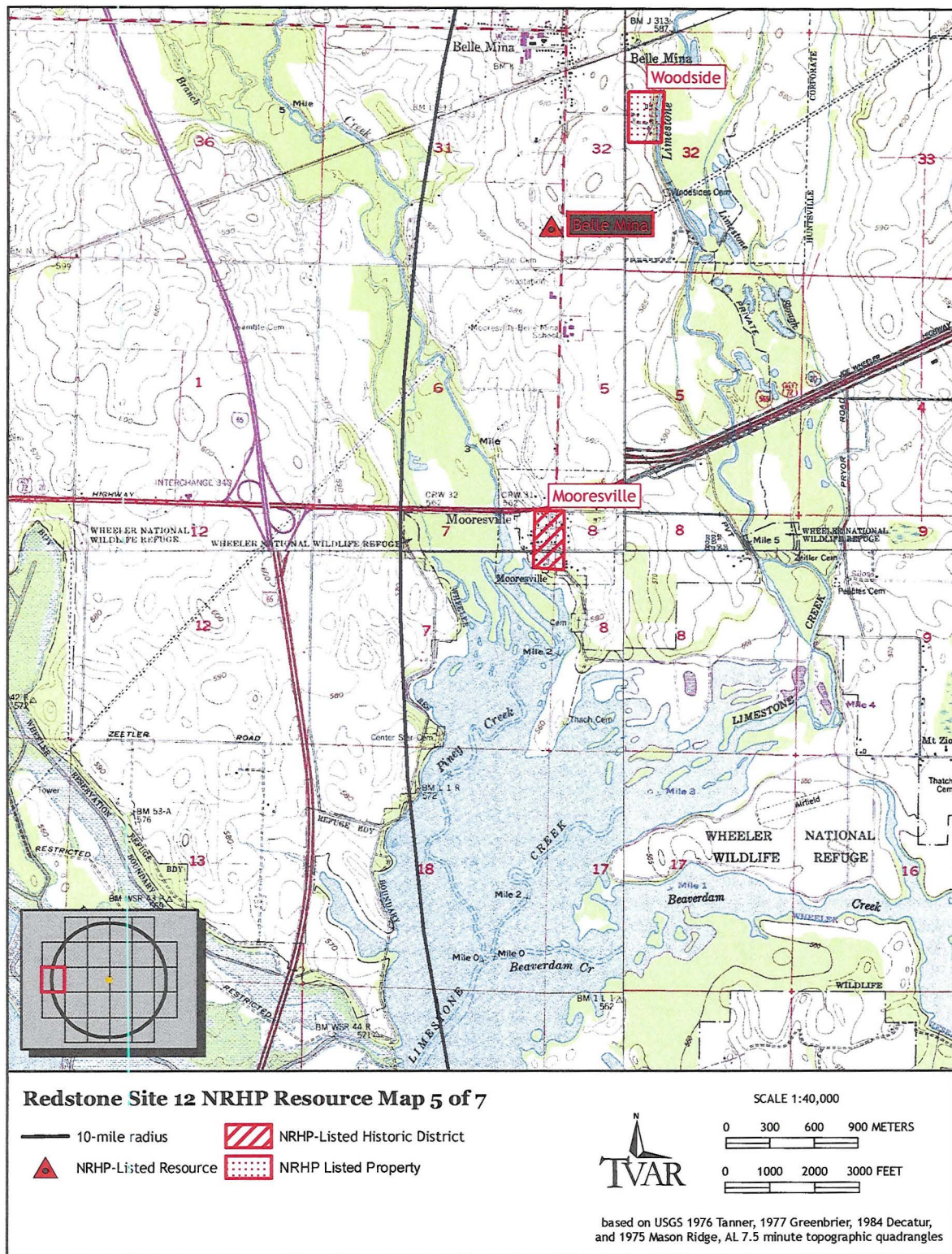


Figure 24. TVA SMR Redstone Site 12 NRHP-listed resource Map 5 of 7.

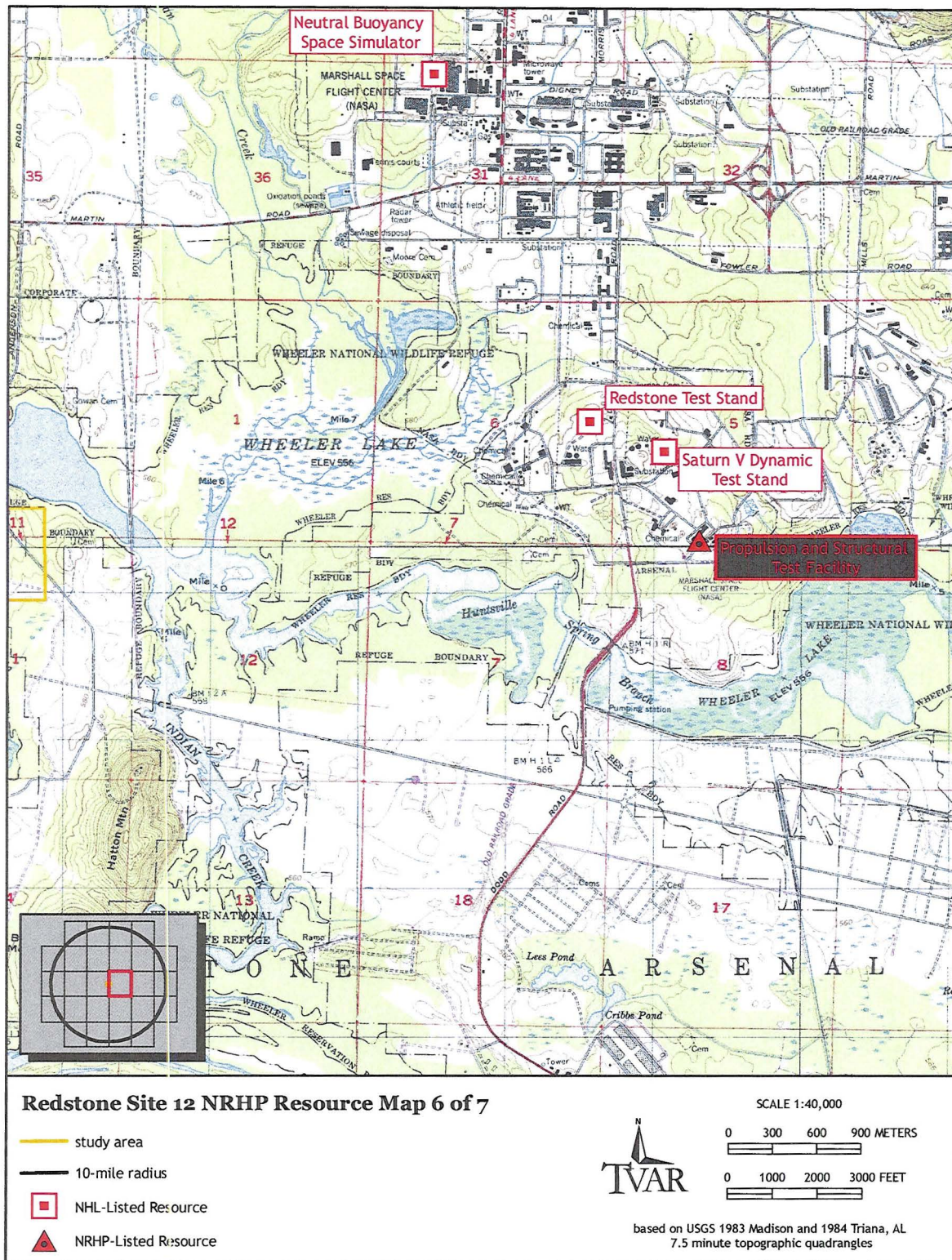


Figure 25. TVA SMR Redstone Site 12 NRHP-listed resource Map 6 of 7.

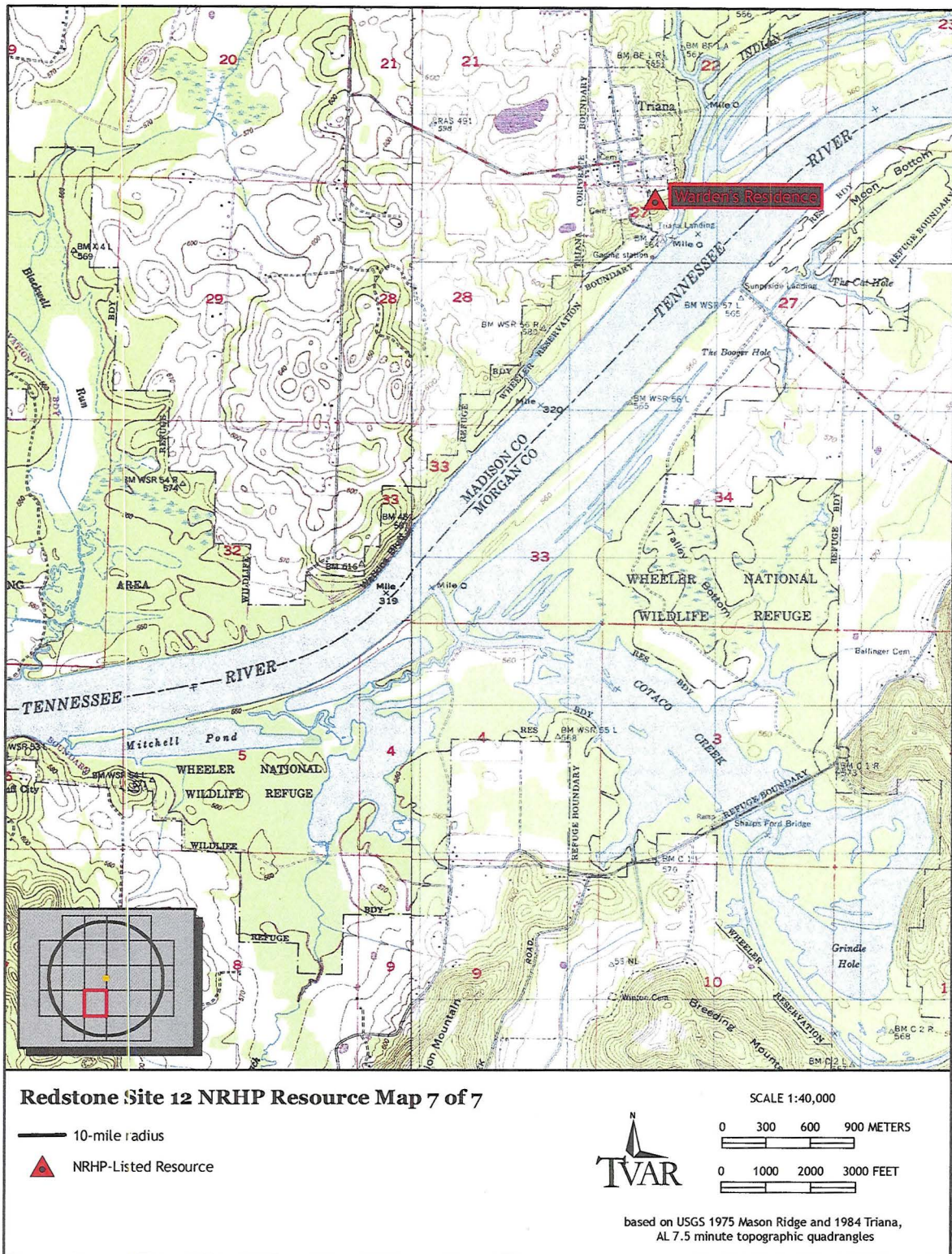


Figure 26. TVA SMR Redstone Site 12 NRHP-listed resource Map 7 of 7.

DELIVERABLES

Following identification and analysis, cultural resource locations were digitized onto the following Tennessee 7.5 USGS topographic quadrangle maps: Bethel Valley, Cave Creek, Clinton, Concord, Elverton, Lenoir City, Loudon, Louisville, Lovell, Meadow, Petros, Philadelphia, and Windrock for the ORR sites. For the Redstone Site 12, cultural resource locations were digitized onto the following Alabama 7.5' USGS quadrangles: Capshaw, Center Grove, Decatur, Farley, Greenbrier, Huntsville, Jeff, Madison, Mason Ridge, Meridianville, Newsome Sinks, Somerville, Tanner, and Triana. Attached are GIS shapefiles projected in Tennessee State Plane (Feet, NAD83) containing available data associated with cultural resources located within the TVA SMR Alternate Sites Project.

Accompanying deliverables includes all archaeological site forms, historic structure survey forms, archaeological reports, and architectural reports for each site footprint. Within a 10-mile radius of each site footprint TVAR has provided a listing of all NRHP-listed resources and nomination forms. In addition, two sets of shapefiles and spreadsheets are provided: one set with all the data on file at the respective historical commissions and one set with basic data.

If you should have any questions, please contact me at (256) 705-4545.

Sincerely,

A handwritten signature in black ink, appearing to read "Hunter Johnson", followed by a horizontal line extending to the right.

Hunter Johnson
Director

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