

**This Appendix contains information withheld under 10 CFR 2.390(a)(3)**

**APPENDIX A  
Consultation**

October 2, 2015

Mr. Doug Slabaugh  
State Soil Scientist  
Natural Resources Conservation Service  
675 US Courthouse  
801 Broadway  
Nashville, TN 37203

**SUBJECT: Request for Farmland Conversion Impact Rating - Proposed Clinch River Small Modular Reactor Project, Roane County, Tennessee**

Dear Mr. Slabaugh,

AECOM is working with the Tennessee Valley Authority (TVA), through Ruth Horton (865-632-3719), in the preparation of an Environmental Report for an Early Site Permit (ESP) Application to the Nuclear Regulatory Committee for a proposed 800-megawatt (MW) small modular reactor (SMR) facility at a proposed site in Roane County, Tennessee. The proposed facility would be located on approximately 935 acres of federal land, the Clinch River Nuclear (CRN) Site, located approximately 10 miles southwest of the Oak Ridge business district (Figure 1). The proposed construction activities would occur within the proposed CRN Site and the adjacent approximately 196 acre Barge/Traffic area (Figure 2).

TVA is in the process of conducting investigations and preparing the NEPA compliance documentation for the proposed project. This documentation will include a comprehensive analysis of pertinent environmental impacts, including prime or unique farmlands and an analysis of project alternatives. This letter is being submitted under the provisions of the Farmland Protection Policy Act.

The proposed CRN Site has been federal property since 1941. The only soil survey information for the proposed site is the 1941 Roane County Soil Survey. The proposed CRN Site and nearby Barge/Traffic area contains the following soils as shown in Figure 2:

- First-class soils (good to excellent cropland) – 0 acres
- Second-class soils (fair to good cropland) – 277.7 acres
- Third-class soils (poor to fair cropland) – 265.4 acres
- Fourth-class soils (best suited to pasture) – 383.3 acres
- Fifth-class soils (best suited to forest) – 204.5 acres

Portions of the CRN Site have been disturbed during previous site activities, including extensive excavation. The CRN Site was selected as the location for construction of a liquid metal fast breeder reactor in 1972. Site preparation for the CRBRP began in 1982 and was nearly complete in late 1983. Approximately 240 acres of the CRN Site were disturbed during site preparation for the CRBRP. Site preparation activities included leveling a ridge that originally reached 880 feet above mean sea level (msl) to 780 msl, excavation of the construction area, and installation of various structures and pads. The excavated area totaled approximately 24 acres in extent and extended to as much as 100 feet in depth. Approximately three million cubic yards of earth and rock were excavated during the site preparation. The project was terminated in late 1983 and site redress plans were developed and implemented. Measures to stabilize the CRBRP Site included reseeding of grass, and planting of trees, mulching cleared areas, installation of straw bales in shallow ditches, installation of small berms of riprap in larger ditches, installation of culverts to direct water from steep slopes, and modification of the holding ponds for long term stability. The 80 foot by 80 foot crane pad was left in place. The excavated area was partially backfilled in a manner to sustain site drainage. Level areas of the CRBRP Site were graded and



compacted. The areas of the CRN Site most heavily disturbed during the CRBRP Project are shown in Figure 2.

The majority of the CRN Site is located within the 7.5 minute U.S. Geological Survey Elverton Quadrangle. The eastern portion of the site is located within the Bethel Valley Quadrangle. The site is bracketed by the Petros and Windrock Quadrangles to the north, the Lovell Quadrangle to the east, the Lenoir City and Cave Creek Quadrangles to the south, and the Harriman Quadrangle to the west (Figure 3).

Enclosed is Form AD-1006, the Farmland Conversion Impact Rating Form, with Parts I and III completed and a map showing soil types and farmland classification of the proposed project site (Figure 2) based on the original 1942 Soil Survey data. To ensure compliance with the Farmland Protection Policy Act and to support the NEPA process, TVA requests that Natural Resources Conservation Service review the enclosed project-specific information and complete Parts II, IV, and V on the enclosed Form AD-1006. TVA staff will forward to your office a copy of the draft NEPA document, when it is available for distribution, along with a request for comments.

If you have any questions regarding this proposed project, please contact me at 864-234-8913 (bobbie.hurley@aecom.com) or Ruth Horton at 865-632-3719 (rmhorton@tva.gov).

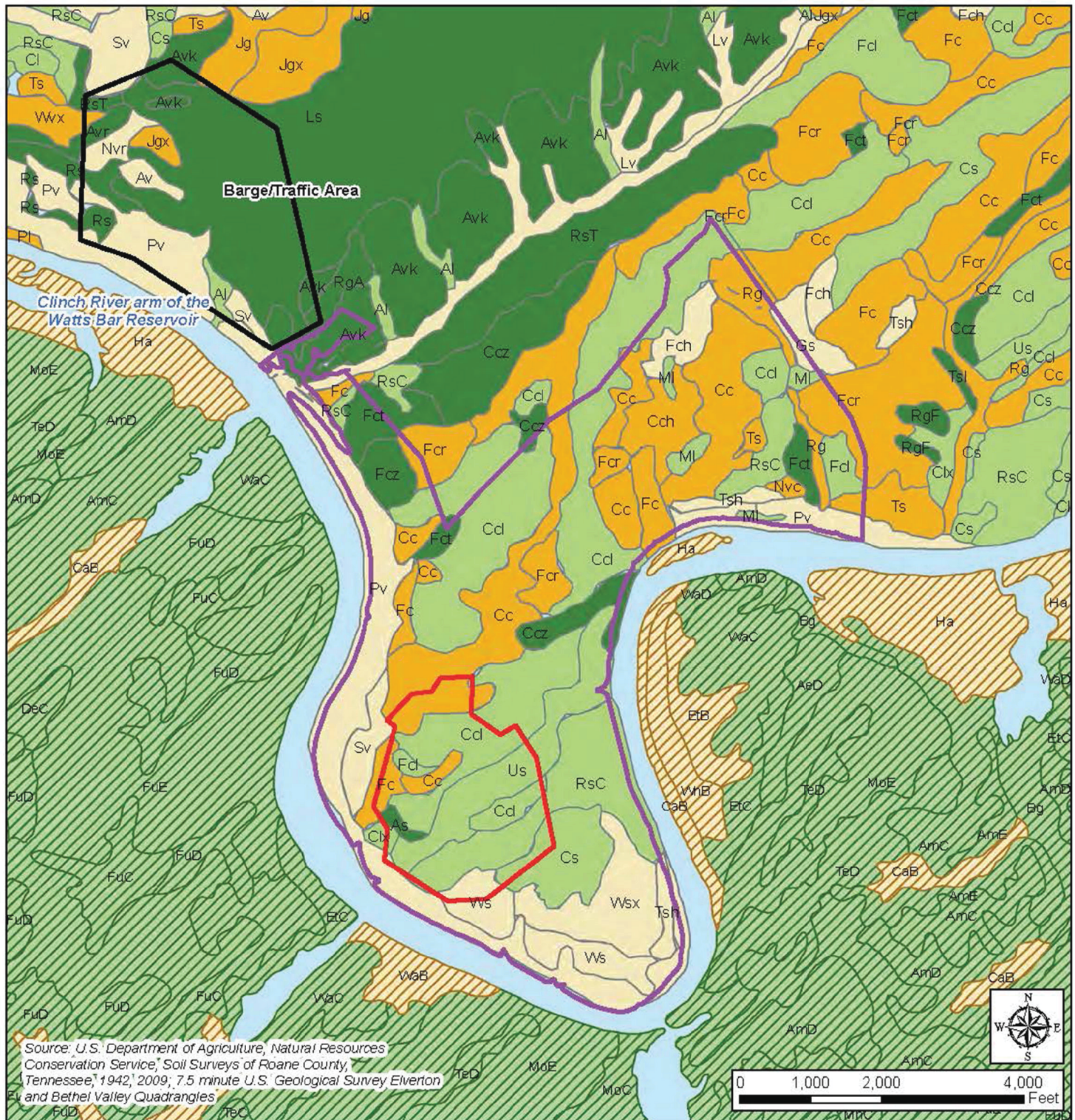
Sincerely,



Roberta A. Hurley  
Senior Operations Manager







### Legend

#### 1942 Soil Survey

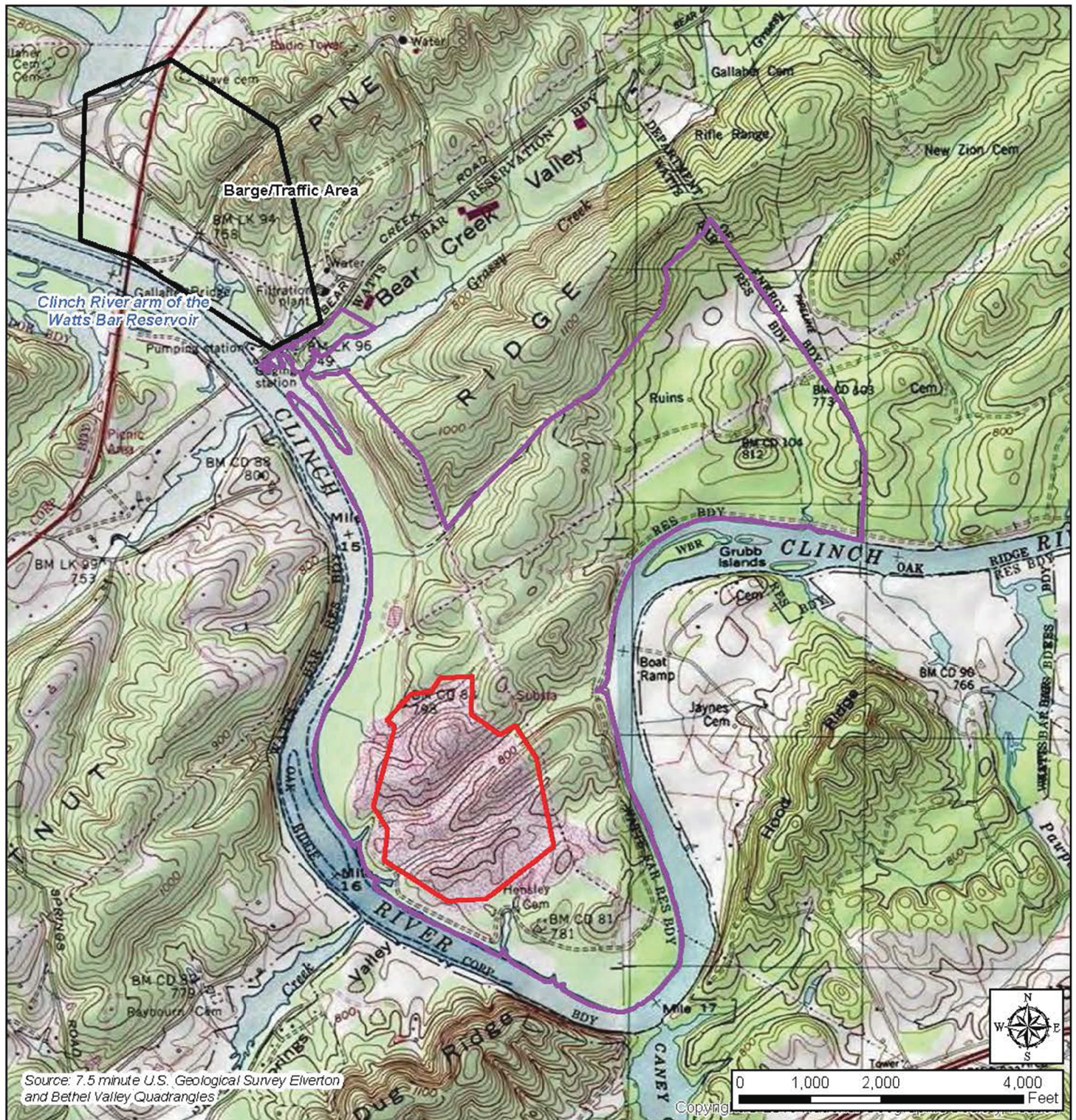
- First-class (good to excellent cropland)
- Second-class (fair to good cropland)
- Third-class (poor to fair cropland)
- Fourth-class (best suited to pasture)
- Fifth-class (best suited to forest)

#### 2009 Soil Survey

- Prime Farmland
- Not Prime Farmland
- CRBRP Disturbed Area
- CRN Site
- Barge/Traffic Area

**Figure 2. CRN Site Prime Farmland Soils**





#### Legend

- CRBRP Disturbed Area
- CRN Site
- Barge/Traffic Area

Figure 3. CRN Site Topographic Map



**FARMLAND CONVERSION IMPACT RATING**

<b>PART I</b> <i>(To be completed by Federal Agency)</i>		Date Of Land Evaluation Request <b>9-30-2015</b>			
Name of Project <b>Clinch River SMR Project</b>		Federal Agency Involved <b>Tennessee Valley Authority</b>			
Proposed Land Use <b>Small modular reactor (SMR) facility</b>		County and State <b>Roane County, Tennessee</b>			
<b>PART II</b> <i>(To be completed by NRCS)</i>		Date Request Received By NRCS		Person Completing Form:	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %			
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS			
<b>PART III</b> <i>(To be completed by Federal Agency)</i>		<b>Alternative Site Rating</b>			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		1131			
B. Total Acres To Be Converted Indirectly		0			
C. Total Acres In Site		1131			
<b>PART IV</b> <i>(To be completed by NRCS)</i> Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V</b> <i>(To be completed by NRCS)</i> Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
<b>PART VI</b> <i>(To be completed by Federal Agency)</i> Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)			
2. Perimeter In Non-urban Use		(10)			
3. Percent Of Site Being Farmed		(20)			
4. Protection Provided By State and Local Government		(20)			
5. Distance From Urban Built-up Area		(15)			
6. Distance To Urban Support Services		(15)			
7. Size Of Present Farm Unit Compared To Average		(10)			
8. Creation Of Non-farmable Farmland		(10)			
9. Availability Of Farm Support Services		(5)			
10. On-Farm Investments		(20)			
11. Effects Of Conversion On Farm Support Services		(10)			
12. Compatibility With Existing Agricultural Use		(10)			
TOTAL SITE ASSESSMENT POINTS		160	0	0	0
<b>PART VII</b> <i>(To be completed by Federal Agency)</i>					
Relative Value Of Farmland <i>(From Part V)</i>		100	0	0	0
Total Site Assessment <i>(From Part VI above or local site assessment)</i>		160	0	0	0
<b>TOTAL POINTS</b> <i>(Total of above 2 lines)</i>		260	0	0	0
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:					
Name of Federal agency representative completing this form:					Date:

*(See Instructions on reverse side)*

Form AD-1006 (03-02)