October 25, 2023

Fahe-Booneville Transitional Housing Project – 22R-053
Environmental Review Record

Environmental Assessment
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58

Project Information

Project Name: Fahe – Booneville Transitional Housing Project

Responsible Entity: Department for Local Government

Grant Recipient (if different than Responsible Entity): Fahe

State/Local Identifier: KS0003088

Preparer: Jerri Dyer, Fahe, jdyer@fahe.org

Certifying Officer Name and Title: Mark Williams, Compliance Branch Manager, Department for Local Government

Grant Recipient (if different than Responsible Entity): Fahe

Consultant (if applicable): Not Applicable

Direct Comments to: Mark Williams, Compliance Branch Manager, Department for Local Government, Markp.williams@ky.gov (502) 892-3485

Project Location: 87 Twin Meadows Road, Booneville, KY

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**

The intent of this project is to construct one (1) energy-efficient duplex (two rental units) for transitional housing for LMI applicants at the property located at 87 Twin Meadows Road, Booneville, KY, Census Tract 9301 (37°28'22", -83°39'35"), owned by Partnership Housing, Inc. in Booneville, Kentucky. This duplex will be part of a larger housing development located at the property. This project is designed to meet the needs of Owsley County residents for both affordable and transitional housing for individuals exiting Substance Use Disorder (SUD) treatment and living in active recovery.

The size of the property allows for the construction of five energy-efficient duplexes without incurring the costs of major grading. This project would construct one energy-efficient duplex utilizing two-bedroom building plans (two rental units, a total of four bedrooms) and can function as a stand-alone project, not dependent upon other development or infrastructure.

A separate, potentially concurrent CDBG housing project would provide additional infrastructure, such as a paved parking lot, for the overall development, as well as up to four more single family houses or duplexes could be constructed on the site, providing housing for a total of up to eight LMI households plus up to 16 residents of transitional housing.

Potential outcomes of this project include, but are not limited to, increased transitional housing for male interns at Carpenter's Village carpentry program, increased transitional housing for Peer Support Specialists for Carpenter's Village residential treatment who wish to live off-site, and increased transitional housing for residents who have completed in-patient treatment at Carpenter's Village and entered job-training or other educational programs. Residents of the units in this duplex will have access to Arc's wrap-around services for individuals transitioning out of residential SUD treatment.

See **Attachment 1**, Area and Site Maps for more information.

PROJECT STRUCTURE

The larger property on which this parcel sits is an approximately one acre lot in Booneville, KY, owned by Partnership Housing. The parcel identified for this project is approximately 0.13 acres, located on the northwest corner of the larger property. This parcel will be subdivided from the remaining portion of the property.

Partnership Housing currently has site control of the property and will retain site control for a minimum of ten (10) years upon completion of renovation and opening of the transitional housing facility. Municipal utilities are readily available at the site.

Cost Summary	CDBG-LMI	Other Funds	Total
Residential Construction	**$538,000**	**$0**	**$538,000**

Engineering Design/Inspection	**$8,000**	**$0**	**$8,000**
Pre-Award and Project Delivery Costs	**$54,000**	**$0**	**$54,000**

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
Currently, Fahe is administering CDBG funds for the development of a transitional housing project in Owsley County, Kentucky, while also working with two Members on an ARC INSPIRE grant for internships and second-tier employment for individuals who have completed SUD treatment and have begun an internship as part of their recovery process. Additionally, Fahe has completed one ARC POWER grant for the development of transformational, second-chance employment.

Partnership Housing is an innovator in bringing safe, decent, and affordable housing to one of the poorest counties with one of the highest housing needs in the United States. Partnership Housing has commissioned three different market studies, conducted by Valbridge Property Advisors from Louisville, KY (2018), National Land Advisory Group (2013), and a Need and Demand Analysis survey (2016). Each of the three studies indicated that there is adequate need in and near Booneville, KY for additional rental and single-family homeowner developments. While this project will not address the homeowner needs, it will address the needs of the community by providing housing for up to 16 individuals needing transitional housing. These individuals will then be able to work as Peer Support Specialists at Arc's Carpenter's Village, work or intern at other locates, and/or further their education or training for re-entry into the workforce.

Fahe is partnering with Partnership Housing to help bring a recovery housing model to Owsley County. The Fahe-Booneville Transitional Housing project addresses the substance abuse crisis by focusing on creating a recovery ecosystem that will lead to workforce reentry. With a wealth of experience in recovery housing, Fahe looks to create this model based on similar projects designed and established in the past, i.e. Liberty Place, Sky Hope, Hickory Hill, etc.

SUD has affected Owsley County and surrounding communities in many ways:

- The need for multi-unit residential rehabilitation housing is vital for the community of Booneville and Owsley County. Currently, there is currently no facility that provides supportive living for those in recovery who are transitioning from treatment to fully independent sober living.

- In Owsley County, overdose death rates were suppressed for 2022. However, Fentanyl (1-4 deaths) and Methamphetamines (1-4 deaths) were identified as present in drug overdose deaths in the county (Team Kentucky 2022 Overdose Fatality Report).

- By constructing a new transitional housing duplex, Partnership Housing and Addiction Recovery Care can offer the community a residential opportunity for persons leaving residential recovery to continue their recovery in a structured, supported facility, as

opposed to sending people in early stages of independent living into environments that put them in peril of substance use initially.

The duplex will provide housing for up to 16 residents in an effort to address the ongoing, severe effects of Substance Use Disorders within Owsley County in particular and Eastern Kentucky as a whole.

- The project will consist of one duplex, consisting of two two-bedroom rental units, which will provide supportive, transitional living opportunities for individuals exiting Addiction Recovery Care's residential SUD recovery facilities.

- Residents will work continue to receive supportive services during their stay, allowing them to acclimate to independent sober living in a supportive environment.

- The goal of Fahe and its partners is to support residents to become self-sufficient, positive influences in their communities.

- Residents will have safe, secure, and decent transitional housing while they re-enter the workforce or training programs, effectively removing a major stressor that can contribute to the need to re-enter treatment.

Existing Conditions and Trends [24 CFR 58.40(a)]:
According to US Census Bureau QuickFacts statistics (Census.gov) for 2022, Owsley County Kentucky has a median household income of $29,340 as compared to the US median household income of $69,021, resulting in 35.6% of residents living in poverty. Overall, 68.5% of Owsley County residents 25 and older hold a high school diploma or higher, while only 11.5% hold a bachelor's degree or higher.

Only 36.5% of the total population aged 16 and above participate in the civilian labor force, as compared to 63% nationwide. The mean time to travel to work for residents of Owsley County is 37 minutes, compared to the national average of 27 minutes.

Substance Use and Substance Use Disorder affect every county in Kentucky, with some regions experiencing more significant impact than others. While there has been a recent decrease in drug trafficking citation rates in the eleven-county area served by State Police Post 7 (K-Sure Report (No. 14), September 2021), the rates still remain in the 16.3-20.5 citations per 10,000 residents range, the highest range included in the report. As a whole, Central and Eastern Kentucky roughly east of I-75 have the highest rates of drug trafficking citations in the state.

Even with the apparent decrease in drug trafficking, there has been an increase in drug overdose-related deaths between 2019 and 2020 in the area served by KSP Post 7, similar to what has been seen throughout much of the state. In fact, Post 7 falls into the highest category (5.1-6.6 deaths per 10,000 residents) along with two other Eastern Kentucky KSP Post areas. The remainder of Eastern Kentucky reports rates ranging from 2.4-4.2 deaths/10,000 residents to 4.3-5.0 deaths/10,000 residents. Additionally, KSP Post 7 reports a Drug Overdose-related emergency

department visit rate of 26.8-38.4 visits per 10,000 residents, again in the highest category included in the report.

The high incidence of Substance Use in and around Owsley County has resulted in the area receiving a drug burden risk index score in the fourth quartile for Kentucky. Heroin and Opioids continue to be the primary substances used in this area, though Opioids, Methamphetamine, and Fentanyl are the leading substances causing overdose deaths. Between 2019 and 2020, incorporating only the first year of the pandemic, the KSP Post 7 area experienced an increase in Heroin trafficking, possession, deaths, ED visits, and hospitalizations; an increase in opioid deaths, hospitalizations, and ED visits; an increase in methamphetamine deaths; an increase in cocaine hospitalizations; and an increase in fentanyl trafficking and deaths.

The Robert Wood Johnson Foundation's County Health Rankings and Roadmaps report for 2022 ranked Owsley County 118th out of Kentucky's 120 counties. Among the metrics to note, the ratio of residents to primary care physicians is 1,550:1, with a mental health provider availability ratio of 370:1. Van Handel, et. al. report in the Journal of Acquired Immune Deficiency Syndrome (J Acquir Immune Defic Syndr. 2016 Nov 1; 73(3): 323–331) that Owsley County ranks 12th in the nation for risk of HIV or Hepatitis C outbreaks secondary to substance use.

Finally, while access to recovery beds in Eastern Kentucky has increased in recent years, the number of available beds continues to lag behind need and the availability of transitional, supportive housing is similarly lacking. A joint study by the University of Kentucky Center of Excellence in Rural Health and the Walsh Center for Rural Health Analysis at NORC has identified 14 Eastern Kentucky counties among the top 20 counties nationally for declines in drug overdoses. Even with these declines, the rates of drug overdose remain high, indicating that though the trend of providing better access to treatment and supportive recovery is working, the task of providing adequate access to all phases of sustained recovery is far from accomplished.

Sources:
Census.gov QuickFacts (https://www.census.gov/quickfacts/fact/table/owsleycountykentucky,US/PST045222)
K-Sure Report (No. 14), September 2021 (https://kiprc.uky.edu/sites/default/files/2021-09/K.SURE%20Product_No.14%2C20172020_final.pdf)
County Health Rankings and Roadmaps (https://www.countyhealthrankings.org/explore-health-rankings/kentucky/Owsley)
County-level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections among Persons who Inject Drugs, United States (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5479631/)
Team Kentucky 2022 Overdose Fatality Report (https://odcp.ky.gov/Reports/2022%20Overdose%20Fatality%20Report.pdf)

Funding Information

Grant Number	HUD Program	Funding Amount
KY Dept. for Local Gov't	CDBG-R	$600,000
Partnership Housing	N/A	$50,500

Fahe	N/A	$2,500
Addiction Recovery Care	N/A	$43,000
City of Booneville	N/A	$2,600

Estimated Total HUD Funded Amount:
$600,000

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:**
$693,000

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities
Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	The nearest civil or military airports are outside the 15,000 ft radius. The site is not within a clear zone or accident potential zone. See ***Attachment 4.***
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Kentucky has no coastal areas.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	The project site is not in a flood hazard area. See FEMA Firmette, ***Attachment 5***.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		

Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	The project is not located in a non-attainment area. See EPA data for air quality, ***Attachment 6***. Project site is in a Zone 2 county for radon; the project is residential. Radon mitigation is unlikely to be needed, though the developer may choose to test for verification. See ***Attachment 7***.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	Kentucky has no coastal zones.
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	No negative effects are expected from contamination or toxic substances, per queries of EPA documentation. See ***Attachment 8***.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	The Kentucky Fish & Wildlife Service has determined there are no concerns regarding state or federally protected species, wilderness areas or wildlife preserves, designated critical habitat, and migratory bird flyways for this project. ***Attachment 9***.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☒ No ☐	No explosive or flammable hazards are noted within the ASD of the property. See ***Attachment 10*****.**
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	USDA has stated that no impact is expected from this project. See ***Attachment 19*****.**
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☐ No ☒	The project is not located in a floodplain or flood hazard area. See ***Attachment 5***.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☒	The Kentucky State Historic Preservation Office has determined that the proposed project will not impact any properties or sites that are listed in or eligible for the National Register of Historic Places. No historic properties affected. See ***Attachment 11***.

Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	There are no railways within 3,000 feet nor military/civilian airports within 15 miles. No impacts anticipated to or by the proposed project. See ***Attachment 12*****.**
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	There are no sole source aquifers in Kentucky.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	Per the National Wetlands Inventory database, there are no wetlands on the subject property. See ***Attachment 13***.
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	Per the Kentucky Wild & Scenic Rivers map, there are no designated rivers within 1 mile. See ***Attachment 14***.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The proposed project creates no adverse environmental justice impact for LMI individuals and has the potential to create beneficial impact through the provision of transitional housing to individuals existing SUD treatment. There are no areas of minority concentration within Owsley County. The THPO for three potentially interested Tribal entities was sent a letter requesting comments on this project and no response was received after 30 days had passed. It is assumed that there are no concerns regarding the disturbance of tribal lands on this project. For a copy of the letters sent to the THPO offices, see ***Attachment 18*****.**

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source

documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.
(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	Owsley County does not have a planning or zoning department to determine zone designation. The site location is within the city of Booneville, near other residential buildings, and within two miles of amenities offered by Booneville. See *Attachment 15*.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	The project site is level and has no indication of issues with soil suitability, slope, erosion, drainage, or storm water runoff.
Hazards and Nuisances including Site Safety and Noise	2	No impact anticipated. The project will not be affected by any natural or built hazards or nuances. ASD was calculated based on LP tanks with an acceptable result. See ***Attachment 12*.**
Energy Consumption	2	The project site is served by Jackson Energy, which has ample capacity for the needs of this project.

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	1	The proposed project will have beneficial impact on employment or income patterns through the provision of safe, decent, and stable housing for residents to exit residential recovery programs and re-enter the work force or training programs.
Demographic Character Changes, Displacement	2	No impact anticipated; project is relatively small in scale. No displacement will occur – the lot is currently vacant with no buildings of any kind on it.

Environmental Assessment Factor	Impact Code	Impact Evaluation

COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	1	Beneficial impact anticipated. The project will allow for workforce development with a training program and a SUD treatment facility nearby where many of the residents will work as peer recovery specialists. See ***Attachment 16*****.**
Commercial Facilities	2	No anticipated impacts; surrounding properties are residential. See ***Attachment 16*****.**
Health Care and Social Services	1	Beneficial impact anticipated. Targeted services will be available at the Arc SUD treatment facility, Carpenter's Village. Medical services are available in Booneville. Manchester has a regional hospital, as does London. See ***Attachment 16*****.**
Solid Waste Disposal / Recycling	2	Construction and non-construction debris removal is available through Owsley County Solid Waste. ***See Clearinghouse comments in Mitigation Measures.***
Waste Water / Sanitary Sewers	2	Utilities are already provided to the site by the Booneville Water and Sewer. ***See Clearinghouse comments in Mitigation Measures.***
Water Supply	2	Utilities are available on-site through the Booneville Water and Sewer. ***See Clearinghouse comments in Mitigation Measures.***
Public Safety - Police, Fire and Emergency Medical	2	The City has adequate police, fire and emergency services personnel and no adverse impact is anticipated. See ***Attachment 16*****.**
Parks, Open Space and Recreation	2	Booneville and Owsley County have two major locations for recreation: Owsley County Park and Owsley County Recreation Center. See ***Attachment 16*****.**
Transportation and Accessibility	2	Daniel Boone Community Action Center provides on-demand public transportation services on a fee basis. See ***Attachment 16***.

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	None; no impacts anticipated. (Site Visit checklist, ***Attachment 3***). U.S. Army Corps of Engineers was sent a letter regarding this project and no response was received. A copy of this letter may be found in ***Attachment 17*****.**
Vegetation, Wildlife	2	None; no impacts anticipated. See ***Attachment 9***.
Other Factors		**See Clearinghouse comments in Mitigation Measures.**

Additional Studies Performed: Archaeological Survey.

Field Inspection (Date and completed by)**:**

Jerri Dyer, October 19, 2023 – Attachment 3

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]**:**

1. Project Map: Provided by Applicant
2. Site photographs: On-site visit
3. Airport Hazards: Online distance measuring; Kentucky Aviation Map 2023.
4. Floodplain: FEMA National Flood Hazard Layer, Firmette, on-line generation
5. Clean Air: U.S. EPA county status as of October 2023.
6. Radon: EPA Air Quality, county-level mapping system
7. Contamination/Toxic Substances: EPA Envirofacts, NEPAssist
8. Endangered Species: KY Fish and Wildlife Service response to scoping letter
9. Explosive/flammable hazards: Aerial review via Google Earth; NEPAssist; HUD Acceptable Separation Distance Assessment Tool
10. Farmlands Protection: USDA response to scoping letter
11. Floodplain management: FEMA Firmette
12. Historic preservation: Kentucky State Historic Preservation Office response to scoping letter
13. Noise abatement and control: Online mapping for distance to roadway, railway, civilian airport. Additional documentation KY Dept. of Transportation traffic count and high-volume roadway determination.
14. Sole source aquifers: N/A, none in Kentucky
15. Coastal zones: N/A, none in Kentucky
16. Wetlands Protection: National Wetlands Inventory Database and mapping system
17. Wild and Scenic Rivers: KY Dept. of Environmental Protection map of designated wild/scenic rivers
18. Environmental justice: Census tract analysis
19. Land development, conformance and compatible use: Generalized Geologic Map for Land Use Planning from the Kentucky Geological Survey.
20. Land development: On-site visual inspection and Kentucky State Clearinghouse (Single Point of Contact) comments.
21. Land development, hazards/nuisances: Site visit and Google Earth imagery.
22. Socioeconomic, employment/income: Project scope.
23. Socioeconomic, demographic: No impact due to scale and design.
24. Community facilities and services, educational/cultural, commercial, health care/social services: Project scope. Solid waste disposal/recycling: Municipal system available. Water/sewer: Municipal systems available, Clearinghouse comments. Public safety: Analysis of distance from emergency services. Parks/open spaces: Review of distance to facilities and amenities available (online mapping). Transportation/accessibility: Review of available public transit options.
25. Natural features, unique, water resources, vegetation/wildlife: Site visit
26. Tribal: scoping letter (no response received).
27. Clean Water Act, Rivers and Harbors Act, dredged/fill material: Response to scoping letter, U.S. Army Corps of Engineers (no response received).

List of Permits Obtained:

HBC Approval

Public Outreach [24 CFR 50.23 & 58.43]**:**
Public notice regarding the project was made in the Booneville Sentinel, December 14, 2023. The notice stated comments could be made for 15 days and materials were made available at the Partnership Housing Office in Booneville.

Cumulative Impact Analysis [24 CFR 58.32]**:**
No significant adverse impacts provided mitigation measures below are followed.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]
Alternate site location, while a viable option, would require acquisition of land. Location within a new development within an existing residential area is preferable to finding another location that might not be as suitable.

No Action Alternative [24 CFR 58.40(e)]:
Considered but not chosen given the need for the project.

Summary of Findings and Conclusions:
The project will not have an adverse environmental impact, nor will the surrounding environment (property uses) create adverse impacts to the project. Included in the mitigation measures below are general comments received through the Kentucky State Clearinghouse Single Point of Contact process. The Responsible Entity will convey information below to the successful bidder(s).

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Thermal & Explosive Hazards	None noted. ***Attachment 10.***
Department for Environmental Protection 401 KAR 63:010, Fugitive Emissions	No person shall cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Additional requirements include the covering of open bodied trucks, operating outside the work area transporting materials likely to become airborne, and that no one shall allow earth or other material being transported by truck or earth-moving equipment to be deposited onto a paved street or

	roadway. Please note the Fugitive Emissions Fact Sheet located at http://air.ky.gov/SiteCollectionDocuments/Fugitive%20Dust%20Sheet.pdf *Mitigation: Follow above-stated guidance.*
Department for Environmental Protection 401 KAR 63:005, open burning	Open burning shall be prohibited except as specifically provided. Open Burning is defined as the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the outdoor atmosphere without passing through a stack or chimney. However, open burning may be utilized for the expressed purposes listed on the Open Burning Brochure located at http://air.ky.gov/Pages/OpenBurning.aspx *Mitigation: Follow above-stated guidance.*
Department for Environmental Protection	All solid waste generated by this project must be disposed at a permitted facility. If underground storage tanks are encountered they must be properly addressed. If asbestos, lead paint, and/or other contaminants are encountered during this project, they must be properly addressed. Mitigation requirement / solid waste: None. Construction waste dumpsters are available through the Owsley County Solid Waste, with waste taken to a permitted facility. Mitigation requirement / asbestos and lead-based paint: If asbestos and/or lead-based paint are found to be present during renovation, appropriate disposal and mitigation measures will be taken. *Mitigation: Follow above-stated guidance.*
Department for Environmental Protection	Constructions located in floodplains require Division of Water (DOW) prior approval. If the construction area disturbed is 1 acre or more, the applicant will need to apply for a Kentucky Pollutant Discharge Elimination System storm water discharge permit. *Mitigation: None; site is not in a floodplain.*
Department for Environmental Protection	Utility line projects that cross a stream will require a Section 404 permit from the US Army Corps of Engineers and a 401 Water Quality Certification from DOW. *Mitigation: None; utilities will not cross a stream.*
Department for Environmental Protection	Best Management Practices (BMPs) should be utilized to control storm water runoff and sediment damage to water quality and aquatic habitat. For technical assistance on the kinds of BMPs most appropriate for housing and related construction, please contact the local Soil and Water Conservation District or the Division of Conservation. *Mitigation: Follow requirements above.*

Department for Environmental Protection	WATER SUPPLY - If an existing water server is to be utilized for new water tap-ons (rehabilitations, new constructions), ascertain the capacity and operating condition of the originating water treatment plant and of the server (if different) in comparison to the water needs of the proposed housing. DOW cannot permit connections to water servers under tap-on bans, Agreed Orders, or Court Orders. DOW may not give approval to connections to water systems operating near, at, or over capacity. If a new water source is to be utilized, ascertain the source's (stream's or well's) low flow ability to serve the proposed housing. Prior approval from DOW is required for water withdrawals of over 10,000 gallons per day and for all public drinking water. Final plans and specifications are subject to review by DOW. *Mitigation: None; existing tap will be used.*
Department for Environmental Protection	WASTEWATER TREATMENT - If an existing wastewater server is to be utilized for new wastewater tap-ons (rehabilitations, new construction), ascertain the capacity and operating conditions of the receiving wastewater treatment facility (wastewater treatment plant or package sewage treatment plant) and of the server (if different) in comparison to the wastewater needs of the proposed housing. DOW cannot permit connections to wastewater servers under tap-on bans, Agreed Orders, or Court Orders. DOW may not give approval to connections to wastewater systems at or over hydraulic capacity. If a new wastewater treatment, facility is to be utilized, ascertain the discharge stream's ability to absorb the proposed housing's treated wastewater. *Mitigation: None; existing tap will be used.*
Department for Environmental Protection	DOW notes the requirements of onsite sewage disposal statutes, KRS 211.350 to 211.380, and administrative regulations, 902 KAR 10:060 to 10:110, must be met. DOW requests provisions be made for future connections to a wastewater treatment system. A Groundwater Protection Plan, as required by 401 KAR 5:037, needs to be prepared by all onsite wastewater system owners. Contact the DOW regarding requirements. *Mitigation: None; not applicable.*
Department for Environmental Protection	Prior approval from DOW is required for all discharges into streams and for all wastewater treatment facilities. DOW reminds the applicant to seal abandoned wastewater service connections. *Mitigation: None; not applicable.*
Department for Environmental Protection	Your project might have the potential of impacting federally or state listed species and natural communities. Go to the Kentucky Biological Assessment Tool (kynaturepreserves.org) to obtain a Standard Occurrence Report for information regarding listed species known within your project area. The report will also provide information on public and private conservation lands, areas of biodiversity significance, and other natural

	resources in your project area for which the Office of Kentucky Nature Preserves maintains data. *Mitigation: None; see separate communication with U.S. Fish and Wildlife Service.*
Department of Housing Buildings and Construction	KY Department of Housing, Buildings and Construction, Division of Building Code Enforcement, has several points that must be considered for this project. Plans and applications for review and approval for a project of this type and size must be summited to this Department. These applications must be authored by an architect and/or engineer(s) licensed to practice in Kentucky. There are several approvals required. Please review the Department's web page for questions concerning this process. dhbc.ky.gov . In addition, please contact local government offices for information on any zoning or business approvals which may be required. *Mitigation: Plans and specs to be approved by HBC or, at HBC's discretion, local planning/zoning.*
KY Heritage Council	receive a review from the KY Heritage Council/State Historical Preservation Office (SHPO) you must follow the instructions located on their website at http://www.heritage.ky.gov/siteprotect/. There you will find the required documents for the Section 106 Review and Compliance for 36 CFR Part 800. This Section 106 submission process to SHPO will assist applicants and agencies in providing the appropriate level of information to receive comments from SHPO. If you have any questions please contact Yvonne Sherrick, Administrative Specialist III, (502) 564-7005, Ext. 113, yvonne.sherrick@ky.gov.To *Mitigation: None; SHPO clearance received after Archaeological Review.*
KYTC-Department of Highways	Any work within KYTC right of way, including any new or changes to the existing entrances, will require an encroachment permit. If entrance work is planned, coordinate with KYTC, District Nine prior to making any definite decisions. *Mitigation: Follow guidance as provided.*

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: _____ Date: Dec 13, 2023

Name/Title/Organization: Director of Projects, Fahe

Certifying Officer Signature: _____Date:_____

Name/Title: _____

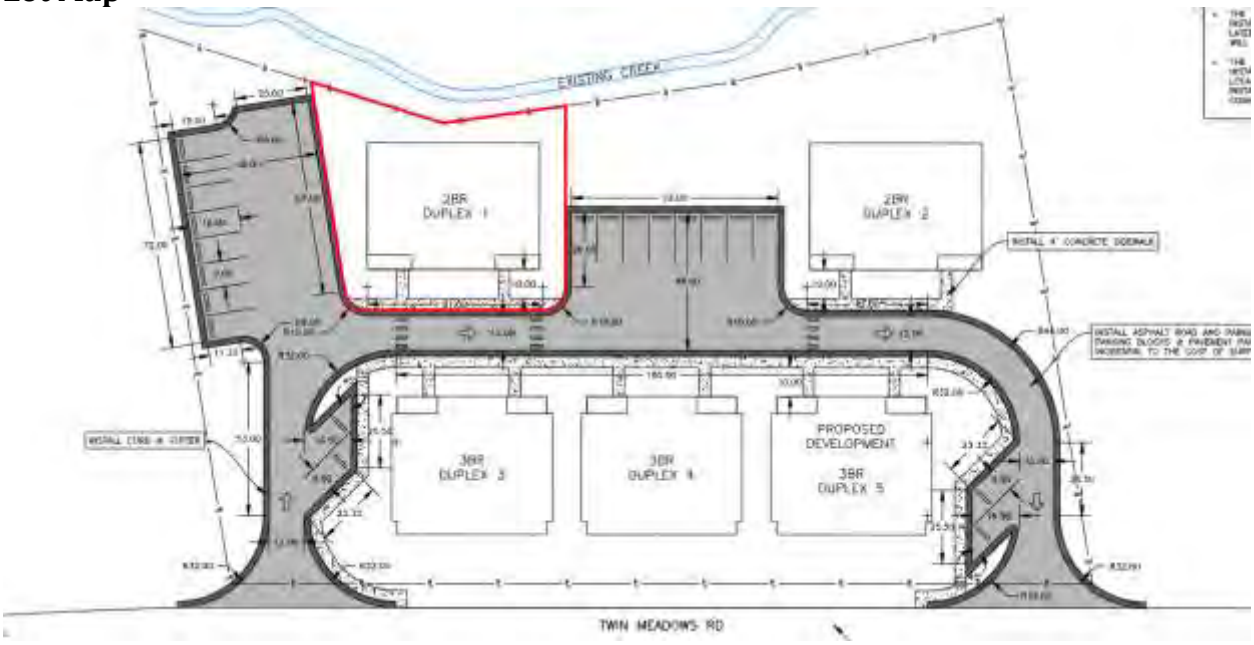
This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Attachment 1 – Area and Site Maps

Location within Booneville, Kentucky

87 Twin Meadows Road, Booneville, Kentucky 41314, marked by blue place marker

Lot Map



Duplex 1 with the red line indicating the lot for this project as situated within the larger housing development.

Site map with arrow pointing to lot to be used for construction of duplex.

Site Photos

View of northeast corner of property from northwest corner (road side).

View of northeast corner of property from southwest corner (road side).

View of northeast corner of property from southeast corner.

Attachment 2 – Clearinghouse Comments

May 26, 2023

Mr. Jon Brooks
Fahe
319 Oak St.
Berea, KY 40403

RE: Boonville Transitional Housing Project
SAI# KY202305190916
CFDA# 14.218

Dear Mr. Brooks:

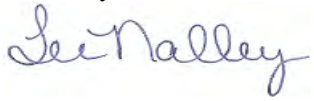
The Kentucky State e-Clearinghouse is the official designated Single Point of Contact (SPOC) for the Commonwealth pursuant to Presidential Executive Order 12372, and supported by Kentucky Statutes KRS 45.031. The primary function of the SPOC is to streamline the review aforementioned process for the applicant and the funding agency. This process helps in vocalizing the statutory and regulatory requirements. Information in the form of comments, if any, will be attached to this correspondence.

This proposal has been reviewed by the appropriate state agencies in the e-Clearinghouse for conflicts with state or local plans, goals and objectives. After receiving this letter, you should make it available to the funding agency and continue with the funding agencies application process. This e-Clearinghouse SPOC letter signifies only that the project has followed the state reviewing requirements, and is neither a commitment of funds from this agency or any other state or federal agency. Please remember if any federal reviews are required the applicant must follow through with those federal agencies.

The results of this review are valid for one year from the date of this letter. If the project is not submitted to the funding agency or not approved within one year after the completion of this review, the applicant can request an extension by email to Lee.Nalley@ky.gov. If the project changes in any way after the review, the applicant must reapply through the e-Clearinghouse for a new review. There are no exceptions.

If you have any questions regarding this letter or the review process please contact the e-Clearinghouse office at 502-892-3462.

Sincerely,



Lee Nalley, SPOC
Kentucky State Clearinghouse

Attachment

Bluegrass ADD
Shane New

The review was based upon the information that was provided by the applicant through the clearinghouse for this project. The project does not appear to conflict with the mission and goals of the Bluegrass Area Development District.

Department for Environmental Protection
Louanna Aldridge

This review is based upon the information that was provided by the applicant through the Clearinghouse for this project. An endorsement of this project does not satisfy, or imply, the acceptance or issuance of any permits, certifications, or approvals that may be required from this agency under Kentucky Revised Statutes or Kentucky Administrative Regulations. Such endorsement means this agency has found no major concerns from the review of the proposed project as presented other than those stated as conditions or comments.

Kentucky Division for Air Quality Regulation 401 KAR 63:010 Fugitive Emissions states that no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Additional requirements include the covering of open bodied trucks, operating outside the work area transporting materials likely to become airborne, and that no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway. Please note the http://air.ky.gov/SiteCollectionDocuments/Fugitive%20Dust%20Fact%20Sheet.pdf

Kentucky Division for Air Quality Regulation 401 KAR 63:005 states that open burning is prohibited. Open Burning is defined as the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the atmosphere without passing through a stack or chimney. However, open burning may be utilized for the expressed purposes listed on the http://air.ky.gov/Pages/OpenBurning.aspx.

All solid waste generated by this project must be disposed at a permitted facility. If underground storage tanks are encountered, they must be properly addressed. If asbestos, lead paint, and/or other contaminants are encountered during this project, they must be properly addressed.

If the proposed project site is in a designated flood hazard area, application must be made to the Division of Water for a floodplain construction permit. Permission, or exemption, depends upon design and the exact site.

Utility line projects that cross a stream will require a Section 404 permit from the US Army Corps of Engineers and a 401 Water Quality Certification from DOW.

If the construction area disturbed is equal to or greater than 1 acre, the applicant will need to apply for a Kentucky Pollutant Discharge Elimination System (KPDES) stormwater discharge permit from the Division of Water.

Best Management Practices (BMPs) should be utilized to control storm water runoff and sediment damage to water quality and aquatic habitat. For technical assistance on the kinds of BMPs most appropriate for housing and related construction, please contact the local Soil and Water Conservation District or the Division of Conservation.

If an existing water server is to be utilized for new water tap-ons (rehabilitations, new constructions), ascertain the capacity and operating condition of the originating water treatment plant and of the server (if different) in comparison to the water needs of the proposed housing. DOW cannot permit connections to water servers under tap-on bans, Agreed Orders, or Court Orders. DOW may not give approval to connections to water systems operating near, at, or over capacity. If a new water source is to be utilized, ascertain the source's (stream's or well's) low flow ability to serve the proposed project. Prior approval from DOW is required for water withdrawals of over

10,000 gallons per day and for all public drinking water. Final plans and specifications are subject to review by DOW.

If an existing wastewater server is to be utilized for new wastewater tap-ons (rehabilitations, new construction), ascertain the capacity and operating conditions of the receiving wastewater treatment facility (wastewater treatment plant or package sewage treatment plant) and of the server (if different) in comparison to the wastewater needs of the proposed housing. DOW cannot permit connections to wastewater servers under tap-on bans, Agreed Orders, or Court Orders. DOW may not give approval to connections to wastewater systems at or over hydraulic capacity. If a new wastewater treatment facility is to be utilized, ascertain the discharge stream's ability to absorb the proposed projects treated wastewater.

DOW notes the requirements of onsite sewage disposal statutes, KRS 211.350 to 211.380, and administrative regulations, 902 KAR 10:060 to 10:110, must be met. DOW requests provisions are made for future connections to a wastewater treatment system. A Groundwater Protection Plan, as required by 401 KAR 5:037, needs to be prepared by all onsite wastewater system owners. Contact the DOW regarding requirements.

Prior approval from DOW is required for all discharges into streams and for all wastewater treatment facilities. DOW reminds the applicant to seal abandoned wastewater service connections.

Your project might have the potential of impacting federally or state listed species and natural communities. Go to the Kentucky Biological Assessment Tool (kynaturepreserves.org) to obtain a Standard Occurrence Report for information regarding listed species known within your project area. The report will also provide information on public and private conservation lands, areas of biodiversity significance, and other natural resources in your project area for which the Office of Kentucky Nature Preserves maintains data.

Department of Housing Buildings and Construction
Don Newberry

The Department of Housing Buildings and Construction, Division of Building Code Enforcement, has no comments concerning this proposed project. Please contact the Local Jurisdiction to inquire about the requirements for permitting.

Kentucky Department of Fish & Wildlife Resources
Doug Dawson

Based on the information provided, the Kentucky Department of Fish & Wildlife Resources has no comments concerning the proposed project. Please contact Doug Dawson at 502-892-4472 or doug.dawson@ky.gov if you have further questions or require additional information.

Kentucky Transportation Cabinet
Darren Back

Based on the information provided, the Kentucky Transportation Cabinet District 10 has no comments concerning the proposed project. If any proposed work items will occur on Commonwealth of Kentucky Right of Way, please submit a permit application to the KYTC District 10 Permits Section and obtain approval prior to beginning work. Please contact Darren Back at 606-666-8841 or darren.back@ky.gov if you have further questions or require additional information.

KY Heritage Council
Yvonne Sherrick

To receive a review from the KY Heritage Council/State Historical Preservation Office (SHPO) you must follow the instructions located on their website at https://heritage.ky.gov/compliance/Pages/overview.aspx. There you will find the required documents for the Section 106 Review and Compliance for 36 CFR Part 800. This Section 106 submission process to SHPO will assist applicants and agencies in providing the appropriate level of information to receive comments from SHPO. If you have any questions please contact Yvonne Sherrick, via email at yvonne.sherrick@ky.gov.

Please note: If your project is funded through Transportation Alternative (TAP), Transportation Enhancements (TE), Congestion, Mitigation, Air Quality (CMAQ), or Safe Routes to School (SRTS) you will need to send this information to Michael Jones, Historic Preservation Program Administrator with the Kentucky Transportation Cabinet via email to MichaelR.Jones2@ky.gov or hard copy to Michael Jones, Office of Local Programs, KY Transportation Cabinet, 200 Mero Street Frankfort, KY 40622. Do not send materials directly to SHPO if your project involves funding from these four sources as it will cause delays in the review process. Michael Jones will consult directly with the SHPO on projects with these funding sources to complete the Section 106 review.

Attachment 3 – Site Visit

SITE VISIT AND FIELD OBSERVATIONS Checklist

Instructions: It is recommended that this checklist be used by staff and/or consultants for HUD-assisted projects involving acquisition, rehabilitation, demolition, construction, and resale of properties acquired as part of a HUD-assisted project.

No matter what level of environmental expertise a reviewer has, the site visit is an effective method of gaining impressions of the physical characteristics of the project site and its surroundings. However, for certain categories of environmental impact (e.g., groundwater, soils suitability, seismic zones, and wetlands, endangered species habitat) a professional expert is required. The expert will gather the relevant information and conduct tests such as gathering soils samples or taking soil borings.

Prior to the site visit, review all background information about the project---it's location, a description of the project and all related activities, and any existing reports and documents associated with the project (e.g. environmental reviews completed for the same project by Federal, state or local entities; appraisal reports; special studies, such as a Phase I Environmental Site Assessment, biological assessment concerning endangered species, archival reports concerning archeological sites, soils and geological report, etc.) .

Also, several different types of maps will be useful in completing the field review, such as the project plan or plat map, a location map showing major features and facilities in the vicinity, the USGS topographic map and FEMA flood map for the site area (if applicable), as well as aerial photos. **Many of the site conditions can and should be recorded directly on the project plan.** Distances to major features and facilities (e.g. schools and fire stations, major roadways, etc.) and a description of the surrounding area are examples. This record of the site visit and documentation of field observations, as well as the project plan can then be used as evidence of "compliance documentation".

At times, these field observations will identify environmental conditions that require further investigation and reporting.

A digital camera should be used to photograph the project site, and any environmental conditions or structures that may provide additional information and/or support observations being made.

Project Address/Location:

87 Twin Meadows Road, Booneville, KY 41314

Brief Description of the Project:

The intent of this project is to construct one (1) energy-efficient duplex (two rental units) for transitional housing for LMI applicants at the property located at 87 Twin Meadows Road, Booneville, KY, Census Tract 9301 (37°28'22", -83°39'35"), owned by Partnership Housing, Inc. in Booneville, Kentucky. This duplex will be part of a larger housing development located at the property. This project is designed to meet the needs of Owsley County residents for both affordable and transitional housing for individuals exiting Substance Use Disorder (SUD) treatment and living in active recovery. The size of the property allows for the construction of five energy-efficient duplexes without incurring the costs of major grading. This project would construct one energy-efficient duplex utilizing two-

bedroom building plans (two rental units, a total of four bedrooms) and can function as a stand-alone project, not dependent upon other development or infrastructure.

A separate, potentially concurrent CDBG housing project would provide additional infrastructure, such as a paved parking lot, for the overall development, as well as up to four more single family houses or duplexes could be constructed on the site, providing housing for a total of up to eight LMI households plus up to 16 residents of transitional housing.

Potential outcomes of this project include, but are not limited to, increased transitional housing for male interns at Carpenter's Village carpentry program, increased transitional housing for Peer Support Specialists for Carpenter's Village residential treatment who wish to live off-site, and increased transitional housing for residents who have completed in-patient treatment at Carpenter's Village and entered job-training or other educational programs. Residents of the units in this duplex will have access to Arc's wrap-around services for individuals transitioning out of residential SUD treatment.

1. Historic Preservation (36 CFR Part 800)

a) Describe the boundary of the *area of potential effects* (APE) and draw it on a site map.
(NOTE: For rehabilitation of an existing building the APE is the property boundary. For reconstruction or new construction of single-family residential buildings it is the project site and immediately adjacent properties. For construction of multifamily residential buildings as well as nonresidential buildings the APE may be larger than this depending upon the mass and scale of the proposed building construction in comparison to the surrounding uses.)

This parcel is a 0.13 acre lot, on the northeast side of a larger parcel purchased October 13, 2017 by Partnership Housing, Inc.

b) Are there buildings present within the APE? ☐ YES ☒ NO
If **yes**, how many buildings are there and what type (e.g., homes, commercial/retail, etc.)?

There are no buildings on the site.

c) Are the buildings more than 50 years of age? ☐ YES ☐ NO
If **yes**, take a digital photo of the building(s) and record the location of the photos (by address, if any, as well as on a site map). ☐ INCLUDED ☒ N/A
Comments:

d) Have visible alterations been made to the building(s)? ☐ YES ☐ NO ☒N/A
If **yes**, describe these alterations.

Comments on Section 1:

Vacant lot. Survey to be completed to revise plat to identify this lot as separate from remainder of larger property.

2. Noise Abatement (24 CFR 51, Subpart B)

Does the project involve reconstruction or new construction of residential units or other land use that would be adversely impacted by high levels of noise (e.g., hospitals or clinics with overnight patients, community centers, etc.)? ☒ YES ☐ NO

*If **yes**, continue completing this section on noise abatement.*

a) Is the project located near a major noise source? ☐ YES ☒ NO

1. Is the projected located within 1,000 feet of major highways or busy roads? ☐ YES ☒ NO

   If **yes**, what is the name of the highway(s) and/or road(s)?

   N/A

   Is there a barrier (natural or constructed) of sufficient height and length to break the line-of-sight to the project? ***(NOTE**: Vegetation is not an effective barrier.)* ☐ YES ☐ NO

   If **yes**, provide a description of the barrier. If no, continue.

   N/A

   What is the *noise assessment location* (NAL)?
   ***NOTE:** The NAL is 6.5 feet from the building façade or the proposed building setback. Refer to page 50 of the HUD Noise Guidebook.)*

   N/A

   Was **Worksheet C (Roadway Noise) in** the HUD Noise Assessment Guidelines (Page 76 of the HUD Guidebook) completed during the field visit? ☐ YES ☐ NO

   If **no**, name what other source of information will be used to complete a noise calculation to determine whether roadway noise is ***Acceptable*** **(65 DNL)**, according to HUD standards---i.e., existing Federal or local roadway study, hire a consultant, etc.

   N/A

2. Is the project located within 3,000 feet of a rail road? ☐ YES ☒ NO
   If **yes**, what is the name of the railroad line(s)?

   Is there a barrier (natural or constructed) of sufficient height and length to break the line-of-sight to the project? *(NOTE: Vegetation is not an effective barrier.)* ☐ YES ☐ NO

   If **yes**, provide a description of the barrier. If **no**, continue.

   What is the *noise assessment location* (NAL)?
   ***NOTE:** The NAL is 6.5 feet from the building façade or the proposed building setback. Refer to page 50 of the HUD Noise Guidebook.)*

N/A

Was **Worksheet D (Railway Noise)** in the HUD Noise Assessment Guidelines (Page 78 of the HUD Guidebook) completed during the field visit? ☐ YES ☐ NO

If **no**, name what other source of information will be used to complete a noise calculation to determine whether railway noise is ***Acceptable*** **(65 DNL)**, according to HUD standards---i.e., existing Federal or local railway study, hire a consultant, etc.

N/A

3. Is the project located within 15 miles of an FAA-regulated civil airfield or military airfield?
☐ YES ☒ NO

If **yes**, what is the name of the airfield(s)?

Acquire a copy of the airfield map that shows the DNL noise contour lines around the airport(s).
☐ Included ☐ Not available (see comment on Section 2)

Comments on Section 2:

Noise from Roadways, Airfields, or Railways was determined not to be of concern to this project.

3. Hazardous Operations (24 CFR 51, Subpart C)

a) Are there stationary aboveground storage tanks containing more than 100 gallons of explosives or fire-prone materials (e.g., liquid propane, gasoline, or fuel oils, etc.) that are within 1 mile of the project? ☒ YES ☐ NO

If **yes**, identify the facility (e.g., commercial, industrial, residential), as well as its location and distance to the project:

Residential property approximately 423 feet from the proposed site.

Is there a barrier (natural or constructed) of sufficient height and length to break the line-of-sight to the project? (**NOTE:** Vegetation is not an effective barrier.) ☐ YES ☒ NO

If **yes**, provide a description of the barrier.

If **no**, you must determine whether the project is an acceptable distance (for both people and buildings) from the hazard using the HUD guidebook, "**Siting of HUD-Assisted Projects Near Hazardous Facilities**".
☒ Siting determination included ☐ N/A

Comments on Section 3:

Distance between proposed duplex and residential propane tank exceeds ASD.

4. Airport Hazards (24 CFR 51, Subpart D)

a) Is the project within 2500 feet of an FAA-regulated civil airfield? ☐ YES ☒ NO

b) Is the project within 15,000 (about 2.8 miles) feet of a military airfield? ☐ YES ☒ NO

If your answer is **YES** to either of these questions, contact the civil and/or military airfield for a map showing the location(s) of Runway Clear Zones (at civil airfields) and/or Clear Zones and Accident Protection Zones (at military airfields).

☐ Runway Clear Zones Map included ☒ N/A

☐ Clear Zones and Accident Protection Zones included ☒ N/A

Comments on Section 4:

5. Protection of Wetlands (Executive Order 11990)

a) Are there drainage ways, streams, rivers, or coastlines on or near the site? ☒ YES ☐ NO

b) Are there ponds, marshes, bogs, swamps or other wetlands on or near the site? ☐ YES ☒ NO

c) For projects proposing new construction and/or filling, grading and dredging, or expanding the existing building footprint, the following applies:

i) Is the project located within a wetland designated on a National Wetlands Inventory map maintained by the U.S. Fish and Wildlife Service? ☐ YES ☒ NO

ii) If your answer is **YES**, E.O. 11990, Protection of Wetlands, discourages Federal funding of these activities in wetlands and compliance with the wetlands decision-making process is required (Refer to 24 CFR 55, § 55.20).

☐ Wetlands decision-making process included ☒ N/A

Comments on Section 5:

6. Toxic Chemicals and Radioactive Materials [24 CFR 58, § 58.5(i)]

Has a Phase I Environmental Site Assessment been completed? ☐ YES ☒ NO

If **no**, answer the following questions:

a. Is the project site within 0.5 miles near an industry disposing, transporting, using or storing chemicals or hazardous wastes? ☒ YES ☐ NO

b. Is the project site within 1 mile of a U.S. EPA Superfund National Priorities List (NPL) site, or equivalent State listed site? ☐ YES ☒ NO

c. Is the project within 0.5 miles of a U.S. EPA regulated CERCLA site or equivalent state listed site? ☐ YES ☒ NO

d. Is the site located within 3,000 feet of a toxic or solid waste landfill site? ☐ YES ☒ NO

e. Does the project site have an underground storage tank?

☐ YES ☒ NO

If your answer is **YES**, then further investigation is necessary to determine whether these facilities could affect the health and safety of the project occupants or conflict with the intended use of the property. Use current techniques by qualified professions to undertake the investigations that are necessary.

☐ Further investigation needed (and documented) ☒ N/A

Comments on Section 6:

Per NEPAssist, there is one business within 3,000 feet of the project site. This business is identified in the Attachments. This business is not identified through NEPAssist as posing a significant risk to residents of the Transitional Living Duplex.

Other environmental conditions that could affect the health and safety of the occupants:

a. Lead-based paint (24 CFR 35)

Is there a residential building on-site that was constructed before 1978? ☐ YES ☒ NO

Will children 6 years of age or younger occupy the residential building? ☐ YES ☒ NO

If your answer is YES, testing is required? ☐ YES ☒ NO

b. Radon

Is the residential building in an area with High (Zone 1) or Moderate (Zone 2) potential for radon?

☒ YES ☐ NO

Does the building have a basement or crawl space?

☐ basement ☒ crawl space ☐ slab on grade

Has testing for radon been completed? ☐ YES ☐ NO ☒Unknown

c. Mold

Is the presence of mold or damage from mold visible? ☐ YES ☒ NO

Comments on Section 6, Other Environmental Conditions:

7. Farmland Protection (7 CFR 658)

a) Is the project site now committed to a nonagricultural use? ☐ YES ☒ NO

If **yes**, describe the current use of the property.

b) Is the site or area being farmed at the present time? ☒ YES ☐ NO

If your answer is **yes**, contact the U.S. Natural Resource Conservation Service to determine whether the project site is classified as prime or unique agricultural land.

☒ Contact made and documentation included ☐ N/A

8. Unique and Natural Features and Areas

a) Is the site near natural features (i.e., bluffs or cliffs) or near public or private scenic areas?

☐ YES ☒ NO

b) Are other natural resources visible on the site or in the vicinity? Will any such resources be adversely affected or will they adversely affect the project? ☐ YES ☒ NO

Comments on Section 8:

9. Site Suitability, Access, and Compatibility with Surrounding Development

a) Has the site been used as a dump, sanitary landfill, or mine waste disposal area? ☐ YES ☒ NO

b) Is there paved access to the site? ☒ YES ☐ NO

c) Are there other unusual conditions on site? ☐ YES ☒ NO

d) Is there indication of any of the following?

- i) distressed vegetation ☐ YES ☒ NO
- ii) waste material/containers ☐ YES ☒ NO
- iii) soil staining, pools of liquid ☐ YES ☒ NO
- iv) loose/empty drums, barrels ☐ YES ☒ NO
- v) oil/chemical spills ☐ YES ☒ NO
- vi) abandoned machinery, cars, refrigerators, etc. ☐ YES ☒ NO
- vii) transformers, fill/vent pipes ☐ YES ☒ NO
- viii) pipelines, drainage structures ☐ YES ☒ NO

e) Is the project compatible with the surrounding area in terms of the following?

- i) Land use ☒ YES ☐ NO
- ii) Height, bulk, mass ☒ YES ☐ NO
- iii) Building type (low/high rise) ☒ YES ☐ NO
- iv) Building density ☒ YES ☐ NO

f) Will the project be unduly influenced by any of the following?

- i) Building deterioration ☐ YES ☒ NO
- ii) Postponed maintenance ☐ YES ☒ NO
- iii) Obsolete public facilities ☐ YES ☒ NO
- iv) Transition of land uses ☐ YES ☒ NO
- v) Incompatible land uses ☐ YES ☒ NO
- vi) Inadequate off-street parking ☐ YES ☒ NO

g) Are there air pollution generators nearby which would adversely affect the site?

- i) Heavy industry ☐ YES ☒ NO
- ii) Incinerators ☐ YES ☒ NO
- iii) Power generating plants ☐ YES ☒ NO
- iv) Oil refineries ☐ YES ☒ NO
- v) Cement plants ☐ YES ☒ NO
- vi) Large parking facilities (1000 or more cars) ☐ YES ☒ NO
- vii) Heavy travelled highway (6 or more lanes) ☐ YES ☒ NO

viii) Other (describe below) ☐ YES ☒ NO

Comments on Section 9:

10. Soil Stability, Erosion, and Drainage

Slopes: ☐ Not applicable ☐ Steep ☐ Moderate ☒ Slight

a) Is there evidence of slope erosion or unstable slope conditions on or near the site? ☐ YES ☒ NO

b) Is there evidence of ground subsidence (i.e., settling, buckling, depressions), high water table, or other unusual conditions on the site? ☐ YES ☒ NO

c) Is there any visible evidence of soil problems (foundations cracking or settling, basement flooding, etc.) in the neighborhood of the site? ☐ YES ☒ NO

d) Is there indication of cross-lot runoff, drainage flows on the property? ☐ YES ☒ NO

e) Are there visual indications of filled ground? ☐ YES ☒ NO

f) Are there active rills and gullies on site? ☐ YES ☒ NO

g) If the answer is **YES** to one or more of these questions, a soils report is likely needed for the following reasons (check applicable items):

☐ Indicators are that marginal or unsatisfactory soil conditions may be present.

☐ Site drainage appears to be poor.

☐ On-site water pooling appears to be a problem.

☐ Off-site and/or on-site erosion or slope stability is a concern.

☐The site is not to be served by a municipal waste water disposal system and a determination needs to be made whether soil conditions are suitable for on-site septic system(s).

Comments on Section 10:

The soil at the site appears stable and with adequate drainage/water management.

11. Nuisances and Hazards

a) Will the project be affected by natural hazards?

i) Faults, fractures ☐ YES ☒ NO

ii) Cliffs, bluffs, crevices ☐ YES ☒ NO

iii) Slope-failures from rains ☐ YES ☒ NO

iv) Unprotected water bodies ☐ YES ☒ NO

v) Fire hazard materials ☐ YES ☒ NO

vi) Wind/sand storm concerns ☐ YES ☒ NO

vii) Poisonous plants, insects, animals ☐ YES ☒ NO

viii) Hazardous terrain features ☐ YES ☒ NO

b) Will the project be affected by built hazards and nuisances?

i) Hazardous streets ☐ YES ☒ NO

ii) Dangerous intersections ☐ YES ☒ NO

iii) Through traffic ☐ YES ☒ NO

iv) Inadequate separation of pedestrian/vehicle traffic	☐ YES	☒ NO
v) Inadequate screened drainage catchments	☐ YES	☒ NO
vi) Hazards in vacant lots	☐ YES	☒ NO
vii) Chemical tank-car terminals	☐ YES	☒ NO
viii) Other hazardous chemical storage	☐ YES	☒ NO
ix) Children's play areas located next to freeway or other high traffic way	☐ YES	☒ NO
x) Inadequate street lighting	☐ YES	☒ NO
xi) Quarries or other excavations	☐ YES	☒ NO
xii) Dumps/sanitary landfills or mining	☐ YES	☒ NO
xiii) Railroad crossing	☐ YES	☒ NO
xiv) High-pressure gas or liquid petroleum transmission lines on site	☐ YES	☒ NO
xv) Overhead transmission lines	☐ YES	☒ NO
xvi) Oil or gas wells	☐ YES	☒ NO
xvii) Industrial operations	☐ YES	☒ NO

c) Will the project be affected by nuisances?

i) Gas, smoke, fumes	☐ YES	☒ NO
ii) Odors	☐ YES	☒ NO
iii) Vibration	☐ YES	☒ NO
iv) Glare from parking area	☐ YES	☒ NO
v) Vacant/boarded-up buildings	☐ YES	☒ NO
vi) Unsightly land uses	☐ YES	☒ NO
vii) Abandoned vehicle	☐ YES	☒ NO
viii) Vermin infestation	☐ YES	☒ NO
ix) Industrial nuisances	☐ YES	☒ NO
x) Other (Identify in Comments below)	☐ YES	☒ NO

Comments on 11:

12. Schools, Parks, Recreation, and Social Services

a) Areas school nearby? ☒ YES ☐ NO

If **yes**, identify the schools and their distances from the project.

Owsley County Elementary School and Owsley County High school are within 1.0 miles of the site; however, the residents of this duplex will all be adults. No children will reside on-site at this time.

b) Are parks and play spaces available on site or nearby? ☒ YES ☐ NO

If **yes**, what are the names and distances from the project.

Owsley County Fairgrounds – 1.0 mile; Owsley County Park – 1.9 miles; Owsley County Recreational Center – 2.9 miles

c) Will social services be available on site or nearby for residents of the proposed project?

☒ YES ☐ NO

If **yes**, what services are available and the distances from the project.

Owsley County Social Services: 1.1 miles
ARC Carpenter's Village: 6.2 miles

Comments on Section 12:

13. Emergency Health Care, Fire and Police Services

a) Are emergency health care providers located within reasonable proximity to the proposed project?

Approximate response time: ☒ YES ☐ NO

Less than 15 minutes.

b) Are police services located within reasonable proximity to the proposed project?

Approximate response time: ☒ YES ☐ NO

Less than 10 minutes

c) What type of fire protection service is available?

☒ municipal ☐ volunteer

d) Is the fire protection service adequate and equipped to service the project?

Approximate response time: ☒ YES ☐ NO

Less than 10 minutes

Comments on Section 13:

14. Commercial/Retail and Transportation

a) Are commercial/retail shopping services nearby? ☒ YES ☐ NO

If **yes**, what is the approximate distance to these services?

Grocery, 0.7 miles – 14-minute walk, 2-minute drive
Downtown, 1.1 miles – 23-minute walk, 3-minute drive
Dollar General 1.2 miles – 25-minute walk, 4-minute drive

b) Is the project accessible to employment, shopping and services? ☒ YES ☐ NO

If **yes**, by which modality/modalities?

☒ public transportation ☒ private vehicle ☐walking

c) Are the approaches to the project convenient, safe and attractive? ☒ YES ☐ NO

Comments on Section 14:

Inspection Information
Field Inspection completed on: (date)

October 19, 2023

Field Inspection completed by:

Jerri Dyer, Director of Projects, Fahe

Print name, title and organization

Signature

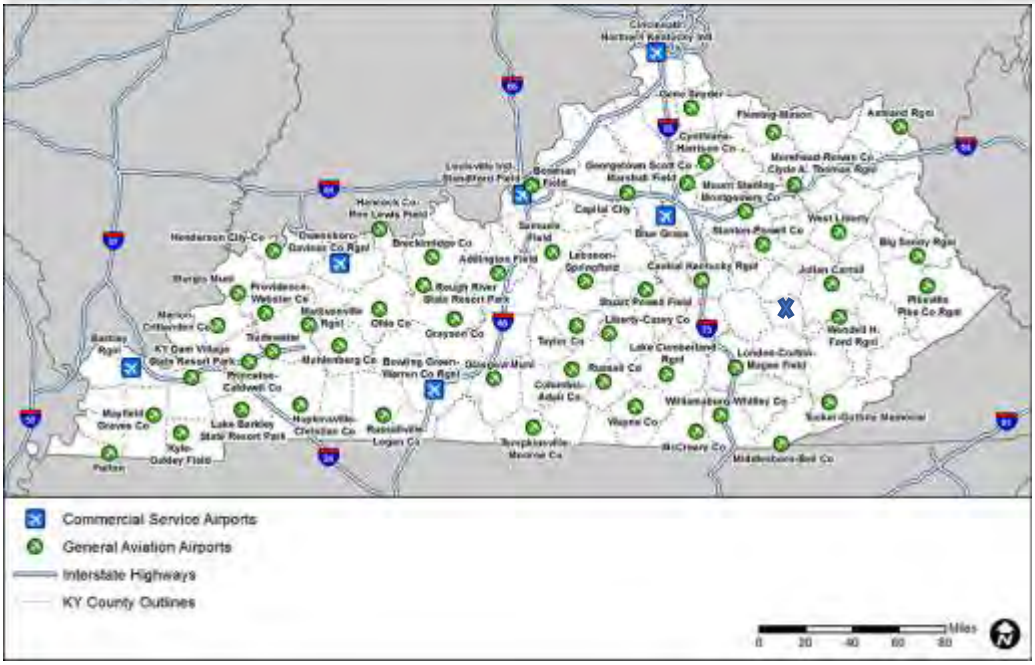
Distance to Nearest Major Road:

Distance to middle of KY 28 from Front Door of Proposed Transitional Housing Facility

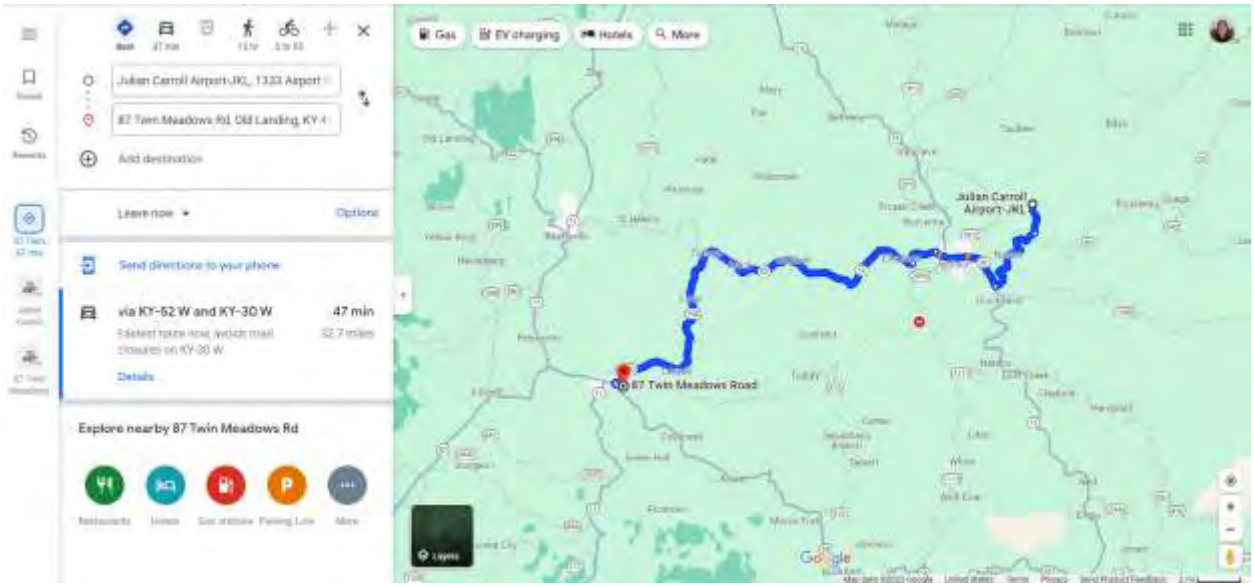
Distance to Nearest Railroad:

Attachment 4 – Airport Hazards

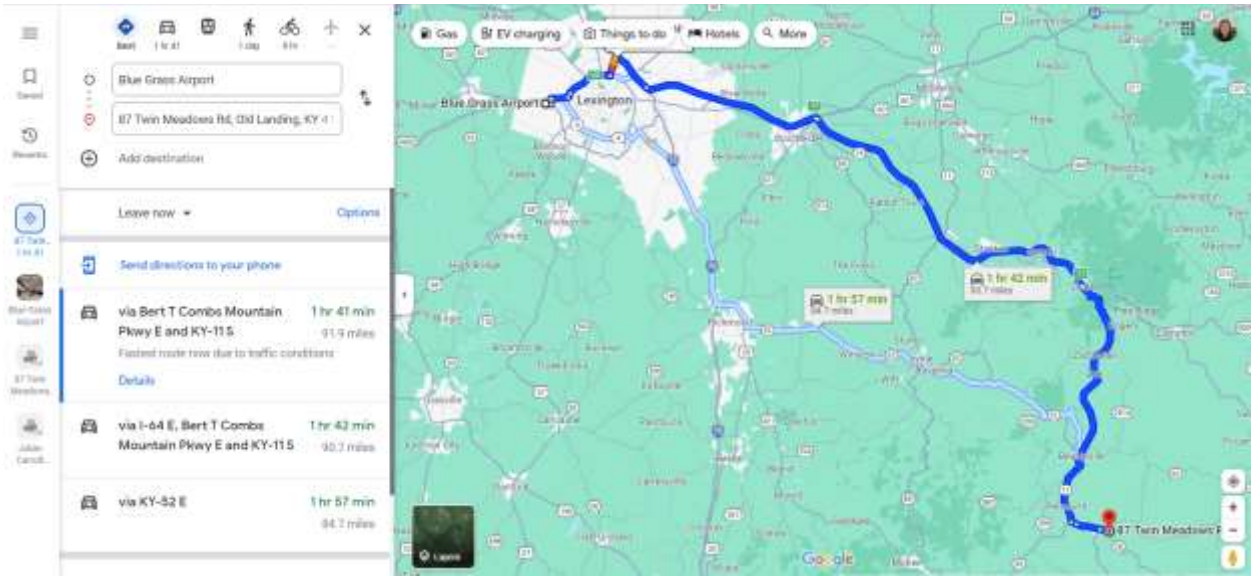
There is no airport, civil or military, within 15,000 feet of the project site.



Google Maps distance to nearest airports.



Distance from 87 Twin Meadows to Julian Carroll Airport in Jackson, Kentucky.



Distance from 87 Twin Meadows to Bluegrass Airport in Lexington, KY.

Attachment 5 – Flood Hazard

No areas of the project site are within a floodway or floodplain.

National Flood Hazard Layer FIRMette

FEMA

83°39'55"W 37°28'37"N

83°39'17"W 37°28'8"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/9/2023 at 3:46 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment 6 – Air Quality

Owsley County is NOT a non-attainment area for Kentucky.

Kentucky Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

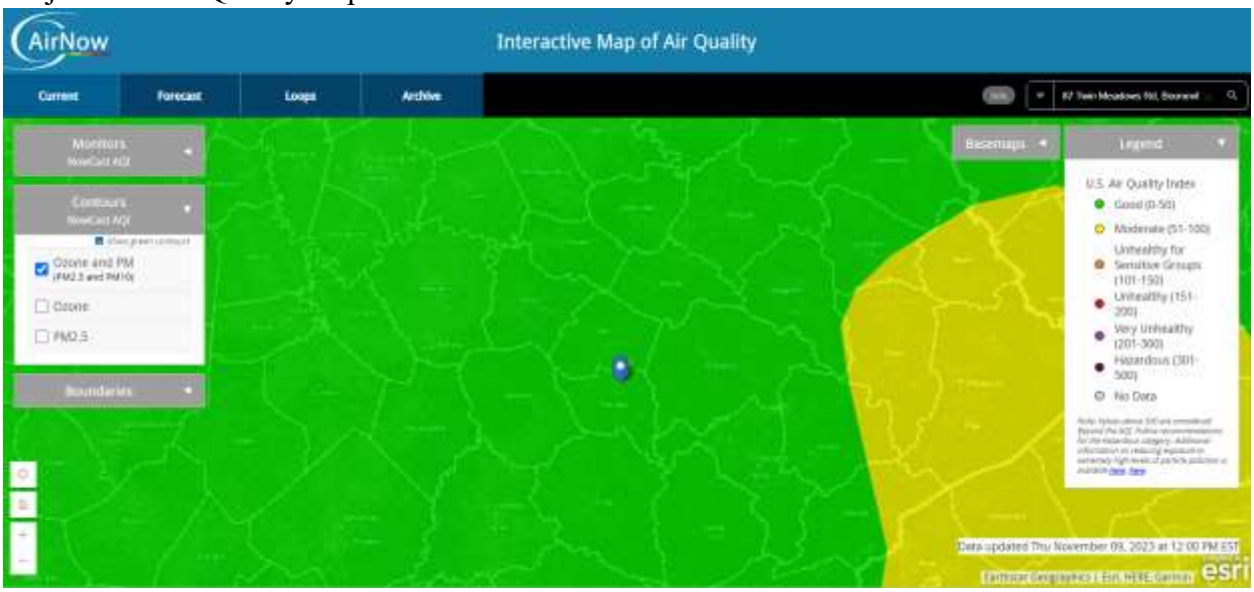
Data is current as of October 31, 2022

https://www3.epa.gov/airquality/greenbook/anayo_ky.html

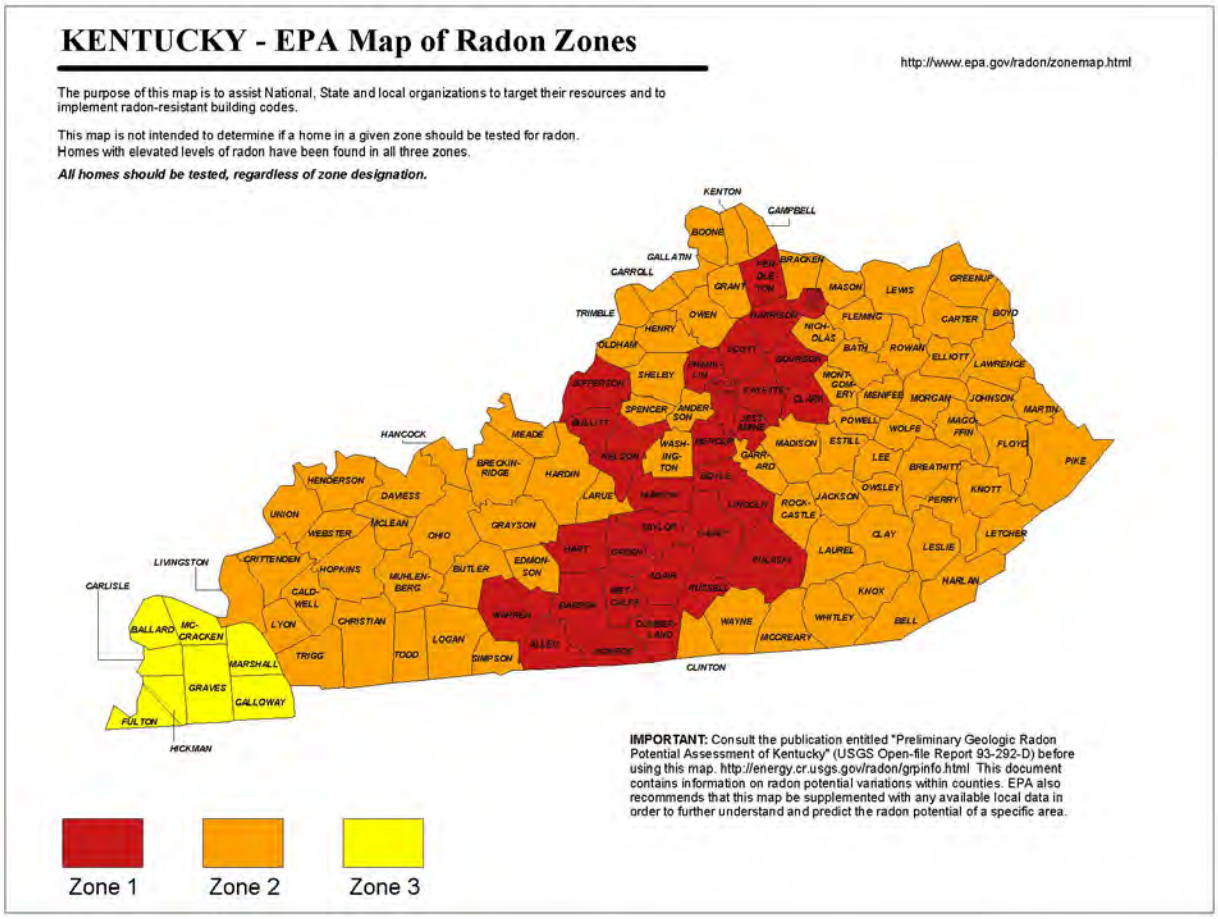
state	st_abbr	countyname	pollutant	revoked	naaqs	area_name
KENTUCKY	KY	Boone County	1-Hour Ozone (197	Revoked		Cincinnati-Hamilton, OH-KY
KENTUCKY	KY	Boone County	8-Hour Ozone (199	Revoked		Cincinnati-Hamilton, OH-KY-IN
KENTUCKY	KY	Boone County	8-Hour Ozone (200			Cincinnati, OH-KY-IN
KENTUCKY	KY	Boone County	8-Hour Ozone (201			Cincinnati, OH-KY
KENTUCKY	KY	Boone County	PM-2.5 (1997)			Cincinnati-Hamilton, OH-KY-IN
KENTUCKY	KY	Boyd County	1-Hour Ozone (197	Revoked		Huntington-Ashland, WV-KY
KENTUCKY	KY	Boyd County	8-Hour Ozone (199	Revoked		Huntington-Ashland, WV-KY
KENTUCKY	KY	Boyd County	PM-2.5 (1997)			Huntington-Ashland, WV-KY-OH
KENTUCKY	KY	Boyd County	Sulfur Dioxide (197			Boyd County (part), KY
KENTUCKY	KY	Bullitt County	1-Hour Ozone (197	Revoked		Louisville, KY-IN
KENTUCKY	KY	Bullitt County	8-Hour Ozone (199	Revoked		Louisville, KY-IN
KENTUCKY	KY	Bullitt County	8-Hour Ozone (201			Louisville, KY-IN
KENTUCKY	KY	Bullitt County	PM-2.5 (1997)			Louisville, KY-IN
KENTUCKY	KY	Campbell County	1-Hour Ozone (197	Revoked		Cincinnati-Hamilton, OH-KY
KENTUCKY	KY	Campbell County	8-Hour Ozone (199	Revoked		Cincinnati-Hamilton, OH-KY-IN
KENTUCKY	KY	Campbell County	8-Hour Ozone (200			Cincinnati, OH-KY-IN
KENTUCKY	KY	Campbell County	8-Hour Ozone (201			Cincinnati, OH-KY
KENTUCKY	KY	Campbell County	PM-2.5 (1997)			Cincinnati-Hamilton, OH-KY-IN
KENTUCKY	KY	Campbell County	Sulfur Dioxide (201			Campbell-Clermont Counties, KY-OH
KENTUCKY	KY	Christian County	8-Hour Ozone (199	Revoked		Clarksville-Hopkinsville, TN-KY
KENTUCKY	KY	Daviess County	1-Hour Ozone (197	Revoked		Owensboro, KY
KENTUCKY	KY	Edmonson County	1-Hour Ozone (197	Revoked		Edmonson County, KY
KENTUCKY	KY	Fayette County	1-Hour Ozone (197	Revoked		Lexington-Fayette, KY
KENTUCKY	KY	Greenup County	1-Hour Ozone (197	Revoked		Huntington-Ashland, WV-KY
KENTUCKY	KY	Hancock County	1-Hour Ozone (197	Revoked		Owensboro, KY
KENTUCKY	KY	Henderson County	Sulfur Dioxide (201			Henderson-Webster Counties, KY
KENTUCKY	KY	Jefferson County	1-Hour Ozone (197	Revoked		Louisville, KY-IN
KENTUCKY	KY	Jefferson County	8-Hour Ozone (199	Revoked		Louisville, KY-IN
KENTUCKY	KY	Jefferson County	8-Hour Ozone (201			Louisville, KY-IN
KENTUCKY	KY	Jefferson County	PM-2.5 (1997)			Louisville, KY-IN
KENTUCKY	KY	Jefferson County	Sulfur Dioxide (201			Jefferson County, KY
KENTUCKY	KY	Kenton County	1-Hour Ozone (197	Revoked		Cincinnati-Hamilton, OH-KY
KENTUCKY	KY	Kenton County	8-Hour Ozone (199	Revoked		Cincinnati-Hamilton, OH-KY-IN
KENTUCKY	KY	Kenton County	8-Hour Ozone (200			Cincinnati, OH-KY-IN
KENTUCKY	KY	Kenton County	8-Hour Ozone (201			Cincinnati, OH-KY
KENTUCKY	KY	Kenton County	PM-2.5 (1997)			Cincinnati-Hamilton, OH-KY-IN
KENTUCKY	KY	Lawrence County	PM-2.5 (1997)			Huntington-Ashland, WV-KY-OH
KENTUCKY	KY	Livingston County	1-Hour Ozone (197	Revoked		Paducah, KY
KENTUCKY	KY	Marshall County	1-Hour Ozone (197	Revoked		Paducah, KY
KENTUCKY	KY	Muhlenberg County	Sulfur Dioxide (197			Muhlenberg County, KY
KENTUCKY	KY	Oldham County	1-Hour Ozone (197	Revoked		Louisville, KY-IN
KENTUCKY	KY	Oldham County	8-Hour Ozone (199	Revoked		Louisville, KY-IN
KENTUCKY	KY	Oldham County	8-Hour Ozone (201			Louisville, KY-IN
KENTUCKY	KY	Scott County	1-Hour Ozone (197	Revoked		Lexington-Fayette, KY
KENTUCKY	KY	Webster County	Sulfur Dioxide (201			Henderson-Webster Counties, KY

KY Non-attainment and Maintenance Sites, Accessed 11/09/2023.

Project site Air Quality map. Accessed 11/09/2023.



Attachment 7 – Air Quality – Radon

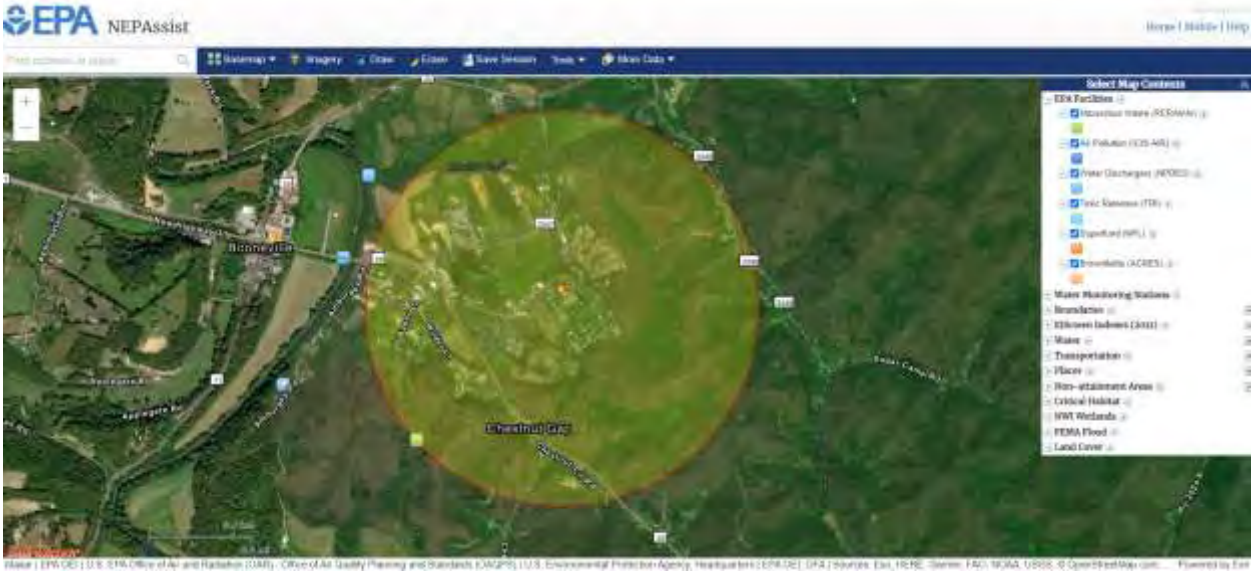


Owsley County is Zone 2, with moderate potential for the presence of radon. Average indoor levels of radon may be between 2 and 4 pCi/L. Testing/mitigation (absent requirements for same through the Single Point of Contact process or other jurisdiction) is at the discretion of the project applicant/developer.

Attachment 8 – Contamination and Toxic Substances

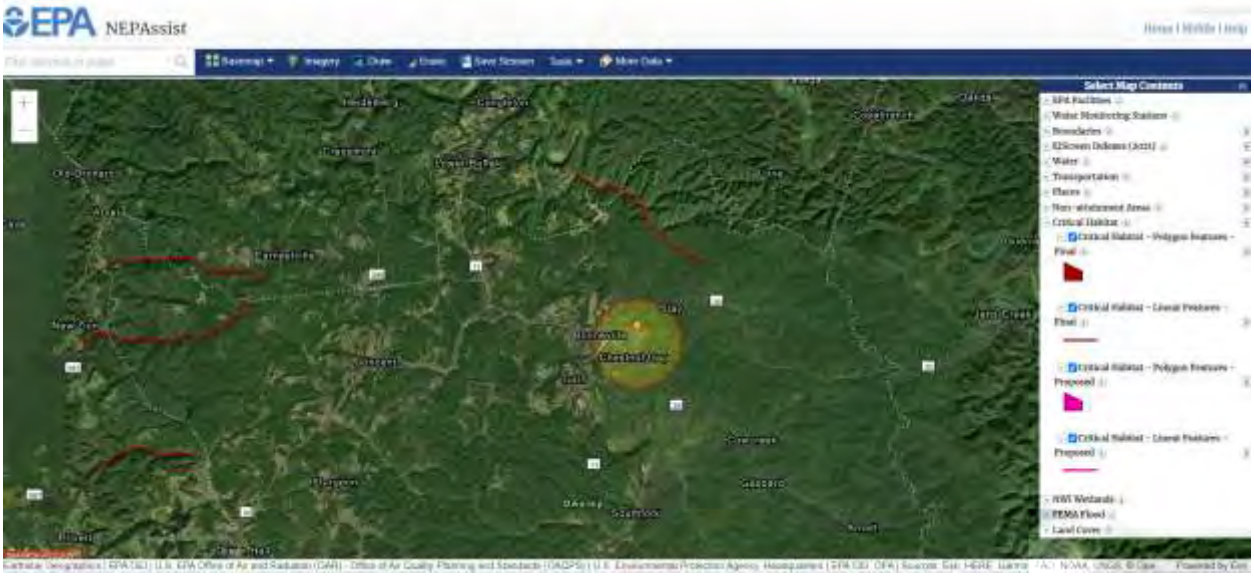
- There are no Superfund sites near the proposed project location.
- There is one site with potentially hazardous chemicals within 3,000 feet of the proposed site.
- There are no other contamination or toxic substances identified nearby.

NEPAssist 3,000 ft range:



NEPAssist 1 mile range:


EPA NEPAssist
Select Map Contents


EPA NEPAssist
Select Map Contents

NEPAssist Report

87 Twin Meadows Rd
Booneville, KY

Project Location	37.473049,-83.659801
Within 1 mile of an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a CO Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a NO2 Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Federal Land?	yes
Within 1 mile of an impaired stream?	yes
Within 1 mile of an impaired waterbody?	no
Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	yes
Within 1 mile of a Superfund site?	no

Within 1 mile of a Toxic Release Inventory (TRI) site?	no
Within 1 mile of a water discharger (NPDES)?	yes
Within 1 mile of a hazardous waste (RCRA) facility?	yes
Within 1 mile of an air emission facility?	no
Within 1 mile of a school?	yes
Within 1 mile of an airport?	no
Within 1 mile of a hospital?	no
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	yes
Within 1 mile of a Land Cession Boundary?	no
Within 1 mile of a tribal area (lower 48 states)?	no
Within 1 mile of the service area of a mitigation or conservation bank?	yes
Within 1 mile of the service area of an In-Lieu-Fee Program?	yes
Within 1 mile of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 1 mile of a Munitions Response Site?	no
Within 1 mile of an Essential Fish Habitat (EFH)?	no
Within 1 mile of a Habitat Area of Particular Concern (HAPC)?	no
Within 1 mile of an EFH Area Protected from Fishing (EFHA)?	no
Within 1 mile of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 1 mile of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	no
Within 1 mile of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

Created on: 11/9/2023 4:52:14 PM

Attachment 9 – Comments from Fish and Wildlife

Jerri Dyer

From: Hardin, Mike (FW) <Mike.Hardin@ky.gov>
Sent: Wednesday, November 29, 2023 9:49 AM
To: Jerri Dyer
Subject: Comments: 87 Twin Meadows Road Booneville KY

Jerri,

The Kentucky Department of Fish and Wildlife Resources reviewed the information in your letter dated November 10, 2023 for the proposed energy efficient duplex for transitional housing at 87 Twin Meadows Road in Booneville, KY.

The KDFWR does not anticipate significant impacts to fish and wildlife or important habitat with this project. The project property appears to have no habitat for the federally listed or proposed species in your letter. Our records do not show these species or state listed species near the project area. The area is already mowed and maintained, has no streams or wetlands or other important habitats.

Thank you for coordinating with our agency.

Mike

Mike Hardin
Program Manager
Department of Fish and Wildlife Resources
1 Sportsman's Lane, Frankfort, KY 40601
502-892-4471 | Mike.Hardin@ky.gov
Mobile: 502-234-8594

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0468 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov

In Reply Refer To: November 07, 2023
Project code: 2024-0013713
Project Name: Fahe Booneville Transitional Housing Project

Subject: Consistency letter for the project named 'Fahe Booneville Transitional Housing Project' for specified threatened and endangered species that may occur in your proposed project location consistent with the Kentucky Determination Key (DKey)

Dear Jerri Dyer:

The U.S. Fish and Wildlife Service (Service) received on **November 07, 2023** your effect determination(s) for the 'Fahe Booneville Transitional Housing Project' (Action) using the Kentucky (DKey) within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

You have agreed to the following conservation measures:

- The project proponent will complete all excavation and grading and put BMPs in place to stabilize all excavated and graded areas within 1 month.

Based on your answers and the assistance of the Service's Kentucky DKey, you made the following effect determination(s) for the proposed Action:

Species	**Listing Status**	**Determination**
Clubshell (*Pleurobema clava*)	Endangered	No effect
Fanshell (*Cyprogenia stegaria*)	Endangered	No effect
Gray Bat (*Myotis grisescens*)	Endangered	NLAA
Kentucky Arrow Darter (*Etheostoma spilotum*)	Threatened	No effect
Longsolid (*Fusconaia subrotunda*)	Threatened	No effect
Rabbitsfoot (*Quadrula cylindrica cylindrica*)	Threatened	No effect
Round Hickorynut (*Obovaria subrotunda*)	Threatened	No effect
Virginia Big-eared Bat (*Corynorhinus (=Plecotus) townsendii virginianus*)	Endangered	NLAA

Consultation Status

Consultation with the Service is not complete. The above effect determination(s) becomes applicable when the lead federal action agency or designated non-federal representative submits them as a request to the Service to rely on the Kentucky DKey in order to satisfy the agency's consultation requirements for this project.

Please provide this consistency letter to the lead federal action agency or its designated non-federal representative with a request for its review, and as the agency deems appropriate, to submit for concurrence verification through the IPaC system. The lead federal action agency or designated non-federal representative should log into IPaC using their agency email account and click "Search by record locator." They will need to enter the record locator **794-134365361**

If there is no federal action agency for this project, the information in this letter is provided to you as technical assistance in your planning. Species with NLAA determinations are consistent with the programmatic evaluation in the standing analysis of proposed Actions the Kentucky Ecological Services Field Office has identified that typically do not result in significant adverse effects to that species.

The Service recommends that your agency contact the Kentucky Ecological Services Field Office or re-evaluate the Action in IPaC if: 1) the scope, timing, duration, or location of the Action changes, 2) new information reveals the Action may affect listed species or designated critical habitat, or 3) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Kentucky Ecological Services Field Office should take place before project changes are final or resources committed.

The following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered

To address effects to other federally listed or proposed species and/or their designated critical habitat, you can request project-specific review by following the instructions in the “Next Steps” section of your species list letter, or you may use another determination key, if available.

Additional Coordination

To request additional technical assistance or consultation, please email your request to KentuckyES@fws.gov and include relevant site-specific information. The Kentucky Ecological Services Field Office will respond within 30 days of your submittal.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Fahe Booneville Transitional Housing Project

2. Description

The following description was provided for the project 'Fahe Booneville Transitional Housing Project':

> The intent of this project is to construct one (1) energy-efficient duplex (two rental units) for transitional housing for LMI applicants at the property located at 87 Twin Meadows Road, Booneville, KY, Census Tract 9301 (37°28’22”, -83°39’35”), owned by Partnership Housing, Inc. in Booneville, Kentucky. This duplex will be part of a larger housing development located at the property. This project is designed to meet the needs of Owsley County residents for both affordable and transitional housing for individuals exiting Substance Use Disorder (SUD) treatment and living in active recovery.
>
> The size of the property allows for the construction of five energy-efficient duplexes without incurring the costs of major grading. This project would construct one energy-efficient duplex utilizing two-bedroom building plans (two rental units, a total of four bedrooms) and can function as a stand-alone project, not dependent upon other development or infrastructure.
>
> A separate, potentially concurrent CDBG housing project would provide additional infrastructure, such as a paved parking lot, for the overall development, as well as up to four more single family houses or duplexes could be constructed on the site, providing housing for a total of up to eight LMI households plus up to 16 residents of transitional housing.
>
> Potential outcomes of this project include, but are not limited to, increased transitional housing for male interns at Carpenter’s Village carpentry program, increased transitional housing for Peer Support Specialists for Carpenter’s Village residential treatment who wish to live off-site, and increased transitional housing for residents who have completed in-patient treatment at Carpenter’s Village and entered job-training or other educational programs. Residents of the units in this duplex will have access to Arc’s wrap-around services for individuals transitioning out of residential SUD treatment.
>
> This project is expected to be completed by late summer 2024.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.47276345,-83.65987586661723,14z


Oak St
Wayne Marshall Ln
Boonesville Homes Dr

QUALIFICATION INTERVIEW

1. Will the proposed Action involve Federal funding, permitting, or authorization, or will it be carried out by a Federal Agency?

   No

2. [Hidden Semantic] Does the action area intersect critical habitat?

   Automatically answered
   No

3. Will the proposed Action involve construction or operation of wind turbines?

   No

4. Will the proposed Action involve blasting (other than a fireworks display)?

   No

5. Will the proposed Action involve a new point source discharge from a facility other than a water treatment plant or storm water system?

   No

6. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g. leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

   No

7. Will the proposed Action include the removal, replacement, repair and/or maintenance of an existing bridge or culvert?

   No

8. Will the proposed Action involve perennial stream loss that would require an individual permit under 404 of the Clean Water Act?

   No

9. Will the proposed Action involve discharge of sediment into a stream?

   No

10. Does the Action Area contain any caves (including their associated sinkholes, fissures, or other karst features), rockshelters, underground quarries, or abandoned mine portals (including associated underground workings)?

    No

11. [Hidden Semantic] Does the Action Area intersect the Kentucky AOI of the gray bat?

    Automatically answered
    Yes

12. Will the proposed Action involve drilling or boring?

    No

13. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the gray bat.

    What is your effect determination for the **gray bat**?

    Note:*IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.*

    2. "May affect - not likely to adversely affect"

14. [Hidden Semantic] Does the Action Area intersect the Kentucky AOI of the Virginia big-eared bat?

    Automatically answered
    Yes

15. Will the proposed Action involve activities that occur within 1,000 feet from a cliffline? *A cliffline is a naturally occurring, exposed, and nearly vertical rock structure at least 10 feet tall and 100 feet long.*

    No

16. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the Virginia big-eared bat.

    What is your effect determination for the **Virginia big-eared bat**?

    Note: *IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.*

    2. "May affect - not likely to adversely affect"

17. Will the proposed Action involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds)?

    No

18. Will the proposed Action include any activities that would alter stream flow, such as hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines?

    No

19. Will the proposed Action involve dredging or in-stream gravel mining?

    No

20. Will the proposed Action involve resource extraction (e.g., mining, oil/gas, logging), including exploration activities?

    No

21. Will the proposed Action involve stream impacts (perennial or intermittent) that would require an individual permit under 404 of the Clean Water Act?

    No

22. Will the proposed Action involve activities that would contribute measureable nonpoint source pollution to streams (e.g., sediment, nutrients, etc.)? *See the following EPA webpage for more examples of nonpoint source pollution and activities that can produce it: https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution*

    No

23. Will the proposed Action involve new or increased use of public recreational OHV trails?

    No

24. Will the proposed Action disturb the channel or bank of a perennial or intermittent stream?

    No

25. Will the proposed Action disturb the channel or bank of an ephemeral stream?

    No

26. Will the proposed Action involve vegetation removal within 200 feet of a perennial stream bank?

    No

27. Will the proposed Action involve excavation or grading, including for the construction or improvement of an access road?

    Yes

28. Are all areas proposed for excavation or grading situated more than 200 feet from the banks of perennial and intermittent streams?

    Yes

29. Are any areas proposed for excavation or grading located in or partly in a "special flood hazard area" as designated by FEMA? *You can determine this by searching for your project area at the FEMA Flood Map Service Center (https://msc.fema.gov/portal/home. For technical assistance please contact the Field Office listed in the letterhead of your project's official species list.*

    No

30. Will the excavation or grading create new water bars or ditches that will channel stormwater into a stream?

    No

31. Will the project proponent complete all excavation and grading activities and subsequent soil stabilization measures within 1 month?

    Yes

32. [Hidden Semantic] Does the project area intersect the AOI of the Kentucky arrow darter?

    Automatically answered
    Yes

33. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the Kentucky arrow darter.

    What determination do you want to make for the **Kentucky arrow darter**:

    Note: IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

    1. "No effect"

34. [Hidden Semantic] Does the project area intersect the AOI of the clubshell (*Pleurobema clava*)?

    Automatically answered
    Yes

35. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the clubshell.

    What determination do you want to make for the **clubshell**:

    Note: IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

    1. "No effect"

36. [Hidden Semantic] Does the project area intersect the AOI of the fanshell (*Cyprogenia stegaria*)?

    Automatically answered
    Yes

37. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the fanshell.

    What is your effect determination for the **fanshell**:

    Note: IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

    1. "No effect"

38. [Hidden Semantic] Does the project area intersect the AOI of the rabbitsfoot (*Theliderma (= Quadrula) cylindrica*)?

    Automatically answered
    Yes

39. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the rabbitsfoot.

    What is your effect determination for the **rabbitsfoot**:

    Note: IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

    1. "No effect"

40. [Hidden Semantic] Does the project area intersect the AOI of the round hickory nut?

    Automatically answered
    Yes

41. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the relict darter.

    What determination do you want to make for the **round hickory nut**:

    Note: IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

    1. "No effect"

42. [Hidden Semantic] Does the project area intersect the AOI of the longsolid?

    Automatically answered
    Yes

43. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service's Kentucky Field Office under the standing analyses that support this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the relict darter.

    What determination do you want to make for the **longsolid**:

    Note: IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

    1. "No effect"

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jerri Dyer
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City: Berea
State: KY
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LEAD AGENCY CONTACT INFORMATION

Lead Agency: State of Kentucky
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United States Department of the Interior

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Kentucky Ecological Services Field Office
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Email Address: kentuckyes@fws.gov

In Reply Refer To: November 13, 2023
Project code: 2024-0013713
Project Name: Fahe Booneville Transitional Housing Project

Federal Nexus: yes
Federal Action Agency (if applicable): State of Kentucky

Subject: Record of project representative's no effect determination for 'Fahe Booneville Transitional Housing Project'

Dear Jerri Dyer:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on November 13, 2023, for 'Fahe Booneville Transitional Housing Project' (here forward, Project). This project has been assigned Project Code 2024-0013713 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Clubshell *Pleurobema clava* Endangered
- Fanshell *Cyprogenia stegaria* Endangered
- Gray Bat *Myotis grisescens* Endangered
- Indiana Bat *Myotis sodalis* Endangered
- Kentucky Arrow Darter *Etheostoma spilotum* Threatened
- Longsolid *Fusconaia subrotunda* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Rabbitsfoot *Quadrula cylindrica cylindrica* Threatened
- Round Hickorynut *Obovaria subrotunda* Threatened
- Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus* Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/ coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Kentucky Ecological Services Field Office and reference Project Code 2024-0013713 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Fahe Booneville Transitional Housing Project

2. Description

The following description was provided for the project 'Fahe Booneville Transitional Housing Project':

> The intent of this project is to construct one (1) energy-efficient duplex (two rental units) for transitional housing for LMI applicants at the property located at 87 Twin Meadows Road, Booneville, KY, Census Tract 9301 (37°28’22”, -83°39’35”), owned by Partnership Housing, Inc. in Booneville, Kentucky. This duplex will be part of a larger housing development located at the property. This project is designed to meet the needs of Owsley County residents for both affordable and transitional housing for individuals exiting Substance Use Disorder (SUD) treatment and living in active recovery.
>
> The size of the property allows for the construction of five energy-efficient duplexes without incurring the costs of major grading. This project would construct one energy-efficient duplex utilizing two-bedroom building plans (two rental units, a total of four bedrooms) and can function as a stand-alone project, not dependent upon other development or infrastructure.
>
> A separate, potentially concurrent CDBG housing project would provide additional infrastructure, such as a paved parking lot, for the overall development, as well as up to four more single family houses or duplexes could be constructed on the site, providing housing for a total of up to eight LMI households plus up to 16 residents of transitional housing.
>
> Potential outcomes of this project include, but are not limited to, increased transitional housing for male interns at Carpenter’s Village carpentry program, increased transitional housing for Peer Support Specialists for Carpenter’s Village residential treatment who wish to live off-site, and increased transitional housing for residents who have completed in-patient treatment at Carpenter’s Village and entered job-training or other educational programs. Residents of the units in this duplex will have access to Arc’s wrap-around services for individuals transitioning out of residential SUD treatment.
>
> This project is expected to be completed by late summer 2024.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.47276345,-83.65987586661723,14z


Oak St
Wayne Marshall Ln
Boonesville Homes Dr

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (Myotis septentrionalis). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

3. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

   If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

   Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

   Yes

PROJECT QUESTIONNAIRE

Will all project activities by completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jerri Dyer
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State: KY
Zip: 40403
Email jdyer@fahe.org
Phone: 8599862321

LEAD AGENCY CONTACT INFORMATION

Lead Agency: State of Kentucky
Name: Mark Williams
Email: mark.williams@ky.gov
Phone: 5028923485

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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J C Watts Federal Building, Room 265
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Frankfort, KY 40601-8670
Phone: (502) 695-0468 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov

In Reply Refer To: November 07, 2023
Project code: 2024-0013713
Project Name: Fahe Booneville Transitional Housing Project

Subject: Consistency letter for the project named 'Fahe Booneville Transitional Housing Project' for the endangered Indiana bat and its critical habitat in the proposed project location, pursuant to the Indiana Bat Determination Key (DKey)

Dear Jerri Dyer:

The U.S. Fish and Wildlife Service (Service) received on **November 07, 2023** your effect determination(s) for the 'Fahe Booneville Transitional Housing Project' using the Indiana Bat DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Indiana Bat DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA

Consultation Status

Consultation with the Service is not complete. The above effect determination(s) becomes applicable when the lead federal action agency or designated non-federal representative submits them as a request to the Service to rely on the Indiana Bat DKey in order to satisfy the agency's consultation requirements for this project.

Please provide this consistency letter to the lead federal action agency or its designated non-federal representative with a request for its review, and as the agency deems appropriate, to submit for concurrence verification through the IPaC system. The lead federal action agency or designated non-federal representative should log into IPaC using their agency email account and click "Search by record locator." They will need to enter the record locator **794-134382028**

The Service recommends that your agency contact the Kentucky Ecological Services Field Office or re-evaluate the Action in IPaC if: 1) the scope, timing, duration, or location of the Action changes, 2) new information reveals the Action may affect listed species or designated critical habitat, or 3) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Kentucky Ecological Services Field Office should take place before project changes are final or resources committed.

In addition to the Indiana bat, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Clubshell *Pleurobema clava* Endangered
- Fanshell *Cyprogenia stegaria* Endangered
- Gray Bat *Myotis grisescens* Endangered
- Kentucky Arrow Darter *Etheostoma spilotum* Threatened
- Longsolid *Fusconaia subrotunda* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Rabbitsfoot *Quadrula cylindrica cylindrica* Threatened
- Round Hickorynut *Obovaria subrotunda* Threatened
- Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus* Endangered

To address effects to other federally listed or proposed species and/or their designated critical habitat, you can request project-specific review by following the instructions in the “Next Steps” section of your species list letter, or you may use another determination key, if available.

Additional Coordination

To request additional technical assistance or consultation, please contact the Kentucky Ecological Services Field Office . When you contact the office, please provide all relevant site-specific information regarding the proposed Action. The Kentucky Ecological Services Field Office will respond within 30 to 60 days of your submittal.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Fahe Booneville Transitional Housing Project

2. Description

The following description was provided for the project 'Fahe Booneville Transitional Housing Project':

> The intent of this project is to construct one (1) energy-efficient duplex (two rental units) for transitional housing for LMI applicants at the property located at 87 Twin Meadows Road, Booneville, KY, Census Tract 9301 (37°28’22”, -83°39’35”), owned by Partnership Housing, Inc. in Booneville, Kentucky. This duplex will be part of a larger housing development located at the property. This project is designed to meet the needs of Owsley County residents for both affordable and transitional housing for individuals exiting Substance Use Disorder (SUD) treatment and living in active recovery.
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> The size of the property allows for the construction of five energy-efficient duplexes without incurring the costs of major grading. This project would construct one energy-efficient duplex utilizing two-bedroom building plans (two rental units, a total of four bedrooms) and can function as a stand-alone project, not dependent upon other development or infrastructure.
>
> A separate, potentially concurrent CDBG housing project would provide additional infrastructure, such as a paved parking lot, for the overall development, as well as up to four more single family houses or duplexes could be constructed on the site, providing housing for a total of up to eight LMI households plus up to 16 residents of transitional housing.
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> Potential outcomes of this project include, but are not limited to, increased transitional housing for male interns at Carpenter’s Village carpentry program, increased transitional housing for Peer Support Specialists for Carpenter’s Village residential treatment who wish to live off-site, and increased transitional housing for residents who have completed in-patient treatment at Carpenter’s Village and entered job-training or other educational programs. Residents of the units in this duplex will have access to Arc’s wrap-around services for individuals transitioning out of residential SUD treatment.
>
> This project is expected to be completed by late summer 2024.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.47276345,-83.65987586661723,14z


Oak St
Wayne Marshall Ln
Boonesville Homes Dr

QUALIFICATION INTERVIEW

1. Will the proposed action involve Federal funding, permitting, or authorization, or will it be carried out by a Federal Agency?

   Yes

2. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead Federal Agency for this action.

   No

3. Are you the lead Federal Action Agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

   Yes

4. [Semantic] Is the Action Area within 1/2-mile of a known Indiana bat hibernaculum?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact the Field Office listed in the letterhead of this letter.

   Automatically answered
   No

5. If you have determined that the Indiana bat is unlikely to occur to within your project's Action Area or that your project is unlikely to have any potential impacts on the Indiana bat, you may wish to make a "No Effect" determination for the Indiana bat. Would you like to make a No Effect determination for the Indiana bat?

   Note: A "No Effect" determination does not require concurrence from the Service; however, you should document the supporting information for this determination in your files. This documentation would typically demonstrate a lack of suitable habitat within the action area, show that no impacts to suitable habitat would occur, or provide information that the species is not reasonably certain to occur in the action area even though suitable habitat is present. If you believe the Indiana bat may be affected by your project or if you would like assistance in making a determination, please answer "no" and continue through the key.

   No

6. Will the proposed Action involve construction or operation of wind turbines?

   No

7. Will the proposed Action involve blasting, other than a fireworks display?

   No

8. Will the proposed Action involve a new point source discharge from a facility other than a water treatment plant or storm water system?

   No

9. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

   No

10. Will the proposed Action include the removal, replacement, repair and/or maintenance of an existing bridge?

    No

11. Will the proposed Action involve perennial stream loss that would require an individual permit under 404 of the Clean Water Act?

    No

12. Will the proposed Action involve discharge of sediment into a stream?

    No

13. Does the Action Area contain any caves (including their associated sinkholes, fissures, or other karst features), rockshelters, underground quarries, or abandoned mine portals (including associated underground workings)?

    No

14. Will the proposed project result in the removal of trees?

    No

15. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service under the standing analyses that supports this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the Indiana bat.

    What determination do you want to make for the Indiana bat:

    Note: IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for “May affect – not likely to adversely affect” determinations. If you choose “May affect – likely to adversely affect” or “Unsure,” additional coordination with the Service is recommended.

    May affect – not likely to adversely affect (NLAA)

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jerri Dyer
Address: 319 Oak Street
City: Berea
State: KY
Zip: 40403
Email jdyer@fahe.org
Phone: 8599862321

LEAD AGENCY CONTACT INFORMATION

Lead Agency: State of Kentucky
Name: Mark Williams
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General Project Design Guidelines (8 Species)

Generated November 07, 2023 08:11 PM UTC, IPaC v6.100.0-rc4

Table of Contents

Species Document Availability

Species with general design guidelines

Clubshell Pleurobema clava

Fanshell Cyprogenia stegaria

Gray Bat Myotis grisescens

Indiana Bat Myotis sodalis

Kentucky Arrow Darter Etheostoma spilotum

Northern Long-eared Bat Myotis septentrionalis

Rabbitsfoot Quadrula cylindrica cylindrica

Virginia Big-eared Bat Corynorhinus (=Plecotus) townsendii virginianus

Species without general design guidelines available

Longsolid Fusconaia subrotunda

Monarch Butterfly Danaus plexippus

Round Hickorynut Obovaria subrotunda

General Project Design Guidelines - Clubshell and 10 more species

Published by Kentucky Ecological Services Field Office for the following species included in your project

- Clubshell *Pleurobema clava*
- Indiana Bat *Myotis sodalis*
- Kentucky Arrow Darter *Etheostoma spilotum*
- Fanshell *Cyprogenia stegaria*
- Gray Bat *Myotis grisescens*
- Round Hickorynut *Obovaria subrotunda*
- Monarch Butterfly *Danaus plexippus*
- Longsolid *Fusconaia subrotunda*
- Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus*
- Northern Long-eared Bat *Myotis septentrionalis*
- Rabbitsfoot *Quadrula cylindrica cylindrica*

Freshwater mussels are one of the most imperiled groups of animals in North America. Reservoir construction, sedimentation, channelization, runoff from urban areas, and water pollution are all factors that have contributed to the decline of our native mussel populations. As filter feeders, mussels are sensitive to contaminants and function as indicators of water quality.

The mussel species listed in the table below are known to occur or may potentially occur in the specified medium to large rivers in Kentucky. One or more species will appear on an IPaC-generated species list if the project area you delineated is located in or near one of these rivers.

	Rivers in Kentucky in Which the Species is Known to Occur or May Potentially Occur
Clubshell (*Pleurobema clava*)	Barren, Green, Licking, Ohio
Dromedary pearly mussel (*Dromus dromas*)	Big South Fork of the Cumberland
Fanshell (*Cyprogenia stegaria*)	Barren, Green, Licking, Ohio, Rolling Fork, Tennessee
Fat pocketbook (*Potamilus capax*)	Clarks (lower), Cumberland (lower), Green (lower), Mississippi, Ohio (lower), Tennessee, Tradewater (lower)
Northern riffleshell (*Epioblasma torulosa rangiana*) [1]	Green, Licking, Ohio
Orangefoot pimpleback (*Plethobascus cooperianus*)	Green, Ohio, Salt, Tennessee
Oyster mussel (*Epioblasma capsaeformis*)	Big South Fork of the Cumberland
Pink mucket (*Lampsilis abrupta*)	Barren, Green, Licking, Rolling Fork, Salt
Purple catspaw (*Epioblasma o. obliquata*) [2]	Green, Licking, Ohio
Rabbitsfoot (*Quadrula c. cylindrica*) [3]	Barren, Cumberland (below the falls), Green, Ohio, Rolling Fork, South Fork Kentucky, Tennessee
Ring pink (*Obovaria retusa*)	Barren, Cumberland (below the falls), Green, Ohio, Tennessee
Rough pigtoe (*Pleurobema plenum*)	Barren, Green, Licking, Ohio
Sheepnose (*Plethobasus cyphyus*)	Barren, Green, Kentucky, Licking, Ohio, Tennessee
Spectaclecase (*Cumberlandia monodonta*) [4]	Barren, Cumberland (below the falls), Green, Little South Fork of the Cumberland, Ohio, Tennessee

[1] This species has been renamed *Epioblasma walkeri*.
[2] This species has been renamed *Epioblasma obliquata*.
[3] This species has been renamed *Theliderma cylindrica*.
[4] This species has been renamed *Margaritifera monodonta*.

In-channel activities in the rivers listed above may potentially directly or indirectly affect one or more species of mussels. Even projects that do not involve in-channel activities still have the potential to impact listed mussel species and their habitats. Development activities that disturb

uplands in watersheds containing listed mussel species can degrade streams and rivers by increasing siltation/sedimentation, introducing pollutants, and/or altering riparian areas.

If the project area is within one-half to five miles from a river in which one of these mussel species is known to occur or may potentially occur, the IPaC-generated species list will include a condition stating the following: “The species may be affected by projects that significantly impact, directly or indirectly, the following rivers:.” The potential for indirect effects to these species should be carefully considered in these project areas.

When practicable, we recommend siting projects to avoid impacting streams and rivers that contain listed mussel species and utilizing methods, such as horizontal directional drilling and clear span bridges, to avoid direct impacts to listed mussel species and their habitats. The following are some general recommendations to minimize indirect impacts to streams and rivers and reduce impacts to federally-listed mussels:

- Utilize Best Management Practices to minimize erosion from work areas;
- Limit vegetation removal to minimize impacts in riparian areas;
- Revegetate disturbed areas with native vegetation;
- Use bioengineering techniques to restore disturbance to stream banks;
- Install upland sediment basins, where appropriate, to minimize sediment input into streams and rivers;
- Install detention structures to manage stormwater runoff into streams and river; and
- Minimize the addition of impervious surfaces in the watershed.

When submitting project information to the U.S. Fish and Wildlife Service’s Kentucky Field Office for review, please include information about streams and rivers in the action area of the proposed project. Describe any proposed activities that would occur in the channel or on the banks and include descriptions of measures proposed to reduce impacts to stream and river habitats.

General Project Design Guidelines - Clubshell and 10 more species

Published by Kentucky Ecological Services Field Office for the following species included in your project

- Clubshell *Pleurobema clava*
- Indiana Bat *Myotis sodalis*
- Kentucky Arrow Darter *Etheostoma spilotum*
- Fanshell *Cyprogenia stegaria*
- Gray Bat *Myotis grisescens*
- Round Hickorynut *Obovaria subrotunda*
- Monarch Butterfly *Danaus plexippus*
- Longsolid *Fusconaia subrotunda*
- Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus*
- Northern Long-eared Bat *Myotis septentrionalis*
- Rabbitsfoot *Quadrula cylindrica cylindrica*

Four of the bat species found in Kentucky are listed under the Endangered Species Act: the Indiana bat (*Myotis sodalis*), the northern long-eared bat (*Myotis septentrionalis*), the gray bat (*Myotis grisescens*), and the Virginia big-eared bat (*Corynorhinus townsendii virginianus*). Records for Indiana bats, northern long-eared bats, and gray bats occur in all areas of the state, and these species are considered potentially present in areas in which they have not been previously documented. Virginia big-eared bat are found in a specific region of eastern Kentucky.

All four species winter in caves, underground mines, or other similar structures. Gray bats and Virginia big-eared bats also use these structures and other structures, such as rockshelters and other karst features, during the summer for roosting and forming maternity colonies. To address the potential for impacts to winter habitat for these four bat species and summer habitat for the gray bat and the Virginia big-eared bat, we recommend conducting habitat assessments to identify any suitable habitat features in the action area of the proposed project. This action area typically includes a buffer around the footprint of the project. This buffer can vary in size depending on the actions associated with the proposed project. Any features identified should be assessed following the process described in the most current survey guidelines for the species at: https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html. Because these species may also occasionally roost in buildings, bridges, culverts, and other human-made structures, we recommend inspecting these structures for the presence of bats or signs of bat use prior to demolition. If bats are found or suspected to be using a structure, further coordination with the Service may be necessary.

In the summer, Indiana bats and northern long-eared bats utilize a variety of forested habitats, including riparian forests, bottomlands, and uplands, for both summer foraging and roosting. Females give birth and raise their young in trees occupied by maternity colonies. During the fall “swarming" period, these species occupy the forested habitat around the hibernacula where they mate and acquire additional fat reserves prior to hibernation. They also utilize this habitat during spring emergence before migrating to their summering areas. Suitable roost trees for Indiana bats are greater than 5 inches diameter at breast height (DBH), can be living or dead, and exhibit any of the following characteristics: exfoliating bark, broken limbs, broken tops, cracks, and crevices. Suitable habitat for northern long-eared bats include habitat suitable for Indiana bats as well as trees as small as 3 inches DBH and cavities in trees. We recommend the following options to address potential effects to the Indiana bat and northern long-eared bat as a result of impacts to roosting habitat:

- The project proponent can modify the proposed project to avoid impacts to suitable roosting and foraging habitat. A habitat assessment may be useful in determining if suitable summer roosting or foraging habitat is present in the action area of the proposed project.

- The project proponent can conduct a survey (acoustical or mist-net) to determine the presence or likely absence of the species in the project area. These presence/absence surveys must be conducted by a qualified biologist with the appropriate collection permits and in accordance with our most current survey guidance. If any federally-listed bats are captured, we request written notification of such occurrence(s) and further

coordination and consultation. Surveys must be conducted during late spring to early summer between the dates specified in the survey guidance. Results from surveys are valid during the survey season in which they are collected, through the survey season the following year, until the beginning of the survey season of the next following year. Survey results are not recommended to support probable absence of a bat species in an area and during a timeframe in which presence of the species has already been documented ("known" habitat), unless it is "outer-tier maternity" habitat. Survey guidance and distribution of known records can be found at: https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html.

- The project proponent may provide the Service with additional information through the informal consultation process, prepared by a qualified biologist, that includes site-specific habitat information and a thorough effects analysis (direct, indirect, and cumulative) to support a "not likely to adversely affect" determination. The Service will review this and decide if there is enough supporting information to concur with the determination.

- For federal projects, the federal action agency can request formal section 7 consultation with the submission of a Biological Assessment describing the action and evaluating the effects of the action on the listed species in the project area. After formal consultation is initiated, the Service has 135 days to prepare a Biological Opinion that analyzes the effects of the action on the listed species and identifies actions to minimize those effects.

- For non-federal projects, section 10(a)(1)(B) of the ESA establishes a process for permitting the taking of listed species that is incidental to otherwise lawful non-Federal activities (i.e., an incidental take permit or ITP). Habitat Conservation Plans (HCPs) are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed taking, how those impacts will be minimized or mitigated, and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates or have been proposed for listing. However, the incidental take permit will only cover species listed as endangered or threatened under the ESA. Additional information about HCPs can be found on the Service's website at: http://www.fws.gov/endangered/what-we-do/hcp-overview.html

- In certain areas, potential effects to the northern long-eared bat may be excepted under the Final 4(d) Rule that the Service published for the species on January 14, 2016. This 4(d) Rule identifies certain types of take that is prohibited and establishes specific conservation measures for tree removal activities that, if adhered to, would not result in prohibited incidental take. If the proposed project is in a location where incidental take would not be prohibited, the "official species list" attached to the IPaC-generated letter will include a condition for northern long-eared bat that reads: "The specified area includes areas in which incidental take would not be prohibited under the 4(d) rule." Incidental take in these locations would be covered under the Service's January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule. To use the programmatic BO to address effects to the northern long-eared bat, project proponents should use the "Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency" Determination Key in IPaC. This key is accessed by clicking on "Start

Review" under the "What's Next" heading on the right side of the screen on the IPaC "Project Home" page. If there is no condition present for northern long-eared bat in the "official species list," the key cannot be completed. Please contact the Kentucky Field Office for further coordination.

- The project proponent may choose to offset impacts resulting from the removal of Indiana bat and/or northern long-eared bat forested habitat by providing a contribution to the Imperiled Bat Conservation Fund (IBCF). By choosing this option, cooperators gain flexibility with regard to the removal of the habitat. In exchange for this flexibility, the cooperator provides recovery-focused conservation benefits to the species through the implementation of conservation measures that are described in the Conservation Strategy for Forest-Dwelling Bats in the Commonwealth of Kentucky found at: http://www.fws.gov/frankfort/indiana_bat_procedures.html. More information about the conservation benefits provided by the IBCF can be found at: http://knlt.org/ ibcf/.

Though only Indiana bats and northern long-eared bats roost in trees, forested habitat is important to all four species for foraging and commuting purposes. Indiana bats and gray bats commonly utilize forested corridors along streams, while northern long-eared bats tend to forage more in the interior of forests, and Virginia big-eared bats along forested edges. Forest removal associated with projects can impact bat behavior by eliminating foraging areas and by rendering foraging areas unusable by severing connections between habitat. Modifying or degrading habitat to an extent that results in significant impairment of behavioral patterns could qualify as "take" under the ESA. The effects of forest habitat removal on the landscape should be evaluated for potential impacts to bat foraging and commuting behavior.

All four species of bats forage on insects. Gray bats and Indiana bats, in particular, often forage over strongly intermittent to larger streams, rivers, lakes, and ponds, consuming insects that spend the larval phase of the life cycle in water. These insects can be negatively affected by excessive sediment and contaminants in the water. We recommend using appropriate Best Management Practices (BMPs) to minimize impacts to the water quality within and downstream of the project area to protect these important foraging resources.

In summary, to address potential effects to federally-listed bats in Kentucky, please provide the Service with information about the following potential habitat features in the action area of the proposed project:

- caves, rockshelters, abandoned mine portals, or similar features;
- buildings, bridges, or culverts;
- forested habitat; and
- streams, rivers, lakes, ponds, or wetlands.

Please describe how the proposed project may impact these features and any measures proposed to reduce impacts.

General Project Design Guidelines - Clubshell and 10 more species

Published by Kentucky Ecological Services Field Office for the following species included in your project

- Clubshell *Pleurobema clava*
- Indiana Bat *Myotis sodalis*
- Kentucky Arrow Darter *Etheostoma spilotum*
- Fanshell *Cyprogenia stegaria*
- Gray Bat *Myotis grisescens*
- Round Hickorynut *Obovaria subrotunda*
- Monarch Butterfly *Danaus plexippus*
- Longsolid *Fusconaia subrotunda*
- Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus*
- Northern Long-eared Bat *Myotis septentrionalis*
- Rabbitsfoot *Quadrula cylindrica cylindrica*

Currently, there are eight federally-listed fish species that may occur in Kentucky and should be considered when evaluating project impacts. The table below lists the general Kentucky distribution of these species and describes typical habitat conditions in which they are found. Species occurrence is not limited to areas that contain typical habitat characteristics. The species can potentially be found in any stream of suitable size within its known range.

	Distribution in Kentucky	Typical Habitat
Blackside dace	Upper Cumberland River basin (portions of Bell, Harlan, Knox, Laurel, Letcher, McCreary, Pulaski, and Whitley counties).[1]	Headwater streams (generally 1st – 2nd order) with intact riparian zones and stable substrates; generally found near undercut stream banks, woody debris piles, and large rocks; more likely present when stream conductivity levels ≤ 240 µS/cm.
Cumberland darter	Upper Cumberland River basin (McCreary and Whitley counties)	Small to medium-sized streams (2nd – 4th order) with pools or shallow runs containing sand, silt, or sand-covered bedrock substrates.
Diamond darter	Considered extirpated from Kentucky, but unoccupied critical habitat has been designated in the Green River	Moderate current and clean sand and gravel substrates.
Duskytail darter [2]	Big South Fork Cumberland River	Rocky areas in gently flowing shallow pools and runs.
Kentucky arrow darter [3]	Upper Kentucky River basin (portions of Breathitt, Clay, Harlan, Jackson, Knott, Lee, Leslie, Owsley, Perry, and Wolfe counties)	Headwater streams (generally 1st – 2nd order) with moderate- to high-gradients and rocky substrates; most often observed near some type of cover—boulders, rock ledges, large cobble, or woody debris piles; more likely present when stream conductivity levels ≤ 250 µS/cm.
Palezone shiner	Little South Fork Cumberland River	Flowing pools and runs with clear water and substrates composed of bedrock, cobble, pebble, and gravel mixed with clean sand.

1 The blackside dace is also known to occur in one drainage in the Kentucky River basin (Perry County).
2 Recent taxonomic research has split this species into four distinct species. The Tuxedo darter (*Etheostoma lemniscatum*) is the species that exists in Kentucky. The Service has not formally recognized these nomenclatural changes; therefore, the duskytail darter is the current taxon recognized under the ESA.
3 The Kentucky arrow darter was listed as threatened under the ESA with a 4(d) rule. The 4(d) rule excepts take of the species resulting from certain categories of activities: channel reconfiguration or restoration, bank stabilization, bridge and culvert removal or replacement, and repair and maintenance of USFS concrete plank stream crossings. Additional criteria for qualifying activities are found at 81 FR 68963.

	Distribution in Kentucky	Typical Habitat
Pallid sturgeon	Mississippi River, its oxbows, and embayed potions of major tributaries.	
Relict darter	Bayou du Chien drainage, including portions of the mainstem, South Fork Bayou du Chien, Jackson Creek, Cane Creek, and Sand Creek.	Quiet to gently flowing pools, runs, and glides, usually over gravel mixed with sand; species often associated with undercut banks and other cover (woody debris, tree roots).

A fish species appears on the IPaC-generated species list if the project area input for the proposed project is located in a watershed where federally-listed fish species occur or may potentially occur. The Kentucky Field Office (KFO) can further assist in determining if a listed fish species is known to occur in a specific project area or if a habitat assessment or species survey is necessary to provide more information about the species' potential occurrence.

When practicable, we recommend siting projects to avoid impacting streams and rivers that contain listed fish species and utilizing methods, such as horizontal directional drilling and clear span bridges, to avoid direct impacts to listed fish species and their habitats. In-channel activities may affect federally-listed fish species if they are present in the action area of the proposed project. When in-channel activities cannot be avoided, the KFO can provide further assistance when evaluating the effects of these activities and determining the likelihood that adverse effects and/or take of a federally-listed fish species may occur.

Projects that do not involve in-channel activities may still have the potential to indirectly affect listed fish species and their habitats. Stream degradation is the primary threat to most federally-listed fish species in Kentucky. Development activities that disturb areas in watersheds containing listed fish species can degrade the stream by increased siltation/sedimentation, introduction of pollutants, and/or alteration of riparian areas. The following are some general recommendations to minimize indirect impacts to streams and rivers and reduce effects to federally-listed fishes:

- Utilize Best Management Practices to minimize erosion from work areas;
- Limit vegetation removal to minimize impacts to riparian areas;
- Revegetate disturbed areas with native vegetation;
- Use bioengineering techniques to restore disturbance to stream banks;
- Install upland sediment basins, where appropriate, to minimize sediment input into streams and rivers;
- Install detention structures to manage stormwater runoff into streams and river; and
- Minimize the addition of impervious surfaces in the watershed.

When submitting project information to the KFO for review, please include information about streams and rivers in the action area of the proposed project. Describe any proposed activities that would occur in the channel or on the banks and include descriptions of measures proposed to reduce impacts to stream and river habitat.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0468 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov

In Reply Refer To: November 07, 2023
Project Code: 2024-0013713
Project Name: Fahe Booneville Transitional Housing Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do..

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
(502) 695-0468

PROJECT SUMMARY

Project Code: 2024-0013713
Project Name: Fahe Booneville Transitional Housing Project
Project Type: New Constr - Above Ground
Project Description: The intent of this project is to construct one (1) energy-efficient duplex (two rental units) for transitional housing for LMI applicants at the property located at 87 Twin Meadows Road, Booneville, KY, Census Tract 9301 (37°28’22”, -83°39’35”), owned by Partnership Housing, Inc. in Booneville, Kentucky. This duplex will be part of a larger housing development located at the property. This project is designed to meet the needs of Owsley County residents for both affordable and transitional housing for individuals exiting Substance Use Disorder (SUD) treatment and living in active recovery.

The size of the property allows for the construction of five energy-efficient duplexes without incurring the costs of major grading. This project would construct one energy-efficient duplex utilizing two-bedroom building plans (two rental units, a total of four bedrooms) and can function as a stand-alone project, not dependent upon other development or infrastructure.

A separate, potentially concurrent CDBG housing project would provide additional infrastructure, such as a paved parking lot, for the overall development, as well as up to four more single family houses or duplexes could be constructed on the site, providing housing for a total of up to eight LMI households plus up to 16 residents of transitional housing.

Potential outcomes of this project include, but are not limited to, increased transitional housing for male interns at Carpenter’s Village carpentry program, increased transitional housing for Peer Support Specialists for Carpenter’s Village residential treatment who wish to live off-site, and increased transitional housing for residents who have completed in-patient treatment at Carpenter’s Village and entered job-training or other educational programs. Residents of the units in this duplex will have access to Arc’s wrap-around services for individuals transitioning out of residential SUD treatment.

This project is expected to be completed by late summer 2024.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.47276345,-83.65987586661723,14z

Counties: Owsley County, Kentucky

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 5 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME | STATUS

Gray Bat *Myotis grisescens* — Endangered

No critical habitat has been designated for this species.

This species only needs to be considered under the following conditions:

- The project area includes potential gray bat habitat.

Species profile: https://ecos.fws.gov/ecp/species/6329

General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/6422.pdf

Indiana Bat *Myotis sodalis* — Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

This species only needs to be considered under the following conditions:

- The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species.

Species profile: https://ecos.fws.gov/ecp/species/5949

General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/6422.pdf

Northern Long-eared Bat *Myotis septentrionalis* — Endangered

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/9045

General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/6422.pdf

Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus* — Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/8369

General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/6422.pdf

FISHES

NAME | STATUS

Kentucky Arrow Darter *Etheostoma spilotum* — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/9063

General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/5224.pdf

CLAMS

NAME — STATUS

Clubshell *Pleurobema clava* — Endangered

Population: Wherever found; Except where listed as Experimental Populations
No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- The species may be affected by projects that significantly impact the Kentucky River mainstem and/or any of its following tributaries: Dix River, Eagle Creek, Elkhorn Creek, North Fork Elkhorn Creek, and South Fork Kentucky River.

Species profile: https://ecos.fws.gov/ecp/species/3789
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/5639.pdf

Fanshell *Cyprogenia stegaria* — Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- The species may be affected by projects that significantly impact the Kentucky River mainstem and/or any of its following tributaries: Dix River, Eagle Creek, Elkhorn Creek, North Fork Elkhorn Creek, and South Fork Kentucky River.

Species profile: https://ecos.fws.gov/ecp/species/4822
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/5639.pdf

Longsolid *Fusconaia subrotunda* — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/9880

Rabbitsfoot *Quadrula cylindrica cylindrica* — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
This species only needs to be considered under the following conditions:

- The species may be affected by projects that significantly impact the Kentucky River mainstem and/or any of its following tributaries: Dix River, Eagle Creek, Elkhorn Creek, North Fork Elkhorn Creek, and South Fork Kentucky River.

Species profile: https://ecos.fws.gov/ecp/species/5165
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QVXHFQ4ZKNDMPIMZYKYGTCIDGE/documents/generated/5639.pdf

Round Hickorynut *Obovaria subrotunda* — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/9879

INSECTS

NAME — STATUS

Monarch Butterfly *Danaus plexippus* — Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jerri Dyer
Address: 319 Oak Street
City: Berea
State: KY
Zip: 40403
Email jdyer@fahe.org
Phone: 8599862321

LEAD AGENCY CONTACT INFORMATION

Lead Agency: State of Kentucky
Name: Mark Williams
Email: mark.williams@ky.gov
Phone: 5028923485

Attachment 10 – Thermal & Explosive Hazards

The distance from the LP tank to the proposed site is 423 feet (measured on Google Earth). This distance is greater than the required ASD according to the ASD calculator on HUD's site.

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft^2 - hr - people and 10,000 BTU/ft^2 - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD- Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	**Yes:** ☑ **No:** ☐
Is the container under pressure?	**Yes:** ☐ **No:** ☑
Does the container hold a cryogenic liquified gas?	**Yes:** ☐ **No:** ☐
Is the container diked?	**Yes:** ☐ **No:** ☑
What is the volume (gal) of the container?	500
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	
ASD for Blast Over Pressure (ASDBOP)	
ASD for Thermal Radiation for People (ASDPPU)	207.20
ASD for Thermal Radiation for Buildings (ASDBPU)	36.50
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options (/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us (https://www.hudexchange.info/contact-us/)** form.

Related Information

- **ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)**
- **ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)**

Attachment 11 – State Historic Preservation Office Comments

June 27, 2023

Jacob Wolfe
Project Manager
FAHE
319 Oak St.
Berea, KY 40403

RE: HUD, Proposed Partnership Housing Transitional Housing New Duplex Project
87 Twin Meadows Road, Boonesville, Owsley County, Kentucky

Dear Mr. Wolfe:

Thank you for your submittal of maps and project specifics for the above-referenced undertaking. We understand Partnership Housing is proposing to build a low-income duplex in Boonesville, Kentucky. This duplex will be part of a larger low-income housing project reviewed by our office in 2018. Though it is located on the same parcel as the 2018 review, the current project is considered a separate undertaking. The direct APE for this undertaking consists of the area within which this duplex will be built, as well as any staging areas.

No historic-age resources are located within the APE. Our office has no above-ground concerns.

Based on the information provided, archaeological survey is warranted for the proposed project area. These investigations should be conducted where all ground disturbing activities are proposed, and they should be conducted by a qualified archaeologist. Upon completion of the investigation, a pdf version of the report should be submitted to our office via email at khc.section106@ky.gov.

Should you have any questions, please contact Gabrielle Fernandez or Nicole Konkol via email at Gabrielle.Fernandez@ky.gov or Nicole.Konkol@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director and
State Historic Preservation Officer

KHC # 231213
cp: gf, sd

www.heritage.ky.gov

November 16, 2023

Jacob Wolfe
FAHE
jwolfe@fahe.org

RE: HUD, Phase I Archaeological Survey for the Proposed Transitional Housing New Duplex Project at 87 Twin Meadows Road in Owsley County, Kentucky

Dear Mr. Wolfe:

Thank you for submitting a copy of the above-referenced archaeology report. This report describes the archaeological survey of one acre for a proposed construction of a new duplex. Survey methods include shovel test and pedestrian survey. No cultural resources were identified as part of this investigation.

We would concur with a finding of **No Historic Properties Affected** and accept this report without revisions.

Should you have any questions, please contact Nicole Konkol via email at Nicole.Konkol@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director and
State Historic Preservation Officer

KHC #: 233156, Previous: 231213
cp: sd

AN INTENSIVE PHASE 1 ARCHAEOLOGICAL SURVEY OF THE PROPOSED TRANSITIONAL HOUSING NEW DUPLEX PROJECT AT 87 TWIN MEADOWS ROAD, BOONEVILLE, OWSLEY COUNTY, KENTUCKY

Technical Report 8
Laboratory of Archaeology
Anthropology Program
Eastern Kentucky University
Richmond, Kentucky

November 2023

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AN INTENSIVE PHASE 1 ARCHAEOLOGICAL SURVEY OF THE PROPOSED TRANSITIONAL HOUSING NEW DUPLEX PROJECT AT 87 TWIN MEADOWS ROAD, BOONEVILLE, OWSLEY COUNTY, KENTUCKY

Report Prepared for

Tanzi Merritt
Project Manager
Federation of Appalachian Housing Enterprises, Inc.
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Report prepared and submitted by

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Principal Investigator
Associate Professor of Anthropology
Eastern Kentucky University
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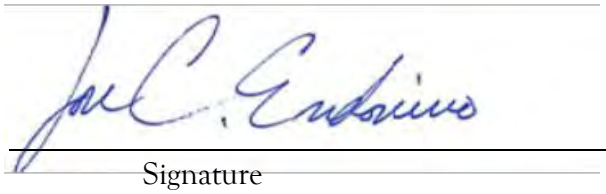
859-622-1650



Signature

October 31, 2023
Date

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Laboratory of Archaeology
Anthropology Program
Eastern Kentucky University
Richmond, Kentucky

October 2023

Lead Agency: Department of Housing and Urban Development

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REPORT ABSTRACT

An Intensive Phase 1 Archaeological Survey was undertaken in advance of the proposed Transitional Housing New Duplex Project located at 87 Twin Meadows Road, Booneville, Owsley County, Kentucky for Federation of Appalachian Housing Enterprises, Inc. (FAHE). The goal of this archaeological survey was to identify archaeological resources within the approximately 1-acre APE and assess their eligibility for listing on the National Register of Historical Places. Towards this end, a systematic subsurface testing program utilizing shovel test pits (STP) excavated on a 20-m grid pattern was implemented to identify buried archaeological sites due to the exceedingly poor surface visibility within the APE. Twelve STPs were excavated, none produced cultural materials. Surface inspection of the APE was also conducted and produced no artifacts or cultural features. Based on these findings, no archaeological sites were identified within the Proposed Transitional Housing New Duplex Project located at 87 Twin Meadows Road, Booneville, Owsley County, Kentucky APE. A finding of ***No Effect*** is offered. No further work is recommended.

CHAPTER 1
INTRODUCTION

PROJECT PURPOSE

Federation of Appalachian Housing Enterprises, Inc. (FAHE), on behalf of Partnership Housing, Inc., requested an Intensive Phase 1 archaeological survey in advance of construction of a transitional housing complex consisting of affordable duplexes in Booneville, KY, hereafter referred to as "Twin Meadows." Funding and/or permits for this project derive from Federal agencies, notably the department of Housing and Urban Development (HUD). Therefore, the Twin Meadows archaeological survey seeks to locate and identify previously unrecorded archeological sites within the Area of Potential Effects (APE) and assess the impacts of the proposed undertaking on archaeological resources in accordance Section 106 of the National Historic Preservation Act (NHPA) of 1966.

The Kentucky Heritage Council (KHC) requested an archaeological survey for this undertaking in a letter to Jacob Wolfe, Project Manager for FAHE dated June 27, 2023 stating "These investigations should be conducted where all ground disturbing activities are proposed" and includes the "area within which this duplex will be built, as well as any staging areas." Also noted in the letter from the SHPO is the absence of "historic-age resources…within the APE," concluding that the SHPOs office "has no above-ground concerns" for this project. The Department of Housing and Urban Development is the lead agency.

This report of investigations represents a good faith effort to locate, identify, and characterize archaeological resources within the APE and evaluate their eligibility for listing on the National Register of Historic Places (NRHP). This report conforms to the "*Specifications for Conducting Field Work and Preparing Cultural Resource Assessment Reports*" (Sanders 2017) issued by the Kentucky Heritage Council/State Historic Preservation Office.

PROJECT DESCRIPTION

The Twin Meadows project area consists of a one-acre lot located at 87 Twin Meadows Road in Booneville, Owsley County, Kentucky (Figure 1-1). APE boundaries are shown in Figure 1-2. Boundaries are based on maps provided by FAHE and Partnership Housing, Inc. Partnership Housing, Inc. intends to construct a transitional housing complex consisting of affordable duplexes and associated parking on the property. A representative view of the project area is shown in Figure 1-3.

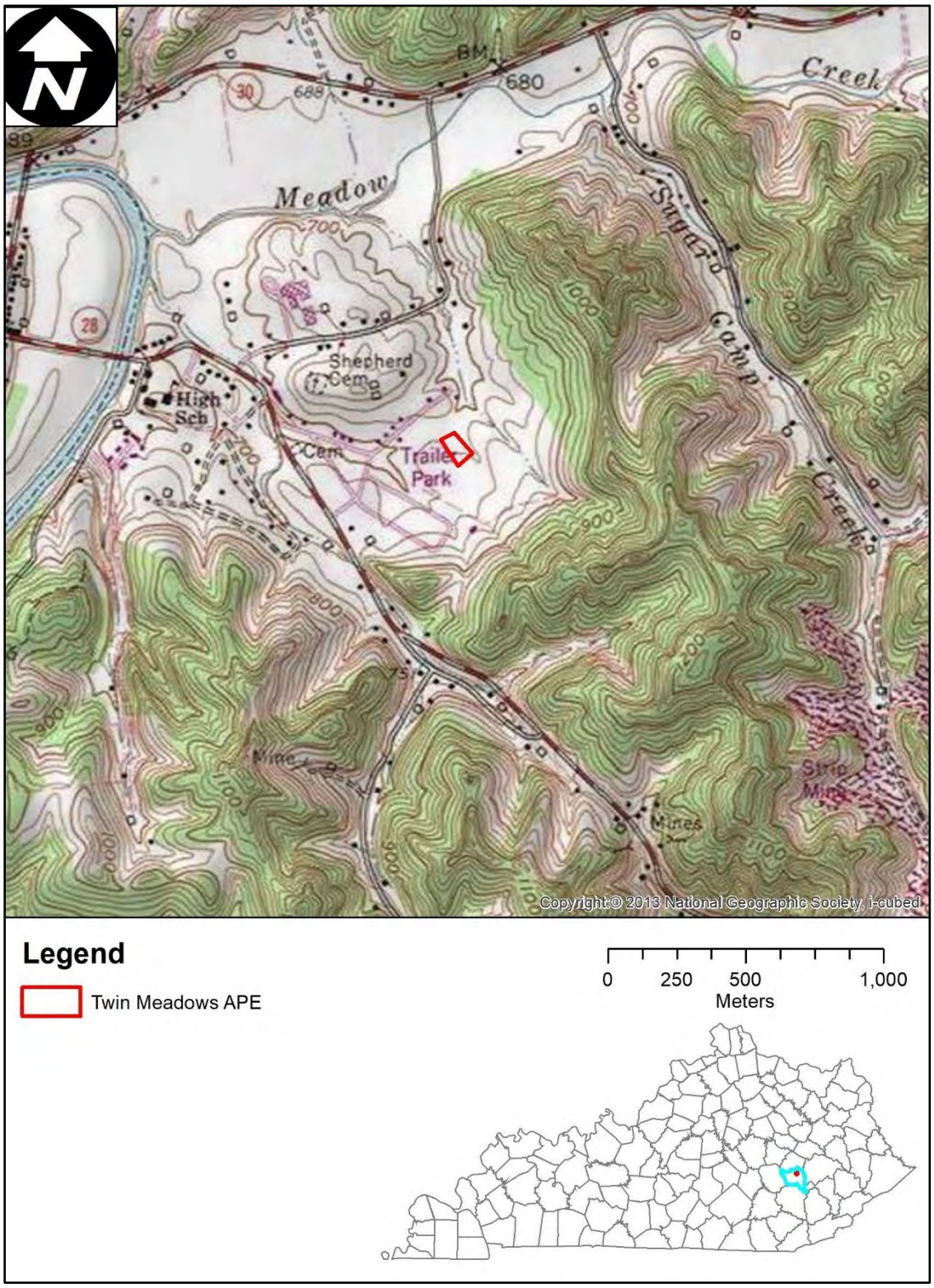

Figure 1-1. Twin Meadows project location, Booneville, Owsley County, Kentucky. USGS Booneville 15' quadrangle 1961, Photorevised 2022, 1:24,000 scale.

Figure 1-1. Twin Meadows project APE, Booneville, Owsley County, Kentucky.

Figure 1-3. General view of the Twin Meadows APE, Booneville, Owsley County, Kentucky. From northwest corner of APE facing southeast.

PROJECT AREA LOCATION & DESCRIPTION

The Twin Meadows project APE is located at 87 Twin Meadows Road in Booneville, Owsley County, Kentucky. It is situated approximately 120 meters south-southeast of the intersection of Twin Meadows Road and Fairgrounds Road and located on the northeast side of Twin Meadows Road. The project area is contained within the Booneville USGS 15' quadrangle map (1961, photorevised 2022). The APE consists of approximately 1-acre of mowed hay field sited atop a relatively flat and broad terrace 120 meters southeast of an unnamed Order 1 stream that joins with the Order 2 Meadow Creek which is a secondary tributary of the South Fork of the Kentucky River. Access to the APE and project area was exceptional. The southwest side of the APE is immediately adjacent to Twin Meadows Road and permitted continuous access along the entire length of the parcel. Surface visibility was exceedingly poor due to ground cover, primarily grasses and herbaceous plants.

INVESTIGATIONS HISTORY

A Project Registration (FY24-12543) and Request for Archaeological Site and Project Area Information was submitted to OSA, and the site check performed, on October 12, 2023. Research into previous sites and surveys was largely accomplished during a previous survey located 450 meters southwest of the current APE. Additional information collection was conducted by OSA staff on October 26, 2023. Information on previous sites and surveys is presented in Chapter 3. Fieldwork totaled four person hours over one field day and occurred on October 15, 2023. Field work was performed by Jon C. Endonino Ph.D., RPA.

CURATION

No archaeological materials were recovered during this project, and curation unnecessary. Field notes and other associated documentation are on file at the Eastern Kentucky University Archaeology Laboratory. This report will be available through the Office of State Archaeology at the University of Kentucky and the Kentucky Heritage Council where copies are on file.

SUMMARY OF FINDINGS & RECOMMENDATIONS

The Twin Meadows APE was tested with STPs at 20-meter intervals on a grid pattern. Surface inspection was carried out along STP transects and during a preliminary reconnaissance of the APE prior to testing. A total of 12 STPs were excavated across the APE. Figure 1-4 shows the distribution of STPs. No cultural materials were recovered from either subsurface or surface contexts. No cultural features were observed on the ground surface. A finding of ***No Effect*** is offered. No further work is recommended.

Figure 1-4. Map of Phase 1 archaeological testing within the Twin Meadows APE, Booneville, Owsley County, Kentucky.

CHAPTER 2
ENVIRONMENTAL CONTEXT

PALEOENVIRONMENTAL CONDITIONS

The early Holocene, dating from 12,700 to 11,300 BP, was associated with major and rapid warming temperatures, decreases in cloud cover, and generalized landscape instability (Delcourt 1979:270). Estimated temperature increases during this period were three times greater than later Holocene fluctuations. During the early Holocene, rapid increases in boreal plant species occurred on the Allegheny Plateau in response to the retreat of the Laurentide ice sheet from the continental United States (Maxwell and Davis 1972:517-519; Whitehead 1973:624). At lower elevations, deciduous species were returning after having migrated to the southern Mississippi Valley refugia during the Wisconsin advances (Delcourt and Delcourt 1983:147). The climate during the early Holocene seems considerably cooler than the modern climate, and extant species in upper altitude zones of the Allegheny Plateau reflect conditions most like the Canadian boreal forest region (Maxwell and Davis 1972:515-516).

Conditions at lower elevations were probably less severe and favored the transition from boreal to mixed mesophytic species. Middle Holocene (8,000 to 4,000 BP) climate conditions appear to have been consistently drier and warmer than twentieth century conditions (Delcourt 1979: 271; Wright 1968). The influx of westerly winds during this Hypsithermal climatic episode contributed to periods of severe moisture stress in the Prairie Peninsula and to an eastward advance of prairie vegetation (Wright 1968). Delcourt (1979:274) has identified Middle Holocene moisture stress along the Cumberland Plateau in Tennessee but indicated that upland barrens did not expand appreciably as did the Midwestern prairies. Changes in Archaic settlement patterns in both central and northern Missouri were associated with possible decreases in upland resource availability during the Hypsithermal and coincided with the Middle Archaic period in the Cumberland Plateau.

The earliest distinguishable Late Holocene climatic episode began circa 5,000 to 4,000 BP. and ended around 2,800 BP. This episode was associated with the establishment of modern deciduous forest communities in the southern highlands and increased precipitation across most of the mid-continental United States (Delcourt 1979:270; Maxwell and Davis 1972:517-519). Beginning around 2,800 BP, warm conditions similar to the modern climate prevailed until the onset of the Neo-Boreal episode around 700 BP. Fluctuations in this Late Holocene Pacific episode appear to have varied locally, with either increased or decreased temperatures and precipitation (Delcourt 2002). Certain fluctuations have been associated with adaptive shifts in Midwestern prehistoric subsistence and settlement systems. An example is Struever and Vickery's (1973) suggestion of a possible correlation between the onset of a cooler and moister period circa 1,600 BP. and increased use of polygonum species (smartweed) by Late Woodland groups in the Midwest (Struever and Vickery 1973:1215-1216). Researchers have inferred warmer temperatures for the Great Plains and drier conditions for the Upper Great Lakes during this same period (1,600-1,300 BP.) (Delcourt 2002). Other fluctuations during the Pacific episode are similarly non-uniform across

the mid-continental United States; however, the interfaces of all fluctuations were generally consistent. Local paleoecological evidence is required to determine the kinds of climatic fluctuations Woodland populations experienced during the Pacific episode. Given evidence of fluctuations elsewhere, it is most likely that changes occurred circa 1,700 BP, 1,300 BP, and 900 BP, with a possible fourth change around 2,300 BP.

Studies of historic weather patterns and tree ring data by Fritts (1971) indicate that climatological averages were "unusually mild" when compared with seventeenth and nineteenth century trends. His study suggested that winters were generally colder, weather anomalies were more common, and severe winters were more frequent between A.D. 1602 and 1899 than after 1900. These cooler, moister conditions are associated with the Neo-Boreal episode, or Little Ice Age, which began around 700 BP and coincided with minor glacial advances in the northwest and Europe. The effects of the Neo-Boreal episode, which ended during the mid- to late-nineteenth century, have not been studied in detail for this region. Despite this, it appears that the area experienced less radical temperature decreases during the late Neo-Boreal than did the upper Midwest and northern Plains (Fritts 1971). Related changes in extant vegetation should therefore be more difficult to detect. It is probably safe to assume, however, that average temperatures were at least a few degrees cooler during the late Prehistoric and early Historic periods. The frequency of severe winters and average winter precipitation were probably greater as well.

CURRENT ENVIRONMENTAL CONDITIONS

Physiography

The APE is located within north central Owsley County at the western side of the Cumberland Plateau in the mountains of eastern Kentucky and the Eastern Coal Fields physiographic area, an area characterized by extensively dissected lower Pennsylvanian Age rock formations (Davis 1924). Topographically the region is rugged. However, topography with the project APE is relatively low with a gentle slope. Booneville and the APE are situated in an area of lower and more gentle topographic relief. Within the APE, elevation ranges from 248-250 meters (815-822 feet) AMSL (Figure 2-1). The dominant landform within the APE is a terrace that rises in elevation approximately one meter from northwest to southeast. The relatively flat terrain of the APE would have been attractive for agricultural purposes in the nineteenth and twentieth centuries.

Geology and Lithic Resources

One geologic formation occurs within the APE, the Grundy Formation. The Pennsylvanian age Grundy Formation is a member of the Breathitt Group and occurs in the Cumberland Plateau of eastern Kentucky and in adjacent portions of West Virginia, Virginia, and Tennessee (Chestnut 1992:17). Quartzose sandstones and quartz pebble conglomerates characterize these thick-bodied formations. Often shale and coal layers separate the thick quartzose sandstone layers (Chestnut 1992:8-9). Within the Twin Meadows APE, the Grundy Formation includes the sandstone bedrock underlying the sand and silt soils that characterize this locality.

Figure 2-1. Topography within the Twin Meadows APE, Booneville, Owsley County, Kentucky. USGS Booneville 15' quadrangle 1961, Photorevised 2022.

Lithic resources suitable for producing stone tools (chert / flint) form in, and in association with, limestone. Considering that the local geology consists of sandstone and alluvium derived from sandstone, it is unlikely that lithic resources will occur in or near the Twin Meadows APE.

Hydrology

The project area is within the Kentucky River Drainage. No natural hydrological features exist within the project APE. The nearest waterbody is an unnamed Order 1 stream 120 meters northeast of the APE (Figure 2-2). This Order 1 stream then flows into the northwest for 1.0 km where it meets Meadow Creek, an Order 2 stream and tributary that empties into the South Fork of the Kentucky River a further 800 meters downstream. Located some 550 meters to the southwest is an unnamed Order 2 stream fed by two unnamed Order 1 streams. After flowing northwest for approximately 1.8 km the Order 2 stream joins the South Fork of the Kentucky River.

Soils

Soils within the Twin Meadows APE are shown in Figure 2-3. The primary soil association within the APE and surrounding terrain is the Shelocta-Gilpin association. These are characterized generally as deep to moderately deep, steep to gently sloping soils with a loamy subsoil typically found on long hillsides and ridgetops mainly in southern Jackson and northern Owsley counties (Hayes 1989:5). Included within this soil association are several other soil types what constitute much smaller fractions of the overall association. Relevant to this undertaking are Rowdy soils which occur on floodplains and terraces.

Rowdy silt loam, 0-4% slopes, occasionally flooded characterizes the entire Twin Meadows APE. Rowdy silt loam, 0-4% slopes, occasionally flooded soils are “deep and well-drained and occur on low stream terraces and alluvial fans along major streams and their tributaries” and have smooth to slightly convex slopes (Hayes 1989:22). A typical soil profile consists of dark brown silt loam from 0-25.4 cm. Subsoil occurs below 25.4 cm. The upper portion of the subsoil to a depth of 43 cm is dark yellowish-brown loam. The lower subsoil to a depth of 165 cm is strong brown, yellowish-brown, and brownish-yellow loam (Hayes 1989:22). Moderate water permeability characterizes this soil type and this, along with its fertility makes it well suited to agriculture, especially row crops, hay, and pasture. Because it is subject to occasional flooding it is poorly suited for urban use except for alluvial fans and places with greater elevation (Hayes 1989:24).

Ecological Communities

Vegetation

Eastern Kentucky falls within the “Carolinian Biotic Province” of Dice (1943:17). In Appalachia, forests are characterized by a mixed mesophytic forest composition with a diverse array of species, both broad-leaved deciduous and coniferous. The oak-hickory association is dominant in the western portion of the province which includes Kentucky. Specific tree species compositions depend on several factors including elevation, soil drainage properties, and local soil associations.

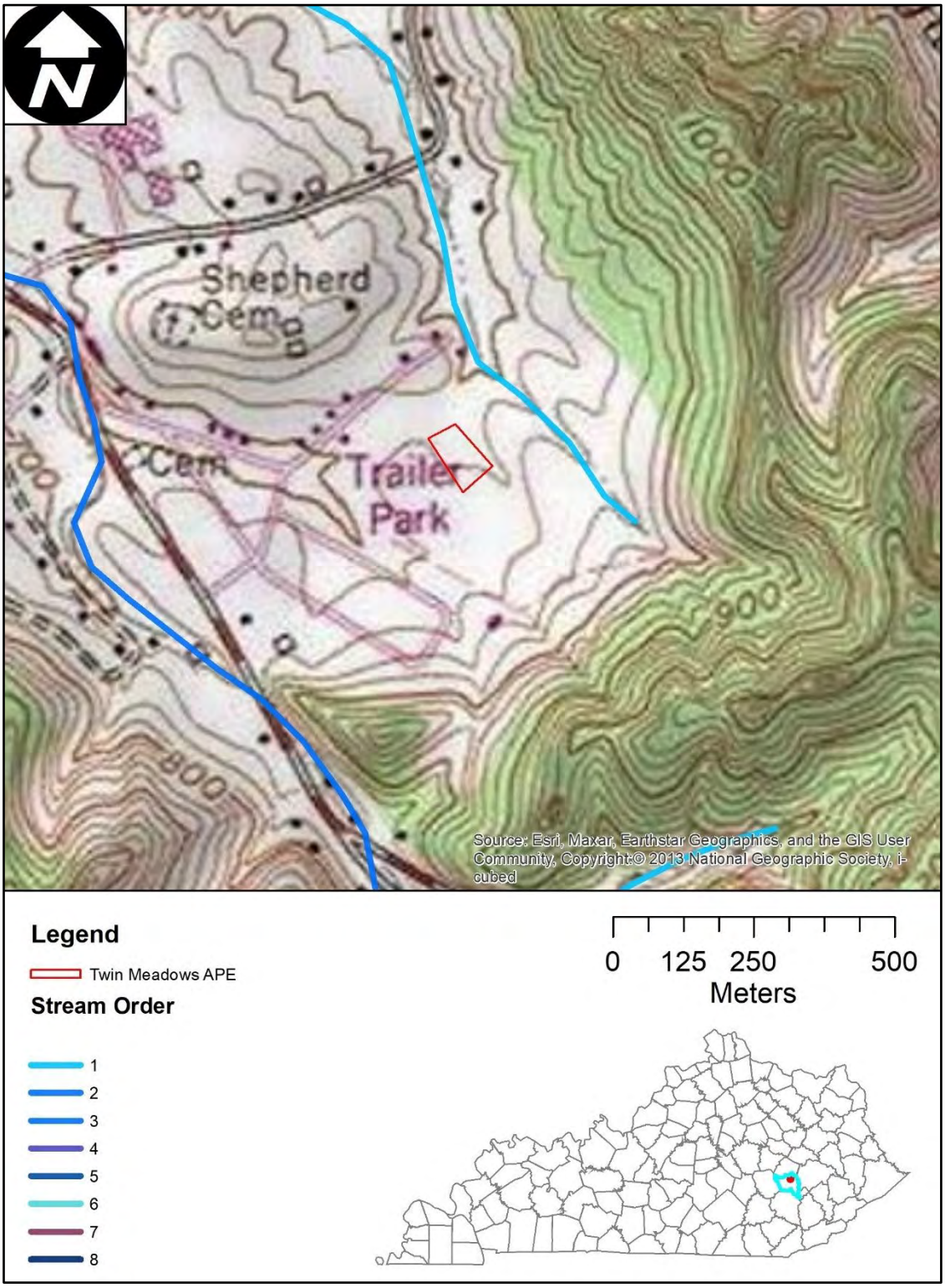

Figure 2-2. Hydrologic features near the Twin Meadows APE, Booneville, Owsley County, Kentucky. USGS Booneville 15' quadrangle 1961, Photorevised 2022.

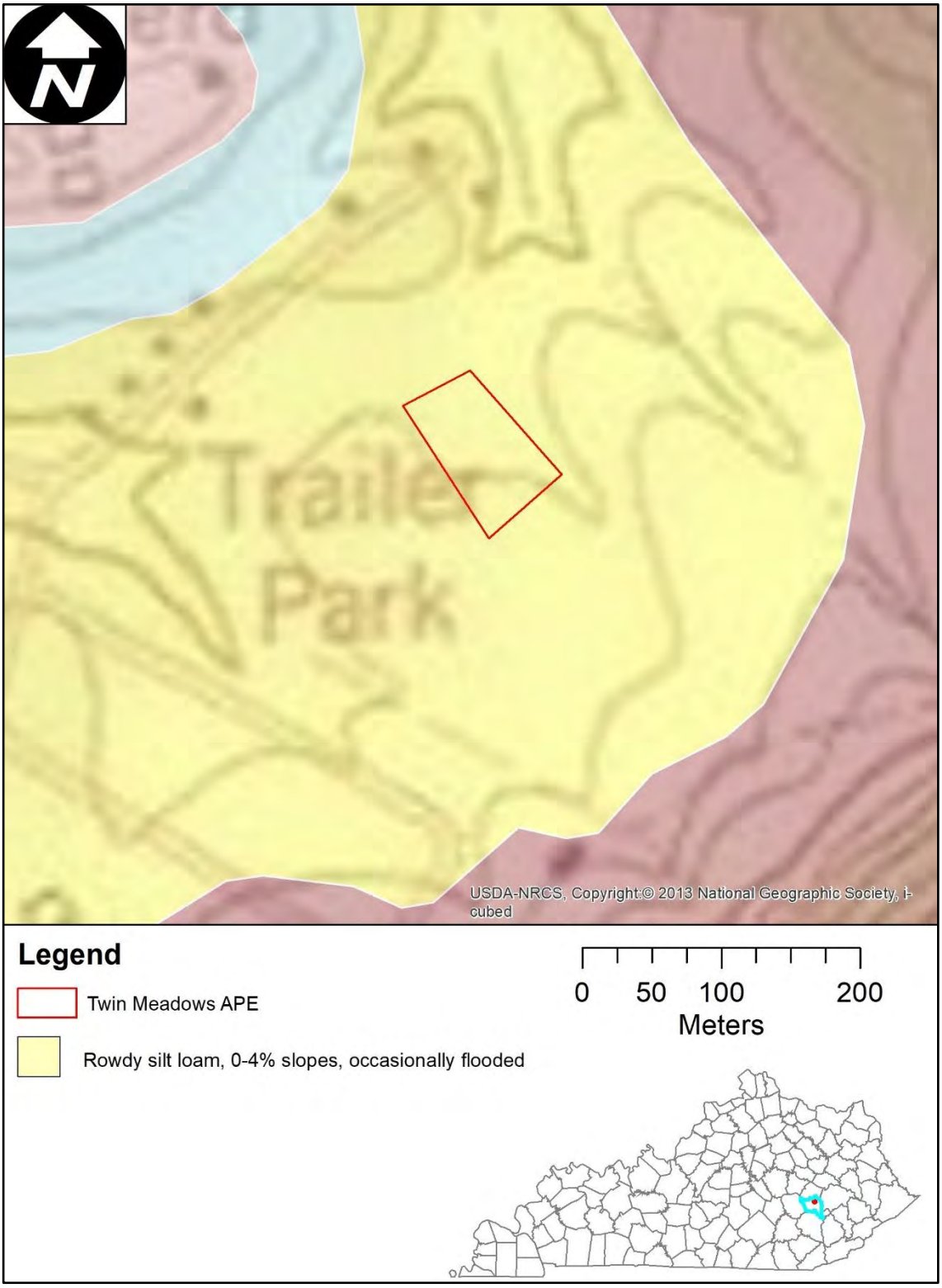

Figure 2-3. Soil types present within the Twin Meadows APE, Booneville, Owsley County, Kentucky.

Vegetation within the APE at the time of fieldwork consisted of grasses and herbaceous plants within the open field that characterizes most of the property. Herbaceous plants identified included clover, false parsnip, ironweed, goldenrod, Virginia creeper, aster, and dandelion. Forest fringing the east side of the APE consisted of secondary growth of trees and a woody understory. Tree species identified included Poplar, Chinaberry, Gum, and oak. The understory was composed of a variety of woody shrubs and included sassafras, sumac, and cedar. A local Booneville resident stated that the APE has been used as a hay field for at least the past 26 years (Resident of 125 Twin Meadows Road, 10/15/2023). Remnants of haybales are present within the APE in several places and characterized by concentrations of matted hay and plant growth.

Fauna

Fauna inhabiting the broadleaved, deciduous forests of the Eastern Mountains Region of Kentucky are typical of the Carolinian Biotic Province (Dice 1943:16-18). Many of the species associated with this kind of environment are still resident in the region today. Others, however, due to over hunting and habitat loss were extirpated. Larger mammals important to the Native American inhabitants of the region and early colonists like bison and elk were hunted to extinction. Elk, however, were reintroduced to the region in recent times and the populations have successfully reestablished themselves. Predators, among them the red and gray wolf, panther, and Black Bear are permanently extinct. Other species still common in the region today include white tailed deer, raccoon, opossum, squirrels, bobcat, turkey, grouse, quail, rabbit, skink, a variety of snakes, eastern box tortoise, and a host of songbirds. In creeks typical of the area turtles and shellfish along with bony fishes are common although shellfish populations are under threat from alterations to aquatic ecosystems. Many of the species that inhabit the region today were historically important to the Native American groups that resided there for millennia before the arrival of European colonists and found frequently in archaeological contexts.

DESCRIPTION OF THE PROJECT AREA

The Twin Meadows Development APE is located at 87 Twin Meadows Road in Booneville, Owsley Count, Kentucky. The APE is oriented northwest-southeast. It is bordered on the west side by Twin Meadows Road and on the east by a ditch that separates it from the adjacent mobile home park. Residential homes and their fenced yards from the northern and southern boundaries, respectively. Elevation increases from northwest to southeast, rising approximately one meter. Within the APE elevation ranges from 248-250 meters (815-822 feet) AMSL. The local geology is associated with Pennsylvanian sandstone. Soil within the APE is characterized by Rowdy silt loam, 0-4% slopes, occasionally flooded. Based on USDA soil descriptions, the subsoils occur below 10 inches, with the upper portion of the sediment column composed of silt loam. Vegetation across the APE consists mainly of grass and herbaceous plants, reflecting its current use as a hay field, and a strip of deciduous hardwood forest on the eastern side of the APE that co-occurs with the ditch and associated berm described above. The well-drained soils and relatively higher elevation within the APE holds moderate potential for the presence of archaeological sites.

CHAPTER 3
PEVIOUS RESEARCH & CULTURAL CONTEXTS

PREVIOUS ARCHAEOLGOICAL SURVEYS

Eleven archaeological surveys and investigations occurred within 2 kilometers of the Twin Meadows project APE. None occurred within the APE. Most of the research summarized below was previously compiled during a previous, nearby survey – *An Intensive Phase 1 Archaeological Survey of the Benton Way Development at 50 KY-28 East, Owsley County, Kentucky* (Endonino 2023). Below are summaries and descriptions of the surveys and their findings.

Archeological Survey of the Proposed Booneville Reservoir Area of the South Fork in the Kentucky River (Survey #575348) by Higel (1967) was unavailable for review at OSA report inventory. This survey report is missing and was not found out of sequence among the other Owsley County or Owen County reports.

An Archaeological Survey of the Proposed Relocation of Kentucky 11, Owsley County, Kentucky (Survey #576409) was performed by Western Kentucky University for the Commonwealth of Kentucky Department of Transportation (Ray and Schock 1976). The survey sought to identify and evaluate cultural resources within the right-of-way of a proposed relocation of Kentucky Highway 11 from the west side of Booneville to one half mile north of the community of Levi within an APE of approximately 2.7 miles in length and averaging 175 feet in width. One archaeological site, 15Ow300 was identified within the project APE. The site is divided into two areas, A and B. Area A was determined to be affected by the proposed road realignment and additional testing was recommended (Ray and Schock 1976:16).

A Cultural Resource Assessment of 2 Proposed Water Facility Sites for the Bonneville-Owsley County Water Expansion Project (Survey #575854) was performed by Cultural Resource Analysts, Inc. for Elrod and Associates of Florence, Kentucky (Donham 1985). The survey sought to identify and evaluate cultural resources within the APEs of two proposed water storage tanks. Both proposed locations were subjected to intensive pedestrian survey and STPs. No prehistoric of historic sites were identified within either APE. No further investigations were recommended (Donham 1985:7).

A Cultural Resource Assessment of a Proposed Tank Site Location near the City of Booneville, Owsley County, Kentucky (Survey #578246) was performed by Cultural Resource Analysts, Inc. for Kennoy Engineers of Lexington, Kentucky and the City of Booneville (Hand 1989). The survey sought to identify and evaluate cultural resources within the APEs of a proposed water storage tank. Both proposed locations were subjected to intensive pedestrian survey and STPs. No prehistoric of historic sites were identified within either APE. No further investigations were recommended (Hand 1989:3).

An Archaeological Survey of the Proposed Booneville Wastewater Treatment Plant, Owsley County, Kentucky (Survey #579698) was performed by Cultural Resource Analysts, Inc. for the Kentucky River Area Development District (Pecora 1993). The survey sought to identify and evaluate cultural resources within the 2.0-acre APE of a proposed water treatment plant for the community of Booneville. The proposed location was subjected to intensive pedestrian survey supplemented with STPs. One previously unrecorded prehistoric site, 15Ow99, was identified within the project APE. The site produced a moderate amount of late-stage reduction debris but lacked diagnostic artifacts. Subsurface deposits were stratigraphically compromised, and all artifacts were confined to these plow zone deposits. Due to the lack of intact deposits, and the site does not appear to contain or have the potential to yield significant information non the prehistory of the region, no further work was recommended (Pecora 1993:15).

An Archaeological Survey of Approximately 3.5 Acres for The Proposed Hillcrest Terrace Apts., Ltd. at Booneville in Owsley County, Kentucky (Survey# 579708) was performed by Arrow Enterprises of Bowling Green, Kentucky for Myers Davis Development of Lexington, Kentucky (Schock 1994). The survey sought to identify and evaluate cultural resources within the 3.5-acre APE of the Proposed Hillcrest Terrace Apartments. The proposed location was subjected to intensive pedestrian survey supplemented with STPs. A multicomponent site, 15Ow111, was identified within the APE. The site's principal component is associated with a historic structure built in the 1930s and demolished in the 1980s. Also present is a prehistoric component limited to the plow zone and associated with the late Early Archaic based on the presence of Kanawha points. Because the prehistoric component was restricted to the 10-15 cm plow zone and did not retain stratigraphic integrity, the site was evaluated as not eligible for NRHP listing and no future work was recommended (Schock 1994:13).

Phase I Archeological Survey of the Ruby Coal Company of London, Inc., Chestnut Coal Permit Area, Owsley County, Kentucky (Survey #579996) was conducted by Betty J. McGraw for Logos Engineering of Manchester, Kentucky (McGraw 1994). The survey sought to identify and evaluate cultural resources within the 41.7-acre APE prior to surface mining operations. The proposed location was subjected to intensive pedestrian survey augmented with STPs (McGraw 1994:1). No historical or archaeological resources were identified. No further work was recommended. (McGraw 1994:7).

Phase I Archeological Survey of the Proposed Booneville Post Office Location in Owsley County, Kentucky (Survey #580623) was conducted by Cultural Resource Analysts, Inc. for the Facilities Services Office, United States Postal Service (Richmond 1997). The survey sought to identify and evaluate cultural resources within 1.6-acre APE of the proposed post office location. The APE was subjected to shovel testing and resulted in the identification of a multicomponent historic and prehistoric site, 15Ow121 (Richardson 1997). The prehistoric component occurred within the plow zone and materials consisted of debitage and a single unassignable biface fragment. The historic component is associated with the occupancy of James D. Moore in the mid- to late 19th century (Richardson 1997:23). Because of the potential for additional information, the investigators believed that 15Ow121 may be eligible for NRHP listing under Criterion D. The recommendation was based in part on the presence, or likely presence, of subsurface features associated with the house and outbuildings. What makes the historic component significant is that it is associated with James D. Moore, a descendant of the founder of the settlement at Booneville. Based on this

information, additional Phase II archaeological testing was warranted to make a final NRHP eligibility determination for the site before any development proceeds (Richardson 1997:24).

Phase I Archaeological Survey of a Lot at 63 Mulberry Street, Booneville, Owsley County, Kentucky (Survey #587699) was conducted by the Program for Archaeological Research at the University of Kentucky for Partnership Housing, Inc. (Goodman 2013). The survey sought to identify and evaluate cultural resources within 0.5-acre APE. The proposed location was subjected to shovel testing and resulted in the identification of a previously unrecorded historic archaeological site, 15Ow152, dating from the late 19th through late 20th centuries. Of the six STPs excavated around the standing structure at the center of the property, all produced cultural materials. Coal and cinder were recovered from all tests. Only eight artifacts greater than 50 years in age were recovered. Recovered materials are discussed below for this site. Due to the low density of materials, lack of diagnostic artifacts, absence of midden, and additional subsurface features, the research potential for 15Ow152 was considered low and was not considered eligible for listing on the NRHP. No additional work was recommended (Goodman 2013:29).

Archaeological Survey of Five Proposed Bridge Projects in Kentucky Transportation Cabinet District 10 in Estill, Lee, Owsley, Perry and Wolfe Counties, Kentucky (Survey #589104) was conducted by Cultural Resource Analysts, Inc. for Bridging Kentucky (Nichols 2019). Phase 1 archaeological survey was conducted at the location of 5 bridges slated for replacement. Each side of the road on both sides of the bridges were subjected to shovel test pits, bucket auguring, and surface inspection. One of the bridge replacements occurred in Owsley County and was located less than 2 kilometers from the Twin Meadows APE. The bridge is located where KY3347 crosses Meadow Creek. One of the 19 STP locations at the Owsley County Bridge spanning Meadow Creek in Booneville produced two lithic waste flakes measuring less than ¼" in size and weighing 0.1g. These artifacts are not temporally diagnostic. No other artifacts or features were identified. The artifacts were determined to be an Isolated Find. Neither this bridge nor any of the others encountered archaeological sites that were eligible or potentially eligible for NRHP listing (Nichols 2019).

An Intensive Phase 1 Archaeological Survey of the Benton Way Development at 50 KY-28 East, Owsley County, Kentucky was undertaken for Partnership Housing, Inc. by Jon C. Endonino to identify archaeological and historical resources within the approximately 6-acre Benton Way Development APE located at 50 KY-28 East in Booneville, Owsley County, Kentucky and assess their eligibility for listing on the National Register of Historical Places (Endonino 2023). A systematic subsurface testing program utilizing shovel test pits excavated on a 20-m grid pattern was implemented to identify buried archaeological sites due to the exceedingly poor surface visibility within the APE. Sixty-three STPs were excavated, two of these produced prehistoric artifacts. Each of the two STPs produced a single specimen and, in both cases, consisted of a lithic waste flake. Additional testing at 10-meter intervals around the artifact-producing STPs did not yield additional artifacts. Therefore, each of the single artifact producing STPs constituted Isolated Finds. These were designated Isolated Find 1 and Isolated Find 2. Based on these findings, no archaeological sites were identified within the Benton Way Development APE. A finding of No Historical Properties Affected was offered. No further work was recommended.

PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

OSA identified four previously recorded archaeological sites within 2 kilometers of the Twin Meadows project APE. None occur within the APE. Site 15Ow121 is the nearest and located 375 m southwest of the current survey area. Two sites are associated with the early- to mid-20th century and identified as "historic farm/resident" by OSA. Two additional sites are prehistoric and were identified by OSA as "open habitations without mounds. A description and discussion of archaeological sites follow below.

Archaeological Sites

15Ow99

Site 15Ow99 is an unassigned prehistoric site determined to be a habitation without mounds located on a moderately broad eastward sloping toe ridge overlooking Meadow Creek and the South Fork of the Kentucky River. Eighteen STPs were excavated at the site, nine of which produced prehistoric lithic artifacts. Artifacts recovered included two biface fragments and 26 debitage. STPs were placed at 5- and 10-meter intervals across the site. None of the artifacts are temporally diagnostic. On the OSA site form 15Ow99 is classified as an Inventory site, as it does not presently meet NRHP criteria.

15Ow111

Site 15Ow111 is a multicomponent site situated on a relatively level knoll adjacent to a stream in a field used for tobacco cultivation. Ground visibility was excellent. Field work identified Early Archaic and early to late twentieth century components. Site investigations consisted of surface inspection and the installation of six STPs across the prehistoric component. Fourteen prehistoric artifacts were recovered and included one, possibly two, Kanawha points and 12 lithic debitage. Subsurface testing determined that the prehistoric component was restricted to a shallow plow zone. Diagnostic historic artifacts included both plain and transfer print whiteware, green bottle glass, canning jar lid liners, "cold cream" glass container fragments, and a late twentieth century electric fuse. Historic artifacts are associated with the residence constructed in the 1930s and demolished in the 1980s according to the property owner Mr. Charley Murrell (Schock 1994)

15Ow121

15Ow121 is a multicomponent site where the primary component is associated with a mid-nineteenth to mid-twentieth century residence/farmstead that included a standing structure identified as a "warm house" and filled well at the time of fieldwork. A house, privy, and shed were reported also to have stood on the property according to the landowner Carl R. Reynolds (Richardson 1997). A low-density lithic scatter of indeterminate cultural affiliation was also identified. Twenty-four screened STPs were installed within the site and seven produced cultural materials. All artifact producing STPs yielded both prehistoric and historic materials. Prehistoric artifacts included one unidentified hafted biface and six pieces of debitage. Historic artifacts were not identified or quantified on the OSA site form. In the report section included with the site form

historic artifacts reported included container glass, historic ceramics, nails, and a handmade brick fragment (Richardson 1997). The National Register status of the site was not assessed according to the OSA site form. However, as noted above, the investigators considered the historic component as potentially eligible for NRHP listing and recommended additional testing based on the association of the property with a descendant of the founder of Booneville and potential for undisturbed subsurface features (Richardson 1997).

15Ow152

15Ow152 is a historic residence/farmstead. Six STPs were excavated at the site and three produced cultural materials. Artifacts included one cut nail, two wire nails, one unidentified nail fragment, two shards of window glass, one piece of cut bone, and one toy gun part. The materials are associated with a 19th century farm/residence that was vacant at the time of fieldwork. A two-story Vernacular structure with associated cistern and cellar entrance were noted during fieldwork, but no evidence for privy pits or other outbuildings were noted. Artifacts were recovered within the upper 30 cm of deposits. Soils overall appeared to be generally intact with only minor disturbance. No further archaeological work was recommended, and the site is not considered eligible for NRHP listing (Goodman 2013).

HISTORICAL MAP REVIEW

The 1891 USGS 1:250,000 Manchester Sheet, surveyed in 1887-88, does not show any development within the project APE or immediate area. Although no indications of development or residence are shown as present within the APE or its immediate environs, other areas in proximity to Booneville do show low levels of development. In view of this, if there was any development in the form of businesses or residences within or close to the project APE, they would appear on the map. That they do not is interpreted as their absence as late as 1888 when the survey work was completed.

Reviewing the 1937 Owsley County highway map shows that no historic structures were present within the APE at that time. Development is largely restricted to areas adjacent to well-established roads like current KY-28 and unimproved roads paralleling Sugartree Branch, located 300-350 meters west and east of the APE, respectively. Similarly, the 15' USGS 1961 Booneville Quadrangle does not show any historic structures, roads, or other features within the APE (Figure 3-1). Likely many of the structures on the 1961 USGS map are the same as those shown in the 1937 Owsley County Highway Map. Considering that the structures shown on these maps are located away from the APE there is only a low probability that materials from the 19th and 20th centuries are likely to occur.

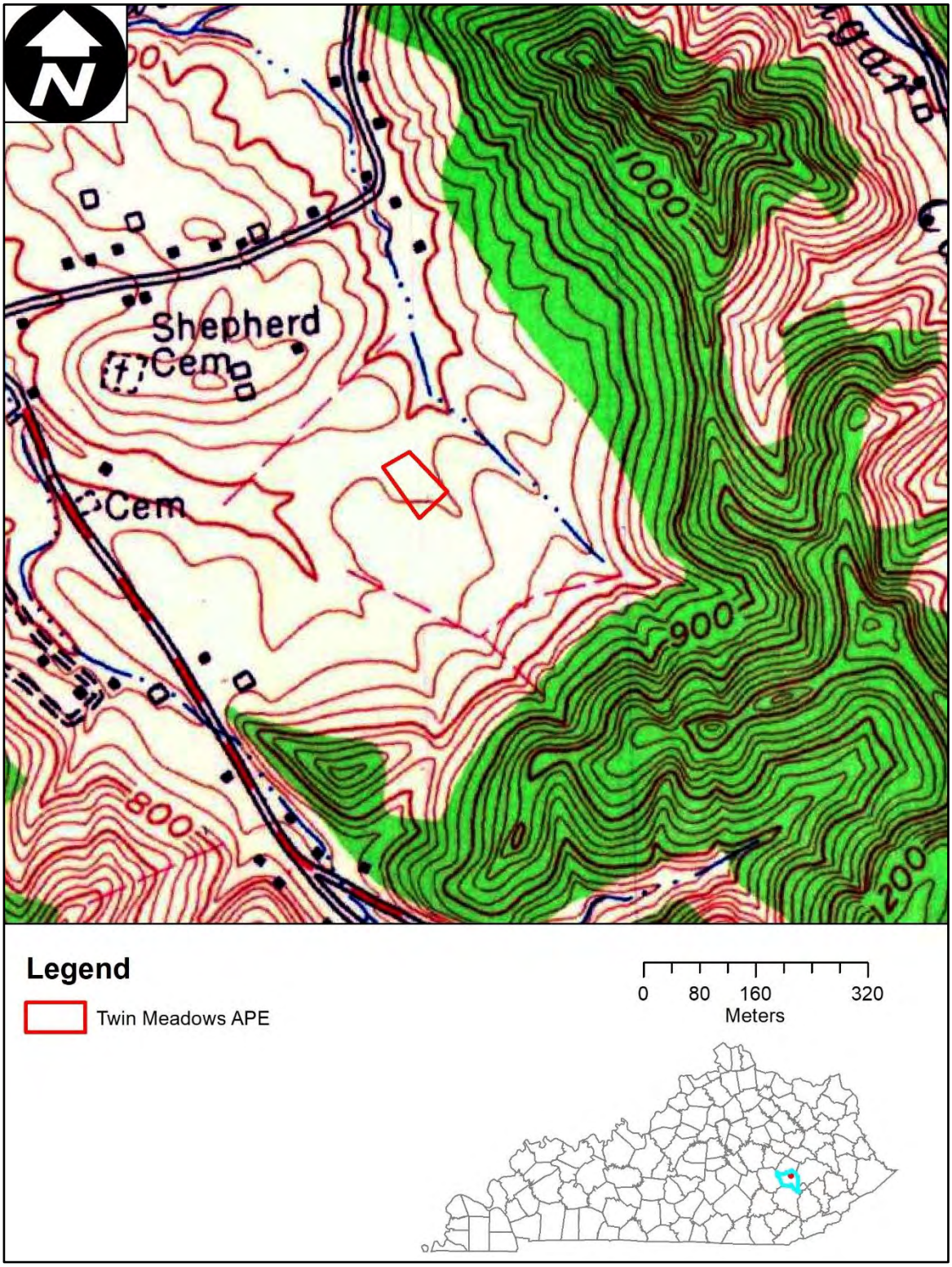

Figure 3-1. 1961 Booneville 15' USGS Topographic map showing historic structures near the Twin Meadows APE.

PREHISTORIC CONTEXTS

The following overview provides an outline for the major prehistoric and historic developments to contextualize the sites and findings during this work. The following generalized discussion was based largely on summaries provided in Kentucky Archaeology (Lewis 1996) and The Archaeology of Kentucky: Volumes I and II (Pollack 2008). Additional information from other relevant sources is provided where warranted.

Paleoindian

The Paleoindian (13,500+ - 11,500 cal BP) period represents the initial inhabitations of the Western Hemisphere by the ancestors of contemporary Native Americans. The initial peopling of the Americans occurred prior to 13,500 cal BP (Halligan et al. 2016), a millennium or more before Clovis culture developed. Colonizing populations of Native Americans arrived during the end of ice-age near the end of the Pleistocene. The climate was cooler and drier and vegetative communities were radically different. Faunal communities likewise were different. Many species of now extinct mammals such as mammoth, mastodon, camel, horse, bison and their predators including saber-toothed tiger, short faced cave bear, lions, and dire wolf. A warming climate and changing ecologies occurred during this period, leading to the extinction of numerous large mammals and also triggered changes in human adaptations.

The Paleoindian period is divided into Early, Middle, and Late sub-periods that are marked by changes in stone tool technology. Early Paleoindian is strongly associated with lanceolate-shaped Clovis points, notable for their distinctive fluting, blades and blade cores, and unifacial end scrapers (Tankersley 1996). Unfluted lanceolate projectile point forms follow Clovis and include Barnes, Redstone, and Beaver Lake and are diagnostic of the Middle Paleoindian period and Dalton points are diagnostic of the Late Paleoindian Period.

Settlement and subsistence patterns are interrelated. During the Early and Middle Paleoindian periods in Kentucky are associated with regions possessing lower topographic relief. Although present, sites are less often found in the mountains of Eastern Kentucky. Paleoindian sites in the Cumberland Plateau in Kentucky that have been identified are multicomponent and often disturbed and deposits producing them undated (Bush 1988). Considerably more sites are found in the Pennyroyal and Bluegrass regions of the state. Historically, Paleoindian subsistence has been assumed to have focused on hunting large mammals like mastodon and mammoth. While large mammals were part of the diet for Paleoindians, it is more probable that diet was broader and included a diversity of small and medium sized mammals in addition to plant resources, notably mast and hickory and walnut. Warming associated with the end of the Pleistocene and beginning of the Holocene led to alterations of ecological communities. Transitions from coniferous to deciduous forest resulted in more productive environments and Late Paleoindian sites are found in regions only sporadically inhabited previously. Notably, the mountainous regions of eastern Kentucky (Bush 1988; Tankersley 1996). The progressive warming at the onset of the Early Holocene and alterations to the structure and composition of ecological communities led to changes in lifeways and material culture as late Paleoindian societies adapted to the changing

world. These changes mark the onset of the Archaic period (Anderson and Sassaman 2012; Tankersley 1996).

Archaic

Following the gradual warming at the end of the Pleistocene further diversification of lifeways occurred across the southeast and Kentucky. The Archaic period (11,500-3000 cal BP) is conventionally divided into three sub-periods: Early, Middle, and Late (Anderson and Sassaman 2012; Anderson and Sassaman 1996). Changes in the form of hafted bifaces associated with each period are used as diagnostic criteria for identifying Archaic sub-periods. Other changes in subsistence, settlement, and social organization also occurred.

The Early Archaic (11,500-8900 cal BP) witnessed increasing global temperatures and the expansion of oak and hickory dominated forests (Anderson and Sassaman 2012:71). Human populations were well established across the Southeastern U.S. by this time and adapted to the changing environments at the end of the Pleistocene. Some continuity is evident between the Paleoindian and Early Archaic in land-use patterns and stone tool technology (end scrapers). However, other aspects of lithic technology, notably haftable bifaces, changed. Lanceolate forms of the Paleoindian period were supplanted by side- and corner-notched hafted bifaces early-on (Thebes, St. Charles, Kirk Corner-Notched, Pine Tree) and later with bifurcate based (MacCorkle, Kanawha, LeCroy, St. Albans) and stemmed forms (Kirk Stemmed) occurring towards the end of the Early Archaic (Anderson and Sassaman 2012:71; Justice 1987; Jefferies 1996). Subsistence practices of Early Archaic foragers emphasized small game and mast resources, particularly hickory and walnut. Aquatic resources (fish, shellfish) apparently were not important in Kentucky during the Early Archaic (Jefferies 1996). The wide distribution of Early Archaic bifaces in all environmental and physiographic contexts indicates populations were widely distributed and likely seasonally mobile. An important aspect of settlement during the Early Archaic is the extensive use of cave and rockshelter sites (Anderson and Sassaman 2012: 71; Walthall 1998).

The Middle Archaic (8900-5000 cal BP) period is associated with regional diversification of lifeways and further changes in the environment. During the Middle Archaic a warm, dry period impacted the midcontinent and Southeast and is referred to as the Hypsithermal climatic interval, effecting ecological communities and humans alike. Subsistence practices reflect local conditions, a broad-based foraging pattern was typical for this period and a diversity of plant, and animal resources exploited. A major development was the extensive utilization of aquatic resources with fish and shellfish constituting a major portion of the subsistence base for groups inhabiting river valleys, lakes, and marshes (Dye 1996). At some of these locations dense midden deposits accumulated (Jefferies 1996). The diversity in regional traditions during the Middle Archaic is reflected in a diversity of projectile point styles. Among the more common types are Morrow Mountain, Eva, Big Sandy, Godar, and Matanzas. End scrapers made on broken bifaces also occur. Ground stone tools are an important aspect of lithic technology at this time and includes grooved axes, bannerstones, and nutting stones (Jefferies 1996; Sassaman 1996). Settlement patterns during the Middle Archaic emphasize mobility and is reflected in the wide distribution of sites and their ephemeral nature. Exceptions are sites located adjacent to aquatic environments where midden deposits developed.

Alterations to the lifeways associated with climatic moderation after about 5000 cal. BP. are associated with the Late Archaic (5000–3000 cal BP). Changes in technology associated with changes in lifeways is reflected in the stone tool technology. A diversity of stemmed forms dominate the Late Archaic compared to the notched forms typical of the Middle Archaic. Stem forms include straight, expanding, and contracting and include the Merom-Trimble, Lebetter, Gary, Wade, and McWhinney types (Jefferies 1996:55, Justice 1987). At some sites bone tools are present and include awls and pins. During this period a number of significant developments occurred, notably evidence for emerging social differentiation among some groups, notably peoples inhabiting Green River shell mounds (Jefferies 1996:54). Otherwise groups largely remained egalitarian. One significant development is the increased use of plants that would become domesticated cultigens during the succeeding Woodland period, notably starchy seeds such as goosefoot, marsh elder, and knot weed as well as tropical cultigens including squash and gourds (Jefferies 1996:57). Although plants that would later become domesticates were important, a significant use of hickory nuts and other mast resources were important in Late Archaic subsistence. Also important to subsistence are deer, turkey, small mammals, fish, and fruits. Overall a broad, generalized foraging pattern prevailed. Settlement systems were characterized by small base camps in floodplains, numerous small camps within flood plains, widely scattered across uplands, and rockshelters. Excluding basecamps, sites tend to be short-term occupations and their wide and uniform distribution within the Bluegrass indicates a uniform distribution of plant and animal resources across this region (Jefferies 1996:62).

Woodland

The Woodland period (3000-1000 cal BP) is used to describe several well-defined archaeological cultures in the eastern U.S. to describe Native American groups who made pottery, constructed burial mounds and other earthworks, and who subsisted on hunting and gathering as well as gardening. The Woodland period is divided into Early, Middle, and Late sub-periods and reflect a number of changes in technology, settlement, and ritual practices.

The Early Woodland (3000-2200 cal BP) is differentiated from Late Archaic in part by the widespread adoption of ceramic technology at or around 3000 cal. BP. Within the Bluegrass the earliest pottery is Fayette Thick. Fayette Thick vessels are barrel-shaped jars and large, deep basin-shaped jars decorated with cord-marking and fabric-impressing on pastes tempered with coarse grit and rocks (Griffin 1943). Several notched and stemmed haftable bifaces were produced and include Gary, Wade, Greeneville, Nolichucky, and Adena types (Railey 1996). The oldest preserved textiles are recovered from sites dating to the Early Woodland, many coming from rockshelters in eastern Kentucky. Early Woodland subsistence was largely hunting and gathering supplemented by gardening. Important subsistence resources included large and small mammals, fish, turkey, nuts, and cultigens including squash, sunflower, maygrass, goosefoot, amaranth, and knotweed (Railey 1996:84). Settlement patterns were like the Late Archaic and within the widely distributed across the rolling uplands and consisted of numerous small, frequently shifting camps. Ritual sites are an important addition during the Woodland period, mounds and associated earthworks, occurring after about 2500 cal. BP. (Railey 1996:84). Notably absent in the Early Woodland are base camps and this indicates that there was little change in settlement systems between the Late Archaic and Early Woodland (Railey 1996:86). Adena culture is often considered

synonymous with Early Woodland but this ritual and mortuary tradition spans both the late Early Woodland and early Middle Woodland.

Middle Woodland (2200-1500 cal BP) witnessed a dramatic elaboration of ritual life and long-distance exchange networks and is manifest in the proliferation of burial mounds, earthworks, and non-local materials and exotic artifacts (Railey 1996:124). These elaborations in ritual, monument construction and exchange (for objects included in mortuary ritual) was not uniformly adopted across the midcontinent and there is considerable local variation in both the timing and intensity of participation in the ritual and mortuary programs of Adena and Hopewell. Materials associated with Adena includes objects of copper, galena, and other non-local minerals, smoking pipes, engraved stone tablets, and a variety of stone tools including projectile and knife forms including Adena stemmed. Adena ceramics are limestone or sandstone tempered, typically undecorated although incised, cord marked, and check stamped were made. Temporally mound-building activities of Adena and Hopewell overlap in Kentucky. Hopewell influence is greatest north of the Ohio River although its influence in Kentucky is undeniable. According to Railey (1996:100) "Adena should be viewed as an early regional expression of Hopewell rather than as its predecessor. The decline of Adena and Hopewell exchange and ritual practices appears to have been less of an evolutionary (or cultural) transition and more of a full-scale breakdown of long-distance relationships (Railey 1996:123).

The Late Woodland (1500-1000 cal BP) is marked by a sharp decline in the construction of mounds and earthworks and long-distance exchange that was so significant in the preceding Middle Woodland and is one outcome of the collapse of the Hopewell Interaction Sphere. Apart from these broader changes related to ritual and exchange, little else appears to have substantively changed with strong local cultural continuity. Ceramics and other tools remain essentially unchanged. An important technological development, however, was the introduction of the bow and arrow at approximately 1200-1300 cal. BP. and with it small, triangular projectile points (Railey 1996:111). Subsistence during the Late Woodland changed little from the preceding Early and Middle Woodland. During the terminal Late Woodland, from 1100-1200 cal. BP. maize-based horticulture was adopted although hunting and gathering remained important (Railey 1996:111). Settlement patterns vary geographically with some regions of the state showing a move towards nucleated, circular villages whereas others maintain a more dispersed settlement pattern. Within the Bluegrass there is considerable local variation and includes village locations as well as rockshelter occupations and are associated with the Newtown Complex (Railey 1996:116). Near the end of this period and prior to the development of Ft. Ancient, nucleated villages are abandoned in central Kentucky and groups returned to a more dispersed settlement.

Late Prehistoric (Ft. Ancient)

Ft. Ancient (1000-250 cal BP) represents the Late Prehistoric period in central and eastern Kentucky. Following the Woodland period, groups in central and eastern Kentucky, although contemporaries of Mississippian groups located along the Mississippi and lower Ohio Valleys, were not full participants in the social and ritual transformations of the latter. Nor were they participants in the far-flung exchange networks of the Mississippians although they were not completely outside of these networks. Late prehistoric groups of Ft. Ancient appear, rather, to reflect the changes manifest in the Late Woodland and their turn towards the local. Ft. Ancient is

divided into early, middle, and late sub-periods. Early Ft. Ancient (1000-800 cal BP) groups inhabited much of central and northeast Kentucky. Settlement may have consisted of scattered dwellings along ridges as suggested by the Muir site in Jessamine County (Sharp 1996:162). Ceramics are typically include plain and cord marked limestone tempered wares with strap or loop handles. Long, narrow "Type 2" triangular projectile points are common as are bone tools such as awls and reamers. Subsistence depended significantly on wild game: deer, elk, bear, turkey, raccoon, squirrel, among others. Aquatic resources contributed little to the diet (Sharp 1996:164). Corn cultivation was important and beans, erect knotweed, and sunflower was also grown. Middle Ft. Ancient (800-600 cal. BP.) sites are well-documented and settlements once again become nucleated, typically an array of houses around a central plaza and surrounded by a ring of midden deposits. Linear settlements are still present along ridgetops and river terraces. Some circular villages have small burial mounds on the plaza edge or burials in front of individual houses. Ceramics are shell- or limestone-tempered jars with lugged rims or thick strap or loop handles (Sharp 1996:169). Necks of some jars are decorated with incised designs, otherwise ceramics tend to be plain or cord-marked. Subsistence practices were largely similar to Early Ft. Ancient. Late Ft. Ancient (600-250 cal BP) was marked by a number of important changes. Significant among these was an increase in village size but a decrease in the number of villages, the disappearance of burial mounds and predominance of family cemeteries, and the homogenization of domestic pottery styles (Sharp 1996:170). Collectively these are referred to as the Madisonville horizon. European/American trade goods become part of the material culture of Late Ft. Ancient groups and includes a number of gun parts, utilitarian goods, and ornaments (Sharp 1996:175). Although there are some similarities between the material culture and villages of Late Ft. Ancient and the historic era Shawnee, demonstrating specific connections have not been satisfying and remain elusive.

HISTORICAL CONTEXTS

Indigenous Contact Period

Establishing a link between prehistoric cultures and historic Native Americans tribes is difficult since similar material culture may be shared by ethnically distinct groups. In addition, there are historic factors associated with the region that increase the difficulty of establishing ties between archaeological and historic cultures. Approximately 150 years passed between Desoto's initial explorations (A.D. 1539 and 1543) and the major Euro-American exploration of the isolated area lying west of the Appalachians. During this hiatus, Native American people were affected by introduced diseases, declining populations, and exposure to alien social, political, and economic institutions. Some Native American groups living near coastal European colonies gained ascendancy over more remote groups due to favorable trade positions and access to new technology. Major shifts in Native population occurred. Ancient antagonisms that had been resolved through ritualistic raids and counter raids, escalated into endemic warfare conducted for economic gain. By 1770, Kentucky was largely void of more permanent Native American settlement. None-the-less, Iroquois, Shawnee, Cherokee, and Chickasaw, all laid claim to tracts of Kentucky territory. Additionally, many other groups including the Delaware, Wyandot, and Miami, used the area regularly for hunting.

Historic Period

Following European contact on the eastern coast of America infections disease significantly reduced Native populations and the rich and varied pre-contact cultures were forever changed. When Europeans began to descend the Ohio, Mississippi, and other rivers and cross the Appalachian mountains in the 17th and 18th centuries Native American groups inhabiting what is now Kentucky included the Shawnee, Cherokee, Chickasaw, Yuchi, Iroquois, and Mosopelea. In the Bluegrass region of Kentucky the Shawnee were the principal Native American group. One Shawnee town, Eskippakihiki, was the last surviving Shawnee village in Kentucky and was located in Clark County. The town was surrounded by a stockade estimated at 200 meters in diameter and surrounded by 3000-5000 acres cleared agricultural fields. A French census from 1736 estimates that 200 families were in residence with a population numbering 800-1000. Eskippakhiki was apparently abandoned between 1752 and 1769.

The history of Europeans in Kentucky dates to the last quarter of the 17th century when the lands along the Mississippi River Valley, including Kentucky, were claimed by Rene-Robert Cavelier, Sieur de la Salle for France. Following the signing of the Treaty of Paris in 1762 these lands were ceded to the British Crown and became part of the Virginia Colony. Iroquois claims on much of Kentucky were settled when the British negotiated its purchase in the Treaty of Fort Stanwix in 1768. In the decade that followed increasing Euro-American settlement occurred throughout central and eastern Kentucky, and the Bluegrass region in particular with its numerous forts, stations, and settlements established at this time. Daniel Boone and James Harrod are notable figures in the early history and settlement of Kentucky.

Owsley County

Owsley County was formed out of Breathitt, Clay, and Estill counties and created in 1843 and named in honor of Kentucky Governor William Owsley (Kentucky Atlas and Gazetteer, electronic document accessed 12/08/2022). Lying within the Cumberland Plateau and the Eastern Coal Fields, much of the county is rugged. Despite this, much of the county's acreage is farmland (Garrett 1992).

Scant mineral reserves in the county meant that railroads were not attracted to the area. A narrow-gauge line for lumber transport built by the K&P Lumber Company was constructed to move lumber to a mill in the northeast of the County (Garrett 1992). By 1909 the line was abandoned as the area it serviced had been cut and it was pulled up and used for scrap during World War I. The Kentucky, Rockcastle, and Cumberland railroad which traversed the northwest corner of the county was abandoned by 1930 (Garrett 1992). Timber was the lifeblood of the county and with the decline in timber to harvest and the closure of the railroads, mills soon went out of business. Outmigration after 1940 led to significant depopulation of the county. Today most residents are employed in services, County and local government, or agriculture (Garrett 1992).

Booneville

Booneville was incorporated in 1847, having previously been known as Owsley Court House from 1844, it was renamed Booneville in 1846 (Kentucky Atlas and Gazetteer, electronic document accessed 12/08/2022). Prior to its renaming and establishment as the Owsley County seat in 1843, Booneville was known as Boone's Station, purportedly because Daniel Boone had once camped in the area during a surveying trip in 1780-81 (Garrett 1992). Later it was renamed Moore's Station after James Moore, Sr. who was one of the first permanent settlers in the 1790s (Garrett 1992).

Booneville suffered several catastrophic fires, and many of these struck the courthouse. Five courthouses have existed in the town. The first was a log construction build on an acre of land donated by Elias Moore, son of James Moore Sr., in 1843 and further underscoring the importance of this family in the settling and growth of the town. A second courthouse of brick was built in the 19th century although details are lacking. A third courthouse, also built of brick, was constructed in 1887 and subsequently burned in January 1929 (Garrett 1992). A fourth courthouse of brick and built in a Colonial Revival style was completed in 1931 and it too burned in 1967. The fifth and final courthouse was built in a modern architectural style and was completed in 1974 (Garrett 1992). Fire also destroyed several other structures and businesses and include a brickyard, the Booneville Hotel, and the telephone exchange as well as several homes (Garrett 1992).

Although nestled in the mountains of the Eastern Coal Field region and generally remote by most standards, the Civil War did have an impact on Booneville. Most of the town's residents supported the Union and many of the young men of the town enlisted in the 7th Kentucky Infantry Regiment (Garrett 1992). More pointedly, the town served as a short-term encampment in 1862 by Union troops under the command of General George W. Morgan during their retreat from Cumberland Gap to Ohio and when in 1864 Colonel C.H. Hanson and 300 troops were in pursuit of General John Hunt Morgan's Confederate soldiers (Garrett 1992). Although no battles occurred in or near the town, the most serious menace were the pro-Confederate guerillas from neighboring counties, culminating in a skirmish where the Three Forks Battalion Home Guard drove off a force of 75 Southern Guerillas (Garrett 1992)

Local industries within the town at the turn of the 20th century included a tanyard, a lumber mill, and a brickyard. Most of these operations, or similar ones, were in operating as early as the mid-nineteenth century. All these businesses ceased by the middle of the twentieth century. Today most of the residents who are employed work as service workers or are employed by stage and local government (Garrett 1992).

The city limits of Booneville have never been enlarged. The population of the town has remained small (126 in 1970, 191 in 1980, and 232 in 1990) during the last quarter of the 20th century. In the 21st century, the population is shrinking. In the 2000 census the town's population was 111 and in 2010 it was 81 showing a strong population decline in.

CHAPTER 4
FIELD METHODS

Field methods employed for this intensive Phase I archaeological assessment were developed based on the nature of the project APE and characteristics of the local physiography. Considering these environmental factors and previously recorded archaeological sites, the likelihood of encountering archaeological sites was evaluated as moderate. Only areas contained within the APE were surveyed. Because the APE consists of an open field used for growing hay, designing, and implementing a systematic survey of the entire one-acre APE was straightforward.

OVERALL APPROACH TO SURVEY

Given that the ground surface of the entire APE is covered with grasses and other herbaceous plants, surface visibility was extremely poor and surface inspection was not a viable option for identifying archaeological sites. Therefore, subsurface testing through the installation of STPs across the APE was the only suitable method for detecting archaeological sites. Because the primary landform within the APE is a low terrace with gradual one-meter elevation change from northwest to southeast, and the soils are well-drained, it was judged to possess moderate site potential for both prehistoric and historical archaeologic sites. A grid-based archaeological survey over the entire APE was designed and implemented.

ARCHAEOLOGICAL METHODS

Surface Inspection

Although the ground surface of the entire APE was covered in grasses and herbaceous vegetation with 0% visibility, the entire project area was walked during subsurface testing. Transects were spaced 20 meters apart.

Sub-Surface Testing

STPs were excavated at 20-m intervals on a grid pattern across the project APE. A baseline was established 10 meters northeast from Twin Meadows Road and 10 meters southeast of the residential fence at the north end of the APE. The baseline was oriented NNW (333º) – SSE (153º) and parallels Twin Meadows Road. A 100-m tape and a Suunto sighting compass were used to establish the initial transect/baseline. Pin flags were placed at 20-m intervals along the baseline. Transects perpendicular to the baseline and running ENE (69º) from the baseline were likewise marked every 20-m with pin flags. Along the eastern boundary near the drainage ditch and berm, the two STPs in the northern half of the transect along the eastern APE boundary were 5- and 3-

meters short owing to the occurrence of the berm. STPs were excavated at the location of each pin flag. A total of three NNW-SSE transects each with four STPs were established. The entire surveyed area contained 12 STPs.

Shovel Test Pits measured approximately 30-cm square and were excavated until sub-soil was reached. Within the APE the subsoil was typically encountered at approximately 20-25 cm below ground surface and consisted of 2.5Y5/6 light olive brown loamy clay. Excavated sediments were passed through ¼" screen. Information related to STP location relative to other STPs, stratigraphic information, and any other relevant observations related to physiography, environment, disturbance, etc. was recorded in a field notebook for every STP. Location for each STP was recorded with a GPS device.

AREAS NOT TESTED

Areas of the APE adjacent to Twin Meadows Road likely to have been impacted during road construction and excavation of the drainage ditch that parallel the road were not tested with STPs. Figure 4-1 illustrates the untested area adjacent to Twin Meadows Road. The easternmost side of the APE where a drainage ditch and associated berm occur also was not tested and is shown in Figure 4-2. In lieu of testing with STPs, these areas were visually inspected. It should be noted that the site grid, as established, excluded the untested strip adjacent and parallel to Twin Meadows Road. The untested areas within the APE did not reduce the effectiveness of the survey design and methods. Figure 4-3 shows both tested and untested areas in the Twin Meadows APE.

Figure 4-1. View of the ditch within Twin Meadows APE adjacent and parallel to Twin Meadows Road, Booneville, Owsley County, Kentucky. From northwest corner of APE facing south-southeast.

Figure 4-2. View of berm and ditch on the eastern side of the Twin Meadows APE, Booneville, Owsley County, Kentucky. Mobile home park visible in background. View from STP-11, facing east-northeast.

Figure 4-3. Tested and untested areas within the Twin Meadows APE, Booneville, Owsley County, Kentucky.

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CHAPTER 5
SUMMARY & RECOMMENDATIONS

An intensive Phase I archaeological survey was conducted for the approximately 1-acre Twin Meadows APE located at 87 Twin Meadows Road in Booneville, Owsley County, Kentucky. This intensive Phase I archaeological survey was undertaken at the request of The Kentucky Heritage Council (KHC) in a letter to Jacob Wolfe, Project Manager for FAHE, dated June 27, 2023. This archaeological survey sought to locate, identify, and characterize previously unrecorded archeological sites within the APE and assess the impacts of the proposed undertaking on them in accordance Section 106 of the National Historic Preservation Act (NHPA) of 1966. This report of investigations represents a good faith effort to locate, identify, and assess archaeological resources within the Twin Meadows APE and evaluate their eligibility for listing on the National Register of Historic Places (NRHP).

All undisturbed areas within the Twin Meadows APE were tested with STPs at 20-m intervals on a grid pattern. A total of 12 STPs were excavated during this survey (see Figure 1-4). Additionally, the project area was walked over during a brief reconnaissance prior to commencement of testing and during the installation of STPs. Testing revealed that plowing associated with agricultural activities has compromised substantial portions of the APE. Moreover, furrows from past plowing are still visible across the APE.

No cultural materials were recovered from STPs or collected from the ground surface, and no cultural features were identified during this intensive Phase 1 archaeological survey. No archaeological sites are present within the Twin Meadows APE. A finding of ***No Effect*** is offered. No further work is recommended.

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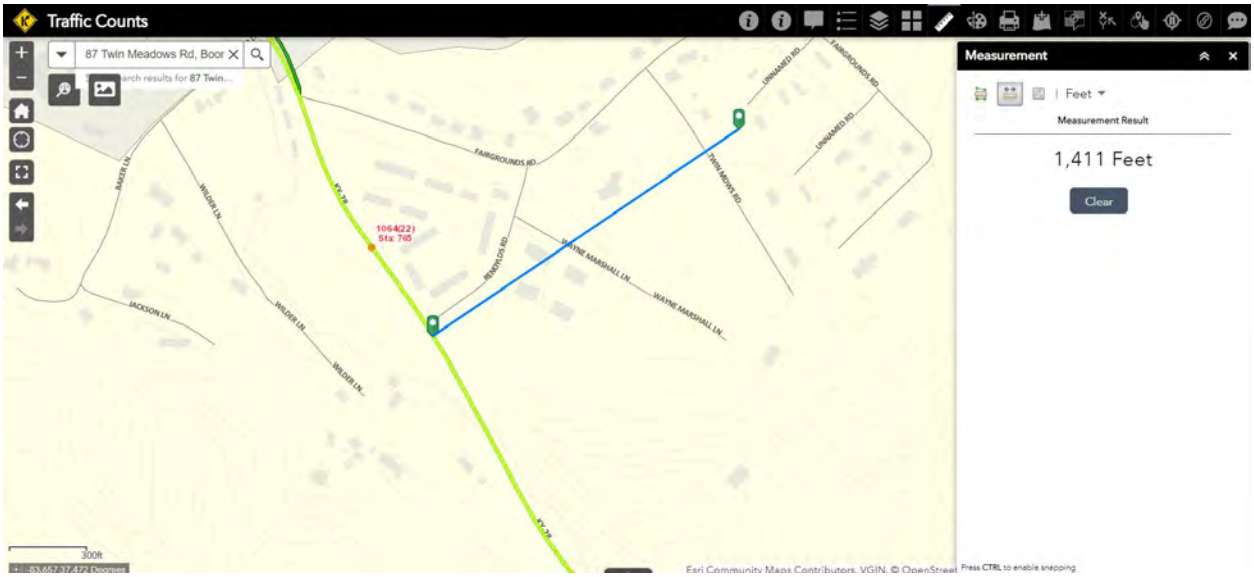
Attachment 12 – Noise Abatement

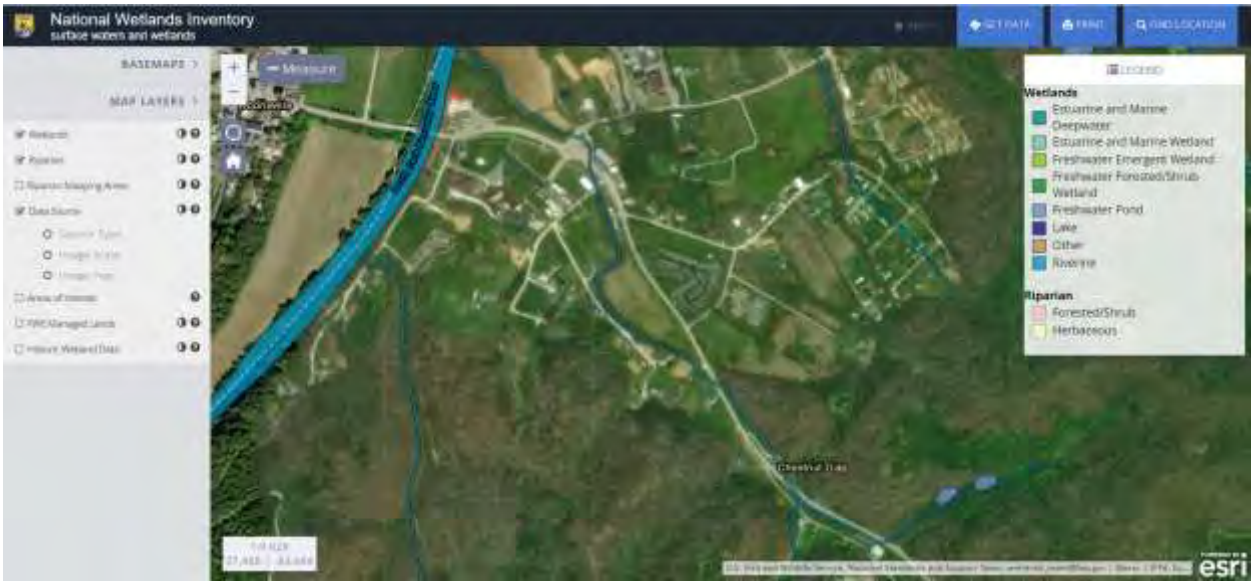
There are no heavily traveled roadways near the proposed site of the new duplex.



State Highway 28 is Rural and is not considered to have a High Volume AADT.

Attachment 13 – Wetlands

The proposed project area is not located in a wetland area.
No wetlands are noted near the project site.

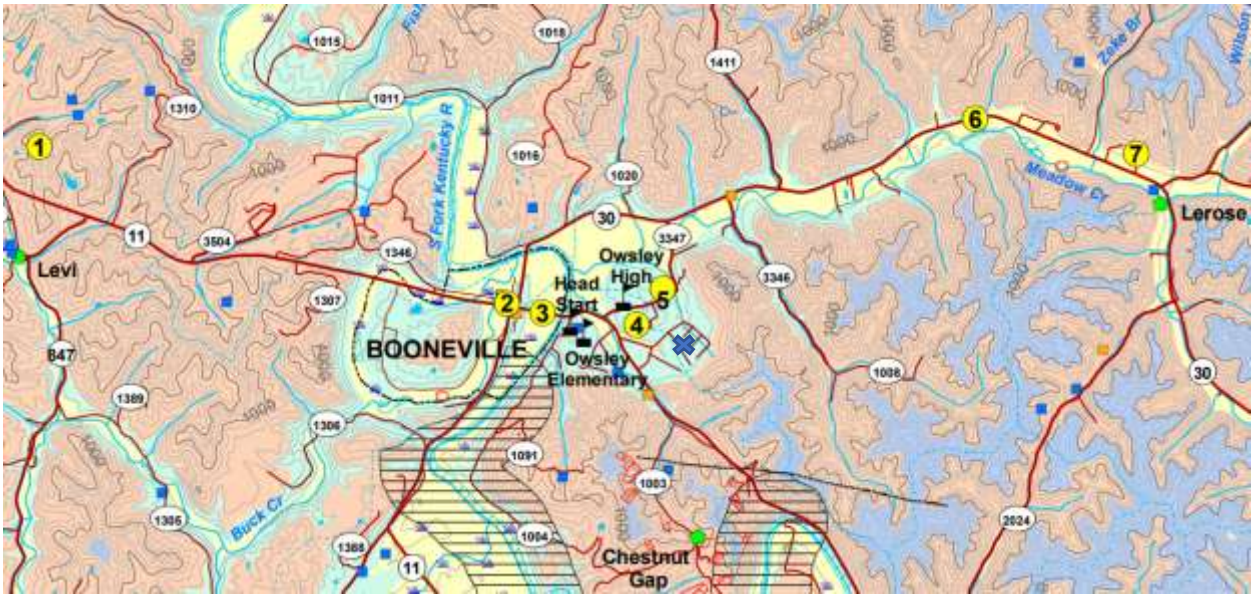


Attachment 14 – Wild and Scenic Rivers

There are no Wild and Scenic River sites near Owsley County

Attachment 15 – Geologic Maps of Area

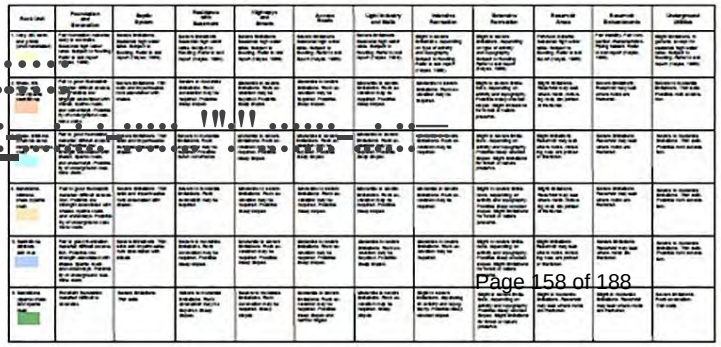
Generalized Geologic Maps for Land Use Planning

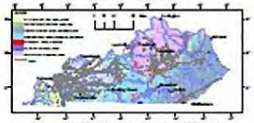


Generalized Geologic Map for Land-Use Planning: Owsley County, Kentucky

Edward C. Hodges
Bart Davidson and Daniel I. Carey

Planning Guidance by Rock Unit Type






U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
USGS
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BOONEVILLE QUADRANGLE
KENTUCKY
7.5-MINUTE SERIES

Attachment 16 – Socioeconomic and Community Facilities

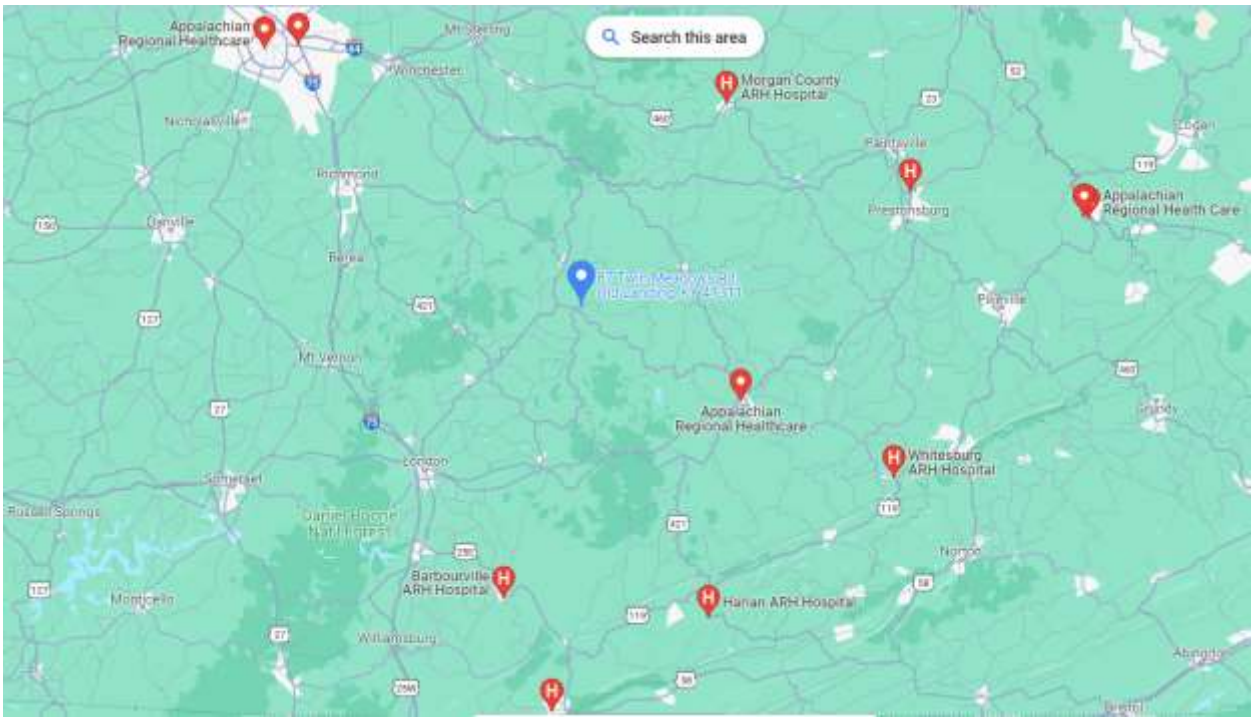
Educational and Cultural Facilities: beneficial impact anticipated. Owsley County has good high speed internet connectivity and will provide opportunity for online training & classes.

Commercial Facilities: No impact anticipated.

Health Care and Social Service: Social services will be available through Arc, as well as through Owsley County. Healthcare is available.

Figure 1. Businesses and places of employment are nearby.

Figure 2. Appalachian Regional Hospitals nearby.



Other hospitals nearby:

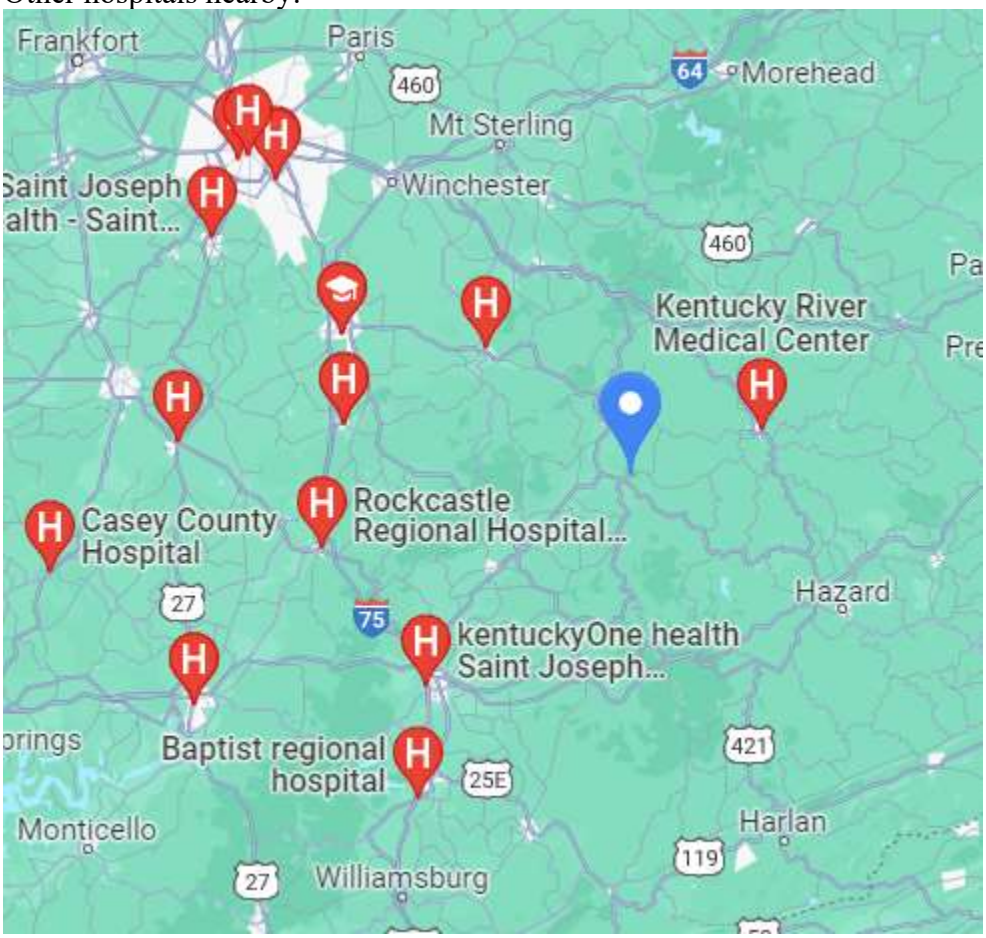
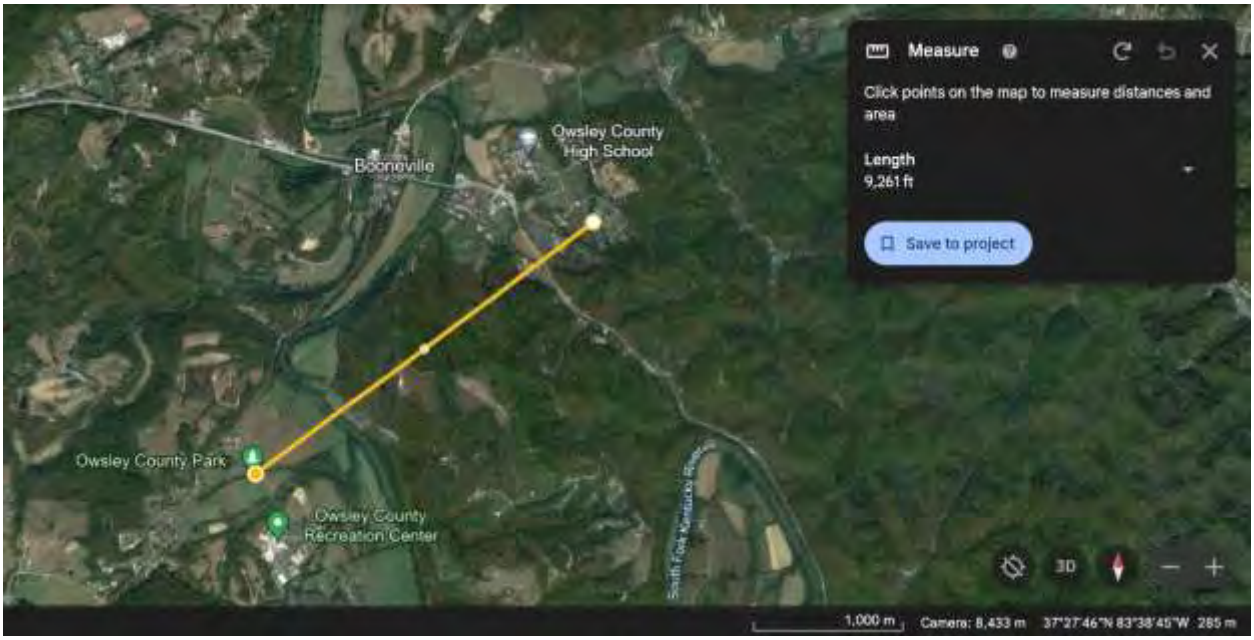


Figure 3. County Park and Recreation Center



Fairgrounds and County Schools

Addiction Recovery Care's Carpenter's Village, where many residents will work.

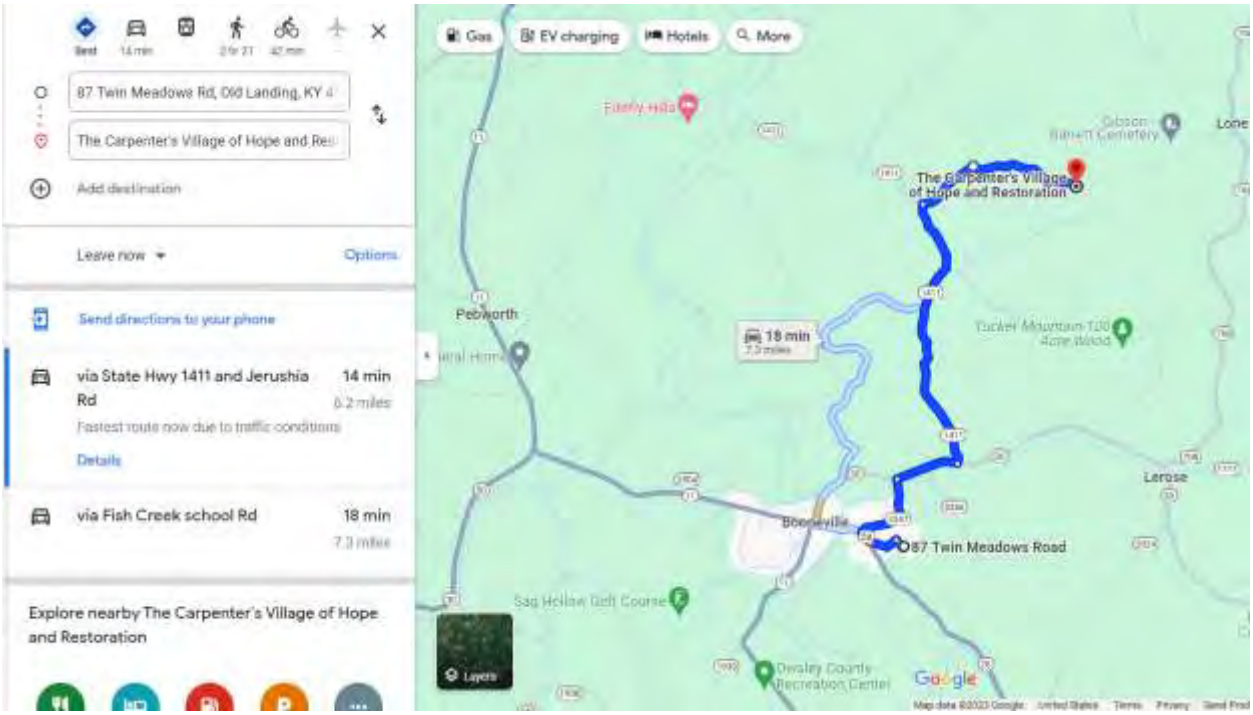


Figure 4. Transportation and partial listing of services from LKLP Community Action.

Transportation

Mission Statement

Daniel Boone Transit's mission is to assist area residents by providing public transportation services that are professional, accessible, and affordable.

Serving the following counties: Clay, Jackson, Lee, Owsley, and Wolfe

Daniel Boone Transit has been in operation since 1986. Daniel Boone Transit operates on a demand-response system, which means you must call the transit office in your county and request transportation in advance of the trip. Daniel Boone Transit provides public transportation services for the following counties located in eastern Kentucky: Clay, Jackson, Lee, Owsley, and Wolfe Counties. The public transportation service is available to the general public. This includes:

- Wheelchair Service – The Driver provides assistance to the wheelchair client from residence, boarding the bus, and securing of devices.
- Door-to-Door – Driver provides assistance to a disabled person from the door of a facility and assists with boarding the bus.
- Curb-to-Curb – The passenger does not need assistance from driver and will board the bus at the curb.

Public transportation can be for employment, medical appointments, pharmacy, education, shopping or just to visit a friend, etc. There is a fare for all public transportation. The rates are different between 'in city limits" transportation which is transportation that originates and ends in the city limits, and "in county limits" which is transportation that originates and ends in the same county. The fare is paid by the passenger. Public trips need to be scheduled 24 hours in advance. The reason for the early notice is so a coordinated schedule can be prepared and dispatched to the drivers for the next day. However, sometimes we can provide the trip the same day.

Public Transportation Fares:

- $6.00 in the city limits "per round trip"
- $8.00 within county limits "per round trip"
-

To Schedule a Public Transportation Trip Call:

- Clay County – (606) 598-8000
- Jackson County (606) 364-8509
- Lee County – (606) 464-3859
- Owsley County- (606) 593-5153
- Wolfe County- (606) 668-3509

Public Transportation Reservation Department Hours: 8:00am to 4:30pm Monday thru Friday.

Please provide Daniel Boone Transit with the following information when scheduling your trip:

- Your name.
- Date you wish to travel.
- Address of your pick-up and destination locations. Be specific, including suite and/or building numbers, etc.
- Desired arrival time.
- Return time to your place of origin or arrival time to your destination.
- Reserve a seat for a Personal Care Attendant (PCA), child or guest traveling with you.
- If specialized transportation is needed such as a lift van, please specify.

The Intercity Bus Service provides transportation to the general public. This service meets the intercity travel needs of residents and makes a connection between non-urbanized areas and larger regional public transportation operations. The Intercity Bus Service is operated on a demand response system and the fare is $.30 per mile. The fare discount for senior citizens (age 60 & over) and veterans is $.25 per mile.

Intercity Greyhound Bus–Connection

Daniel Boone Transit provides a feeder service for Greyhound Bus to the following Greyhound Bus stops: London, Kentucky; Berea, Kentucky; and Lexington, Kentucky. Daniel Boone Transit will take passengers to a Greyhound Terminal in the cities of London, Berea, and Lexington to meet any of the scheduled trips/runs that are listed (day or night).

Estimates of Fares for Intercity Bus Service:

- From: Manchester, Kentucky (Clay County) to Lexington, Kentucky, average trip 95 miles , estimated travel time 1.5 hours, fare .30 per mile X 95 miles = $28.50.
- From : McKee, Kentucky (Jackson County) to Lexington, Kentucky, average trip 62 miles, estimated travel time 1 hour 20 minutes, fare .30 per mile X 62 miles = $18.60.
- From: Booneville, Kentucky (Owsley County) to Lexington, Kentucky, average trip 85 miles, estimated travel time 1 hour 48 minutes, fare .30 per mile X 85 miles = $25.50.
- From: Beattyville, Kentucky (Lee County) to Lexington, Kentucky, average trip 75 miles, estimated travel time 1 hour 35 minutes, fare .30 per mile X 75 miles = $22.50.
- From: Campton, Kentucky (Wolfe County) to Lexington, Kentucky, average trip 67 miles estimated travel time 1 hour 8 minutes, fare .30 per mile X 67 miles = $20.10.
- Discount: Senior .25 per mile and half price .15 per mile for any additional person.

To Schedule a Intercity Bus Service Trip Call:

- Clay County – (606) 598-8000
- Jackson County (606) 364-8509
- Lee County – (606) 464-3859
- Owsley County- (606) 593-5153
- Wolfe County- (606) 668-3509

Public Transportation Reservation Department Hours: 8:00am to 4:30pm Monday thru Friday.

Medical Transportation (Human Services Transportation): Daniel Boone Transit provides transportation for individuals with Medicaid that do not have adequate transportation. This program transports individuals to and from medical appointments. A 72 hour notice is required to schedule a medical trip. To schedule medical transportation call the Human Services Transportation Broker at 1-800-245-2826.

Section 5310 – The Elderly and Persons with Disabilities Program: Daniel Boone Transit serves as the Lead Agency for Section 5310 for Clay and Jackson Counties. The program makes funds available to private, nonprofit organizations and associations and designated public entities for the purchase of capital equipment for the use in transporting the elderly and persons with disabilities, where existing services are unavailable, insufficient, or inappropriate. Eligible capital items include buses, vans, vehicle rehabilitation, initial installation costs, vehicle procurement, testing, inspection, and acceptance costs, preventive maintenance, bus shelters, radio equipment, wheelchair lifts, lease of equipment when lease is more effective, and acquisition of transportation services under a contract, lease or other agreement. The Section 5310 program is designed to supplement FTA's other capital assistance programs by funding transportation projects for elderly and person with disabilities in all areas—urbanized, small urban, and rural.

Medicare Advantage Plan

Attachment 17 – Scoping Letters

November 10, 2023

Kentucky Department of Fish and Wildlife Resources
1 Sportsman's Lane
Frankfort, KY 40601

To Whom It May Concern:

Fahe has received a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at **87 Twin Meadows Road, Booneville, KY**, on a 0.13-acre portion of a one-acre property owned by Partnership Housing, Inc. This new construction duplex will be part of a larger housing development on the one-acre property. This project is designed to meet the needs of Owsley County residents for both affordable housing and transitional housing for individuals exiting substance use disorder (SUD) treatment and living in active recovery.

In preparing an Environmental Assessment pursuant to the National Environmental Policy Act for this project, it is necessary to ascertain what effects, both positive and negative, the planned project could have on a host of environmental concerns, including Land Development, Environmental Design and Historic Values, Community Facilities and Services, and Natural Features.

Potential or known endangered species in Owsley County include the following species:

<u>Endangered:</u>
Gray bat (*Myotis grisescens*)
Indiana bat (*Myotis sodalis*)
Northern Long-eared Bat (*Myotis septentrionalis*)
Virginia Big-Eared Bat (*Corynorhinus townsendii virginianus*)
Clubshell Clam (*Pleurobema clava*)
Fanshell Clam (*Cyprogenia stegaria*)

<u>Proposed Endangered:</u>
Kentucky Arrow Darter (*Etheostoma spilotum*)
Longsolid Clam (*Fusconaia subrotunda*)
Rabbitsfoot Clam (*Quadrula cylindrica cylindrica*)
Round Hickorynut Clam (*Obovaria subrotunda*)
Monarch Butterfly (*Danaus plexippus*)

Fahe would like to invite your response with concerns or comments regarding any of the aforementioned environmental items within 30 days of this letter. Should you have any concerns regarding the impact of this project, please advise on the required measures or precautions to be taken.

If you have any questions or need additional material, please contact me at 859-228-2114 or jdyer@fahe.org. Thank you for your assistance.

Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

November 7, 2023

U.S. Army Corps of Engineers
Eastern Kentucky Regulatory Office
845 Sassafras Creek Road
Sassafras, KY 41759

To Whom It May Concern:

Fahe has received a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at **87 Twin Meadows Road, Booneville, KY**, on a 0.13-acre portion of a one-acre property owned by Partnership Housing, Inc. This new construction duplex will be part of a larger housing development on the one-acre property. This project is designed to meet the needs of Owsley County residents for both affordable housing and transitional housing for individuals exiting substance use disorder (SUD) treatment and living in active recovery.

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An aerial map and photos are attached for your review. If you have any questions or need additional material, please contact me at 859-228-2114 or jdyer@fahe.org. Thank you for your assistance.

Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

November 7, 2023

U.S. Environmental Protection Agency Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth St. SW
Atlanta, GA 30303-8960

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Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

November 7, 2023

Kentucky Department for Environmental Protection
300 Sower Boulevard
Frankfort, KY 40601

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Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

November 7, 2023

U.S. Fish and Wildlife Service
Kentucky Ecological Services Office
JC Watts Federal Building
330 West Broadway, Room 265
Frankfort, KY 40601

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Potential or known endangered species in Letcher County include the following species:

<u>Endangered:</u>
Gray bat (*Myotis grisescens***)**
Indiana bat (*Myotis sodalis***)**
Northern Long-eared Bat (*Myotis septentrionalis***)**
Virginia Big-Eared Bat (*Corynorhinus townsendii virginianus***)**
Clubshell Clam (*Pleurobema clava***)**
Fanshell Clam (*Cyprogenia stegaria***)**

<u>Proposed Endangered:</u>
Kentucky Arrow Darter (*Etheostoma spilotum***)**
Longsolid Clam (*Fusconaia subrotunda***)**
Rabbitsfoot Clam (*Quadrula cylindrica cylindrica***)**
Round Hickorynut Clam (*Obovaria subrotunda***)**
Monarch Butterfly (*Danaus plexippus***)**

Fahe would like to invite your response with concerns or comments regarding any of the aforementioned environmental items within 30 days of this letter. Should you have any concerns regarding the impact of this project, please advise on the required measures or precautions to be taken.

An aerial map and photos are attached for your review. If you have any questions or need additional material, please contact me at 859-228-2114 or jdyer@fahe.org. Thank you for your assistance.

Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

Attachment 18 – THPO Scoping Letters

November 7, 2023

Elizabeth Toombs, THPO
P.O. Box 948
Tahlequah, OK 74465

Dear Ms. Toombs:

Fahe has received a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at **87 Twin Meadows Road, Booneville, KY**, on a 0.13-acre portion of a one-acre property owned by Partnership Housing, Inc. This new construction duplex will be part of a larger housing development on the one-acre property. This project is designed to meet the needs of Owsley County residents for both affordable housing and transitional housing for individuals exiting substance use disorder (SUD) treatment and living in active recovery.

In preparing an Environmental Assessment pursuant to the National Environmental Policy Act for this project, it is necessary to ascertain what effects, both positive and negative, the planned project could have on a host of environmental concerns, including Tribal Historic Preservation concerns.

Fahe would like to invite your response with concerns or comments regarding any of the aforementioned environmental items within 30 days of this letter. Should you have any concerns regarding the impact of this project, please advise on the required measures or precautions to be taken.

An aerial map and photos are attached for your review. If you have any questions or need additional material, please contact me at 859-228-2114 or jdyer@fahe.org. Thank you for your assistance.

Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

November 7, 2023

Principal Chief Richard Sneed
Qualla Boundary
P.O. Box 455
Cherokee, NC 28719

Dear Principal Chief Sneed:

Fahe has received a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at **87 Twin Meadows Road, Booneville, KY**, on a 0.13-acre portion of a one-acre property owned by Partnership Housing, Inc. This new construction duplex will be part of a larger housing development on the one-acre property. This project is designed to meet the needs of Owsley County residents for both affordable housing and transitional housing for individuals exiting substance use disorder (SUD) treatment and living in active recovery.

In preparing an Environmental Assessment pursuant to the National Environmental Policy Act for this project, it is necessary to ascertain what effects, both positive and negative, the planned project could have on a host of environmental concerns, including Tribal Historic Preservation concerns.

Fahe would like to invite your response with concerns or comments regarding any of the aforementioned environmental items within 30 days of this letter. Should you have any concerns regarding the impact of this project, please advise on the required measures or precautions to be taken.

An aerial map and photos are attached for your review. If you have any questions or need additional material, please contact me at 859-228-2114 or jdyer@fahe.org. Thank you for your assistance.

Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

November 7, 2023

Andrea A. Hunter, Director and THPO
Osage Nation
Pawhuska, OK 74056

Dear Ms. Hunter:

Fahe has received a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at **87 Twin Meadows Road, Booneville, KY**, on a 0.13-acre portion of a one-acre property owned by Partnership Housing, Inc. This new construction duplex will be part of a larger housing development on the one-acre property. This project is designed to meet the needs of Owsley County residents for both affordable housing and transitional housing for individuals exiting substance use disorder (SUD) treatment and living in active recovery.

In preparing an Environmental Assessment pursuant to the National Environmental Policy Act for this project, it is necessary to ascertain what effects, both positive and negative, the planned project could have on a host of environmental concerns, including Tribal Historic Preservation concerns.

Fahe would like to invite your response with concerns or comments regarding any of the aforementioned environmental items within 30 days of this letter. Should you have any concerns regarding the impact of this project, please advise on the required measures or precautions to be taken.

An aerial map and photos are attached for your review. If you have any questions or need additional material, please contact me at 859-228-2114 or jdyer@fahe.org. Thank you for your assistance.

Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

Attachment 19 – USDA Farmlands

November 7, 2023

USDA Natural Resources Conservation Service
Kentucky State Office
771 Corporate Drive, Ste 300
Lexington, KY 40503

To Whom It May Concern:

Fahe has received a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at **87 Twin Meadows Road, Booneville, KY**, on a 0.13-acre portion of a one-acre property owned by Partnership Housing, Inc. This new construction duplex will be part of a larger housing development on the one-acre property. This project is designed to meet the needs of Owsley County residents for both affordable housing and transitional housing for individuals exiting substance use disorder (SUD) treatment and living in active recovery.

In preparing an Environmental Assessment pursuant to the National Environmental Policy Act for this project, it is necessary to ascertain what effects, both positive and negative, the planned project could have on a host of environmental concerns, including Land Development, Environmental Design and Historic Values, Community Facilities and Services, and Natural Features.

Fahe would like to invite your response with concerns or comments regarding any of the aforementioned environmental items within 30 days of this letter. Should you have any concerns regarding the impact of this project, please advise on the required measures or precautions to be taken.

An aerial map and photos are attached for your review. If you have any questions or need additional material, please contact me at 859-228-2114 or jdyer@fahe.org. Thank you for your assistance.

Sincerely,

Jerri R. Dyer

CC: Environmental Review File
Enclosures

Jerri Dyer

From: Wampler, Christina - FPAC-NRCS, KY <christina.r.wampler@usda.gov>
Sent: Thursday, November 16, 2023 4:14 PM
To: Jerri Dyer
Cc: Shrader, Casey - FPAC-NRCS, KY; Johnson, Lesley - FPAC-NRCS, KY; Blanford, Steve - FPAC-NRCS, KY
Subject: RE: response to fahe CDBG-Recovery Housing Program Grant EA comments

To Whom It May Concern:

The USDA-Natural Resources Conservation Service (NRCS) has reviewed the information submitted for the subject project. NRCS considers potential impacts that projects might have upon prime farmland soils (7 U.S.C. Section 4201), farmlands of statewide importance, PL-566 watershed structures, wetlands identified under the Food Security Act (16 U.S.C. Section 3811), Wetland Reserve Program (WRP/WRE) and Grassland Reserve Program (GRP) easements when reviewing projects.

KY NRCS is not aware of any existing plans or activities related to ongoing efforts in the defined project area in Kentucky. A review of available information does not show NRCS held easements within in close proximity to the project footprint. In addition, based on the data provided, NRCS does not anticipate that the project will result in the conversion of prime farmlands or farmlands of statewide importance to another use.

However, if project design changes to require the conversion of prime farmlands or farmlands of statewide importance from agricultural use a Form AD-1006 (or Form NRCS-CPA-106 if the project is a corridor type project) must be submitted to the local NRCS office. Forms may be obtained from any local NRCS office and are also available as electronic forms on the web at: http://forms.sc.egov.usda.gov/eForms/welcomeAction.do?Home.

Based on our review we do not foresee any conflicts regarding special environmental concerns under the purview of NRCS in Kentucky and therefore we have no additional comments regarding these activities. We appreciate the opportunity to provide input on this project. If you have questions regarding this matter, please contact Christina Wampler, State Biologist, at (606) 594-8099 or Steve Blanford, State Soil Scientist at (859) 224-7607.

Thank you!

Christina R. Wampler
State Biologist
USDA Natural Resources Conservation Service
771 Corporate Drive, Suite 300
Lexington, KY 40503
Office Phone: (859) 224-7456
Cell Phone: (606) 594-8099
Christina.r.wampler@usda.gov

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

USDA is an equal opportunity provider, employer, and lender.

"Alone we can do so little. Together we can do so much."
Helen Keller

From:	Tanzi Merritt
To:	"Louanna.Aldridge@ky.gov"
Cc:	Jerri Dyer
Subject:	Scoping Letter for Booneville Transitional Housing Project 22R-053
Date:	Tuesday, November 7, 2023 3:50:00 PM
Attachments:	Scoping Letters - KY EPA 22R-053.docx.pdf Booneville 22R-053 Maps.pdf

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Attached please find a scoping letter and maps regarding a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at 87 Twin Meadows Road, Booneville, KY. Fahe invites concerns or comments regarding the project within 30 days of this letter.

Please feel free to contact Fahe with questions or if you need additional material.

Thank you,

Tanzi Merritt
Fahe
Project Manager
tmerritt@fahe.org
859.228.2159

From:	Tanzi Merritt
To:	"doug.dawson@ky.gov"
Cc:	Jerri Dyer
Subject:	Scoping Letter for Booneville Transitional Housing Project 22R-053
Date:	Tuesday, November 7, 2023 4:04:00 PM
Attachments:	Scoping Letters - KY Fish & Wildlife 22R-053.pdf Combined Maps.pdf

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Attached please find a scoping letter and maps regarding a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at 87 Twin Meadows Road, Booneville, KY. Fahe invites concerns or comments regarding the project within 30 days of this letter.

Please feel free to contact Fahe with questions or if you need additional material.

Thank you,

Tanzi Merritt
Fahe
Project Manager
tmerritt@fahe.org
859.228.2159

From:	Tanzi Merritt
To:	CELRL.door.to.the.corps@usace.army.mil
Cc:	Jerri Dyer
Subject:	Scoping Letter for Booneville Transitional Housing Project 22R-053
Date:	Tuesday, November 7, 2023 4:15:00 PM
Attachments:	Scoping Letters - US Army Corps of Engineers 22R-053.docx.pdf Combined Maps.pdf

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Attached please find a scoping letter and maps regarding a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at 87 Twin Meadows Road, Booneville, KY. Fahe invites concerns or comments regarding the project within 30 days of this letter.

Please feel free to contact Fahe with questions or if you need additional material.

Thank you,

Tanzi Merritt
Fahe
Project Manager
tmerritt@fahe.org
859.228.2159

From:	Tanzi Merritt
To:	"kentuckyes@fws.gov"
Cc:	Jerri Dyer
Subject:	Scoping Letter for Booneville Transitional Housing Project 22R-053
Date:	Tuesday, November 7, 2023 4:17:00 PM
Attachments:	Scoping Letters - US Fish & Wildlife 22R-053.docx.pdf Combined Maps.pdf

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Attached please find a scoping letter and maps regarding a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at 87 Twin Meadows Road, Booneville, KY. Fahe invites concerns or comments regarding the project within 30 days of this letter.

Please feel free to contact Fahe with questions or if you need additional material.

Thank you,

Tanzi Merritt
Fahe
Project Manager
tmerritt@fahe.org
859.228.2159

From:	Tanzi Merritt
To:	"elizabeth-toombs@cherokee.org"
Cc:	Jerri Dyer
Subject:	Scoping Letter for Booneville Transitional Housing Project 22R-053
Date:	Tuesday, November 7, 2023 4:08:00 PM
Attachments:	Scoping Letters - Cherokee Nation 22R-053.docx.pdf Combined Maps.pdf

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Attached please find a scoping letter and maps regarding a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at 87 Twin Meadows Road, Booneville, KY. Fahe invites concerns or comments regarding the project within 30 days of this letter.

Please feel free to contact Fahe with questions or if you need additional material.

Thank you,

Tanzi Merritt
Fahe
Project Manager
tmerritt@fahe.org
859.228.2159

From:	Tanzi Merritt
To:	"ashlstep@nc-cherokee.com"
Cc:	Jerri Dyer
Subject:	Scoping Letter for Booneville Transitional Housing Project 22R-053
Date:	Tuesday, November 7, 2023 4:10:00 PM
Attachments:	Combined Maps.pdf Scoping Letters - Eastern Band of Cherokee Indians 22R-053.docx.pdf

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Attached please find a scoping letter and maps regarding a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at 87 Twin Meadows Road, Booneville, KY. Fahe invites concerns or comments regarding the project within 30 days of this letter.

Please feel free to contact Fahe with questions or if you need additional material.

Thank you,

Tanzi Merritt
Fahe
Project Manager
tmerritt@fahe.org
859.228.2159

From:	Tanzi Merritt
To:	"s106@osagenation-nsn.gov"
Cc:	Jerri Dyer
Subject:	Scoping Letter for Booneville Transitional Housing Project 22R-053
Date:	Tuesday, November 7, 2023 4:12:00 PM
Attachments:	Scoping Letters - Osage Nation 22R-053.docx.pdf Combined Maps.pdf

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Attached please find a scoping letter and maps regarding a CDBG-Recovery Housing Program Grant for the construction of one (1) energy-efficient duplex for transitional housing at 87 Twin Meadows Road, Booneville, KY. Fahe invites concerns or comments regarding the project within 30 days of this letter.

Please feel free to contact Fahe with questions or if you need additional material.

Thank you,

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Project Manager
tmerritt@fahe.org
859.228.2159