



U.S. Department of Housing and Urban
Development

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

Project Information

Project Name: South Cypress Creek Watershed and West Junction Neighborhood Redevelopment

Responsible Entity: Shelby County Government

Grant Recipient (if different than Responsible Entity):

State/Local Identifier: TN

Preparer: Shelby County Government

Certifying Officer Name and Title: Lee Harris, Mayor

Grant Recipient (if different than Responsible Entity):

Consultant (if applicable): Powers Hill Design, LLC

Direct Comments to: Division of Planning and Development
Attention: Jim Vazquez, Administrator
Office of Resilience
125 N. Main Street, Room 468
Memphis, TN 38103
(901) 636-7170

Project Location:

The proposed project location is in the South Cypress Creek drainage basin just south of Interstate 55. The stream restoration activities will be adjacent to the existing Cypress Creek, from north of W. Mitchell Road to east of Weaver Road. The Neighborhood Redevelopment will be conducted in the portion of the West Junction Neighborhood south of W. Peebles Road, west of Ford Road, north of W. Mitchell Road and east of Weaver Road.

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

The Proposed Project includes watershed restoration within the South Cypress Creek Basin and redevelopment in the West Junction Neighborhood. The South Cypress Creek Restoration project will be adjacent to the existing Cypress Creek, from north of W. Mitchell Road to east of Weaver Road. The proposed project will expand stormwater capacity by removing obstructions, stabilizing the stream banks, and installing stormwater management facilities. These treatments will provide storage and detention of peak flows to reduce the flood stage and adjacent properties' risk of flooding. In addition to preserving existing wetlands, the proposed project will also expand existing or create new water receiving landscapes, i.e., constructed wetlands, rain gardens, bioswales and/or other natural stormwater Best Management Practices (BMP's), landforms, green open spaces, parks, and multi-purpose recreational trails that connect to the surrounding community. These elements will be designed to reduce the flood risk for the adjacent properties most susceptible to flooding within the project area, while also enhancing both the water quality and habitat of South Cypress Creek and the adjacent riparian buffer and floodplain areas.

The Neighborhood Redevelopment will be conducted in the portion of the West Junction Neighborhood south of W. Peebles Road, west of Ford Road, north of W. Mitchell Road and east of Weaver Road. The Neighborhood Redevelopment activities will include a property acquisition program to purchase existing at-risk properties located below elevation 231.00 within the floodplain in the West Junction neighborhood. The program proposes incentives to encourage residents to relocate within the neighborhood. The properties acquired under the program will have permanent restrictions included in the property deed to preserve the floodplain from future development. The redevelopment effort also includes the development of strategies for community redevelopment projects such as allowing residents the opportunity to expand their existing properties by acquiring adjacent vacant lots as well as reclaiming vacant lots to introduce uses like local food production, community park space, stormwater retention, and expansion of natural areas. An additional goal is to seek to minimize municipal maintenance costs and reestablish vacant and delinquent properties to be tax revenue generating.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

This activity focuses on helping communities address unmet recovery needs from the 2011 flood and preparing the community to weather future storms better than in prior flooding events. Without the proposed project activity in the South Cypress Creek area, a 100-year flood event would be estimated to cause \$2.2 million dollars of property damage and, if trends continue along the same trajectory since the 2011 flooding, that damage will result in additional vacant properties.

Existing Conditions and Trends [24 CFR 58.40(a)]:

Currently the proposed project area is flood prone. The area directly adjacent to South Cypress Creek is wooded, undeveloped land. Surrounding the creek is a mix of residential, commercial and industrial uses. Majority of the homes west of Anderson Road in the West Junction Neighborhood are in the floodplain and will continue to experience flood water inundation if conditions remain the same. Homes on the outskirts of the floodplain are experiencing this same flooding.

Funding Information

| Grant Number | HUD Program | Funding Amount |
|----------------|------------------------------------|----------------|
| B-13-US-470002 | National Disaster Resiliency Grant | \$8,988,097 |
| | | |

Estimated Total HUD Funded Amount: \$ 8,988,097

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$ 10,588,097

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 <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> Supplemental documentation in appendix shows the proposed project is not within 2,500 feet of a civilian airport or 15,000 of a military airport. |
| Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501] | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> No coastal zones are in the state, per Nat'l Oceanic & Atmospheric Administration. |
| 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 <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> The City is a participating community in the national flood insurance program. Also, the project proposes activities to avoid, alleviate and/or mitigate possible flooding. |

| 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 & 58.5 | | |
| Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> The project area is within a maintenance area for Ozone. The proposed project will not negatively contribute to the air quality. |
| Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d) | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> No coastal zones are in the state, per Nat'l Oceanic & Atmospheric Administration. |
| Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2) | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> The proposed project should not have any impact concerning risk of contamination from toxic substances. |
| Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> The USFWS does not anticipate adverse impacts to endangered species as a result of this project. |
| Explosive and Flammable Hazards 24 CFR Part 51 Subpart C | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> Neither EPA data nor visual inspection of the site and properties in proximity indicate any presence of risk from explosive / flammable operations. |
| Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> The proposed project site is urban in nature within the municipal boundaries of the City of Memphis, TN. Therefore, there is no impact on farmland. |
| Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance</i> The proposed project site is located within a floodplain, thereby necessitating the program-required "8-Step Process." |

| 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 |
|--|--|---|
| Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> Tribal letters sent and Tribal responses received; SHPO response received indicating “no National Register of Historic Places listed or eligible properties affected by this undertaking.” |
| 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 <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> The proposed project will not include noise sensitive use. |
| Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> There are no sole source aquifers in the area of the proposed project. |
| Wetlands Protection Executive Order 11990, particularly sections 2 and 5 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> The proposed project site is located within wetlands, thereby necessitating the program required “8-Step Process.” |
| Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c) | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> There are no designated scenic rivers in Shelby County, TN. |
| ENVIRONMENTAL JUSTICE | | |
| Environmental Justice Executive Order 12898 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <i>In Compliance.</i> Consistent with 2010-2014 Census data contained within the appendix, it is (i.e., to qualify the community as predominately low-to moderate-income to be eligible for CDBG Program assistance) documented 97.0% of the population is African American (99% is minority population). Therefore, the proposed project will not result in any civil rights impact on minorities. |

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 | 1 | The proposed project conforms in accordance with the land use principles as it improves existing conditions and the quality of life for the residents by the creation of parks and greenspace. |
| Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff | 1 | The proposed project intends to increase area for stormwater runoff storage to mitigate flooding. |
| Hazards and Nuisances including Site Safety and Noise | 1 | The proposed project will not create hazards or nuisances. The proposed project will not include noise sensitive uses; the improvements will not contribute to additional noise above what already exists. |
| Energy Consumption | 1 | Due to the nature of the project, there are no known impact issues concerned with energy conservation. |

| Environmental Assessment Factor | Impact Code | Impact Evaluation |
|---|-------------|---|
| SOCIOECONOMIC | | |
| Employment and Income Patterns | 2 | The proposed project will not impact employment or income patterns. |
| Demographic Character Changes, Displacement | 1 | The proposed project will relocate residents, on a voluntary basis, inhabiting structures within historic flood elevations. Residents will be encouraged to relocate within the project area. No demographic character changes are therefore anticipated. |

| Environmental Assessment Factor | Impact Code | Impact Evaluation |
|--|-------------|---|
| COMMUNITY FACILITIES AND SERVICES | | |
| Educational and Cultural Facilities | 2 | Due to the nature of the project, there will be no impact concerned with educational and cultural facilities. |
| Commercial Facilities | 2 | Due to the nature of the project, there will be no impact concerned with commercial facilities. |
| Health Care and Social Services | 2 | Due to the nature of the project, there will be no impact concerned with health care and social services. |
| Solid Waste Disposal / Recycling | 2 | Due to the nature of the project, there will be no impact concerned with solid waste disposal and recycling. |
| Waste Water / Sanitary Sewers | 2 | Due to the nature of the project, there will be no impact concerned with waste water and sanitary sewers. |
| Water Supply | 2 | Due to the nature of the project, there will be no impact concerned with water supply. |
| Public Safety - Police, Fire and Emergency Medical | 2 | Due to the nature of the project, there will be no impact concerned with public safety, police, fire and emergency medical services. |
| Parks, Open Space and Recreation | 1 | The proposed project will create more recreational greenspace and open space in blighted and flood prone areas. |
| Transportation and Accessibility | 1 | Due to the nature of the project, there will be no impact concerned with transportation and accessibility. Park improvements, however, will allow for increased resident access to South Cypress Creek. |

| Environmental Assessment Factor | Impact Code | Impact Evaluation |
|--|-------------|---|
| NATURAL FEATURES | | |
| Unique Natural Features, Water Resources | 1 | The proposed project will enhance the natural features and restore the water resources that currently exists. |
| Vegetation, Wildlife | 1 | The proposed project will create new and improved habitats for naturally occurring vegetation and wildlife. |
| Other Factors | | |

Additional Studies Performed:

Cypress Creek Bat Habitat Report- Brophy Heineke & Associates, February 26, 2018

Hydrologic Determination – Brophy-Heineke & Associates, January 2018
Concurrence from TDEQ 4.17.18

Field Inspection (Date and completed by):

USACE & Jennifer Morrison, QHP, December 2017

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

Tennessee Department of Environment and Conservation (TDEC)
U.S. Army Corps of Engineers (USACE)
U. S. Fish and Wildlife Service (USFWS)
State Historic Preservation Office (SHPO) of the TN Historical Commission

List of Permits Obtained:

Hydrologic Determination #QHP1805.004 4.17.2018
Preliminary Jurisdictional Determination 8.29.2018 File No. MVM-2018-300

Public Outreach [24 CFR 50.23 & 58.43]:

Public Meetings were held at Michell High School Cafeteria, 658 W. Mitchell Road on the following dates:

September 28, 2017
December 5, 2017
June 14, 2018
July 26, 2018

Cumulative Impact Analysis [24 CFR 58.32]:

This document evaluated the impact of all proposed activities planned for this project as part of the NEPA process.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

South Cypress Creek:

The proposed project area in the South Cypress Creek Restoration Project is in the floodplain. There are no viable alternatives that can satisfy the grant and project requirements to locate activities outside of the floodplain. The proposed project area for this activity will have a permanent use for flood control, wetland protection, park and open space. There will be permanent restrictions placed on the property to ensure the floodplain and wetland is protected from future development.

Several Alternatives for the South Cypress Creek Restoration were evaluated to satisfy the project requirements and minimize any impacts on the floodplain and wetlands:

- A. Option 1
Building a levee along South Cypress Creek would protect residents and allow the effective floodplain to be revised.
- B. Option 2
Building a berm would provide more protection than existing but could not guarantee residents would be protected from flooding, nor would it change the effective floodplain.
- C. Option 3
By adjusting the creek bed elevation and slightly altering the alignment, flooding risks and negative impacts to the natural environment will be minimized.

Alternative Evaluation Summary:

The South Cypress Creek Design Team carefully evaluated all options based on factors such as constructability, cost, and impacts. Alternative options investigated were centered around a more engineering-heavy approach.

In summary, the Levee and Berm Options were not viable options due to several negative impacts:

- 1. Construction costs were significantly higher.
- 2. Increased maintenance of infrastructure and pumping requirements during flood events, etc., including costs to maintain structures.
- 3. Disruption of hydrology on the landside causing potential localized flooding. Flap gate valves would need to be installed.
- 4. The construction of the berm or levee still had significant impacts on the adjacent neighborhood.

5. Berm/Levee physically and visually disconnect the adjacent areas from the Creek which has the potential to be a neighborhood amenity.
6. If property owners decided not to sell, the alignment and viability of a berm or levee could be impacted.

A detailed wetland study and report was completed by Brophy-Heineke & Associates to identify existing wetlands and water courses that would be affected by these proposed improvements. The proposed work and associated grading were adjusted to avoid impacts to existing wetlands.

The main reason for selecting the Design Option 3 was because it minimized flooding risks while avoiding wetlands.

West Junction Neighborhood:

A main objective of the West Junction Neighborhood Redevelopment Project is to relocate neighborhood residents most vulnerable to the riverine flooding of South Cypress Creek. These actions are proposed through a voluntary buyout program. The County and Design Team used the 2011 flood elevation plus 1', or elevation 231', to determine which properties would be evaluated, per each structure's finished floor elevation, for the volunteer buyout program. Properties were also considered for buy-out if directly adjacent to the designated 231' elevation. The property acquired through the voluntary buyout program will have permanent restrictions to preserve the floodplain from future development. The property will be dedicated for permanent use of flood control by remaining an open space or being utilized as park land. This activity meets the exceptions at 24 CFR 55.12.c. The lot redevelopment and community redevelopment activities proposed with the West Junction Neighborhood redevelopment project will not be conducted within a floodplain or wetland. Redevelopment will occur on vacant lots within the project's boundaries

No Action Alternative [24 CFR 58.40(e)]:

West Junction neighborhood:

The proposed project area is flood prone. The area directly adjacent to South Cypress is wooded, undeveloped land. Surrounding the creek is a mix of residential, commercial, and industrial uses. Majority of the homes west of Anderson Road in the West Junction Neighborhood are in the floodplain and will continue to experience flood water inundation if conditions remain the same. Homes on the outskirts of the floodplain are experiencing this same flooding. Therefore, the No Action Alternative will continue to have a negative impact on the project area.

Summary of Findings and Conclusions:

Based on the evaluation of the above factors related to this project, it will have no negative impacts on the quality of the human environment.

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 |
|---------------------------|--------------------|
| | |
| | |
| | |
| | |

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: Steven Hill Date: 7/24/19

Name/Title/Organization: Steven Hill, P.E., Principal
Powers Hill Design, LLC

Certifying Officer Signature: Lee Harris Date: 8/20/19

Name/Title: Lee Harris / County Mayor

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).