



## Legislation Text

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**DATE:** May 14, 2018

**TO:** Board of Mayor and Aldermen

**FROM:** Eric Stuckey, City Administrator  
Paul Holzen, Director of Engineering  
Jonathan Marston, Assistant Director of Engineering  
William Banks, Staff Engineer

**SUBJECT:**

Consideration of the USACE Harpeth River Watershed Feasibility Study and the Recommended Project Options for the City of Franklin (Flood Study, CORP of Engineers) (05/22/18 WS)

**Purpose**

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning how to move forward with the USACE Harpeth River Watershed Feasibility Study

**Background**

The May 2010 flood event created devastation throughout the Harpeth River Watershed and caused 4 fatalities and over \$480 million in direct economic impacts in the Harpeth River Watershed alone. For this reason, the Department of the Army represented by the United States Army Corp of Engineers (USACE) conducted a preliminary reconnaissance of the Harpeth River Watershed and found over 850 structures in the regulated floodplain within the basin located in the City of Brentwood, City of Franklin, Williamson County, and Davidson County. In addition, they found aquatic ecosystem issues throughout the basin primarily involving stream bank erosion and loss of riparian buffers.

On June 13, 2013, the USACE, City of Franklin, Metropolitan Nashville and Davidson County, City of Brentwood, and Williamson County signed an initial Feasibility Study Agreement to analyze alternative flood risk management options. The feasibility study evaluated numerous flood risk management options and provided an analysis of cost and benefits associated with various projects. The USACE determined that two projects were considered economically justified. These two projects included Franklin Road channel modifications and nonstructural home raisings. With support from the Board of Mayor and Aldermen, one or both measures could have become the Feasibility Study's recommended plan.

On September 12, 2016, the City of Franklin entered in to a second agreement with the Department of the Army (USACE) to fully develop the two flood risk management projects, the Franklin Road channel modifications and the nonstructural home raisings.

On June 13, 2017, the Board of Mayor and Aldermen approved constructing the Franklin Road channel modifications within the Franklin Road Corridor Improvements Project. To keep USACE coordination delays to a minimum, the Board approved funding 100% of the channel modifications, to keep the City's Franklin Road project on schedule. At the

request of the USACE, Staff continued to work with the CORP to develop the channel modifications project within the Feasibility Study, because project timelines coincided with each other, and the possibility to utilize Federal funding for the project was still an option. As of April 2018, the Franklin Road channel modifications are still a recommended project for the City to construct per the USACE. But after updated construction costs were developed, the channel modification project was deemed economically unjustifiable. So, the USACE could not participate in the construction of the culverts, and the channel modifications would not be part of the final Feasibility Study. This coordination did not affect the critical path of the Franklin Road Corridor Improvements Project, and the City will continue to fully fund the channel modifications.

In April of 2018, Engineering staff met with the CORP to discuss the status of the nonstructural home raisings project. This project is still economically justifiable to the CORP, and needs further direction from the Board of Mayor and Aldermen to finalize the Feasibility Study with just the home raisings project.

**The nonstructural home raising project details are as follows:**

- This program must be sponsored and administered by the City of Franklin, as part of a Project Partnership Agreement for design and construction of the project. Construction could be managed by the USACE and the individual homeowner.
- This would be a VOLUNTARY PROGRAM for the 26 homes that qualify. See Exhibit A for the locations of the eligible homes.
- Eligible homes are raised above the 100-year flood zone level, following the City's Zoning Ordinance requirements.
- The CORP individually justified the 26 homes based on the damages they are experiencing (amount & frequency) and the cost to protect (cost of raising). They surveyed each structure's first floor elevation.
- The preliminary cost estimate provided by the USACE is approximately \$2,500,000 for all 26 properties. The USACE agrees to pay for 65% of the actual construction and temporary relocation costs (\$1,625,000). The City and/or homeowner would be responsible for the remaining 35% of required construction funding (\$875,000).
- The 35% Non-Federal cost could be paid out of the City of Franklin stormwater fund, or come directly from the homeowners that decide to participate in the program. This 35% can also be split between the City and homeowner.
- The home construction estimates include the cost of raising the home (by a certified home raiser), the construction of new foundation (cinder block or brick), the reconnection of utilities & duct work, and restoration of landscaping/grass, etc. There is also the cost of temporary housing for up to 3 months. The duration of the temporary housing depends on the construction duration and local codes on habitation.
- The homeowner hires the construction contractor, but the Corps and the City can assist in locating qualified contractors and review proposals. The goal is to assist the homeowner to the fullest extent possible to achieve quality, sustainable flood protection.

Based off the project details above, Staff is requesting direction on how to proceed with the home raisings project. Possible scenarios include the following options:

**Option 1** - City of Franklin participates in the home raisings project with the USACE through the Project Partnership Agreement for design and construction. The USACE agrees to pay for 65% of the actual construction and temporary relocation costs. The 35% of remaining Non-Federal project costs are solely paid for by the homeowner. The City only acts as the project sponsor and administrator.

**Option 2** - City of Franklin participates in the home raisings project with the USACE through the Project Partnership Agreement for design and construction. The USACE agrees to pay for 65% of the actual construction and temporary relocation costs. The 35% of remaining Non-Federal project costs are solely paid for by the City.

**Option 3** - City of Franklin participates in the home raisings project with the USACE through the Project Partnership Agreement for design and construction. The USACE agrees to pay for 65% of the actual construction and temporary relocation costs. The 35% of remaining Non-Federal project costs are paid for by both the City and homeowner. The City and homeowner would both pay a percentage of the remaining 35% construction costs. This City/homeowner split can be developed by the Board, e.g. 90/10, 75/25, 50/50, etc.

**Option 4** - City of Franklin does not participate in the home raisings project.

If the Board approves moving forward with the home raisings project, the CORP will begin to finalize the Feasibility Report throughout the remainder of 2018. The home raisings could start as early as Spring or Summer of 2019. If the Board does not move forward with the project, the CORP will cancel the Feasibility Report immediately.

#### **Financial Impact**

The City of Franklin must decide if it supports implementation of any of the following four options:

**Option 1:** The USACE and homeowners pay for 100% of construction costs. The City incurs minimal staffing costs and time to administer the project.

**Option 2:** The City pays up to an estimated 35% of construction costs (around \$875,000 if all homeowners volunteer to participate).

**Option 3:** The City pays a portion of the required 35% remaining construction costs. Staff would request Board input on the City/homeowner cost split.

**Option 4:** All Feasibility Study costs stop immediately.

#### **Recommendation**

It is recommended that the City pursue a Project Partnership Agreement with the USACE but not provide additional funding for constructions costs (Option 1). Direction from the Board is sought prior to engaging homeowners in discussion about this program.