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US Army Corps	Applicant:	City of Fort Worth
Fort Worth District	Project No.:	SWF-2021-00273
	Date:	May 2, 2023
<u>Purpose</u>	The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.	
<u>Regulatory Program</u>	Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.	
<u>Section 10</u>	The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate <i>all work or structures in or affecting the course, condition</i> <i>or capacity of navigable waters of the United States.</i> The intent of this law is to protect the navigable capacity of waters important to interstate commerce.	
<u>Section 404</u>	The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the <i>discharge of dredged and fill material into all waters of the United</i> <i>States, including wetlands.</i> The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.	
<u>Contact</u>	Name: Mr. Eric Dephouse, Project Manager	
	Phone Number: (817) 886-1820	
	Email: Eric.J.Dephouse@usace.army.mil	

## **PUBLIC NOTICE**

# **U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT**

SUBJECT: Application for a Department of the Army Permit under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899 associated with the proposed stabilization of both banks of the West Fork Trinity River (West Fork) in the immediate vicinity of the City of Fort Worth's Village Creek Water Reclamation Biosolids Facility levee in the city of Fort Worth, Tarrant County, Texas.

APPLICANT: City of Fort Worth C/O Dana Burghdoff, Assistant City Manager 200 Texas Street Fort Worth, Texas 76102

APPLICATION NUMBER: SWF-2021-00273

DATE ISSUED: May 2, 2023

LOCATION: The proposed Village Creek Bank Stabilization would be located on a 485.7 acre parcel of land and the approximately 8.5 acre proposed project area contains approximately 933 linear feet (LF) of perennial stream in Tarrant County, Texas. The proposed project would be located approximately at UTM coordinates -97.49142 East and 32.78836 North (Zone 14) on the Hurst 7.5-minute USGS quadrangle map in the USGS Hydrologic Unit 120301020506.

OTHER AGENCY AUTHORIZATIONS: State Water Quality Certification

PROJECT DESCRIPTION: The Applicant proposes to realign 933 LF of the West Fork Trinity River (West Fork) in order to restore an existing, unstable meander to a stable planform. The restoration would include realignment of the riverbed using a riffle and pool sequence and a bankfull bench would be graded throughout the project. Natural rock toe protection would be placed along the outside river bend with pool grading. The left and right banks would be laid back to between 2:1 and 4:1 slopes and the site would be stabilized with biodegradable erosion control and extensive plantings, including native trees, shrubs, live stakes, and seeding. The applicant proposes to discharge approximately 12,521 cubic yards (CYs) of rock rip rap and 13,773 CYs of earthen fill within 0.2 acre of the West Fork associated with the bank stabilization project.

INTRODUCTION: The proposed bank protection/stream restoration project is designed to provide critical infrastructure protection along the West Fork, adjacent to the Village Creek Water Reclamation Biosolids Facility levee (Exhibit 1).

PURPOSE AND NEED STATEMENT: The bank protection/stream restoration project is needed because the existing West Fork meander is in a state of instability due to high flow velocities, inefficient flow patterns, unstable geomorphic planform, streambed incision, and the lack of a bankfull floodplain bench, which have resulted in severe erosion of the left bank adjacent to the levee. Further continued erosion and meander migration threaten the integrity of the Biosolids Facility levee and the Greenbelt Road bridge, as well as waterlines just upstream of the bridge and wastewater transmission lines further upstream.

The purpose of the proposed project is to stabilize the West Fork meander through a combination of bank stabilization and geomorphology-based stream restoration techniques that would protect the critical infrastructure elements by providing decreased velocities, efficient flow patterns, and long-term stream meander equilibrium (**Exhibit 2**). The restoration of efficient channel flow and meander equilibrium would be achieved through the construction of a bankfull floodplain bench, toe rock rip rap bank armoring, a riffle and pool complex, backslope grading, and revegetation of the stream banks (**Exhibits 3a and 3b**). Modeling has demonstrated that existing high flow velocities would be decreased due to an increase in flow conveyance area and increased roughness from the bankfull floodplain bench and restored bank vegetation.

EXISTING CONDITIONS: Existing West Fork channel conditions are depicted in **Exhibit 4**. The entire proposed project area is located within the 100-year floodplain and Regulatory Floodway associated with the West Fork (**Exhibit 5**).

The U.S. Geological Survey (USGS) Topographic Map Quadrangle *Hurst* depicts one water body, the West Fork, within the proposed project area (**Exhibit 6**).

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey was reviewed to characterize the soil map units within the proposed project area. One soil map unit, *Trinity clay*, 0 to 1 percent slopes, frequently flooded, and Water, is shown within the project area (Exhibit 7). *Trinity clay*, 0 to 1 percent slopes, frequently flooded is a moderately well drained, hydric soil found in floodplains in river valleys.

The project area is located within the *Eastern Cross Timbers* ecoregion. This ecoregion was historically dominated by post oak (*Quercus stellata*) and blackjack oak (*Q. marilandica*) woodlands interspersed with honey mesquite (*Prosopis glandulosa*) and grasslands dominated by little bluestem (*Schizachyrium scoparium*) and purple threeawn (*Aristida purpurea*). Extensive development has converted the majority of this ecoregion's grasslands to pasture, farming, and urban areas.

Trees and shrubs noted within project area riparian zones included green ash (*Fraxinus pennsylvanica*), cottonwood (*Populus deltoides*), box elder (*Acer negundo*), American elm (*Ulmus americana*), cedar elm (*Ulmus crassifolia*), and sugarberry (*Celtis laevigata*). Herbaceous vegetation noted in included rough cocklebur (*Xanthium strumarium*), Johnsongrass (*Sorghum halepense*), giant ragweed (*Ambrosia trifida*), Bermudagrass (*Cynodon dactylon*), and various sedges (*Carex spp.*). Vines included southern dewberry (*Rubus trivialis*), poison ivy (*Toxicodendron radicans*), bristly greenbrier (*Smilax tamnoides*), saw-toothed greenbrier (*Smilax bona-nox*), and Carolina snailseed (*Cocculus carolinus*).

ADVERSE IMPACTS OF THE PROPOSED PROJECT: The proposed project would result in 933 LF of adverse impacts to the West Fork as a result of filling and relocation to a new location. This work would result in the net loss of approximately 79 linear net (0.02 acre) when comparing pre and post construction channel lengths. The Applicant believes the loss or river length would be offset by an increase in overall aquatic function and enhancement of the terrestrial (riparian) ecology through the planting of trees, shrubs, and herbaceous vegetation. No adverse effects to navigation are anticipated.

Downstream flow could potentially be temporarily affected by increased turbidity during the proposed bank stabilization process. In the long term, water quality would be expected to improve due to a decrease in erosion within the project area, which has experienced massive bank failure in the vicinity of the Village Creek Water Reclamation Biosolids Facility levee. No cumulative impacts are anticipated, and the project has been designed to be self-mitigating.

The Applicant has provided an analysis of alternatives, including the "No Action" Alternative as shown below. The USACE has not yet evaluated this Alternatives Analysis.

#### ALTERNATIVES TO THE PROPOSED PROJECT:

## Alternative 1 – No Action

The purpose of this project is to stabilize the West Fork meander to protect surrounding infrastructure. If this section of river is not adequately stabilized, velocities are not reduced, and erosion is not controlled, the existing infrastructure would fail and cause an environmental emergency. Consequently, the Purpose and Need is not fulfilled by the No Action alternative.

## *Alternative 2 – Spot Repair Stabilization*

Alternative 2 is considered a spot repair option. Spot repairs, for the purpose of this project, are defined as repairs (stabilization/protection) to areas along the West Fork left bank within the project site, targeted at protecting the bank in-place, only. The spot repair would include toe and bank protection of the West Fork in the form of rock rip rap for approximately 400 LF where the Biosolids Facility levee is in danger of failure. This alternative would be considered a temporary fix to the erosion issues since this option would not decrease velocities or create a more efficient flow pattern and is located in an unstable section of the river. The spot repair stabilization would eventually fail as the river would find equilibrium with continued movement and instabilities would progress upriver and downriver of the repair; thus the West Fork meander would remain unstable.

#### *Alternative 3 – Bank Stabilization*

Alternative 3 is considered the engineered bank stabilization option. This alternative would provide 625 LF of wall toe protection along the bottom of the left bank to protect the bank from continued erosion. Bank stabilization with side slopes 3:1 or shallower would be constructed on top of the toe protection. The Biosolids Facility floodplain levee cannot be relocated, and in

order to achieve the 3:1 slope, the toe protection would be placed inside the existing OHWM. The right bank would be graded back to offset any increased in water surface elevation due to left bank encroachment. Various sizes and species of native trees, shrubs, live stakes, and native seeding would be planted along the disturbed bank slopes to provide stabilization. This alternative would not decrease velocity or stop vertical movement of the river over time. As a result, pools would likely form next to the improvements and the river reach would remain unstable.

#### *Alternative* 4 – *River Restoration (Applicant's Preferred Alternative)*

Alternative 4 is considered river restoration and is the preferred alternative. Proposed improvements would include 933 LF of river alignment to restore the unstable meander to a stable planform. The restoration would include realignment of the riverbed using a riffle and pool sequence. A bankfull bench would be graded throughout the project. A bankfull bench is determined by a frequently occurring peak flow whose stage represents the incipient point of flooding. To protect the toe of the main channel, Alternative 4 would include natural rock toe protection along the outside meander bend with pool grading provided. Fill material from the right bank would be used on the left bank to construct a stable geomorphic section through the project site.

The left and right banks would be laid back between 2:1 and 4:1 slopes. The site would be stabilized with extensive vegetative plantings, which would include biodegradable erosion control and various sizes and species of native trees, shrubs, live stakes, and seeding. The riffle sections would provide river stability over the Biosolids Facility wastewater distribution line upriver and the waterline downriver. The downriver riffle would also provide protection to the Greenbelt Road bridge, by directing flow straight through the existing piers and not favoring the left bank, as occurs in the current unstable condition. The combination of a bankfull bench, toe protection, bank slope adjustment, native plantings, and riffle-pool complex would provide the reduced velocities, efficient flow patterns, and long-term stream equilibrium needed to fulfill the purpose and need for the proposed project. This alternative would stabilize the reach and reduce the velocity along the bank by the levee without the need for repeated repairs and constant monitoring.

## *Alternative* 5 – *Sheet Pile Wall*

Alternative 5 is considered the sheet pile wall option. This alternative would provide a sheet pile wall along the left bank, outside of the ordinary high water mark, to protect the bank from continued erosion. The sheet pile wall alternative would be targeted at protecting the Biosolids Facility floodplain levee only. This alternative would be considered a temporary fix to the erosion issues since this option would not decrease velocities or create a more efficient flow pattern and would be located in an unstable section of the river. The river would continue to find equilibrium with continued movement, instabilities would continue upriver and downriver of the repair, and the sheet pile would ultimately fail.

POST-CONSTRUCTION MONITORING: To provide reasonable assurance that the proposed project would not result in any permanent adverse impacts to waters of the U.S. due to the proposed bank stabilization/stream restoration activities, the Applicant proposes to establish a two-year monitoring program for the project area that includes the following:

Implementation of a monitoring program, beginning immediately post-construction, with a Post-Construction Report to the USACE. The Post-Construction Report would be followed by two Annual Monitoring Reports, to be submitted approximately one year after the previous report, for a total of one Post-Construction Report and two Annual Monitoring Reports. Each report would contain, at a minimum, the following information:

- 1) A narrative description of the stability of both banks and the effects on the waterway.
- 2) Digital high-resolution photographs of each stream bank, with an aerial photograph image exhibit and a key that depicts the location and direction from which each photograph was taken.
- 3) A post-construction TXRAM assessment of the restored stream reach.

# VI. SHEETS

- A. LARGE-SCALE VICINITY MAP
- B. LOCAL VICINITY MAP (IF NECESSARY)
- C. SHEET SHOWING PROJECT SITE AND LOCATION OF WATERS OF THE UNITED STATES AND OTHER WATER FEATURES (JURISDICTIONAL DETERMINATION)
- D. SHEET(S) SHOWING PLAN VIEW OF PROJECT
- E. SHEET(S) SHOWING CROSS-SECTION AND/OR PROFILE VIEW(S), AS NECESSARY, OF PROJECT
- F. SHEET(S) SHOWING MITIGATION PLAN DETAILS (IF AVAILABLE)

PUBLIC INTEREST REVIEW FACTORS: This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404 (b)(1) of the CWA. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concerns for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including its cumulative effects. Among the factors addressed are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts

of this proposed activity. Any comments received will be considered by the USACE in determining whether to issue, issue with modifications, or conditions, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

STATE WATER QUALITY CERTIFICATION: This proposed project will trigger review under Section 401 of the Clean Water Act (CWA). The Texas Commission on Environmental Quality will review this application under Section 401 of the CWA in accordance with Title 30, Texas Administrative Code Section 279.1-13 to determine if the work would comply with State water quality standards. The applicant will contact Texas Commission on Environmental Quality and will initiate the Section 401 CWA process by submitting a pre-filing meeting request. If you have comments or questions on this proposed project's State water quality certification process, please contact <u>401CERTS@tceq.texas.gov</u>. You may also find information on the Section 401 process here: <u>https://www.epa.gov/cwa-401/basic-information-cwa-section-401-certification</u>.

ENDANGERED AND THREATENED SPECIES: The USACE has reviewed the U.S. Fish and Wildlife Service's latest published version of endangered and threatened species to determine if any may occur in the project area. The proposed project would be located in a county where the whooping crane (*Grus americana*), least tern (*Sterna antillarum*), bald eagle (*Haliaeetus leucocephalus*), piping plover (*Charadrius melodus*), and red knot (*Calidris canutus rufa*) are known to occur or may occur as migrants. The whooping crane and least tern are endangered species and the piping plover, and red knot are threatened species. The tri-colored bat (*Perimyotis subflavus*) is proposed for listing as endangered and the monarch butterfly (*Danaus plexippus*) is a candidate for listing. Our initial review indicates that the proposed work would have no effect on federally listed endangered or threatened species.

NATIONAL REGISTER OF HISTORIC PLACES: The USACE has reviewed the latest complete published version of the National Register of Historic Places and found no listed properties to be in the project area. However, presently unknown scientific, archaeological, cultural or architectural data may be lost or destroyed by the proposed work under the requested permit.

FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review all proposed development to determine if a floodplain development permit is required and maintain records of such review.

SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to assist in developing fact upon which a decision by the USACE may be based. For accuracy and completeness of the record, all data in support of or in opposition to

the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

PUBLIC HEARING: Prior to the close of the comment period any person may make a written request for a public hearing setting forth the particular reasons for the request. The District Engineer will determine whether the issues raised are substantial and should be considered in his permit decision. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before May 17, 2023, which is the close of the comment period. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to: Regulatory Division, CESWF-RD; U.S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102-0300. You may visit the Regulatory Division in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Comments may also be submitted electronically to Mr. Eric Dephouse by emailing Eric.J.Dephouse@usace.army.mil. Telephone inquiries should be directed to 817-886-1820. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

DISTRICT ENGINEER FORT WORTH DISTRICT CORPS OF ENGINEERS



EXHIBIT 1 of 7











EXHIBIT 5 of 7



EXHIBIT 6 of 7



EXHIBIT 7 of 7