**City of Waelder Eight Step Process for TDA Contract No. 7220-489**

**Step 1: Determine whether the action is in a 100 Year floodplain or wetland.**

The project activities are in 100-year floodplain and no wetlands were identified. The City of Waelder is experiencing infiltration in their sewer trunk line during extended wet periods and their wastewater treatment plant is currently out of compliance with The Texas Department on Environmental Quality (TCEQ).

The proposed activities at the sewer plant location uses lagoons for wastewater treatment. The work of replacement consists of replacement of approximately 670 L.F. of 8-inch sewer trunk and related appurtenances and install additional (3) hybrid aerators at the sewer treatment plant to bring the facility back into compliance with TCEQ.

Construction shall take place at the WWTP located at 605 South H. Street and at the following locations.

**STREET FROM TO**

Avenue H Second Street South First Street

Railroad Street Avenue H Between Avenue H and Avenue G on Railroad Street

(See City of Waelder flood plain depicting project activities located in the 100 Year Flood Plain. Also, attached is the U.S. Fish and Wildlife Service map depicting potential wetlands and/or no wetland locations.)

According to the U.S. Fish and Wildlife Service there are no identifiable wetlands that meet the definition of wetlands. Nevertheless, for this analysis, it was assumed that there is a potential for undiscovered wetlands that could function as a place of refuge for flora and fauna, species and habitat diversity, and stability, and fish and wildlife. The man-made ponds that exist at the City sewer plant were designed to treat the community’s wastewater before discharge into the existing drainage patterns. The existing manmade pond located in the northeast sector of the community is a manmade pond that was developed for agricultural purposes and will not be impacted by the proposed improvements.

**Step 2: Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process**

A public notice describing the project is published in the Gonzales Newspaper (Gonzales Inquirer), the only local newspaper in the community of Waelder, on September 30, 2021. The public notice notified everyone in the community, including any residents in the floodplain. The notice is also sent by mail to all interested, State, local agencies, and non-profit groups that my have an interest in the community. A list of specific agencies and individuals and a copy of the published notification is kept in the project’s environmental review record and attached to this document. A copy of this notice is placed in the community’s library. The required 15 days are allowed for public comment. As required by regulations, the public notice included the name, proposed location and description of activity, total number of floodplain and wetland acres involved, and the responsible entity contact (City of Waelder, Office of the Mayor) as well as website and location and hours of the office at which a full description of the proposed action can be viewed. Notice is sent to all interested parties concerning mitigation requirements of the Nation Flood Insurance Program (NFIP) as well as consulting local ordinances that must be implemented as part of the NFIP.

A copy of the notices is sent to the following parties:

* Texas Department of Agriculture
* U.S Environmental Protection Agency, Region VI
* Golden Crescent Council of Governments
* Texas Historical Commission
* U.S. Fish and Wildlife Services.
* Texas Commission on Environmental Quality
* Texas Department of Transportation
* Tonkawa Tribe of Indians of Oklahoma
* Wichita and Affiliated Tribes
* Coushatta Tribe of Louisiana
* Apache Tribe of Oklahoma
* Comanche Nation of Oklahoma
* Waelder Housing Authority

**Step 3: Identify and evaluate practicable alternatives.**

The City of Waelder required site selection criteria for the project are based on the following:

* The City of Waelder has only one sewer treatment plant and the improvements are designed to address infiltration during extended wet periods and to bring the wastewater treatment plant into compliance with The Texas Commission on Environmental Quality.
* The wastewater improvements are only viable at the City’s sewer plant location because that is the only place where the proposed improvements can take place.
* The proposed replacement of existing 670 L.F of 8 inch is located along existing road right-of-way and will be replaced with new 10-inch line because where the line connects it has been determined to be 10 inches in diameter.
* The proposed sewer improvements have been deemed by City engineers to be the most optimal solution to resolving the problem of infiltration and noncompliance with TCEQ.
* There are no other locations where the proposed drainage improvements can take place because the City has only one sewer treatment plant and only one trunk line that connects to the treatment plant.

The City of Waelder considered these conditions, proposed sites, and actions to evaluate practicable alternatives to arrive at the following:

1. Locate the proposed wastewater improvements at another location in the community.

This alternative is not practicable because of the site limitation that requires wastewater treatment flows to gravity flow to the lowest point in the community. Constructing a new wastewater treatment plant is cost prohibitive at the present time. Also, it would take 3-5 years to permit a new wastewater treatment plant that would by practical operational necessity occupy a location that would most likely have to be located near or in a floodplain. The proposed wastewater improvements at the sewer plant are located at the existing site and along existing road right-of-way where the sewer main line needs replacement. There are no other locations the community that exhibit this condition.

1. Reduce the scale of the improvements to mitigate the impact of the proposed wastewater improvements.

The aerators that will be installed at the sewer plant at the plant lagoons and are not located in the floodplain. There will be no impact on the floodplain and all drainage coefficients will stay the same. The proposed replacement of existing 670 L.F of 8 inch is located underground along existing road right-of-way and will be replaced with new 10-inch line because where the line connects has been determined to be 10 inches in diameter. The amount of line that is being replaced is minuscule compared to the miles of buried sewer line in the community. The amount of work that is occurring in the flood plain is less than one percent (actually .08%) of the total acres in the flood plain that is located in the community. Only the most essential portion of the sewer line is being replaced. When construction is completed there will be no changes in topography or drainage coefficients.

1. No Action or Alternative Actions that Serve the Same Purpose

A no action alternative was considered and rejected because the wastewater treatment plant improvements are not located in the 100-year flood plain.

There are no practicable alternatives to relocating the proposed improvements scheduled for the wastewater treatment location because the proposed aerators are needed to avert noncompliance with TCEQ requirements. Relocating the sewer plant is not a feasible alternative because of the cost and time involved in considering such an action. Also, a new location for a wastewater treatment plant would require a proximity to the floodplain which depending on the location may have a greater negative environmental impact than the present location.

There are no practicable alternatives to replacement of the existing sewer line that is taking place along the existing road right-of-way. The sewer main trunk line is leaking in the identified locations and may be creating detrimental health and safety impacts to the human environment. No action would exacerbate and worsen the present conditions over time if the problem is not addressed.

**Step 4: Identify Potential Direct and Indirect Impacts Associated with Floodplain or Wetland Development**

 **Direct Impacts of the 100 Year flood plain/wetland:**  The proposed improvements at the wastewater treatment plant are taking place at the plant’s lagoons and are not located in the 100 Year flood/wetland plain. The aerators that are being installed at the sewer plant will not impact the floodplain. The replacement of 670 L.F. of 8-inch sewer line is directly located underground in the 100-hundred-year flood plain. The amount of work that is taking place in the flood plain represents less than 1% of the total flood acreage that is located inside the city limits. The existing line will be replaced with a 10 inch sewer line and there will be no change to topography or existing drainage coefficients. No increase in flows is projected beyond the occurrence of storm events on natural and beneficial floodplain values. No wetlands were identified along the normally dry Baldridge Creek.

 **Indirect impacts of the 100 Year flood plain/wetland:**  The indirect impacts on the 100 Year floodplain/wetlands on adverse impacts to lives and property may see no impact on the floodplain, some increase in water quality, and ground water recharge. Existing drainage coefficients will remain the same. Some localized flooding impediments will be removed. No changes in topography are anticipated.

**Step 5: Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain/wetland.**

1. Preserving Lives: In an effort to preserve the health and safety of residents in the community aerators will be installed at the existing wastewater plant lagoons to provide the proper treatment mandated by TCEQ. An existing 8-inch sewer trunk line will be replaced to reduce the inflow of runoff from storm events and reduce the possibility of sewer contamination that may result from inflow overwhelming the existing sewer collection system. Because all of the sewer plant work is not located in the flood plain/wetlands, there will be no impact on the flood plain. The sewer line improvements are located in the floodplain, and it represents less than a 1 percent impact on the total number of acres inside the city limits that is located in the flood plain.
2. Preserving Property: To preserve property, the proposed wastewater treatment plan improvements mitigate the possibility of being out of compliance with TCEQ. The sewer line improvements preserve property from being inundated by sewer contamination especially during major storm events when infiltration is at its highest level.

1. Preserving Natural Values and Minimizing Impacts: The proposed improvements at the wastewater water treatment plant are elevated above the 100-hundred-year flood plain minimizing the impact on the floodplain. Any role that the wastewater treatment plant provides in preserving natural values will continue with little to no change. The proposed sewer line replacement improvements will be confined to the existing road right-of-way and utilize the existing sewer line easements. This work represents less than a 1% impact on the total flood plain in the community.

**Step 6: Reevaluate the Alternatives**

The wastewater treatment plant location is in the 100-year floodplain. All of the sewer plant lagoons are located above the 100 Year flood plain. The proposed improvements at the sewer plant lagoon are located above the 100-year floodplain.

**Flood plain evaluation:** The majority of the improvements taking place in the community are located outside of the flood plain. Approximately, .08 acres of the proposed sewer line replacement works is located in the 100 Year Flood plain in the City road right-of-way. This amount of work represents less than 1% impact on all the flood plain that is located in the community. There will be no changes to topography and there will be no changes to the drainage coefficients. There are no identifiable wetlands in the community.

 **Wetland evaluation:** The sewer plant ponds/lagoons could potentially be used as wetland refugee for some species of wildlife. Any flora and fauna that may exist would be short-lived because of the ongoing operations of the sewer plant using aerators and other mechanical devices that are designed to treat the wastewater.

**Step 7: Reevaluate the proposed action to determine whether action is still practicable**

Project activities are practicable since most of the proposed improvements are taking place at the sewer plant lagoons are located outside the 100-year flood plain. The replacement of the eight-inch sewer line is located on public right-of-way that was previously disturbed by road construction. Approximately, less than once percent (.08%) of the line replacement is in the 100-year flood plain. This line replacement is critical to addressing the infiltration problems that are being experienced at the sewer plant which contributed to the city being out of compliance with TCEQ. In addition, if the problem is not addressed there is a potential for hazardous sewage spills from the aging sewer line which could contribute to a health and safety problem especially during major storm events. The proposed improvements at the sewer plant which consist of installation of additional aerators are designed to bring the sewer plant into compliance with TCEQ permit requirements. There are no practicable alternatives to these proposed project activities. The positive impacts of the proposed improvements on the human environment outweigh any potential negative impact. No practicable alternatives can be identified to locating the proposed activity outside the 100-year flood plain or the wetland.

**Step 8: Implement the Proposed Action. Reevaluation results in a determination that** **there is no practicable alternative to locating in the proposed activity in the 100-year flood plain or the wetland.**

Reevaluation of project activities results in determination that there is no practicable alternative to locating the proposed activities in other than the locations identified in the project summary. The City of Waelder will take an active role in monitoring the construction process to ensure no unnecessary impacts occur nor unnecessary risks are taken during construction that may impact the flood plain.