Environmental Assessment

City of Kingman, KS
City of Kingman Parks Repair and Flood Hazard Mitigation

Public Assistance Program

Project Number PA-07-KS-4449-PW760-GM137376

September 2022

U.S. Department of Homeland Security
Federal Emergency Management Agency, Region 7
11224 Holmes Rd, Kansas City, Missouri 64131

WILSON & COMPANY

FEMA

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ACRONYMS AND ABBREVIATIONS

AMMs	Avoidance and Minimization Measures
APE	Area of Potential Effects
CFR	Code of Federal Regulations
cfs	Cubic feet per second
DHS	U.S. Department of Homeland Security
EA	Environmental Assessment
EHP	Environmental and Historic Preservation
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment (for hazardous materials)
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
IPaC	Information for Planning and Consultation
KDA/DWR	Kansas Department of Agriculture. Division of Water Resources
KDEM	Kansas Division of Emergency Management
KDHE	Kansas Department of Health and Environment
KDWP	Kansas Department of Wildlife and Parks
KHS	Kansas Historical Society
KS	Kansas
MBTA	Migratory Bird Treaty Act of 1918
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PA	Public Assistance
P.L.	Public Law
REC	Recognized Environmental Condition
SHPO	State Historic Preservation Office
SOI	Secretary of the Interior

LIST OF ACRONYMS (continued)

THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

Kingman, Kansas, is a city of approximately 3,100 residents located in the south-central part of the state, encompassing roughly 3.5 square miles of land. Founded in the early 1870s, it was incorporated in 1883 and is the county seat for Kingman County. The city includes land both north and south of the Ninnescah River, with the majority, including its downtown area, located north of the river. Kingman is served by east-west US Highway 400, and the closest major urban area is Wichita, located 44 miles to the east.

The city is located in a farming area, with 21% of the county's work force engaged in agricultural production. The city's median household income in 2020 dollars was estimated at $57,304 according to 2016-2020 American Community Survey data, and the city's poverty rate of 9.8 percent was slightly below the statewide average of 10.6 percent (Census Bureau, 2022). The city's population included 10 percent persons of color, which is higher than the Kingman County percentage but lower than the state overall.

According to the Comprehensive Development Plan for the Kingman Area, almost one-fifth of the City of Kingman is within a designated Flood Hazard Area, including the bulk of Kingman's historic downtown. Of the 2,335.4 acres inside the city limits, 398.7 acres (17.1%) are in the 100-year floodplain, including the entire project area that is addressed in this analysis. (City of Kingman, 2019a)

The weather event that resulted in Federal Major Disaster Declaration DR-4449-KS began on April 28, 2019, when heavy rain led to flooding of the Ninnescah River. The peak discharge at the Murdock gage (10.8 miles downstream) during that time was 8,900 cubic feet per second (cfs), which is significantly lower than the 10-year event discharge. When compared against lower-level storm frequencies at this location, the storm frequency for the event within the South Fork of the Ninnescah River more directly aligns with approximately a 5-year storm event from USGS Stream Stats and USGS Peak Streamflow for the Murdock gage calculations. Given the amount of damage inflicted in Kingman from this 5-year storm, it can be foreseen that a larger level storm would cause significantly greater damage.

The Kingman County Fairgrounds, Riverside Park, the Mill Race, and the Ninnescah River comprise the Facility addressed in this analysis. The fairgrounds and park are located on an island bounded by the Ninnescah on the north and Mill Race on the south. The April 2019 disaster caused significant damage to the western 950 feet of the island. Large amounts of sediment were deposited on the park grounds, sections of sidewalk were damaged, two multi-unit culverts were damaged, and the northern bank of the Mill Race was eroded to within five feet of the sidewalk in some locations.

On June 20, 2019, President Trump declared a major disaster in the State of Kansas as a result of Severe Storms, Straight-line Winds, Tornadoes, Flooding, Landslides, and Mudslides (DR-4449-KS) pursuant to the Robert T. Stafford Disaster and Emergency Assistance Act, as amended 42 U.S.C. Section 5121-5206, implementing regulations at Title 44 Code of Federal Regulations (CFR) Part 206 (Stafford Act). The incident period began on April 28, 2019 and closed on July 12, 2019.

The disaster declaration authorized the U.S. Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA) to provide assistance pursuant to its Public Assistance (PA) Program to State and local Kansas governments and agencies, Native American Tribes, and Private Non-profit Organizations for costs incurred to repair and/or replace eligible facilities damaged during the event in designated counties. FEMA also encourages protecting these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process.

Pursuant to Section 406 of the Stafford Act, the City of Kingman, through the Kansas Division of Emergency Management (KDEM), has requested assistance through FEMA's PA Program for the repair of disaster-damaged recreational resources at Kingman County Fairgrounds and Riverside Park and flood hazard mitigation measures intended to prevent or minimize similar damage in future flooding events.

When funding or approving actions and projects, FEMA is required to consider environmental impacts in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations that implement NEPA (40 C.F.R. Parts 1500-1508), and FEMA's regulations implementing NEPA according to the DHS Directive 023-01, Rev 1, *Implementation of the National Environmental Policy Act* (DHS Directive 023-01); DHS Instruction Manual 023-01-0010-01, Rev 01, *Implementation of the National Environmental Policy Act (NEPA)* (DHS Instruction 023-01-001-01) FEMA Directive 108-1, *Environmental Planning and Historic Preservation Responsibilities and Program Requirements* (FEMA Directive 108-1); and FEMA Instruction 108-01-1, *Instruction on Implementation of the Environmental Planning and Historic Preservation Responsibilities and Program Requirements* (EHP Instruction). FEMA has determined that NEPA compliance will require preparation of an Environmental Assessment (EA) for this project. This EA has been prepared in accordance with the referenced laws and regulations.

This EA analyzes the potential environmental effects of the City of Kingman Parks Repair and Flood Hazard Mitigation Project in Kingman, Kansas. FEMA will use the findings in this EA to determine whether or not those effects would be significant, and subsequently may prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

2.0 PURPOSE AND NEED

Project Purpose

The purpose of the proposed FEMA PA project is to improve flood resiliency during storm events less than or equal to the ten-year storm for the Ninnescah River island that is the site of the Kingman County Fairgrounds complex and Riverside Park. The project will also include repairs to infrastructure previously damaged by recent flooding.

A number of recent flooding events since 2016 have damaged key recreational resources of the City of Kingman and Kingman County in southern Kansas (see Figure 1), as discussed in more detail below. The South Fork of the Ninnescah River, receiving water from a drainage area of 440 square miles, flows eastwardly along the northern side of these facilities, but also flows along their southern side through a channel called the Mill Race, effectively creating an island (see Figure 2).

During non-flood conditions, the narrow Mill Race on the southern edge of the island typically carries much more water than the wide river channel on the northern side.

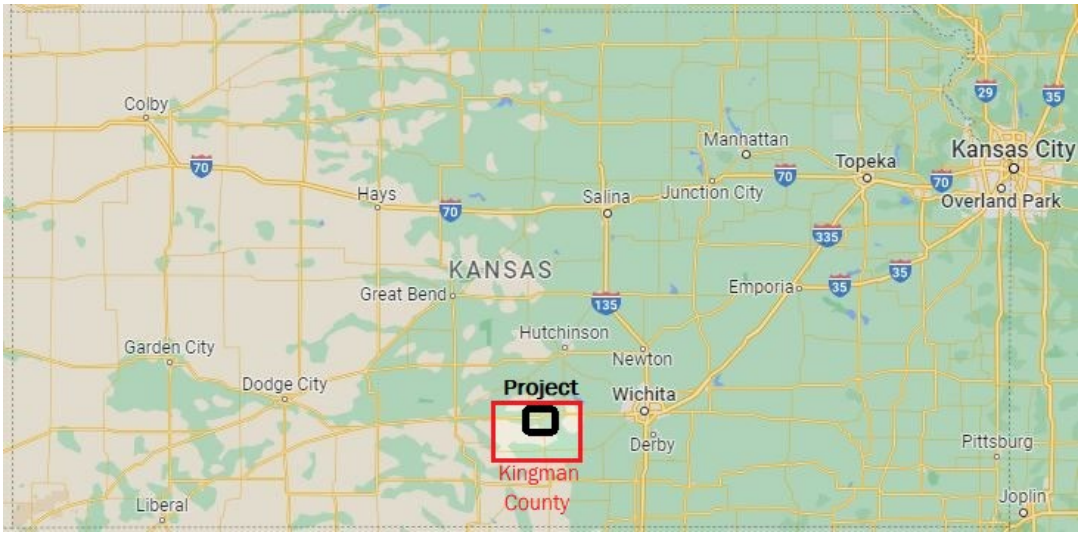

Figure 1: Map of Kansas Showing Location of Kingman County and the City of Kingman

Figure 2: Aerial View and Map of the Project Location in Kingman

The island is traversed by north-south Kansas State Highway 14 (K-14), locally known as South Main Street, on bridges that have successfully withstood these floods.

Some geographical indicators of the project location include the following:

- Kingman County Township 28 South, Range 07 West
- 0.5-miles south on K-14 from the US-400 / K-14 junction
- Representative street address: 121 South Main Street, Kingman, KS 67068
- Latitude / longitude: 37°38'24" N 98°06'58" W

Figures 3 and 4, taken from the Kingman Park System Master Plan, illustrate the density of the recreational activities that are located on the island (City of Kingman, 2019a).

The western half of the island (west of Main Street) is the site of the Kingman County Fairgrounds complex.

The eastern half of the island (east of Main Street) is the site of Riverside Park, the primary recreational complex of the City of Kingman. These facilities are conveniently located for the community. The adjacent waterways (Ninnescah River and the Mill Race) are normally valuable amenities in terms of providing a tranquil and natural ambience. The recreational infrastructure on this island represents a large investment of County and City resources helping to make Kingman an attractive place to live.

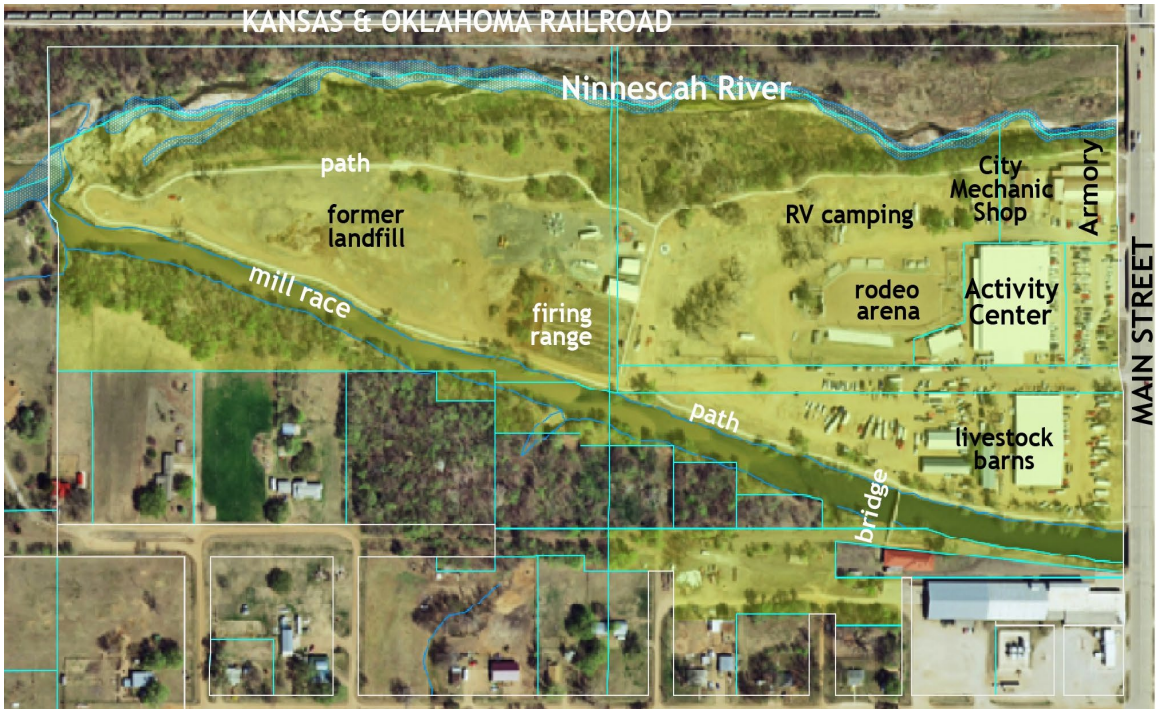

Figure 3: Kingman County Fairground Facilities on the Island, West of Main Street

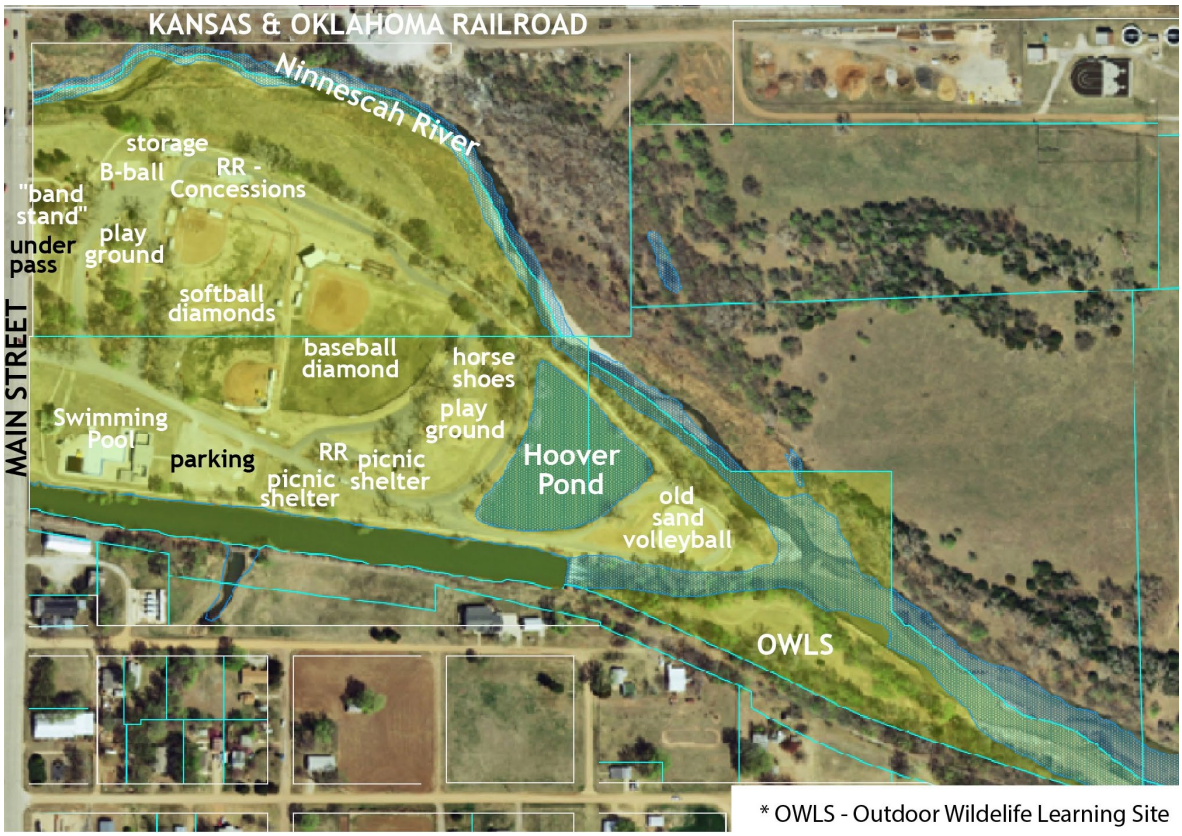

Figure 4: City of Kingman Riverside Park Facilities on the Island, East of Main Street

Project Need

Heavy rainstorms and subsequent flooding in recent years caused considerable erosion to the island and damaged infrastructure, also leaving public facilities exposed and vulnerable to further significant damage from future flooding events (see Figure 5).

Figure 5: Examples of Damage from 2019 Flood Event
Left: Walking path damaged on northern (Ninnescah River) side of the island
Right: Erosion threatens future loss of path on the southern (Mill Race) side of the island

The recreational resources on the island have sustained damage from four recent flooding events that resulted in FEMA major disaster declarations (identified by code letters DR), as follows:

- DR-4449-KS (year 2019)
- DR-4417-KS (year 2018)
- DR-4403-KS (year 2018)
- DR-4287-KS (year 2016)

During the 2016 FEMA-declared disaster, approximately 180 feet of riverbank eroded 70 feet landward at the western end of the island and 80 square yards of concrete trail were lost or damaged, which resulted in a nearly 24-month closure of that portion of trail on the western tip of the island.

During the 2019 FEMA-declared disaster, approximately 170 square yards of concrete trail were lost or damaged at various locations on the west side, which resulted in nearly the entire portion of the trail west of the Kingman County Fairgrounds being closed for the past 36 months. This current, ongoing trail closure will continue until the sidewalk is made passable again.

The proposed actions have been designed in a manner that would make the island and its infrastructure more resilient, thus able to withstand similar future events with less damage. With the clear understanding that the island will be flooded again in the future, the hazard mitigation measures should be designed for ease of future maintenance and repair.

3.0 ALTERNATIVES

FEMA EAs must, at minimum, include a discussion of the No Action Alternative (i.e., maintaining the status quo) and the Proposed Action. Preferably, the EA should also include a discussion of other Action Alternatives; in other words, the grant recipient/applicant should ask the question: "if the proposed project cannot be chosen, how else could the need be met?"

As part of the DR-4449 KS PA Emergency, a Category A debris removal project was conducted to remove sediment and damaged trees from the facility. These Emergency Work efforts have been completed and therefore are not included in any of the alternatives discussed below.

3.1 No Action Alternative

Although it would not meet the purpose and need for the project, the option of taking no action would avoid project costs and would have no environmental impacts of its own. However, it would leave the island vulnerable to further flood damage, adversely affecting the community facilities and recreation amenities there. Consideration of a No Action Alternative is required under NEPA and provides a basis for comparison to action alternatives.

3.2 Proposed Action

After witnessing four disaster events within a four-year span and reviewing the existing hydraulic modeling for the facility, the City of Kingman determined that preventing flooding within the

facility was not an option without raising the ground within the facility, providing robust slope protection on what would be elevated riverbanks and significantly impacting the floodplain. Therefore, the next step was to determine the locations that sustained the most damage over the recent flooding events and provide simple solutions in those locations that would allow flood flows to pass with little damage or future maintenance concerns. The following hazard mitigation measures were determined to provide the most long-term benefit and be the most cost effective for the community.

The Proposed Action is comprised of four elements that are described below:

- Westside island interior hazard mitigation measures
- Westside riverbank hazard mitigation measures
- Eastside overbank grading
- Eastside riverbank stabilization

Proposed hazard mitigation measures are shown in Figure 6.

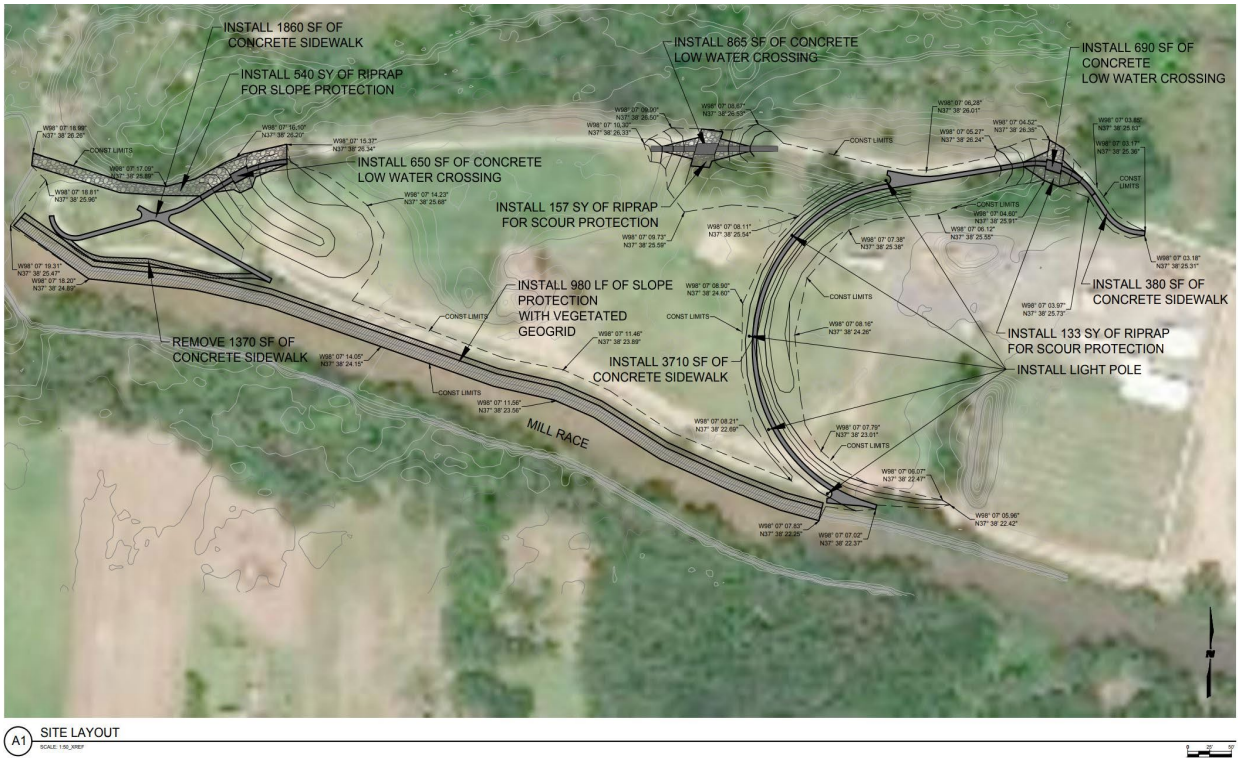

Figure 6: Proposed Hazard Mitigation for the Western Side of the Island

Westside Island Interior Hazard Mitigation Measures

The area west of the main Kingman County fairgrounds has sustained the most damage since 2016. Multiple sections of sidewalk, riverbank, and drainage structures have been damaged or removed since 2016. The existing conditions hydraulic model indicates that floodwater during the 100-year event would be between 4 to 6 feet deep through the area, which extends from the western point of the facility to nearly 1,000 feet east of the point. Hazard mitigation measures to prevent flooding of this facility for the 100-year event would have required up to 8 feet or sidewalk embankment raise across the entire western quarter of the facility and would have most likely increased the flooding on several adjacent properties to the park facility. This option was determined to not be an acceptable solution by the City due to the adjacent property impacts or the economically feasible for the community.

Looking instead at the 10-year event in this location, floodwater would range between 1 foot and 2 feet deep with a portion of the area having depths less than 1 foot. This area of low water surface depth is indicated in Figure 7 with a red polygon. Modeling also demonstrated that there were three distinct discharge points that help convey discharge from the Mill Race to South Fork Ninnescah River during events larger than the 2-year event. The western location has no drainage structures to convey flow to the river and the eastern two locations have a series of 24-inch corrugated metal pipes to convey the discharge. All these locations were damaged in the 2019 event as the sidewalk and/or culverts were swept away by the river flows. Three yellow pins on the map in Figure 8 denote these areas of discharge to the South Fork Ninnescah River.

Figure 7: Westside Facility Key Areas of Hazard Mitigation

The area where the 10-year discharge is not very deep will be raised approximately two feet with a sidewalk on top to reduce the risk of storm events below the 10-year from entering the fairground

area and damaging fairground assets. A semicircular sidewalk path will be constructed on top of this raised area and will include lighting and underground wiring. The proposed hazard mitigation measures are not expected to have identifiable impact to the 100-year floodplain water surface elevations.

The three discharge areas identified will have either the sidewalk or culvert crossings replaced with low water crossings. The low water crossing is a 12-foot-wide concrete paved section of the sidewalk with 3-foot toe walls on either end to reduce the risk of scour. Twelve feet of riprap will be placed upstream and downstream of the structure to further reduce the scour risk of the crossing and embankment. The western location will have the sidewalk lowered approximately 2.5 feet to accommodate the low water crossing and the eastern two locations will remove the culvert embankment to install the crossings. The sidewalk will be compliant with the Americans with Disabilities Act of 1990 (ADA) design standards to ensure pedestrian safety and accessibility. Low water crossings provide a relatively low-maintenance option for the frequent flood conditions as the city staff can easily clean sediment off the path after a flood occurs and monitor the scour conditions to add more riprap as necessary.

Coffer dams will be used to dewater the locations where work within the river channel is needed to complete the improvements. The coffer dams area anticipated for the west 900 feet of the Mill Race north bank at the west site and approximately 200 feet of the Ninnescah River south bank at the east site. Based on previous experience in the river, the current approach would be to construct an earthen berm (as the coffer dam) so that the top extends one foot above the ordinary high water mark for the river for the duration of the construction below that point. The coffer dam will be removed immediately after all the work below the ordinary high water mark is completed.

Westside Riverbank Hazard Mitigation Measures

In addition to improving the interior park conditions on the western portion of the facility, nearly 100 feet of the Ninnescah River south bank and over 900 feet of the Mill Race north bank will be protected because erosion is continuing to encroach on the park facilities in these locations, as shown earlier in Figure 3.

Velocities within the western 100 feet of the Ninnescah River after it splits with the Mill Race exceed 15 feet per second (fps) through the rock dam (which steers water into the Mill Race) due to the slope of the dam at the split. After the western discharge location, the Ninnescah River southern bank moves more than 100 feet away from the park sidewalk and the infrastructure is no longer at a high risk of failure from the main river channel velocities. Due to the high velocities through the rock Dam location, the 100 feet after the split needs to be protected with rock riprap to substantially reduce risk of future erosion along the embankment. Riprap that was previously installed at the western edge of the park where the Ninnescah River splits with the Mill Race is designed with a median rock diameter size of 24 inches which is installed at a thickness of 4 feet with a granular filter as the base. As this design withstood the 2019 flood event without known observed riprap displacement, extending this design along the southern bank of the Ninnescah River is proposed at this time.

Velocities within the Mill Race after splits with the Ninnescah River are all less than 9 fps for the first 1,000 feet of the channel after the split. After the first 1,000 feet, the channel velocities reduce

further to all being less than 8 fps, the sidewalk pulls further away from the riverbank, and the erosion risk due to bank overtopping is significantly reduced. Due to the bank overtopping frequency of storm events larger than the 2-year event, the bank will be protected with a combination of a riprap stone protection at the toe of the slope to reduce the risk for future erosion from undermining the embankment protection and a vegetated geogrid slope with native slope plantings to stabilize the slope above the ordinary high-water mark. The lower velocities within the Mill Race channel allow the design of the proposed action to use a more natural riparian bank protection solution rather than hard armoring to resist any erosive flow conditions. The goal for the overall bank slope would be to maintain the past slope conditions of approximately 1.5 to 1, which were obtained from the LiDAR before the disaster. Because the proposed action would allow for overtopping when an incident exceeds the 2-year event level, there are no upstream water surface increases anticipated.

Proposed hazard mitigation measures on the eastern side of the island are shown in Figure 8.

Figure 8: Proposed Hazard Mitigation for the Eastern Side of the Island

Eastside Overbank Grading

The eastside overbank grading will be undertaken on the South Fork Ninnescah River south bank in between 250 feet and 1,200 feet downstream of the Main Street Bridge. Nearly 25 percent of this overbank has seen elevation increases of 0.5 feet to 4 feet from 2012 to 2019. Most of the increases are found on the eastern portion of the overbank as can be seen in Figure 9.

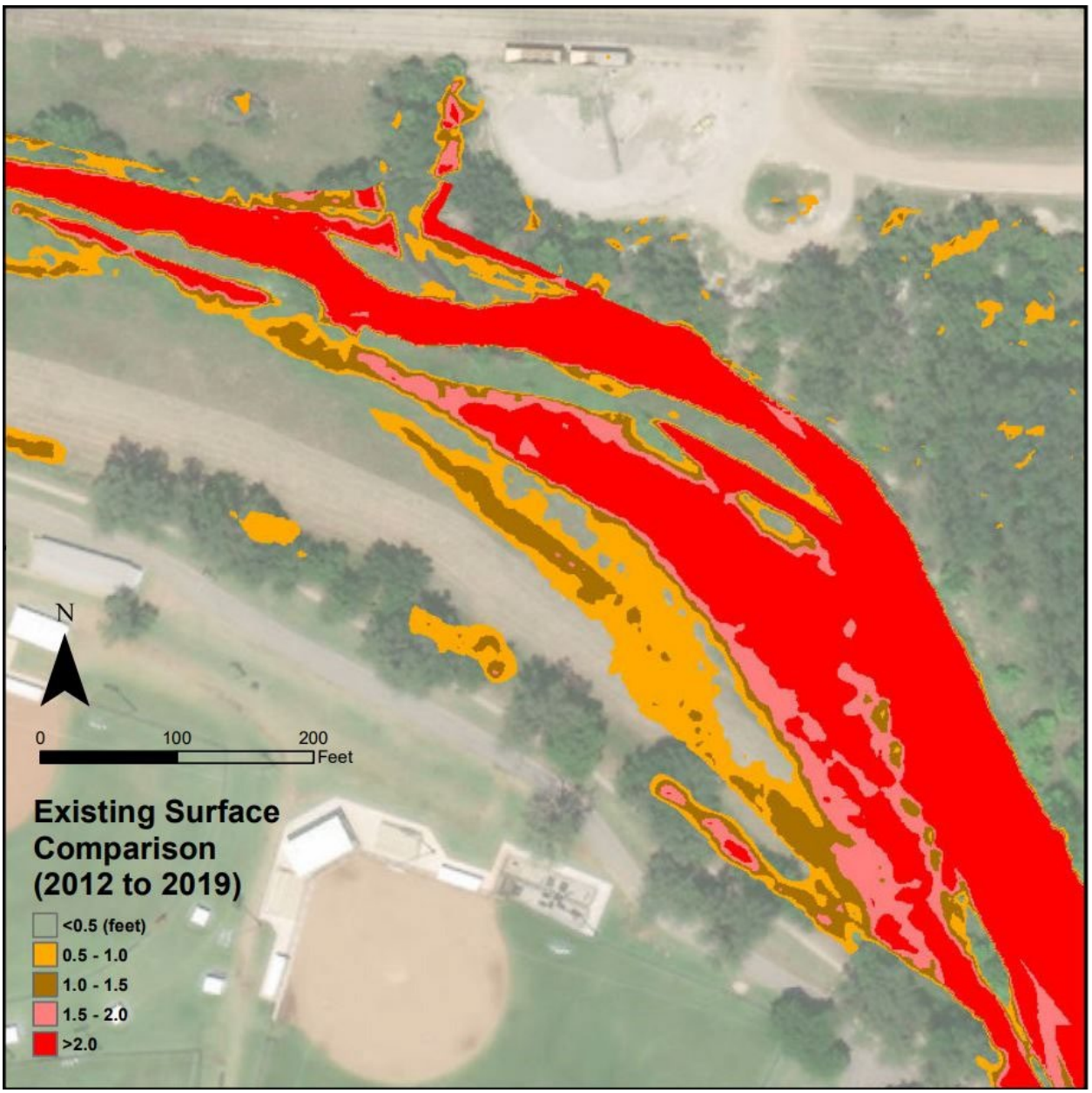

Figure 9: Eastside Overbank Elevation Increases, 2012 to 2019

In addition to the elevation increases, there has been an increase in heavy timber vegetation in the overbank that is changing the overbank Manning's n values (This is part of a mathematical formula used to estimate the average velocity of water flowing in an open channel in locations where it is not practical to construct a weir or flume to measure flow with greater accuracy.) It is estimated that approximately 20 trees with diameters between 6 and 24 inches will be removed during the overbank grading activities. The overbank is proposed to be graded down approximately 1.5 feet across the overbank and seeded with native vegetation to assist with a consistent elevation and Manning's n value in the overbank to ensure that flow backups are not created in the future.

The overbank grading impacts to the Ninnescah River hydraulics are dependent on the size of the storm event. Floodplain impacts associated with the 100-year event show water surface decreases

in the South Fork Ninnescah River between 0.05 foot (i.e., less than one inch) to 0.15 foot (i.e., 1.8 inches) between the downstream face of the Main Street Bridge to approximately 1,000 feet downstream of the bridge. However, the floodplain impacts associated with the 10-year event show water surface decreases in the South Fork Ninnescah River between 0.05 foot and 0.20 foot (i.e., 1 to 2.4 inches) between the 150 feet upstream of the Main Street Bridge to approximately 1,200 feet downstream of the bridge. Additional water surface decreases are found on the South Fork Ninnescah River upstream of these limits throughout the project, but these decreases are less than 0.05 foot.

While the impacts are relatively localized to the section of the river between the bridge and 1,200 feet downstream for larger storm events (100-year and 500-year events), floodplain impacts associated with these hazard mitigation measures for lower-level events (similar to the DR 4449 peak discharges) show that more efficient flow through this area of the channel would provide water surface decreases for the South Fork Ninnescah River from the western to eastern edge of the facility through sediment removal and appropriate vegetation cover.

Based on the proposed grading, approximately 3,400 cubic yards of accumulated sediment will be removed along approximately 1,000 feet of the southern overbank between 150 feet and 1,200 feet downstream of the Main Street bridge. All sediment that cannot be used by the project for embankment will be stored at the Kingman fair grounds until it can be effectively used by the City staff. If any sediment is removed for offsite disposal in the future, it will be taken to a licensed, commercial facility, and will have no impact on wildlife or cultural resources.

This sediment removal will also reduce the heavy timber vegetation that is also reducing to flow capacity in the overbank by removing approximately 20 trees with diameters between 6 and 24 inches and other heavy vegetation. The site will be reseeded with native vegetation that is capable of being maintained by Kingman city staff.

All grading will occur above the Ordinary High-Water Mark and no grading or sediment removal will occur in the river channel. The excavated sediment associated with the overbank grading will be used as embankment on site if it can meet the embankment requirements.

These hazard mitigation measures will improve current conditions and ensure that overbank conditions do not progressively worsen in the future. This will also allow the City of Kingman to more easily and frequently monitor the overbank to ensure that ground elevation and vegetation are maintained on a recurring basis. An inspection and maintenance schedule will be developed for post-grading to guide future maintenance of overbank conditions.

Eastside Riverbank Stabilization

After the initial site visit, another area of the facility on the eastside was found to have been damaged during the 2019 disaster. It was observed that a nearly 300-foot portion of the South Ninnescah River bank is significantly encroaching on the embankment for the Hoover Pond in Riverside Park on the eastern portion of the facility.

An aerial image from 2016, shown in Figure 10, shows that significant large trees were established on the bank with at least six feet of distance between the northern edge of the sidewalk and the top of the bank.

Figure 10: 2016 Aerial Image of the Ninnescah River and Hoover Pond

Ground-level inspection in 2021 determined that a large portion of the bank has either been removed by the removal of a tree with large roots or erosion and the top of the bank is now within three feet of the edge of the sidewalk. In addition to this being a pedestrian safety hazard, there is significant concern that the existing pond embankment would be breached if this embankment were to fail.

The bank will be protected with a combination of a riprap stone protection at the toe of the slope to reduce the risk for future erosion from undermining the embankment protection and a vegetated geogrid slope with native slope plantings to stabilize the slope above the ordinary high-water mark. The lower velocities above the ordinary high-water mark allow the design to use more natural riparian bank protection solution rather than hard armoring to resist any erosive flow conditions for the large slope conditions. The goal for the overall bank slope would be to maintain the past slope conditions of approximately 1.5 to 1, which were obtained from the LiDAR before the disaster. The bank stabilization will be extended as far upstream and downstream from the primary bank failure location to ensure that the erosive flows do not work around the improvements and continue to erode the bank

3.3 Other Action Alternatives

Only Restore to Pre-Disaster Conditions

With most FEMA disaster projects, there is the option to return the site to pre-disaster condition. This alternative was considered and ultimately dismissed because it does not meet the purpose and need of improving flood resiliency. The damage to the site has occurred during a five-year (20% Annual Exceedance Probability) storm event which means that the City could see these similar disaster conditions again within the next few years.

All parties involved with this current and previous disaster recovery endeavor to advance an alternative that provides a more sustainable solution. Based on ground surface or aerial image comparisons and site observations/measurement, the 18 repairs listed in Table 1 are required to return the site to pre-disaster condition. Location numbers in the table refer to the 11 general work locations shown in Figure 11. All of the repairs identified in the table are included in the Proposed Action, but they will not be implemented as a stand-alone solution. The same is true of eastside improvement (just one location), as listed in Table 2 and shown in Figure 12.

Table 1: List of Westside Proposed Damage Repairs

Location	Proposed Repairs
1	Station 6+00.00 to Station 8+00.00 – Replace 35 cubic yards of Sidewalk Embankment, which was washed away during the flood events. Replacement will consist of 3-feet of sidewalk shoulder at 6-inch depth and then slope down at a 3:1 side slope to existing ground. Station 7+06.60 to Station 7+87.31 – Replace 45 cubic yards of Mill Race North Bank, which washed back approximately 5-feet during to flood events. Replacement will consist of a 2:1 slope to existing bank toe at 6.5-feet high.
2	Station 8+67.38 to Station 9+94.19 – Replace 155 cubic yards of Mill Race North Bank, which washed back approximately 5-feet during to flood events. Replacement will consist of a 2:1 slope to existing bank toe at 6 feet high.
3	Station 11+31.17 to Station 12+01.23 – Replace 80 cubic yards of Mill Race North Bank, which washed back approximately 5 feet during to flood events. Replacement will consist of a 2:1 slope to existing bank toe at 6 feet high.

Location	Proposed Repairs
4	Station 12+50.00 to Station 12+69.08 – Replace 50 square feet of 6-inch Concrete Sidewalk, which cracked at several locations due to removal of gravel base by storm events. Replacement will consist of 5-feet wide 6-inch standard KDOT sidewalk concrete. Station 12+54.89 to Station 13+30.06 – Replace 145 cubic yards of Mill Race North Bank, which washed back approximately 10 feet during to flood events. Replacement will consist of a 2:1 slope to existing bank toe at 7 feet high. Station 12+96.98 to Station 13+29.19 – Replace 2 cubic yards of Sidewalk Embankment, which was washed away behind the park bench foundation during the flood events. Replacement will consist of 3-feet of sidewalk shoulder at 6 inches and then slope down at a 3:1 side slope to existing ground.
5	Station 13+43.16 to Station 13+64.71 – Replace 2 cubic yards of Sidewalk Embankment, which was washed away behind the park bench foundation during the flood events. Replacement will consist of 3-feet of sidewalk shoulder at 6-inch depth and then slope down at a 3:1 side slope to existing ground.
6	Station 13+75.15 to Station 14+00.00 – Replace 125 square feet of 6-inch Concrete Sidewalk, which was completed undermined and displaced through the entire length due to removal of gravel base by storm events. Replacement will consist of 5-feet wide 6-inch standard KDOT sidewalk concrete.
7	Station 15+90.00 to Station 16+50.00 – Replace 300 square feet of 6-inch Concrete Sidewalk, which was completed undermined and displaced through the entire length due to removal of gravel base by storm events. Replacement will consist of 5-feet wide 6-inch standard KDOT sidewalk concrete.
8	Station 20+85.64 to Station 21+08.01 – Replace 3 cubic yards of Sidewalk Embankment, which was washed away during the flood events. Replacement will consist of 3 feet of sidewalk shoulder at 6-inch depth and then slope down at a 3:1 side slope to existing ground.

Location	Proposed Repairs
9	Station 21+03.97 to Station 21+50.00 – Replace 670 square feet of 6-inch Concrete Slope Protection, which was cracked and its foundation was undermined during the storm events to the point where the concrete needs to be removed and the base reset to maintain the structural integrity of the concrete. Replacement will consist of 6-inch standard KDOT sidewalk concrete reinforcing and installation methodology for this slope protection. The slope protection shall also connect with existing culvert end sections. Continued, next page. Station 21+50.00 to Station 21+95.00 – Replace 90 cubic yards of Sidewalk Embankment, which was washed away during the flood events. Replacement will consist of 3-feet of sidewalk shoulder at 5-feet high and then slope down at a 3:1 side slope to existing ground. Station 20+85.64 to Station 21+95.00 – Replace 550 square feet of 6-inch Concrete Sidewalk, which was completed undermined and displaced through the entire length due to removal of gravel base by storm events. Replacement will consist of 5-feet wide 6" standard KDOT sidewalk concrete. Station 25+35.00 – Replace 120 linear feet of 24-inch Corrugated Metal Pipe, which was removed during flood events. Replace with 24-inch Corrugated Metal Pipe and upstream concrete headwall.
10	Station 25+65.00 – Replace 20 linear feet of 24-inch Corrugated Metal Pipe, which was removed during flood events. Replace with 24-inch Corrugated Metal Pipe and Flared End Section on the upstream and downstream side of the culverts. Station 25+00.00 to Station 25+95.14 – Replace 120 cubic yards of Sidewalk Embankment, which was washed away during the flood events. Replacement will consist of 3-feet of sidewalk shoulder at 4-feet high and then slope down at a 3:1 side slope to existing ground.
11	Station 20+85.64 to Station 21+95.00 – Replace 475 square feet of 6-inch Concrete Sidewalk, which was completed undermined and displaced through the entire length due to removal of gravel base by storm events. Replacement will consist of 5-feet wide, 6-inch standard KDOT sidewalk concrete.

Figure 11: Location of Westside Proposed Damage Repairs

Table 2: List of Eastside Proposed Damage Repairs

Location	Proposed Repairs
1	Replace 240 cubic yards of riverbank, which was washed away during the flood event.

Figure 12: Location of Eastside Proposed Damage Repairs

3.4 Alternatives Considered and Dismissed

In addition to the alternative of only restoring to pre-disaster condition, alternative solutions were considered for sidewalk relocation and use of riprap.

Sidewalk Relocation

An alternative considered involved relocating the sidewalk from near the riverbank to the center of the island and provide low water crossings at strategic locations. This alternative meets the purpose and need of improving flood resiliency. However, it was dismissed from further consideration by the City Council of Kingman because there is a desire to keep the sidewalk along the riverbank for aesthetic reasons and replace as little sidewalk as possible throughout the current park.

Riprap Slope Protection

Originally, riprap slope protection was recommended for all slopes along the Mill Race and Ninnescah River. This alternative was considered and determined to meet the purpose and need of improving flood resiliency. However, it was dismissed from further consideration for a more resilient solution at locations where flow conditions would allow for the use of a natural riparian buffer along the slope. Therefore, the project will instead use a vegetated geogrid slope with native slope plantings to stabilize the slope above the ordinary high-water mark.

4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

As noted earlier, the project area is effectively an island that is surrounded by the Ninnescah River to the north and the Mill Race channel to the south. The two waterways diverge west of the property and come back together to the east. North-south Kansas State Highway 14 splits the island, with Kingman County Fairground facilities located on the western half and Riverside Park recreation amenities located on the eastern half. There are no residences or privately-owned businesses on the island. Facilities and amenities on the island include the following:

WEST SIDE (Kingman Fairgrounds, 110 West First Avenue):

- Kingman County Activity/Expo Center (with indoor arena)
- Outdoor rodeo arena
- National Guard Armory (National Register of Historic Places-listed building with 3 indoor pickleball courts)
- Livestock barns
- Recreational vehicle camping (with 18 electric hook-ups & septic dump station)
- Beery Memorial Firing Range (named for Kingman Police Captain Larry G. Beery, slain April 15, 1973)

- Paul R. Wunsch Memorial (west end)
- Walking/biking path, electrical light posts and park benches
- City Mechanic Shop

The 20-year Kingman Park System Master Plan adopted in 2019 indicates intent to relocate the firing range elsewhere (off the island), because the walking path cannot be used safely while the firing range is in use (City of Kingman, 2019a). According to the Master Plan, the firing range land would be used instead as a multi-purpose public event area that could be used for a variety of public gatherings, concerts, and events.

EAST SIDE (Riverside Park, 100 E. 1st Avenue):

- Outdoor swimming pool
- Two playground areas
- One baseball field and two softball fields
- Two three-man basketball courts
- Six tournament horseshoe pits
- Hoover Pond (fishing permitted)
- Walking path (concrete 0.8 mile and wood chip path 0.2 mile)
- Outdoor Wildlife Learning Site (OWLS) - no longer in use
- Two covered pavilions with Bandstand

Additionally, the 20-year Kingman Park System Master Plan indicates intent to update the park by replacing lesser-used amenities with new ones (e.g., replace swimming pool with skate park) and create a more efficient loop road for internal traffic circulation. Possible additional amenities could include a fishing dock at Hoover Pond and addition of pickleball courts and possibly disc golf at the eastern edge of the island.

Riverside Park is owned entirely by the City of Kingman, but ownership of the Fairgrounds is more complex. Kingman County owns the Kingman Activity Center building, as well as the land beneath it, which amounts to a little less than an acre. The County also owns the livestock barns, though not the land they occupy. The City of Kingman owns the rest of the Fairgrounds land and facilities.

The City of Kingman received a grant in 2020 from the U.S. Land and Water Conservation Fund (LWCF) for Riverside Park recreational improvements. This was grant number 20-00288, Water Tower Park and Riverside Park - construction of swimming pool and all related facilities, picnic facilities and playground area - $188,471.59.

Section 6(f) of the Land and Water Conservation Act of 1965 states that, "No property acquired or developed with assistance under this section shall, without approval of the Secretary [of the U.S. Department of the Interior], shall be converted to other than public outdoor recreation uses."

The Proposed Action would not convert any recreation property to non-recreation use, so there would be no LWCF Section 6(f) restrictions on this project.

4.1 Physical Resources

Topics discussed in this section are geology, soils and seismicity; air quality and climate change.

4.1.1 Geology, Soils and Seismicity

Online data regarding site geology, soils and seismicity data obtained for this project is discussed below. No supplemental field investigation was needed.

A county-level geological survey (Lane, 1960) indicates that the rock outcrops in Kingman County are sedimentary and range in age from Permian to Recent. The Ninnescah Shale of Permian age is the oldest rock outcropping in the county. Most of the county is underlain by unconsolidated deposits of silt, sand, and gravel of Pleistocene age, which were deposited by southeastward-flowing streams. Deposits of the four major stages of the Pleistocene are present. A map of the project vicinity suggests that the island is Cenozoic Era, Quaternary System, Alluvium (late Pleistocene and Holocene).

The Web Soil Survey maintained by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) provides soil data and information produced by the National Cooperative Soil Survey. It indicates that the soil unit characterizing Kingman's Ninnescah River 67-acre island is Waldeck Fine Sandy Loam, occasionally flooded, with an A-horizon of 15 inches in depth with a mixed AC horizon from 15 inches to 35 inches. This soil unit is classified as Prime Farmland, but none of the land on the island is currently used or intended for agriculture (USDA Natural Resources Conservation Service, 2022).

The Farmland Protection Policy Act was enacted in 1981 (P.L. 98-98) to minimize the unnecessary conversion of farmland to nonagricultural uses as a result of federal actions. In addition, the Act seeks to assure that federal programs are administered in a manner that will be compatible with state and local policies and programs that have been developed to protect farmland. The policy of the Natural Resources Conservation Service (NRCS) is to protect significant agricultural lands from conversions that are irreversible and result in the loss of an essential food and environmental resource. The NRCS has developed criteria for assessing the effects of federal actions on converting farmland to other uses, including a Farmland Conversion Impact Rating form AD-1066 that documents a site-scoring evaluation process to assess its potential agricultural value.

Regarding seismicity, FEMA's National Risk Index classifies the risk of earthquakes in Kingman County as very low, with an index rating of just under one on a scale of zero (minimal risk) to 100 (very high risk). (FEMA, 2022). The FEMA U.S. Seismic Hazard Map indicates that the nearest major earthquake risk is located in south-central Oklahoma. The project area in Kingman is approximately 44 miles north of the Kansas/Oklahoma state line.

The No Action Alternative would not affect any soils or geology. Portions of the Kingman parks recreation island that have already been damaged by flooding would be at risk of further erosion caused by future flooding events.

The Proposed Action would repair areas damaged by recent flooding and make the Kingman parks recreation island better protected from future flood damage, thus reducing future soil erosion. The Proposed Action would not convert any land from agricultural use and would not include creation of new structures that would be particularly susceptible to damage from seismic events.

The Proposed Action is expected to result in 5.25 acres of soil disturbance. To prevent erosion and sedimentation that could harm threatened and endangered fish, all areas denuded of vegetation as a result of the action, including any borrow areas that drain into the stream, shall be reseeded within one month following completion of construction. USDA Natural Resources Conservation Service approved native grasses, or other native 'quick' rooting grasses, are preferred for the permanent seeding mix.

4.1.2 Air Quality

Air quality is not a key concern for this project. According to the 2020 Decennial population, Kingman has a population of approximately 3,100 residents and Kingman County has a relatively low population density of 8.6 persons per square mile.

With regard to Clean Air Act requirements, the low density of development and lack of major pollution sources provide no reason to expect any violation of National Ambient Air Quality Standards. There are no air quality monitoring sites in the area for this reason. The nearest community that has an air quality monitoring station is Wichita, located 44 miles to the east, and Wichita meets the Clean Air Act standards. The state's only area of significant air quality concern is the Kansas City area (even farther away), which has a 2007 Maintenance Plan for the EPA 8-hour ozone standard. (U.S. EPA, 2022)

The No Action Alternative would have no air quality impacts.

The Proposed Action would result in temporary emissions from construction equipment and possibly some fugitive dust emissions due to soil disturbance. The area to be disturbed is estimated at 5.25 acres, not necessarily all disturbed at the same time.

4.1.3 Climate Change

"Climate change" refers to changes in the Earth's climate caused by a general warming of the atmosphere. Its primary cause is emissions of greenhouse gases, including carbon dioxide and methane. Climate change is capable of affecting species distribution, temperature fluctuations, and weather patterns. The Council on Environmental Quality (CEQ) Final NEPA Guidance on Consideration of Greenhouse Gas Emissions and the Effects on Climate Change (CEQ 2016) suggested that quantitative analysis should be done if an action would release more than 25,000 metric tons of greenhouse gases per year. This project would produce a very small amount of greenhouse gases (far less than 25,000 metric tons) associated with construction of the proposed action, and trivial future emissions resulting from occasional maintenance activities.

A paper published by the Environmental Protection Agency (EPA) entitled "What Climate Change Means for Kansas" states that, "Kansas's climate is changing. In the past century, most of the state has warmed by at least half a degree (F). The soil is becoming drier. Rainstorms are becoming more intense, and floods are becoming more severe." Recent flooding and concern over future flooding are key factors in the purpose and need for Ninnescah River flood control efforts in Kingman (US EPA, 2016).

The No Action Alternative would have no effect on climate change.

The Proposed Action would result in temporary minor emissions from construction equipment, some of which could include greenhouse gas emissions, primarily carbon dioxide.

4.2 Water Resources

Discussed in this section are water quality, wetlands, and floodplains.

4.2.1 Water Quality

The South Fork of the Ninnescah River is not listed as being impaired by the Kansas Department of Health and Environment in the agency's 2020 Clean Water Act Section 303(d) List of Water Quality Impairments (KDHE, 2020)**.** The water in the river is clean enough to support aquatic life, to serve as a water supply for livestock and humans (when properly treated), and to serve many other useful functions.

Coordination with USACE and the Kansas Department of Agriculture Division of Water Resources (KDA/DWR) to review the existing culvert removal and slope protection measures is ongoing to determine as additional mitigation changes that may be required. From initial coordination conversations with USACE, the projects appear to align with Nationwide Permit requirements, but a final determination has not been reached at this time. Any future change to the mitigation SOW when being approved by Kansas DWR or USACE will require a re-review from FEMA's EHP staff.

The No Action Alternative would not affect water quality in the river, but future storm events could cause further erosion and sedimentation of vulnerable portions of the island.

The Proposed Action includes work along the riverbank and will result in an estimated 5.25 acres of soil disturbance. Without mitigation, the Proposed Action could result in erosion and sedimentation issues that would degrade water quality in the Ninnescah River and its Mill Race. However, a number of mitigation measures will be required to avoid and minimize adverse effects to threatened and endangered fish species as identified. For a complete list of these best management practices, please see Section 4.4.1 in this EA, which provides the discussion of threatened and endangered species.

4.2.2 Wetlands

The Ninnescah River is a tributary to the Arkansas River, and thus classified for regulatory purposes as Waters of the United States. It is also unquestionably under the jurisdiction of the U.S.

Army Corps of Engineers (USACE) with regard to wetland impact regulations. Without the need to request a formal Jurisdictional Determination from USACE, it can be assumed that most wetlands in the project area would be considered to be "jurisdictional wetlands".

The USFWS's National Wetlands Inventory (NWI) Mapper (USFWS 2020a) indicates that the Kingman City Parks project area overlaps with two narrow linear wetlands associated with the stream bank of the Ninnescah River. Based on aerial imagery, the linear wetlands are largely congruent with existing stream channel. In the NWI, wetlands along the Ninnescah River and Mill Race are characterized as being riverine, perennial, low-gradient, and having an unconsolidated bottom (code R2UB) As to water regime, the river is characterized as Intermittently Exposed (code letter G), while the Mill Race is deemed to be Semi-permanently Flooded (code letter F).

Field investigation was conducted in 2022 by the staff of Marshlands Environmental Consulting LLC (Marchlands) in the areas where mitigation efforts would be undertaken under the Proposed Action. The existence of emergent wetlands was verified at only two areas of proposed work, which were labelled as locations in Figure 11, shown earlier. Both wetland sites are located near the western edge of the island, one on the Ninnescah River side (work site 6), and one on the Mill Race side (work site 4). Figures 13 and 14 indicate the locations of these wetlands in terms of latitude and longitude. Findings of the Marshlands field investigation are provided in Appendix A, Wetland Documentation.

Figure 13: Limits of Ninnescah River Wetland in the Vicinity of Work Site 6

Figure 14: Limits of Ninnescah River Wetland in the Vicinity of Work Site46

The Ninnescah River wetland at work site 6 is located at the edge of the river approximately 75 feet from the bank at the sidewalk. It has a 10-inch layer of river sand over an underlayer of dark clay soil. This supports several species of obligate wetland plants and exists at or slightly above the ordinary high-water mark of the river.

The Mill Race wetland at work site 4 is small, comprising less than 100 square feet. Most of this wetland is below the ordinary high-water mark of the Mill Race but has dry periods long enough to support the growth of hydrophytic vegetation. The soil is silty clay loam capable of supporting a wetland hydrology.

Field testing in the vicinity of work sites involving the proposed water crossing determined that no wetlands are present in those areas. This field testing involved analysis for the presence of the three key USACE-identified wetland indicators: hydrophytic vegetation, hydric soils, and wetland hydrology.

Field sampling was performed at one additional site, on the eastern side of the island, where the Proposed Action calls for sediment removal from the Ninnescah River. This sampling site was along the Ninnescah River, north of the easternmost baseball diamond in Riverside Park. It was determined that none of the requisite USACE wetland indicators was present at this sampling site, and that therefore it was not a wetland.

Figure 15 shows the location of the two identified wetlands (shown in Figures 13 and 14) at the western end of the island in relation to the specific repairs that are part of the Proposed Action.

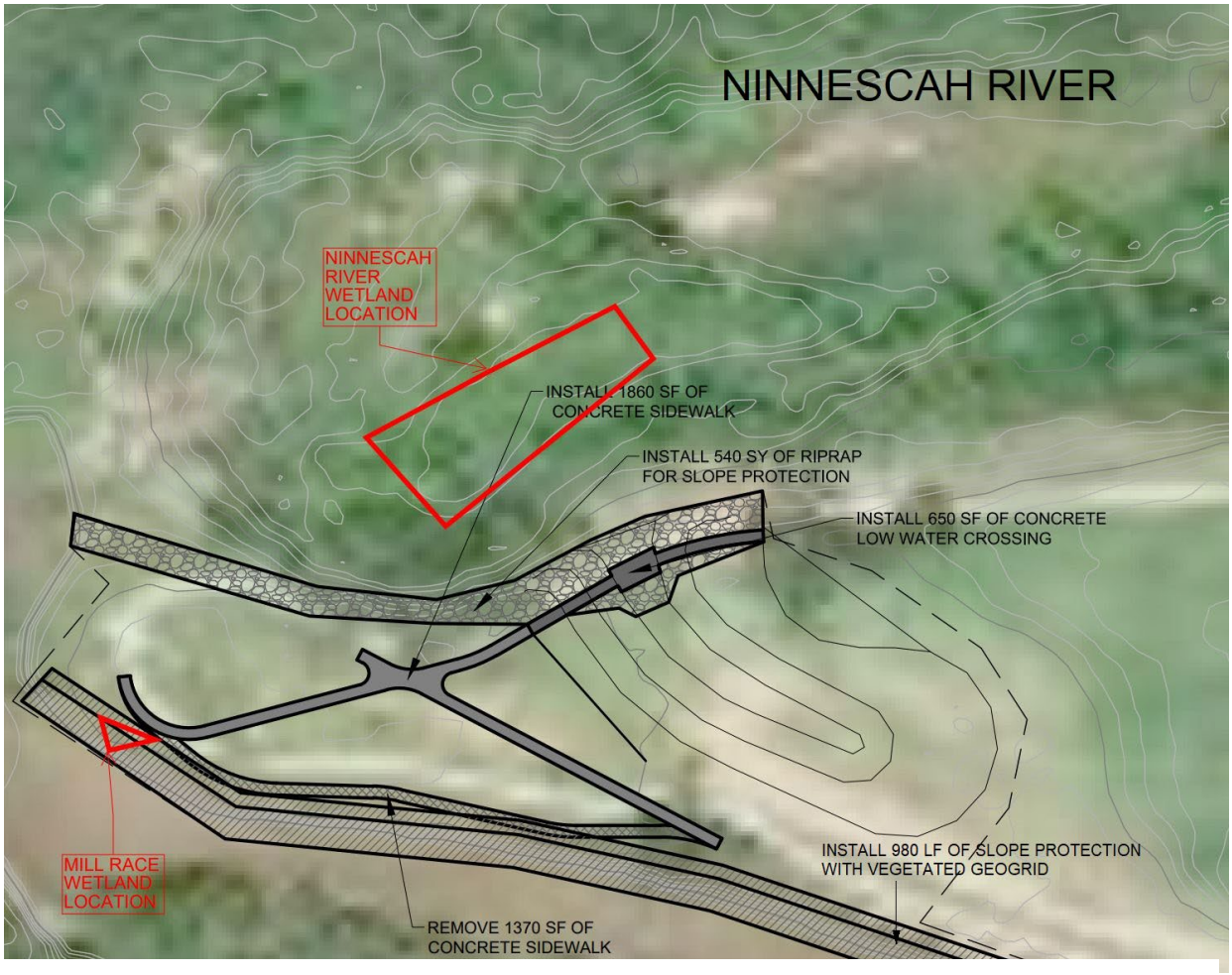

Figure 15: Location of the Ninnescah River and Mill Race Wetlands in Relation to Proposed Repairs

The Ninnescah River wetland is located in the vicinity of riprap installation but will not be disturbed by that construction activity. The small Mill Race wetland will be disturbed by the installation of slope protection with vegetated geogrid. The entire 100-square-foot wetland will be disturbed, but the use of vegetated geogrid will foster potential for wetland re-establishment, so the impacts may be temporary. This location on the island is highland vulnerable to future flood events which the existing, recently emerged wetland may or may not survive.

Executive Order 11990, Protection of Wetlands, requires federal agencies to take action to minimize the destruction or modification of wetlands, by considering both direct and indirect impacts to wetlands that may result from federally funded actions. Application of the Eight-Step Decision-Making process is required to ensure that federally funded projects are consistent with EO 11990 objectives. This is discussed further in EA Section 4.2.3, Floodplains.

Under the No Action Alternative, the damage of the previous flood would go unrepaired. The wetlands which have developed since the last flood would remain intact until the next flood.

Wetlands of this nature are subject to being destroyed by floods and reestablishing during the dry periods. The No Action Alternative does create an opportunity for future flood events to alter the river area landscape by destroying more of the existing structures and creating new river high-water flow patterns between the Ninnescah River and the Mill Race. The total effect on the future of wetlands under the No Action Alternative is unknown.

The Proposed Action is expected to have temporary wetland impacts of 0.03 acre or less. According to the wetland delineation and impact assessment, the Proposed Action would have short-term minor effects on wetlands. The impacts would occur when construction activities might move outside the construction limits. Any construction impacts to wetlands would be mitigated during the next high-water event. The wetlands would reestablish when the river water level recedes. Additionally, the Proposed Action would reduce the risk that a major flood event would alter the river channel enough to damage wetland vegetation within and surrounding the project areas; hence, there would be minor, long-term beneficial effects on wetlands.

The City of Kingman has initiated consultation with USACE about the Proposed Action's small, temporary wetland impact, and understands that USACE Nationwide Permit #3, Maintenance, is likely to be applicable. NWP3 applies to the repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification.

4.2.3 Floodplains

The current FEMA floodplain mapping for the project area is shown in Figure 16. Not surprisingly, according to FEMA mapping, the entire Ninnescah River island in Kingman is located within the existing 100-year floodplain. The Proposed Action is a flood hazard mitigation that will not change this situation. To meet the purpose and need of this project, work within the 100-year floodplain is completely unavoidable.

Executive Order 11988, Floodplain Management, requires federal agencies to avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The intent of Executive Order11988 is to require federal agencies to take actions to minimize occupancy of and modifications to floodplains. Specifically, EO 11988 prohibits federal agencies from funding construction in the 100-year floodplain (or 500-year floodplain for critical facility) unless there are no practicable alternatives. Based upon floodplain management regulations in (44 CFR Part 9.7), FEMA uses the Floodplain Eight-Step Decision-Making Process to review for compliance with Executive Order 11988.

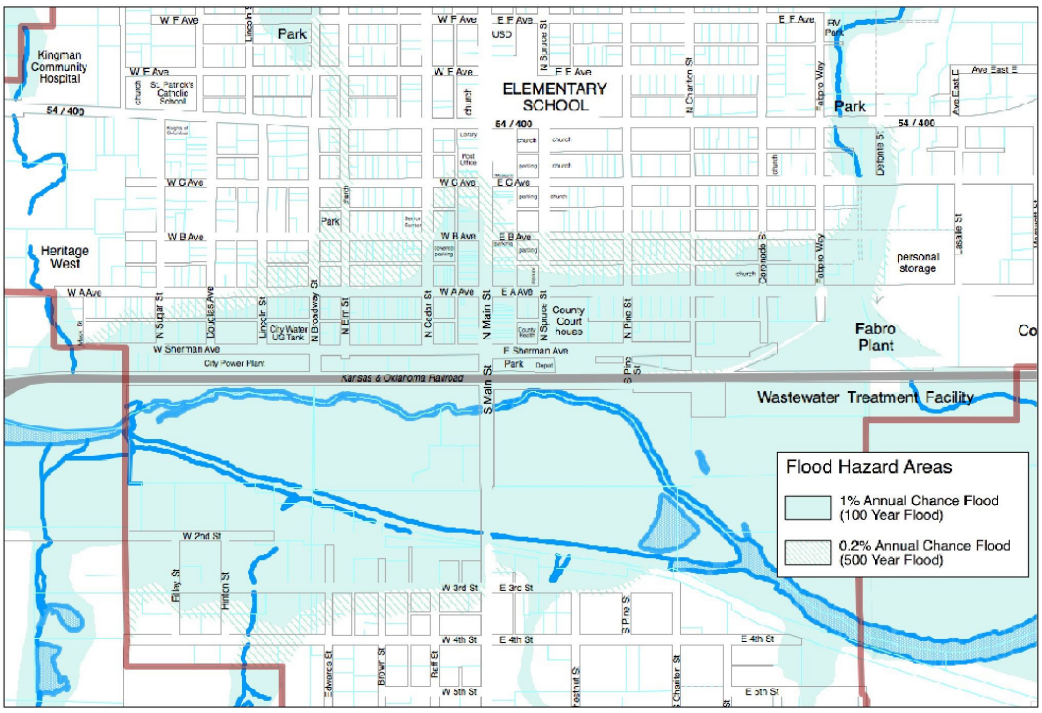

Figure 16: Floodplains in the Vicinity of Downtown Kingman

The components of the Floodplain Eight-Step Decision-Making Process are as follows:

1. Determine proposed action location
2. Early public notice
3. Analysis of practicable alternatives
4. Identify impacts
5. Minimize impacts
6. Reevaluate practicable alternatives
7. Final public notice
8. Implementation

FEMA completed the Eight-Step process determining that the mitigation actions proposed outweigh the desire to move the facility out of the floodplain. FEMA prepared a Final Public Notice pursuant to the requirements of EO11988. The Final Public Notice was posted on both the bulletin board in Kingman City Hall and on the City of Kingman's online website on June 7, 2022. The 15-day comment period ended on June 22, 2022, with no comment received from the public.

A Mitigation Hydrologic & Hydraulic Report was completed for this project in March 2022 by Wilson & Company, Inc., Engineers and Architects. The study presents the floodplain impacts that would result from undertaking the Proposed Action, in comparison to the impacts of the No Action Alternative. The study concludes that the Proposed Action would not cause any identifiable impact to the 100-year floodplain water surface elevations as all resulting changes

are predicted to be less than 0.05 foot, which is less than one inch. The hydrologic and hydraulic report is the analytical foundation for the Proposed Action, This important reference document is provided in Appendix B.

The No Action Alternative would not result in any change to the existing floodplain.

The removal of approximately 3,400 cubic yards of sediment and 20 trees between 6 and 24 inches from the south Ninnescah River overbank east of the Main Street bridge will improve floodplain conveyance and effectively lower the 100-year water surface elevation from the Main Street bridge to approximately 1,200 feet downstream of the bridge. Additionally, the replacement of the culverts with low water crossings will mitigate the additional fill associated with the new sidewalk embankment within the western portion of the park facility. All impacts to the 100-year floodplain would be less than 0.05 feet (less than one inch) and limited to the improvement locations within the park facility. There improvement do not increase floodplain depths on any adjacent properties or increase the 100-year floodplain extents.

The City of Kingman is working with the local floodplain manager and will receive approval of mitigation actions prior to commencing construction activities within the floodplain.

4.3 Coastal Resources - not applicable

Coastal resources are considered in a FEMA EA when applicable, but the nearest marine coast to the project area is approximately 600 miles to the south/southeast, near the Texas/Louisiana border on the Gulf of Mexico. Therefore, consideration of coastal resources is not applicable for this EA.

4.4 Biological Resources

Threatened and endangered species are discussed below, followed by a discussion of common wildlife and fish. In addition to temporary riverbank disturbance, the Proposed Action is expected to result in the removal of approximately 60 trees. Since tree removal has potential to affect both protected species and common wildlife, particularly bats and birds, this impact is being noted as a preface to the following sections.

West Side Tree Removal

- an estimated 26 trees, between 6 and 24 inches in diameter, associated with the tree grove to install the sidewalk loop
- 2 trees, approximately 9 inches in diameter, associated with the vegetated geogrid slope on the Mill Race

East Side Tree Removal

- 12 trees, between 18 and 24 inches in diameter, associated with the vegetated geogrid slope and access to the overbank grading area
- an estimated 20 trees, 6 to 24 inches in diameter, associated with the overbank grading

In consideration of the loss of tree habitat associated with the project, FEMA has recommended that the City of Kingman pursue additional tree planting within the park. The city confirmed that it incorporates tree management into park planning and maintenance and regularly replace trees that are removed.

4.4.1 Threatened and Endangered Species and Critical Habitat

While he Proposed Action is located in a small city that was founded in 1872, the adjacent Ninnescah River contains aquatic species, attracts birds, and to some degree serves as a movement corridor for terrestrial species. Wetlands and trees along the river enhance this riparian habitat. To assess potential impacts to sensitive species, FEMA evaluated potential within the Action Area, encompassing 87.1 acres in total, including the Kingman Fairgrounds, Riverside Park, and all areas with direct and indirect effects of the action to the parklands and the surrounding waterways. This was comprised of all areas that may be required for completion of the work including, but not limited to, access and staging. Additionally, to address the indirect effects of turbidity as a result of construction activities, the Action Area extends a minimum of 100 meters downstream of the proposed construction activities.

Federally Listed Species

The Endangered Species Act (ESA) of 1973 establishes a federal program to conserve, protect and restore threatened and endangered plants and animals and their habitats. ESA specifically charges federal agencies with the responsibility of using their authority to conserve threatened and endangered species. All federal agencies must ensure any action they authorize, fund or carry out is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction of critical habitat for these species.

In May 2022, pursuant to requirements of Section 7 of the Endangered Species Act (ESA), FEMA undertook informal consultation with the U.S. Fish and Wildlife Service (USFWS) regarding potential for the Proposed Action to affect federally-listed threatened and endangered (T&E) species and their habitat. USFWS online database Information for Planning and Consultation (IPaC) identifies no designated critical habitats are present for any federally-listed species in Kingman County (USFWS 2022b), but the following species may be present:

- The Northern Long-eared Bat (*Myotis septentrionalis*), a threatened mammal which is expected to become listed as endangered in December 2022
- The Whooping Crane (*Grus americana*), an endangered bird
- The Peppered Chub (*Macrhybopsis tetranema*), an endangered fish
- The Monarch Butterfly (*Danaus plexippus plexippus*), an insect that is a candidate for listing

The FEMA impact evaluation was performed using the ESA Matrix and Avoidance and Minimization Measures (AMMs) developed through informal consultation with USFWS initiated on April 5, 2021, and ongoing and transmitted to USFWS on February 16, 2022. FEMA also

considered and applied both the current and proposed listing status of the species, the project implementation schedule, and consideration of habitat loss in reaching its effect determinations and AMMs.

Full details of the assessment are contained in Appendix C. In brief, FEMA determined, and USFWS subsequently concurred, that the Proposed Action would have **No Effect** to the Whooping Crane, but **May Affect** the Northern Long-eared Bat (NLEB) and the Peppered Chub.

As noted above, FEMA has learned that USFWS intends to list the Northern-Long-eared Bat (NLEB) as an endangered species in December 2022, which will increase the degree of protection afforded to this mammal, also changing the level of ESA consultation that is required. FEMA analyzed the Proposed Action utilizing the ESA Matrix and Avoidance and Minimization Measures (AMMs) developed through informal consultation with USFWS initiated on April 5, 2021, and ongoing that were transmitted to USFWS on February 16, 2022. FEMA also considered and applied both the current and proposed listing status of the species, the project implementation schedule, and consideration of habitat loss in reaching its effect determinations and AMMs.

The NLEB is listed as threatened. The 4(d) rule that exempts the take prohibitions associated with this project does not exempt FEMA's responsibility as a Federal action agency to consult under Section 7(a)(2) of the Endangered Species Act. Based on the parameters of the January 5, 2016, USFWS Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions and a review of the associated IPaC Effect Determination Key, FEMA determined the project fits within the parameters required to be able to apply this programmatic consultation to fulfill its obligations under Section 7 of the ESA. FEMA acknowledges that use of these documents as an alternative to informal consultation ceases December 31, 2022, when it is anticipated the proposed listing change for the NLEB to endangered will become effective. To address the potential for project implementation occurring after December 31, 2022, when the listing changes for the NLEB to endangered would be effective, FEMA will include the following AMM for tree removal as a condition on the project as a precautionary measure to protect roosting NLEB:

- If tree removal occurs after December 31, 2022, tree removal will be limited to the winter hibernation season of the Northern Long-eared Bat (November 15 – March 1).

As noted earlier, it is estimated that the Proposed Action may result in the removal of 60 trees that are 6 inches or greater in diameter (at chest height). In consideration of the loss of tree habitat associated with the project, FEMA has recommended that the City of Kingman pursue additional tree planting within the park. The city confirmed that it incorporates tree management into its park planning and maintenance and regularly replace trees that are removed. With inclusion of the condition for tree cutting and recommendation for tree planting, FEMA determined that the action **May Affect, but is Not Likely to Adversely Affect**, the NLEB.

The Monarch butterfly is considered to be a candidate species for ESA listing, wherever found in the United States. On December 15, 2020, USFWS found that listing for the monarch butterfly is warranted but precluded by higher priority listing decisions. The Monarch caterpillar stage is ***solely dependent on milkweed as a food source***; therefore, loss of milkweed stems is a concern; conservation measures that increase milkweed stems and nectar producing pollinator resources are

encouraged for the conservation of the species. Although an effect determination has not been made for this species because it is not currently listed, there is the potential for pollinator habitat restoration that could support this species within the City of Kingman parks overall. FEMA has identified a potential opportunity for the establishment of pollinator habitat as part of this project, and, consistent with its ESA 7(a)(1) obligation, will encourage this proactive conservation measure beneficial for the monarch butterfly and pollinator species during the development of this project.

The Peppered Chub is a small cyprinid minnow that prefers shallow channels of wide rivers and larger streams where current flows over sand, cobble and gravel substrates. A Final Rule listing the Peppered Chub as a federally endangered species was published in the Federal Register earlier this year, on February 28, 2022. No designated critical habitat for this species was listed for Kansas in the Final Rule. Impact avoidance and minimization measures undertaken for this federally-listed species will be applicable and effective also for two state-listed species that also inhabit the South Fork Ninnescah River in the project area. FEMA will include the AMMs as conditions below on the project.

i. To protect Peppered Chub during its peak spawning period, no project activity shall be conducted within the stream channel proper between the dates of May 1 and August 31, inclusive. This restriction coincides with the spawning season for KDWP species of concern: Arkansas Darter, Silver Chub, Plains Minnow and Arkansas River Shiner.

ii. All temporary storage facilities for petroleum products, other fuels, and chemicals shall be located and protected to prevent accidental spills from entering the stream, its tributaries, or off channel wetland complexes/oxbows within the project area. In the event of an accidental spill, the Applicant shall follow established reporting procedures and contact the FEMA personnel immediately.

iii. All riprap and other project material that will be placed in or adjacent to the stream shall be clean, and free of fine particles and chemicals.

iv. There shall be no deposition of cement sweepings, washings, treatment chemicals, or other material into the stream proper or into any location where such pollutants can be washed into the stream by runoff water.

v. Close attention is warranted for the placement and maintenance of temporary erosion and sediment control measures to minimize unnecessary sediment loading into the stream. Appropriate temporary erosion control measures and/or temporary grass seeding should be in place within one week of land disturbance at the project site. Other applicable erosion control measures should be implemented at these sites, as sediment loading could result in considerable harm to both the Peppered Chub and its habitat.

vi. All areas denuded of vegetation as a result of the proposed action, including any borrow areas that drain into the stream, shall be reseeded within one month following completion of construction. USDA Natural Resources Conservation Service approved native grasses, or other native ‘quick’ rooting grasses, are preferred for the permanent seeding mix.

vii. Special attention should be taken to protect any off-channel wetland complexes, such as old oxbow meanders that are present near the project area. Additional siltation prevention measures should be implemented, if necessary, to ensure the protection of these habitats.

viii. The Applicant is responsible for informing all contractors of the conditions listed herein and assuring compliance therewith throughout the construction period.

USFWS responded to FEMA with its concurrence on the above findings and approach in correspondence dated June 21, 2022. See Appendix D.

State Listed Species

Individual states develop their own lists of threatened and endangered species, which typically include federally-listed species as well as other species that are not on the federal ESA list. The Kansas Department of Wildlife and Parks (KDWP) was contacted for consultation on state-listed species. Their input was received in the form of a letter dated May 5, 2022, that is provided in Appendix E of this EA. KDWP indicated that construction will occur within State Designated Critical Habitat for:

- Arkansas River shiner (*Notropis Girardi*), state endangered/federally threatened
- Peppered chub (*Macrhybopsis tetranema*), state and federally endangered
- Plains minnow (*Hybognathus placitus*), state threatened
- Silver chub (*Macrhybopsis storeriana*), state endangered

KDPW indicates that there is no critical habitat within Kingman County for the Arkansas darter, which is classified as a Kansas Species in Need of Conservation (SINC). Critical habitat for this species is found downstream where the Ninnescah River enters Sedgwick County.

Due to effects on critical habitat for the four species listed above, the Proposed Action will require an Action Permit from KDWP. Permit conditions will primarily consist of work date restrictions to avoid these species' spawning dates. Project activity should not begin until application for the Action Permit has been received and signed by both parties. General recommendations applicable for a Proposed Action of this type include:

- Implement soft-armoring techniques for streambank stabilization such as rootwad revetments and/or willow stakes.
- Stabilization projects should be keyed into existing stable points in the streambank at the up- and downstream extents to reduce the risk of flanking and failure.
- Erosion control blankets can pose impacts for reptiles and amphibians by ensnaring and entrapping individuals moving over/through the mesh. KDWP recommends using compost, mulch, or biodegradable/natural fiber blankets (coconut/coir fiber is common) as potential alternatives to plastic erosion control blankets. Such alternatives can also promote

the growth of vegetation further improving bank stability. Though less preferable than the aforementioned options, looseweave mesh is also acceptable, specifically types with weaves that are not welded at the intersections that would allow the opening to expand if an animal attempts to pass through.

- The construction and removal of soil coffer dams is likely to increase sedimentation in the stream, which could impact several aquatic species. Soil coffer dams also have the potential to be eroded or destroyed during high flow events. If coffer dams are used, KDWP recommends using portable or inflatable coffer dams. KDWP recommends seining areas between coffer dams to remove fish prior to pumping water out of the area. Fish should be released in flowing water downstream of the construction site.

- Prevent the introduction of aquatic or terrestrial non-native, invasive species during construction. Clean, drain, and dry all equipment of water, mud, plant material, and other debris prior to beginning construction. Equipment should be cleaned with pressurized, hot water (120°F) or dried for five days. Non-native, invasive species in the riparian area should be controlled during construction until native vegetation is established.

- Avoid or minimize all bank or instream activity, particularly during general fish spawning season (March 1 to August 31).

- Implement and maintain standard erosion-control Best Management Practices during all aspects of construction by installing sediment barriers (wattles, filter logs, rock ditch checks, mulching, or any combination of these) across the entire construction area to prevent sediment and spoil from entering aquatic systems. Barriers should be maintained at high functioning capacity until construction is completed and vegetation is established.

- Reseed disturbed areas with native warm-season grasses, forbs, and trees.

The No Action Alternative would have no effect on any of the federally listed species, nor on the Kansas-listed fish species of concern.

The Proposed Action would have potential effects on the NLEB by removing approximately 60 trees from the island and on both federal and state-listed fish species due to potential for disruption of spawning activity and construction site erosion that could deposit sediments or contaminants into the Ninnescah River or Mill Race. The City of Kingman will implement all FEMA-required AMMs specified above and will additionally implement all practicable KDWP-recommended mitigation measures, obtaining a KDWP Action Permit prior to undertaking any work.

The FEMA AMM prohibits project activity within the stream channel proper between the dates of May 1 and August 31, inclusive, while the KDWP calls for avoiding or minimizing all bank or instream activity two months earlier, beginning March 1. Therefore, it is critical that the City of Kingman schedule the work to occur during the autumn and winter months. This is the most important environmental constraint facing the Proposed Action.

4.4.2 Wildlife and Fish

The project area is on the south branch of the Ninnescah River. This branch will join the north branch of the Ninnescah River before its confluence with the Arkansas River. The project site is on an island which provides riparian and aquatic habitat for common wildlife and fish in addition to sensitive species (e.g., threatened or endangered species) is discussed above. The project area is in the Central Great Plains ecoregion.

Mammal species generally associated with woodland and grassland habitats in this ecoregion include Virginia opossum (*Didelphis virginiana*), red fox (*Vulpes vulpes*), coyote (*Canis latrans*), fox squirrel (*Sciurus niger*), raccoon (Procyon lotor), striped skunk (*Mephitis mephitis*), bobcat (*Lynx rufus*), and white-tailed deer (*Odocoileus virginianus*) (Potts and Gress 2013).

Reptile species such as ornate box turtle (*Terrapene ornata*), prairie lizard (*Sceloporus consobrinus*), and ground skink (*Scincella lateralis*) may occur in the more wooded portions of the project area where suitable habitat is available (Taggart and Riedle 2017).

The river's shallow waters are home to many species of minnow, including the red shiner (*Cyprinella lutruenis*), creek chub (*Semotilus astromoculata*), bluntnose minnow (*Pimephales notatus).* Some deeper pools will also host populations of longear sunfish (*Lepomis megalotis*) and channel catfish (*Ictalurus punctatus*).

Avian species associated with woodland habitats that could occur in the project area include Mississippi kite (*Ictinia mississippiensis*), red-headed woodpecker (Melanerpes erythrocephalus), downy woodpecker (*Picoides pubescens*), and dark-eyed junco (*Junco hyemalis*) (Cornell Lab of Ornithology 2020). Due to the shallow waters and sandbars of the river several species of shorebirds are seasonal visitors, including American Avocet (*Recurvirostra americana*), Greater and Lesser Yellowlegs (*Tringa melanoleca*, *Tringa flavipes*) and Upland Sandpiper (*Bartramia longicauda*). The nesting season for migratory birds is generally between April 1 and July 15, depending on the species and the location (USFWS 2011).

An online website called E-Bird that records observations by birdwatchers lists 47 species observed at Riverside Park over the past several years. The most frequent observations (five or more) were as follows: Redhead (40), European Starling (10), Turkey Vulture (7), Yellow Warbler (6), and Baltimore Oriole (5). This is anecdotal data not necessarily from qualified biologists, but many birdwatchers do have considerable expertise in their hobby (E-Bird, 2022).

Common species do not have protection under the Endangered Species Act but effects to them are considered in the environmental process. However, many bird species have protection under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service. The list of migratory bird species protected by the MBTA is primarily based on bird families and species included in the four international treaties. In the Code of Federal Regulations one can locate this list under 50 C.F.R. §10.13. This list was updated in 2020, incorporating the most current scientific information, and now includes almost 1,100 species.

The Bald and Golden Eagle Protection Act of 1940 prohibits the take, possession, sale, or other harmful action of any bald or golden eagle, alive or dead, including any part, nest, or egg (16 U.S.C. § 668(a)). Although the bald eagle (Haliaeetus leucocephalus) is known to occur along secluded coves of major reservoirs in the eastern half of Kansas, the species is a rare visitor within the project area. The golden eagle (*Aquila chrysaetos*) is known to occupy open grasslands in western and central Kansas and to nest sporadically eastward but would be similarly unlikely to occur in the project areas because of the proximity to human activity (KDWP 2020a).

The No Action Alternative would result in flooding and high-water events being more likely to occur. Under the No Action Alternative, this would result in the destruction of both terrestrial and aquatic habitat. Additionally, under the No Action Alternative, there is a higher potential for serious alterations in stream flow patterns that could lead to increased erosion and sedimentation, which would further degrade fish and wildlife habitat in the watershed. Therefore, the No Action Alternative would result in minor to moderate adverse effects on wildlife and their habitats.

Under the Proposed Action, any construction impacts would be minimal at most. Project activities would take place on the shoreline and riparian habitats along the Ninnescah River. Mechanized equipment would be used to shape and distribute shore protection on the shoreline of the stream channel; however, this would be limited to times of low flows of the river. Any in-water work would be kept to an absolute minimum, utilizing a coffer dam approach to allow dewatering to facilitate the work. No herbicides would be used, and minimal levels of soil disturbance would be expected. Implementation of the project would generate noise and activity that could affect wildlife using habitats within the project areas; however, these effects would be temporary and localized.

It is anticipated that approximately 60 trees would be removed, and 5.25 acres of ground would be disturbed with the Proposed Action. For MBTA compliance, disturbance of bird active nests must be avoided, so tree removal should be accomplished during non-nesting times of the year. Mitigation for potential impacts to the Northern Long Eared Bat, currently listed as threatened but expected to be listed as endangered in December 2022, provides similar protection, because if tree removal occurs after December 31, 2022, it will be limited to the bat's winter hibernation season of November 15 to March 1.

Reseeding with native vegetation will be required to prevent erosion that could degrade aquatic habitat for threatened and endangered species of fish. This measure and other avoidance and minimization measures described previously would be implemented where possible and applicable. Therefore, the project is expected to have short-term and minor impacts on terrestrial wildlife species and negligible impacts on aquatic species.

4.5 Cultural Resources

In addition to review under NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA) as implemented by 36 CFR 800. Requirements include the need to identify significant historic properties that may be impacted by the proposed action or alternatives within the project's area of potential effect. Historic properties are defined as archaeological sites, standing structures or other historic resources listed in or determined eligible for listing in the National Register of Historic Places (NRHP). If adverse

effects on historic, archaeological or cultural properties are identified, then agencies must attempt to avoid, minimize or mitigate the impacts to these resources.

Pursuant to 36 CFR 800.16(d), the Area of Potential Effect (APE) is defined as "the geographic area or areas within which the Proposed Action may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist". Based on the proposed scope of work, FEMA has determined that the APE is the park land south of the South Fork Ninnescah River and north of the Mill Race comprising the entire area between the two waterways. The direct APE for the entire undertaking is 87.1 acres; ground disturbance comprises approximately 5.25 acres primarily along the edge of the watercourses. The indirect APE is limited to visual and auditory effects during construction activities.

Cultural resources include prehistoric or historic archeology sites, historic standing structures, historic districts, objects, artifacts, cultural properties of historic or traditional significance (referred to as Traditional Cultural Properties) that may have religious or cultural significance to federally recognized Native American Tribes, or other physical evidence of human activity considered to be important to culture, subculture, or community for scientific, traditional, religious, or other reasons.

4.5.1 Historic Properties

Kansas became a state in 1861 and Kingman was founded in the 1870s. The city and the area have a long history of agricultural activity, originally based on accessibility via railroad. In addition to the Kingman County Courthouse, built in 1908, two other local historic properties are affiliated with railroad operations. The only historic structure located on the Ninnescah River island itself is a National Guard Armory built in 1937. This building is listed on the NRHP and has been repurposed in recent years with the addition of pickleball courts,

A review of the NRHP and the Kansas Historic Resources Inventory (KHRI) databases, as well as historic bridge inventories indicates that four (4) previously identified historic properties listed in, or eligible for listing in, the NRHP are located within a one-quarter mile radius of the Proposed Action. These are listed below.

- Kingman National Guard Armory: 1937 (listed)
- Kingman Santa Fe Depot: 1910 (listed)
- Kingman County Courthouse: 1908 (listed)
- Kingman Missouri Pacific Depot: Unknown—early 20th century, prior to 1911 (eligible)

In addition to the buildings listed in and previously determined eligible for listing in the NHRP, a variety of park features including street furniture, recreational and commercial facilities, and buildings and utilitarian sheds are located within the APE. A FEMA Architectural Historian who meets the Secretary if the Interior's Professional Qualifications Standards (SOI Qualified) has evaluated the buildings and structures within the APE for eligibility for listing in the NRHP, including Riverside Park, Kingman Fairgrounds, Kingman Mill Race, City Mechanic Shop,

Storage Shed, and the Kansas Route 14/Main Street Bridges, which bisect the island and connect the City to the north and south.

Of the four properties identified as being listed in, or eligible for listing in, the NRHP, the only property within the APE is the Kingman National Guard Armory at 111 South Main Street, immediately south of the river.

On May 23, 2022, FEMA Region 7 staff initiated Section 106 consultation with the Kansas State Historic Preservation Office (SHPO). See Appendices F and G of this EA. FEMA determined the proposed scope of work would not affect the NRHP integrity of setting of the Kingman National Guard Armory. Therefore, FEMA finds the Undertaking will result in No Adverse Effect to Historic Properties. On July 12, 2022, Kansas SHPO issued its concurrence with FEMA's finding that the Proposed Action will not adversely affect any property listed or determined eligible for listing in the NRHP. This letter is provided in Appendix H of this EA.

These Section 106 findings are predicated on assurances that project impacts will be limited to the island itself. If any fill materials are brought to the island, they must be obtained from an existing commercial/licensed fill source and not necessitate new land disturbance offsite. Similarly, if any soils or other materials are removed from the island, they must be taken to an existing licensed disposal site or stockpiled at a preexisting facility for future reuse. The City of Kingman is required to include these stipulations when hiring a construction contractor to undertake the work.

4.5.2 Native American Cultural/Religious Sites

The City of Kingman, including the Ninnescah River island, is not located on modern tribal lands, but the area was inhabited and/or used by Native Americans centuries ago, prior to their displacement by U.S. westward expansion from the original coastal colonies. Kansas became a state in 1861 and Kingman was founded in the 1870s. Ninnescah is an Osage (Dakota) name meaning "good spring-water," referring to the great number of springs coming out of the Tertiary gravels of its upper course.

For this EA, FEMA considered the potential to encounter resources of significance to Native American tribes as a result of this undertaking (i.e., the Proposed Action). A FEMA Historic SOI Qualified Archaeologist conducted a records search of the project area. Based on review of the NRHP, National Historic Landmarks, and the Kansas Historic Resources Inventory (KHRI) databases, it was determined that no previously identified archaeological sites have been identified, nor have any archaeological surveys been conducted within the Area of Potential Effect APE or a one-quarter mile radius. Also, the project location within the 100-year floodplain has been subject to repetitive flooding and scouring, making it unlikely to encounter *in situ* cultural resources. Accordingly, FEMA does not recommend archaeological survey of the APE in advance of the undertaking, or archaeological monitoring during construction.

As stipulated in the National Historic Preservation Act and the revised regulations of the Advisory Council on Historic Preservation, federal agencies must afford the Native American community a reasonable opportunity to comment on and participate in federal undertakings in the context of the Section 106 process. Federally recognized Tribes are, by law, considered sovereign nations and as

such FEMA is obligated to initiate government-to-government cultural resource consultations on projects when federal funding or a federal action is involved.

FEMA Region 7 routinely conducts the Native American consultation process for its projects and has done so for the Kingman Ninnescah River flood mitigation project. The process involves transmitting a description of the proposed action to the Tribal Historic Preservation Officer (THPO) of federally recognized tribes that may have knowledge of cultural resources in the project area or who may have other concerns about the undertaking, and requesting their input.

Due to the proposed ground disturbance associated with repair and mitigation planned for this site, FEMA provided documentation to the Cheyenne and Arapaho Tribes, Osage Nation, and Wichita and Affiliated Tribes, as identified through a search of The Tribal Directory Assessment Tool (TDAT). The result of this process was that none of these tribes communicated concerns about this undertaking. One of these letters is provided, as an example, in Appendix I of this EA.

The No Action Alternative would have no effect on any known Native American cultural or religious site.

The Proposed Action would also not affect any known Native American cultural or religious site. However, in the event that archaeological deposits (soils, features, artifacts, or other remnants of human activity) are uncovered during the work, FEMA will require that the project shall be halted. The Applicant (i.e., City of Kingman) is required to immediately stop all work in the vicinity of a discovery and take all reasonable measures to avoid or minimize harm to the finds. The Applicant shall inform KDEM, the Recipient, immediately, will secure all archaeological finds, and will restrict access to the area. KDEM shall notify FEMA, which will consult with SHPO and other potential consulting parties including Native American Tribes. Work in sensitive areas may not resume until a qualified archaeologist determines the extent and historical significance of a discovery, and FEMA concludes consultation. Work may not resume at or around a delineated archaeological deposit until the Applicant is notified by KDEM.

4.6 Socioeconomic Resources

The City of Kingman was reported to have 3,105 residents according to the 2020 U.S. Decennial Census. The city is the county seat for Kingman County, with 7,470 residents. Thus, the city accounts for approximately 42 percent of the county's population. The county comprises 867 square miles and thus has an average population density of 8.6 persons per square mile.

As a point of reference, Kingman is located approximately 44 miles west of the state's largest city, Wichita, which in 2020 had a municipal population of almost 400,000 residents and a metro area population of roughly 650,000.

4.6.1 Environmental Justice

On February 11, 1994, President Clinton signed EO 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations". The EO directs federal agencies to focus attention on human health and environmental conditions in minority and/or low-income communities. Its goals are to achieve environmental justice, fostering non-

discrimination in federal programs that substantially affect human health or the environment and to give minority or low-income communities greater opportunities for public participation in and access to public information on matters relating to human health and the environment. Federal agencies also should identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations in the United States.

FEMA uses resources such as the EPA EJ Screen website to identify potential communities of concern. Where there is a potential for disproportionately high or adverse impacts, FEMA consults with USEPA and incorporates recommendations for mitigating those impacts.

Table 3 shows Census data and estimates for persons of color, low income, and linguistic isolation at various geographic levels relevant to this project. Main Street (Kansas State Highway 14) traverses the Kingman Parks recreation island in a north-south manner and is the dividing line between two Census tract block groups.

No persons reside on the island, so these data pertain to land north of the Ninnescah River and south of the Mill Race. These two block groups had a total population of roughly 1,100 persons, thus comprising one-third of the city's population. The City of Kingman, and its west side in particular, have a greater percentage of persons of color than Kingman County as a whole, but the county has less of a minority composition than the state as a whole. The population percentages for low-income population and linguistic isolation show less variability by geographic area.

Table 3: Population Characteristics of the Project Area and its Geographical Context

Location	2020 Population	Persons of Color	Low Income	Linguistically Isolated
Census Block Group 20-095-96120-03 West of Main Street, South of US 400	472	27%	25%	0%
Census Block Group 20-095-96120-04 East of Main Street, South of US 400	732	4%	34%	0%
City of Kingman, KS	3,105[a]	10%	24%	0%
Kingman County, KS	7,470[a]	7%	22%	0%
Kansas	2,940,865[a]	24%	30%	3%

Sources: a 2020 U.S. Decennial Census; all others are EPA EJ Screen using 2015-2019 American Community Survey data

The No Action Alternative would add no new effects on low-income and minority populations but would leave the Kingman Parks recreation island comparatively more vulnerable to future flood damage than the Proposed Action would. Free public parks offer an important recreational opportunity to low-income families, so the No Action Alternative could have a small adverse effect to this population, in comparison with higher income families that can afford to find recreational opportunities elsewhere. However, most of the recreation amenities on the island would remain open and usable under the No Action Alternative, so it is concluded that this alternative would not have disproportionately high and adverse impacts on low-income or minority populations.

The Proposed Action would help to protect the island's recreation amenities from future flood damage, for the benefit of all park users, low-income and otherwise. The Proposed Action's construction impacts (i.e., noise, dust and traffic on the island) would be temporary and would not be immediately adjacent to any neighborhood, due to physical separation by the river and the Mill Race. It is concluded that the Proposed Action would not have disproportionately high and adverse impacts on low-income or minority populations.

4.6.2 Hazardous Material

Hazardous materials are any items or agents (biological, chemical, radiological, or physical) that have the potential to cause harm to humans, animals, or the environment either by itself or through interaction with other factors. It is important to know whether or not hazardous materials could be present at the site of the Proposed Action.

For this EA, a firm called ppB enviro-solutions (PPB) performed a Phase I Environmental Site Assessment (ESA) of the Facility. PPB performed the ESA in conformance with the American Society for Testing and Materials (ASTM) International Standard Practice for Environmental Site Assessments: Please see Appendix J, Phase I Environmental Site Assessment Process (Designation E1527-13). The purpose of an ESA is to identify any potential sites that are classified as a Recognized Environmental Condition (REC). A REC is defined as:

1. The presence of hazardous substances or petroleum products in, on, or at the subject property due to release to the environment;

2. the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or

3. the presence of a hazardous substance or petroleum product in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

Standard Federal, State, and Tribal Environmental Records sources were reviewed for presence of hazardous materials within 0.5 mile of the Facility. Based on these results, one Brownfields site, and 12 leaking storage tanks were identified within this search radius. The ESA determined that none of these locations were a REC subject to the Facility. The database search found no records of any landfill on the island.

The City of Kingman's *2018-2038 Parks Master Plan* (page 13 of 62) indicated that the western side of the Facility has a former landfill (City of Kingman 2019b). However, additional information obtained by PPB included an interview with Tom Archer, City of Kingman staff, who stated that the reference to a landfill in the parks plan was incorrect. The property was instead used by the City of Kingman to temporarily store downed trees and tree branches following storm events. No wastes were actually stored or disposed of at the location.

Supplementing the database search that had already been completed, PPB contacted KDHE staff who confirmed that there were no records of a landfill at this location. This is consistent with Mr. Archer's interview. Therefore, based on available information, the ESA concluded that this issue is not a REC to the subject Facility.

A part of the Fairground site currently is used as the Beery Memorial Shooting Range. When the range is in use, the western path is closed to use to protect the public. Stray bullets from the firing range may have impacted the Facility, resulting in localized areas with elevated lead concentrations in soils.

Hazardous materials are regulated by state and federal law including the following:

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly referred to as the Superfund Program. Superfund sites are contaminated because of hazardous waste being dumped, left out in the open, or otherwise improperly managed. These sites include manufacturing facilities, processing plants, landfills, and mining sites.

- Brownfields Utilization, Investment, and Local Development (BUILD) Act (EPA Brownfields Program). The EPA Brownfields Program provides grants and technical assistance to communities, states, tribes, and others to assess, safely clean up, and sustainably reuse contaminated properties.

- Toxics Release Inventory (TRI) Program established by the Emergency Planning and Community Right-to-Know Act. The TRI maintains data on industrial facilities that use, manage, and store potentially toxic chemicals into the environment, including Pb, polycyclic aromatic, and zinc compounds.

- The Resource Conservation and Recovery Act (RCRA) regulates hazardous and nonhazardous wastes and provides a system for managing hazardous waste from the time it is generated until its disposal. Sites designated "RCRA Corrective Action" are involved with the cleanup of current environmental problems caused by the mismanagement of waste.

The No Action Alternative would have no hazardous materials impacts.

The Proposed Action as currently designed would not impact hazardous materials. However, the ESA determined that the firing range can be considered a REC that could potentially be subject to the Facility if the scope of work as currently defined in the Proposed Action were to change. Further consideration of potential lead impacts is warranted if significant land disturbance will be performed in areas near the firing range.

4.6.3 Noise

Currently, noise in the project area is generated by the sound of flowing water in the river, active use of park and fairground amenities including gunfire from the Beery Memorial Firing Range, traffic on two-lane State Highway 14 (with a posted speed limit of 30 miles per hour), and freight trains on the Kansas and Oklahoma Railroad located just north of the Ninnescah River.

The Noise Control Act was enacted in 1972 (P.L. 92-574). Inadequately controlled noise presents a growing danger to the health and welfare of the nation's population and that the major sources of noise include transportation vehicles and equipment, machinery, appliances, other products in commerce, climate or recreation. Sounds that disrupt normal activities or otherwise diminish the

quality of the environment are designated as noise. Noise can be stationary or transient, intermittent, or continuous.

The No Action Alternative would not alter typical noise conditions in the project area. Future flooding events will occasionally disrupt park and fairground use on a temporary basis and may result in the need for maintenance or repairs that could involve the use of noise-generating construction equipment.

The Proposed Action would involve the temporary use of construction equipment on park and fairground property as needed to implement flood mitigation. This work would likely be commenced and completed during 2023. After that, the Proposed Action would have no continuing noise effects.

4.6.4 Traffic

Roadway traffic is not a concern for this project, as no disruption to Highway 14 (Main Street) would occur. Main Street is the only roadway access route to the island. Construction vehicle traffic will be relatively minimal and existing traffic volumes are low. The Kansas Department of Transportation 2021 Traffic Flow Map indicates that Highway 14 carries 1,300 vehicles per day, including 290 heavy commercial vehicles. (Kansas Department of Transportation, 2022)

4.6.5 Public Service and Utilities

The City of Kingman Parks Repair and Flood Hazard Mitigation project area is located south of downtown Kingman, separated by the river itself and freight railroad tracks. The key emergency services providers in the city are located north of the project area.

- The office of the Kingman County Sheriff is located north and east of the project area, at 120 Spruce Street.
- The Kingman Fire Department is located at 324 North Main Street.
- The Kingman Healthcare Center, a 25-bed Critical Access Hospital with a Level IV Trauma Emergency Department, is located at 750 West D Avenue, along U.S. Highway 400.

The No Action Alternative would have no effect on public services or utilities.

The Proposed Action would have no effect on the delivery of public services or utilities.

4.6.6 Public Health and Safety

As noted earlier in the discussion of hazardous materials, the existence of the Beery Memorial Firing Range on the western half of the island raises the possibility that lead bullets may be found in the soil near that location.

Public health and safety issues include exposure to natural hazards; one-time and long-term exposure to asbestos, lead, radiation, chemicals, and other hazardous materials; and injuries or

deaths resulting from a one-time accident. These concerns could impact personnel working on the project and in the surrounding area, as well as travelers near the project sites.

Structures constructed prior to 1978 have the potential to contain lead-based paint or asbestos. Lead exposure can result from paint chips or dust, or inhalation of lead vapors from torch-cutting operations. Lead exposure can adversely affect the human nervous system. Exposure to lead based paint is especially dangerous to small children. Occupational Health and Safety Administration (OSHA) considers all painted surfaces in which lead is detectable to have a potential for occupational health exposure.

The No Action Alternative would not result in disturbance of any materials containing lead or asbestos.

With the Proposed Action, construction workers have the potential to encounter lead bullets in the soil due to proximity of the Beery Memorial Firing Range on the western half of the island. The construction contractor shall be made aware of this, so that routine precautions for lead handling and disposal can be implemented for any bullets encountered during construction.

4.7 Summary of Direct Effects

A summary of the anticipated environmental impacts of the No Action Alternative and Proposed Action, along with needed permits and mitigation commitments, is provided in Table 4, which begins on the following page.

Table 4: Summary of Direct Impacts and Mitigation

Affected Environment / Resource Area	Impacts	Agency Coordination/ Permits	Mitigation/ BMPs
4.1.1 Geology, soils and seismicity	No Action: none. Proposed Action: 5.25 acres of soil disturbance	None required	To avoid deposition of sediments into the Ninnescah River and Mill Race which are inhabited by protected species of fish, all areas denuded of vegetation as a result of the action, including any borrow areas that drain into the stream, shall be reseeded within one month following completion of construction. USDA Natural Resources Conservation Service approved native grasses, or other native 'quick' rooting grasses, are preferred for the permanent seeding mix.
4.1.2 Air quality	No Action: none. Proposed Action: Negligible temporary diesel and dust emissions during construction	None required	None required
4.1.3 Climate change	No Action: none. Proposed Action: Negligible, temporary CO_2 emissions during construction	None required	None required

Affected Environment / Resource Area	Impacts	Agency Coordination/ Permits	Mitigation/ BMPs
4..2.1 Water quality	No Action: none. Proposed Action: Disturbance of 5.25 acres of ground on the island has the potential to result in sediments which could flow into the Ninnescah River or Mill Race.	To comply with the Clean Water Act, a Section 404 permit will be required from the USACE. Coordination is ongoing with KDA/DWR for Section 401 Water Quality certification, and addition of riprap and embankment work along the Ninnescah River and Mill Race and the removal of culverts and installation of low-water crossings.	To avoid deposition of sediments or construction-related contaminants into the Ninnescah River and Mill Race, which are inhabited by protected species of fish, Best Management Practices to protect water quality in the project area will be adhered to (Page 27).
4.2.2 Wetlands	No Action: none. Proposed Action: Construction may have temporary adverse effects on 0.03 acre of wetland.		Protect any off-channel wetland complexes, such as old oxbow meanders that are present near the project area. Additional siltation prevention measures will be implemented, if necessary, to ensure the protection of these habitats.
4.2.3 Floodplains	No Action: none. Proposed Action: All work will occur within a 100-year floodplain, but will not modify that floodplain or base flood elevations	In only areas directly affected by project construction, the floodplain could change by one to 2.4 inches. Coordination with Local Floodplain Administrator is ongoing to comply with all local floodplain requirements.	Overbank grading and removal of sidewalk embankment at low water crossing location along the Ninnescah River south bank will mitigate any potential floodplain impacts from additional fill associated with the proposed improvements.

Affected Environment / Resource Area	Impacts	Agency Coordination/ Permits	Mitigation/ BMPs
4.4.1 Threatened and Endangered species and critical habitat	No Action: none. Proposed Action: Approximately 60 trees would be removed on the island, and there would be 5.25 acres of ground disturbance, including disturbance to riverbanks.	Coordination with USFWS and KDWP has occurred, with written responses received from both entities. An Action Permit from KDWP is required before any work can begin.	To minimize impacts to the Northern Long-Eared Bat, any tree removal after December 31, 2022 shall occur between November 15-March 1. Additionally, the City of Kingman will adhere to all Avoidance and Minimization measures required by FEMA, as detailed in this EA to protect the Peppered Chub. To protect state-listed species, the City will also implement all practicable mitigation measures recommended by KDWP, as detailed in this EA. The City of Kingman will require its construction contractor to obtain any needed fill material from an existing source, so as not to cause offsite impacts to T&E Species and or Critical Habitat, and to haul away any waste materials to an existing disposal site.

Affected Environment / Resource Area	Impacts	Agency Coordination/ Permits	Mitigation/ BMPs
4.4.2 Wildlife and fish	No Action: Continued degradation of terrestrial and aquatic habitat at the project site is foreseeable with future flood events if no action is taken. Proposed Action: Approximately 60 trees would be removed on the island, and there would be 5.25 acres of ground disturbance, including disturbance to riverbanks.	None required for common fish and wildlife species.	Mitigation measures being undertaken for protection of threatened and endangered species (NLEB and several fish species) will also be beneficial for common wildlife and fish. For MBTA compliance, it is necessary to avoid disturbance of active nests.
4.5.1 Historic properties	No Action: none. Proposed Action: Project would not adversely affect the historic National Guard Armory on the island and would have no effect on other nearby historic sites.	SHPO concurs with eligibility and effects findings. The determination of effect (due to the National Guard Armory Building's presence in the APE) is No Adverse Effect to Historic Properties.	The City of Kingman will require its construction contractor to obtain any needed fill material from an existing source, so as not to cause offsite impacts to cultural resources, and to haul away any waste materials to an existing disposal site, for the same reason.
4.5.2 Native American cultural/ religious sites	No Action: none. Proposed Action: No effects to any known Native American cultural or religious site.	Tribal consultation has been completed. No tribes contacted communicated concerns about this proposed undertaking.	None required; however, if any archaeological deposits are uncovered during the work, work shall stop immediately and not resume until appropriate professional assessment of the findings are completed.
4.6.1 Environmental justice	No Action: none. Proposed Action: Minimal impacts to any population, and no disproportionately high and adverse impacts on low-income or minority populations.	None required	None required

Affected Environment / Resource Area	Impacts	Agency Coordination/ Permits	Mitigation/ BMPs
4.6.2 Hazardous material	No Action: none. Proposed Action: No impacts anticipated, but construction activities inherently pose the risk of accidental fuels spills.	None required	FEMA and KDWP requirements for fish protection include measures to prevent fuel spills or other contamination from construction from reaching adjacent waterways.
4.6.3 Noise	No Action: none. Proposed Action: Negligible temporary construction noise	None required	None required
4.6.4 Traffic	No Action: none. Proposed Action: Negligible temporary construction traffic	None required	None required
4.6.5 Public services and utilities	No Action: none. Proposed Action: No impacts anticipated	None required	None required
4.6.6 Public health and safety	No Action: none. Proposed Action: Construction personnel could find lead bullets in the soil	Routine precautions for lead handling and disposal will be required for any bullets encountered during construction.	Routine precautions for handling and disposal of lead shall be required.

4.8 Indirect Effects

Indirect effects caused by the action occur later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects also include "induced changes" in the human and natural environments.

Soils: Although soils disturbed by the {Proposed Action would be reseeded within one month after disturbance to avoid deposition of sediments into the river and the Mill Race, some deposition could occur prior to the reseeding and until the reseeding becomes fully effective for soil retention. Use of temporary BMPs during construction and any permanent BMP features would minimize and mitigate this possibility.

Air quality: Restoring the island's west end trail to open public use from its current extended closure may attract increased visitation to the island by local residents, some of whom would use a motor vehicle to get there. The additional motor vehicle emissions would be expected to be minimal and would not cause any violation of a national or state air quality standard.

Climate change: The Proposed Action is expected to have only a temporary and negligible effect on climate change during construction only. The restored facilities would not result in carbon dioxide emissions on an ongoing basis, except as discussed above under air quality.

Water quality*:* As noted above, erosion is an indirect effect caused by soil disturbance. Erosion can be expected to occur due to the Proposed Action. In addition to re-seeding, additional water quality Best Management Practices will be used to prevent erosion and thereby protect water quality in the Ninnescah River and the Mill Race.

Wetlands: Sedimentation due to for erosion, already discussed above, could adversely affect wetlands in the nearby vicinity. Erosion prevention measures are included in the project.

Floodplains: Modeling of floodplains shows that water surface elevations in the nearby area could increase or decrease by less than one inch. This is an indirect effect because it occurs after the construction would be completed.

Threatened and Endangered Species: The removal of 60 trees has the potential to reduce available active-season habitat for the northern long-eared bat, when it may be found roosting singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags, or dead trees. This indirect effect will persist after project construction. The City of Kingman incorporates tree management into park planning and maintenance and regularly replace trees that are removed.

Sedimentation due to erosion, discussed several times above, could adversely affect threatened and endangered species of fish in the Ninnescah River and the Mill Race. Erosion control measures will be specified in the Action Permit that is obtained from the Kansas Department of Wildlife and Parks (KDWP).

Wildlife and fish: No indirect effects on common wildlife and fish are anticipated.

Historic properties: No indirect effects on historic or archaeological resources are anticipated.

Native American cultural/ religious sites: No indirect effects on these resources are anticipated.

Environmental justice: The Proposed Action would restore the availability to all, including disadvantaged populations, of the opportunity to use the island's west-end trail that has been closed due to storm damage and is awaiting repair.

Hazardous material: No indirect effects regarding hazardous material are anticipated.

Noise: Construction noise would be minimal and would occur during daytime. Off-island residences north of the river and south of the Mill Race are the closest available noise receptors. The Proposed Action would produce no ongoing noise following project completion.

Traffic: As noted above, restoration of the island's west-end trail has the potential to slightly increase island visitation. However, this is only one of many recreational amenities on the island, so any traffic increase would be negligible. Highway 14 carries 1,300 vehicles per day, including 290 heavy commercial vehicles.

Public services and utilities: No indirect impacts to public services or utilities are anticipated.

Public health and safety: No indirect impacts to public services or utilities are anticipated.

5.0 CUMULATIVE IMPACTS

Cumulative impacts are the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Impacts are only cumulative for a given resource type or area of concern. In other words, impacts on wetlands cannot accumulate with impacts on historic properties.

The EA must address cumulative impacts if the Proposed Action or Alternatives, when taken into account with other past, present, and reasonably foreseeable future actions, would have an impact on a particular resource/area of concern. Therefore, the appropriate local or county governmental entity is contacted to get an idea of what other projects, regardless of funding or proponent, may be going on or planned in the area. For this EA, City Manager Greg Graffman was contacted for this purpose.

Since 2019, Kingman City Park baseball facilities were improved to upgrade the turf, field fencing, batting cages, stands, dugouts, and other amenities. In addition to the past baseball upgrades, the existing pool facility is also planned to be removed and relocated outside of Riverside Park because the pool is in poor condition and may need to be closed during next summer. The new pool is designed and a location has been chosen, and the City is attempting to acquire funding through grant or loan programs.

Mr. Graffman stated he was not aware of any other past, present or reasonably foreseeable future actions affecting the project area, apart from what is envisioned in the *Kingman Park System Master Plan 2018 to 2038*.

The *Kingman Park System Master Plan 2018 to 2038* envisions a number of changes over time on both sides of the island. These are listed below. The plan calls these changes "goals", indicating there is uncertainty about when and if they may actually be implemented withing the 20-year planning horizon.

Kingman Fairgrounds (Westside) Improvement Goals

- Define specific roads and parking areas to help protect turf and trees on the eastern half of the site. The Fairgrounds have to accommodate not only passenger vehicles, but also livestock trailers, RVs, and semitrailers hauling equipment for the County Fair.

- Design and construct a monument-style park identification sign, similar in design, scale, and materials to the identification sign for Riverside Park. Locate near the main entry, oriented to be visible to traffic along Main Street. Consider incorporating an LED electronic message center, to allow for event announcements.

- Design and install a landscape setting for the recently completed Activity Center, with four-season appeal, which frames and enhances the building.

- Explore the possibility of eventually insulating and conditioning the Armory building, to improve the potential for using that large interior space more effectively.

- The Beery Memorial Shooting Range should be relocated (off of the island), allowing the western half of the Fairgrounds to be used more effectively.

Riverside Park Improvement Goals

- Reduce the amount of roadway in the park, to increase greenspace and to help reduce vehicle-pedestrian conflict points. Eliminate redundant roads, leaving one primary driving loop around the park. Clearly designate the road on the east end of the park as a secondary route, making it narrower, realigning the intersections where it meets the main loop, and installing stop signs at intersections.

- Provide more parking overall, dispersed in clearly defined, medium to small-sized parking lots conveniently sited near visitor destinations. Bumper blocks or simple landscape timber edging around a gravel base can be enough to define acceptable parking spaces.

- Design and construct a monument-style park identification sign, south of the main entry, oriented to be visible to traffic along Main Street.

- Design and install a wayfinding sign system, including directional pylons for major park destinations at road intersection decision points.

- Explore options to construct an indoor pool in Kingman, preferably near the high school, which could support student swimming competitions. If an indoor pool is not feasible, consider constructing a replacement outdoor pool at the same location in Riverside Park. If an indoor pool is developed off the island, consider designing and constructing both a water-spray park and a skatepark in the area currently dedicated to the swimming pool in Riverside Park.

- Design and construct a new playground with two zones — one for pre-school children and one for elementary school children, located approximately where the horseshoe pits and east playground are now. Once a new playground is constructed, both old playgrounds should be removed, making that space available for other possibilities.

- Design and construct outdoor pickleball courts where the sand volleyball courts used to be.

- Consider the possibility of adding one or two small ADA-accessible docks or floating fishing platforms to Hoover Pond.

- Design and construct a nine-hole disc golf course in the former Outdoor Wildlife Learning Site in the southeast portion of the park, which is no longer used for OWLS programs.

- When the existing basketball court is due for major maintenance, consider instead constructing a new, lighted, regulation-sized basketball court. It could be installed where the west playground is currently located, after that playground is removed.

- Consider the possibility of installing security gates to control access to Riverside Park. There would need to be one on the main entry drive, and one on the underpass drive that leads to the Fairground parking areas.

- The south restroom building, the storage building at the northwest corner of the park, and all of the park's picnic shelters (including the bandstand), are likely to need upgrading at some point during the 20-year future.

These changes to Riverside Park are depicted in Figure 17, Riverside Park Concept Plan, taken from the *Kingman Park System Master Plan 2018-2038.*

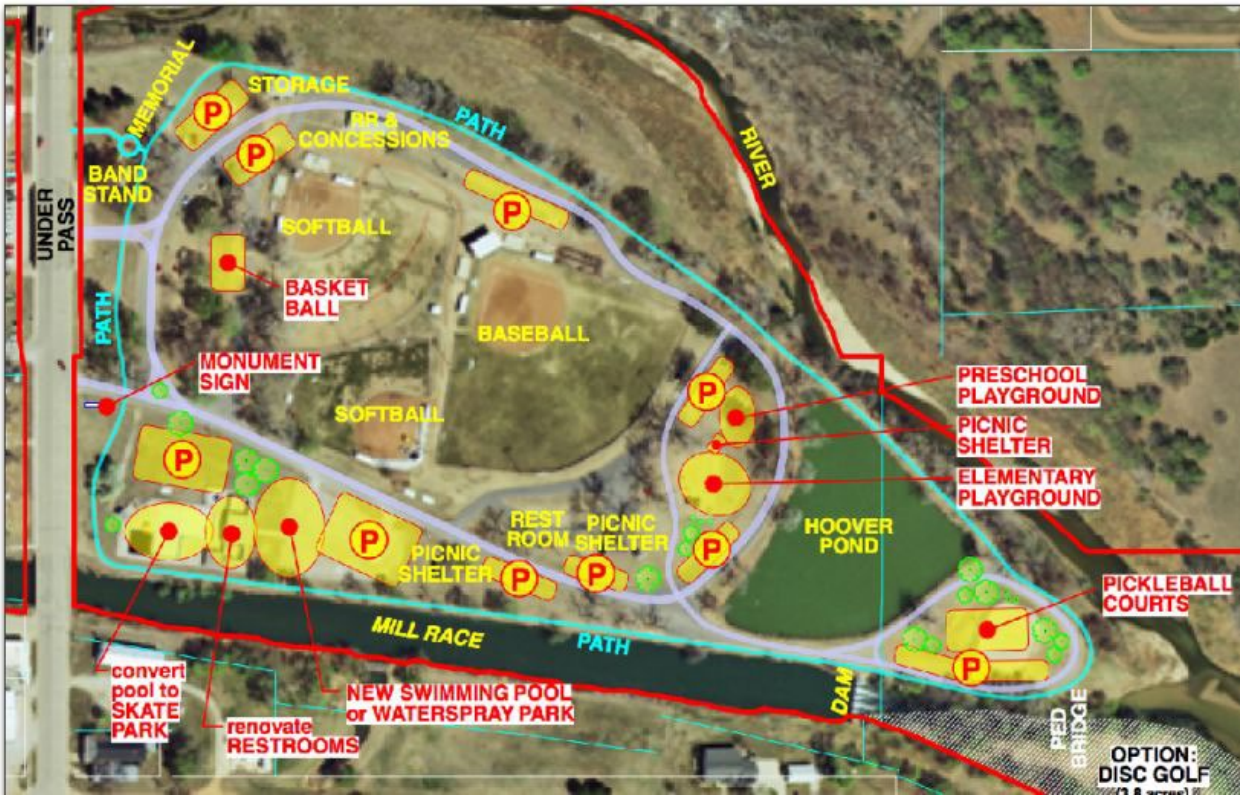

Figure 17: Riverside Park Concept Master Plan for Future Improvements

The above goals can be summarized by noting Kingman is strongly committed to maintaining its recreational amenities on the island, while modernizing and replacing older amenities as needed to keep the attractions relevant for the community. It is reasonable to expect that there will be some level of construction activity on the island every year, as funds allow. Also, it is important to the community to implement flood hazard mitigation measures to protect the area's recreation infrastructure investments on the island.

Regarding environmental impacts, relocation of the Beery Memorial Shooting Range, if it happens, could be beneficial to wildlife, and to birds in particular, by eliminating the sharp, intermittent noise of daytime gunfire. If that land were re-purposed, new human activities would likely generate other noise of a different character, with less of a "startle" effect.

In addition to the goals discussed above, the Kingman Park Plan Steering Committee in 2019 updated parks and recreation goals from the Kingman Visioning 2020 report. This group reconfirmed the interest in relocating and repurposing the shooting range and developing a fishing dock at the eastside Hoover Pond. They added one more item called "Develop riverbank in Riverside Park" with two supporting tasks:

- Design drainage plan for Riverside Park and fairgrounds
- Preserve riverbank along the Mill Race and Ninnescah River

While these tasks are not defined in terms of scope, location, schedule and budget, it seems likely that that these tasks will result in additional construction activities that are similar in scope to the current, proposed FEMA flood hazard mitigation effort. Environmental impacts associated with ongoing park development efforts are likely to include construction traffic, noise and dust emissions, potential tree loss, and minor riverbank disturbances.

6.0 AGENCY COORDINATION, PUBLIC INVOLVEMENT AND PERMITS

Public and agency involvement are key elements of the NEPA process for federal decision-making. For this project, FEMA has worked closely with the PA grant Recipient, the Kansas Division of Emergency Management, and the Applicant, the City of Kingman. The city, in turn, has worked in close cooperation with Kingman County, which is the owner of assets on the western side of the island.

FEMA has coordinated on wildlife issues with the U.S. Fish and Wildlife Service and the City of Kingman has coordinated with the Kansas Department of Wildlife and Parks (KDWP) to identify, minimize and mitigate potential impacts to sensitive species. An Action Permit will be required from KDWP. Permit conditions will primarily consist of work date restrictions to avoid the spawning seasons for protected species of fish in the Ninnescah River. Project activity should not begin until application for the Action Permit has been received and signed by both parties.

FEMA has consulted with the Kansas State Historic Preservation Office (Kansas Historical Society) regarding potential effects to historic and archaeological resources, and with several Native American Tribes with regard to their potential concerns in the project area.

Project implementation will require coordination with the regional floodplain administrator because the project is located within the 100-year floodplain, and with the U.S. Army Corps of Engineers due to potential effects to jurisdictional wetlands and Waters of the United States.

A floodplain development permit and a USACE Section 404 permit will be obtained if required. The floodplain permit will be coordinated with the Kingman County Planning/Zoning Floodplain Manager.

The City of Kingman will also need to coordinate with the Kansas Department of Agriculture, Division of Water Resources (KDA/DWR) field office in Stafford with regard to Clean Water Act Section 401 water quality certification, and to determine if permits are needed for the embankment work along the river and Mill Race and the removal of culverts and installation of low-water crossings.

Commencement of the EA occurred with approval of expenditures by the City of Kingman Commission, in an open meeting with public input opportunities.

The completed EA will be made available for public review and comment, publicized by a Public Notice of Availability in the *Kingman Leader-Courier* (kcnonline.com), as well as public notice on the websites of FEMA, the City of Kingman, and the Kansas Division of Emergency Management (KDEM).

For the benefit of persons without Internet access, hard copies of the EA document will be available for viewing at the following locations:

- Kingman City Hall, 332 North Main Street, Kingman, Kansas
- Kingman Carnegie Library, 455North Main Street, Kingman, Kansas

Input received during the 30-day public comment period will be documented, together with responses thereto, in a subsequent FEMA decision document.

7.0 REFERENCES

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8.0 LIST OF PREPARERS

The following individuals have contributed to the technical content of the EA. Listed are FEMA staff, then staff of other key agencies, and consultant support staff.

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9.0 LIST OF APPENDICES

FEMA has worked to ensure that this EA document is accessible to persons with disabilities, in compliance with Section 508 of the Rehabilitation Act of 1973. Regarding the EA's Appendices, which are provided in a separate document, this EA has reported what was done and how those results affect the decision that will be made based on the totality of the EA findings. In case any of these appendices poses a challenge to be read electronically by persons with disabilities, each appendix is briefly described and summarized below, rather than being simply listed.

Appendix A. *Wetland Documentation.* This report is a compilation prepared by Wilson & Company of wetland documentation prepared by Mr. Bert Wilson of Marshland Environmental Consulting. His fieldwork was completed in June 2022. The document includes text, aerial photos, ground-level photos of potential wetlands, and USACE wetland determination forms.

Appendix B. *Ninnescah River Mitigation Study – Mitigation Hydrologic & Hydraulic Report*. This 65-page memorandum is dated March 26, 2022. It was prepared by Charles Loughman, P.E., of Wilson & Company, Inc. Engineers and Architects, and was addressed to FEMA Region VII – Resilience and Infrastructure Branch. It bears an inked impression of Mr. Loughman's Professional Engineer seal, indicating that it is accurate and complete in his professional opinion. This document is comprised of 16 pages of memorandum supplemented by Appendices A through G, including results of a technical model called HEC RAS 2D. HEC RAS stands for Hydrologic Engineering Center's River Analysis System, developed by the U.S. Army Corps of Engineers.

Appendix C. *Section 7 Informal Consultation between FEMA and the U.S. Fish and Wildlife Service.* This letter is 11 pages long and dated May 24, 2022. It was written by Lois H. Coulter Environmental and Historic Preservation Advisor, Readiness Branch, Office of Environmental Planning and Historic Preservation, Washington, DC, who is currently deployed to FEMA Region 7. It was addressed to Jason Luginbill, Kansas Field Supervisor, U.S. Fish and Wildlife Service, Kansas Ecological Services Field Office, in Manhattan, Kansas. It describes the Action Area, the Proposed Action, justification for the action, and the anticipated effects and proposed mitigation regarding the Peppered Chub, Northern Long Eared Bat, and Monarch Butterfly.

Appendix C: *USFWS Concurrence Letter*. This letter is two pages long and is dated June 21, 2022. It was signed by Gibran Suleiman on behalf of Jason Luginbill, Kansas Field Supervisor, U.S. Fish and Wildlife Service, Kansas Ecological Services Field Office, in Manhattan, Kansas. It was addressed to Jason Luginbill, Kansas Field Supervisor, U.S. Fish and Wildlife Service, Kansas Ecological Services Field Office, in Manhattan, Kansas. The letter concluded: "Our office has reviewed the action area and the scope and nature of the proposed work to be completed as well as the avoidance and minimization measures to be implemented, that you provided. We concur with your determination of No Effect for the Whooping Crane and May Effect, Not Likely to Adversely Affect for the Peppered Chub and Northern Long-eared Bat."

Appendix D: *Kansas Department of Wildlife and Parks Letter regarding State-Listed Threatened and Endangered Species*. This letter is two pages long and dated May 5, 2022. It was written by Mark Van Scoyoc, Biodiversity Survey Coordinator/Ecologist, Ecological Services Section, KDWP, in Pratt, Kansas. It was addressed to Bert Wilson, Marshlands Environmental Consulting, in Topeka, Kansas. It identifies four fish species of concern and provides eight mitigation recommendations. The letter states that an Action Permit will be required from KDWP. Permit conditions will primarily consist of work date restrictions to avoid the spawning seasons for

protected species of fish in the Ninnescah River. Project activity should not begin until application for the Action Permit has been received and signed by both parties.

Appendix E: *Section 106 Consultation between FEMA and the Kansas State Historic Preservation Officer.* This letter is 11 pages long and dated May 23, 2022. It was signed by Lois H. Coulter Environmental & Historic Preservation Advisor, Readiness Branch, Office of Environmental Planning and Historic Preservation, Washington, DC, who is currently deployed to FEMA Region 7. It was addressed to Patrick Zollner, Director, Cultural Resources Division, Deputy State Historic Preservation Officer, Kansas Historical Society, in Topeka, Kansas. The letter discusses a Finding of No Adverse Effect to Historic Properties for the project. It describes the Undertaking, the Area of Potential Effect (APE), Identification and Evaluation of Resources (including four standing structures), Tribal Involvement, and Determination of Effect. Its Conclusion requests SHPO concurrence with the finding.

Appendix F*: National Register Eligibility Determination*. This is a 21-page document prepared by FEMA that was an attachment to the Section 106 Consultation letter which is Appendix B. The paper presents Determinations of NRHP eligibility, including current photos and in some cases historic photos or maps, for the following sites:

- Kingman Fairgrounds
- Kingman Riverside Park
- Storage Shed, Riverside Park
- Kingman City Mechanic Shop
- Kingman Mill Race
- Two bridges along KS Highway-14 accessing Kingman Fairgrounds/Riverside Park

Appendix G*: SHPO Letter of Concurrence with FEMA Section 106 Findings*. This is a one-page letter signed by Patrick Zollner, Director, Cultural Resources Division, Deputy State Historic Preservation Officer, Kansas Historical Society, in Topeka, Kansas. It is addressed to Claudia Vines, FEMA Environmental Specialist, via email. The letter states: "The SHPO has determined that the proposed project will not adversely affect any property listed or determined eligible for listing in the National Register. As far as this office is concerned, the project may proceed."

Appendix H*: Example of FEMA Tribal Consultation Letter*. This 10-page letter is one of three tribal consultation letters that was sent by FEMA to Native American Tribes with a known interest in the Kingman, Kansas, area. It was signed by Kate Stojsavljevic, Regional Environmental Officer, FEMA Region VII, in Kansas City, MO. This example was addressed to Dr. Andrea Hunter, Director and Tribal Historic Preservation Officer of the Osage Nation, in Pawhuska, Oklahoma. It describes the Undertaking, the Area of Potential Effects (APE), and Identification and Evaluation of Resources (including four standing structures). The letter requested input from the Tribe regarding the Undertaking and reported a proposed Finding of Effect as follows: "Based on FEMA's identification and evaluation efforts, unless any of the Tribes contacted have concerns or object, FEMA will conclude the Section 106 review with a finding of **No Adverse Effect to Historic Properties**."

***Appendix I**: Phase 1 Environmental Site Assessment for Kingman, Kansas.* This 32-page July 2022 technical report was prepared by ppB enviro-solutions of Topeka, Kansas. It reports the results of its research regarding hazardous material sites with the potential to be a Recognized Environmental Condition affecting the Ninnescah River island flood mitigation project. The major sections of this report are titled: Executive Summary; Introduction; User Supplied Information; Records Review; Site Reconnaissance; Interviews; Evaluation and Conclusions; Non-Scope Services; and References. An additional 599 pages of database search results are available but have been excluded from this appendix for public accessibility, as they are adequately summarized in the first 32 pages of the report.