US Army Corps
of Engineers
Kansas City District

MANHATTAN LOCAL PROTECTION PROJECT
FEASIBILITY STUDY

MANHATTAN, KANSAS
(Manhattan Levee)

(Section 216 Review of Completed Civil Works)

Public Involvement Appendix

August 2014 Final Feasibility Report

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Manhattan, Kansas
Local Protection Project
Final Feasibility Report

PUBLIC INVOLVEMENT APPENDIX

Public meetings were held in the Manhattan area during the Feasibility Study as described in Section VI.J of the Feasibility Report. The purpose of this report appendix is to document the public review process conducted for the Draft Feasibility Report and to provide responses to the comments received.

The Draft Feasibility Report was released on June 13, 2014, for a thirty (30) day public review and comment period via the Kansas City District website. Copies of the Draft Report were made available to the public at the Manhattan City Hall and the local public library.

Notice of the report availability and public comment period was posted on the Kansas City District website and provided to local Manhattan area media outlets. Additionally, notice was mailed to Kansas congressional offices; state and local elected officials; Federal, State, County, and City agencies; community and environmental interest groups; Indian tribes; and businesses and property owners within the project area.

Written comments were requested to be submitted by mail or through the project website. The mailing list, public notice, and press release are included in this appendix as Exhibits 1, 2, and 3 respectively.

In response to the Public Notice and public comment period, comments were received from the following entities:

Choctaw Nation of Oklahoma
Mr. Mel G. Borst of Manhattan, KS
Federal Aviation Administration
U.S. Environmental Protection Agency
U.S. Department of the Interior, Fish and Wildlife Service

The comment letters received are included in this appendix as Exhibit 4. Responses to written comments received are included in Exhibit 5. In addition to these comments there were two telephone inquiries to the Kansas City District Public Affairs Office from local media.

Regular contact and coordination has been maintained throughout the Feasibility Study with the local sponsor to provide updates on the status and findings of the study. With the sponsor's assistance, project status information has been shared with multiple stakeholder groups representing businesses and industries in the project area. Continually throughout this process, the local sponsors have expressed their desire to see their levee system improved to acceptable reliability. The local sponsor has initiated and maintained

contact with local agencies and their Congressional representatives to share project status information and urge continued support for the project.

Exhibit 1 – Public Notice Mailing List

Congressional Offices
Senator Pat Roberts
Senator Jerry Moran
Representative Tim Huelskamp

Local Elected Officials
Governor Sam Brownback
County Executive – Riley County
Mayor – City of Manhattan

Federal Agencies
Environmental Protection Agency, Region 7
Federal Aviation Administration
Federal Highway Administration
Federal Railroad Administration
Federal Transit Authority
FEMA, Region 7
National Park Service
Natural Resources Conservation Service
U.S. Coast Guard
U.S. Fish and Wildlife Service
U.S. Geological Survey
U.S. Department of the Interior

State Agencies
KS Biological Survey
KS Department of Agriculture
KS Department of Health and Environment
KS Department of Transportation
KS Department of Wildlife, Parks & Tourism
KS Division of Emergency Management
KS Geological Survey
KS State Conservation Commission
KS State Historical Society
KS Water Office
MO Dept of Natural Resources
MO Dept. of Transportation
MO Dept. of Conservation
MO Dept. of Public Safety

Local Government Agencies
City of Manhattan City Manager
City of Manhattan Public Works Department

Business and Community Organizations
Kansas Corporation Commission
Kansas Chamber of Commerce

Environmental and Recreation Interest Groups
Audubon of Kansas
Sierra Club – Kansas Chapter
Friends of the Kaw
Kansas Canoe & Kayak Association

Project Area Property Owners
See property owner listing in Real Estate Appendix

Indian Tribes
Absentee-Shawnee Tribe
Apache Tribe of Oklahoma
Cherokee Nation
Cheyenne River Sioux Tribe of South Dakota
Cheyenne-Arapaho Tribes
Choctaw Nation of Oklahoma
Citizen Band Potawatomi Indian Tribe of Oklahoma
Crow Creek Sioux Tribe of South Dakota
Delaware Nation
Delaware Tribe
Eastern Shawnee Tribe
Forest County Potawatomi Community
Fort Sill Apache Tribe of Oklahoma
Hannahville Indian Community
Ho-Chunk Nation of Wisconsin
Iowa Tribe of Kansas and Nebraska
Iowa Tribe of Oklahoma
Kaw Nation
Kickapoo Traditional Tribe of Texas
Kickapoo Tribe of Kansas
Kickapoo Tribe of Oklahoma
Jicarilla Apache Nation
Kiowa Tribe of Oklahoma
Match-e-be-nash-she-wish Patawatomi
Mescalero Apache Tribe
Miami Tribe

Exhibit 1 – Public Notice Mailing List

Northern Cheyenne Tribe of Montana
Nottawaseppi Huron Potawatomi Nation
Oglala Sioux Tribe of South Dakota
Omaha Tribe of Nebraska
Osage Nation
Otoe-Missouria Tribe of Oklahoma
Ottawa Tribe
Pawnee Nation of Oklahoma
Pokagon Band Potawatomi
Ponca Tribe of Nebraska
Ponca Tribe of Oklahoma
Prairie Band Potawatomi Nation
Rosebud Sioux Tribe of South Dakota
Sac and Fox Nation of Missouri in Kansas and Nebraska
Sac and Fox Nation of Oklahoma
Sac and Fox Tribe of the Mississippi in Iowa
Santee Sioux Nation of Nebraska
Seneca-Cayuga Tribe
Shawnee Tribe
Spirit Lake Tribe of North Dakota
Three Affiliated Tribes of North Dakota
United Keetoowah Band of Cherokee
Wichita and Affiliated Tribes
Winnebago Tribe of Nebraska
Wyandotte Nation
Yankton Sioux Tribe of South Dakota

<u>Media Outlets receiving Press Release</u>

Exhibit 2 – Public Notice

PUBLIC NOTICE

US Army Corps of Engineers
Kansas City District

Issue Date: 13 Jun 2014
Expiration Date: 13 July 2014

30-Day Notice

Request for Comments
Manhattan, Kansas
Local Protection Project Feasibility Study
Draft Feasibility Report

PROPONENT: Kansas City District, Corps of Engineers
Room 529, PM-PF
601 E. 12th Street
Kansas City, Missouri 64106-2896

PROJECT LOCATION (As shown in the enclosed media)**:** The existing Manhattan, Kansas, Local Protection Project includes a single earthen levee unit on the Kansas River, Big Blue River, and Wildcat Creek providing flood risk management to the City of Manhattan, Kansas.

AUTHORITY: The U.S. Army Corps of Engineers, Kansas City District, at the request and with the cooperation of the non-Federal sponsor, the City of Manhattan, has studied flood risk management and reliability improvements of the existing unit under the authority of Section 216 of the 1970 Flood Control Act.

ACTIVITY: The purpose of the overall study of the existing levee was to determine whether one or more plans for improvements to reduce flood risk and improve levee reliability is technically viable, economically feasible, and environmentally acceptable, or if no action is warranted. Failure of any part of the existing flood risk management system during a major flood would have significant adverse impacts on the human environment including property damage and potential loss of human life.

The recommendations for the reliability and performance improvements are addressed and available for review in the Draft Feasibility Report (DFR). The DFR presents the completed feasibility analysis of alternatives. Proposed alternatives considered to improve flood risk management and reliability include, but are not limited to, earthen levee raises, pump station modifications, floodplain management, property relocations and flood-proofing, and the no action alternative. DFR analysis concluded that a levee raise based on the projected water surface profile

of the nominal 0.33% annual chance (300-yr) flood event and associated structural and geotechnical improvements is the preferred alternative. The DFR identifies a combination of measures as the Corps' overall Recommended Plan and presents an analysis of the costs and impacts associated with the alternatives.

The purpose of this public notice is to provide the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties the opportunity to review and provide comment on the information presented within the DFR.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1969, as amended: Considering potential significant impacts on the human environment, and in accordance with the National Environmental Policy Act, the Corps has prepared as Environmental Assessment (EA) to accompany the DFR. The EA presents the feasibility analysis, no action, action alternatives, preferred alternatives and associated environmental impacts for the Manhattan levee unit.

PUBLIC INTEREST REVIEW: The Corps of Engineers is soliciting comments on the DFR and EA from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to modify the recommendations within the report.

COMMENTS: Any interested party is invited to submit to this office written comments relative to the DFR and EA on or before the public notice expiration date. Comments both favorable and unfavorable will be accepted, included within the project record and will receive full consideration in determining whether to modify report recommendations. Comments should be mailed to the address shown on page 1 of this public notice or submitted by electronic mail through the project website noted below.

ADDITIONAL INFORMATION: The DFR and EA may be viewed at the following website: http://www.nwk.usace.army.mil/Missions/CivilWorks/CivilWorksProgramsandProjects/ManhattanKansas.aspx or may be obtained by writing to the address shown on page 1 of this public notice or by sending an electronic mail through this website.

A copy of this public notice may also be viewed at the following website: http://www.nwk.usace.army.mil/Media/PublicNotices.aspx

Exhibit 3 – Press Release

NEWS RELEASE

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG ®

For Immediate Release:
Release #PA-2014-27
DATE 6/13/2014

Contact:
U.S. Army Corps of Engineers
Public Affairs Office
Kansas City, Mo. 64106-2896
Phone: (816) 389-3486
Fax: (816) 389-3434

Corps seeks public comments for Manhattan, KS, levee report

KANSAS CITY, Mo.— The U.S. Army Corps of Engineers Kansas City District has studied flood risk management and reliability improvements for the existing levee unit at Manhattan, Kansas, and is seeking review and public comment on the information presented within the Draft Feasibility Report (DFR).

The study was conducted at the request and with cooperation of the sponsor of the levee unit under the authority of Section 216 of the 1970 Flood Control Act. Any comments received will be considered by the Corps of Engineers to determine whether to modify the recommendations within the report.

The purpose of the overall study of the existing levee unit was to determine whether one or more plans for improvements to the existing levee unit to reduce flood risk and improve levee reliability is technically viable, economically feasible, and environmentally acceptable, or if no action is warranted. Failure of any part of the existing flood risk management unit during a major flood would have significant adverse impacts on the human environment including property damage and potential loss of human life.

The recommendations for the reliability and performance improvements are addressed and available for review in the DFR.

Proposed alternatives considered to improve flood risk management and reliability include, but are not limited to, earthen levee raises, pump station modifications, floodplain management, property relocations and flood-proofing, and the no action alternative. DFR analysis concluded that a levee raise based on the projected water surface profile of the nominal 0.33% annual chance (300-yr) flood event and associated structural and geotechnical improvements is the preferred alternative. The DFR identifies a combination of measures as the Corps' overall Recommended Plan and presents an analysis of the costs and impacts associated with the alternatives.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1969, as amended: Considering potential significant impacts on the human environment, and in accordance with the National Environmental Policy Act, the Corps has prepared as Environmental Assessment (EA) to accompany the DFR. The EA presents the

feasibility analysis, no action, action alternatives, preferred alternatives and associated environmental impacts for the Manhattan levee unit.

PUBLIC INTEREST REVIEW: The Corps of Engineers is soliciting comments on the DFR and EA from the public, federal, state, and local agencies and officials, Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to modify the recommendations within the report.

COMMENTS: Any interested party is invited to submit written comments relative to the DFR and EA on or before the public notice expiration date. Comments both favorable and unfavorable will be accepted, included within the project record and will receive full consideration in determining whether to modify report recommendations. Comments should be mailed to:

Kansas City District, Corps of Engineers
Manhattan Levee Project Manager
Room 529, PM-PF
601 E. 12th Street
Kansas City, MO 64106-2896

ADDITIONAL INFORMATION: The DFR and EA may be viewed at the following website: http://www.nwk.usace.army.mil/Missions/CivilWorks/CivilWorksProgramsandProjects/ManhattanKansas.aspx or may be obtained by writing to the address shown on page 1 of this public notice or by sending an electronic mail through this website.

A copy of this public notice may also be viewed at the following website: www.nwk.usace.army.mil/Media/PublicNotices.aspx . For more information, please contact the Public Affairs Office at (816) 389-3486.

-30-

Exhibit 4 – Comments Received

Written Comments Received In Response to Public Notice

Written comments were received from the following individuals and organizations:

Choctaw Nation of Oklahoma, letter dated June 19, 2014.
Mr. Mel Borst of Manhattan, KS, letter dated June 22, 2014
Federal Aviation Administration, letter dated July 3, 2014
U.S. Environmental Protection Agency, letter dated July 9, 2014
U.S. Fish and Wildlife Service, letter dated July 11, 2014

Choctaw Nation of Oklahoma

P.O. Box 1210 • Durant, OK 74702-1210 • (580) 924-8280

Gregory E. Pyle
Chief

Gary Batton
Assistant Chief

June 19, 2014

US Army Corps of Engineers
Kansas City District
Room 529, PM-PF
601 E. 12th Street
Kansas City, MO 64106

RE: Local Protection Project Feasibility Study, Draft Feasibility Report, Manhattan, KS

To Whom It May Concern,

The Choctaw Nation of Oklahoma thanks the U.S. Army Corps of Engineers, Kansas City District, for the correspondence regarding the above referenced project. The state of Kansas lies outside of the Choctaw Nation of Oklahoma's area of historic interest. The Choctaw Nation of Oklahoma respectfully defers to the other Tribes that have been contacted. If you have any questions, please contact our office at 580-924-8280 ext. 2631.

Sincerely,

Dr. Ian Thompson, Ph.D., RPA
Tribal Historic Preservation Officer
Tribal Archaeologist, NAGPRA Specialist

By: Lindsey Bilyeu

Lindsey Bilyeu
NHPA Senior Section 106 Reviewer
lbilyeu@choctawnation.com
Choctaw Nation of Oklahoma
P.O. Drawer 1210
Durant, OK 74701

MEL G. BORST

June 22, 2014

Kansas City District, Corps of Engineers
Manhattan Levee Project Manager
Room 529,PM-PF
601 E. 12th Street
Kansas City, MO 64106-2896

Dear Manhattan Levee Project Manager,

Thank you for this opportunity to comment on potential changes to our levee system.
As a frequent bicycle user of the Liner Trail on the levee, I suggest considering design changes that would include a wider and paved trail surface. This improvement would allow for year round use of the trail that is limited with the limestone screenings. This current surface is getting increasing traffic that gets soft and hard to use in wet spells and during the long winter months.

I visited earlier with (then) city engineer Rob Ott and parks dept. head Eddie Estes and they may have also asked you about this possibility. Perhaps some kind of partnership could be worked out on planning and expenses.

Sincerely,

Mel G. Borst

U.S. Department
of Transportation

**Federal Aviation
Administration**

Central Region
Iowa, Kansas,
Missouri, Nebraska

901 Locust
Kansas City, Missouri 64106

JUL 0 3 2014

Kansas City District, Corps of Engineers
Room 529, PM-PF
601 E. 12th Street
Kansas City, Missouri 64114

To Whom It May Concern:

We have received your letter dated June 13, 2014. We generally do not provide comments from an environmental standpoint.

The project may require formal notice and review for airspace review under Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace. To determine if you need to file with FAA, go to http://oeaaa.faa.gov and click on the "Notice Criteria Tool" found at the left-hand side of the page.

If after using the tool you determine that filing with FAA is required, I recommend a 120-day notification to accommodate the review process and issue our determination letter. Proposals may be filed at http://oeaaa.faa.gov.

We hope this adequately addresses your concerns.

for Joseph N. Miniace
Regional Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

JUL 9 2014

U.S. Army Corps of Engineers
Kansas City District
601 E. 12th Street
Room 529, PM-PF
Kansas City, Missouri 64106-2896

Dear Sir or Madam:

In response to the public notice of June 13, 2013, requesting comments on the draft Environmental Assessment and Finding of No Significant Impact for the Local Protection Project, Section 216 Feasibility Study, Manhattan, Kansas, the U.S. Environmental Protection Agency, Region 7, offers the following comments. These comments are based primarily on an evaluation of the identified 'preferred alternative.' Should that alternative be modified or should another alternative be selected, we request that you re-notice that new alternative and a revised draft EA.

The existing Flood Protection Project in Manhattan, Kansas, is comprised of one 5.4 mile levee unit and associated appurtenances. As a result of its performance during the high water event in 1993, local concern was expressed about the ability of the existing flood risk reduction system to respond to future similar events as originally designed. The Manhattan Levee is located west and north of the confluence of the Big Blue River and Kansas River bracketing the City of Manhattan roughly following Wildcat Creek along the City's southern edge, the Kansas River to its confluence with the Big Blue River, north along the Big Blue River and extending northwest. The Corps has identified four action alternatives along with the 'no action' alternative. The Corps' identified 'preferred alternative' calls for increasing the height of the levee to provide protection for the 0.33% high water event, including a 500-foot extension of the levee, under-seepage berms, relief wells and sand drains.

Range of Alternatives

The draft EA included no analysis of the potential for implementing non-structural alternatives to achieve needed reductions in flood risk for the project area. Although the public notice references non-structural approaches to reducing flood risk among the alternatives considered, the draft EA contains no evidence that any approaches other than raising the levee and widening a river cross-section were considered and evaluated. As mentioned below, the document lacks any assessment of possible alternatives to levee raising or any evaluation of watershed-scale management modifications which could provide the desired flood risk reduction without raising or extending the existing levee. Potential future changes in the hydrograph and the location of City infrastructure within the floodplains of three

rivers will likely lead to the evaluation of flood risk reduction farther upstream into each watershed and/or the removal of public assets from the floodplain. The currently proposed alternatives appear short-sited and could lead to a continual and repeated raising and lengthening of the levee over time.

Affected Environment

Maps included within the draft EA are too small to be useful. At least in the printed version, the legends for several of the maps are unreadable. In addition, it would be useful to include a detailed map showing the extent of the levee 'improvements' under each alternative, including any lateral extensions of the levee footprint.

Section 3.3 describes existing groundwater contamination within the site and, specifically, a plume of trichloroethylene in groundwater extending below the levee from station 215+00 to 218+0. The document notes that this contamination is currently being remediated under the national Superfund program. The final EA should identify how planned construction activities in this area have been coordinated with the Kansas Department of Health and Environment, which is the lead agency for this remedial action. In addition, the final EA should describe in detail how the water produced from sand drains and relief wells in this area will be monitored for contaminants and how any contaminated water will be treated and disposed. A plan for construction of wells and drains in this vicinity as well as management of any groundwater withdrawals should be coordinated with KDHE in advance of any construction. Any possible future action or modification to the existing levee which could affect other contamination sites (e.g., USTs, battery site, private disposal site) in the area should be closely coordinated with KDHE as well.

The draft EA contradicts itself within sections discussing the status and presence of Interior Least Terns and Piping Plovers. The document states that no historic records of nesting on the Kansas River exist for nesting by both species and then immediately notes recent nesting observations for both species.

The draft EA should more thoroughly describe actions and land management throughout Wildcat Creek and the Kansas River watersheds upstream of the project area. Contemporary land management decisions affecting land surface, drainage and floodplain access also affect the hydrograph and resulting flood risk. Agency correspondence contained in Appendix II recognizes changes in the watershed negatively affecting flood management performance by this project and yet very little is described within this draft EA. This omission weakens the rationale for augmenting existing flood risk reduction design and suggests that continuing mismanagement of the floodplain above the project site could eventually limit the effectiveness of the proposal.

Environmental Consequences

Although Section 2.2 states that all four action alternatives would include an extension of the levee footprint, nowhere within Section 4.0 does the document mention an extension of the levee length nor does the document clearly identify any impacts from extending the levee beyond its existing footprint. Any increase in levee length and, therefore, an increase in the area protected by the levee should be thoroughly characterized and any impacts on further restricting creek or river access to its floodplain

assessed. As mentioned previously, the document should include diagrams clearly depicting which sections of existing levee will be raised and, most importantly, where the levee will be extended.

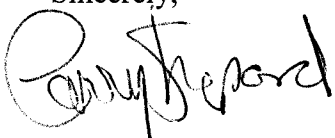
Although not selected as the 'preferred alternative', statements made regarding the "long term increase in aquatic habitat" resulting from channel widening within the Big Blue River under Plan 5 are speculative and without basis and should not be retained in the final EA without further analysis. Such statements appear to be based completely upon the increase in surface area within the river channel and not based on the suitability, quality or stability of this "increased habitat."

Cumulative Impacts

This section should include an assessment of land use and planning decisions made by local, regional or state government in the past which might have compromised floodplain integrity upstream of the project area. Development within the floodplain and actions to further isolate the floodplain contribute to increased flood risk to the project area possibly contributing to the need to raise levee elevation and/or extend its length. The draft EA provides no information or characterization of this important component of cumulative impact analysis.

I appreciate the opportunity to provide comments on the draft EA. If you have any questions regarding these comments, please contact me at 913-551-7441 or shepard.larry@epa.gov.

Sincerely,



Larry Shepard
NEPA Review

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kansas Ecological Services Field Office
2609 Anderson Avenue
Manhattan, Kansas 66502

July 11, 2014

Kansas City District, Corps of Engineers
Room 529, PM-PF
601 East 12th Street
Kansas City, MO 64106-2896

RE: Manhattan, Kansas Local Protection Project Feasibility Study, Draft Feasibility Report

FWS Tracking # 2014-CPA-0474

Dear Sir or Madam:

This letter is in response to your request for comments on the Draft Feasibility Report for the Manhattan, Kansas Local Protection Project. We appreciate the opportunity to work with the Kansas City District, Corps of Engineers on this project and the cooperation between our agencies.

We have no objection to the selection of Alternative Plan 3 as the Recommended Plan and National Economic Development (NED) plan. Plan 3 would raise the current levee to pass the nominal 0.33% chance flood event profile with accompanying geotechnical and structural reliability improvements. We believe that this plan will meet the Corp's objectives while having minimal environmental impacts in the project area.

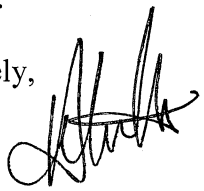
We have one recommendation in relation to the statement made in Section J3.0 - Mitigation on page 68 which stated that "If it is not possible to avoid select, individual, mature trees during construction, replacement trees of the same species would be planted in the project area." If a tree to be removed is not native to the local area, the replacement tree should be a native species. We advocate protecting local genotypes by using plant sources that are within 100 miles in latitude and 200 miles in longitude of the planting site. Plants evolve to local conditions (climate, soil, moisture conditions, etc.) and can develop different genetic structure (genotypes) within the same species. Gene pools of remnant plant communities can be altered genetically by the invasion of non-native genotype plant species. In addition, we recommend planting 3 trees for every tree removed as many of the planted trees will not survive to maturity.

Information concerning Federal threatened and endangered species and Federal Trust Resources has been discussed in our Fish and Wildlife Coordination Act reports.

Thank you for the opportunity to comment on this project. If you have any questions, please

contact me or Susan Blackford of my staff at (785) 539-3474.

Sincerely,



Heather Whitlaw
Field Supervisor

cc: EPA, Kansas City, KS (Wetland Protection Section)
KDWPT, Pratt, KS (Ecological Services)
FWS, Robert Stewart, Denver, CO

HW/shb

Exhibit 5
Draft Feasibility Report Public Review
Comment/Response Summary

Commenter	**Nature of Contact/Date**	**Comment Summary**
Choctaw Nation of Oklahoma	Letter dated 6/19/2014	"The Choctaw Nation of Oklahoma respectfully defers to the other Tribes that have been contacted."
Response Summary		
Comment noted.		

Commenter	**Nature of Contact/Date**	**Comment Summary**
Mr. Mel G. Borst	Letter dated 6/22/2014	Consider design changes that would include a wider and paved trail surface to allow year round use of the trail.
Response Summary		
The Corps of Engineers is neither a proponent of, nor an opponent to, the incorporation or expansion of recreational trail systems in a levee unit. The Corps has sought to ensure that, as practical, the Recommended Plan of this flood risk management study does not adversely impact existing recreational features or preclude future development of recreational opportunities. Wider paved trails have been incorporated into other levee units in the Kansas City District at the request of local levee sponsors. However, the design and implementation costs of recreational components are the responsibility of that local levee sponsor. The Corps monitors and inspects local sponsor operation and maintenance of the unit for compliance with Federal criteria to ensure the existing unit will perform as intended during a flood event. If local recreation proponents desire expanded or additional recreational features they should continue to meet with the local levee sponsor to determine the constraints and opportunities applicable to recreational activity. If agreement on a potential local plan is reached by all parties, the levee sponsor must formally submit to the Corps a request for technical review of the locally-developed plan. The Corps technical oversight review would identify any components of the proposed plan that might compromise operation, maintenance, or performance of the levee system in accordance with its primary function to provide flood risk management. Upon resolution of any technical concerns the recreation plan could be implemented at local expense. If such a recreation plan were developed, reviewed, and approved prior to the construction of the Recommended Plan, the design could be modified accordingly.		

Commenter	**Nature of Contact/Date**	**Comment Summary**
Federal Aviation Administration	Letter dated 7/3/2014	"The project may require formal notice and review for airspace review under Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace."
Response Summary		
Use of the online "Notice Criteria Tool" as described in the received letter indicated that the proposed project does not exceed notice criteria.		

Commenter	**Nature of Contact/Date**
United States Environmental Protection Agency	Letter dated 7/9/2014

Comment Summary

1. The draft EA included no analysis of the potential for implementing non-structural alternatives to achieve needed reductions in flood risk for the project area. Although the public notice references nonstructural approaches to reducing flood risk among the alternatives considered, the draft EA contains no evidence that any approaches other than raising the levee and widening a river cross-section were considered and evaluated. As mentioned below, the document lacks any assessment of possible alternatives to levee raising or any evaluation of watershed-scale management modifications which could provide the desired flood risk reduction without raising or extending the existing levee. Potential future changes in the hydro graph and the location of City infrastructure within the floodplains of three rivers will likely lead to the evaluation of flood risk reduction farther upstream into each watershed and/or the removal of public assets from the floodplain. The currently proposed alternatives appear short-sighted and could lead to a continual and repeated raising and lengthening of the levee over time.

Response Summary

Potential non-structural measures are discussed in Section IV of the Feasibility Report accompanying the Environmental Assessment. The evaluation of non-structural measures concluded that the expected depths of inundation resulting from failure of the levee would overwhelm the capabilities of typical flood-proofing methods and that the dense urban development in the study area precluded cost-effective relocation or elevation of structures. Non-structural measures were screened out of the array of viable alternatives for restoring authorized performance of the existing levee. Only those alternatives carried forward from the initial screening were evaluated in the EA for their potential environmental impact.

Evaluation is continuing of non-structural methods and other means of floodplain management within the watersheds of the Big Blue River, Wildcat Creek, and the Kansas River beyond the study area of this proposed levee modification. An interagency Silver Jackets program is actively working with the City of Manhattan, local County governments, and public interests, to identify and implement measures that, while not directly related to the existing levee, may serve to reduce flood risks and address possible future hydrograph changes.

Comment Summary

2. Maps included within the draft EA are too small to be useful. At least in the printed version, the legends for several of the maps are unreadable. In addition, it would be useful to include a detailed map showing the extent of the levee 'improvements' under each alternative, including any lateral extensions of the levee footprint.

Response Summary

Maps included in the EA will be reviewed and revised for readability. The maps in the EA were originally created at the 11 x 17 size but reduced for ease of internet downloading and printing by those who may not have access to larger format printers. Additional maps of the proposed project features are included in the maps section of the Feasibility Report.

Comment Summary
3. Section 3.3 describes existing groundwater contamination within the site and, specifically, a plume of trichloroethylene in groundwater extending below the levee from station 215+00 to 218+0. The document notes that this contamination is currently being remediated under the national Superfund program. The final EA should identify how planned construction activities in this area have been coordinated with the Kansas Department of Health and Environment, which is the lead agency for this remedial action. In addition, the final EA should describe in detail how the water produced from sand drains and relief wells in this area will be monitored for contaminants and how any contaminated water will be treated and disposed. A plan for construction of wells and drains in this vicinity as well as management of any groundwater withdrawals should be coordinated with KDHE in advance of any construction. Any possible future action or modification to the existing levee which could affect other contamination sites (e.g., USTs, battery site, private disposal site) in the area should be closely coordinated with KDHE as well.
Response Summary
Review of available site information published by KDHE has been used to identify the location and status of the contamination plume and remediation activities undertaken by the property owner. This available information indicates that the site is in the process of being reclassified from Active to Resolved. No relief wells are proposed in the known area of the TCE plume. The sand drains will be constructed in the new levee toe, at or above the existing ground surface. They purpose of the sand drains is to lower the water pressure gradient in the embankment during flood events that load the levee long enough to saturate the embankment. This study has not estimated any flow rates through the sand drain material. Any seepage flow from the sand drains will be drive by floodwaters and not groundwater. There are currently no proposed future Federal actions that would affect the other identified HTRW sites.

Comment Summary
4. The draft EA contradicts itself within sections discussing the status and presence of Interior Least Terns and Piping Plovers. The document states that no historic records of nesting on the Kansas River exist for nesting by both species and then immediately notes recent nesting observations for both species.
Response Summary
The reference to historic was referring to the period prior to the 1993 flood. Discussion in the EA of Tern and Plover nesting has been edited for clarity. There has not been any known nesting since 2009. A previous study of the conditions in the Kansas River concluded that the habitat for Terns and Plovers was unsustainable and unlikely to support future populations.

Comment Summary
5. The draft EA should more thoroughly describe actions and land management throughout Wildcat Creek and the Kansas River watersheds upstream of the project area. Contemporary land management decisions affecting land surface, drainage and floodplain access also affect the hydrograph and resulting flood risk. Agency correspondence contained in Appendix II recognizes changes in the watershed negatively affecting flood management performance by this project and yet very little is described within this draft EA. This omission weakens the rationale for augmenting existing flood risk reduction design and suggests that continuing mismanagement of the floodplain above the project site could eventually limit the effectiveness of the proposal.
Response Summary
Federal and local interagency Silver Jackets Program initiatives to address floodplain management in the Big Blue River and Wildcat Creek watersheds and adjacent areas of the Kansas River are currently underway and are summarized in the Feasibility Report. The current Silver Jackets effort is scheduled for conclusion in 2015. It is expected that these efforts will produce effective floodplain management and land use planning that will prevent or minimize future activities that would impact the modified levee.

Comment Summary
6. Although Section 2.2 states that all four action alternatives would include an extension of the levee footprint, nowhere within Section 4.0 does the document mention an extension of the levee length nor does the document clearly identify any impacts from extending the levee beyond its existing footprint. Any increase in levee length and, therefore, an increase in the area protected by the levee should be thoroughly characterized and any impacts on further restricting creek or river access to its floodplain assessed. As mentioned previously, the document should include diagrams clearly depicting which sections of existing levee will be raised and, most importantly, where the levee will be extended.
Response Summary
With the exception of Plan 4, the only extensions of the levee length are along the edge of Casement Road to tie the northern end of the existing levee into high ground. As shown in the Map Section of the Feasibility Report, Sheet No. 10, the length of this extension is 200 feet for Plan 2 and 500 feet for Plans 3 and 4. Map sheets 22 and 23 show the location of this extension for the Recommended Plan. A description of the potential terrestrial habitat impacts of levee footprint expansion is included in Chapter 4 of the Environmental Assessment. The impacts are described as a whole for each alternative and are not separated between impacts attributable to these short length extensions and those attributable to the rest of alternative, i.e. widening of the levee footprint to accommodate the raise along its existing length. The levee width will increase approximately three feet horizontally for each foot of vertical raise. The footprint expansions and minor length increases are integral to the levee raise itself and cannot be separated for determining impacts. The Plan 4 expansion that parallels Wildcat Creek is much larger and longer, approximately 1700 feet, and these potential impacts are included within the description of Plan 4 impacts.

Comment Summary
7. Although not selected as the 'preferred alternative', statements made regarding the "long term increase in aquatic habitat" resulting from channel widening within the Big Blue River under Plan 5 are speculative and without basis and should not be retained in the final EA without further analysis. Such statements appear to be based completely upon the increase in surface area within the river channel and not based on the suitability, quality or stability of this "increased habitat."
Response Summary
The EA, Section 4.2.1 Aquatic Habitat (including Fisheries and Wetlands) – the description of impact for Plan 5 includes the following statement: "An additional 19.7 acres of aquatic habitat would be added to the Big Blue River as a direct result of widening the channel. The quality of that habitat could vary depending on the final design of that portion of the stream. It is anticipated that habitat features would be designed in and constructed should this alternative be selected." As this alternative was not selected, no other assessments of the quality or suitability of this habitat, or specific designs of habitat features, were conducted.

Comment Summary
8. This section should include an assessment of land use and planning decisions made by local, regional or state government in the past which might have compromised floodplain integrity upstream of the project area. Development within the floodplain and actions to further isolate the floodplain contribute to increased flood risk to the project area possibly contributing to the need to raise levee elevation and/or extend its length. The draft EA provides no information or characterization of this important component of cumulative impact analysis.
Response Summary
Past upstream impacts to the floodplain integrity are dominated by the Federal levees and reservoirs constructed in the Kansas and Big Blue River basins. The City of Manhattan was already established at the time of the existing levee construction. The area within the existing project is currently fully developed and the proposed modification project does not increase the protected area or induce additional local floodplain development. The City of Manhattan has continued to grow in areas outside the existing Federal levee, including residential neighborhoods in the Big Blue River floodplain immediately upstream of the existing levee. The proposed project improves the performance of the existing levee consistent with the original authorization and design

intent. It is not expected to add to the cumulative floodplain impacts above the impacts that have already occurred.

Commenter	**Nature of Contact/Date**	**Comment Summary**
United States Fish and Wildlife Service	Letter dated July 11, 2014	No objection to the selection of the Alternative Plan 3 as the Recommended Plan. If a tree removed is not native to the local area, the replacement tree should be a native species. Recommend planting 3 trees for every tree removed as many of the planted trees will not survive to maturity.
Response Summary		
The EA currently states: "Temporary construction easements as well as the permanent easements that are cleared during construction will be planted with native vegetation where possible following construction." This will apply to any trees that cannot be avoided. Mitigation for tree removal is not currently anticipated as mature tree avoidance will be stressed during the project design. If tree avoidance is not possible in the final design, impacts will be assessed and suitable replacement plantings will be implemented.		