ENVIRONMENTAL ASSESSMENT

Arkansas and Walnut Rivers Section 206 Aquatic Ecosystem Restoration Project Arkansas City, Kansas

U.S. ARMY COPRS OF ENGINEERS
TULSA DISTRICT

July 2008

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, including guidelines in 33 Code of Federal Regulations, Part 230, the Tulsa District has assessed the environmental impacts of an ecosystem restoration project to restore aquatic and riparian habitat for the lower Walnut River basin, Arkansas City, Cowley County, Kansas. The recommended plan includes restoration of 42.1 acres of bottomland hardwood forest habitat, 16 acres of prairie grassland habitat, and creation of 6 acres of seasonally inundated wetlands.

Based on the enclosed environmental assessment, it is my determination that construction of the proposed project would not have significant adverse effects on the natural or human environment to warrant the preparation of an Environmental Impact Statement (EIS)

29 JUL 08
Date

Anthony C. Funkhouser
Colonel, U.S. Army
District Engineer

Enclosure
Environmental Assessment

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the effects of a Section 206 Aquatic Ecosystem Restoration Project to restore aquatic and riparian habitat along the lower Walnut River, Arkansas City, Kansas. This EA will facilitate the decision process regarding the proposed action and alternatives.

SECTION 1	*INTRODUCTION* provides the authority for the proposed action, summarizes the project purpose, provides relevant background information, and describes the scope of the EA.
SECTION 2	*ALTERNATIVES* examines alternatives for implementing the proposed action.
SECTION 3	*PROPOSED ACTION* describes the recommended plan.
SECTION 4	*AFFECTED ENVIRONMENT* describes the existing environmental and socioeconomic setting.
SECTION 5	*IMPACTS OF THE PROPOSED ACTION* identifies the potential environmental and socioeconomic effects of implementing the proposed action and alternatives.
SECTION 6	*FEDERAL, STATE, AND LOCAL AGENCY COORDINATION* provides a listing of individuals and agencies consulted during preparation of the EA.
SECTION 7	*REFERENCES* provides bibliographical information for cited sources.
SECTION 8	*APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS* provides a listing of environmental protection statutes and other environmental requirements.
SECTION 9	*LIST OF PREPARERS* identifies persons who prepared the document and their areas of expertise.
APPENDICES	*A Coordination/Correspondence* *B Section 404 Permit* *C Cultural Resources Coordination* *D Public Information/Scoping Workshop* *E Public Comments (final EA only)* *F Newspaper Public Notice (final EA only)*

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ENVIRONMENTAL ASSESSMENT
ARKANSAS AND WALNUT RIVERS SECTION 206
AQUATIC ECOSYSTEM RESTORATION PROJECT
ARKANSAS CITY, KANSAS

1.0 INTRODUCTION

1.1 Project Authority

This study is being conducted under authority of Section 206 of the 1996 Water Resources Development Act, as amended. The purpose of the project is to restore aquatic and riparian habitat within the lower Walnut River basin within the historic floodplain of the Walnut River. The city of Arkansas City, Kansas is located at the confluence of the Arkansas and Walnut Rivers in southeast Kansas in Cowley County (Figure 1.1). This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Engineering Regulation (ER) 1105-2-100, *USACE Planning Guidance Notebook*, ER 200-2-2, *Procedures for Implementing NEPA* and the President's Council on Environmental Quality (CEQ) Regulations for the Implementation of NEPA.

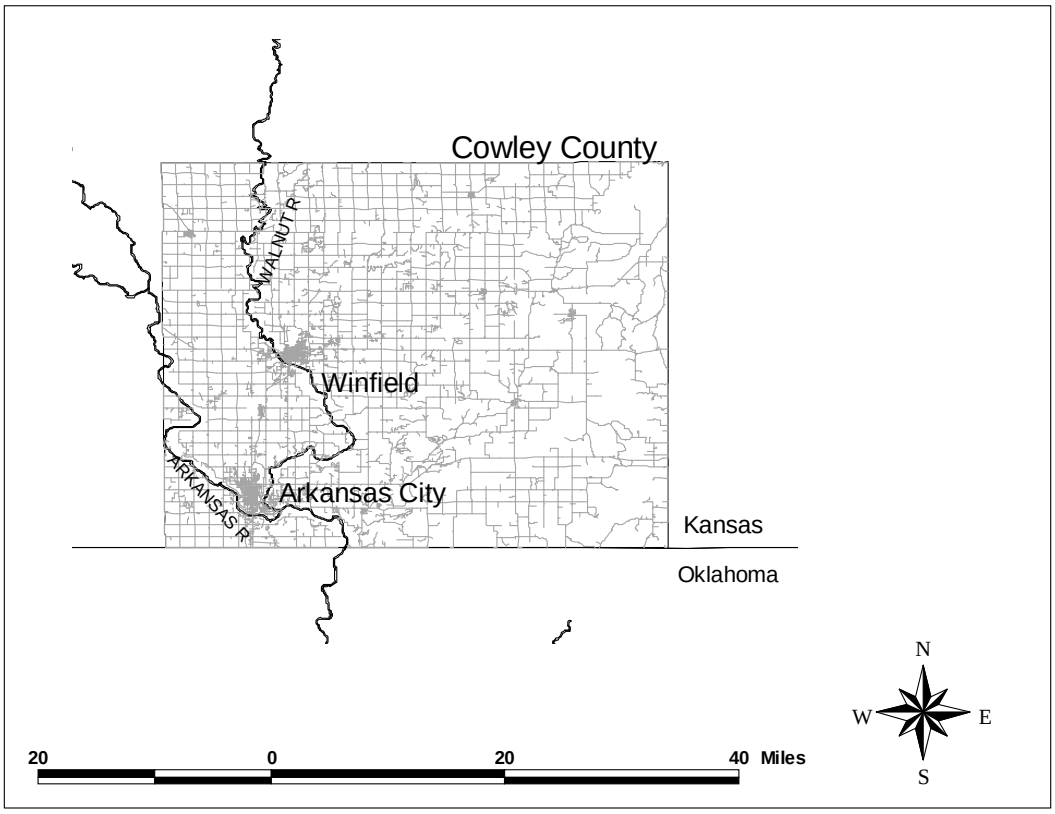

Figure 1.1. Vicinity map, Arkansas City, Cowley County, Kansas.

1.2 Project Purpose and Scope

Historical activities related to agricultural, industry and flood damage reduction projects within the lower Walnut River basin have resulted in degraded riparian corridor habitat conditions over time. The purpose of this action is to restore riparian habitat within the Lower Walnut River corridor.

1.3 Public Scoping

USACE issued a news release on October 1, 2003, announcing a public information workshop with regard to aquatic and riparian ecosystem restoration of the lower Walnut River. Paid display advertisements were published in the 8 October, 19 October, and 21 October 2003 editions of the Arkansas City Traveler. The Memorandum for Record (MFR), prepared by USACE personnel, of this public scoping meeting is provided in Appendix D.

2.0 ALTERNATIVES

Alternatives include a No Action plan, which would retain existing conditions; and a Proposed Action plan, which would restore aquatic and riparian habitat within the lower Walnut River basin.

2.1 No Action

The Council on Environmental Quality (CEQ) regulations implementing the provisions of the National Environmental Policy Act of 1969 (NEPA) require Federal agencies to consider a “no action” alternative. These regulations define the “no action” alternative as the continuation of existing conditions and their effects on the environment, without implementation of, or in lieu of, a proposed action. This alternative represents the existing condition and serves as the baseline against which to compare the effects of the proposed alternative. The no action alternative would retain the existing condition and would not result in any project-related environmental impacts or loss of habitat.

Under existing conditions, riparian and aquatic habitat conditions could continue to decline or remain at the current state of impact. Existing floodplain features would continue to provide little wildlife value and only marginal aquatic and riparian habitat. Additional impacts related to erosion and decreased stream bank stability could increase in the absence of a well developed riparian corridor.

2.2 Action Alternatives

In addition to the no action alternative, or without-project alternative, seven action alternatives were assessed relative to how well each alternative would perform in meeting the purpose and need of this project and the national ecosystem restoration goals of the U.S. Army Corps of Engineers.

Eight areas within the Lower Walnut River basin were initially identified for possible ecosystem restoration activities during the Scoping phase of this study. These areas and the ecosystem restoration measures considered for each area are described below and each area is identified in Figure 2.1.

- Area 5/Area 1/Area 3. Activities associated with this alternative would include the excavation and construction of a wetland structure that would total approximately 8 surface acres and be comprised of approximately 2 surface acres of emergent wetland habitat and approximately 6 surface acres of aquatic habitat in Area 5. Within Area 1 activities would include the selective thinning of the existing even age stand of native cottonwood trees (<6 years old) and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species to be planted would include green

ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Within Area 3 brush piles would be placed at a density of approximately 1 unit per 2 acres based upon the attached brush pile design.

- Area 5/Area 1. Activities associated with this alternative would include the excavation and construction of a wetland structure that would total approximately 8 surface acres and be comprised of approximately 2 surface acres of emergent wetland habitat and approximately 6 surface acres of aquatic habitat in Area 5. Within Area 1, activities would include the selective thinning of the existing even age stand of native cottonwood trees (<6 years old) and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species to be planted would include green ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Additionally, approximately 1 miles of chat trail would be required for maintenance activity access.

- Area 5/Area 3. Activities associated with this alternative would include the excavation and construction of a wetland structure that would total approximately 8 surface acres and be comprised of approximately 2 surface acres of emergent wetland habitat and approximately 6 surface acres of aquatic habitat in Area 5. Within Area 3 brush piles would be placed at a density of approximately 1 unit per 2 acres based upon the attached brush pile design.

- Area 5/Area1/Area 2. Activities associated with this alternative would include the excavation and construction of a wetland structure that would total approximately 8 surface acres and be comprised of approximately 2 surface acres of emergent wetland habitat and approximately 6 surface acres of aquatic habitat in Area 5. Within Area 1, activities would include the selective thinning of the existing even age stand of native cottonwood trees (<6 years old) and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species to be planted would include green ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Additionally, approximately 1 miles of chat trail would be required for maintenance activity access. Within Area 2, activities would include would include the planting of shrubs clusters in approximately 100-foot rows with 4 to 6 rows within each shrub cluster. Native shrub species would include choke cherry, fragrant sumac, and American plum. Additionally native trees would be planted at a rate not to exceed 100 trees per acre. Trees would be 4 to 6 feet tall, balled and burlapped or containerized. Tree species to be used would include cottonwood, green ash, bur oak, black walnut, box elder, and hackberry. Trees would be planted on 20-foot centers.

- Area 5/Area 1/Area 3/Area 6. Activities associated with this alternative would include the excavation and construction of a wetland structure that would total approximately 8 surface acres and be comprised of approximately 2 surface acres of emergent wetland habitat and approximately 6 surface acres of aquatic habitat in Area 5. Within Area 1 activities would include the selective thinning of the existing even age stand of native cottonwood trees (<6 years old) and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species to be planted would include green ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Additionally, approximately 1 miles of chat trail would be required for maintenance activity access. Within Area 3 brush piles would be placed at a density of approximately 1 unit per 2 acre based upon the attached brush pile design. Within Area 6, existing vegetation will be removed/eradicated from approximately 16 acres. Once existing vegetation has been removed, a native mix of grasses and forbs will be planted at the following rates:
-

Little Bluestem	0.6 pounds per acre of pure live seed
Big Bluestem	1.5 pounds per acre of pure live seed
Indian grass	1.2 pounds per acre of pure live seed
Switchgrass	0.6 pounds per acre of pure live seed
Sideoats grama	0.6 pounds per acre of pure live seed
Blue grama	0.2 pounds per acre of pure live seed
Wildflower seed mix	0.5 pounds per acre of pure live seed

Additionally, four forbs should be selected from the following list with equal weights of each being used to achieve a total of 0.5 pound of pure live seed/acre:

Maximillian sunflower	Illinois bundle flower
leadplant	gayfeather
purple prairie clover	prairie coneflower
pitcher sage	

- Area 5/Area 1/Area 3/Area 2/Area 4. Activities associated with this alternative would include the excavation and construction of a wetland structure that would total approximately 8 surface acres and be comprised of approximately 2 surface acres of emergent wetland habitat and approximately 6 surface acres of aquatic habitat in Area 5. Within Area 1 activities would include the selective thinning of the existing even age stand of native cottonwood trees (<6 years old) and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species to be planted would include green ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Additionally, approximately 1 miles of chat trail would be required for maintenance activity access. Within Area 3 brush piles would be placed at a density of approximately 1 unit per 2 acres based upon the attached brush pile design. Within Area 2, activities would include would include the planting of shrubs clusters in approximately 100-foot rows with 4 to 6 rows within each shrub cluster. Native shrub species would include choke cherry, fragrant sumac, and American plum. Additionally native trees would be planted at a rate not to exceed 100 trees per acre. Trees would be 4 to 6 feet tall, balled and burlapped or containerized. Tree species to be used would include cottonwood, green ash, bur oak, black walnut, box elder, and hackberry. Trees would be planted on 20-foot centers. Within Area 4 brush piles would be placed at a density of approximately 1 unit per 2 acres based upon the attached brush pile design.

- Area 1/Area 2/Area 6/Area 7/Area 8. Activities associated with this alternative would include the excavation and construction of a an approximately 6 acre wetland with a 6 to 8 foot maximum depth in Area 7 that would result in the creation of a wetland that would primarily submerge only the existing water course. Adjacent to Area 7, shrub clusters would be placed in approximately 100-foot rows with 4 to 6 rows in each cluster. Native shrub species would include choke cherry, fragrant sumac, and American plum. Additionally, native trees would be planted at a rate not to exceed 100 trees per acre. Trees would be 4 to 6 feet tall, balled and burlapped or containerized. Tree species to be used would include cottonwood, green ash, bur oak, black walnut, box elder, and hackberry. Trees would be planted on 20-foot centers. Within Area 1 activities would include the selective thinning of the existing even age stand of native cottonwood trees (<6 years old) and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species to be planted would include green ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Within Area 2, activities would include would include the planting of shrubs clusters in approximately 100-foot rows with 4 to 6 rows within each shrub cluster. Native shrub species would include choke cherry, fragrant sumac, and American plum. Additionally native trees would be planted at a rate not to exceed 100 trees per acre. Trees would be 4 to 6 feet tall, balled and burlapped or containerized. Tree species to be used would include

cottonwood, green ash, bur oak, black walnut, box elder, and hackberry. Trees would be planted on 20-foot centers. Within Area 6, existing vegetation will be removed/eradicated from approximately 16 acres. Once existing vegetation has been removed, a native mix of grasses and forbs will be planted at the following rates:

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Little Bluestem	0.6 pounds per acre of pure live seed
Big Bluestem	1.5 pounds per acre of pure live seed
Indian grass	1.2 pounds per acre of pure live seed
Switchgrass	0.6 pounds per acre of pure live seed
Sideoats grama	0.6 pounds per acre of pure live seed
Blue grama	0.2 pounds per acre of pure live seed
Wildflower seed mix	0.5 pounds per acre of pure live seed

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Action items for each potential restoration, presented below, were developed based upon project objectives and constraints. Project objectives included, (1) restore the Arkansas-Walnut River floodplain within the study area to a more natural condition, (2) restore existing wildlife habitat to a more productive state, (3) modify abandoned gravel mine pits and borrow pits to provide palustrine and/or lacustrine habitat as well as deep water habitats, (4) development of restorations plans complementary to the City of Arkansas City Master Plan, (5) include educational opportunities to complement features planned for the proposed Lower Walnut Valley Greenway Project, (6) optimize the use of available and planned City acquisitions for real estate in the formulation of alternatives, (7) incorporate existing State of Kansas best management practices for wildlife, habitats, and other resources into the recommended plan, and (8) utilize only native plant species capable of sustained production for available climate and soil conditions. Project constraints included, (1) minimize and/or prevent negative impacts to cultural resource sites within the project area, (2) and avoid restoration measures which would require permanent irrigation requirements.

- Area 1 is approximately 18.4 acres adjacent to an existing water-filled borrow pit (Area 3). Currently the vegetation in Area 1 is dominated by cottonwood seedlings and Bermuda grass. Extensive soil preparation is not advised due to cultural resources in the area. The restoration measures considered for this area are: (a) No Action; (b) Best Management Practices, protection; and (c) Limited thinning (total 4.5 acres) of cottonwoods and planting of native hardwood seedlings (50 trees per acre) to increase tree species diversity and forest complexity. Species diversity improves the carrying capacity and health of the ecosystem (d) More extensive thinning (total 9 acres) and replanting with native hardwood seedlings (100 trees per acre). In both measures (c) and (d), the thinning would be scattered, not in a single area so that tree species diversity would be increased throughout the area.

- Area 2 consists of 10.7 acres surrounding an existing water filled borrow pit (Area 4). Currently the vegetation is degraded pasture and undesirable weeds. The restoration measures considered for this area are: (a) No Action; (b) Soil preparation and seeding with natives grasses and forbs; (c) Soil preparation, seeding with native grasses and forbs, and planting of native bottomland hardwood seedlings at 50 per acre coverage; and (d) Soil preparation, seeding with native grasses and forbs, and planting of native bottomland hardwood seedlings at 100 per acre coverage.

- Area 3 is an existing water-filled borrow pit with approximately 17.5 surface acres. The pond is used for resting by migratory waterfowl. There are no restoration measures considered for the pond itself. Restoration in the adjacent Area 1 is expected to have a positive effect on the pond.

- Area 4 is an existing water-filled borrow pit with approximately 23.2 surface acres. The pond is used for resting by migratory waterfowl. There are no restoration measures considered for the pond itself. Restoration in Area 2 is expected to have a positive effect since vegetation surrounding the pond will provide some cover and organic debris to the pond.

- Area 5 is located in a drainage area that drains runoff through the city golf course and eventually into the Arkansas River. The restoration measures considered for this area are: (a) No Action; (b) Construct a 10-acre wetland and allow vegetation to naturalize; and (c) Construct a 10-acre wetland and plant emergent wetland vegetation in 2 acres.

- Area 6 is a 16-acre unused pasture dominated by non-native grasses. The restoration measures considered for this area are: (a) No Action; (b) Spray to remove existing vegetation and replant with native grasses, forbs and wild flowers.

- Area 7 is a 15-acre unused field in a low area near a meat packing plant. The restoration measures considered for this area are: (a) No Action; (b) construct a wetland and use treated effluent from the packing plant as a water source; (c) construct a wetland and use treated effluent from the packing plant as a water source and plant emergent wetland vegetation in 5 acres; (d) create a 6 acre wetland by submerging the existing water course running through the property.

- Area 8 is an 11-acre belt surrounding Area 7. The restoration measures considered for this area are: (a) Soil preparation and seeding with natives grasses and forbs; (c) Soil preparation, seeding with native grasses and forbs, and planting of native bottomland hardwood seedlings at 50 per acre coverage; and (d) Soil preparation, seeding with native grasses and forbs, and planting of native bottomland hardwood seedlings at 100 per acre coverage.

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2.3 Recommended Alternative

For ecosystem restoration plans, the benefits resulting from the Federal action are non-monetary measures of change in the habitat/ecosystem under consideration. In this analysis the Habitat Evaluation Procedure (HEP) method was used to define benefits for the existing, future with- and without project conditions. HEP outputs calculated during this analysis were derived using HEP Models and Habitat Suitability Index (HSI) values calculated to evaluate mitigation alternatives associated with the Arkansas City, Kansas, Flood Control on the Arkansas and Walnut Rivers Interim Survey Report and Environmental Impact Statement (USACE 1984).

Area 1/Area 2/Area 6/Area 7/Area 8. Activities associated with this alternative would include the excavation and construction of an approximately 6 acre depression adjacent to the existing intermittent stream channel. The depression would have a 6 to 8 foot maximum depth in Area 7 that would result in the creation of a wetland that would be fed by stream overflow and could occasionally submerge the existing water course. Adjacent to Area 7, shrub clusters would be placed in approximately 100-foot rows with 4 to 6 rows in each cluster. Native shrub species would include choke cherry, fragrant sumac, and American plum. Additionally, native trees would be planted at a rate not to exceed 100 trees per acre. Trees would be 4 to 6 feet tall, balled and burlapped or containerized. Tree species to be used would include cottonwood, green ash, bur oak, black walnut, box elder, and hackberry. Trees would be planted on 20-foot centers. Within

Area 1 activities would include the selective thinning of the existing even age stand of native cottonwood trees (<6 years old) and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species to be planted would include green ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Within Area 2, activities would include would include the planting of shrubs clusters in approximately 100-foot rows with 4 to 6 rows within each shrub cluster. Native shrub species would include choke cherry, fragrant sumac, and American plum. Additionally native trees would be planted at a rate not to exceed 100 trees per acre. Trees would be 4 to 6 feet tall, balled and burlapped or containerized. Tree species to be used would include cottonwood, green ash, bur oak, black walnut, box elder, and hackberry. Trees would be planted on 20-foot centers. Within Area 6, existing vegetation will be removed/eradicated from approximately 16 acres. Once existing vegetation has been removed, a native mix of grasses and forbs will be planted at the following rates:

Little Bluestem	0.6 pounds per acre of pure live seed
Big Bluestem	1.5 pounds per acre of pure live seed
Indian grass	1.2 pounds per acre of pure live seed
Switchgrass	0.6 pounds per acre of pure live seed
Sideoats grama	0.6 pounds per acre of pure live seed
Blue grama	0.2 pounds per acre of pure live seed
Wildflower seed mix	0.5 pounds per acre of pure live seed

Additionally, four forbs should be selected from the following list with equal weights of each being used to achieve a total of 0.5 pound of pure live seed/acre:

Maximillian sunflower	Illinois bundle flower
leadplant	gayfeather
purple prairie clover	prairie coneflower
pitcher sage	

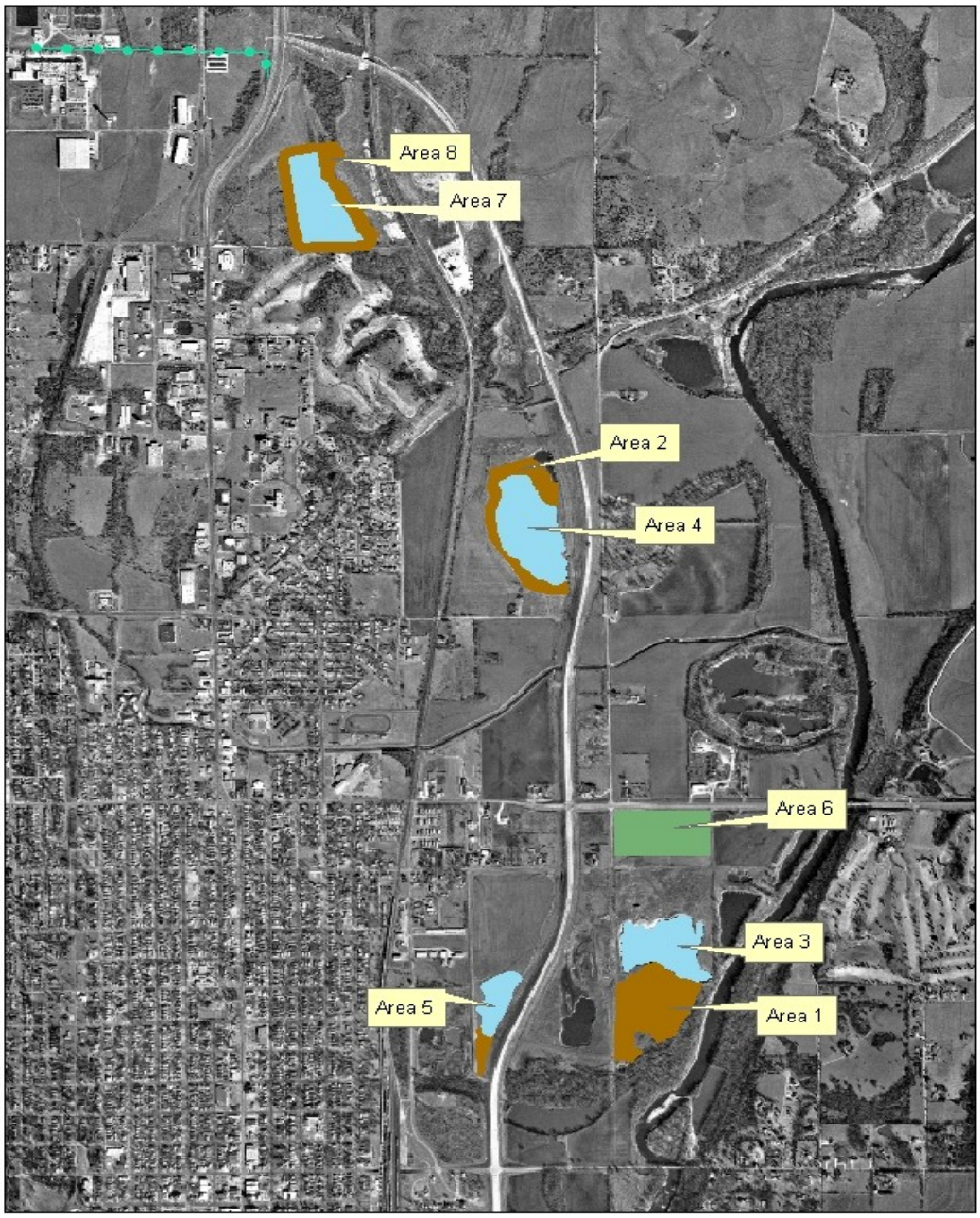

Figure 2.1. Areas within the Lower Walnut River basin identified for potential ecosystem restoration activities.

3.0 PROPOSED ACTION

The proposed action would result in the restoration of 42.1 acres of bottomland hardwood habitat (Areas 1, 2, and 8), 16 acres of prairie habitat (Area 6) and would create 6 acres of seasonal wetland (Area 7) within the lower Walnut River basin at Arkansas City, Kansas.

Restoration activities would include selective hand thinning of the 18.4 acre existing even age stand of native cottonwood trees (< 6 years old) in Area 1, and planting of native hardwoods to increase tree species diversity and forest complexity. Tree species would include green ash, bur oak, black walnut, box elder, and hackberry at a rate not to exceed 100 trees per acre. Activities within Area 1 would result in an average of 363.6 total cumulative habitat units (7.27 average annual habitat units) over a 50-year period (Table 3.0).

Within Areas 2 and 8, activities would include would include the planting of tree and/or shrub clusters in approximately 100-foot rows with 4 to 6 rows within each cluster. Additionally native trees would be planted at a rate not to exceed 100 trees per acre. Trees would be 4 to 6 feet tall, balled and burlapped or containerized. Tree/shrub species to be used would include choke cherry, fragrant sumac, American plum, cottonwood, green ash, bur oak, black walnut, box elder, and hackberry. Trees would be planted on 20-foot centers. Activities within Areas 2 and 8 would result in an average of 468.4 total cumulative habitat units (9.37 average annual habitat units) over a 50-year period (Table 3.0).

Within Area 6, existing vegetation will be removed/eradicated from approximately 16 acres. Once existing vegetation has been removed, a native mix of grasses and forbs will be planted at the following rates:

Little Bluestem	0.6 pounds per acre of pure live seed
Big Bluestem	1.5 pounds per acre of pure live seed
Indian grass	1.2 pounds per acre of pure live seed
Switchgrass	0.6 pounds per acre of pure live seed
Sideoats grama	0.6 pounds per acre of pure live seed
Blue grama	0.2 pounds per acre of pure live seed
Wildflower seed mix	0.5 pounds per acre of pure live seed

Additionally, four forbs should be selected from the following list with equal weights of each being used to achieve a total of 0.5 pound of pure live seed/acre:

Maximillian sunflower	Illinois bundle flower
leadplant	gayfeather
purple prairie clover	prairie coneflower
pitcher sage	

Activities within Area 6 would result in an average of 199.2 total cumulative habitat units (3.98 average annual habitat units) over a 50-year period (Table 3.0)

Restoration activities in Area 7 would include the excavation and construction of a an approximately 6 acre wetland with a 6 to 8 foot maximum depth resulting in the creation of a wetland that would primarily submerge only the existing water course. Activities in Area 7 would result in and average of 118.6 total cumulative habitat units (2.37 average annual habitat units) over a 50-year period (Table 3.0). The following is a partial list of hydric plant species recommended by the NRCS for Kansas that could be used for wetland plantings:

Common Hackberry	American Elder
Buttonbush possumhaw	Low spikesedge
Paleyellow iris	Rice cutgrass
Shreve's iris	Wood lily
Keeled bulrush	Common duckweed
Tapertip rush	Floating primrose-willow
Toad rush	Hairy waterclover
Common rush	Buckbean
Grassleaf rush	Southern waternymph

Green Ash	American white waterlily
Common Chokecherry	Field paspalum
Bur Oak	Water knotweed
Sandbar Willow	Leafy pondweed
Peachleaf Willow	Small pondweed

Table 3.1
Calculation of AAHUs for base year and future with project target years

Habitat	Species	Restoration Area	Acres	Target Year 0		Target Year 01		Target Year 10		Target Year 25		Target Year 50		Total Cum. HUs	AAHUs	AAHU Net impact
				HSI	HUs	HSI	Cum. HUs	HSI	Cum. HUs	HSI	Cum. HUs	HSI	Cum. HUs			
Bottom Land Hardwood / Wetlands	Fox Squirrel	1	18.4	0.1	1.84	0.1	1.84	0.16	21.5	0.39	75.9	0.53	211.6	310.9	6.22	4.38
	Black capped chickadee	1	18.4	0.1	1.84	0.1	1.84	0.23	27.3	0.56	109.0	0.76	303.6	441.8	8.84	7.00
	Barred owl	1	18.4	0.1	1.84	0.1	1.84	0.27	30.6	0.68	131.1	0.93	370.3	533.9	10.68	8.84
	Mink	1	18.4	0.1	1.84	0.1	1.84	0.3	33.1	0.74	143.5	1	400.2	578.7	11.57	9.73
	Wood duck	1	18.4	0.1	1.84	0.1	1.84	0.14	19.9	0.23	51.1	0.01	55.2	128.0	2.56	0.72
	Bobwhite quail	1	18.4	0.1	1.84	0.1	1.84	0.11	17.4	0.26	51.1	0.35	140.3	210.6	4.21	2.37
	White-tailed deer	1	18.4	0.1	1.84	0.1	1.84	0.17	22.4	0.43	82.8	0.59	234.6	341.6	6.83	4.99
	Average			0.1	1.84	0.1	1.84	0.20	24.6	0.47	92.1	0.60	245.1	363.6	**7.27**	**5.43**
Bottom Land Hardwood / Wetlands	Fox Squirrel	2, 8	23.7	0.1	2.37	0.1	2.37	0.16	27.7	0.39	97.8	0.53	272.6	400.4	8.01	5.64
	Black capped chickadee	2, 8	23.7	0.1	2.37	0.1	2.37	0.23	35.2	0.56	140.4	0.76	391.1	569.0	11.38	9.01
	Barred owl	2, 8	23.7	0.1	2.37	0.1	2.37	0.27	39.5	0.68	168.9	0.93	477.0	687.7	13.75	11.38
	Mink	2, 8	23.7	0.1	2.37	0.1	2.37	0.3	42.7	0.74	184.9	1	515.5	745.4	14.91	12.54

	Wood duck	2, 8	23.7	0.1	2.37	0.1	2.37	0.14	25.6	0.23	65.8	0.01	71.1	164.8	3.30	0.93
	Bobwhite quail	2, 8	23.7	0.1	2.37	0.1	2.37	0.11	22.4	0.26	65.8	0.35	180.7	271.2	5.42	3.05
	White-tailed deer	2, 8	23.7	0.1	2.37	0.1	2.37	0.17	28.8	0.43	106.7	0.59	302.2	440.0	8.80	6.43
	Average			0.1	2.37	0.1	2.37	0.20	31.7	0.47	118.6	0.60	315.7	468.4	**9.37**	**7.00**
Bottom Land Hardwood / Wetlands	Fox Squirrel	7	6.0	0.1	0.60	0.1	0.60	0.16	7.0	0.39	24.8	0.53	69.0	101.4	2.03	1.43
	Black capped chickadee	7	6.0	0.1	0.60	0.1	0.60	0.23	8.9	0.56	35.6	0.76	99.0	144.1	2.88	2.28
	Barred owl	7	6.0	0.1	0.60	0.1	0.60	0.27	10.0	0.68	42.8	0.93	120.8	174.1	3.48	2.88
	Mink	7	6.0	0.1	0.60	0.1	0.60	0.3	10.8	0.74	46.8	1	130.5	188.7	3.77	3.17
	Wood duck	7	6.0	0.1	0.60	0.1	0.60	0.14	6.5	0.23	16.7	0.01	18.0	41.7	0.83	0.23
	Bobwhite quail	7	6.0	0.1	0.60	0.1	0.60	0.11	5.7	0.26	16.7	0.35	45.8	68.7	1.37	0.77
	White-tailed deer	7	6.0	0.1	0.60	0.1	0.60	0.17	7.3	0.43	27.0	0.59	76.5	111.4	2.23	1.63
	Average			0.1	0.60	0.1	0.60	0.20	8.0	0.47	30.0	0.60	79.9	118.6	**2.37**	**1.77**
Grassland	Bobwhite quail	6	16.0	0.1	1.60	0.1	1.60	0.17	19.4	0.43	72.0	0.59	204.0	297.0	5.94	4.34
	White-tailed deer	6	16.0	0.1	1.60	0.1	1.60	0.11	15.1	0.26	44.4	0.35	122.0	183.1	3.66	2.06
	Field sparrow	6	16.0	0.1	1.60	0.1	1.60	0.07	12.2	0.16	27.6	0.22	76.0	117.4	2.35	0.75
	Average			0.1	1.60	0.1	1.60	0.12	15.6	0.28	48.0	0.39	134.0	199.2	**3.98**	**2.38**
															TOTAL	**16.58**

4.0 AFFECTED ENVIRONMENT

The City of Arkansas City is located at the confluence of the Arkansas and Walnut Rivers in southeast Kansas, Cowley County, approximately 122 miles northwest of Tulsa, Oklahoma. The Walnut River flows from north to south and combines with the Arkansas River at Arkansas City. The area of interest, with respect to aquatic ecosystem restoration, is within the historic floodplain of the Walnut River as well as the proposed Lower Walnut Valley Greenway (Figures 1.1 and 2.1).

Organized in 1870, Cowley County lies on the southern border of Kansas. The total area of the county is 1,139 square miles (728,960 acres). Elevations within Cowley County range between approximately 900 and 1,500 feet above sea level. Arkansas City is located in the Northern Limestone Cuesta Plains. The deep, loamy soils of the uplands are primarily underlain by limestones and shales of the Permian Age. Some of the deeply cut stream drainageways have left exposed limestone ledges. The eastern three-quarters of Cowley County lies within the Flint Hills formation with most of the remaining area located in the Central Loess Plains.

Most of Cowley County is drained by four permanently flowing streams: the Arkansas River, Walnut River, Grouse and Silver Creeks. All of these streams flow in a southerly direction.

The Walnut River, a tributary to the Arkansas River, rises in the north-eastern part of Butler County, Kansas and flows southward to join the Arkansas River at Arkansas City. The watershed has a drainage area of approximately 1,955 square miles, is about 75 miles long and up to 35 miles wide. The greater portion of the uplands is a nearly flat expanse of prairie marked by low smoothly rounded ridges and swells. Land use is devoted mainly to agriculture and related uses.

Cowley County experiences a continental climate characterized by large daily and annual temperature fluctuations. The average daily temperature in winter is 36.6 degrees Fahrenheit (F), and the average daily minimum is 25.2 degrees F. The lowest temperature on record is -27 degrees F., recorded on February 13, 1905. In summer, the average daily temperature is 79.2 degrees F., and the average daily maximum is 91.3 degrees F. The highest temperature was 118 degrees F., recorded on August 12, 1936.

Precipitation in Cowley County is highest during the spring and summer months (April-September). Seventy-two percent of the annual precipitation occurs during late evening or night-time thunderstorms. The average annual amount of precipitation is about 33 inches. Snowfall averages about 10-11 inches annually. In dry years precipitation is marginal for agriculture, and even during wet years, prolonged periods without rain often cause stress to growing crops.

4.1 Social and Economic Conditions

4.1.1 Population

The 2000 U.S. Census of Population and Housing indicates that 11,936 persons live in Arkansas City. There are approximately 5,600 housing units in Arkansas City. The population of the city decreased by approximately six percent between 1990 and 2000. Cowley County also experienced a slight decrease in population, from 36,915 to 36,291 persons, while the State of Kansas experienced a population increase of approximately ten percent. The declining populations are in part attributable to diminishing employment opportunities in this area of the state, resulting in people moving away from more rural areas and in to the larger cities and metropolitan areas. Table 1 shows the population counts for Arkansas City, Cowley County, and the State of Kansas.

Table 4.1 Area Population Arkansas City , Kansas 1990-2006			
	1990	2000	2006
Arkansas City	12,762	11,963	11,416
Cowley County, Kansas	36,915	36,291	34,931
State of Kansas	2,447,574	2,688,418	2,764,075

Source: U.S. Bureau of the Census, 2000 Census of Population; 2000 Decennial Census, 1990 Decennial Census and US Census Bureau Population Estimates Program.

The population of Arkansas City is slightly younger than that of Cowley County based on Median Age. The State of Kansas and Arkansas City are of similar median age. The median age of Arkansas City and the State of Kansas is 36.3 years, while Cowley County's median age is 37 years. Approximately 18% of Arkansas City's population is age 65 years and older, which is more than Cowley County, approximately 16%, and the State of Kansas, 13%. Few of Arkansas City's residents are age 18 years and older (74.3%) than the State of Kansas (74.9%), while Cowley County has a similar percentage of persons age 18 years and older (74%).

Throughout the state of Kansas, including Cowley County and Arkansas City, the population is primarily white. In Arkansas City, 87.2% of the population is white; Cowley County 90.1%; and State of Kansas 85.4%. The second most populous race by percentage is Black or African American. Table 2 shows a breakdown of the population by age and race.

Table 4.2 Population Comparison Arkansas City, Cowley County and State of Kansas (2006 Estimates)				
		Arkansas City	**Cowley County**	**Kansas**
Population		11,416	34,913	2,764,075
	Median Age	36.3	37*	36.3
	Percentage 65 years and older	17.9%*	15.9%*	12.9%
	Percentage 18 years and older	74.3%*	74.0%*	74.9%
Race				
	White	87.2%*	90.1%*	85.4%
	Black or African American	4.5%*	2.7%*	5.6%
	American Indian	2.7%*	2.0%*	0.9%
	Two or more Races	3%*	2.3%*	2.5%

Source: U.S. Bureau of the Census, 2000 Census of Population; US Census Bureau Population Estimates Program.
* 2000 Decennial Census reported figure used. 2006 estimate unavailable.

4.1.2 Employment and Education

The 2000 Census Data provides insight in to employment for Arkansas City for the year 1999. The total employed labor force for Arkansas City in 1999 was 5,015 persons and 5.2% of the civilian labor force (an additional 483 persons) reported being unemployed. This rate was slightly

higher than that of Cowley County (5.0%) and considerably higher than the State of Kansas (2.8%).

The primary industry of employment was education, health and social services, where 26.5% of the employed population worked. Closely following with 22.4% of the population was manufacturing. Table 3 shows a detailed breakdown of the labor force by industry.

Table 4.3
Employment By Industry
Arkansas City, Kansas
(2000)

Industry	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	80	1.6%
Construction	338	6.7%
Manufacturing	1,124	22.4%
Wholesale trade	89	1.8%
Retail trade	488	9.7%
Transportation and warehousing, and utilities	376	7.5%
Information	63	1.3%
Finance, insurance, real estate, and rental and leasing	168	3.3%
Professional, scientific, management, administrative, and waste management services	191	3.8%
Educational, health and social services	1,327	26.5%
Arts, entertainment, recreation, accommodation and food services	440	8.8%
Other services (except public administration)	187	3.7%
Public administration	144	2.9%

Source: U.S. Bureau of the Census, 2000 Census of Population.

Approximately 3200 persons age 3 and older are reported as participating in education for Arkansas City. Elementary school has the largest population with almost 1,400 students. Table 4 shows the breakdown of students broken down by type of school enrollment.

Of the 7580 persons age 25 years and over, 82.8% are high school graduates, with 50% of those graduates going to at least some level of college or professional school.

Table 4.4
Population Age 3 and over enrolled in school
Arkansas City
(2000)

Grades	**Enrollment**	**Percent**
Nursery school, preschool	174	5.4%
Kindergarten	240	7.5%
Elementary school (grades 1-8)	1,371	42.7%
High school (grades 9-12)	627	19.5%
College or graduate school	797	25.8%
Total	3209	100.0%

Source: U.S. Bureau of the Census, 2000 Census of Population

4.1.3 Income

The 1999 median household income for Arkansas City was $29,158 compared to $34,406 for Cowley County and $40,624 for the State of Kansas. In 1999, 13.3% of the 4,896 households in Arkansas City had an annual income of less than $10,000. Female full-time, year-round workers earn significantly less than male full-time, year-round workers, $19,919 for women versus $30,665 for men. Additionally, 12.4% of families report living in poverty.

4.1.4 Social Ecology

Arkansas City has areas with a mix of industrial, commercial, and residential land uses. Surrounding areas also support agriculture. An estimated 5,622 housing units are located in Arkansas City, and an unspecified number of people travel through the city or conduct business in the city. The degradation of the environment negatively impacts habitat, as well as aesthetic and related quality of life for residents and visitors to the region.

4.2 Executive Order 12989

Executive Order 12898 requires each Federal agency to make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect serves to heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population.

Low-income populations in an affected area are identified with the annual statistical poverty thresholds from the Bureau of the Census Reports on Income and Poverty. In identifying low-income populations, agencies my consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.

Minorities are comprised of individual(s) who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

Minority populations are identified where either: (a) the minority populations of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. In identifying minority communities, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a geographically dispersed/transient set of individuals (such as migrant workers or Native American), where either type of group experiences common conditions of environmental exposure or effect. The selection of the appropriate unit of geographic analysis may be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as to not artificially dilute or inflate the affected minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds.

Disproportionately high and adverse human health effects: When determining whether human health effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable: (a) Whether the health effects, which may be measured in risks and rates, are significant or above generally accepted norms. Adverse health effects may include bodily impairment, infirmity, illness, or death; and (b) Whether the risk or rate of hazard exposure by a minority population, low-income population, or Indian tribe to an environmental hazard is significant and appreciably exceeds or is likely to appreciably exceed the risk or rate to the general population or other appropriate comparison group; and (c) Whether health effects occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

Disproportionately high and adverse environmental effects: When determining whether environmental effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable: (a) Whether there is or will be an impact on the natural or physical environment that significantly and adversely affects a minority population, low-income population, or Indian tribe. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelate to impacts on the natural or physical environment; and (b) Whether environmental effects are significant and are or may be having an adverse impact on minority populations, low-income populations, or Indian tribes that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group; and (c) Whether the environmental effects occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposure from environmental hazards.

4.3 Executive Order 13045

On 21 April 1997, President Clinton issued Executive Order 13045 (EO 13045), Protection of Children From Environmental Health Risks and Safety Risks, which notes that children often suffer disproportionately from environmental health and safety risks, due in part to a child's size and maturing bodily systems. The executive order defines environmental health and safety risks as risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest (such as the air we breath, the food we eat, the water we drink or use for recreations, the soil we live on, and the products we use or are exposed to). Executive Order 13045 requires Federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that may affect children disproportionately. The Order further requires Federal agencies to ensure that its policies, programs, activities, and standards address these disproportionate risks. Executive Order 13045 is addressed in this NEPA document to examine the effects this action will have on children.

4.4 Natural Resources

4.4.1 Terrestrial

Two major native vegetation types, the elm-ash-cottonwood (riparian) forest, and bluestem (tall grass) prairie, represent the plant communities of the project area. These native plant communities have been variously modified by agricultural and urban development resulting in most of the project area having been disturbed to some extent.

The remnants of the tall grass prairie and other areas left unmowed create an area of thick vegetated growth habitat ideal for prairie type species. The short grass mowed community and the agricultural areas offer relatively little in the way of permanent wildlife habitat, although they do provide temporary cover and food. There is not true undisturbed prairie within the project area due to overgrazing and farming. Characteristic species of the bluestem prairie are little bluestem, big bluestem, Indian grass, and switch grass. Species characteristic of the overgrazed or abused

pastures are sideoat grama, fall panicum, plains lovegrass, chess, Japanese chess, hairy grama, green milkweed, lead plant, and western ragweed. Shelterbelts, where present within the project area, are composed primarily of Osage orange.

The riparian forest community offers the best habitat for a wide variety of mammals, reptiles, amphibians, and tree-dwelling birds. Migratory perching birds need areas of forest communities such as this in order to provide the cover and food necessary during their migrations. Other resident wildlife species need these areas for resting, nesting, food, and cover. This is especially true for those species that are normally quite secretive and inhabit areas of dense trees and shrub growth. This habitat type is classified by the Kansas Department of Wildlife and Parks as critical habitat for maintaining wildlife populations in Kansas. Important trees found in the riparian forest are American elm, slippery elm, green ash, sycamore, cottonwood, burr oak, hackberry, black willow, pecan, red mulberry, and black walnut. The understory is comprised of vines and forbs including grapevine, poison ivy, lemon beebalm, Illinois bundle flower, giant ragweed, and various grasses.

4.4.2 Soils

Soil is the most abundant and one of the most important natural resources in Cowley County. The deep flood plain or terrace soils of the area are well drained and produce rangeland, cropland, woodlands, livestock and wildlife.

The gently to strongly sloping Flint Hills soils are deep to moderately deep and are underlain by clayey subsoils in Cowley County. The Central Loess Plains soils of western Cowley County are generally deep, loamy and vary from gently sloping to nearly level. Flood plain soils in the county are mainly sand, although the terraced secondary flood plain exhibits loamy to clayey soils.

4.4.3 Prime Farmland

Soil that is prime or unique farmland as defined in the Farmland Protection Policy Act is classified as prime farmland. According to the U.S. Department of Agriculture, it is soil that is best suited for producing food, feed, forage, fiber, and oilseed crops.

4.4.4 Wild and Scenic Rivers

There are no streams within the project area that are classified as wild and scenic pursuant to the Federal Wild and Scenic Rivers Act, Public Law 90-542.

4.4.5 Aquatic and Wetlands

Lower perennial riverine wetlands are the most abundant wetland type in Cowley County and are important habitat for many aquatic and semi-aquatic vertebrates. Undercut banks along stream often provide entryways to dens of furbearing mammals including beaver and muskrats. Sunken brush and snags are utilized by water snakes, bullfrogs, and turtles for cover and basking sites. The sandbars on the Arkansas River are used as loafing areas for pelicans, shorebirds, herons and terns. Fish use the shallow pools and backwater areas for spawning and because of the, such areas are important feeding locations for kingfishers, terns and herons. Wood ducks use tree cavities near pools and oxbows for nesting. Palustrine and naturally occurring lacustrine wetlands are scarce in Cowley County.

4.4.6 Fish and Wildlife

Fishery resources are abundant in Cowley County relative to areas in western Kansas. Cowley County has numerous farm ponds in the eastern one-half of (Flint Hills regions), two community

lakes, one state-owned fishing lake and several perennial streams which provide sport fishing opportunities.

Kansas' stream and river evaluation ranks the Arkansas River in Cowley County as a Class II (high-priority fishery resource) stream (Moss and Brunson 1981). The stream channel is often braided, having an average width of 280 feet, and reaching slightly over 400 feet in some areas. The maximum pool depth is about six feet and the average stream depth is three and one-half feet. The bed is composed of sands, fine gravel and some silt. Although aquatic insect species such as caddisflies, mayflies, dobsonflies and blood worms occur in the streambed sediments of the Arkansas River, production of these important fish food sources are much lower than in the Walnut River due to shifting sand and gravel substrates. The fine, shifting sand and gravel particles also tend to cover and smother fish eggs. Consequently, the relatively low production of forage, along with lower reproduction of game fish prevents this stream from providing a fishery of as high a value as the Walnut River.

The Walnut River in Cowley County is ranked as a Class I (highest-priority fishery resource) stream (Moss and Brunson 1981) and this stream constitutes approximately 8-9 percent of the Class I stream mileage that has been evaluated within the State of Kansas. The Class I rating is primarily based upon the fishing provided by the Walnut River, due to both seasonal spawning runs of fish which migrate upstream from Kaw Reservoir in Oklahoma, and to the stream's resident fish population. The river has an average depth of 2 feet and pools that are occasionally as deep as 12 feet. The stream averages about 70 feet in width.

A variety of game and non-game fish species occur in the major drainages within Cowley County. Table 4.5 lists the majority of fishes which would be expected to occur in the Walnut and Arkansas Rivers near Arkansas City, Kansas.

Approximately 67 species of amphibians and reptiles, 267 species of birds, and 48 species of mammals could occur in the project area. The number of species would be substantially less in the area as a result of agricultural and urbanization. The principal game species include fox squirrel, cottontail rabbit, bobwhite quail, and mourning dove. Whitetail deer are present but their use of the area is limited. Furbearers include raccoon, opossum, skunks, mink, muskrat, bobcat, and beaver. Hunting in the area is limited due to the urban setting of the project and City ordinances place on the use of firearms within the City limits.

The project area is located within the central flyway and large numbers of migrating waterfowl pass through this region. Species using the flyway include the Canada goose, mallard duck, pintail duck, American widgeon, and blue-winged teal. Additionally, the bald eagle is present within the project area. Bald eagles build large stick nests lined with soft materials such as grass, leaves, and Spanish moss. Nests are used for several years by the same pair of eagles, with the birds adding materials each year. Nests are often very large, measuring 6 feet across and weighing hundreds of pounds. Young eagles can fly in 11 to 12 weeks, but the parents continue to feed them for 4 to 6 more weeks while they learn to hunt. The bald eagle's preferred habitat is coastal areas, rivers or lakeshores with large, tall trees. While no longer included on the Federal threatened and endangered species list, the bald eagle continues to be protected by the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act and state laws.

Approximately 55 species of fish have been collected from the Arkansas and Walnut Rivers proximal to the project area. Some of the more important game fish species occurring in the area include channel catfish, flathead catfish, sunfish, crappie, and largemouth bass. The small lakes and farm ponds in the project area are fished for bluegill, crappie, largemouth bass, white bass, and channel catfish.

4.4.7 Executive Order 13112

On 3 February 1999, President Clinton issued Executive Order 13112 (EO 13112), Invasive Species, which notes that invasive species annually cause significant economic, ecological, and human health impacts in the United States. The executive order defines invasive species as an alien species whose introduction does or is likely to cause economic and environmental harm or harm to human health. EO 13112 requires Federal agencies to not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States; and that all feasible and prudent measures to minimize risk or harm will be taken in conjunction with the actions. EO 13112 is addressed in this NEPA document to incorporate measures that will prevent the inadvertent spread of exotic and invasive species. These preventive measure are described in Section 6.0, Restoration Plan.

4.5 Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) identified four Federally threatened and endangered species with possible distributions in Cowley County, Kansas. Threatened species which may occur within the project area include the piping plover (*Charadrius melodus*) and bald eagle (*Haliaeetus leucocephalus*). Endangered species which may occur within the project area include the whooping crane (*Grus americana*) and least tern (*Sterna antillarum*). Additionally, the USFWS has identified one candidate species, the Arkansas darter (*Etheostoma cragini*), which may occur within the project area.

Piping plover

The piping plover is a distinctive ringed migratory plover of central and eastern North America. In their breeding range, which included the northern Great Plains, the Great Lakes, and coastal areas along the North Atlantic seaboard, spring arrivals being in late March. Fall departures are generally in late August. The piping plover is present throughout the year on the coast from North Carolina southward to Florida and west along the Gulf Coast to northeastern Mexico. The winter range for the piping plover is not well defined and is generally considered to extend from northeastern Mexico and the Greater Antilles (Hayman *et al*. 1986). Within their breeding range the piping plover will scrape out small, shallow nests on sandy beaches with little or no vegetation along coasts and lakeshores. Prairie populations generally tend to prefer shorelines of prairie lakes and sloughs with heavy concentrations of mineral salts.

Whooping crane

The whooping crane nests in Wood Buffalo National Park, Northwest Territories and Alberta, Canada with wintering grounds located along the coastal plain of Texas at the Aransas National Wildlife Refuge. The whooping crane generally arrives at its breeding grounds in late April and returns to its wintering grounds by the end of September. The migration route used by the whooping crane, the Central Flyway, takes it over portions of Texas, Oklahoma, Kansas, Nebraska, Idaho, South Dakota, North Dakota, Montana, Wyoming, Colorado, and New Mexico.

Least tern

The interior least tern is a migratory bird species historically breeding along the broad sandy-bottomed river systems characteristic of the interior Great Plains. The breeding range extended from Texas to Montana and from eastern Colorado and New Mexico to southern Indiana and included the Red, Missouri, Arkansas, Mississippi, Ohio, and Rio Grande River systems (USFWS 1990). The interior least tern generally arrives at its breeding sites in late May and early June and remains at their breeding grounds for 4-5 months. The nest is a shallow, inconspicuous depression constructed in an open, sandy area, gravelly patch, or exposed flat (USFWS 1990) with little or no vegetation. The wintering range of the interior least is from Central America southward (National Geographic Society 1983). Within Kansas, the interior least tern occurs as a spring and fall migrant trough the State and nests along the Cimarron River in Meade and Clark

Counties, the Kansas River in Pottawatomie, Wabaunsee and Shawnee Counties, at Jeffrey Energy Center in Pottawatomie County, Quivera National Wildlife Refuge in Stafford County and in Sedgwick County on and adjacent to the Arkansas River. The interior least tern was listed as an endangered species on 27 June 1985 (50 Federal Register 21, 748-21, 792) in Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, Tennessee, and Texas. Habitat destruction due to local, state, and federal efforts related to channelization, irrigation, navigation, and flood control is the primary cause for the current status of this species as endangered.

Arkansas darter

The Arkansas darter is present in Arkansas River basin only two geographic regions. One region extends from eastern Colorado and western Kansas to south-central Kansas and north-central Oklahoma. The second geographic population is located in the Ozark Plateau within Spring, Neosho and Illinois (Eberle and Stark 2000) all tributaries to the Arkansas River. The Arkansas darter typically lives in lower order, small, clear streams near springs and/or groundwater seeps. Preferred habitat includes low velocity pools or near-shore habitats with a sand or gravel substrate overlain by silt and organic debris (Eberle and Stark 2000). The pool and near-shore habitat preferred by the Arkansas darter are characterized by having abundant broad-leaved aquatic vegetation adjacent to shallow, open areas utilized as spawning areas (Moss 1981). The primary threat to the Arkansas darter is depletion of ground water resources throughout its range of distribution Secondary threats include rapid urban and suburban development in the Arkansas portion of its range and confined animal feeding operation (CAFO) impacts to ground and surface water resources in the Colorado, Kansas and Oklahoma portion of its range (USFWS 2007).

4.6 Cultural Resources

Archaeological investigations in the Arkansas City vicinity began in the middle 1890's with the amateur excavation of the County Club Site (14CO3). In 1940, Wedel reinvestigated this site and worked at the nearby Larcom-Haggard (14CO-1) and Elliot Sites (14CO-2). All three archaeological sites are located in close proximity to the Walnut River and have been assigned to the Lower Walnut Focus of the Great Bend Aspect (Wedel 1959). In 1978, the Kansas Archaeological Highway Survey recorded on archaeological site (14CO-321), and one historic site (14CO-332) in the Arkansas City area. Wichita State University conducted a survey and assessment of cultural resources in the northern section of Kaw Lake in 1981. In 1979, TECHRAD, Inc., conducted a survey under contract with the USACE, Tulsa District, to provide preliminary planning information for the Arkansas City Local Protection Project. This 530 acre reconnaissance survey located six archaeological sites, four archaeological localities (5 artifacts/25 square miles), four historical sites, and four historical localities (no structural remains) (Thomas and Hill 1979).

From all previous investigations of the vicinity of Arkansas City, a total of 13 archaeological and 5 historic sites are known. Most of the archaeological sites are attributed to the Late Plains Village cultures (Great Bend Aspect), a late prehistoric-early historic manifestation of the Wichita Indian (ca. 1500-1700 A.D.). Historic sites represent the post-Civil War frontier town of Arkansas City.

4.7 Water Quality

Surface waters within the project area are hard and alkaline with values (reported as calcium carbonate) averaging 320 mg/l and 166 mg/l, respectively, in the Arkansas River and 371 mg/l and 221 mg/l, respectively, in the Walnut River. Total dissolved solids (TDS), chlorides, and sulfates are also high in both rivers with mean values of 1429 mg/l, 554 mg/l, and 197 mg/l, respectively in the Arkansas River and 859 mg/l, 195 mg/l, and 174 mg/l, respectively, in the Walnut River. Nutrient levels are relatively high and nitrate and orthophosphate values of 1.6

mg/l and 1.75 mg/l, respectively, in the Arkansas River and 1.8 mg/l and 0.25 mg/l, respectively, in the Walnut River.

Sulfate concentrations within the Walnut River currently exceed the 250 mg/l State of Kansas Water Quality Standard (K.A.R. 28-16-28e(c) (3) (A) for domestic water supply. A Total Maximum Daily Load (TMDL) for sulfate has been completed by the Kansas Department of Health and Environment (KDHE 2008) and is currently identified as a low priority watershed for TMDL implementation because sulfate loadings are predominately from natural geologic sources.

4.8 Air Quality

The Clean Air Act of 1970, as amended, requires the U.S. Environmental Protection Agency (USEPA) to establish national standards for air pollutants anticipated to harm human health. Pollutants in this category include: total suspended particulate, lead, sulfur dioxide, carbon monoxide, ozone, and nitrogen dioxide. Primary standards were established to protect the public with an adequate safety margin.

The air quality of any region is controlled primarily by the magnitude and distribution of pollutant emissions and the regional climate. The transportation of pollutants from specific source areas is often times augmented by local topography and meteorology. As with many areas throughout the Great Plains, relatively level topography characteristic of Kansas allows for uninhibited circulation of air pollutants. The State of Kansas ranks high in the nation in average daily wind speed and the average annual wind speed in the Arkansas City-Wichita region is approximately 12.2 miles per hour (NOAA 2008).

The Kansas Bureau of Air and Radiation (BAR), 2005-2006 Air Quality Report does not contain site-specific air quality data for the Arkansas City, Kansas area. However, air quality results for most pollutants were recorded at Peck, Kansas 51 miles to the northwest of Arkansas City. For the purposes of this study, when considering the close proximity of the Arkansas City and Peck areas, the general topography of the region, and the primary direction of the State's wind flow, the Peck data is considered to be the best available representation of air quality for the Arkansas City area. Complete results of the 2005-2006 Kansas Air Quality Report are available at http://www.kdheks.gov/bar/download/05-06_Air_Quality_Report.pdf. In general, data collected by the Kansas BAR indicated good air quality for the southeast Kansas region and all measured parameters were below the National Ambient Air Quality Standards (KDHE 2007).

4.9 Hazardous, Toxic and Radiological Waste

Potential for discovery of hazardous material during construction of the Arkansas and Walnut River 206 Aquatic Ecosystem Restoration Project, Arkansas City, Kansas was evaluated through examination of historic and current land use, review of environmental databases, interview with local regulatory personnel, and visual observations. Avoidance of HTRW during construction is desirable in order to minimize project delays, remediation costs, and environmental damage.

Lands in the general area are comprised of a mix of residential, commercial and agricultural. Lands immediately within the project area primarily consist of undeveloped riparian floodplains and agricultural lands. As such, these lands have not been subject to industrial development or other land use activities with associated potential for significant contamination. In addition, lands in close proximity to the project area share similar land use classifications or are comprised of light commercial and residential land uses, and have a low potential for contaminant transport to the project. Accordingly, there is no reason to believe that environmental media in the project area have been significantly contaminated by past or current land practices or by releases from adjoining properties.

A search of environmental databases revealed no documented areas of contamination near the project location. A search of the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database revealed the presence of six CERCLIS-listed sites in Cowley County, Kansas, of which only one was located within the city limits of Arkansas City, approximately 3 miles west of the project area. Sixty sites listed on the Enforcement and Compliance History Online (ECHO) database were noted in Cowley County. Of these, twenty-seven are located in Arkansas City and the remainder are located in Winfield, Atlanta and Udall. One site, in Winfield, was identified as having alleged current significant violations and none were located near the Section 206 project area.

Finally, a site visit was conducted on 6 August 2007 that included a search for visual evidence of potential HTRW-related problems. This involved walking the project area as well as visual reconnaissance of surrounding areas. Areas of soil staining, evidence of unusual vegetative distress, drums of containerized waste, unusual topography (mounds or depressions), or other visual evidence of potential contamination were not noted at any location within the proposed project area, however the potential for encountering these materials does exist.

5.0 IMPACTS OF THE PROPOSED ACTION

A summary of environmental impacts is presented in Table 5.1, Impact Assessment Matrix.

5.1 Social and Economic Impacts

5.1.1 Future Without-Project Conditions

5.1.1.1 Population

Due to current economic conditions, it is expected that the population of Cowley County and Arkansas City will continue to decline, while the overall population of Kansas will continue to increase. The median age of the population will increase as the younger population leaves for educational purposes and in search of employment. The racial make-up will remain similar to its current composition.

5.1.1.2 Employment and Education

The trend of outsourcing manufacturing jobs will continue, which will cause a reduction in the available jobs in Arkansas City. Also, as the population continues to decline, it is estimated that fewer education jobs will be available. However, public and social services will continue to be needed and utilized.

5.1.1.3 Income

The median household income for Arkansas City will remain lower than Cowley County and the State of Kansas. The income gap between men and women will probably remain the same, and the poverty level will remain in the 15% range.

5.1.1.4 Social Ecology

Without the proposed project, aesthetic and related quality of life will continue to decrease for the population. Enjoyment of nature, recreation and other benefits of an improved habitat for all species will continue to decrease, and the overall sense of pride in the community will dwindle.

5.1.2 Future With-Project Conditions

5.1.2.1 Population

5.1.2.2

The recommended plan will have little to no impact on the population inhabiting Arkansas City.

5.1.2.2 Employment and Education

The proposed project will create some temporary jobs in the region during construction. However, no long term impacts to employment will result.

5.1.2.3 Income

Income levels in Arkansas City will not be impacted by the proposed project.

5.1.2.4 Social Ecology

A clean functioning environment, including a wetland area and vegetation, will provide an aesthetically pleasing area for wildlife, which helps to instill a sense of pride in the community.

5.2 Environmental Justice

Executive Order 12898 requires federal agencies to identify and address disproportionately high and adverse human health and environmental effects of federal programs, policies, and activities on minority and low-income populations. Federal agencies are directed to ensure that federal programs or activities do not result, either directly or indirectly, in discrimination on the basis of race, color or national origin. Federal agencies are required to provide opportunities for input in the NEPA process from affected communities and to evaluate significant and adverse environmental effects of proposed federal actions on minority or low-income communities during the preparation of federal environmental documents. The proposed project was evaluated in accordance with E.O. 12898.

5.3 Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045 requires that federal agencies make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. Federal agencies are directed to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health and safety risks. The proposed project was evaluated in accordance with E.O. 13045.

Table 5.1
Impact Assessment Matrix

Name of Parameter	Magnitude of Probable Impact						
	Increasing Beneficial Impact			No Appreciable Effect	Increasing Adverse Impact		
	Significant	Substantial	Minor		Minor	Substantial	Significant
A. Social Effects							
1. Noise Levels				x			
2. Aesthetic Values		x					
3. Recreational Opportunities		x					
4. Transportation			x				
5. Public Health and Safety		x					
6. Community Cohesion (Sense of Unity)			x				
7. Community Growth and Development			x				
8. Business and Home Relocations				x			
9. Existing/Potential Land Use			x				
10. Controversy				x			
B. Economic Effects							
1. Property Values			x				
2. Tax Revenues			x				
3. Public Facilities and Services				x			
4. Regional Growth				x			
5. Employment				x			
6. Business Activity				x			
7. Farmland/Food Supply					x		
8. Flooding Effects				x			
C. Natural Resource Effects							
1. Air Quality				x			
2. Terrestrial Habitat		x					
3. Wetlands		x					
4. Aquatic Habitat			x				
5. Habitat Diversity and Interspersion		x					
6. Biological Productivity		x					
7. Surface Water Quality				x			
8. Water Supply				x			
9. Groundwater				x			
10. Soils				x			
11. Threatened and Endangered Species			x				
D. Cultural Resources							
1. Historic Architectural Values				x			
2. Pre-Historic & Historic Archeological Values				x			

5.4 Natural Resource Impacts

5.4.1 Terrestrial

The proposed project would not result in any net loss of riparian habitat or cause any significant adverse effects on the natural environment. Implementation of the recommended plan should result in benefits to terrestrial resources.

5.4.2 Prime Farmland

There would be no significant impact on prime farmland.

5.4.3 Aquatic and Wetlands

Temporary adverse impacts to the aquatic environment would be expected during construction phases due to the use of heavy equipment and excavation and construction of the proposed wetland feature in Areas 7 and 8. The proposed project would not result in any net loss of aquatic and wetland habitat nor cause any significant adverse effects on the aquatic environment. Project implementation would result in net increases in aquatic and wetland habitat.

5.4.4 Wildlife

Activities associated with construction would temporarily displace existing aquatic and riparian wildlife. Aquatic and terrestrial wildlife would be expected to return upon completion of the project. Because the project intent is to increase aquatic and riparian habitat through the construction of wetlands and plantings of native vegetation in the riparian area, populations and diversity of both aquatic and riparian wildlife are expected to increase in the future.

5.4.5 Wetlands and Water Quality Permits

The U.S. Army Corps of Engineers, Tulsa District has determined that the Nationwide Permit (NWP 27) for Aquatic Habitat Restoration, Establishment, and Enhancement Activities pursuant to Section 404 of the Clean Water Act is required for the recommended plan.

5.4.6 EO 13112

Species of exotic or invasive plants and animals have the potential to be transported into or out of the Areas 7 and 8 by the equipment to be used by the contractor. Executive Order 13112 requires Federal agencies to not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States; and that all feasible and prudent measures to minimize risk or harm will be taken in conjunction with the actions. The potential exists at this project for the transport of species covered under this Executive Order.

The introduction and spread of exotic and invasive species is a major concern with the use of heavy equipment for this project. Therefore, the contract specifications for this project will include the following condition. All equipment brought on site will be thoroughly washed to remove dirt, seeds, and plant parts. Any equipment that has been in any body of water within 30 days of its arrival at the work site will be thoroughly cleaned with water hotter than 104°F (40°C) and dried for a minimum of five days before being used at this project site. In addition, before transporting equipment from the project site all visible mud, plants, and fish/animals will be removed, all water will be eliminated, and the equipment will be thoroughly cleaned. Anything that came in contact with the water will be cleaned and dried following the above procedure.

5.5 Threatened and Endangered Species

Three species occur in Cowley County that are listed as threatened or endangered by the U.S. Fish and Wildlife Service. These include the interior least tern, piping plover and whooping crane.

Construction activities associated with wetland development in Area 7 and selective thinning of existing cottonwood trees in Area 1 would not result in the removal of large trees that could be utilized by the bald eagle for perching.

The interior least tern, piping plover, and whooping crane would not be directly affected by the project since all activities would be outside the channel of the Walnut River and the restoration and creation of off-channel aquatic resource could increase the number of feeding areas for the interior least tern within the area.

5.6 Cultural Resources

Section 106 coordination (National Historic Preservation Act of 1966, as amended) is complete. The proposed project will have no effect on historic or culturally significant properties.

5.7 Water Quality

The recommended plan would have no adverse impacts on water quality. There could be minor temporary increases in sediment transport from Area 7 into the Walnut River, however Best Management Practices for the control of sediment transport from construction sites will be utilized to minimize this potential short-term negative impact.

5.8 Air Quality

The recommended plan would have no adverse impacts on air quality. There would be minor temporary air emissions during the construction phase of the project; this would not likely adversely affect the air quality. This area is currently in attainment with the Clean Air Act Amendments of 1990.

5.9 Hazardous, Toxic, and Radiological Waste (HTRW)

Based on the findings of the HTRW survey discussed in Section 4.9, the potential for discovery and significant problems related to HTRW during project construction or operation within this reach of the lower Walnut River is believed to be low to moderate.

5.10 Noise

Noise levels are anticipated to increase slightly during construction but will return to baseline levels once construction is complete. There would be no anticipated permanent increase in noise as a result of this project.

5.11 Cumulative Impacts

No cumulative negative impacts are anticipated as a result of the proposed project. Long-term benefits are anticipated resulting from increasing channel stability, and increasing available aquatic and riparian habitat.

6.0 FEDERAL, STATE, AND LOCAL AGENCY COORDINATION

The Draft Environmental Assessment (EA) was coordinated with the following agencies having legislative and administrative responsibilities for environmental protection. A copy of the correspondence from the agencies that provided comments and planning assistance for

preparation of the draft EA are in the appendices. The mailing list for the 30-day public review period for this EA is in Appendix A.

U.S. Fish and Wildlife Service
Natural Resources Conservation Service
Kansas Department of Wildlife and Parks
Kansas Water Office
Kansas State Historic Preservation Office
Kansas Department of Health and Environment

7.0 REFERENCES

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8.0 APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

Table 8.1
Relationship of Plans to Environmental Protection Statutes and Other Environmental Requirements

Policies	Compliance of Alternatives
Federal	
Archeological and Historic Preservation Act, 1974, as amended, 16 U.S.C. 469, et seq.	All plans in full compliance
Clean Air Act, as amended, 42 U.S.C. 7609, et seq.	All plans in full compliance
Clean Water Act, 1977, as amended (Federal Water Pollution Control Act, 33 U.S.C. 1251, et seq.	All plans in full compliance
Endangered Species Act, 1973, as amended, 16 U.S.C. 1531, et seq.	All plans in full compliance
Federal Water Project Recreation Act, as amended, 16 U.S.C. 460-1-12, et seq.	All plans in full compliance
Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661, et seq.	All plans in full compliance
Land and Water Conservation Fund Act, 1965, as amended, 16 U.S.C. 4601, et seq.	All plans in full compliance
National Historic Preservation Act, 1966, as amended, 16 U.S.C. 470a, et seq.	All plans in full compliance
National Environmental Policy Act, as amended, 42 U.S.C. 4321, et seq.	All plans in full compliance
Native American Graves Protection and Repatriation Act, 1990, 25 U.S.C. 3001-13, et seq.	All plans in full compliance
Rivers and Harbors Act, 33 U.S.C. 401, et seq.	N/A
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq.	N/A
Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271, et seq.	N/A
Water Resources Planning Act, 1965	N/A
Floodplain Management (E.O. 11988)	All plans in full compliance
Protection of Wetlands (E.O. 11990)	All plans in full compliance
Environmental Justice (E.O. 12898)	All plans in full compliance
Farmland Protection Policy Act, 7 U.S.C. 4201, et seq	All plans in full compliance
Protection of Children From Environmental Health Risks and Safety Risks (E.O. 13045)	All plans in full compliance

Note: Full compliance - Having met all requirements of the statutes, Executive Orders, or other environmental requirements for the current stage of planning.

9.0 LIST OF PREPARERS

This EA has been prepared to assess the impacts of the ecological restoration of aquatic and riparian habitat in the lower Walnut River basin in Arkansas City, Kansas. The following personnel contributed to the preparation of this document.

Stephen L. Nolen – Chief, Environmental Analysis and Compliance Branch; Biologist; 20 years U.S. Army Engineer District, Tulsa.

Tony Clyde – Biologist; 8 years U.S. Army Engineer District, Tulsa.

Kenneth L. Shingleton, Jr. – Archaeologist; 7 years U.S. Army Engineer District, St. Louis; 7 years U.S. Army Engineer District, Tulsa.

Shawneen O'Neill – General Engineer; 3 years U.S. Army Missile Command; Lead Planner, 13 years U.S. Army Engineer District, Tulsa.

APPENDIX A

COORDINATION / CORRESPONDENCE

Mailing List for the Arkansas and Walnut Rivers Aquatic Ecosystem Restoration Project Draft EA

U.S. Senator Sam Brownback
245 North Waco, Suite 240
Wichita, KS 67202

U.S. Senator Pat Roberts
155 North Market Street, Suite 120
Wichita, KS 67202

Congressman Todd Tiahrt
155 North Market Street
Wichita, KS 67202

State Representative Kasha Kelley
P.O. 1111
Arkansas City, KS 67005

State Senator Greta Goodwin
420 E 12th Ave
Winfield, KS 67156

Mr. Mike LeValley
U.S. Fish and Wildlife Service
2609 Anderson
Manhattan, KS 66502

Mr. Tracey Streeter, Director
Kansas Water Office
901 South Kansas Avenue
Topeka, KS 66612-3185

Mr. J. Michael Hayden, Secretary
Kansas Department of Wildlife and Parks
512 South Kansas Avenue, Room 200
Topeka, KS 66612-1327

Mr. Astor F. Boozer,
State Conservationist, Kansas NRCS
USDA, NRCS
760 South Broadway
Salina, KS 67401

Mr. Rodrick L. Bremby, Secretary
Kansas Department of Health and Environment
Curtis State Office Building
1000 SW Jackson
Topeka, KS 66612

Mr. Wayne Kachel
P.O. Box 1121
El Dorado, KS 67042

Mr. Budd Fountain
22019 S Lerado Rd.
Langton, KS 67583

Mr. Dale Shaffer
945 SW Indianola
Brenton, KS 67017

Mr. David Brazil
1627 E 10th
Winfield, KS 67156

Mr. John Balley
4606 NE Cole Creek Rd.
El Dorado, KS 67042

Mr. Kirk Hayden
125 W. Rosewood
Rose Hill, KS 67133

Mr. Kurt Bookout
2520 Kacy Ct.
El Dorado, KS 67042

Mr. Robert Wilson
1010 S Centennial Rd.
Arkansas City, KS 67005

Mr. Rodger Maechtlen
2017 E Chestnut
Arkansas City, KS 67005

Mr. Roger Black
16672 US 166
Arkansas City, KS 67005

Mr. Russell Tomevl
1930 E 13th
Winfield, KS 67156

Mr. Tom Dixon
6263 SE Quito Rd.
Leon, KS 67074

Mr. Brian Meier
1906 S Kessler
Wichita, KS 67213

Mr. Byron Warta
1801 Cypress Lane
Newton, KS 67114

Ms. Carolyn McGinn
11047 North 87th West
Sedgwick, KS 67135

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401 W Broadway
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Macksville, KS 67557

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1033 S Hoover Rd.
South Haven, KS 67140

Mr. Larry Mangan
317 South Washington
Wellington, KS 67152

Mr. Mike Brothers
1660 20th Rd.
Lyons, KS 67554

Ms. Sharon Falk
125 S Main
Stafford, KS 67578

Ms. Suzanne Loomis
201 E 6th St
Newton, KS 67114

Vaughn Weaver
5734 Kentford Cir.
Wichita, KS 67220

Commissioner Dick Bonfy
24011 141st Rd.
Winfield, KS 67156

Commissioner Gary Wilson
31684 61st Ln.
Arkansas City, KS 67005

Commissioner Carmelita Clarkson
903 Holoway Lane
Winfield, KS 67156

Kansas State Historic Preservation Officer
6425 SW 6th Ave
Topeka, KS 66615

Arkansas City Public Library
Attn: Reference Librarian
120 E 5th Street
Arkansas City, KS 67005

Mell Kuhn, Mayor
118 W Central Ave.
Arkansas City, KS 67005

Joel Hockenbury, Commissioner
118 W Central Ave.
Arkansas City, KS 67005

Scott Margolius, Commissioner
118 W Central Ave.
Arkansas City, KS 67005

Patrick McDonald, Commissioner
118 W Central Ave.
Arkansas City, KS 67005

Dotty Smith, Commissioner
118 W Central Ave.
Arkansas City, KS 67005

City of Arkansas City
Attn: City Manager
118 W Central Ave
Arkansas City, KS 67005

City of Arkansas City
Attn: Asst. City Manager
118 W Central Ave.
Arkansas City, KS 67005

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

May 30, 2006

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Mr. Mike LeValley
U.S. Fish and Wildlife Service
315 Houston, Suite E
Manhattan, KS 66502-6172

Dear Mr. LeValley:

This is to inform you that the Tulsa District has been requested by the City of Arkansas City, Kansas to study the feasibility of ecosystem restoration of riparian habitat along the Walnut River through Arkansas City. The study is being conducted under authority of Section 206 of the Water Resources and Development Act of 1996, as amended.

The recommended plan would positively impact 71.1 acres of riparian habitat along the Walnut River and approximately 40.7 acres of surface water as well as create 15 acres of emergent wetland habitat. Riparian plantings/re-plantings would consist of the following:

Area 1: Thinning existing cottonwood stands and planting native hardwood species at a rate of 50 trees per acre to increase habitat diversity.

Area 2: Soil will be tilled, fertilized, and seeded with native riparian vegetation.

Area 6: Existing vegetation would be removed and soil would be tilled, fertilized, and seeded with native grasses, forbs and wildflowers.

Area 7: A 15-acre wetland would be constructed using effluent from the nearby meat packing plant. Aquatic plants would be placed in 10 acres at a rate of 60 plants per acre.

Area 8: Soil would be tilled, fertilized, and seeded with native riparian vegetation.

Plantings of native grasses and forbs will consist of the following:

Grass species	Planting rate
Little Bluestem	0.6 pounds per acre of pure live seed
Big Bluestem	1.5 pounds per acre of pure live seed
Indian grass	1.2 pounds per acre of pure live seed
Switchgrass	0.6 pounds per acre of pure live seed
Sideoats gramma	0.6 pounds per acre of pure live seed
Blue gramma	0.2 pounds per acre of pure live seed
Wildflower seed mixture*	0.5 pounds per acre of pure live seed

* Four forbs are to be selected from the following list with equal weights of each being used to achieve a total of 0.5 pound of pure live seed per acre.

Maximillian sunflower
Illinois bundle flower
leadplant
gayfeather
purple prairie clover
prairie coneflower
pitcher sage

We are preparing documentation for compliance with the National Environmental Policy Act of 1969 and would appreciate comments from your agency concerning this Federal action. A more detailed fact sheet and map are provided herein.

Your comments are requested in accordance with the Fish and Wildlife Coordination Act and the Endangered Species Act. If you have any questions or require additional information, please contact Dr. Tony Clyde at 918-669-7556 or tony.clyde@usace.army.mil.

Sincerely,

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosure

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

May 30, 2006

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Mr. Mike LeValley
U.S. Fish and Wildlife Service
315 Houston, Suite E
Manhattan, KS 66502-6172

Dear Mr. LeValley:

This is in regard to the proposed Arkansas and Walnut Rivers Ecosystem Restoration Project currently being studied by the U.S. Army Corps of Engineers, Tulsa District and the City of Arkansas City, Kansas under Section 206 of the Water Resources and Development Act of 1998, as amended. In accordance with Section 7 of the Endangered Species Act of 1973, as amended, the Tulsa District is requesting an official list of Federally listed threatened or endangered species which might be affected by the proposed action.

Pertinent information and a description of the proposed action are enclosed herein. If you have any questions or require additional information, please contact Dr. Tony Clyde at 918-669-7556 or tony.clyde@usace.army.mil.

Sincerely,

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosure

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

May 30, 2006

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Mr. Tracy Streeter,
Director
Kansas Water Office
901 S. Kansas Avenue
Topeka, KS 66612-3185

Dear Mr. Streeter:

This is to inform you that the Tulsa District has been requested by the City of Arkansas City, Kansas to study the feasibility of ecosystem restoration of riparian habitat along the Walnut River through Arkansas City. The study is being conducted under authority of Section 206 of the Water Resources and Development Act of 1996, as amended.

The recommended plan would positively impact 71.1 acres of riparian habitat along the Walnut River and approximately 40.7 acres of surface water as well as create 15 acres of emergent wetland habitat. Riparian plantings / re-plantings would consist of the following:

Area 1: thinning existing cottonwood stands and planting native hardwood species at a rate of 50 trees per acre to increase habitat diversity.

Area 2: soil will be tilled, fertilized, and seeded with native riparian vegetation.

Area 6: existing vegetation would be removed and soil would be tilled, fertilized, and seeded with native grasses, forbs and wildflowers.

Area 7: a 15-acre wetland would be constructed using effluent from the nearby meat packing plant. Aquatic plants would be placed in 10 acres at a rate of 60 plants per acre.

Area 8: soil would be tilled, fertilized, and seeded with native riparian vegetation.

Plantings of native grasses and forbs will consist of the following:

Grass species	Planting rate
Little Bluestem	0.6 pounds per acre of pure live seed
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* Four forbs are to be selected from the following list with equal weights of each being used to achieve a total of 0.5 pound of pure live seed per acre.

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Illinois bundle flower
leadplant
gayfeather
purple prairie clover
prairie coneflower
pitcher sage

We are preparing documentation for compliance with the National Environmental Policy Act of 1969 and would appreciate comments from your agency concerning this Federal action. A more detailed fact sheet and map are provided herein.

Your comments are requested in accordance with the Fish and Wildlife Coordination Act and the Endangered Species Act. If you have any questions or require additional information, please contact Dr. Tony Clyde at 918-669-7556 or tony.clyde@usace.army.mil.

Sincerely,

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosure

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

May 30, 2006

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Mr. Harold L. Klaege,
State Conservationist, Kansas NRCS
USDA, NRCS
760 South Broadway
Salina, KS 67401

Dear Mr. Klaege:

This is to inform you that the Tulsa District has been requested by the City of Arkansas City, Kansas to study the feasibility of ecosystem restoration of riparian habitat along the Walnut River through Arkansas City. The study is being conducted under authority of Section 206 of the Water Resources and Development Act of 1996, as amended.

The recommended plan would positively impact 71.1 acres of riparian habitat along the Walnut River and approximately 40.7 acres of surface water as well as create 15 acres of emergent wetland habitat. Riparian plantings / re-plantings would consist of the following:

Area 1: thinning existing cottonwood stands and planting native hardwood species at a rate of 50 trees per acre to increase habitat diversity.

Area 2: soil will be tilled, fertilized, and seeded with native riparian vegetation.

Area 6: existing vegetation would be removed and soil would be tilled, fertilized, and seeded with native grasses, forbs and wildflowers.

Area 7: a 15-acre wetland would be constructed using effluent from the nearby meat packing plant. Aquatic plants would be placed in 10 acres at a rate of 60 plants per acre.

Area 8: soil would be tilled, fertilized, and seeded with native riparian vegetation.

Plantings of native grasses and forbs will consist of the following:

Grass species	Planting rate
Little Bluestem	0.6 pounds per acre of pure live seed
Big Bluestem	1.5 pounds per acre of pure live seed
Indian grass	1.2 pounds per acre of pure live seed
Switchgrass	0.6 pounds per acre of pure live seed
Sideoats gramma	0.6 pounds per acre of pure live seed
Blue gramma	0.2 pounds per acre of pure live seed
Wildflower seed mixture*	0.5 pounds per acre of pure live seed

* Four forbs are to be selected from the following list with equal weights of each being used to achieve a total of 0.5 pound of pure live seed per acre.

Maximillian sunflower
Illinois bundle flower
leadplant
gayfeather
purple prairie clover
prairie coneflower
pitcher sage

We are preparing documentation for compliance with the National Environmental Policy Act of 1969 and would appreciate comments from your agency concerning this Federal action regarding prime and unique farm land potentially occurring within the project area. A more detailed fact sheet and map are provided herein.

Your comments are requested in accordance with the Fish and Wildlife Coordination Act and the Endangered Species Act. If you have any questions or require additional information, please contact Dr. Tony Clyde at 918-669-7556 or tony.clyde@usace.army.mil.

Sincerely,

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosure

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

May 30, 2006

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Mr. J. Michael Hayden,
Secretary
Kansas Department of Wildlife and Parks
512 S. Kansas, Rm 200
Topeka, KS 66612-1327

Dear Mr. Hayden:

This is to inform you that the Tulsa District has been requested by the City of Arkansas City, Kansas to study the feasibility of ecosystem restoration of riparian habitat along the Walnut River through Arkansas City. The study is being conducted under authority of Section 206 of the Water Resources and Development Act of 1996, as amended.

The recommended plan would positively impact 71.1 acres of riparian habitat along the Walnut River and approximately 40.7 acres of surface water as well as create 15 acres of emergent wetland habitat. Riparian plantings / re-plantings would consist of the following:

Area 1: thinning existing cottonwood stands and planting native hardwood species at a rate of 50 trees per acre to increase habitat diversity.

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Maximillian sunflower
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prairie coneflower
pitcher sage

We are preparing documentation for compliance with the National Environmental Policy Act of 1969 and would appreciate comments from your agency concerning this Federal action. A more detailed fact sheet and map are provided herein.

Your comments are requested in accordance with the Fish and Wildlife Coordination Act and the Endangered Species Act. If you have any questions or require additional information, please contact Dr. Tony Clyde at 918-669-7556 or tony.clyde@usace.army.mil.

Sincerely,

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosure

DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

REPLY TO
ATTENTION OF

February 16, 2007

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Mr. Roderick L. Bremby,
Secretary
Kansas Department of Health and Environment
Curtis State Office Building
1000 SW Jackson
Topeka, KS 66612

Dear Mr. Bremby:

This is to inform you that the Tulsa District has been requested by the City of Arkansas City, Kansas to study the feasibility of ecosystem restoration of riparian habitat along the Walnut River through Arkansas City. The study is being conducted under authority of Section 206 of the Water Resources and Development Act of 1996, as amended.

The recommended plan would positively impact 71.1 acres of riparian habitat along the Walnut River and approximately 40.7 acres of surface water as well as create 15 acres of emergent wetland habitat. The project area is shown on the enclosed map. Riparian plantings / re-plantings would consist of the following:

Area 1: thinning existing cottonwood stands and planting native hardwood species at a rate of 50 trees per acre to increase habitat diversity.

Area 2: soil will be tilled, fertilized, and seeded with native riparian vegetation.

Area 6: existing vegetation would be removed and soil would be tilled, fertilized, and seeded with native grasses, forbs and wildflowers.

Area 7: a 15-acre wetland would be constructed using effluent from the nearby meat packing plant. Aquatic plants would be placed in 10 acres at a rate of 60 plants per acre.

Area 8: soil would be tilled, fertilized, and seeded with native riparian vegetation.

Plantings of native grasses and forbs will consist of the following:

Grass species	Planting rate
Little Bluestem	0.6 pounds per acre of pure live seed
Big Bluestem	1.5 pounds per acre of pure live seed
Indian grass	1.2 pounds per acre of pure live seed
Switchgrass	0.6 pounds per acre of pure live seed
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Blue gramma	0.2 pounds per acre of pure live seed
Wildflower seed mixture*	0.5 pounds per acre of pure live seed

* Four forbs are to be selected from the following list with equal weights of each being used to achieve a total of 0.5 pound of pure live seed per acre: Maximillian sunflower, Illinois bundle flower, leadplant, gayfeather, purple prairie clover, prairie coneflower, pitcher sage

Additionally, during the feasibility study the City of Arkansas City, Kansas has requested the Tulsa District to preliminarily address the use of the 1.5 million gallons per day of industrial effluent currently being discharged into the Arkansas River under NPDES permit KS0094706 issued to Creekstone Farms Premium Beef. This additional evaluation is focused on additional NPDES permitting requirements which may be needed, identifying water quality concerns related to the use of beef processing effluent in a constructed wetland, size requirements and additional land requirements associated with a larger wetland complex and wetland planting designs.

We are preparing documentation for compliance with the National Environmental Policy Act of 1969 and other environmental regulations. We would appreciate comments from your agency concerning this Federal action. A more detailed fact sheet and map are provided herein. If you have any questions or require additional information, please contact Dr. Tony Clyde at 918-669-7556 or tony.clyde@usace.army.mil.

Sincerely,

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosure

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 5/5/06
Name Of Project Ark and Walnut Rivers Ecosystem Rest. Proj.	Federal Agency Involved U.S. Army Corps of Engineers, Tulsa District
Proposed Land Use Constructed wetland (A)	County And State Cowley County, Kansas
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ | Acres Irrigated | Average Farm Size
(If no, the FPPA does not apply -- do not complete additional parts of this form).

Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	20.0			
B. Total Acres To Be Converted Indirectly	10.0	0.0		
C. Total Acres In Site	30.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side)
This form was electronically produced by National Production Services Staff

Clear Form

Form AD-1006 (10-83)

DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

May 7, 2008

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Mr. Astor F. Boozer
Kansas State Conservationist
USDA, NRCS
760 South Broadway
Salina, KS 67401

Dear Mr. Boozer:

This letter is in response to your agencies request for a completed Farmland Conversion Impact Rating (AD-1006) form related to the proposed direct and indirect conversion of 30 acres of hay pasture, located outside the current Arkansas City limits, into a constructed wetland. A feasibility study of this project is being conducted by the U.S. Army Corps of Engineers, Tulsa District in cooperation with the City of Arkansas City, Cowley County, Kansas. This study is being conducted under authority of Section 206 of the Water Resources and Development Act of 1996, as amended.

Enclosed is Form AD-1006 with Parts I and III completed. Additional information related to the proposed wetland feature is included for use in your evaluation. If you have any questions or require additional information, please contact Dr. Tony Clyde at 918-669-7556 or tony.clyde@usace.army.mil.

Sincerely,

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosure

ARKANSAS CITY, KANSAS
ECOSYSTEM RESTORATION PROJECT

HYDROLOGY AND HYDRAULICS

LOCATION

The city of Arkansas City is located at the confluence of the Arkansas and Walnut Rivers in southeast Kansas in Cowley County, approximately 122 miles northwest of Tulsa, Oklahoma. The Walnut River flows from north to south and combines with the Arkansas River at Arkansas City. The proposed restoration site is located within the floodplain of an unnamed tributary of the Walnut River. The site was among a number of sites identified for potential ecosystem restoration. Figure 1 is a map of the study area with potential restoration areas numbered. For this study, the area in question involves only areas 7 and 8.

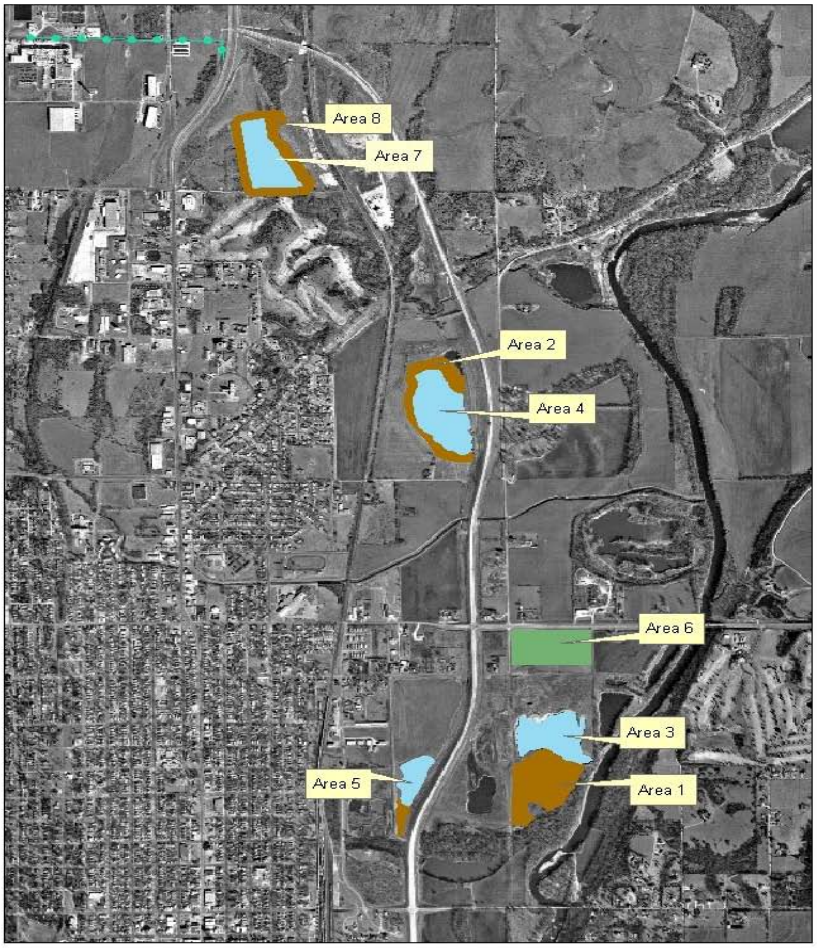

FIGURE 1

BASIN DESCRIPTION

Walnut River Unnamed Tributary

The unnamed Walnut River tributary that runs through the project area drains 2.31 square miles. The watershed is mostly rural with some development along Highway 77 which splits the basin. The area consists of rolling, grassy hills with some woods along the watercourse.

PREVIOUS STUDIES

The area was previously studied as an ecosystem restoration site. This plan was to use treated effluent from the meat packing plant as a water source. This study does not use that source, but relies on natural runoff.

Mapping

Spot elevations were surveyed in 2007. Two foot contours were developed informally from this survey data. United States Geological Survey 7.5 Minute quadrangle maps were also used to help define topology.

RAINFALL RUNOFF MODELS

A hydrologic model was developed for the watershed using the computer program Watershed Modeling System (WMS version 8.0). The watershed was modeled as a single basin as shown in Figure 2. Unit hydrograph coefficients, tp and Cp, were derived from Tulsa District mean curves that relate stream slope, basin shape, percent

urbanization, and peaking time. Unit hydrograph data are shown in Table 1. Loss rates were 1.0 inches of initial loss and 0.08 inches per hour of uniform loss.

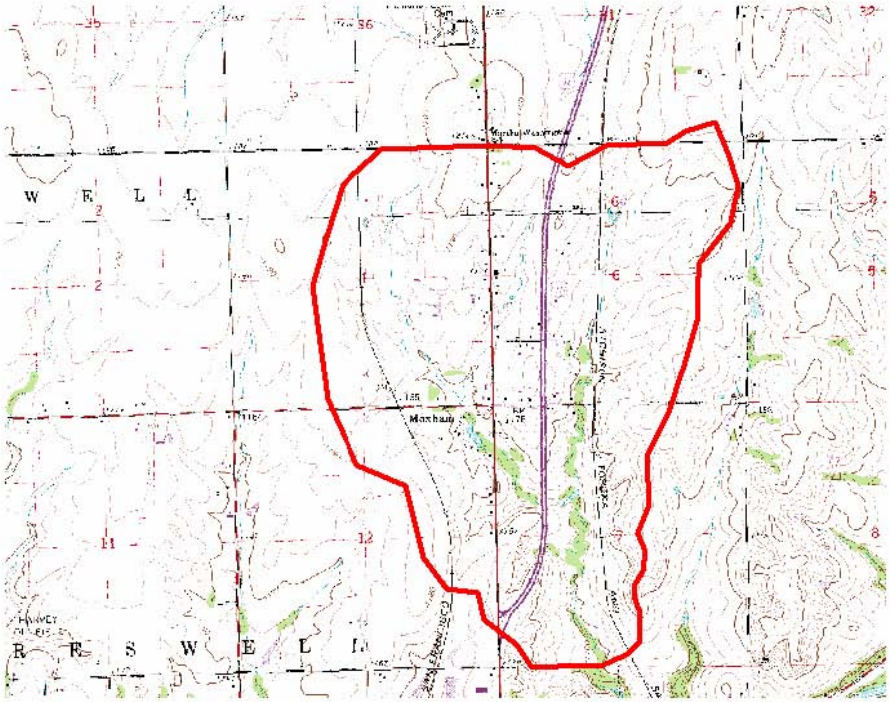

FIGURE 2

TABLE 1

UNIT HYDROGRAPH COEFFIIENTS

Subarea	Area (sq mi)	Percent Impervious	Tp	Cp
Total	2.31	1	1.027	0.595

RAINFALL

Frequency rainfall was developed from the USGS Digital Data Sets for Depth-Duration Frequency of Precipitation for Oklahoma, Open File Report 99-463. The rainfall is shown in Table 2. Only the 1-year, 100-year, and 500-year discharges were developed. The 1-year discharge and volume was developed as a guide to the amount of water available to a seasonal wetland. The rainfall was adjusted to 80% as a conversion to annual series. The 100-year and 500-year discharges were developed as part of an analysis of the size of the outlet works required. The discharges and volumes are listed in Table 3.

TABLE 2

FREQUCENY RAINFALL

Frequency	Duration							
	5 min	15 min	1 hr	2 hr	3 hr	6 hr	12 hr	24 hr
1-year	0.328	0.648	1.136	1.320	1.480	1.680	2.080	2.400
100-year	0.87	2.01	3.96	4.66	5.37	6.46	7.32	8.40
500-year	1.35	2.69	5.41	5.80	6.80	8.31	9.50	11.00

TABLE 3

FREQUENCY DISCHARGES AND VOLUMES

Frequency	Discharge in cfs	Volume in acre-feet

1-year	638	101
100-year	2,798	638
500-year	4,652	1,060

WETLAND ALTERNATIVES

The creation of additional wetlands in the project area was examined in a couple of manners. One involved the use of an embankment and outlet works to create and manage the wetland. However, due to the relatively large size of the drainage area and the site topography, the embankment and outlet plan was not practical. The impoundment would primarily submerge only the existing watercourse, creating a small wetland at the expense of the existing riparian corridor. The outlet works would involve several hundred feet of concrete spillway. The construction of such a large outlet works would be expensive and intrusive to the environment. After this was discovered, the embankment alternative was dropped. The second alternative was to excavate a wetland in the left overbank. An approximately 6 acre wetland with a 6 to 8 foot maximum depth was developed that would require approximately 100,000 cubic yards of excavation. The wetlands concept is shown on Figure 3.

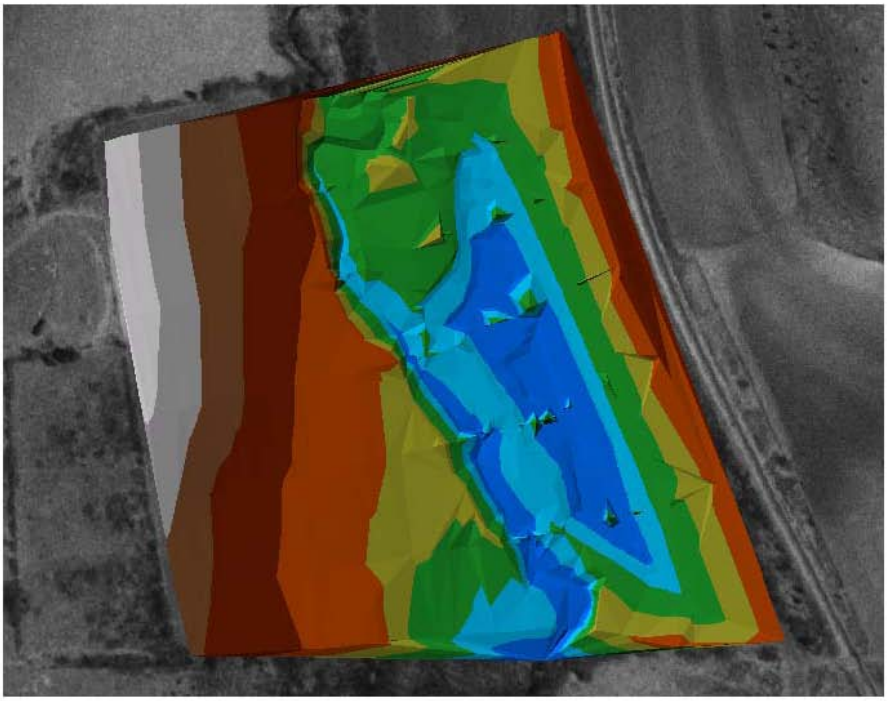

FIGURE 3 (Wetlands in Shades of Blue)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kansas Ecological Services Field Office
2609 Anderson Avenue
Manhattan, Kansas 66502-2801

July 3, 2006

Stephen L. Nolen, Chief
Environmental Analysis and Compliance Branch
U.S. Army Corps of Engineers
1645 South 101st East Avenue
Tulsa, Oklahoma 74128-4609

RE: Arkansas and Walnut Rivers Ecosystem Restoration Project 64411-2006-P-0384

Dear Mr. Nolen:

This is in response to your May 30, 2006 letter requesting threatened and endangered species information relative to the proposed Arkansas and Walnut Rivers Ecosystem Restoration Project, in Cowley County, Kansas. The proposal calls for various vegetative and water body manipulations to attempt to restore some of the functional values of the riparian corridors of these two rivers. The following information is provided for your consideration.

In accordance with section 7(c) of the Endangered Species Act, we have determined that the federally listed bald eagle (*Haliaeetus leucocephalus*), least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*), and whooping crane (*Grus americana*) may occur in the project area. Each of these species is associated with habitats in and along the Arkansas River, with the bald eagle using large trees along both rivers. The tern and plover are spring and fall migrants, and a nesting population of least terns occurs upstream at Wichita. Both species use sparsely vegetated sandbars and islands for foraging and for nesting. The whooping crane is a rare migrant through the area and uses shallow open water bodies with low topographic relief that give it a wide view of approaching predators. If any phase of project activity may adversely affect listed species, formal consultation pursuant to section 7 of the Act should be initiated with this office. If our agencies reach concurrence there will be no adverse effect, further consultation will not be necessary.

The candidate species Arkansas darter (*Etheostoma cragini*) may also occur in the vicinity of the project, possibly occurring in the Arkansas River and tributaries upstream of Arkansas City.. Candidate species are those for which the Fish and Wildlife Service has substantial information to indicate they warrant protection under the Endangered Species Act. Proposed rules to begin the process of implementing this legal protection may be initiated at any time for these species.

Under the Migratory Bird Treaty Act, construction activities in prairies, wetlands, stream and woodland habitats, and those that occur on bridges (e.g., which may affect swallow or phoebe nests on bridge girders) that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in Kansas occurs during the period of April 1 to July 15, although some migratory birds are known to nest outside this period. If the proposed project may result in the take of nesting migratory birds, the Service recommends a field survey during the nesting season of the affected habitats and structures to determine the presence of active nests. Our office should be contacted immediately for further guidance if a field survey identifies the existence of one or more active bird nests that cannot be avoided temporally or spatially by the planned construction activities. Adherence to these guidelines will help avoid the take of migratory birds.

To help avoid the spread of the invasive and damaging zebra mussel (*Dreissena polymorpha*) in Kansas, the Service recommends as a permit condition that any equipment used for this project that has been in any body of water within the past 30 days be thoroughly cleaned with water hotter than 40°C or 104°F and dried for a minimum of 5 days before being used at this project site. In addition, before transporting equipment from the project site all visible mud, plants, and fish and animal parts should be removed and all water should be eliminated.

Thank you for this opportunity to provide input on your proposal. Please contact this office again if you have additional comments or questions.

Sincerely,

Michael J. LeValley
Field Supervisor

cc: KDWP, Pratt, KS (Environmental Services)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kansas Ecological Services Office
2609 Anderson Avenue
Manhattan, Kansas 66503-6172

July 7, 2006

Stephan L. Nolen
Chief, Environmental Analysis and Compliance Branch
Corps of Engineers, Tulsa District
1645 South 101st East Avenue
Tulsa, OK 74128-4609

Dear Mr. Nolen:

The Tulsa District, Corps of Engineers, is in the process of developing a feasibility study for ecosystem restoration of riparian habitat along the Walnut River through Arkansas City. This Planning Aid Letter (PAL) is submitted pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and section 7(c) of the Endangered Species Act (16 U.S.C. 1531 et seq.) for the Arkansas and Walnut Rivers Ecosystem Restoration Project, Arkansas City, Kansas.

This study was authorized under authority of Section 206 of the Water Resources Development Act of 1996, as amended.

The Arkansas City, Kansas Local Protection Project is a flood control project consisting of levees and channel improvements. The project is under construction.

This letter describes the study area, identifies important aquatic and terrestrial resources, evaluates the impacts of restoration measures, and suggests additional measures to improve fish and wildlife habitat.

DESCRIPTION OF STUDY AREA

The proposed restoration site is located within the historic floodplain of the Walnut River as well as the proposed Lower Walnut Valley Greenway east of the city of Arkansas City, Kansas. Because of agricultural, industrial and flood control activities in the Arkansas City vicinity the riparian belt along the Arkansas and Lower Walnut River Basin has been sufficiently altered to impair ecological functionality. Currently, the riparian belt within the proposed project area along the Walnut River consists of extremely narrow belts of remnant bottomland hardwood. Additional riparian habitat within the historic floodplain consists of a small number of isolated bottomland hardwood stands.

Existing aquatic habitat, outside of the rivers, are primarily comprised of abandoned gravel mining pits and borrow pits. These areas appear to be hydraulically connected to the Walnut

River. These areas are used for resting by migratory waterfowl, but since they are sparsely vegetated, they provide very little food or cover for fish or wildlife, including waterfowl and shorebirds.

Historically, the riparian corridor/flood plain habitat of this area consisted of perennial riverine wetlands and bottomland forests with upland areas dominated by tallgrass prairie. The forest type was characterized by bottomland timber comprised of eastern cottonwood, hackberry, black walnut, black willow, American sycamore, honey locust, and green ash. The riverine wetlands were generally comprised of undercut banks, sandbars, and oxbows. Upland areas were dominated by grasses characteristic of the tallgrass prairie and included big bluestem, indiangrass, switchgrass, prairie dropseed, prairie cordgrass, and eastern gamagrass as well as numerous forbs and flowering plants.

The recommended plan would positively impact 71.1 acres of riparian habitat along the Walnut River and approximately 40.7 acres of surface water as well as create 15 acres of emergent wetland habitat.

Future Without The Project

Riparian and aquatic habitat has decreased in quality and quantity as prairie has been converted to agricultural and industrial uses. Future conditions without Federal and local intervention are expected to decline or at best remain at the current state. Existing riparian and wetland habitat will remain degraded with low carrying capacity for fish and wildlife. It is very unlikely that the natural aquatic and riparian habitats would re-establish. Although the Lower Walnut Valley Greenway Project will improve some habitat, the project's focus is recreation. Improvements to degraded habitat involve mitigation associated with the state highway and will be incidental in most cases.

PLANNING OBJECTIVES

1. Restore the Arkansas-Walnut River floodplain to a more natural condition.

2. Restore wildlife habitat to a more productive state.

3. Modify abandoned gravel mine pits and borrow pits to provide palustrine and/or lacustrine habitat as well as deep water habitat.

4. Restoration areas should complement the city's Master Plan and resources.

5. Include educational opportunities to complement features planned for the Lower Walnut Valley Greenway Project.

CONSTRAINTS

1. Do not impact cultural resources sites

FISH AND WILDLIFE RESOURCES

Riparian woodland represents high quality terrestrial habitat. Riverine wetlands and associated floodplain bottomland are extensively used by waterfowl, raptors, shorebirds, neotropical migratory birds, furbearers, reptiles, amphibians, and fish for nesting, resting, rearing, and feeding as residents and seasonally as migrants. It provides feeding, resting, and reproductive areas, along with travel or migration corridors for many game and non-game animals. Some of the wildlife species associated with, and dependent upon, these riparian areas include wild turkey, fox squirrel, white-tailed deer, raccoon, coyote, beaver, bobcat, bobwhite quail, woodpeckers, barred owl, and many other non-game species.

Grasslands in the vicinity of the study area generally consist of tall-grass prairie. Grasslands provide good wildlife habitat due to a plant diversity that provides a variety of cover, forage, seed, and insect food. Some of the terrestrial species which would use grasslands in the study area include grasshopper sparrow, upland sandpiper, Greater prairie chicken, ring-neck pheasant, coyote, badger, and plains pocket gopher. Tall-grass prairie provides essential habitat for grassland birds. As a group, grassland birds are declining at a faster rate than any other group of birds in North America.

Threatened and Endangered Species

In accordance with section 7(c) of the Endangered Species Act, we have determined that the federally listed bald eagle (*Haliaeetus leucocephalus*), least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*), and whooping crane (*Grus americana*) may occur in the project area. Each of these species is associated with habitats in and along the Arkansas River. The bald eagle uses large trees and snags along both Rivers. The tern and plover are spring and fall migrants, and a nesting population of least terns occurs upstream at Wichita. Both species use sparsely vegetated sandbars and islands for foraging and for nesting. The whooping crane is a rare migrant through the area and uses shallow open water bodies with low topographic relief that give it a wide view of approaching predators. If any phase of project activity may adversely affect listed species, formal consultation pursuant to section 7 of the Act should be initiated with this office. If our agencies reach concurrence there will be no adverse effect, further consultation will not be necessary. An activity which harasses any listed species and disrupts its normal breeding, feeding or sheltering activities to the extent that harm or injury results is a prohibited taking under the ESA.

The candidate species Arkansas darter (Etheostoma cragini) may also occur in the vicinity of the project, possibly occurring in the Arkansas River and it's tributaries upstream of Arkansas City. Candidate species are those for which the Fish and Wildlife Service has substantial information to indicate they warrant protection under the ESA. Proposed rules to begin the process of implementing this legal protection may be initiated at any time for these species.

PROJECT DESCRIPTION

The proposal calls for various vegetative and water body manipulations to attempt to restore some of the functional values of the riparian corridors of the Arkansas and Walnut Rivers. As the area is rich in cultural artifacts, project constraints are to not impact cultural resources sites.

A number of alternatives were considered and rejected. These included: 1) removal of flood control structures or other improvements to the study area; 2) Restoration in areas planned for future recreational use by the city's Master Plan; 3) Restoration measures that require excavation except in very limited areas; and 4) The use of brush piles to improve the aquatic habitat in the water-filled gravel pits at Areas 3 and 4 as the documented results for the use of brush piles are limited in addition to a fairly high cost.

The alternatives that were evaluated further include various vegetative manipulations consisting of including thinning of cottonwood seedlings and the planting of hardwood seedlings in various amounts, soil preparation to destroy current vegetation and seeding with native grasses and forbs, construction of wetlands, and spraying to remove vegetation and replanting with native grasses and forbs. Alternative 6 was chosen as the preferred alternative. The estimated cost for Alternative 6 is $975,000. The description of each area and its chosen alternatives are as follows:

1. Area 1 is approximately 18.4 acres adjacent to an existing water-filled borrow pit (Area 3). Currently the vegetation in Area 1 is dominated by cottonwood seedlings and Bermuda grass. There would be limited thinning (4.5 acres total) of cottonwoods and planting of native bottomland hardwood species (50 per acre) to increase habitat diversity.

2. Area 2 consists of 10.7 acres surrounding an existing water filled barrow pit (Area 4). Currently the vegetation is degraded pasture and undesirable weeds. In this area the soil would be tilled and fertilized and then seeded with native riparian vegetation.

3. Area 3 is an existing water-filled borrow pit with approximately 17.5 surface acres. The pond is used for resting by migratory waterfowl. There are no restoration measures considered for the pond itself. Restoration in the adjacent Area 1 is expected to have a positive effect on the pond.

4. Area 4 is an existing water-filled borrow pit with approximately 23.2 surface acres. The pond is used for resting by migratory waterfowl. There are no restoration measures considered for the pond itself. Restoration in Area 2 is expected to have a positive effect on the pond since vegetation surrounding the pond will provide some cover and organic debris to the pond.

5. Area 5 is located in a drainage area that drains runoff through the city golf course and eventually into the Arkansas River. The No Action alternative was chosen for this area.

6. Area 6 is a 16-acre unused pasture dominated by non-native grasses. The existing vegetation would be removed and the soil would be tilled, fertilized, and seeded with native grasses, forbs, and wildflowers.

7. Area 7 is a 15-acre unused field in a low area near a meat packing plant. A 15-acre wetland would be constructed using effluent from the nearby packing plant.

8. Area 8 is an 11-acre belt surrounding area 7. The soil would be tilled, fertilized, and seeded with native riparian vegetation.

DESCRIPTION OF POTENTIAL IMPACTS

Bald eagles use large trees and snags for perches and nesting sites. Trees and snags at least 50 feet tall and/or 24 inches diameter at breast height (dbh) should not be removed.

Effluent from meat packing plants is known to contain blood, fat, manure, undigested stomach contents and cleaning agents. It is typically characterized as having a high level of organic matter, fat, nitrogen, phosphorus and salt (sodium). Fecal coliform bacteria may also be present in the effluent. These pollutants contained within a wetland may produce a contaminant sink that would be detrimental to wildlife. Dissolved salts contained in the effluent can adversely affect soil structure and cause salinity problems. Nitrogen and phosphorus can also leach into underlying groundwater and affect its quality. When effluent is discharged into water bodies high levels of organic matter can deplete oxygen levels and degrade water quality (United Nations Environment Programme 2000).

The Study did not contain information concerning the level of treatment (i.e. primary, secondary, or tertiary) the effluent will undergo prior to being discharged into the wetland. Primary treated effluent still contains significant amounts of pollutants while tertiary treatment produces relatively clean water. If the effluent does not meet water quality standards the wetland may not be considered jurisdictional under the Clean Water Act and would therefore not contribute to the goal of net gain of wetlands (Mulder 2006). Water quality of the treated effluent should be described. Vegetation plantings in the wetland should be selected based in part upon their tolerance to the water levels and frequencies expected in the wetland.

Herbicides can negatively impact terrestrial and aquatic wildlife including the Service's trust resources. There are many herbicides on the market and some herbicides have much greater adverse impacts than others. For example, chlorsulfuron has been found in an EPA test, to damage cherry trees at 1/500th of the label application rate. Frogs living in ponds in close proximity to pesticide use had deformity rates of 20 percent. Combined herbicides can be more toxic than would have been predicted from the additive effect of the individual chemicals' toxicities (Rachel Carson Council, 1999). The type of herbicide(s) (brand name and ingredients), application rates, timing of application and methods of application should be described in detail. Environmental effects must be evaluated to ensure that specific herbicides can be safely used in the area. Evaluation of risk associated with the use of any chemical requires consideration of both the toxicity of the material and the potential for exceeding exposure to a specified dose over a specified time period (Society of American Foresters). With further information, the Service may be able to provide information on Integrated Pest Management and other options for eliminating the unwanted vegetation with reduced chemical use.

The use of fertilizers can cause contamination and eutrophication of water bodies if runoff occurs after application (e.g. after precipitation event), from over application, or from misuse. Members of my staff have seen successful demonstations of native plant seedings using mycorrhizal inoculum. The growth of plants was remarkable. The use of mycorrhizal inoculum alone or in combination with fertilizer may increase the survival and growth rate of native plants.

Improved habitat may increase the numbers of birds of prey (hawks, owls, and eagles) using the project area. Overhead static lines (e.g. powerlines, telephone lines, etc.) have been documented as constituting a significant collision hazard to a number of bird species, including waterfowl and some endangered species. The Service encourages the use of buried cable. Visibility should be enhanced for static lines on any overhead line segment within one mile of a stream or wetland. In addition, electrical distribution lines have been shown to pose the threat of electrocution to large birds of prey which use the poles, crossarms, and wires as perching sites. Any powerlines near the project site should be retrofitted to incorporate the guidelines found in the 1996 Raptor Research Foundation publication, "Suggested Practices for Raptor Protection on Power Lines".

Studies have shown that human activity as simple as walking through an area will cause disruptions to wildlife behavior such as feeding, mating, nesting, brooding, and rearing young. Birds will leave incubating eggs causing them to fluctuate in temperature thereby affecting their viability and increasing the chance of losing the eggs/nestlings to predation. Frogs will quit vocalizing, an important aspect of their breeding behavior. Other wildlife can be similarly affected. Trails are often used by wildlife to rest and/or sun. It is fairly common to see dead snakes on bicycle trails. Any proposed recreational uses of these areas should be developed with wildlife needs in mind. For example, some salamanders require an area approximately 500 feet from the waters edge to carry out their life requirements, so trails should be kept at least 500 feet from the edge of waterbodies and wetlands. We recommend that recreational development that will be permitted in this area be specifically defined and that these activities are agreed upon by the resource agencies.

Under the Migratory Bird Treaty Act, construction activities in prairies, wetlands, stream and grassland habitats, and those that occur on bridges (e.g., which may affect swallow or phoebe nests on bridge girders) that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of the MBTA are applicable year-round, most migratory bird nesting activity in Kansas occurs during the period of April 1 to July 15, although some migratory birds are known to nest outside this period. If the proposed project may result in the take of nesting migratory birds, the Service recommends a field survey during the nesting season of the affected habitats and structures to determine the presence of active nests. Our office should be contacted immediately for further guidance if a field survey identifies the existence of one or more active bird nests that cannot be avoided temporally or spatially by the planned construction activities. Adherence to these guidelines will help avoid the take of migratory birds.

Invasive species have been identified as a major factor in the decline of native flora and fauna and their ecosystems and impact aquatic resources. Invasive species of particular concern in Kansas are the zebra mussel (*Dreissena polymorpha*), purple loosestrife (*Lythrum salicaria*), Johnson grass (*Sorghum halepense*), sericea lespedeza (*Lespedeza cuneata*), and reed canary grass (*Phalaris arundinacea*). Executive order 13112 Section 2 (3) directs Federal agencies to not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere and to ensure that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions. Proactive measures to prevent the inadvertent spread of exotic and invasive species would appear to satisfy this directive. Therefore we recommend the implementation of the

following BMP.

> All equipment brought on site will be thoroughly washed to remove dirt, seeds, and plant parts. Any equipment that has been in any body of water within the past 30 days will be thoroughly cleaned with hot water (hotter than 40°C or 104°F) and dried for a minimum of five days before being used at this project site. In addition, before transporting equipment from the project site all visible mud, plants, and fish/animals will be removed, all water will be eliminated, and the equipment will be thoroughly cleaned. Anything that came in contact with the water will be cleaned and dried following the above procedure

OPPORTUNITIES FOR WILDLIFE ENHANCEMENT

1. Studies have found that ponds constructed with 40 percent of the area as shallow water no deeper than 1 meter, gently sloping sides, irregular shorelines, and significant vegetation in the shallow areas (1500 stems/m^2) are favored by waterfowl and shorebirds over other impoundments. If the existing borrow pits are lacking this structure, habitat could be improved by creating shallow water areas. Habitat in the borrow pits could also be diversified by creating microdepressions in the bottom of the pits or otherwise making the bottom of the pits uneven. Islands in the pits (above or below the water surface) would also increase habitat diversity and it may be possible to create shallow water areas around the islands.

2. Increase diversity of forbs in seeding mix. Consult NRCS for recommended seed mixes for Cowley County.

3. Plant switch grass or prairie cord grass along drainage in Area 5. Native grasses have deep root systems which increases soil stabilization and a high flow impedance that will provide significant water quality advantages through increased infiltration and attenuation of runoff. The native grasses will also provide enhanced wildlife values.

4. Create wildlife travel corridors between project areas

DISCUSSION OF FWCA ACTIVITES FOR THE FEASIBILTY PHASE

The Service will need a much greater level of detail concerning construction plans and designs, detailed existing and proposed vegetation maps and proposed planting and seeding list including common and scientific names. In addition, as discussed previously, we will require information on water quality of meat packing plant effluent, proposed herbicide use and proposed fertilizer use. A Scope of Work agreement between the Corps and Service should be agreed upon for further Service involvement in this project.

RECOMMENDATIONS

1. Trees and snags at least 50 feet tall and/or 24 inches diameter at breast height (dbh) should not be removed.

2. Ensure that meat packing plant effluent meets water quality standards for wetlands and wildlife uses.

3. Investigate the use of mycorrhizal inoculum in place of or in addition to fertilizers.

4. Determine if any overhead static lines or powerlines will need to be modified.

5. Specifically define what recreational uses will be allowed in the project area.

6. Implement a best management practice to prevent the inadvertent transport of invasive species into or out of the project area.

Thank you for the opportunity to comment on this proposal. Please contact this office again if you have additional comments or questions.

Sincerely,

Michael J. LeValley

Michael J. LeValley
Field Supervisor

LITERATURE CITED

Mulder, Kathy. Environmental Protection Agency, Region 7. Personal communication. July 7, 2006.

Rachel Carson Counsil. 1999. A Toxic Tally and Our Task. Retrieved July 6, 2006, from http://members.aol.com/rccouncil/ourpage/toxic.htm. Date retrieved July 7, 2006

Society of American Foresters. 2006. Herbicide use in Forest Management: A position of the Society of American Foresters. Retrieved July 6, 2006, from http://www.safnet.org/policyandpress/psst/herbicide.cfm. .

United Nations Environment Programme (UNEP). 2000. Cleaner production assessment in meat processing. Retrieved June 3, 2006 from http://www.agrifood-forum.net/publications/guide/m_chp2.pdf .

cc: KDWP, Environmental Services (Pratt, Kansas)

- 8 -

NRCS
United States Department of Agriculture
Natural Resources Conservation Service
3020 W. 18th Avenue, Suite B
Emporia, Kansas 66801

"A Partner in Conservation Since 1935"

Phone: 620-343-7276
FAX: 620-343-7871
www.ks.nrcs.usda.gov

July 25, 2006

Stephen L. Nolen, Chief
Environmental Analysis & Compliance Branch
1645 South 101st East Avenue
Tulsa, Oklahoma 74128-4609

Dear Mr. Nolen:

Thank you for the opportunity to review the proposed feasibility study requested by the City of Arkansas City, Kansas for an ecosystem restoration habitat area along the Walnut River. This project is located in Cowley County.

Since the proposed project in on land physically located outside the defined city limits and that the proposed project may convert farmland, as defined in the Farmland Protection Policy Act to nonagricultural uses, this project is affected by the Farmland Protection Policy Act and therefore, an AD-1006 form is required.

Enclosed is the Farmland Conversion Impact Rating (AD-1006) form in which your agency will need to complete Parts I and III of this form. The AD-1006 form will need to be returned back to our office once you have completed Parts I and III.

If I can be of further assistance, please let me know.

Sincerely,

William Gilliam

WILLIAM M. GILLIAM
Assistant State Conservationist

Enclosure

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request	
Name of Project		Federal Agency Involved	
Proposed Land Use		County and State	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	Person Completing Form:
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☐ NO ☐	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site				
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160				
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100				
Total Site Assessment *(From Part VI above or local site assessment)*	160				
TOTAL POINTS *(Total of above 2 lines)*	260				

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side)

Form AD-1006 (03-02)

From: Davis, Nate [mailto:nated@wp.state.ks.us]
Sent: Friday, July 14, 2006 4:30 PM
To: Clyde, Tony SWT
Cc: Swan, Tom; Odle, Brad; Johnson, Craig; Mike LeValley; Jeanne Woodward
Subject: corps of engineers section 206 ecosystem restoration of riparian habitat along walnut river, arkansas city, ks

kdwp track: 19920198 CO: CL (multiple sections 34s 04e) Ref: D1.0500
Restoration of appx. 71 acres of degraded pastures, borrow pits, drainage ditches to hardwood woodlands, wetlands, native grass/forbs

Dr. Tony Clyde,
We have reviewed the project in reference to state-listed species and public wildlife areas. No state-listed species should be impacted by the project. If not already incorporated into project plans, we strongly encourage the public's use of the restored area for wildlife purposes.

thank you,

Nate Davis
KDWP Env. Services Section, Aquatic Ecologist
512 SE 25th Ave, Pratt, KS 67124
620.672.0795 (Office); 620.450.8311 (cell); 620.672.2972 (fax)
nated@wp.state.ks.us

KANSAS

Kathleen Sebelius, Governor
Roderick L. Bremby, Secretary

DEPARTMENT OF HEALTH
AND ENVIRONMENT

www.kdheks.gov

Division of Environment

June 22, 2007

Dr. Tony Clyde
U.S. Army Corps of Engineers
Tulsa District
1645 South 101 East Avenue
Tulsa, OK 74128-4609

RE: Comments on Tulsa District USACE Arkansas and Walnut Rivers Ecosystem Restoration Project

Dr. Clyde:

The Kansas Department of Health and Environment (KDHE) thanks the USACE for the opportunity to comment as per your request in the cover letter to the referenced document dated, February 16, 2006 and follow-up emails since then. In response to your last email dated May 31, 2007, please note additional details need discussed.

1) In regard to the designed wetland, will the meat processing plant wastewater effluent be added as only makeup water to the system or will the system have a continuous discharge resulting from the meat processing plant wastewater? If the proposal is for a continuous discharge from the wetland, what will be the drainage path for the discharge? Surface flow through town may not be desirable. Flow to another pit in the area would not be desirable. The National Pollutant Discharge Elimination System (NPDES) permit issued to Creekstone Farms was based on the wastewater effluent being hard piped directly to the Arkansas River for discharge. A release to other receiving streams could create localized water quality problems because of the lack of assimilative capacity in comparison to the Arkansas River.

2) The Kansas Department of Health and Environment (KDHE) does not typically promote allowing people or pets being able to directly contact wastewater or treated wastewater effluent, even though the wastewater has received disinfection to meet bacterial criteria established in the U.S. Environmental Protection Agency (EPA) effluent guideline standards for the meat processing industry.

BUREAU OF WATER – WATERSHED MANAGEMENT SECTION
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 420, TOPEKA, KS 66612-1367
Voice 785-296-4195 Fax 785-296-5509
http://www.kdheks.gov/nps/index.html

3) The design of the wetland will need to consider methods to ensure protection of any groundwater in the area.

4) The designer of the wetland will need to consider the quality of the water being directed to it from a toxicity standpoint. Under certain conditions, the quality of the treated wastewater currently allowed to be discharged to the Arkansas River via Creekstone's NPDES permit, may be toxic to aquatic organisms i.e., ammonia (as N) is limited to less than 4 mg/l as a daily average and less than 8 mg/l as a daily maximum concentration.

5) If the wetland will not discharge except during heavy precipitation events, the designer will need to consider the potential for the buildup of chlorides and sulfates due to evaporation. Salt (chloride) buildup could pose not only a groundwater contamination threat but may also pose an aquatic chronic toxicity concern as well.

6) Phosphorous concentrations of meat processing plant wastewater are typically elevated. Whether the wetland will be operated so as to not discharge except in wet weather or operated with a continuous discharge, it will ultimately become a phosphorous sink which may warrant special consideration in regard to the operation and maintenance of the wetland.

7) Currently the point of compliance for the Creekstone NPDES permit is the sampling manhole following the disinfection contact tank. The effluent limits in Creekstone's NPDES permit reflect the quality required to ensure compliance with state surface water quality standards in the Arkansas River.

8) The City and Creekstone need to address who will be responsible/liable for the wastewater or treated wastewater once it leaves the Creekstone wastewater treatment system or the Creekstone outfall line to the Arkansas River.

9) Any construction activities that will disturb 1 acre or more will require an NPDES Stormwater Construction Runoff Permit.

10) KDHE would be interested in at least reviewing the conceptual design for the wetland and how it is proposed to be operated, in regard to the above concerns and issues.

11) KDHE strongly recommends you contact the Cowley County NRCS to assure riparian vegetation planting is suitable for the region. Native riparian establishment in Cowley County may not require fertilizer. Fertilizer application should be done according to nutrient management practices if needed. The CC NRCS should again be consulted. Contact Mr. Barry Barber at 620-221-4162 or barry.barber@ks.nrcs.gov.

12) The project cooperators you should be aware the proposed created wetlands will be subject to Kansas Surface Water Quality Standards and using even treated wastewater may not be adequate to assure violations will not occur. To avoid potential problems, KDHE suggests the following:

   a) Provide an analysis to determine the amount of pollutant that can be discharged and meet Kansas Surface Water Quality Standards and area wetland water quality conditions. Wetland design should account for meeting these standards not just local use and habitat goals.

   b) Additionally, water quality conditions of the created wetlands are expected to be comparable to the median water quality conditions of regional public wetlands. With this in mind, Mr. Ed Carney, KDHE – Bureau of Environmental Field Services, has reviewed data collected via the Kansas Lake and Wetland Monitoring Program. This data represent marshes and shallow lake wetlands, not riparian. Attached is a summary of his findings. Mr. Carney can be contacted at 785/296-5575/ Ecarney@kdhe.state.ks.us.

   c) An observational other wetland monitoring strategy may be helpful for the first three years.

   d) Some discussion on improvement of the packing plant treatment should also occur. Would Section 206 be available to up-grade the plant if all parties desired it?

13) The project cooperator is encouraged to investigate the potential for using this project to develop a Watershed Restoration and Protection Strategy. Please contact Mr. Richard Basore for more information at 316-337-6014 or rbasore@kdhe.state.ks.us.

Please direct any questions concerning these comments to Mr. Don Snethen- 785-296-5567/dsnethen@kdhe.state.ks.us or Scott Satterthwaite, 785-296-5573 / ssattert@kdhe.state.ks.us.

Sincerely,

Scott L. Satterthwaite

Scott L. Satterthwaite, M.S.
Non-point Source Pollution Control Specialist
Bureau of Water-Watershed Management Section

EC: KDHE: Basore, Carney, Mester, Carlson, Snethen

NRCS: Cowley County, Barber

BUREAU OF WATER – WATERSHED MANAGEMENT SECTION
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 420, TOPEKA, KS 66612-1367
Voice 785-296-4195 Fax 785-296-5509
http://www.kdheks.gov/nps/index.html

APPENDIX B

SECTION 404 PERMIT

CESWT-RO 16 May 2008

MEMORANDUM FOR CESWT-PE-P (S. O'Neill)

SUBJECT: Review of an Ecosystem Restoration Project, Pursuant to Section 404 of the Clean Water Act, Arkansas City, Kansas

1. Regulatory has reviewed the proposed ecosystem restoration project. The project is located in the Southeast 1/4 of Section 7, Township 34 South, Range 4 East, Cowely County, Kansas.

2. The project as proposed falls within the scope of the enclosed Nationwide permit for Aquatic Habitat Restoration, Establishment, and Enhancement Activities (end 1), provided the conditions are met. Please return the enclosed "Permittee Construction Schedule" (encl 2) form.

3. This action has been assigned Identification Number 15578, please refer to this number should there be further correspondence. If you have any question, contact Helen J. Williams at 918-669-7009.

for Helen J. Williams
DAVID A MANNING
Chief, Regulatory Office

2 Encl
as

PERMITTEE CONSTRUCTION SCHEDULE WORKSHEET

* MAIL TO ADDRESS ON REVERSE WITHIN 30 DAYS OF "DATE OF ISSUANCE"

PERMIT NO.: 15578

USACE PROJECT MANAGER: Ms. Helen J. Williams

PERMITTEE NAME: Ecosystem Restoration, Arkansas City, KS
(S. O'Neill)

DATE OF ISSUANCE: May 15, 2008

----------(fold here so that address shows on outside)--------

Please provide the following information:

Anticipated/Known Construction Start Date: Aug. 15, 2010

Anticipated Completion Date: Aug. 15, 2012

I have read and understand the obligations and requirements of this authorization.

Tracy Clyde for Shawneen O'Neill
SIGNATURE OF PERMITTEE

5-27-08
DATE

----------(fold here and tape closed)----------

(FOR AGENCY USE ONLY - DO NOT WRITE BELOW THIS LINE)

RECEIVED IN CESWT-PE-R: _____

INSPECTION NEEDED: Y / N

CONSTRUCTION INSPECTION SCHEDULED: _____

FINAL INSPECTION SCHEDULED: _____

Encl 2

Nationwide Permit 27
Aquatic Habitat Restoration, Establishment, and Enhancement Activities

Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas and the restoration and enhancement of non-tidal streams and other non-tidal open waters, provided those activities result in net increases in aquatic resource functions and services. To the extent that a U.S. Army Corps of Engineers (Corps) permit is required, activities authorized by this Nationwide Permit (NWP) include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services. Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa) or uplands. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Reversion. For enhancement, restoration, and establishment activities conducted:

(1) In accordance with the terms and conditions of a binding wetland enhancement, restoration, or establishment agreement between the landowner and the U.S. Fish and Wildlife Service (USFWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), or their designated State cooperating agencies;

(2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining (OSM) or the applicable State agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within 5 years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The 5-year reversion limit does not apply to agreements without time limits reached between the landowner and the USFWS, NRCS, FSA, NMFS, NOS, or an appropriate State cooperating agency.

This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland that has not been abandoned or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, USFWS, or their designated State cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a Section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate State agency executing the agreement or permit. Before conducting any reversion activity, the permittee or the appropriate Federal or State agency must notify the District Engineer (DE) and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity result in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases, a separate permit would be required for any reversion.

Reporting: For those activities that do not require pre-construction notification (PCN), the permittee must submit to the DE a copy of:

(1) The binding wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map;

(2) the NRCS or USDA Technical Service Provider documentation for the voluntary wetland restoration, enhancement, or establishment action; or

(3) the SMCRA permit issued by OSM or the applicable State agency. These documents must be submitted to the DE at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification: The permittee must submit a PCN to the DE prior to commencing the activity (see General Condition (GC) 27), except for the following activities:
(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding wetland enhancement, restoration, or establishment agreement between the landowner and the USFWS, NRCS, FSA, NMFS, NOS, or their designated State cooperating agencies;
(2) Voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or
(3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSM or the applicable State agency. However, the permittee must submit a copy of the appropriate documentation.

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee programs. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

This NWP is authorized pursuant to Section 404(e) of the Clean Water Act (CWA) (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 et seq). The effective date for this NWP (33 CFR 330), GCs, and definitions is March 19, 2007, as published in the Federal Register. The NWP, GCs, and definitions expire on March 18, 2012.

General Conditions
1. Navigation.
a. No activity may cause more than a minimal adverse effect on navigation.
b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
c. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.
3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.
4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.
6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the CWA).
7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.
8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.
9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and stormwater management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
10. Fills Within 100-Year Flood Plains. The activity must comply with applicable Federal Emergency Management Agency (FEMA) approved State or local flood plain management requirements.
11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

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12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety, and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, USFWS).

16. Tribal Rights. No activity or its operation may impair reserved Tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species.

a. No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

b. Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the DE with the appropriate documentation to demonstrate compliance with those requirements.

c. Non-Federal permittees shall notify the DE if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the DE that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the PCN must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The DE will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps determination within 45 days of receipt of a complete PCN. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.

d. As a result of formal or informal consultation with the USFWS, the DE may add species-specific regional endangered species conditions to the NWPs.

e. Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS or their world wide Web pages at http://www.fws.gov/ and http://www.noaa.gov/fisheries.html respectively.

18. Historic Properties.

a. In cases where the DE determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

b. Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Federal permittees must provide the DE with the appropriate documentation to demonstrate compliance with those requirements.

c. Non-Federal permittees must submit a PCN to the DE if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the PCN must state which historic properties
may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of

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historic resources can be sought from the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The DE shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the DE shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified

the Corps, the non-Federal applicant shall not begin the activity until notified by the DE either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

d. The DE will notify the prospective permittee within 45 days of receipt of a complete PCN whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA Section 106 consultation is required and will occur, the DE will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

e. Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally, significantly, or adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on Tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated CRW. The CRW include State natural heritage sites, and outstanding National resource waters or other waters officially designated by a State as having particular environmental or ecological significance and identified by the DE after notice and opportunity for public comment. The DE may also designate additional CRW after notice and opportunity for comment.

a. Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, CRW, including wetlands adjacent to such waters.

b. For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with GC 27, for any activity proposed in the designated CRW including wetlands adjacent to those waters. The DE may authorize activities under these NWPs only after it is determined that the impacts to the GC will be no more than minimal.

20. Mitigation. The DE will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

a. The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

b. Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

c. Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require PCN, unless the DE determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require PCN, the DE may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

d. For losses of streams or other open waters that require PCN, the DE may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

e. Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

f. Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In

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some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the DE may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the DE will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the DE may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

g. Permittees may propose the use of mitigation banks, in-lieu fee arrangements, or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

h. Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 WQC must be obtained or waived (see 33 CFR 330.4(c)). The DE or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. Any issued 401 WQC is attached.

22. Coastal Zone Management. In coastal States where an NWP has not previously received a State coastal zone management consistency concurrence, an individual State coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The DE or a State may require additional measures to ensure that the authorized activity is consistent with State coastal zone management requirements.

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the State, Indian Tribe, or EPA in its Section 401 WQC, or by the State in its Coastal Zone Management Act consistency determination.

24. Use of Multiple NWPs. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3 acre.

25. Transfer of NWP Verifications. If the permittee sells the property associated with a NWP verification, the permittee may transfer the NWP verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the NWP verification must be attached to the letter, and the letter must contain the following statement and signature: "When the structures or work authorized by this NWP are still in existence at the time the property is transferred, the terms and conditions of this NWP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this NWP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____ _____

(Transferee) (Date)

26. Compliance Certification. Each permittee who received NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded to the Corps with the NWP verification letter and will include:

a. A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;

b. A statement that any required mitigation was completed in accordance with the permit conditions; and

c. The signature of the permittee certifying the completion of the work and mitigation.

27. PCN.

a. Timing. Where required by the terms of the NWP, the prospective permittee must notify the DE by submitting a PCN as early as possible. The DE must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the DE will notify the prospective permittee that the PCN is still

incomplete and the PCN review process will not commence until all of the requested information has been received by the DE.

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The prospective permittee shall not begin the activity:
(1) Until notified in writing by the DE that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
(2) If 45 calendar days have passed from the DE's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to GC 17 that listed species or critical habitat might affected or in the vicinity of the project, or to notify the Corps pursuant to GC 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the ESA (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the DE issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).
b. Contents of PCN: The PCN must be in writing and include the following information:
(1) Name, address and telephone numbers of the prospective permittee;
(2) Location of the proposed project;
(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the DE to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided, results in a quicker decision.);
(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;
(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.
(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the ESA; and
(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the NHPA.
c. Form of PCN: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this GC. A letter containing the required information may also be used.
d. Agency Coordination:
(1) The DE will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.
(2) For all NWP 48 activities requiring PCN and for other NWP activities requiring PCN to the DE that result in the loss of greater than 1/2 acre of waters of the United States, the DE will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or State offices (USFWS, State natural resource or water quality agency, EPA, SHPO, THPO, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the DE notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the DE will wait an additional 15 calendar days before making a decision on the PCN. The DE will fully consider agency comments received within the specified time

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frame, but will provide no response to the resource agency, except as provided below. The DE will indicate in the administrative record associated with each PCN that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The DE will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the DE will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of PCNs to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the DE will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

e. DE's Decision: In reviewing the PCN for the proposed activity, the DE will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The DE will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the DE determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the DE will notify the permittee and include any conditions the DE deems necessary. The DE must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the DE will expeditiously review the proposed compensatory mitigation plan. The DE must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the DE to be minimal, the DE will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the DE determines that the adverse effects of the proposed work are more than minimal, then the DE will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the DE determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the DE has approved a specific mitigation plan.

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Further Information

1. The DEs have authority to determine if an activity complies with the terms and conditions of a NWP.
2. The NWPs do not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.
3. The NWPs do not grant any property rights or exclusive privileges.
4. The NWPs do not authorize any injury to the property or rights of others.
5. The NWPs do not authorize interference with any existing or proposed Federal project.

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Kansas Water Quality Certification
Section 404 Nationwide Permits
Kansas Department of Health and Environment

May 11, 2007

I Authority

This certification is prepared pursuant to Clean Water Act Section 401 and Kansas Administrative Regulation 28-16-28f(c)(1) by the Kansas Department of Health and Environment (KDHE).

II Certification

All activities authorized by the U.S .Department of Army Corps of Engineers (USACE) Nationwide Permits (NWP) published March 12, 2007, in the Federal Register, effective March 19, 2007, are not expected to result in violations of Kansas Water Quality Standards found at Kansas Administrative Regulations 28-16-28b through 28g, provided the person conducting the Corps of Engineers authorized activity adheres to the conditions set out by this certification. A full description can be found at: **www.nwk.usace.army.mil/regulatory/regulatory.htm**. Additionally, Kansas Regional Conditions for NWPs have been drafted by the USACE with concurrence from state and federal agencies. Once issued these conditions provide general statewide framework for requirements for permitted activities considered by the USACE to have minimal impacts on the aquatic ecosystem. This water quality certification provides conditions and guidance to address local water quality needs.

III Limitations of this Certification: All Section 404 activities within the borders of Indian owned and operated lands are not covered by this certification. Individuals proposing projects which impact those waters are responsible for contacting the appropriate individual at the following numbers:

Prairie Band Pottawatomie Indians, Planning Department, 785/966-2946

Kickapoo Tribe in Kansas, Environmental Office, 785/486-2601

Iowa of Tribe of Kansas and Nebraska, 785/595-3258

Sac and Fox Tribe of Missouri, 785/742-4707

Environmental Protection Agency Region VII Indian Lands Contact, 913/551-7498

IV General Conditions

1. **Certification Retention:** The applicant shall retain this water quality certification on the project site through the duration of the project to accommodate inspection.

2. **Kansas Water Pollution Control General Permit for Stormwater Runoff from Construction Activities**: This certification does not relieve the applicant of the responsibility to determine if the project is subject to the requirements of **General NPDES Permit** and to secure such permit as necessary. Questions and inquiries may be directed to:

   Kansas Department of Health and Environment
   Bureau of Water Industrial Program Section
   1000 SW Jackson Street, Suite 420
   Topeka, Kansas 66612-1367
   Phone 785/296-5549; FAX:785/296-5509
   www.kdheks.gov/stormwater

3. **Project Water Quality Protection Plan:** Any person wishing to use a Section 404 Nationwide General Permit shall prepare and follow a written project water quality protection plan (PWQPP.) The PWQPP shall identify components of the permitted activity (i.e. solid waste handling, fuel storage and leaks, sediment from construction etc.) which may or will result in the discharge of pollutants to waters of the state. For each component which may discharge pollutants to waters of the state, the plan shall set out the physical, structural and management measures to be implemented to prevent or minimize the discharge of pollutants to waters of the state. (Activities requiring a construction stormwater permit, as described above, also require a stormwater pollution prevention plan which will serve as the PWQPP.)

   The permittee is required to submit the PWQPP to KDHE only if the project impacts Outstanding National Resource, Exceptional State or Special Aquatic Life Use Waters per condition #4 below.

4 **Outstanding National Resource Waters, Exceptional State and Special Aquatic Life Support Use Waters:** In the event the permitted activity occurs in or within one half (½) mile of an Outstanding National Resource Water as defined pursuant to **K.A.R. 28-16-28b(pp)** and **K.A.R. 28-16-28c(a)B(3)**, an Exceptional State Water pursuant to **K.A.R. 28-16-28b(y)** and **K.A.R. 28-16-28c(a)B(2)**, or a Special Aquatic Life Support Use Water designated pursuant to **K.A.R. 28-16-28d(b)(2)(A), the person responsible for initiating the activity shall submit a copy of the PWQPP to:**

Kansas Department of Health and Environment
Bureau of Water - Watershed Management Section
1000 SW Jackson Street, Suite 420
Topeka, Kansas 66612-1367
nps@kdhe.state.ks.us

A table and state map of **Outstanding National Resource Waters, Exceptional State and Special Aquatic Life Support Use Waters** can be found at: http://www.kdheks.gov/nps/resources/specwaterinfo.pdf or on the Attachments 1 and 2.

The permittee should also be aware of the following Kansas water quality protection regulations associated with special waters:

K.A.R. 28-16-28c(a)B(2)-"Wherever state surface waters constitute exceptional state waters, discharges shall be allowed only if existing uses and existing water quality are maintained and protected."

K.A.R. 28-16-28c(a)B(3)-"Wherever state surface waters constitute an outstanding national resource water existing uses and existing water quality shall be maintained and protected. New or expanded discharges shall not be allowed into outstanding national resource waters."

5. **Solid Waste Disposal:** All solid waste materials produced during the execution of the project shall be disposed in accordance with the provisions of Kansas Solid Waste Management Statutes and regulations and applicable local regulations. Direct inquiries to:

KDHE, Bureau of Waste Management
1000 SW Jackson Street, Suite 320
Topeka, Kansas 66612-1366
Phone: 785/296-1600; FAX: 785/296-1592
www.kdhe.state.ks.us/waste/index.html

6. **Equipment Staging Areas and Project Closure:** Upon completion of the project, disturbed areas shall be expeditiously stabilized with temporary and permanent vegetation, bio-artificial ground cover or other appropriate non-polluting material. Fertilizer application to establish and maintain vegetation shall be done in a manner that will not contribute to the current nutrient load to any of the surface waters impacted by the project. The person responsible for the permitted activity shall monitor and maintain cover materials until such time as the site is stabilized. Project closure procedures shall be documented in the Project Water Quality Protection Plan per condition No. IV. 3.

7. **Riparian Areas:** Minimize removal or disturbance of riparian areas (areas adjacent to water bodies). KDHE encourages the use of vegetation consistent with adjoining vegetation materials to minimize impacts from improper handling of fertilizers and pesticides.

8. **Discharge of Floatable Materials:** Pursuant to K.A.R. 28-16-28b (uu)(1), (3) and (4), the person responsible for executing the permitted activity shall assure good house keeping is practiced at the site to minimize the discharge of floatable materials such as personal refuse including food containers, packing materials, and other litter. Appropriate measures shall be taken to capture and/or recover any floatable materials discharged to waters of the state originating with the permitted project.

9. **Fuel, Chemical and Materials Storage:** Fuel, chemical and other materials stored at the project site shall be stored in a manner that minimizes the discharge of product to waters of the state. Spill minimization and prevention measures and procedures shall be documented in the Water Quality Protection Plan.

10. **Spill Response and Reporting:**

    1.) **Spill response and cleanup:** In the event a spill of fuel, chemical or other water quality degrading materials stored or transported on the site occurs, the permittee shall or with the assistance of professional response personnel, expeditiously control or contain the spill and initiate clean up procedures. The applicant shall immediately contact 911. Spill response and cleanup actions shall be documented in the PWQPP. The applicant should also contact the appropriate Kansas Department of Health and Environment **www.kdhegov/befs/#districts or look in your local phone directory**) to confirm cleanup activities. Finally, KDHE strongly encourages the permittee to establish and post a sign that includes phone contact numbers for the appropriate local emergency response unit, KDHE district office, and the project manager/owner.

    2.) **Reporting:** The Kansas Department of Health and Environment shall be notified of all fuel spills or unauthorized discharge of pollutants immediately. Contact KDHE at 785/296-1679, anytime for spill reporting requirements. The Kansas Adjutant Generals Office should also be contacted (785/296-8013) as well as the National Spill Response Center (1-800-424-8802).

11. **Drinking Water Intakes:** The person responsible for the permitted activity shall avoid adverse impacts on public water supplies. Whenever permitted activities occur within one mile upstream of a public drinking water supply - surface water intake, the applicant shall contact the official in charge of the public drinking water supply to apprize the drinking water supply official of the permitted activity. The person responsible for the permitted activity shall consider the

suggestions and recommendations of the public water supply official when preparing the PWQPP.

12. **Treated Wastewater Effluent Mixing Zones:** As a general guideline any Section 404 activity within one-half (½) mile upstream or one-half (½) mile downstream of a permitted wastewater effluent discharge may impact the effluent mixing zone. The person responsible for the permitted activity shall determine if the project will adversely impact the wastewater effluent mixing zones and take appropriate measures to avoid altering or changing the mixing zone. This may include but is not limited to:

    1) The construction or placement of a recreation oriented facility or structure (i.e. boat ramp, walkway) which may require modification of the beneficial use designation to accommodate contact or non-contact recreation, thereby increasing the effluent limitations for the permit.

    2) Any activity which may alter or remove the stream channel geometry or natural oxygenation abilities of the stream such as bridge construction, channelization, stream channel substrate modification etc.

    The person responsible for the permitted Section 404 activity shall advise and describe to the waste water discharge permittee and KDHE any potential mixing zone impacts and the measures the person responsible for the Section 404 activity will take to minimize adverse impacts on the mixing zone. Inquiries should be directed to:

    Kansas Department of Health and Environment
    Bureau of Water - Municipal Programs Section
    1000 SW Jackson Street, Suite 420
    Topeka, Kansas 66612-1367
    Phone: 785/296-5527; FAX: 785/296-5509

13. **Total Maximum Daily Load:** Any Section 404 activity within a watershed with a Total Maximum Daily Load (the amount of pollution a water body can receive and maintain its designated uses: see http://www.kdheks.gov/tmdl/index.htm) is strongly encouraged to contact the assigned KDHE watershed field coordinator. A service area map for the three watershed field coordinators is attached (Attachment 3) once construction is started.

V. Special Conditions for Specific Nationwide Permits

1. **Nationwide Permit #7. Outfall Structures and Maintenance (construction):** Controls shall be in place to stabilize all areas of the bed and bank around the pipe or adjacent to the outfall structure and associated intake structures that may be affected by outfall or stream flows, respectively.

2. **Nationwide Permits #3-Maintenance; #12-Utility Line Activities; and #18-Minor Discharges (pipelines included):** Hydrostatic tests for pipeline activities shall be approved prior to discharge of water used for the test. Please contact:

Kansas Department of Health and Environment
Bureau of Water - Industrial Program Section
1000 SW Jackson Street, Suite 420
Topeka, Kansas 66612-1367
Phone 785/296-5553; FAX: 785/296-5509

3. **Nationwide Permits #27 (Aquatic Habitat, Restoration, Establishment and Enhancement Activities) #29 (Residential Developments), #30 (Moist Soil Management for Wildlife), #39 (Commercial and Institutional Developments), #42 (Recreational Facilities), #43 Stormwater Management Facilities):** Measures shall be implemented to assure impounded waters, created by activities within the framework of these permits, avoid becoming public health threats, nuisances, generate complaints, and potentially discharge degraded water. The applicant shall prepare and implement an Operations and Maintenance Plan for Facilities and Landscapes (O&M), which at the minimum incorporate the following:

A. Identify individual and public property owners and their potential for being the source of nonpoint source pollution. This could include but is not limited to: commercial grounds, streets, right-of-ways, parking areas, conservation easement and **proposed** mitigation areas etc.

B. For each property as described in item A. above, water quality protection measures for each category of artificial source of pollution identified. The identified water quality protection measure for each category of artificial source of pollution shall be designed to ***reduce to the maximum extent practicable, the level of pollution resulting from identified pollutant sources***. Identified water quality protection quality protection measures shall be at least as effective as those set out by the Kansas Nonpoint Source Pollution Management Plan (http://www.kdheks.gov/nps/resources/2000update.pdf), prepared and maintained by the Kansas Department of Health and Environment.

C. Strategies to assure implementation of the water quality protection measures identified under item IV. 3-10 which may include but are not limited to prohibition or restriction of activities, utilization of alternative technologies or products, information and education, financial assistance, technical assistance, enforcement and penalties. Additionally, an in-house reporting form used by staff to document degraded property conditions potentially impacting the property and needs to address them should be developed, if applicable.

D. Organizations and individuals responsible for assuring implementation of the identified water quality protection measures.

VI Enforcement and Penalties

This certification does not relieve the applicant of the responsibility for any discharge to waters of the state or allow for any inappropriate discharge to occur. As provided for by K.S.A. 65-171(f), failure to comply with the conditions of this certification may subject the responsible party to fines of $10,000 per violation with each day the violation occurs constituting a separate violation.

VII Variance

If the applicant believes the conditions of this certification will result in impairment of important widespread social and economic development, the applicant is advised of the variance provisions of KAR 28-16-28b(lll) and KAR 28-16-28f(e).

VIII Additional Information

The KDHE website contains the following information to assist the applicant in preparing a project water quality protection plan:

*Construction practices: http://www.dnr.mo.gov/env/wpp/wpcp-guide.htm

*Project Water Quality Protection Plan Form and Instructions:
http://www.kdheks.gov/nps/resources/nwpwqppfrm.doc or
http://www.kdheks.gov/nps/resources/nwpwqppfrm.pdf

*Kansas Surface Water Register:
http://www.kdheks.gov/befs/download/Current_Kansas_Water_Register.pdf

*Kansas Surface Water Maps:
http://www.kdheks.gov/befs/download/2006_Surface_Water_Register_Maps.pdf

Surface Water Quality Standards- http://www.kdheks.gov/water/28_16_28b_g.pdf

*KDHE District Offices- http://www.kdheks.gov/directions/index.html

The Kansas Department of Health and Environment, Bureau of Water-Watershed Management Section at: 785/296-4195 or FAX 785/296-5509. This information can also be obtained by written communication directed to:

Kansas Department of Health and Environment
Bureau of Water - Watershed Management Section
1000 SW Jackson Street, Suite 420
Topeka, Kansas 66612-1367 or email: **nps@kdhe.state.ks.us**

ATTACHMENT 2. MAP OF EXCEPTIONAL STATE WATERS (ESW), SPECIAL AQUATIC LIFE USE WATERS (SALU) AND OUTSTANDING NATIONAL RESOURCE WATERS (ONRW) provided by Kansas Department of Health and Environment. (5/2000) (revised 3/2001, 2nd 4/2004, 3rd 2/21/07, 4th 5/10/07).

County	*Exceptional State Waters	* Special Aquatic Life Use Waters
Allen		Little Osage River, Middle Fk., Bloody Run, Onion Cr. Neosho R., Little Osage R., Marmaton R. WETLANDS(16): within boundaries of a point from NE corner of S34 T24 R18E, West to NW corner S35 T24 R17E, South to SW corner of S35 T24 R17E, East to SE corner of S34 T25 R18E, back north to origin ; **Other:** all oxbow lakes and wetlands within NE 1/4 of S32 T26S R18E, N 1/2 and SE 1/4 of S33 T26 R18E
Anderson		Pottawatomie Cr., South Fk., Pottawatomie Cr., Little Indian Cr., Little Osage River Middle Fork, Middle Cr. **WETLANDS (15):** within boundaries of a point from the NE corner of S24 T21 R19E, West to the NW corner S22 T21 R18E, South to SW corner of S22 T25 R18E, back north to origin.
Atchison		Missouri R. **WETLANDS (17):** All wetlands within S15 T6 R7E and S16 T6 R7E
Barber		Amber Cr., Bear Cr., Elm Cr., East Branch South Elm Cr., South Branch Elm Cr., North Branch Elm Cr., Medicine Lodge River, Mulberry Cr., Mule Cr., Sand Cr., Turkey Cr., Two unnamed tributaries to Medicine Lodge River, Unnamed tributary to Turkey Cr.
Barton	Blood Cr., Little Cheyenne Cr.	Arkansas River, Blood Cr., Little Cheyenne Cr. WETLANDS (5): Cheyenne Bottoms Preserve; Designation applies to all surface waters within the Nature Conservancy wildlife preserve in Sections 2, 11, 12, 16, 13, 22, 24, 25, 36 and parts of Sections 3, 10, 15, 14, 23,26, 34, and 35 in T18S R13W and from the NE corner of S07, west to NW 1/4 of S02 south to W 1/2 of S35 East to S31 of T18S R12W
Bourbon		Marmaton River, Little Osage River
Butler	Walnut River, Grouse Cr., Cottonwood River South Fork	Walnut River, Grouse Cr., Cottonwood River South Fork
Chase	Cottonwood River South Fork, Cedar Cr.	Bloody Cr., Cedar Cr., Collett Cr., Cottonwood River, Cottonwood River South Fork, Jacob Cr., Little Cedar Cr., Middle Cr.
Chautauqua	Caney River, Otter Cr.	Caney River, Otter Cr.
Cherokee	Neosho River, Shoal Cr., Spring Cr., Unnamed tributary to Shoal Cr.	Brush Cr., Cow Cr., Labette Cr., Neosho River, Shoal Cr. Spring Cr., Taylor Branch, Turkey Cr., Unnamed Tributary to Shoal Cr. **Wetlands(11):**Wetlands extend from Kansas/Missouri border at NE 1/4 of S24 T31S R25E, West to NW corner of S20 T31S R25E, South to NW corner of S14 T33 R21E then East to Kansas/Missouri border (S13 T35S R25E), then South
Cheyenne		Arikaree River, Republican River South Fork
Clark	Cimmaron River **(21)** St. Jacob's Well: NW1/4 of SW1/4 of S19 T32S R24W	Bluff Cr., Cimmaron River, Kiowa Cr. West, Rattlesnake Cr. (21) Clark County State Fishing Lake
Clay		Republican River
Cloud	**(6)** All surface waters within Jamestown Waterfowl Management Area	Republican River
Coffey		Frog Cr., Little Indian Cr., Long Cr., Neosho River, Wolf Cr.
Commanche	Cimmaron River	Bluff Cr., Calvary Cr., Cimmaron Cr., Kiowa Cr., Kiowa Cr. Middle, Kiowa Cr. West, Mule Cr., Nescatunga Cr., Wiggins

ATTACHMENT 1. LIST OF EXCEPTIONAL STATE WATERS (ESW), SPECIAL AQUATIC LIFE USE WATERS (SALU) AND OUTSTANDING NATIONAL RESOURCE WATERS (ONRW). (Information provided by Kansas Department of Health and Environment is found on attached map Attachment 2 (5/2000) (revised 3/2001, 2nd 4/2004, 3rd 2/13/07, 4th 5/10/07).

Cowley	Beaver Cr., Grouse Cr., Otter Cr., Walnut River	Arkansas River, Grouse Cr., Little Beaver Cr., Spring Cr., Walnut River
Crawford		Brush Cr., Cow Cr., Cow Cr East, First Cow Cr., Taylor Cr.
Dickinson	Lyon Cr.	Carry Cr., Lime Cr., Lyon Cr., Lyon Cr West Branch., unnamed tributary to West Branch Lyon Cr. **(22)** Herington Reservoir
Doniphan		Missouri R.
Douglas		Appanoose Cr., Buck Cr., Kansas River, West Fork Tauy Cr. (23) Clinton Reservoir, Wetlands(18) All within S18 T13S R20E
Edwards		Rattlesnake Cr.
Elk	Caney River, Fall River, Grouse Cr.	Caney River, Fall River, Grouse Cr.
Ellis	Saline River	
Ellsworth	Smoky Hill River	Smoky Hill River
Finney		Arkansas River
Ford		Bluff Cr., Kiowas Cr West, Rattlesnake Cr.
Franklin		Appanoose Cr., Marais Des Cygnes River, Ottawa Cr., Pottawatomie Cr., Tauy Cr., West Fork Tauy Creek
Geary	Lyon Cr.	Carry Cr., Kansas River, Lyon Cr., Republic River (**12)** Konza Prairie Natural Area; designation applies to all surface waters within natural area
Grant	Cimmaron River	Cimmaron River
Greeley		Ladder Cr.
Greenwood	Fall River, Fall River East Branch, Fall River West Branch	Fall River, Fall River East Branch, Fall River West Branch, Otter Cr. South Branch, Verdigris River (19) Flint Hills Tallgrass Prairie Preserve, all surface waters within the Nature Conservancy Reserve: Section 22 & 23 T23S R8E
Hamilton		Arkansas River
Harper	Chikaskia River	Chikaskia River, Sand Cr.
Jefferson		Buck Cr., Kansas River **(24)** Perry Reservoir
Jewell		Republican River
Johnson		Kansas River **(25)** Hillsdale Reservoir
Kearny		Arkansas River
Kingman	Chikaskia River	Allen Cr., Chikaskia River, Chikaskia River North Fork, Duck Cr., Nester Cr., Ninnescah River South Fork, Painter Cr., Pat Cr., Sand Cr., Silver Cr., Smoots Cr., Unnamed tributary to Smoots Cr., nine separate tributaries to South Ninnescah River
Kiowa	Thompson	Calvary Cr., Kiowa Cr., Kiowa Cr Middle, Kiowa Cr West, Medicine Lodge River, Mule Cr., Rattlesnake Cr., Soldier Cr., Thompson Cr., Wiggins Cr., Unnamed tributary to Thompson Cr.
Labette	Neosho River	Labette Cr., Neosho River **Wetlands(11)** North S14 T33S R21E South to S14 T35S R21E

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Leavenworth		Kansas River, Missouri River, Salt Cr.
Linn	Big Sugar Cr., Marais Des Cygnes River, Middle Cr., Muddy Cr., Sugar Cr North **(13)** all surface waters within Marais des Cygnes Waterfowl Area, all wetlands, oxbow lakes and classified streams within Linn County extending from the Kansas/Missouri border at NE corner of S26 T19S R25E west to NW corner of S26 T19S R23E, south to SW corner of S12 T22S R23E, east to Kansas/Missouri border at SE corner of S12 T22S R25E	Big Sugar Cr., Marais Des Cygnes River, Middle Cr., Muddy Cr., Sugar Cr. North **(13)** all surface waters within Marais des Cygnes Waterfowl Area, all wetlands, oxbow lakes and classified streams within Linn County extending from the Kansas/Missouri border at NE corner of S26 T19S R25E west to NW corner of S26 T19S R23E, south to SW corner of S12 T22S R23E, east to Kansas/Missouri border at SE corner of S12 T22S R25E
Logan		Chalk Cr., Depperschmidt Draw, Ladder Cr., Smoky Hill River, Twin Butte Cr.
Lyon		Cottonwood River, Elm Cr., Jacob Cr., Neosho River
Marion	Lyon Cr.	Catlin Cr., Lyon Cr., Middle Cr., Mud Cr., Spring Cr.
Marshall	Mill Cr West Branch	Lime Cr., Middle Cr., Neosho River, Six Mile Cr.
McPherson		(10) McPherson Valley Wetlands: Classification applies to all surface waters within state owned portions of wetlands
Meade		Cimmarron River, Crooked Cr., Spring Cr., Stumpie Arroyo, unnamed tributary to Stumpy Arroyo
Miami	Marais Des Cygnes River, Middle Cr.	Marais Des Cygnes River, Middle Cr., Pottawatomie Cr., Unnamed tributary to North Wea Cr. **(25)** Hillsdale Reservoir
Montgomery		Onion Cr., Verdigris River
Morris		Lime Cr., Six mile Cr., Neosho River, Middle Cr.
Morton	Cimmarron River, Cimmaron River North Fork, Unnamed tributary to Cimmarron River North Fork	Cimmarron River, Cimmaron River North Fork, Unnamed tributary to Cimmarron River North Fork
Nemaha		Big Nemaha River South Fork, Manley Cr.
Neosho		Flat Rock Cr., Neosho River (20) Neosho State Waterfowl Management Area; designation applies to all surface waters within waterfowl management area
Osage		Appanoose Cr., Frog Cr., Long Cr.

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Phillips		**(4)** Kirwin Lake; Kirwin National Wildlife Refuge; designation applies to all surface waters within wildlife refuge.
Pottawatomie	Deep Cr.	Black Vermillion River Clear Fork, Bluff Cr., Bucksnort Cr., Deep Cr., Kansas River, Spring Cr., Wildcat Cr.
Pratt	**(14)** All surface waters within Texas Lake Wildlife Area	Amber Cr., Chikaskia River North Fork, Elm Cr North, Elm Cr South East Branch, Mulberry Cr., Natrona Cr., Ninnescah River South Fork, Ninnescah River West Branch of South Fork, Painter Cr., Rattlesnake Cr., Sand Cr., Silver Cr., Turkey Cr.
Reno		Arkansas River, Ninnescah River North Fork, Peace Cr., Red Rock Cr., Silver Cr., Smoots Cr., Unnamed Tributary to North Fork Ninnescah River, Unnamed Tributary to Silver Cr. **(3)** Quivera Salt Marsh; All surface waters within Quivera National Wildlife Refuge
Republic	(6) All surface waters within Jamestown Waterfowl Management Area	Republican River
Rice		Arkansas River, Peace Cr., Rattlesnake Cr. **(3)** Quivera Big Salt Marsh
Riley		Bluff Cr., Deep Cr., Kansas River, Spring Cr., Wildcat Cr.
Rush	Blood Cr.	Blood Cr.
Russell	Saline River, Smoky Hill River	Smoky Hill River
Scott		Ladder Cr., Lake Scott State Park, Scott Wildlife Area and feeder Springs
Sedgwick		Arkansas River, Clearwater Cr., Nester Cr., Ninnescah River, Ninnescah River South Fork, Sand Cr., Unnamed Tributary to North Fork Ninnescah River
Seward		Cimmaron River
Shawnee		Kansas River
Stafford		Ninnescah River North Fork, Peace Cr., Rattlesnake Cr. **(3)** Quivera Big Salt Marsh
Stevens	Cimmaron River	Cimmaron River
Sumner	Chikaskia River	Arkansas River, Chikaskia River, Ninnescah River, Spring Cr. (8) Slate Creek Wetlands: classification applies to all surface waters within state owned portions of wetlands.
Wabaunsee	Deep Cr., Illinois Cr., Mill Cr., Mill Cr East Branch, Unnamed Tributary of Mill Cr. East Branch	Deep Cr., Elm Cr., Illinois Cr., Kansas River, Locust Cr., Mill Cr., Mill Cr. East Branch, Mill Cr. South Branch, Unnamed Tributary of Mill Cr. East Branch
Wallace		Eagletail Cr., Rose Cr., Coon Cr., Pond Cr., Capper Draw, Smoky Hill River, Willow Cr., Twin Butte Cr., Chalk Cr., Ladder Cr., Depperschmidt Draw
Wichita		Chalk Cr., Ladder Cr.,
Wilson	Fall River	Fall River, Verdigris River
Woodson		Bloody Run, Neosho River, Owl Cr. South, Verdigris River
Wyandotte		Kansas River, Little Turkey Cr., Missouri River

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LIST OF OUTSTANDING NATIONAL RESOURCE WATERS (ONRW)

COUNTY	OUTSTANDING NATIONAL RESOURCE WATERS
Barton	Cheynne Bottoms
Coffey	Flint Hills National Wildlife Refuge
Lyon	Flint Hills National Wildlife Refuge
Morton	Cimarron National Grasslands
Phillips	Kirwin Lake, Kirwin National Wildlife Refuge
Reno	Quivera Little Salt Marsh
Rice	Quivera Big Salt Marsh
Stafford	Quivera Big Salt Marsh, Quivera Little Salt Marsh
Stevens	Cimarron National Grasslands

The Following counties currently do not contain waters classified as ESW, SALU or ONW: Brown, Decatur, Gove, Graham, Gray, Harvey, Haskell, Hodgeman, Jackson, Lane, Lincoln, Mitchell, Ness, Norton, Osborne, Ottawa, Pawnee, Rawlins, Rooks, Saline, Sheridan, Sherman, Smith, Stanton, Thomas, Trego, Washington

Kansas Regulations for Special Waters in Kansas

Outstanding National Resource water, K.A.R 28-16-28b (pp), "means any of the surface waters or surface water segments of extraordinary recreational or ecological significance identified in the surface water register, as defined K.A.R. 28-16-28b (zz), and afforded the highest level of water quality protection under the anti-degradation provisions of K.A.R. 28-16-28c(a) and the mixing zone provisions of K.A.R. 28-16-28c(b)."

Exceptional state waters, K.A.R. 28-16-28b(y), "means any of the surface waters or surface water segments that are of remarkable quality or of significant recreational or ecological value, are listed in the surface water register as defined in K.A.R. 28-16-28b(zz), and afforded the highest level of water quality protection under the anti-degradation provisions of K.A.R. 28-16-28c(a) and the mixing zone provisions of K.A.R. 28-16-28c(b)."

Special Aquatic Life Use, K.A.R. 28-16-28d (b)(2)(A), "means surface waters that contain combinations of habitat types and indigenous biota not found commonly in the state, or surface waters that contain representative populations of threatened or endangered species."

K.A.R. 28-16-28c(a)B(2)- "Wherever state surface waters constitute exceptional state waters, discharges shall be allowed only if existing uses and existing water quality are maintained and protected."

K.A.R. 28-16-28c(a)B(3)- "Wherever state surface waters constitute outstanding national resource waters existing water quality shall be maintained and protected. New or expanded discharges shall not be allowed into outstanding national resource waters."

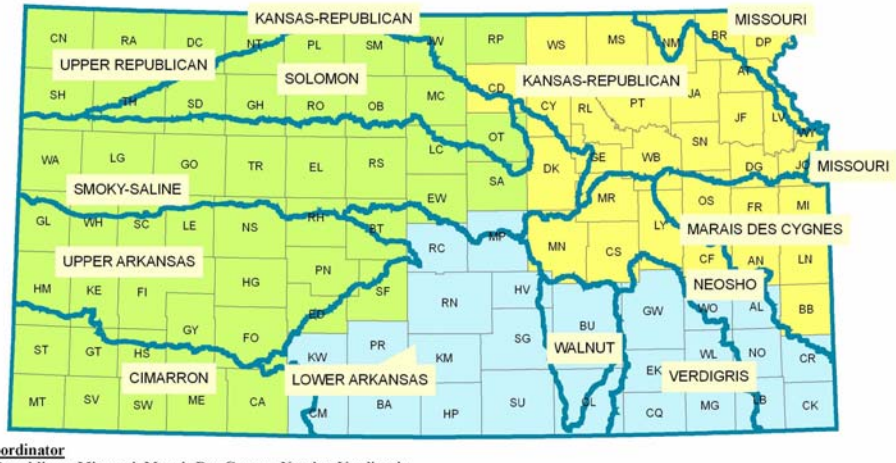
Finally, the Kansas Surface Water Standards K.A.R. 28-16-28 can be found at: http://www.kdheks.gov/water/28_16_28b_g.pdf

ATTACHMENT 2. MAP OF EXCEPTIONAL STATE WATERS (ESW), SPECIAL AQUATIC LIFE USE WATERS (SALU) AND OUTSTANDING NATIONAL RESOURCE WATERS (ONRW) provided by Kansas Department of Health and Environment. (5/2000) (revised 3/2001, 2nd 4/2004, 3rd 2/21/07, 4th 5/10/07).

OUTSTANDING NATIONAL RESOURCE WATERS,
EXCEPTIONAL STATE WATERS,
AND SPECIAL AQUATIC LIFE USE WATERS

Attachment 3

KDHE WATERSHED MANAGEMENT CONTACTS



Basin Coordinator

Kansas Republican, Missouri, Marais Des Cygnes, Neosho, Verdirgris
Jaime Gaggero – 785-296-5579 – jgaggero@kdhe.state.ks.us; Daniel Zerr – 785-296-0694 – zerrdaniel@kdhe.state.ks.us
Upper Republican, Solomon, Smoky-Saline
Sheryl Ervin – 785-296-8038 – servin@kdhe.state.ks.us; Daniel Zerr – 785-296-0694 – zerrdaniel@kdhe.state.ks.us
Upper Arkansas, Cimarron, Lower Arkansas, Walnut
Sheryl Ervin – 785-296-8038 – servin@kdhe.state.ks.us; Scott Satterthwaite – 785-296-5573 – ssattert@kdhe.state.ks.us

KDHE Central Office – 1000 SW Jackson, Suite 420, Topeka, KS 66612-1367 – nps@kdhe.state.ks.us

Watershed Field Coordinator

- Beth Rowlands, KDHE-NEDO, 785-842-4600 - browlands@kdhe.state.ks.us
- Richard Basore, KDHE-SCDO, 316-337-6020 - rbasore@kdhe.state.ks.us
- Doug Schneweis, KDHE-NWDO, 785-625-5663 - dschnewe@kdhe.state.ks.us

Attachment
USEPA Section 401 Water Quality Certification for Nationwide Permits in Indian Country as of May 11, 2007

Water quality certification is denied for the following activities:

- discharge of dredged or fill material located ½ mile upstream from waterbodies designated as Outstanding National Resource Waters, Exceptional State, and Special Aquatic Life Support Waters in The Kansas Administration Regulations (See www.kdheks.gov/nps/resources/specwaterinfo.pdf for a list of those waters.)

- discharge of dredged or fill material into fens, bogs, playa wetlands, and/or forested wetlands.

- any activity under NWPs 13, 29, 39, 40, 41, 42, and 43 where the district engineer issues a waiver for length of impact

- any activity for a single residence impacting more than 1/4th acre under NWP 29.

- any activity on Big Soldier Creek located on or within the boundaries of the Prairie Band of Potawatomi Tribe in Kansas reservation boundaries. Contact the tribe for boundary details.

Water quality certification is issued, except as stated above, with the following conditions:

- This certification does not relieve the applicant of the responsibility to comply with applicable local, tribal, state, federal regulations or statutes, including regulations affecting any discharge into waters of the U.S.

- If the project is constructed and/or operated in a manner not consistent with the NWP, the permittee will be in violation of this certification.

- Copies of this certification shall be kept on the job site and readily available for reference by tribal members, Corps personnel, EPA personnel, the construction supervisor, construction managers and foremen.

- All practicable measures and precautions shall be taken to prevent pollution due to turbidity, pH, temperature, nutrients, suspended solids, floating debris, visible oil and grease, or solvents entering waters of the U.S., including wetlands, during construction and upon completion of the project. All equipment operated within any stream channel, pond, wetland

or other water body shall be cleaned away from waters of the U.S. and maintained to prevent fuel and oil leaks. These methods include, but are not limited to: off-site, upland, bermed fuel and oil storage and refueling areas, on-site spill containment equipment, a spill contingency plan, and spill prevention/contaminant training for on-site personnel. Should a spill of petroleum products or chemicals occur,contact shall be made immediately (within 24 hours) to the National Response Center at (800) 424-8802.

- Erosion control measures shall be used during construction to prevent erosion of soil surfaces. Measures to be used include, but are not restricted to: temporary sediment dams or berms, anchored hay bales, filter fabric, mulch, mesh burlap blankets, or permeable dissipaters, such as filter weave silt fence. All erosion control measures shall be placed on the landscape so as to maximize the control of the erosion/sediment runoff from the disturbed site and shall be maintained in place until construction is completed, and a ground cover is established.

- Clearing of vegetation should be minimized and limited to that necessary to accomplish the project. All disturbed areas should be protected to prevent erosion. Revegetation should include native species. Wherever practicable, trees and shrubs on streambanks or upland areas should be replaced (e.g. tree for tree). If the project is not completed during the appropriate growing season so vegetation can be established, other erosion control measures should be implemented.

- The following materials are not suitable for fill activities into waters of the U.S.: cars, buses, or rail cars, construction or demolition debris, garbage, loose or improperly placed tires, treated lumber (chromated copper arsenate (CCA), creosote, and pentachlorophenol), liquid or raw concrete not poured into forms, grouted riprap, bagged cement, and sewage or organic waste.

- The following conditions pertain to mitigation:

  - Stream mitigation should mimic natural stream sinuosity, stream substrate, and stream dimensions (cross-section and slope) upstream and/or downstream of the mitigation area.

  - Vegetated buffer strips shall not be acceptable as mitigation for wetlands impacts, except when using credits from an established and certified wetland mitigation bank where such buffers are incorporated into the bank's original calculated credits.

  - Vegetated buffers must be established around mitigation wetlands. The vegetated buffers shall consist of native species, and will normally be between 25 to 50 feet wide, or wider, to address documented water quality or habitat concerns.

  - The discharge of dredged or fill material that impacts more than 1/10th acre requires mitigation. Mitigation may be accomplished by restoring or creating equivalent at a

wetland either on-site, at a suitable off-site location, or a site under an in lieu fee mitigation agreement at a minimum ration of 1.5 acres restored or created wetland for every 1.0 acre of affected area. If the impacts are mitigated by using credits from an established and certified wetland mitigation bank, 1.0 acre of wetland credit will be required for every 1.0 acre of affected area.

- No individual action shall be allowed if it jeopardizes the continued existence, or results in a take of, State-listed threatened or endangered species described on the Kansas Department of Wildlife and Parks website (http://www.kdwp.state.ks.us/news/ other_services/ threatened_and_endangered_species).

- Where practicable, measures should be taken to prevent the spread of invasive species. *Phalaris arundinacea* (Reed Canary Grass), *Lythrum salicaria* (Purple Loosestrife), *Bromus inermus* (Smooth Brome), *Phragmites, sp.* (Common Reed, River Reed) and *Tamarix, sp.* (Salt Cedar), are NOT appropriate choices of vegetation as plantings for erosion control measures and/or mitigation. National invasive species are listed on the USDA's website (http://www.invasivespeciesinfo.gov/plants/main.shtml).

Special Conditions for Certain Nationwide Permits

NWP 3 – Maintenance
In the case of maintenance of structures (3(b)) the activity is limited to the minimum necessary to restore the waterway in the immediate vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend further than 100 feet in any direction from structure.

NWP 7 - Outfall Structures
Controls shall be in place to stabilize all areas of the bed and bank around and adjacent to the outfall structure and associated intake structures that may be affected by outfall or stream flows, respectively.

NWP 13 - Bank Stabilization

- Broken concrete used as bank stabilization must be reasonably well graded, consisting of pieces varying in size from 20 pounds up to and including at least 150 pound pieces. Applicants must break all large slabs to conform to the well graded requirement. Generally, the maximum weight of any piece should not be more than 500 pounds.
- Gravel and dirt should not exceed 15% of the total fill volume.
- All protruding reinforcement rods, trash, asphalt, and other extraneous materials must be removed from the broken concrete prior to placement in waters of the United States.
- Encroachment of riprap into the channel will be kept to a minimum.
- The top elevation of the riprap shall not exceed the top elevation of the bank.

NWPs 3, 14, 23, 29, and 39 - Culverts

Any culvert must not impede the passage of fish or other aquatic organisms. The culvert design must mimic the natural shape and flow of the channel. To the maximum extent practicable, the structure should be bottomless and contain a substrate that matches the existing stream. For all box culverts with three or more cells on expected aquatic life use waters or restricted aquatic life use waters, the opening of the center culvert must be slightly lower than the adjacent culverts to concentrate low flows for the passage of aquatic organisms.

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF:
CENWK-OD

18 May 2007

MEMORANDUM FOR Commander, Northwestern Division (ATTN: CENWD-CM-OR)

SUBJECT: Kansas City District's Supplemental Decision Documents for the Nationwide Permits in Missouri and Kansas

1. I have in coordination with Karen Kochenbach electronically submitted for your review and approval the Kansas City District's supplemental decision documents that include regional conditions we are proposing for the final Nationwide Permits (NWPs) announced in the Federal Register on March 12, 2007. I have also enclosed a compilation of the regional conditions for each state.

2. The Kansas City District is the lead District for preparing the supplemental decision documents for the regional conditions in Missouri. The Missouri supplemental decision documents are being forwarded to the other Missouri Districts for submittal to their Division Engineers. By copy of this memorandum, I encourage those districts to recommend approval of the supplemental decision documents in order to provide a consistent and predictable Regulatory program across Missouri.

3. The Kansas City District is the lead District in Kansas and will be submitting the supplemental decision documents to the Tulsa District.

4. I am also enclosing the Kansas Department of Health and Environment's water quality certification for all Section 404 NWPs in Kansas and the U.S. Environmental Protection Agency's water quality certification for all Section 404 NWPs in Indian Country. We recommend these certifications be accepted and request your concurrence.

5. I have determined that the NWPs, including their terms and conditions, and inclusion of our regional conditions as proposed in the attached documents, will authorize only activities with minimal individual and cumulative adverse effects on the aquatic environment.

6. If you have any general questions about the supplemental decision documents, please contact me at 816-389-3202. If you have specific questions, please contact Mr. Joshua Marx, Regulatory Project Manager, at 816-389-3658.

2 Encls

MICHAEL A. ROSSI
Colonel, EN
Commanding

CF: (w/encls)

Commander, CEMVD
Commander, CESWD
Commander, CEMVR
Commander, CEMVS
Commander, CEMVM
Commander, CESWL

CENWK-OD
SUBJECT: Kansas City District's Supplemental Decision Documents for the Nationwide Permits in Missouri and Kansas

CF: (w/encls) continued

CEMVR-OD-P
CEMVS-CO-F
CEMVM-CO-R
CESWL-PR-R
CESWT-RO

CF: (encl furnished by email)

CENWD-CM-OF (Kochenbach)

NATIONWIDE PERMIT (NWP) REGIONAL CONDITIONS - KANSAS

1. NWP 12 – Utility Activities. The permittee must notify the District Engineer in accordance with the "Notification" general condition of the NWPs (general condition 27) when new utility line construction activities parallel a stream and have multiple stream crossings (example: a gravity fed utility line that crosses a stream multiple times). The preconstruction notification must include a revegetation plan for impacted riparian areas. Impacted riparian areas must be revegetated with native species similar to the composition removed (i.e., native trees or grasses), except for a minimal corridor that is essential for operation and maintenance of the utility line. The applicant must submit rationale for the minimum width necessary for the operation and maintenance corridor.

2. NWP 13 – Bank Stabilization. Broken concrete used as bank stabilization must be reasonably well graded, consisting of pieces varying in size from 20 pounds up to and including at least 150 pound pieces. Applicants must break all large slabs to conform to the well graded requirement. Generally, the maximum weight of any piece should not be more than 500 pounds. Gravel and dirt should not exceed 15% of the total fill volume. All protruding reinforcement rods, trash, asphalt, and other extraneous materials must be removed from the broken concrete prior to placement in waters of the United States.

3. NWP 23 – Approved Categorical Exclusions. The permittee must notify the District Engineer in accordance with the "Notification" general condition of the NWPs (general condition 27) for all regulated NWP 23 activities in waters of the United States. In addition to information required by NWP general condition 27, the notification must identify the approved categorical exclusion that applies (e.g., as listed in Regulatory Guidance Letter 05-07 or Federal Register) and include documentation that the project fits the categorical exclusion.

4. NWP 27 – Stream and Wetland Restoration Activities. The permittee must notify the District Engineer in accordance with the "Notification" general condition of the NWPs (general condition 27) for any regulated discharges associated with the relocation of forested wetlands.

5. NWP 40 – Agricultural Activities. NWP 40 does not authorize discharges that cause the loss of greater than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds this 300 linear foot limit is waived in writing by the District Engineer.

6. NWP 43 – Stormwater Management Facilities. This NWP does not authorize the retention of water, in excess of that required to meet stormwater management requirements, for other purposes such as recreational lakes, reflecting pools and irrigation.

7. NWP 45 – Emergency Repair Activities. This NWP does not authorize the removal of borrow material from waters of the United States to restore uplands lost in discrete events.

8. NWP 3 and 14 – Low Water Crossings. The permittee must notify the District Engineer when repairing, rehabilitating or replacing low water crossings when discharges of dredged or fill material would raise or lower the lowest elevation of the crossing by a total of 12-inches or more, or when removing the structure. The permittee must propose and employ measures to mitigate the potential impact of impounding gravel above the low water crossing or of releasing impounded-gravel downstream of the structure. Such mitigation might include: removing impounded gravel in the unstable area upstream of the low water crossing to prevent it from being transported downstream and/or constructing a notched weir to slow the release of impounded gravel from upstream of the low water crossing.

9. Agency Coordination Requirements for Waiver of 300 Linear Foot Limit Associated with NWPs 29, 39, 40, 42, and 43. Agency coordination procedures will be completed prior to granting a request for a waiver of the 300 linear foot limit for losses of intermittent and ephemeral streams. The applicant must provide documentation of avoidance and minimization of individual and cumulative impacts associated with the proposed project.

10. Suitable Material (Applicable to all NWPs). In addition to the specific examples in General Condition 6 of the NWPs, the following materials are not suitable for fill activities into waters of the U.S. in conjunction with any NWP: buses or rail cars, construction or demolition debris, garbage, loose or improperly placed tires, treated lumber (chromated copper arsenate (CCA), creosote, and pentachlorophenol), liquid concrete not poured into forms, grouted riprap, bagged cement, and sewage or organic waste.

11. Culverts. The permittee must notify the District Engineer in accordance with the "Notification" general condition of the NWPs (general condition 27) for any regulated activity which involves the construction of a new or replacement culvert on an expected aquatic life use water or restricted aquatic life use water located in the Kansas Water Register. The Kansas Water Register is available on request from the Corps or can be found at http://www.kdheks.gov/befs/download/Current_Kansas_Water_Register.pdf**.** All culverts must be designed to allow the natural passage of aquatic organisms. The culvert design must mimic the natural shape and flow of the channel. For all box culverts with three or more cells on expected aquatic life use waters or restricted aquatic life use waters, the opening of the center culvert must be slightly lower than the adjacent culverts to concentrate low flows for the passage of aquatic organisms.

12. Notification Requirement for Aquatic Resources in Kansas (Applicable to all NWPs). The permittee must notify the District Engineer in accordance with the "Notification" general condition of the NWPs (general condition 27) for any regulated

activity which may impact a jurisdictional fen, bog, playa wetland, and/or forested wetland.

13. Big Soldier Creek Exclusion. All NWPs are prohibited from use in Big Soldier Creek located on or within the reservation boundaries of the Prairie Band of Potawatomi Nation in Kansas.

14. Zebra Mussel (Applicable to all NWPs). The permittee must notify the District Engineer in accordance with the "Notification" general condition of the NWPs (general condition 27) for any regulated activity where the applicant is proposing to remove equipment from a known zebra mussel water to use in a different water not known to support zebra mussels. Known zebra mussel waters within Kansas is available on request from the Corps or can be found at the following webpage: http://nas.er.usgs.gov/queries/zmbyst.asp. The notification must include measures to limit the likelihood of spreading the zebra mussel to other waters.

15. Exceptional State Waters and Special Aquatic Life Use Waters (Applicable to all NWPs). The permittee must notify the District Engineer in accordance with the "Notification" general condition of the NWPs (general condition 27) for any regulated discharge in an Exceptional State Water (ESW) or a Special Aquatic Life Use Water (SALU). The current list of ESWs and SALUs is available upon request from the Corps or at the following link:
http://www.nwk.usace.army.mil/regulatory/2007nwps/KS_SpecialWaters13Feb2007.pdf

Note: General condition 19 (Critical Resource Waters) references Outstanding National Resource Waters (ONRW). The ONRWs in Kansas can also be found in the link above.

16. Threatened & Endangered Species (Applicable to all NWPs). The following locations and waters are subject to the "Notification" general condition of the NWPs (general condition 27). The requirements of general condition 17 "Endangered Species" applies to the following waters.

a. **Arkansas River** – That portion flowing through Barton, Cowley, Edwards, Finney, Ford, Gray, Hamilton, Kearny, Kiowa, Pawnee, Reno, Sedgwick and Sumner Counties, excluding that reach upstream of the Kansas Route 27 bridge in Hamilton County and a 12.4 mile reach within the City of Wichita metropolitan area, extending from the westbound land of Kansas Route 96 downstream to Interstate 35 (Arkansas River Shiner, *Notropis girardi*) (Interior Least Tern, *Sterna antillarum* in Sedgwick County only).

b. **Cimarron River -** That portion flowing through Clark, Comanche, and Meade Counties (Interior Least Tern, *Sterna antillarum* and Arkansas River Shiner, *Notropis girardi*).

c. **Cottonwood River** - From the point of discharge of Marion Dam to its confluence with the Neosho River in Lyon County (Neosho Madtom, *Noturus placidus*).

d. **South Fork Cottonwood River** – Downstream of Bazarr to confluence with Cottonwood River (Neosho Madtom, *Noturus placidus*).

e. **Neosho River** - From the point where it discharges from Council Grove Reservoir in Morris County to the point where it leaves Lyon County and from the point where it discharges from John Redmond Reservoir in Coffey County to the Kansas-Oklahoma border in Cherokee County (Neosho Madtom, *Noturus placidus*).

f. **Spring River** - The entire main stem portion within the state of Kansas in Cherokee County (Neosho Madtom, *Noturus placidus*).

g. **Cow Creek and tributaries** - A 144 square mile area within Crawford County whose western boundary is highway K-7, whose southern boundary is the Crawford/Cherokee county line, whose eastern boundary is the Kansas/Missouri state line and whose northern boundary is highway K-57 east of the town of Girard extended to the state line. Also included in this area is all of Cow Creek in Cherokee County (Gray Bat, *Myotis grisescens*).

h. **Kansas River** – From its origin in Geary County downstream to the Missouri River (Bald Eagle, *Haliaeetus leucocephalus*) and from its origin in Geary County downstream to Lecompton in Shawnee County (Interior Least Tern, *Sterna Antillarum* and Piping Plover, *Charadrius melodus*).

i. The following locations may contain the Topeka Shiner, *Notropis topeka,* which has been listed as endangered, and are subject to the notification requirement above:

   1. **Butler County** – Headwaters of the South Fork Cottonwood River (Sec. 4, 9, 16 & 21 T23S, R8E).

   2. **Chase County** – Bloody Creek, Collett Creek, Diamond Creek, Gannon Creek, Jack Creek, Little Cedar Creek, Mercer Creek, Mulvane Creek, Rock Creek, Schaeffer Creek, Shaw Creek, Unnamed tributary of Thurman Creek (Sec. 31 & 32 T22S, R9E), Unnamed tributary of Mercer Creek (Sec. 30 & 31 T22S, R 8E), Middle Creek, Unnamed tributary of Middle Creek (Sec. 4, 9 & 10 T19S, R6E), Unnamed tributary of Diamond Creek (Sec. 9 T19S, R7E), Unnamed tributary of Fox Creek (Sec. 31 T18S, R8E).

   3. **Dickinson County** – Cary Creek, Middle Branch Lyons Creek, Rock Springs Creek, West Brach Lyons Creek.

4. **Geary County** – Rock Springs Creek, Davis Creek.

5. **Greenwood County** – Thurman Creek, Unnamed tributaries of Thurman Creek (Sec. 6 T23S, R9E; Sec. 1 T23S, R8E).

6. **Marion County** – Collett Creek, Middle Creek, Mud Creek.

7. **Marshall County** - North Elm Creek, Clear Fork Creek.

8. **Morris County** - Collett Creek, Middle Creek.

9. **Pottawatomie County** - Clear Fork Creek.

10. **Riley County** – Deep Creek, Seven-Mile Creek, Little Arkansas Creek, Walnut Creek, Wildcat Creek.

11. **Shawnee County** – Mission Creek.

12. **Wabaunsee County** – East Branch Mill Creek, Hendricks Creek, Illinois Creek, Kuenzli Creek, Loire Creek, Mission Creek, Mulberry Creek, Nehring Creek, Paw Paw Creek, Spring Creek (Paxico), Spring Creek (Tributary of West Branch Mill Creek), South Branch Mill Creek, West Branch Mill Creek.

13. **Wallace County** - Willow Creek.

j. The following waterways maintain critical habitat for the Whooping Crane, *Grus americana*, and are subject to the notification requirement above:

1. **Walnut Creek** – in Ness, Rush and Barton Counties which feeds Cheyenne Bottoms.

2. **Cheyenne Bottoms –** All water bodies within Cheyenne Bottoms.

3. **Rattlesnake Creek** – in Edwards, Stafford and Pratt Counties which feeds Quivera National Wildlife Refuge.

4. **Quivera National Wildlife Refuge –** All water bodies within Quivera National Wildlife Refuge.

k. The following waterways for the Federal candidate species listed below are subject to the notification requirement above:

1. **Arkansas darter,** *Etheostoma cragini,* in vegetated wetlands and spring-fed pools in the mainstem and tributaries to the Arkansas, Cimarron,

Medicine Lodge, Chikaskia, Ninnescah, and Spring Rivers in Barber, Barton, Cherokee, Clark, Comanche, Cowley, Harper, Kingman, Kiowa, Meade, Pratt, Reno, Rice, Sedgwick, Seward, Stafford and Sumner Counties.

2. **Neosho mucket,** *Lampsilis rafinesqueana*, in riverine runs, shoals, and riffles with gravel substrates and moderate currents in the Fall, Verdigris, Neosho, Cottonwood, and Spring Rivers in Allen, Chase, Cherokee, Coffey, Greenwood, Labette, Lyon, Montgomery, Neosho, Wilson, and Woodson Counties.

3. **Spectaclecase,** *Cumberlandia monodonta*, in the Marais des Cygnes River in Linn County.

APPENDIX C

CULTURAL RESOURCES COORDINATION

KANSAS

KSR&C No. 08-06-186

Kansas State Historical Society
Jennie Chinn, *Executive Director*

KATHLEEN SEBELIUS, GOVERNOR

June 19, 2008

Stephen L. Nolan
Chief, Environmental Analysis and Compliance Branch
Corps of Engineers, Tulsa District
1645 South 101st East Avenue
Tulsa, Oklahoma 74128-4609

RE: Aquatic Ecosystem Restoration Project
City of Arkansas City
Cowley County

Dear Mr. Nolan:

In accordance with 36 CFR 800, the Kansas State Historic Preservation Office has reviewed the Draft Environmental Assessment (EA) describing a proposed ecosystem restoration project along the lower Walnut River valley east of Arkansas City. As noted on page 21, a large complex of Great Bend Aspect sites is situated in the area. Portions of eight of those sites, which were impacted by the U.S. Highway 77 bypass/levee project and adjacent upgrade of U.S. Highway 166, were mitigated in the mid-1990s. A report of those investigations exists in draft form and currently being edited/reviewed. A final version will be provided to your office when completed.

Most of the identified project localities are abandoned sand pits and immediately surrounding areas that have low archeological potential. Area 6 is the only one that contains an intact Great Bend Aspect site (14CO382). The portion of that site (along its northern edge) where mitigation was undertaken contained numerous intact cultural features, mostly trash-filled storage pits. It has though been cultivated for decades, so the eradication of existing vegetation and planting of native grasses and forbs should threaten the site's remaining intact sub-plow zone cultural features. Our office therefore concurs with the recommendation that the ecosystem restoration projects in Areas 1 – 8 will have no effect on historic properties as defined in 36 CFR 800. This office has no objection to implementation of the aquatic ecosystem restoration project.

Any changes to the project, which include additional ground disturbing activities, will need to be reviewed by this office prior to beginning construction. If construction work uncovers buried archeological materials, work should cease in the area of the discovery and this office should be notified immediately.

This information is provided at your request to assist you in identifying historic properties, as specified in 36 CFR 800 for Section 106 consultation procedures. If you have questions or need additional information regarding these comments, please contact Tim Weston at 785-272-8681 (ext. 214).

Sincerely,

Jennie Chinn, Executive Director and
State Historic Preservation Officer

Timothy Weston for

Patrick Zollner
Deputy SHPO

6425 SW Sixth Avenue • Topeka, KS 66615-1099
Phone 785-272-8681 Ext. 205 • Fax 785-272-8682 • Email jchinn@kshs.org • TTY 785-272-8683
www.kshs.org

APPENDIX D

PUBLIC INFORMATION/SCOPING WORKSHOP

CESWT-PE-P (Wegner)

30 October 2003

MEMORANDUM FOR RECORD D-R-A-F-T

Subject: Public Information/Scoping Workshop Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration, Arkansas City, Kansas.

1. Workshop Purpose. October 21 (5:00 PM-7:00 PM) the Tulsa District hosted a public information/scoping workshop at the Arkansas City Senior Center. The purpose of the workshops was to inform the public about the ecosystem restoration study. The workshop also served to solicit questions and concerns from the public about the proposed actions. The issues, questions, and concerns are to be incorporated into the environmental documentation that is associated with evaluating the alternatives. The workshop was part of the scoping process as defined under the National Environmental Policy Act (NEPA).

2. Participation and Public Notification. The Tulsa District designed and hosted the workshop. The District designed the workshop in a semi-structured format, with information tables and information sheets. Corps representatives were present at the workshop to answer questions and receive comments. The workshop had three information tables: a project overview table, describing the study area and opportunities, providing general information on reallocation; a table describing environmental issues and the NEPA process; and public involvement, providing information on the availability of information and ways the public is involved in the environmental documentation. A list of Corps personnel attending the workshop is attached (Attachment 1). Also attached is a copy of the information sheets and brochures and the display materials (Attachment 2).

The Tulsa District placed paid display advertisements in the October 8, 19 and 21 editions of The Arkansas City Traveler. The advertisements announced the workshop and the comment period for the NEPA scoping process. A press release was made on October 14 to local media sources. A copy of the advertisement and media release are attached (Attachment 3).

3. Attendees. A list of persons attending the workshop is attached (Attachment 4). The list will not be included in any public document to insure privacy. This list of names will be added to the mailing list for future NEPA public involvement activities, with the exception of persons who indicated on the sign in sheet that they were not interested in being a part of the mailing list. The list represents those who signed in at the welcome table. Approximately 25 persons attended the workshop.

4. Issues Raised. Those attending the workshop raised several issues. No one submitted a written comment; however attendees did take comment in the event they wished to submit written comments at a later date. The following summarized those issues raised at the workshop:

a. Many attendees commented on the proposed building of Lake Dexter by a developer.

b. Most attendees expressed support for the ecosystem restoration project.

c. Public officials asked several questions about the study's schedule.

Maria Wegner
Regional Economist

4 Attachments: (1) List of Corp Personnel Attending; (2) Handout and Display Materials; Media (3) Release and Paid Advertisement; (4) List of Workshop Attendees;

Attachment 1
U. S. Army Corps of Engineers, Tulsa District
Personnel Attending
Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration
Arkansas City, Kansas
October 21, 2003
Public Workshop

Tony Clyde, Environmental Analysis and Compliance Branch
Shawneen O'Neill, Planning Branch
Maria Wegner, Planning Branch
Rich Bilinski, PPMD

Attachment 2

Workshop Handouts and Displays
(Some of the formatting may have been lost when copying the information over.)

Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration Feasibility Study The NEPA Process

National Environmental Policy Act (NEPA). Section 102 of the NEPA requires Federal agencies to incorporate environmental considerations in their planning and decision-making process through a systematic interdisciplinary approach. Specifically, Federal agencies are to assess the environmental impacts of and alternatives to major federal actions significantly affecting the environment. Actions are classified as one of the following:

- Categorically Excluded, no evaluations required for routine actions
- Finding of No Significant Impact (as identified in an Environmental Assessment)
- Finding of Significant Impact (as identified in an Environmental Impact Statement and Record of Decision)

NEPA Process

An environmental assessment or environmental impact statement includes the following-

1. Scoping of issues, including:

- Early coordination with federal, state and local agencies
- Early public involvement in all aspects of evaluations

2. Identification of existing environmental conditions, such as:

    - Environmental quality, including air, water, soils
    - Social and socio-economic conditions
    - Natural resources, including fish, wildlife, and plants
    - Endangered and threatened species
    - Historical and cultural resources, including archeological materials
    - Initial assessment for any hazardous, toxic, or radiological wastes

3. Identification of future changes in environmental conditions without the proposed action, including:

    - Determination of changes expected to occur without the proposed action
    - Inclusion of all environmental conditions

4. Identification of future changes in environmental conditions with action, including:

- Determination of changes (impacts) expected to occur as a result of the action
- Identification of significant changes (impacts), if any

5. Public and agency review and comment, including:

- Early scoping with public and agencies
- Consultation with Federal, State, Tribal, and local agencies
- Public and agency review and comment on draft document
- Comment on final decisions

Scoping Process

The scoping process is a method of soliciting suggestions, comments, and questions about potential actions. Scoping is started early in the NEPA process and continues throughout the entire analysis, evaluation, and decision making process. The Federal agency sponsors public workshops and publishes written notices to inform the public and agencies about the NEPA process being conducted for proposed actions. The public is invited to comment on alternatives to the action as well as on possible environmental consequences of that action. For the Arkansas and Lower Walnut River Floodplain Ecosystem Restoration, a workshop is being held in October 2003 as part of the Scoping process. Personnel from the U. S. Corps of Engineers have mailed notices regarding the evaluation to federal, state and local agencies and to those persons who have expressed interest in the study. Based on information collected during this Scoping process, the planning staff will develop a draft document that identifies impacts, including those deemed significant. The draft document will be made available for public review and comment, and meetings or workshops will be held to discuss the draft document, if warranted.

Point of Contact

The Corps is preparing a draft environmental assessment for this project and will include all public comments, questions, and agency responses received. Comments and questions on the study may be submitted at the public involvement workshops to be held October 21, 2003, or forwarded to:

Ms. Sue Haslett
U.S. Army Corps of Engineers, Tulsa District
1645 S. 101st East Avenue ATTN: CESWT-PE-P
Tulsa, OK 74128-4629 Phone: 918-669-7666
e-mail: Susan.J.Haslett@usace.army.mil

Notes:

For More Information

Further information can be received from:

~ For more detailed information on the U.S. Army Corps of Engineers planning process, see the brochure titled "The Corps of Engineers Planning Process" or contact Ms. Sue Haslett.

~ Questions and comments on this study can be directed via telephone, mail, or e-mail to:

Mr. Richard Bilinski
U.S. Army Corps of Engineers,
Tulsa District
Attn: CESWT-PPMD
1645 S. 101st East Avenue
Tulsa, OK 74128-4609
Phone: (918) 669-7236

Email:
Richard.Bilinski@usace.army.mil

General Information Brochure

ARKANSAS AND LOWER WALNUT RIVER FLOODPLAIN AQUATIC ECOSYSTEM RESTORATION FEASIBILITY STUDY

Location

- The project area is located in Arkansas City, Kansas approximately 25 miles north of Ponca City, Oklahoma.
- The 2000 United States Census indicates that 11,963 persons reside in Arkansas City, Kansas.
- The proposed site is located within the historic floodplain of the Walnut River, as well as the proposed Lower Walnut Valley Greenway.

Background Information/Existing conditions

- Purpose of this study is to identify the best plan to restore and improve the aquatic habitat in and around the Arkansas and Lower Walnut River Floodplain in Arkansas City, Kansas to a more natural condition.
- The study is being conducted under the authority of Section 206 of the Water Resources Development Act of 1996, as amended.
- The project is cost shared at 35% local and 65% federal funds.
- Restoration could affect approximately 33 acres of aquatic habitat and 30 acres of riparian corridor bottomland woodlands.
- The Arkansas and Lower Walnut River Floodplain has been impacted by agricultural, industrial, and USACE flood control activities in the Arkansas City vicinity.
- The riparian belt along the Lower Walnut River Basin has been altered, causing ecological functionality to deteriorate.

Study objectives

- Contribute to national ecosystem restoration through preservation and restoration efforts.
- Restore the Arkansas and Lower Walnut River floodplain to a more natural condition.
- Increase habitat diversity, including stream bank and bottomland hardwood habitat.

Planning Constraints

- A recommended project must be justified under established Federal planning criteria.
- The recommended actions must be acceptable and supported by the local sponsor.
- Project alternatives must comply with the Endangered Species Act, NEPA, and other applicable environmental laws and regulations.
- The recommended plan must be technically and economically justified (reasonable cost for the outputs provided), environmentally beneficial, and supported by the City of Arkansas City.

potential alternatives

- No action: existing conditions continue.
- Restore the Riparian corridor along the Arkansas and Lower Walnut River Basin.
- Restore the Aquatic habitat within the Arkansas and Lower Walnut River Basin.
- Construct/protect wetlands.
- Other alternatives developed during the planning process.

5 compare alternative plans

In step five, plans (including the no action plan) are compared against each other with an emphasis on the outputs and effects that will have the most influence in the decision making process. Both beneficial and adverse effects of each plan must be compared.

The result of step five is a ranking of the alternative plans.

6 select a plan

During step six, a single alternative plan is selected for recommendation from among all those that have been considered. The recommended plan must be shown to be preferable to taking no action (if no action is not recommended) or implementing any of the other alternatives considered during the planning process.

The final result of step six, and the planning process, is the selection of the recommended plan or the decision to take no action.

The final recommended plan should be the plan that maximizes the net benefits. However, the plan must also be locally acceptable.

For more Information

Further information can be received from:

- The Tulsa District web page (**http://www.swt.usace.army.mil**).
- Questions and comments can be directed via telephone, mail, or e-mail to:

Ms. Susan Haslett
U.S. Army Corps of Engineers,
Tulsa District
Attn: CESWT-PE-PP
1645 S. 101st East Avenue
Tulsa, OK 74128-4609
Phone: (918) 669-7666
Email: Susan.Haslett@usace.army.mil

The Corps of Engineers Planning Process*

US Army Corps of Engineers

* Taken from ER 1105-2-100, Planning Guidance Notebook, Chapter 2. 22 April 2000.

The Corps of Engineers planning process

The U.S. Army Corps of Engineers follows a six step planning process. This process is used in all Corps of Engineers planning studies. The six steps are:

1. Identify problems and opportunities
2. Inventory and forecast conditions
3. Formulate alternative plans
4. Evaluate alternative plans
5. Compare alternative plans
6. Select a plan

The steps are detailed in the following sections. It is important to note that as information is acquired and developed, it may be necessary to repeat past steps.

All steps of the planning process take place in a public context. Public comments and questions are welcomed throughout the planning process.

1 identify problems and opportunities

The first step in the planning process is to identify problems and opportunities to correct those problems.

The National Environmental Policy Act (40 CFR 1500-1508) requires ALL Federal agencies involved in water resources planning to conduct a "scoping" process. This process determines the extent of the issues to be addressed and identifies significant issues related to a proposed action.

Once the problems and opportunities are identified, the planning study objectives and constraints are defined. The study objectives and constraints are used to guide the study. They are statements that describe the desired results of the planning process. The planning constraints are restrictions that limit the planning process.

2 Inventory and Forecast Conditions

The second step of the planning process is to develop, inventory and forecast critical resources relevant to the problems and opportunities under consideration in the study area. The information gathered is used to develop future without-project conditions that are used as a basis from which alternative plans are formulated and impacts are compared.

Step 3 Formulate alternative plans

three consists of formulating alternative plans that identify specific ways to achieve planning objectives within the planning constraints. The plans are formulated in a manner so as to solve the problems and realize the opportunities that were identified in step one. Plans consist of structural and nonstructural measures. Plans must comply with existing statutes, administrative regulations, and common law or include proposals for changes.

Alternative plans shall not be limited to those the Corps of Engineers could implement directly under current authorities. Alternatives that could be implemented under the authorities of other Federal agencies, State and local entities and non-governmental interest will also be considered.

Each alternative plan should be formulated in consideration of four criteria: completeness, efficiency, effectiveness, and acceptability.

4 evaluate alternative plans

The fourth step in the planning process is the evaluation of each alternative plan. The evaluation begins with predicting the most likely with-project condition expected under each plan. Next, the with-project condition is compared to the without-project condition, and the effects are characterized by magnitude, location, timing and duration. Then the plans that will be further considered in the planning process are identified based on the evaluation criteria.

The criteria for evaluating plans include all significant resources, outputs and plan effects, as well as contributions to the study planning objectives, compliance with environmental protection requirements, and the four criteria listed in step three (completeness, efficiency, effectiveness, and acceptability).

~Display Text~

WELCOME
TO
TONIGHT'S
WORKSHOP
Arkansas and Lower Walnut Floodplain Aquatic Ecosystem Restoration
Public Information Workshop
Hosted by the
City of Arkansas City
and
U. S. Army Corps of Engineers, Tulsa District
Overview
Study Background

- **Authorized by Section 206 of the Water Resources Development Act of 1996, as amended**
- **65% federal/35% local funding for Section 206 projects**

Study Area Description

- **Project is located in Arkansas City, Kansas**
- **Proposed site is located within the historic floodplain of the Walnut River, as well as the proposed Lower Walnut Valley Greenway**

Objectives

- **General Federal Objective**

—Contribute to national ecosystem restoration through preservation and restoration efforts

- **Study Objectives**

—Restore Arkansas and Lower Walnut River floodplain to a more natural condition

—Increase habitat diversity

➢**Riparian (stream bank) habitat**
➢**Bottomland hardwood habitat**
➢**Aquatic Habitat**

Planning Constraints

- **Plan must be..**

—Locally Acceptable

—Environmentally Beneficial

—Technically Sound

—Economical Feasible

❖**Reasonable cost for the outputs provide (incremental cost analysis)**

- **Coordinate with all interests**
- **Compliment the City's future plans for the area**

Components of Healthy Stream Corridors

- **Healthy riparian buffer areas**

- ☐ **Flood water access to the floodplain**
- ☐ **Wetlands**
- ☐ **Healthy stream habitat**

Components of Unhealthy Stream Corridors

- ☐ **Areas with little or no vegetation**
- ☐ **Bridges or culverts that constrict or widen a stream channel**
- ☐ **Prevention of water access to the floodplain**
- ☐ **High nutrient loads**
- ☐ **Runoff of agrochemicals**
- ☐ **Runoff of residential chemicals**
- ☐ **Straightened or channelized stream reaches**
- ☐ **High, vertical, and eroding stream banks**

Alternatives

- ☐ **Compare alternatives to "No Action"**
- ☐ **Riparian management and restoration**
- ☐ **Aquatic habitat restoration**
- ☐ **Wetland restoration**
- ☐ **Complement the proposed Prairie Passage**
- ☐ **Other alternatives developed during the planning process**

Environmental Considerations

Environmental Elements

- ☐ **Soils, climate, water, air quality**
- ☐ **Water and land resources**
- ☐ **Flora and fauna (plants and animals)**

—Threatened and endangered species

- ☐ **Sensitive lands and water resources**
- ☐ **Economic and social resources**
- ☐ **Cultural resources**

Potential Impacts

- ☐ **Impacts of no action - continued degradation of Arkansas and Lower Walnut River Floodplain**

—Habitat losses

—Riparian area environmental impacts

—Social and economic impacts

—Water quality problems

Potential Impacts

Other issues may be identified during the study, from:

- Local landowners, residents, stakeholders
- Study team
- Agency input

- Federal, state, city, county, and local

- Other public input

- Workshops, written comments, mail, e-mail, phone calls

National
Environmental
Policy Act
(NEPA)
National Environmental Policy Act

Public exchange of information

—Problems, issues, potential alternatives

Discuss the value of alternatives

Identify potential impacts

Include public comments

Federal, state, and local review

Document the NEPA coordination process

Scoping

Required by The National Environmental Policy Act (NEPA)

—Participation with other agencies and the public

Purpose: Solicit comments and questions on project alternatives and impacts

Conducted throughout the documentation process

Scoping Process

Identifying potential impacts/issues

Includes

—Participation of federal, state, local agencies, Native American tribes, interested parties

—Determination of potential impacts/issues

—Identification of non-significant issues or those issues covered by prior review

Public Involvement
Public Notices

Federal, state, local, tribal entities and public notified of scoping period

Additional notices will be made for:

—Comments on draft documents

—Additional public meetings, if needed

Workshops

☐ **Overall purpose:** Listening and Informing

☐ **Initiation of the scoping process under the National Environmental Policy Act (identification of objectives)**

☐ **Encourage public involvement throughout the planning process (two-way communication)**

Mailing List

☐ **List to keep people informed**

—It will **NOT** be used for any other purpose

☐ **Sign-in sheet at welcome table will be used for the mailing list ONLY**

☐ **If you** do not **want to be included on the mailing list, please** check the "NO" box

Questions and Comments

☐ **Your views are important**

☐ **Comment or question forms available here, or...**

☐ **Take a sheet home and complete it at your convenience**

☐ **Postage-paid envelopes available at this table**

More Information?

☐ **Call or Write Anytime! (See Any Representative Here)**

☐ **Contact the U.S. Army Corps of Engineers, Tulsa District**

—Richard Bilinski

•1645 S. 101st East Ave., Tulsa, OK 74128
•918-669-7236
•Richard.Bilinski@usace.army.mil
THANK YOU!!!

Your participation is essential!

US Army Corps of Engineers ®
Tulsa District

DRAFT MEDIA RELEASE

For Immediate Release

To: News Directors, Assignment Editors, and Editors

Synopsis: The U.S. Army Corps of Engineers will host a public workshop to discuss the Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration Feasibility Study.

Release No. 03-xx
October 1, 2003

Workshop to present Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration Feasibility Study.

TULSA, Okla. -- The Tulsa District, U.S. Army Corps of Engineers will host a public information workshop, Tuesday, October 21, 2003, to provide information to the public and solicit comments and questions about the Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration Feasibility Study in Arkansas City, Kansas.

The Corps of Engineers study will evaluate the environmental restoration measures to improve habitat quality within the Arkansas and Lower Walnut River in the City of Arkansas City. The goal is to determine if the area qualifies as a federal project. The purpose of the study is to formulate a variety of alternatives for restoring the ecosystem, identify concerns and needs relating to the restoration of the area, and formulate a recommended plan of action or non-action. (As with all federal water resource studies, findings may indicate that no federal project is possible and that no-action would be the appropriate plan.) If a federally qualified project is identified, the project is to be cost shared at 35%local and 65% federal funds.

The workshop will be held from 5:00 p.m. to 7:00 p.m. at the Arkansas City Senior Center, 320 South A Street, Arkansas City, Kansas. The workshop will be an open house format with no set or formal presentations. Everyone is invited to attend, visit information tables and discuss the project with representatives from the Corps' Tulsa District office and Arkansas City.

The workshop and comment solicitation are part of the environmental documentation (scoping), conducted in compliance with the National Environmental Policy Act. Scoping is the process of identifying potential environmental impacts of proposed Federal actions by soliciting comments and questions from the public and government agencies.

For more information on this study, contact Ms. Sue Haslett in the Tulsa office, 918-669-7666.

--30--

Paid Advertisement

~ Announcing ~

PUBLIC INVOLVEMENT WORKSHOP AND SCOPING PROCESS

as related to the

Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration Arkansas City, Kansas

in compliance with

The National Environmental Policy Act

On Tuesday, October 21, the U.S. Army Corps of Engineers and the City of Arkansas City will host a public workshop to provide information to the public about the Arkansas and Lower Walnut River Floodplain Aquatic Ecosystem Restoration Study in Arkansas City, Kansas and to solicit comments and questions.

The workshop will be an open house format with no set or formal presentation. Interested persons may arrive anytime between 5:00 p.m. and 7:00 p.m., visit information tables, discuss the study with Corps and City personnel, make comments and ask questions. The workshop will be held at the following location and time:

October 21, 2003
5:00 p.m. to 7:00 p.m.

Arkansas City Senior Center
320 South A Street
Arkansas City, Kansas
Phone: 620-440-4419

Scoping Process

The workshop is part of efforts by the Corps and Arkansas City to inform the public about the local ecosystem restoration study in progress. The purpose of the study is to identify concerns and needs relating to ecosystem restoration in the project area, formulate a variety of alternatives, and select a recommended plan of action or non-action. This public workshop is in compliance with the National Environmental Policy Act. As part of the scoping process, the Corps of Engineers requests that the public, interested parties, Federal, State and local agencies take part in the planning process by identifying environmental issues in the study area that have potential for restoration and provide input in the development of alternatives to address ecosystem restoration. The Corps will include this input as it develops restoration alternatives for Arkansas and Lower Walnut River Floodplain in Arkansas City, Kansas. Comments and questions can be forwarded to:

Sue Haslett
U.S. Army Corps of Engineers, Tulsa District
ATTN: CESWT-PE-P
1645 S. 101st East Avenue
Tulsa, OK 74128-4609
Phone: 918-669-7660
Susan.Haslett@usace.army.mil

APPENDIX E

PUBLIC COMMENTS

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
760 South Broadway
Salina, Kansas 67401-4604

Phone: 785-823-4500
FAX: 785-823-4540
www.ks.nrcs.usda.gov

June 24, 2008

Mr. Stephen L. Nolen
Chief
Environmental Analysis and Compliance Branch
United States Army Corps of Engineers, Tulsa District
1645 South 101 East Avenue
Tulsa, Oklahoma 74128-4609

Dear Mr. Nolen:

The Kansas Natural Resources Conservation Service (NRCS) has reviewed the Draft Environmental Assessment, *Arkansas and Walnut Rivers Section 206 Aquatic Ecosystem Restoration Project Arkansas City, Kansas.*

In accordance with the National Environmental Policy Act of 1969 and guidelines in 33 Code of Federal Regulations Part 230, Kansas NRCS agrees with the finding of no significant impact.

If you any questions, contact Terry M. Conway, State Resource Conservationist, at 785-823-4547 or by e-mail at terry.conway@ks.usda.gov.

Sincerely,

ERIC B. BANKS
State Conservationist

cc:
Terry M. Conway, State Resource Conservationist, NRCS, Salina, Kansas
Kenneth A. Kuiper, State Biologist, NRCS, Salina, Kansas

Helping People Help the Land

An Equal Opportunity Provider and Employer

United States Department of the Interior

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

July 2, 2008

Stephen Nolan, Chief
Environmental Analysis and Compliance Branch
U.S. Army Corps of Engineers, Tulsa District
1645 South 101 East Avenue
Tulsa, OK 74128-4609

RE: Draft EA - Walnut River Basin Ecosystem Restoration FWS Tracking # 2008-B-0580

Dear Mr. Nolan:

We have reviewed the Draft Environmental Assessment (DEA), received June 30, 2008 for the Arkansas and Walnut Rivers Section 206 Aquatic Ecosystem Restoration Project. The DEA evaluates the proposed action, alternatives and a no-action alternative. The proposed action would result in the restoration of 42.1 acres of bottomland hardwood habitat (Areas 1, 2, and 8), 16 acres of prairie habitat (Area 6) and would create 6 acres of seasonal wetland (Area 7) within the lower Walnut River basin at Arkansas City, Kansas. The following comments are provided by the USFWS for your consideration.

General Comments

The U.S. Fish and Wildlife Service (USFWS) appreciate the coordination between the Service, and the Tulsa District, U.S. Army Corps of Engineers throughout the development of this DEA, and value efforts made to address our concerns.

Historical activities related to agricultural, industry and flood damage reduction projects within the lower Walnut River basin have resulted in degraded riparian corridor habitat conditions over time. The purpose of the project is to restore aquatic and riparian habitat within the lower Walnut River basin within the historic floodplain of the Walnut River.

Specific Comments

Page 18. 4.4.5 Aquatic and Wetlands. "Undercut banks along stream soften provide entryways to dens of furbearing mammals including beaver and muskrats." Typographical error.

Page 20. 4.5 Threatened and Endangered Species.

Bald Eagle. The bald eagle is no longer listed as a federally-threatened species; however it is protected under state laws, the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). Please revise the DEA to reflect this change.

Least Tern. "Within Kansas, nesting colonies have only been recorded in the Cimarron River." Please revise to: The least tern occurs as a spring and fall migrant through the State and nests along the Cimarron River in Meade and Clark Counties, the Kansas River in Pottawatomie, Wabaunsee and Shawnee Counties, at Jeffrey Energy Center in Pottawatomie County, Quivera National Wildlife Refuge in Stafford County and in Sedgwick County on and adjacent to the Arkansas River.

Page 26. 5.4.6 EO 13112. Please revise "Any equipment that has been in any body of water within 30 days of its arrival at the work site will be thoroughly cleaned with hot water (hotter than 40° C or 104°F)" to: Any equipment that has been in any body of water within the past 30 days will be thoroughly cleaned with hot water greater 140° F and dried for a minimum of five days before being used at this project site.

Mailing List. Please correct our address to U.S. Fish and Wildlife Service, 2609 Anderson, Manhattan, Kansas 66502.

Thank you for the opportunity to comment on this DEA. If you have questions regarding these comments, please contact Michele McNulty of the Kansas Ecological Services Office, at 785-539-3474 X 106.

Sincerely,

Michael J. LeValley

Michael J. LeValley
Field Supervisor

cc: KDWP, Pratt, KS (Environmental Services)

- 2 -

KANSAS

DEPARTMENT OF HEALTH
AND ENVIRONMENT

Kathleen Sebelius, Governor
Roderick L. Bremby, Secretary

www.kdheks.gov

Division of Environment
Comments by: KDHE

Transmittal Date: June 30, 2008

This form provides notification and the opportunity for your agency to review and comments on this proposed project as required by Executive Order 12372. Review Agency, please complete Parts II and III as appropriate and return to contact person listed below. Your prompt response will be appreciated.

RETURN TO: Tulsa District, Corps of Engineers
ATTN: Environmental Analysis and Compliance Branch
1645 S. 101st S. East Ave.
Tulsa, Oklahoma 74128

PART I **REVIEW AGENCIES/COMMISSION**

___Aging	___Education	___State Forester
___Agriculture	___Geological Survey, KS	___Transportation
___Biological Survey	_X_Health & Environment	___Water Office, KS
___Conservation Commission	___Historical Society	___Wildlife & Parks
___Corporation Commission	___Social & Rehabilitation	___Commerce

PART II **AGENCY REVIEW COMMENTS**

COMMENTS: (Attach additional sheet if necessary) Draft EA Arkansas and Walnut Rivers, Section 206 Aquatic Ecosystem Restoration Project, Arkansas City, KS
Please see the enclosed comments submitted by Scott Satterthwaite, Bureau of Water.

PART III
RECOMMENDED ACTION COMMENTS

_X_Clearance of the project should be granted.

___Clearance of the project should not be granted.

___Clearance of the project should be delayed until the issues or questions above have been clarified.

___Request a State Process Recommendation in concurrence with the above comments.

___ Clearance of the project should not be delayed but the Applicant should (in the final application) address and clarify the question or concerns indicated above.

___Request the opportunity to review final application prior to submission to the federal funding agency.

DIVISIONS/ AGENCY/ COMMISSION

Reviewer's Name: John W. Mitchell Date: June 30, 2008

Organization: John W. Mitchell
Interim Director, Division of Environment
Kansas Department of Health & Environment
1000 S.W. Jackson Street, Suite 400
Topeka, KS 66612-1637

CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 400, TOPEKA, KS 66612-1367
Voice 785-296-1535 Fax 785-296-8464

KANSAS

DEPARTMENT OF HEALTH
AND ENVIRONMENT
Division of Environment

Kathleen Sebelius, Governor
Roderick L. Bremby, Secretary

www.kdheks.gov

MEMORANDUM

TO: Donna Fisher

FROM: Scott Satterthwaite

DATE: June 27, 2008

RE: Comments on Tulsa District USACE EA for the Arkansas and Walnut Rivers Ecosystem Restoration Project

The project can proceed considering the following suggestions, recommendations and adherence to requirements here within.

1. The Kansas Department of Health and Environment appreciates the US Army Corps of Engineers removing utilization of the Creekstone Farms Premium Beef LLC, (KWPC Permit I-AR06-PO06), treated discharge for wetland creation/restoration from the plan as originally proposed in the USACE letter dated February 16, 2006.

2. The State of Kansas has issued the Section 401 Water Quality Certification for all Section 404 Nationwide Permits. The document can be found on the US Army Corps of Engineers' Kansas City District website at: http://www.nwk.usace.army.mil/regulatory/2007nwps/KS401.pdf. Adhering to the conditions of the certification should assure state water quality standards are not violated. Please note the previously referenced document also includes a table, including water quality standard citations, illustrating the Arkansas River and Walnut River are both considered to be higher value streams and thus require a higher level of protection.

3. Construction activities disturbing 1 acre or more, are subject to the National Pollutant Discharge Elimination System (N.P.D.E.S.) storm water permit requirements of 40 C.F.R. 122.26. Information on construction site NPDES permits is available from Bureau of Water - Industrial Programs website: or Mr. Larry Hook at 785/296-5549. A stormwater pollution prevention plan to assure minimizing off-site water quality and other impacts are required.

4. The project cooperators should be aware the proposed created wetlands will be subject to Kansas Surface Water Quality Standards. To avoid potential problems, KDHE suggests the following:

BUREAU OF WATER – WATERSHED MANAGEMENT SECTION
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 420, TOPEKA, KS 66612-1367
Voice 785-296-4195 Fax 785-296-5509
http://www.kdheks.gov/nps/index.html

Water quality conditions of the created wetlands are expected to be comparable to the median water quality conditions of regional public wetlands. With this in mind, Mr. Ed Carney, KDHE – Bureau of Environmental Field Services, has reviewed data collected via the Kansas Lake and Wetland Monitoring Program. This data represent marshes and shallow lake wetlands, not riparian. Attached is a summary of his findings. Mr. Carney can be contacted at 785/296-5575/ Ecarney@kdhe.state.ks.us.

b) An observational wetland monitoring strategy may be helpful for the first three years.

c) KDHE strongly recommends you contact the Cowley County NRCS to assure riparian vegetation planting is suitable for the region. Native riparian establishment in Cowley County may not require fertilizer. Fertilizer application should be done according to nutrient management practices if needed. The CC NRCS should again be consulted. Contact Mr. Barry Barber at 620-221-4162 or barry.barber@ks.usda.gov.

4. The project cooperator is encouraged to investigate the potential for using this project to develop a Watershed Restoration and Protection Strategy (WRAPS) as a mechanism to assure local stakeholders are present to maintain and protect the nation's investment. Please contact Mr. Richard Basore for more information at 316-337-6014 or rbasore@kdhe.state.ks.us.

Please direct any questions concerning these comments to Mr. Kerry Wedel- 785-296-5567/ kwedel@kdhe.state.ks.us or Scott Satterthwaite, 785-296-5573 / ssattert@kdhe.state.ks.us.

KANSAS

DEPARTMENT OF HEALTH
AND ENVIRONMENT

Division of Environment

Kathleen Sebelius, Governor
Roderick L. Bremby, Secretary

www.kdheks.gov

July 1, 2008

Mr. Stephen Nolen
Chief, Environmental Analysis and Compliance Branch
Tulsa District, Corps of Engineers
1645 S. 101st East Avenue
Tulsa, OK 74128

Re: Draft EA Arkansas and Walnut Rivers, Section 206 Aquatic Ecosystem Restoration Project

Dear Mr. Nolen:

Please see the enclosed comments submitted by Glenna Drake, Bureau of Environmental Remediation and add them to your letter dated June 30, 2008 regarding this project.
Thank you for your help.

Sincerely,

Donna Fisher
Division of Environment

CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 400, TOPEKA, KS 66612-1367
Voice 785-296-1535 Fax 785-296-8464

MEMORANDUM

To: Donna Fisher, BER

From: Glenna Drake
BER/Remedial Section

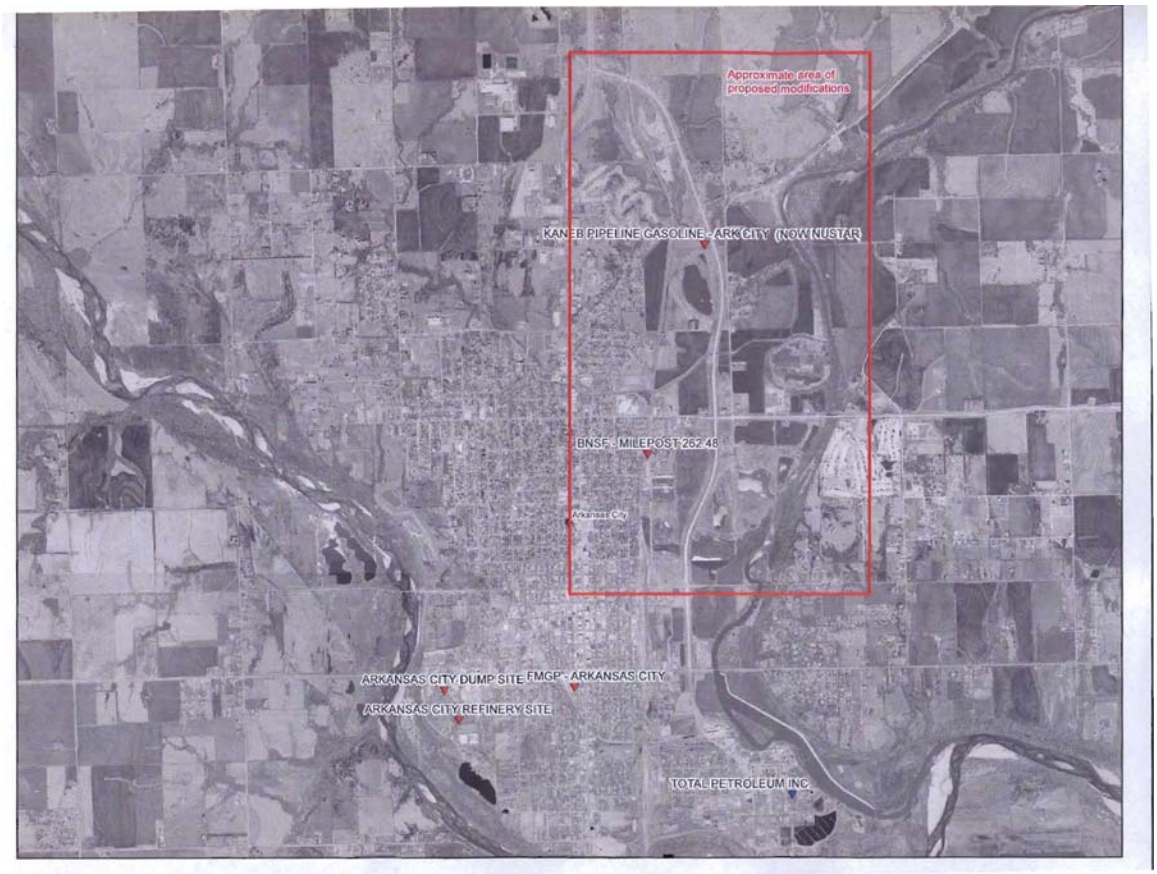
CC: Rick Bean, BER; Marcia Morgan, BER

Date: 7/1/2008

Re: Identified Sites List information request

The following sites from the Identified Sites List were found near the areas of proposed actions referred to in the *Arkansas City Aquatic Ecosystem Restoration Project* document:

Project Code	Site Name	Contamination Type
C201870044	FMGP - ARKANSAS CITY	Heavy Metal, Refined Petroleum, SVOC, VOC, PCB
C201871856	BNSF - MILEPOST 262.48	Nitrates
C201871797	ARKANSAS CITY REFINERY SITE	Refined Petroleum
C201800009	ARKANSAS CITY DUMP SITE	Heavy Metal, Inorganic, Nitrates, Refined Petroleum, SVOC, Other (see Site Narrative)
C201800643	KANEB PIPELINE GASOLINE - ARK CITY (NOW NUSTAR)	Refined Petroleum
C201800066	TOTAL PETROLEUM INC.	Crude Oil, Heavy Metal, VOC


Approximate area of proposed modifications
KANEB PIPELINE GASOLINE - ARK CITY (NOW NUSTAR)
BNSF - MILEPOST 262.48
Arkansas City
ARKANSAS CITY DUMP SITE
FMGP - ARKANSAS CITY
ARKANSAS CITY REFINERY SITE
TOTAL PETROLEUM INC.

APPENDIX F

NEWSPAPER PUBLIC NOTICE

AFFIDAVIT OF PUBLICATION

STATE OF KANSAS, COWLEY COUNTY, ss: MICAH MITCHELL

being first duly sworn, deposes and says: That she is advertising director of The Arkansas City Daily Traveler, a Daily newspaper printed in the State of Kansas, and published in and of a general circulation on a Daily basis in Cowley County, Kansas and that said newspaper is not a trade, religious or fraternal publication

Said newspaper is a daily published at least weekly 50 times a year; has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice; and has been admitted at the post office of Arkansas City in said County as second class matter.

That the attached notice is a true copy thereof and was published in a true the regular and entire issue of said newspaper for One ~~consecutive~~ day ~~(weeks,days)~~, the first publication thereof being made as aforesaid in the 5th day of June, 2008, with subsequent publication being made on the following dates:

_____, 2008 _____, 2008

_____, 2008 _____, 2008

_____, 2008 _____, 2008

(MICAH MITCHELL)

Subscribed and sworn to before me this 6th day of June, 2008

Carol S. Kincaid
Notary Public

CAROL S. KINCAID
Notary Public - State of Kansas
My Appt. Expires

My commission expires: Jan 10,2012

Printers fee $ 37.20

Additional Copies $_____

(First published in the Arkansas City Traveler, Thursday, June 5, 2008.)

Announcing:
COMMENT PERIOD
DRAFT ENVIRONMENTAL ASSESSMENT
as related to the
Arkansas and Walnut Rivers Section 206 Aquatic Ecosystem Restoration Project, Arkansas City, Kansas
in compliance with
The National Environmental Policy Act
FORMAL COMMENT PERIOD
June 5, 2008 through July 5, 2008

The Draft Environmental Assessment addresses the environmental effects of the Arkansas and Walnut Rivers Section 206 Aquatic Ecosystem Restoration Project in Arkansas City, Kansas. The purpose of this project is to restore aquatic and riparian habitat within the lower Walnut River basin within the historic floodplain of the Walnut River. The comment period is a continuation of public involvement used to develop the draft assessment. The public is invited to review the draft assessment and make comments. A copy of the assessment is available at:

Arkansas City Public Library
120 E. 5th Avenue
Arkansas City, Kansas 67005

All written comments and questions will be addressed in the Final Environmental Assessment. To be included in the final assessment, comments and questions must be received prior to the close of the formal comment period. Comments and questions about the draft assessment or the comment process can be directed to:

Mr. Stephen L. Nolen
Chief, Environmental Analysis and Compliance Branch
U.S. Army Corps of Engineers, Tulsa District
1645 S. 101st East Avenue
ATTN: CESWT-PE-E
Tulsa, Oklahoma 74128
Phone: 918-669-7560
e-mail:
Stephen.L.Nolen@usace.army.mil

(6-5)