

US Army Corps  
of Engineers  
Kansas City District

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**KANSAS CITY DISTRICT  
CORPS OF ENGINEERS  
and the  
CITY OF SALINA**

**Public Law 84-99 of the Flood Control Act of 1944  
Levee Rehabilitation – NEPA Review, Environmental  
Assessment & Finding of No Significant Impact**

**SALINA LEVEE UNIT FEDERAL LEVEE  
EMERGENCY LEVEE REHABILITATION PROJECT.**

**Smoky Hill River and Mulberry & Dry Creeks  
Saline County, Kansas**

**July 2008**



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

## Finding of No Significant Impact

### Salina Levee Unit Federal Levee Levee Rehabilitation Project Saline County, Kansas

#### Project Summary

The U.S. Army Corps of Engineers, Kansas City District (CENWK), in cooperation with the project sponsor, the city of Salina, propose to construct the Salina Levee Unit Federal Levee Rehabilitation Project, under the authority of Public Law 84-99 of the Flood Control Act of 1944. The proposed action is needed to repair the levees damaged by the declared flood event of 6 May 2007. The proposed repairs are located in Saline County, Kansas, in the city of Salina, Kansas, along Dry Creek near the confluence with Mulberry Creek and Dry Creek near the confluence with the Smoky Hill River.

#### ALTERNATIVES CONSIDERED

The Salina Levee Unit was damaged at three different locations along the levee unit. These locations were assessed in the field and then grouped based on the type of damage incurred so that alternative fixes could more easily be considered. Based on these groupings, the following alternatives were considered.

#### Levee Section IV – Stations 428+00 to 450+00 Bed, Bank and Levee Damages.

##### Alternative 1 – Flattened Levee Slopes Stone Protection with Grade Control

**(Recommended Plan):** This alternative would remove the weakened channel bank, reestablish the original design grade of the channel for the reach; stations 428+00 to 450+00. The levee would be modified to have flatter levee and bank slopes, but narrower foreshore berm width. Repairing the channel banks from channel bed erosion would not be effective if the erosion and undercutting continue to occur with every flood as the channel bank would eventually collapse and cause failure of the levee. Degradation control is required to control the loss of bed below the banks. A grade control structure is considered as part of this alternative needed to accomplish bed control in this reach.

**Alternative 2 – Rockfill Section with Grade Control:** This alternative would consist of the removal of the existing weakened soils and replacement of the soils with rockfill in the channel to reestablish the passive toe of the section and to increase the erosion resistance of the section. The foreshore soils would be removed and recompacted with lime treatment to minimum the expansive characteristics of the clays. The moisture and density of the soils would be controlled to assure a consistent and reliable strength of the section. The original design section having a 25-foot wide foreshore and 12-foot high levee section would be reestablished. Incidental repairs to minor bank erosion along Dry Creek adjacent to Levee Section II at station 390+00 are included in the estimate. Repairing the channel banks from channel bed erosion would not be effective if the erosion and undercutting continue to occur with every flood as the channel bank would eventually collapse and cause failure of the levee. Degradation control is required to control the loss of bed below the banks. The grade control structure considered as part of this alternative is needed to accomplish bed control in this reach.

**Alternative 3 – Excavation and backfill with Geogrid Reinforcement.** Under this alternative, the scoured and failed sections of the channel banks would be removed, including the foreshore tension cracking areas. The banks and foreshores would be reconstructed using removed materials and placement of geogrid reinforcements. The channel grade would be reestablished stations 428+00 to 450+00. No repairs are proposed outside of this reach although bed degradation has been measured upstream and downstream. The reinforced earth would stabilize the passive resistance of the levee section and provide erosion protection along the channel. The original section of the channel bank would be reestablished to provide for a 25-foot wide foreshore bank. The crest soils of the levee section would be removed and treated with lime to minimize expansive characteristics. Repairing the channel banks from channel bed erosion would not be effective if the erosion and undercutting continue to occur with every flood as the channel bank would eventually collapse and cause failure of the levee. Degradation control is required to control the loss of bed below the banks. A grade control structure is considered part of this alternative and is needed to accomplish bed control in this reach.

**No Action Alternative:** The “No Action” Alternative would involve no construction and the channel banks and levee would remain in its damaged condition. This alternative would continue to expose public and private infrastructure to a high risk level of future flooding.

#### **Levee Section II – Stations 40+00 and 53+00 Bank Damages.**

**Alternative 1 – Repair of Bank Damages and Reestablishing Channel Grade (Recommended Plan).** Repairs to minor bank erosion along Dry Creek adjacent to Levee Section II at stations 40+00 and 53+00, would consist of regrading and compacting the scoured bank slopes, and reestablishing the channel in the vicinity of the scour.

**No Action Alternative:** The “No Action” Alternative would involve no construction and the channel bank would remain in its damaged condition. This alternative would continue to expose public and private infrastructure to a high risk of damage and future flooding.

## **Summary of Environmental Impacts**

The flood risk management achieved by the recommended plans would restore an estimated level of protection of at least 200 years. The recommended plans would result in no impacts to any Federally-listed threatened or endangered species or their habitat. The proposed action would have no impact to sites listed on or eligible for inclusion on the National Register of Historic Places. Areas of the existing levee sections damaged by flooding would be temporarily disturbed by the proposed construction activity. The only adverse effects associated with the proposed project are minimal, temporary construction related impacts. These minor construction related impacts would be greatly offset by restoring the flood risk management capability, and its associated social and economic benefits of the existing levee system. The recommended plans meet the project purpose and need of rehabilitating the flood risk management capability, and its associated social and economic benefits of the existing levee system. Of all alternatives considered, the recommended alternatives have the highest cost/benefit ratios and are consistent with protection of the human environment.

## **Mitigation Measures**

The recommended plans would result in no impacts to mitigable resources as defined in USACE planning regulations or under Section 404 of the Clean Water Act. Therefore, no mitigation measures are warranted or proposed.

## **Public Availability**

Prior to a decision on whether to prepare an Environmental Impact Statement, the CENWK circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI), dated May 30, 2008, with a thirty-day comment period ending on June 30, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on the CENWK-Regulatory e-mail mailing list. The Notice informed these individuals that the EA and Draft FONSI were available on the CENWK webpage or that they could request a hard copy of the EA and Draft FONSI in order to provide comment.

Levee rehabilitation projects completed by the Corps under authority of Public Law 84-99 generally do not require the preparation of an Environmental Impact Statement. These projects typically result in long-term social and economic benefits and the environmental effects are typically minor/short-term construction related impacts. Minor long-term impacts associated with these projects are typically well outweighed by the overall long-term social and economic benefits of these projects. As described above, the recommended plans are consistent with this assessment of typical levee rehabilitation projects completed by the Corps under authority of Public Law 84-99 of the Flood Control Act of 1944.

## Conclusion

After evaluating the anticipated environmental, economic, and social effects of the proposed activity, it is my determination that construction of the proposed Salina Levee Rehabilitation Project does not constitute a major Federal action that would significantly affect the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date: 10 July 08



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Roger A. Wilson, Jr.  
Colonel, Corps of Engineers  
District Commander



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

**EXECUTIVE SUMMARY**

The U.S. Army Corps of Engineers, Kansas City District (CENWK), in cooperation with the project sponsor, the city of Salina, proposes to construct the Salina Levee Unit Federal Levee Rehabilitation Project, under the authority of Public Law 84-99 of the Flood Control Act of 1944. The proposed project would involve repairs to eroded slopes adjacent channel and upper levee sections and installation of grade control to restore levees damaged by the declared flood event of 6 May 2007.

The Salina Levee Unit system is located near the city of Salina. This is near the confluence of the Smoky Hill River, and Mulberry and Dry creeks. The system facilities consists of: (a) a diversion channel and levee to divert the flows from Dry Creek in to the Smoky Hill River, (b) channel improvement and widening of the Smoky Hill River, with a special cutoff channel in the vicinity of Iron avenue to divert high flows form the loop of the Smoky Hill River within the city, (c) a levee which partially encircles the city, (d) realignment and improvement of the channels of Mulberry and Dry Creeks along the west and north side of the city, (e) two storm water pumping plants, (f) sandbag gaps, and (g) drainage structures. Approximately 10,840 acres are protected with approximately 3% agricultural lands. In 2000, there were 45,679 persons residing in the city of Salina area. The recommended alternatives consist of flattened channel slopes, and stone protection with grade control at between from stations 428+00 to 450+00; and repair of bank damages and reestablishing channel grade at stations 40+00 and 53+00. Borrow material will be obtained from an existing stockpile.

**Summary of Environmental Impacts**

The flood risk management achieved by the recommended plans would restore an estimated level of protection of at least 200 years. The recommended plans would result in no impacts to any Federally-listed threatened or endangered species or their habitat. The proposed action would have no impact to sites listed on or eligible for inclusion on the National Register of Historic Places. Areas of the existing levee sections damaged by flooding would be temporarily disturbed by the proposed construction activity. The only adverse effects associated with the proposed project are minimal, temporary construction related impacts. These minor to moderate adverse effects would be greatly offset by restoring the flood risk management capability, and its associated social and economic benefits of the existing levee system. The recommended plans meet the project purpose and need of rehabilitating the flood risk management capability, and its associated social and economic benefits of the existing levee system. Of all alternatives considered, the recommended alternatives have the highest cost/benefit ratios and are consistent with protection of the nation's environment.

Prior to a decision on whether to prepare an Environmental Impact Statement, the CENWK circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI), dated May 30, 2008, with a thirty-day comment

period ending on June 30, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on the CENWK-Regulatory e-mail mailing list. The Notice informed these individuals that the EA and Draft FONSI were available on the CENWK webpage or that they could request a hard copy of the EA and Draft FONSI in order to provide comment.

Additional information concerning this project may be obtained from Mr. Curtis R. Hoagland, Environmental Resources Specialist, PM-PR, Kansas City District - U.S. Army Corps of Engineers, by writing the above address, or by telephone at 816-389-3401.

**NEPA REVIEW  
ENVIRONMENTAL ASSESSMENT  
&  
FINDING OF NO SIGNIFICANT IMPACT**

**PUBLIC LAW 84-99  
SALINA LEVEE UNIT FEDERAL LEVEE  
LEVEE REHABILITATION PROJECT  
SALINE COUNTY, KANSAS**

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**PUBLIC LAW 84-99  
SALINA LEVEE UNIT FEDERAL LEVEE  
LEVEE REHABILITATION PROJECT  
SALINE COUNTY, KANSAS**

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**Section 1: INTRODUCTION**

This Environmental Assessment provides information that was developed during the National Environmental Policy Act (NEPA) public interest review of the proposed Public Law 84-99 Salina Levee Unit Federal Levee Rehabilitation Project.

**Section 2: AUTHORITY**

The Kansas City District – U.S. Army Corps of Engineers (CENWK), in cooperation with the project sponsor, the city of Salina, propose to construct the Salina Levee Unit Federal Levee Rehabilitation Project under the authority of Public Law 84-99 of the Flood Control Act of 1944.

**Section 3: PROJECT LOCATION**

The Salina Levee Unit system is located around the city of Salina. This is near the confluence of the Saline River, and Mulberry and Dry creeks. The system facilities consists of : (a) a diversion channel and levee to divert the flows from Dry Creek in to the Smoky Hill River, (b) channel improvement and widening of the Smoky Hill River, with a special cutoff channel in the vicinity of Iron avenue to divert high flows form the loop of the Smoky Hill River within the city, (c) a levee which partially encircles the city, (d) realignment and improvement of the channels of Mulberry and Dry Creeks along the west and north side of the city, (e) two storm water pumping plants, (f) sandbag gaps, and (g) drainage structures. Approximately 10,840 acres are protected with approximately 3% agricultural lands. In 2000, there were 45,679 persons residing in the city of Salina area.

**Section 4: EXISTING CONDITION**

Two separate storm events were recorded on the Salina system. The first event occurred May 6 to May 9, 2007. Water came to within 6 feet of the crest of the 12 feet high levee. Scouring and sloughing were reported along the bank of the Dry Creek Channel between levee stations 428+00 to 450+00.

The second event was recorded between May 24 and May 26, 2007. Water came within 4.5 feet of the crest of the levee causing riverside scour of the foreshore adjacent to stations 420+00 to

450+00 of the Salina Levee Unit Section IV and overland flow caused the concentrated point scour into the opposite bank of Levee Section III near levee station 390+00 at two locations.

The area near Salina has experienced drought throughout the region in the recent past years. This was evident by the presence of desiccation cracking in the crest of the levee observed during the damage assessment site visit. Other open cracks along the water side foreshore could have formed after the initial early May flood event that caused scour and sloughing along the banks. Survey of the damages in 2007 indicates a loss of creek bed depth of near 5 feet below original constructed grade. Bed erosion weakens the resistance of combined bank and levee section leading to additional sloughing. The bank sloughing contributes to the further loss of cohesion and opening of additional cracks. Only 10 feet remain between the foreshore cracks observed and the riverside toe of the existing levee section. The 25 feet riverside foreshore berm has been reduced to 15 feet and include a continuous tension crack 5 feet from the creek bank.

The levee alignment from stations 428+00 to 450+00 contains multiple tension cracks that appear to be continuous.

Other damages observed include two locations indicating overland flow damages at the top of the channel section near station 390+00 of Levee Section II. The overland flow has caused erosion perpendicular to the creek bed. This erosion could lead to plugged channel sections and subsequent redirection of the channel flows directly into the protected side that includes a levee.

#### **Section 5: PURPOSE & NEED FOR ACTION**

The project is needed to rehabilitate the damaged levee and restore the associated social and economic benefits. The city of Salina received damages to sections of their levee during the 6 May 2007 declared flood event. Prior to the May 2007 event, the Salina Levee Unit levee provided an approximately 200-year level of flood risk management. In its current damaged state, the Salina Levee Unit levee is estimated to provide an approximately 50-year level of protection. The existing condition exposes all public and private infrastructure and agricultural croplands to a higher risk from future flooding. Failure to restore the flood risk management capability of the levee system would keep area residents livelihood and social well-being in turmoil, and subject to the continuous threat of flooding until a level of flood protection is restored. Failure to reconstruct the levee could adversely affect the tax base of the county and municipal government. In addition, displacement of many residents from their homes and loss of jobs on lands previously protected by the undamaged levee would also be incurred.

#### **Section 6: ALTERNATIVES CONSIDERED**

The Salina Levee Unit was damaged at three different locations along the levee unit. These locations were assessed in the field and then grouped based on the type of damage incurred so that alternative fixes could more easily be considered. Based on these groupings, the following alternatives were considered.

## **Levee Section IV – Stations 428+00 to 450+00 Bed, Bank and Levee Damages.**

### **Alternative 1 – Flattened Levee Slopes Stone Protection with Grade Control**

**(Recommended Plan):** This alternative would remove the weakened channel bank, reestablish the original design grade of the channel for the reach; stations 428+00 to 450+00. The levee would be modified to have flatter levee and bank slopes, but a narrower foreshore berm width. Repairing the channel banks from channel bed erosion would not be effective if the erosion and undercutting continue to occur with every flood as the channel bank would eventually collapse and cause failure of the levee. Degradation control is required to control the loss of bed below the banks. A grade control structure is considered as part of this alternative needed to accomplish bed control in this reach.

**Alternative 2 – Rockfill Section with Grade Control:** Removal of existing weakened soils and replacement of the soils with rockfill in the channel to reestablish the passive toe of the section and increase the erosion resistance of the section. The foreshore soils would be removed and recompacted with lime treatment to minimum the expansive characteristics of the clays. The moisture and density of the soils would be controlled to assure a consistent and reliable strength of the section. The original design section having a 25-foot wide foreshore and 12-foot high levee section would be reestablished. Incidental repairs to minor bank erosion along Dry Creek adjacent to Levee Section II at station 390+00 are included in the estimate. Repairing the channel banks from channel bed erosion would not be effective if the erosion and undercutting continue to occur with every flood as the channel bank would eventually collapse and cause failure of the levee. Degradation control is required to control the loss of bed below the banks. A grade control structure is considered as part of this alternative and is needed to accomplish bed control in this reach.

**Alternative 3 – Excavation and backfill with Geogrid Reinforcement.** The scoured and failed sections of the channel banks are removed including foreshore tension cracking areas. The banks and foreshores are reconstructed using removed materials and placement of geogrid reinforcements. The channel grade would be reestablished at stations 428+00 to 450+00. No repairs are proposed outside of this reach although bed degradation has been measured upstream and downstream. The reinforced earth would stabilize the passive resistance of the levee section and provide erosion protection along the channel. The channel bank original section could be reestablished to provide for the 25-foot wide foreshore bank. The crest soils of the levee section would be removed and treated with lime to minimize expansive characteristics. Repairing the channel banks from channel bed erosion would not be effective if the erosion and undercutting continue to occur with every flood as the channel bank would eventually collapse and cause failure of the levee. Degradation control is required to control the loss of bed below the banks. A grade control structure is considered as part of this alternative needed to accomplish bed control in this reach.

**No Action Alternative:** The “No Action” Alternative would involve no construction and the channel banks and levee would remain in its damaged condition. This alternative would continue to expose public and private infrastructure to a high risk level of future flooding.

## **Levee Section II – Stations 40+00 and 53+00 Bank Damages.**

### **Alternative 1 – Repair of Bank Damages and Reestablishing Channel Grade**

**(Recommended Plan).** Repairs to minor bank erosion along Dry Creek adjacent to Levee Section II, stations 40+00 and 53+00, consist of regrading and compacting scoured bank slopes, and reestablishing the channel in the vicinity of the scour.

**No Action Alternative:** The “No Action” Alternative would involve no construction and the channel bank would remain in its damaged condition. This alternative would continue to expose public and private infrastructure to a high risk level of damage and future flooding.

### **Section 7: AFFECTED ENVIRONMENT:**

The project area is located in Saline County, with the Salina Levee Unit surrounding the city of Salina, Kansas. The levee unit is near the confluence of the Saline River, and Mulberry and Dry Creeks. This area is comprised of residential, commercial, municipal, and agricultural lands. Common trees found within this area include willows, cottonwoods and sycamores. In addition, various wildlife species occupy the riparian zone such as small fur-bearing species, white tail deer, and various birds, including neo-tropical migrants.

Primary resources of concern identified during the evaluation included: noise levels, water quality, fish and wildlife, vegetation, wetlands, archeological and historical resources, flood control, economics and aesthetics. Projects impacts to other resources were determined to be no effect.

### **Section 8: NATIONAL ENVIRONMENTAL POLICY ACT REVIEW**

As part of the NEPA review for the proposed project, the CENWK circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), dated May 30, 2008, with a thirty-day comment period ending on June 30, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on the CENWK-Regulatory e-mail mailing list. The Notice informed these individuals that the EA and FONSI were available on the CENWK webpage or that they could request the EA and FONSI in writing, in order to provide comment. The following section will be completed pending comments received and evaluated from coordination of the Notice:

One comment letter was received from the Kansas State Historic Preservation Officer concurring that the project should have no effect on historic properties (see Appendix II).

### **Section 9: ENVIRONMENTAL CONSEQUENCES:**

#### **Noise levels**

The recommended plans, Alternative 1, would result in minor short-term construction related noise impacts. These impacts are the result of the operation of heavy machinery during project

construction. These noise levels would be in addition, but similar to, those produced by agricultural and industrial equipment which is routinely operated in the project area. Residences and businesses adjacent to the project site will be the primary receivers of any noise impacts.

Alternative 2— Repairs resulting from implementation of the alternative plans would result in noise impacts similar to those described above.

Alternative 3 - Repairs resulting from implementation of the alternative plans would result in noise impacts similar to those described above.

The “No Action” Alternative would produce no increase in noise levels in the project area.

### **Water quality**

The recommended plans, Alternative 1, could potentially result in moderate, temporary, construction related adverse impacts to water quality from sediment runoff from construction activities. Best Management Practices would be employed to minimize the introduction of sediment, fuel, petroleum products, or other deleterious material from entering into the waterway. Such measures would consist of installation of silt fences and other barriers, storing equipment and petroleum products above the ordinary high water mark and away from areas prone to runoff; and ensuring that all equipment is clean and free of leaks. All fill areas would be immediately stabilized with seed and mulch.

Alternative 2 – Repairs resulting from implementation of the alternative plans would result in similar impacts to water quality as alternative 1. As with the recommended alternatives, Best Management Practices would be employed and disturbed areas would be immediately seeded and mulched.

Alternative 3 – Repairs resulting from implementation of the alternative plans would result in similar impacts to water quality as alternative 1. As with the recommended alternatives, Best Management Practices would be employed and disturbed areas would be immediately seeded and mulched.

In the “No Action” Alternative with the absence of the Federal action addressing levee improvements, a high water event could result in the release of a variety of industrial chemicals and substantially impact the natural and human environment within the project area. Avoiding repair actions could result in erosion and adverse impacts to water quality from increased levels of nutrient loading and wastes, including runoff of pollutants from industrial sources, petroleum products, and non-point sources of human and animal wastes.

### **Fish and wildlife**

The recommended plans, Alternative 1, would result in minor, temporary, construction related adverse impacts to wildlife resources. The impacts to wildlife resources would be related to noise and visual disturbance during the construction activity. Minor short-term impacts to

fishery resources would be expected to occur as a result of sediments from construction activities. The use of Best Management Practices will minimize impacts.

Alternative 2 – Repairs resulting from implementation of the alternative plans would result in similar impacts as described above.

Alternative 3 – Repairs resulting from implementation of the alternative plans would result in similar impacts as described for Alternative 1.

The “No Action” Alternative would have minimal effects on fish and wildlife resources. These impacts would arise from flooding within the now less unprotected area. Wetland species may benefit as more frequent flooding could occur. Wetlands would likely recharge more often since they are now better hydrologically connected to the creek and river systems. Other terrestrial organisms could be temporarily displaced or have their habitat degraded by flooding.

### **Threatened and Endangered Species**

The recommended plans would have no adverse effects on any Federally-listed threatened or endangered species or their habitat. Whooping cranes (*Grus americana*) are migratory and typically only use areas in Kansas for resting, feeding, or roosting during migration between their nesting and wintering areas. They typically use croplands, large palustrine wetlands, or submerged sandbars on large unobstructed channels during migration. No work is proposed within these habitat types. Therefore this alternative would not likely effect any Federally-listed threatened or endangered species or their habitat. No impacts to any state listed threatened or endangered species or their habitat were identified.

Alternative 2 – Repairs resulting from implementation of the alternative plans would not likely effect any Federally-listed threatened or endangered species or their habitat for the same reasons as described above. Additionally, no impacts to any state listed threatened or endangered species or their habitat were identified.

Alternative 3 – Repairs resulting from implementation of the alternative plans would not likely effect any Federally-listed threatened or endangered species or their habitat for the same reasons as described above. Additionally, no impacts to any state listed threatened or endangered species or their habitat were identified.

The “No Action” Alternative would have no adverse effects on any Federally-listed threatened or endangered species or their habitat. No impacts to any state listed threatened or endangered species or their habitat were identified.

### **Vegetation**

The recommended plans, Alternative 1, would result in no impacts to woodland resources. Areas to be impacted during construction contain a mixture of native and non-native grasses and forbs that are mowed frequently as part of routine maintenance of the levee system. All areas disturbed will be seeded and mulched to reestablish vegetative cover.

Alternative 2 – Repairs resulting from implementation of the alternative plans would result in similar impacts to vegetative resources as those described above.

Alternative 3 – Repairs resulting from implementation of the alternative plans would result in similar impacts to vegetative resources as those described for Alternative 1.

The “No Action” Alternative - If the levees are not repaired, additional erosion of levees would be expected. This would lead to more exposed soil eventually leading to establishment by pioneering vegetative species.

### **Wetlands**

The recommended plans would have no adverse effects on wetlands. Construction activities will take place within the Ordinary High Water Mark of the Dry Creek channel. Channel and levee slopes will be regarded and stabilized and a grade control structure will be installed to prevent future bed degradation. Steam channel will be brought back to its pre-protection design. Disturbed areas will be seeded and mulched to prevent future erosion. Impacts to waters of the U.S. would fall within the guidelines of General Permit Number NWK GP-41.

Alternative 2 – Repairs resulting from implementation of the alternative plans would have no adverse effects on wetlands and similar impacts to streams as Alternative 1.

Alternative 3 – Repairs resulting from implementation of the alternative plans would have no adverse effects on wetlands and similar impacts to streams as Alternative 1.

The “No Action” Alternative could result in benefits to wetlands located behind the damaged levees as these areas would be subject to a new level of future flooding.

### **Archeological and Historical Resources**

The recommended plans would have no impact to sites listed on or eligible for inclusion on the National Register of Historic Places (NRHP). A background check of the NRHP and site location maps found no properties listed on the NRHP within or near the proposed project area. If in the unlikely event that archeological material is discovered during project construction, work in the area of discovery will cease, the discovery would be investigated by a qualified archeologist, and the find would be coordinated with SHPO and the Tribes.

Alternatives 2 – Repairs resulting from implementation of the alternative plans would result in no effects to archaeological or historical resources.

Alternatives 3 – Repairs resulting from implementation of the alternative plans would result in no effects to archaeological or historical resources.

The “No Action” Alternative would result in no effects to archaeological or historical resources.

## **Floodplain**

The recommended plans would restore an approximately 200-year level of flood protection to the existing Salina Levee Unit federal levee system. The area is located in the base floodplain and is subject to Executive Order 11988, "Floodplain Management". As the recommended plans would not directly or indirectly support more development in the floodplain or encourage additional occupancy and/or modify of the base floodplain, the Corps has determined that the recommended plans comply with the intent of Executive Order 11988.

Alternative 2 – Repairs resulting from implementation of the alternative plans would result in similar protections as described above for the recommended plans.

Alternative 3 – Repairs resulting from implementation of the alternative plans would result in similar protections as described above for the recommended plans.

The "No Action" Alternative would continue to expose all public and private infrastructure and agricultural croplands to a higher risk level of future flooding.

## **Economics**

With the implementation of the recommended plans, the levees would be restored to a 200-year level of flood protection. Public and private infrastructure and agricultural croplands protected by the levee prior to the flood damage would continue to be protected against a 200-year flood event. Economic conditions are unlikely to change from those of pre-damage levee conditions with the repair of this levee system.

Alternative 2 – Repairs resulting from implementation of the alternative plans would result in similar protections as described above for the recommended plans. However, this alternative is less cost effective than the recommended plans due to the marginal increase in cost associated with using rock fill.

Alternative 3 – Repairs resulting from implementation of the alternative plans would result in similar protections as described above for the recommended plans. However, this alternative is less cost effective than the recommended plans due to the marginal increase in cost associated with using geogrid reinforcement.

The "No Action" Alternative has a zero benefit to cost ratio and would continue to expose all public and private infrastructure and agricultural croplands previously protected by the levee to a higher risk level of future flooding. People's livelihood and social well-being would remain in turmoil, subject to the continuous threat of flooding until the level of flood protection is restored. Failure to reconstruct the levee could adversely affect the tax base of the counties and municipal governments and special districts, such as school districts. In addition, loss of jobs and potential losses in agricultural production on lands protected by the levee would also be incurred.

## **Aesthetics**

The recommended plans would result in minor and temporary adverse aesthetic impacts associated with the construction activity. Those affected by the project are the residences and businesses near the project site and those travelling on the roads adjacent the project site. Upon completion of the project, any aesthetic impact of the project would be similar to the original levee.

Alternative 2 – Repairs resulting from implementation of the alternative plans would result in impacts similar to those described above.

Alternative 3 – Repairs resulting from implementation of the alternative plans would result in impacts similar to those described for Alternative 1.

The “No Action” Alternative would have no effect on aesthetics.

## **Section 10: SUMMARY OF ENVIRONMENTAL EFFECTS OF THE NON-RECOMMENDED PLANS**

Alternatives 2 and 3 have not been recommended because, although they would have similar effects to the environment as the Recommended Plans; they would provide lower economic benefits than the recommended plans.

The “No Action” Alternative has not been recommended because it would not meet the project purpose and need of rehabilitating the damaged flood damage reduction project to its original condition and therefore restoring its associated social and economic benefits. The “No Action” Alternative would have no permanent or temporary construction related impacts. This alternative would continue to expose all public and private infrastructure and agricultural croplands previously protected by the levee prior to a high level risk of future flooding. People’s livelihood and social well-being would remain in turmoil, subject to the continuous threat of flooding until the proposed level of flood protection is restored. Failure to reconstruct the levee could adversely affect the tax base of the county and municipal governments. In addition, damage to residences and businesses, and loss of jobs and potential losses in agricultural production on lands protected by the levee would also be incurred.

## **Section 11: CUMULATIVE IMPACTS**

The combined incremental effects of human activity are referred to as cumulative impacts (40 CFR 1508.7). While these incremental effects may be insignificant on their own, accumulated over time and from various sources, they can result in serious degradation to the environment. The cumulative impact analysis must consider past, present, and reasonably foreseeable actions in the study area. The analysis must also include consideration of actions outside of the Corps, to include other State and Federal agencies. As required by NEPA, the Corps has prepared the following assessment of cumulative impacts related to the alternatives being considered in this EA.

Historically, the Missouri River and its floodplain has been altered by bank stabilization, dams on the river and its tributaries, roads/bridges, agricultural and urban levees, channelization, farming, water withdrawal for human and agricultural use, urbanization and other human uses. These activities have substantially altered the terrestrial and aquatic ecosystem within the Missouri River watershed.

The Corps, which administers Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, has issued and will continue to evaluate permits authorizing the placement of fill material in the Waters of the United States and/or work on, in, over or under a navigable water of the United States including the Missouri River and its tributaries. These projects typically result in minor impacts to the aquatic ecosystem. The Corps, under the authority of the Public Law 84-99 Levee Rehabilitation and Inspection Program, has and will continue to provide rehabilitation assistance to Federal and non-Federal levee sponsors along the Missouri River which participate in the Public Law 84-99 Program. These projects typically result in minor short term construction related impacts to fish and wildlife and the habitats upon which they depend. Resources typically affected by this type of project generally include, but are not limited to, wetlands, flood plain values, water quality, and fish and wildlife habitat.

Of the reasonably foreseeable projects and associated impacts that would be expected to occur, further urbanization of the floodplain will probably have the greatest impact on these resources in the future.

The proposed action would involve restoring the levee unit damaged during the May 2007 flood to its pre-protection levels. This project would result in minor, short term impacts to wildlife and the habitats upon which they depend. However, these minor construction-related impacts would be greatly offset by restoring the flood risk management capability and its associated social and economic benefits of the existing levee system. In addition, this project would not result in an addition to flood heights or a reduced floodplain area. Thus, no significant cumulative impacts associated with the proposed rehabilitation of the existing levee system have been identified.

## **Section 12: MITIGATION**

The recommended plans would result in no impacts to mitigable resources as defined in USACE planning regulations or under Section 404 of the Clean Water Act. Therefore, no mitigation measures are warranted or proposed.

## **Section 13: COMPLIANCE WITH ENVIRONMENTAL QUALITY STATUTES**

The Compliance with Designated Environmental Quality Statutes that have not been specifically addressed earlier in this report is covered in Table 2. Additional information is listed for the most pertinent statutes following the table.

**Table 2**  
**Compliance of Environmental Statutes**

<b>Federal Polices</b>	<b>Compliance</b>
Archeological Resources Protection Act, 16 U.S.C. 470, et seq.	Full Compliance
Clean Air Act, as amended, 42 U.S. C. 7401-7671g, et seq.	Full Compliance
Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251, et seq.	Full Compliance
Coastal Zone Management Act, 16 U.S.C. 1451, et seq.	Not Applicable
Endangered Species Act, 16 U.S.C. 1531, et seq.	Full Compliance
Estuary Protection Act, 16 U.S.C. 1221, et seq.	Not Applicable
Federal Water Project Recreation Act, 16 U.S.C. 4601-12, et seq.	Full Compliance
Fish and Wildlife Coordination Act, 16 U.S.C. 661, et seq.	Full Compliance
Land and Water Conservation Fund Act, 16 U.S.C. 4601-4, et seq.	Not Applicable
Marine Protection Research and Sanctuary Act, 33 U.S.C. 1401, et seq.	Not Applicable
National Environmental Policy Act, 42 U.S.C. 4321, et seq.	Full Compliance
National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470a, et seq.	Full Compliance
Rivers and Harbors Act, 33 U.S.C. 403, et seq.	Full Compliance
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq.	Full Compliance
Wild and Scenic River Act, 16 U.S.C. 1271, et seq.	Not Applicable
Farmland Protection Policy Act, 7 U.S.C. 4201, et. seq.	Full Compliance
Protection & Enhancement of the Cultural Environment (Executive Order 11593)	Full Compliance
Floodplain Management (Executive Order 11988)	Full Compliance
Protection of Wetlands (Executive Order 11990)	Full Compliance
Environmental Justice (Executive Order 12898)	Full Compliance

**NOTES:**

- a. Full compliance. Having met all requirements of the statute for the current stage of planning (either preauthorization or postauthorization).
- b. Partial compliance. Not having met some of the requirements that normally are met in the current stage of planning.
- c. Noncompliance. Violation of a requirement of the statute.
- d. Not applicable. No requirements for the statute required; compliance for the current stage of planning.

Clean Water Act, Section 404 and 401

Impacts below the ordinary high water mark of the stream channel to bring the channel back to pre-protection design are in compliance with General Permit NWK GP-41.

Clean Water Act, Section 402

A NPDES permit has been received from the Kansas Department of Health and Environment (KDHE) and is located in Appendix II.

Endangered Species Act, Section 7

The Corps of Engineers has made a determination that no impacts to any federally listed threatened or endangered species or their habitat would occur with the project action. Coordination of ESA would be completed upon review of this EA and concurrence of this determination with the USFWS.

National Historic Preservation Act

No sites listed on or eligible for listing on the National Register of Historic Places are located within or near the proposed project area. The Kansas State Historic Preservation Office (SHPO) sent a letter dated June 4, 2008 concurring the no effect finding (see Appendix II).

**Section 14: CONCLUSION & RECOMMENDATION**

The flood risk management level achieved by the recommended plans would be the same as the original pre-flood levees. The proposed action would involve restoring the levee unit damaged during the May 2007 flood to its pre-protection level. This project would result in minor, short term impacts to wildlife and the habitats upon which they depend. The proposed project would result in minor, short-term impacts to water quality associated with construction activities. The proposed action would have no impact to sites listed on or eligible for inclusion on the National Register of Historic Places. Overall, the minor to moderate impacts associated with this project are outweighed by the long-term social and economic benefits.

**Section 15: PREPARERS**

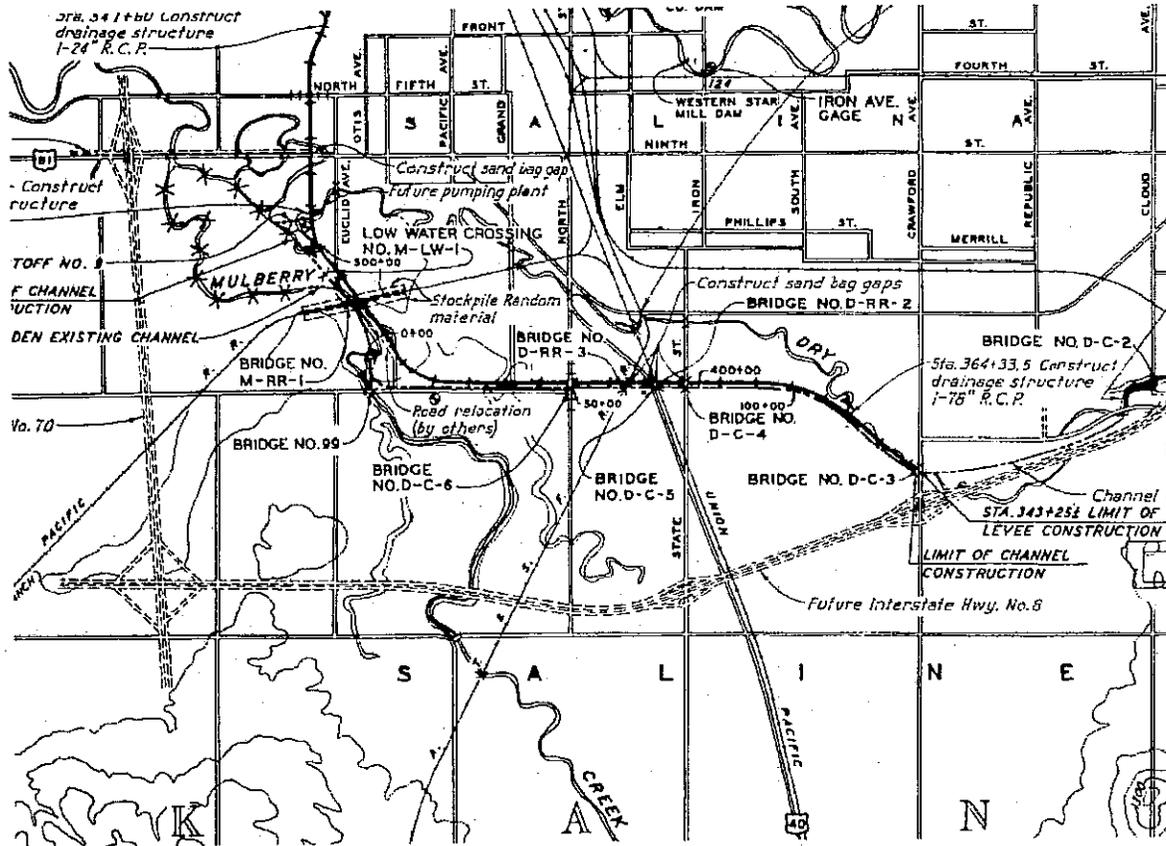
This EA and the associated draft FONSI were prepared by Mr. Curtis R Hoagland (Environmental Resource Specialist). The address of the preparer is: U.S. Army Corps of Engineers, Kansas City, District; PM-PR, Room 843, 601 E. 12th St, Kansas City, MO 64106.

# **APPENDIX I – PROJECT MAPS**

*City of Salina  
P.L. 84-99 Levee Rehabilitation Project  
Saline County, Kansas*

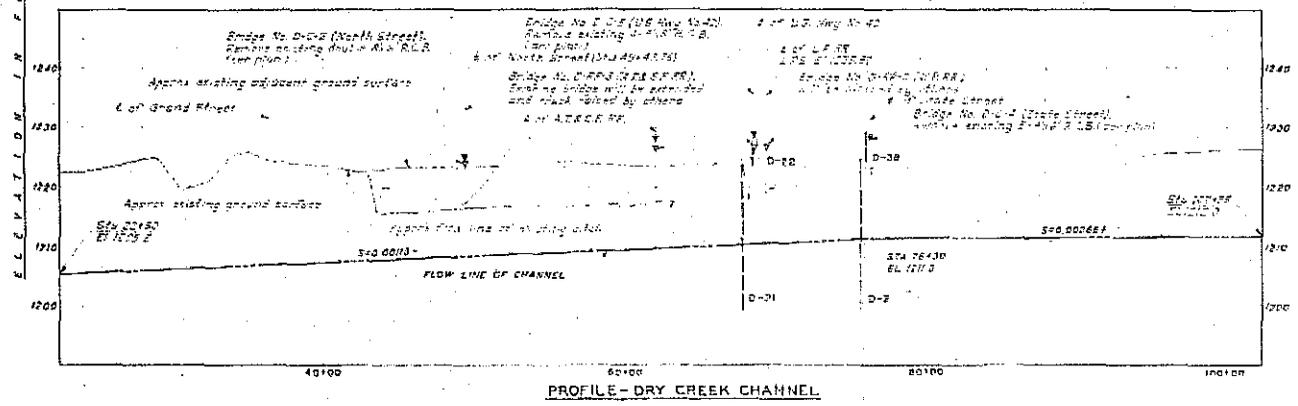
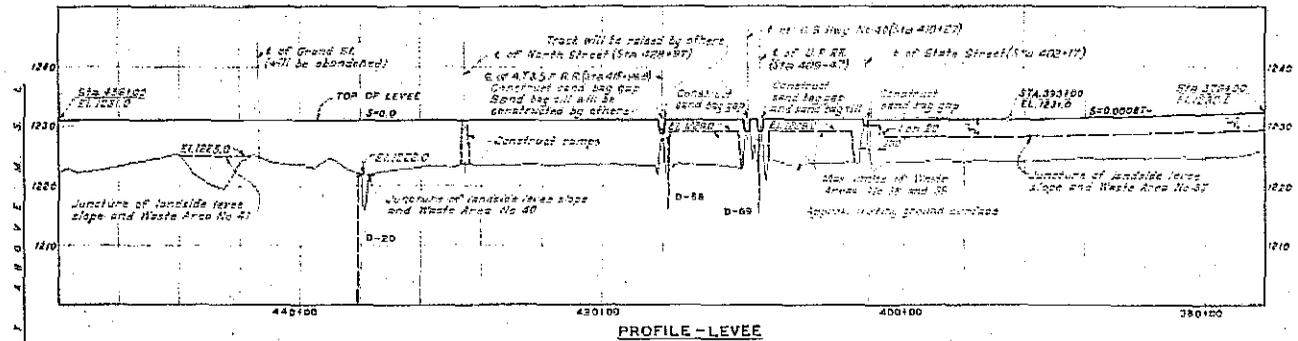


**ATTACHMENT B - Project Location and Vicinity Map**  
**Section IV : Scour Along Dry Creek - Station 428+00 to Station 450+00**



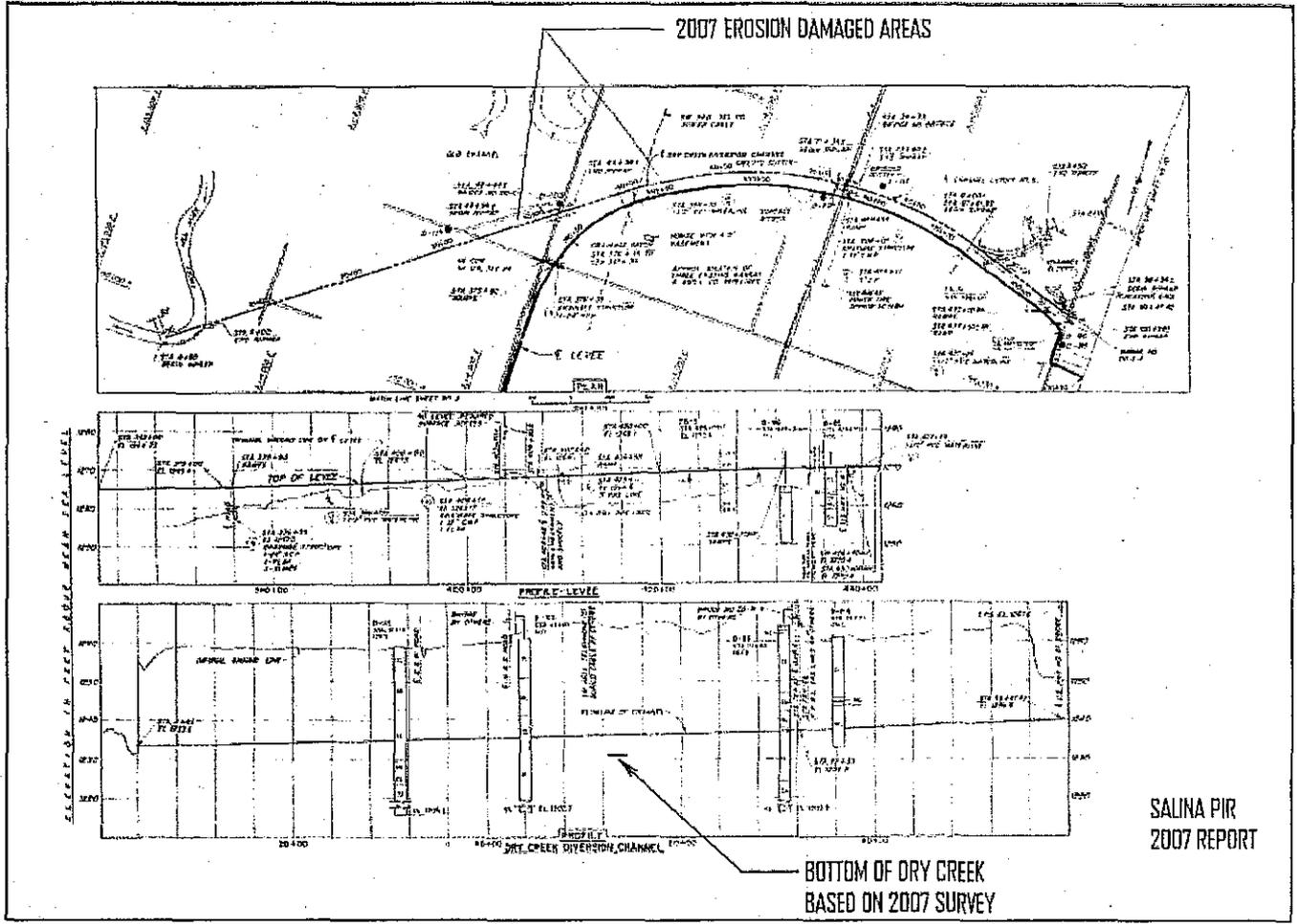


ATTACHMENT B - Section IV : Scour Along Dry Creek - Station 428+00 to Station 450+00





ATTACHMENT B - Section II : Scour Along Dry Creek – Channel Station 40+00 and Station 53+00



## **APPENDIX II - NEPA REVIEW**

*City of Salina  
P.L. 84-99 Levee Rehabilitation Project  
Saline County, Kansas*

# KANSAS

KSR&C No. 08-06-027

Kansas State Historical Society  
Cultural Resources Division

KATHLEEN SEBELIUS, GOVERNOR

June 4, 2008

David R. Hibbs  
Department of the Army  
KC District, Corps of Engineers  
700 Federal Building  
Kansas City MO 64106-2896

RE: Emergency Levee Rehabilitation Project  
City of Salina  
Saline County

Dear Mr. Hibbs:

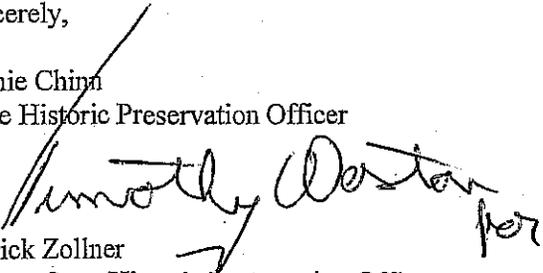
The Kansas State Historic Preservation Office has reviewed its cultural resources files for the area of the above referenced project in accordance with 36 CFR 800. The project as proposed should have no effect on properties listed on the National Register of Historic Places or otherwise identified in our files. This office has no objection to implementation of the project.

Any changes to the project area that 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 785-272-8681 (ex. 214). Please refer to the Kansas Review & Compliance number (KSR&C#) above on all future correspondence relating to this project.

Sincerely,

Jennie Chin  
State Historic Preservation Officer

  
Patrick Zollner  
Deputy State Historic Preservation Officer



Kathleen Sebelius, Governor  
Roderick L. Bremby, Secretary

DEPARTMENT OF HEALTH  
AND ENVIRONMENT

[www.kdheks.gov](http://www.kdheks.gov)

Division of Environment

Re: Construction Stormwater Permit  
Kansas Water Pollution Control General Permit No. S-MCST-0701-1

Dear Permittee:

Enclosed is the authorization to discharge stormwater runoff under the construction stormwater general permit at the construction site described therein. Please retain a copy of your authorization for future reference and submit, if appropriate, a copy to the local municipal separate storm sewer system.

Because this authorization to discharge obligates the permittee to meet permit requirements, we ask that you review the construction stormwater general permit carefully. The construction stormwater general permit, application forms, instructions and other forms are available on the KDHE Stormwater Website at [www.kdhe.state.ks.us/stormwater](http://www.kdhe.state.ks.us/stormwater). Paper copies are also available upon request.

A \$60 annual permit fee will be due each year for the duration of the project. In accordance with K.A.R. 28-16-56(b)(5) the general permit fee must be paid annually to maintain coverage under the construction stormwater general NPDES permit. You will receive an invoice approximately 30 days prior to the anniversary date of your permit. When submitting the annual permit fee, please reference the permit number and include the invoice so that we can apply it to the appropriate permit. Checks for the annual fees should be made payable to KDHE. In order to ensure that the appropriate person is notified of the annual permit fee, please notify KDHE of any change in address or contact information.

Once the construction has been completed and final stabilization has been achieved, please submit a Notice of Termination (NOT). After KDHE has authorized the NOT, permit coverage is terminated and the annual general permit fee is no longer required.

For projects with multiple phases, only those included on the NOI addressed by this authorization will be covered. Additional phases will need to have an NOI submitted and authorized.

If you have any questions regarding the enclosed authorization to discharge, or coverage under the general permit, please contact me at (785) 296-5545 or by email at [dgeisler@kdhe.state.ks.us](mailto:dgeisler@kdhe.state.ks.us).

Sincerely,

Dorothy I. Geisler  
Stormwater Coordinator  
Industrial Programs Section  
Bureau of Water

Enclosures



See Attached Sheet for Instructions

NOTICE OF INTENT (NOI)
For Authorization to Discharge Stormwater Runoff from Construction Activities
In accordance with the Kansas Water Pollution Control General Permit
Under the National Pollutant Discharge Elimination System

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form requests authorization for coverage under the Kansas Water Pollution Control general permit, or KDHE issued successor permits, issued for stormwater runoff from construction activities in the State of Kansas. Becoming a permittee obligates the discharger to comply with the terms and conditions of the general permit. Completion of this NOI does not provide automatic coverage under the general permit. Coverage is provided and discharge permitted when the Kansas Department of Health and Environment (KDHE) authorizes the discharge of stormwater runoff from the construction activities identified on the NOI and supporting documentation. A signed and dated copy of the first page of the NOI indicating the Authorization will be provided to the owner or operator, or all three pages for Conditional Authorizations. Upon authorization of the construction activity discharge, a Kansas permit number and a Federal permit number will be assigned to the construction project. A complete request for Authorization for coverage under the general permit must be submitted or the request will not be processed (see listing on Page 3 of this NOI). KDHE will notify owners or operators whose Notice of Intent (NOI) and supporting documentation for Authorization of stormwater runoff associated with construction activities are incomplete, deficient, or denied. Please Print or Type.

I. OWNER OR OPERATOR ADDRESS & RECORD LOCATION INFORMATION

Owner or Operator's Name: Eugene Jud Kneuvean
Company Name: US Army Corps of Engineers
Owner or Operator's Phone: 816-389-3281
Mailing Address: Rm. 164, Fed Bldg, 601 E. 12th St
City: Kansas City State: MO Zip Code: 64106
Billing Contact Name: Eugene Jud Kneuvean
Billing Address (if different):
City: State: Zip Code:

II. SITE INFORMATION

A. LOCATION

Project Name: Salina Levee Unit - Levee Rehabilitation
Street Address: North Street @ Section IV, Salina Lev. Sta. 430700
City: Salina State: KS Zip Code: 67401

B. LEGAL SITE DESCRIPTION

QTR, QTR, QTR, Section 2
14 South 3 Range
County: Saline
2nd area: T 15S R 2W, 3W Sec. 19, 24

For Official Use Only:

Form with RECEIVED stamp, BUREAU OF WATER, KS Permit No. S-SH33-0067, Federal Permit No. KSR 105050, and signature of David J. Conroy.

To receive a hard copy of the general permit packet, check yes: [ ] Y; [ ] N

Send completed 3 page NOI form with original signature to:

KDHE Contact Information:

Kansas Department of Health and Environment
Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612-1367

Phone: (785) 296-5545
E-mail: stormwater@kdhe.state.ks.us

Project: Salina Levee Unit- Levee Rehabilitation  
U.S. Army Corps of Engineers

#### Threatened and Endangered Species

The Corps of Engineers (COE) made an inquiry to the U.S. Fish and Wildlife Service (USFWS) and Kansas Department of Wildlife and Parks (KDWP) for federally and state-listed threatened and endangered species within the project boundaries and receiving waters on December 3, 2007 and January 4, 2008, respectively.

Both KDWP and USFWS agencies concurred with the COE's determination that the proposed levee repairs in Salina, Kansas would not significantly affect any state or federally-listed threatened or endangered species (see enclosures). Further coordination with the USFWS and KDWP will be made during the public review period scheduled in 2008.

Lekesha W. Reynolds  
Biologist,  
U.S. Army Corps of Engineers, Kansas City District

Re FW TE Coordination for Saline County

From: Susan\_Blackford@fws.gov  
Sent: Tuesday, January 08, 2008 9:39 AM  
To: Reynolds, Lekesha W NWK  
Cc: Susan\_Blackford@fws.gov  
Subject: Re: FW: T&E Coordination for Saline County

Lekesha,

I agree with your determination that the levee repair project in Saline County, KS is not likely to affect the whooping crane (*Grus americana*), federally listed as endangered.

Susan Blackford

Susan Blackford  
U.S. Fish and Wildlife Service  
2609 Anderson Ave.  
Manhattan, KS 66502  
785-539-3474 ext. 102  
susan\_Blackford@fws.gov

"Reynolds,  
Lekesha W NWK"  
<lekesha.w.reynol  
ds@usace.army.mil  
>

<Susan\_Blackford@fws.gov>

To

cc

01/04/2008 02:02  
PM

subject  
FW: T&E Coordination for Saline  
County

Susan,

Here is the info I need you to address for Saline county.

Saline County:

Project Description: The May 07 high stages on Dry Creek has damaged the channel and eroded the levee. Repairs to the channel and levee involve regrading/reconstruction of the damaged areas.

Please determine whether any Federally-listed endangered species habitat is located within the site boundary or in the receiving water body.

Receiving waterbody: Dry Creek, Mulberry Creek

T 14S  
R 3W  
Section 2

2nd site:  
T15S,

# PUBLIC NOTICE



US Army Corps  
of Engineers  
Kansas City District

Permit No. GP-41 (2007-2078)  
Issue Date: March 21, 2008

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STATES OF MISSOURI AND KANSAS - Including INDIAN COUNTRY  
ISSUANCE OF GENERAL PERMIT (GP) 41  
FLOOD RECOVERY AND REPAIR ACTIVITIES

The U.S. Army Corps of Engineers, Kansas City District **HAS ISSUED** GP-41 (copy enclosed) for protection and repair of existing flood damaged structures, damaged land areas and damaged fills, under authority of Section 10 of the Rivers and Harbors Act of 1988 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

**Duration of this General Permit:** This GP is issued and is in effect for five (5) years, from March 21, 2008 until March 21, 2013, unless revoked or specifically extended.

**Notification Procedures (Post and Preconstruction):** Preconstruction notification is required by the General Public for all activities involving obtaining borrow from forested wetlands, borrowing material from potential migratory bird nesting areas, clearing trees along stream channels, working in areas with known exotic species, and/or if the proposed repair activity includes restoration of a stream channel back to the original, pre-flood location. Other authorized activities that meet the terms and limits of this GP may proceed without preconstruction notification to the Corps of Engineers. However, post construction reporting is required for all activities undertaken under this GP. See GP Special condition "d" and Appendix I for more information on notification requirements.

**APPLICANT:** General Public

**PROJECT LOCATION:** In waters of the United States in the States of Missouri and Kansas, including Indian Country within Kansas boundaries that are declared flood disaster areas by the Governor of either state and/or the President of the United States of America.

**AUTHORITY:** Section 10 of the Rivers and Harbors Act of 1988 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

**ACTIVITY:** Excavation or placement of fill material for protection and/or repair of existing flood damaged structures, damaged land areas and/or damaged fills as follows: a. Repair of levees to existing elevations and cross-section, including breach closures and borrow operations, b. Bridge embankment protection (armoring) and/or repair, c. Repair of pre-existing highway or railroad embankments and the addition or repair of stone (armoring) protection, d. Repair of pre-existing utility protection structures, e. Placement of rock and/or earth materials for stream/ditch bank protection and/or stream/ditch bank restoration, f. Drainage channel/ditch restoration to

pre-flood capacity and flow line unless the flow line must be altered due to other damage associated with the flood event, g. Restoration of creek channels to pre-flooding alignment and capacity, and h. Construction of temporary roads and temporary fills to facilitate the completion of any of the listed activities.

Note: Maintenance of existing flood damaged structures and/or flood damaged fills, which have been previously authorized, may be authorized by Nationwide Permit No. 3 or exempted by Part 323.4 of Federal regulations 33 CFR 320-331. The repair of uplands damaged by storms, floods or other discrete events may be authorized by Nationwide Permit No. 45 upon notification and review by the appropriate Corps of Engineers District, Regulatory Branch.

**INDIAN COUNTRY:** Work under this permit is not authorized in Indian Country until the applicant obtains individual Section 401 Water Quality Certification from the U.S. Environmental Protection Agency (EPA), Region VII, Watershed Planning and Implementation Branch, 901 North 5<sup>th</sup> Street, Kansas City, Kansas 66101 (913-551-7003).

EPA may issue programmatic water quality certification during the authorization period of this permit which ends December 31, 2013. If issued, the Corps of Engineers will announce by public notice and post that certification to the Regulatory Program webpage: <http://www.nwk.usace.army.mil/regulatory/regulatory.htm>.

**SECTION 401 WATER QUALITY CERTIFICATION:** Conditions of any individual or programmatic Section 401 Water Quality Certifications issued by the Missouri Department of Natural Resources (MDNR - for Missouri), Kansas Department of Health and Environment (KDHE - for Kansas), and EPA (for Indian Country) are conditions of this GP. General Condition 5 of the GP states: "If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit."

**ADDITIONAL INFORMATION:** Additional information about this general permit may be obtained by contacting Mr. Douglas R. Berka, Regulatory Project Manager, Kansas City District Regulatory Branch (ATTN: OD-R) 700 Federal Building, Kansas City, Missouri 64106, at 816-389-3657 or via email at [Douglas.R.Berka@usace.army.mil](mailto:Douglas.R.Berka@usace.army.mil). All inquiries concerning this public notice should be directed to the above address.

Enclosure

## DEPARTMENT OF THE ARMY PERMIT

Permittee General Public

Permit No. NWK GP-41

Issuing Office U.S. Army Corps of Engineers, Kansas City District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** To excavate or place fill material for protection and/or repair of existing flood damaged structures, damaged land areas and/or damaged fills as follows:

- a. Repair of levees to existing elevations and cross-section, including breach closures and borrow operations
- b. Bridge embankment protection (armoring) and/or repair
- c. Repair of pre-existing highway or railroad embankments and the addition or repair of stone (armoring) protection
- d. Repair of pre-existing utility protection structures
- e. Placement of rock and/or earth materials for stream/ditch bank protection and/or stream/ditch bank restoration
- f. Drainage channel/ditch restoration to pre-flood capacity and flow line unless the flow line must be altered due to other damage associated with the flood event
- g. Restoration of creek channels to pre-flooding alignment and capacity
- h. Construction of temporary roads and temporary fills to facilitate the completion of any of the listed activities

Note: Maintenance of existing flood damaged structures and/or flood damaged fills, which have been previously authorized, may be authorized by Nationwide Permit No. 3 or exempted by Part 323.4 of Federal regulations 33 CFR 320-331. The repair of uplands damaged by storms, floods or other discrete events may be authorized by Nationwide Permit No. 45 upon notification and review by the appropriate Corps of Engineers District, Regulatory Branch.

**Project Location:** In Waters of the United States, (rivers, lakes, streams, and wetlands) within the State of Kansas, including Indian Country, and within the State of Missouri that are declared flood disaster areas by the Governor of either state and/or the President of the United States.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2013. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

See continuation sheets, pages 4, 5, and 6 of this document.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(x) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

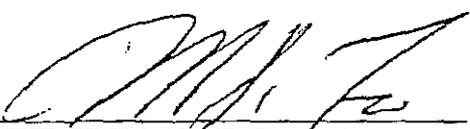
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

*General Public – Signature Not Required*

\_\_\_\_\_  
(PERMITTEE)

\_\_\_\_\_  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
\_\_\_\_\_  
(DISTRICT COMMANDER)

ROGER A. WILSON, JR.

BY: MARK D. FRAZIER

Chief, Regulatory Branch  
Operations Division

21 March 2008

\_\_\_\_\_  
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)

**Special Conditions:**

- a. You must sign and return the attached "Compliance Certification" after the authorized work and any required mitigation is completed. Your signature will certify that you completed the work in accordance with this permit, including the general and the special conditions, and that any required mitigation was completed in accordance with the permit conditions.
- b. (Activities occurring in navigable waters under Section 10 of the Rivers and Harbors Act of 1899 Only) 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 of Engineers, 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.
- c. If any part of the authorized work is performed by a contractor, before starting work you must discuss the terms and conditions of this permit with the contractor; and, you must give a copy of this entire permit to the contractor.
- d. You must contact the Corps of Engineers, submit application materials outlined in Appendix I, and you must submit a mitigation plan prior to completing any flood recovery/repair activity when the repair involves obtaining borrow from forested wetland, borrowing material from potential migratory bird nesting areas, clearing trees along stream channels, working in areas with known exotic species, and/or if the proposed repair activity includes restoration of a stream channel back to the original, pre-flood location. All other flood repair activities, including all repairs supervised by the Corps of Engineers, pursuant to Public Law 84-99 and/or all repairs supervised by the United States Department of Agriculture, pursuant to the Emergency Water Shed Protection Program or to the Emergency Conservation Program can be completed without pre-construction notification to the Corps of Engineers. However, all completed flood repair work, authorized by this permit, must be reported to the Corps of Engineers, Regulatory Branch, within 60 days of completing the project. The report must include the location of the work, as-built drawings of the structure(s) and/or fill(s), and a discussion of the avoidance and minimization measures incorporated into the project and mitigation measures employed.
- e. You must NOT dredge or excavate from the Missouri River or from the Kansas River in order to obtain borrow material for any flood repair project authorized by this permit.
- f. You must employ measures to prevent spilled fuels, lubricants, excessive suspended solids including dredged material, and/or wet concrete from entering the waters of the United States and formulate a contingency plan to be effective in the event of a spill.
- g. You must use clean, uncontaminated materials for fill in order to minimize excessive turbidity by leaching of fines, as well as to preclude the entrance of deleterious and/or toxic materials into the waters of the United States by natural runoff or by leaching. Use of small aggregate material less than 20 lbs per aggregate, such as creek gravel, for stabilization and erosion control is prohibited.
- h. You must excavate or fill in the watercourse so as to minimize increases in suspended solids and turbidity which may degrade water quality and damage aquatic life outside the immediate area of operation. Activities should be conducted during low water periods and outside major spawning season for fish, unless a waiver is obtained from the Corps of Engineers. Crossings of waterways and use of construction machinery in waterways should be limited to the minimum extent necessary.
- i. You must immediately remove and properly dispose of all debris during every phase of the project in order to prevent the accumulation of unsightly, deleterious and/or toxic materials in or near the water body. All construction debris must be disposed of in an upland site, outside the floodplain, and in such a manner that it cannot enter into a waterway or into a wetland.
- j. You must store all construction materials, equipment, and/or petroleum products, when not in use, above anticipated high water levels.

Special Conditions (continued):

- k. You must restrict the clearing of timber and other vegetation to the absolute minimum required to accomplish the work. You must avoid the removal of mature trees to prevent potential impacts to bald eagle roost sites. Work should be limited to one side of the channel only. However, work from both sides of the channel is permitted if it is demonstrated that it results in minimizing tree clearing. Vegetated riparian buffer areas should be included along both sides of any channel restoration projects. All wooded areas cleared for site access must be allowed to return to forested habitat. Mitigation may be required for other timber clearing.
- l. Upon completion of earthwork operations, you must seed, replant or otherwise protect from erosion all fills in the water or on shore, and other areas on shore disturbed during construction. If seeding does not successfully stabilize the disturbed soil areas by the end of the first growing season, you must implement alternate measures, such as placing riprap, slope terracing with untreated railroad ties, gabions or concrete blocks, or additional vegetative plantings, to protect the disturbed areas from further erosion. Clearing, grading, and replanting should be planned and timed so that only the smallest area is in a bare soil condition. You must contact the Corps of Engineers prior to beginning work on any additional erosion control measures so that we can determine if additional authorization is required.
- m. You must dispose of excess concrete and wash water from concrete trucks and other concrete mixing equipment in an upland area above the ordinary high water mark and at a location where the concrete and wash water cannot enter the water body or an adjacent wetland area.
- n. You must not dispose of any construction debris or waste materials below the ordinary high water mark of any water body, in a wetland area, or at any location where the materials could be introduced into the water body or an adjacent wetland as a result of runoff, flooding, wind, or other natural forces.
- o. You must use only graded rock, quarry-run rock and/or clean concrete rubble for riprap. The material must be reasonably well graded, consisting of pieces varying in size from 20 pounds up to and including at least 150 pound pieces. 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. If you use concrete rubble, you must break all large slabs to conform to the well graded requirement, and remove all exposed reinforcement rods, trash, asphalt, and other extraneous materials before you place the rubble in the waters of the United States. Size and gradation requirements can be changed provided approval is received from the Corps' Regulatory Branch prior to placement.
- p. You must completely remove all temporary fills, including sand bags (to the extent practicable), in the Waters of the United States within 30 days of the end of the flood emergency and disposed of in accordance with special condition "h" above, unless the temporary fill is to be incorporated in the final repair of the structure. If sand bags are needed for a longer duration until permanent repairs are made, you must request a waiver of this condition in writing. Temporary construction of levees to protect agricultural land in areas where no levees previously existed, are not authorized.
- q. You must avoid impacts to wetlands to the fullest extent practicable. When wetlands impacts are unavoidable, borrow site selection will be based on the following order of preference: upland (non-wetland) sources, areas riverward of the levee previously used for borrow, open prior converted cropland, farmed wetlands, or other authorized excavation sites. You must mitigate for all unavoidable proposed wetland excavation or fill activities authorized by this permit. You must develop mitigation plans on a case-by-case basis which must be approved by the Corps. This permit does not authorize actions designed to drain or otherwise convert wetlands to other uses, nor actions where a practicable alternative to impacting wetlands is available unless the Corps of Engineers, in consultation with other resource agencies, determine that sediment removal from existing wetlands will restore wetland functions and create valued habitat diversity. All borrow areas should have 5:1 horizontal to vertical side slopes and the water depth should be three feet deep or less under normal circumstances.
- r. You must place all fills and structures such that they do not result in stream channel constriction or in redirection of flows in such a way as to cause upstream or downstream erosion. Channelization projects or shortening of waterways, other than restoration of creek channels to pre-flood alignment, are not authorized.
- s. You must not undertake actions that are likely to jeopardize the existence of a threatened or endangered species or a species proposed for such designation as defined in the Federal Endangered Species Act, nor actions which are likely to destroy or adversely modify the critical habitat of such species. If the project requires the removal of mature trees along stream channels or from forested wetland you must contact the Corps of Engineers prior to any tree clearing activity.

**Special Conditions (continued):**

t. You must avoid activity in the proximity of a property listed in or eligible for listing in the National Register of Historic Places unless, after coordination with the State Historic Preservation Office of the affected state and/or the Advisory Council on Historic Preservation, a determination of "no effect" or "no adverse effect" is made in accordance with criteria established by 36 CFR 800. If an inadvertent discovery of any cultural or archaeological resource occurs you must immediately contact this office and you should suspend work in the area until a determination of eligibility for listing on the National Register of Historic Places is completed and any necessary consultation under Section 106 of the National Historic Preservation Act is completed.

u. You must not undertake any activity that results in a new structure or replacement of a previously authorized structure with an increase in scope or design of the original structure. Small changes that do not affect elevations, such as the reconstruction of a levee around a scour hole at pre-existing elevations, and that do not convert wetland to upland (non-wetland) or a different wetland use beyond what is unavoidable such as to go around a scour hole, may be authorized upon notification to the Corps. Levee breach repairs constructed on new alignments must be setback farther from the stream channel than the original alignment.

v. You must contact the Missouri Department of Natural Resources, Water Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or the Kansas Department of Health and Environment, Bureau of Water, Curtis State Office Building, 1000 Southwest Jackson, Topeka, Kansas 66612, in order to determine the need for a state permit for land disturbance, return water, or other activities that normally require such permits. Use of GP-41 shall not be construed or interpreted to imply the requirements for other permits are replaced or superseded. Any national pollutant discharge elimination system (NPDES) permits, general permits for land disturbance, or other requirements shall be complied with.

w. You must notify the Corps of Engineers if one of the following common exotic species occurs in the project area. The zebra mussel (*Dreissena polymorpha*), Eurasian watermilfoil (*Myriophyllum spicatum*), purple loosestrife (*Lythrum salicaria*), Johnson grass (*Sorghum halepense*), sericia lespedeza (*Lespedeza cuneata*), salt cedar (*Tamarix spp.*), and reed canary grass (*Phalaris arundinacea*). You must take appropriate actions to insure the prevention of the spread of any exotic species. The following best management practice can help prevent the spread of these species. Equipment brought on the project site should be washed to remove dirt, seeds and plant parts. If the equipment has been used in a body of water in the last 30 days it can be washed at a commercial car wash or dried for five or more days before using the equipment in another body of water. In addition, before transporting equipment from the project site visible water, mud, plants and animals should be removed. Waters that the zebra mussel is known to inhabit in Kansas and in Missouri can be found at the following website:

<http://nas.er.usgs.gov/queries/zmbvst.asp>

x. For activities occurring in Indian Country, you must request and obtain individual Section 401 Water Quality Certification from the Environmental Protection Agency (EPA). You may contact the EPA by writing US EPA, Region 7 Tribal Coordinator, 901 North 5th Street, Kansas City, Kansas 66101, or by calling (913) 551-7498. You must receive Section 401 Water Quality Certification, and comply with the conditions of that certification, during performance of any work under this permit. Should EPA issue programmatic certification for this GP during the term of the GP, the Corps will issue a supplemental public notice and General Condition 5 of the permit applies.

## APPENDIX I

### Criteria for Authorization by General Permit NWKGP-41

1. This general permit authorizes activities proposed by the general public, railroads, transportation departments, pipeline and utility companies, and government agencies.
2. If you propose to work under the authority of this General Permit and the project requires preconstruction notification as outlined in special condition "d" of the permit, you must notify the appropriate Corps of Engineers district within 18 months of the end of the flood emergency (when the nearest river gauge drops below flood stage for two months), and receive authorization prior to starting work in the Corps jurisdiction. You must submit the following information:
  - a. A completed application form ENG 4345 or a letter which includes all information required by form ENG 4345. The ENG 4345 is available at: [www.nwk.usace.army.mil/regulatory/regulatory.htm](http://www.nwk.usace.army.mil/regulatory/regulatory.htm)
  - b. You must clearly describe the proposed work so we can clearly and readily determine whether or not the proposed work complies with the General Permit.
  - c. The flood repair activities must be in counties declared disaster areas by the Governor of the State of Kansas, the Governor of the State of Missouri and/or the President of the United States.
  - d. An 8 1/2" x 11" drawing(s) showing the details of the proposed work.
  - e. An 8 1/2" x 11" map with the location of the proposed project clearly marked, including the Section, Township, and Range or the Latitude and Longitude location (decidegrees).
  - f. Discussion of possible alternatives and why they were not selected.
  - g. Also, as project proponent, you must send copies concurrently to the following addresses, but we will not necessarily solicit comments from these agencies. We will give these agencies an opportunity to request that we take discretionary authority to require that you apply for an individual permit, if a potential significant problem is identified.

#### 1. For projects in Missouri contact:

U.S. Fish and Wildlife Service  
Columbia Field Office  
101 Park DeVille Drive, Suite A  
Columbia, Missouri 65203  
(573) 234-2132

Missouri Department of Natural Resources  
Water Pollution Control Branch  
P.O. Box 176  
Jefferson City, Missouri 65102  
1-800-361-4827 or (573) 751-1300

U.S. Environmental Protection Agency  
Watershed Planning and Implementation Branch  
901 North Fifth Street  
Kansas City, Kansas 66101.  
(913) 551-7003

Missouri Department of Natural Resources  
Historic Preservation Program  
P.O. Box 176  
Jefferson City, Missouri 65102  
(573) 751-7958

APPENDIX I (continued)

Missouri Department of Conservation  
Policy Coordination  
P.O. Box 180  
Jefferson City, Missouri 65102-0180  
(573) 522- 5115

\* Federal Emergency Management Agency  
Region VII  
9221 Ward Parkway, Suite 300  
Kansas City, Missouri 64114-3372  
(816) 283-7063

2. For projects in Kansas contact:

U.S. Fish and Wildlife Service  
Manhattan Field Office  
2609 Anderson Avenue  
Manhattan, Kansas 66502  
(785) 539-3474

Kansas Department of Health and Environment  
Bureau of Water  
Curtis State Office Building  
1000 Southwest Jackson Street  
Topeka, Kansas 66612  
(785) 296-1500

Kansas Department of Wildlife and Parks  
512 Southeast 25th Avenue  
Pratt, Kansas 67124  
(620) 672-5911

\* Federal Emergency Management Agency  
Region VII  
9221 Ward Parkway, Suite 300  
Kansas City, Missouri 64114-3372  
(816) 283-7063

\* You must contact FEMA for all proposed development located in the 100-year floodplain of a National Flood Insurance Program (NFIP) participating community in order to comply with local floodplain management regulations and secure a floodplain development permit from that community.

3. For projects not requiring pre-construction notification, a report of the completed repair activities must be submitted that includes the location of the work, as-built drawings of the structure(s) and/or fill(s), and a discussion of the avoidance and minimization measures incorporated into the project and mitigation measures employed.

4. We may reevaluate the cumulative impacts of this general permit at our discretion at any time. We will reevaluate cumulative impacts at least every five (5) years.

5. The following is a list of flood damaged structures, damaged land areas and/or damaged fills authorized to be repaired under this general permit:

- a. Repair of levees to existing elevations, including breach closures and borrow operations
- b. Bridge embankment protection (armoring) or repair
- c. Repair of pre-existing highway and/or railroad embankments and armor protection
- d. Repair of pre-existing utility protection structures
- e. Placement of rock and/or earth materials for emergency bank protection or restoration

APPENDIX I (continued)

- f. Drainage ditch restoration to pre-flood capacity and flow line unless the flow line must be altered due to other damage associated with the flood event
- g. Restoration of creek channels to pre-flooding alignment, capacity and flow line
- h. Construction of temporary haul roads to facilitate any of the above listed activities

6. The District Engineer may require an individual permit on a case-by-case basis for any activity authorized herein.

7. You must complete the authorized work within the five year issuance period of the GP. If you need additional time to complete repairs or if flood damage occurs within the last year of the GP applicants must contact the appropriate Corps District for an extension of the authorization to complete the needed work. Contact should be made at least one month in advance of the GP expiration date.

8. Flood repair activities, supervised by the U. S. Army Corps of Engineers, pursuant to Public Law 84-99, and/or supervised by the United States Department of Agriculture, pursuant to the Emergency Watershed Protection Program or the Emergency Conservation Program, do not require notification to the Corps of Engineers, Regulatory Branch. It is the responsibility of these federal agencies to comply with all environmental laws and Presidential Executive Orders.

COMPLIANCE CERTIFICATION

*Special condition "a" of this permit document requires that you submit a signed certification regarding the completed work and any required mitigation. This certification page satisfies this condition if it is provided to the Kansas City District at the address shown at the bottom of this page upon completion of the project.*

APPLICATION NUMBER: General Permit No. 41 (NWK 2007-02078)

APPLICANT (Enter name and mailing address):

PROJECT LOCATION (Enter latitude & longitude (decidegrees) or Section, Township, and Range, County, State):

- a. I certify that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions.
- b. I certify that any required mitigation was completed in accordance with the permit conditions.
- c. Your signature below, as permittee, indicates that you have completed the authorized project as certified in paragraphs a and b above.

\_\_\_\_\_  
(PERMITTEE)

\_\_\_\_\_  
(DATE)

Return this certification to:

U.S. Army Corps of Engineers  
700 Federal Building  
601 East 12<sup>th</sup> Street  
Kansas City, MO 64106-2896  
ATTN: OD-R



Kathleen Sebelius, Governor  
Roderick L. Bremby, Secretary

DEPARTMENT OF HEALTH  
AND ENVIRONMENT

[www.kdheks.gov](http://www.kdheks.gov)

Division of Environment

January 31, 2008

Mr. Douglas R. Berka  
U.S. Army Corps of Engineers  
Kansas City Field Office; 700 Federal Building  
601 East 12th Street  
Kansas City, Missouri 64106-2896

Section 401 Water Quality Certification

RE: (2007-0078) PROPOSED REGIONAL GENERAL PERMIT NO. 41 FOR EXCAVATION OR PLACEMENT OF FILL MATERIAL FOR THE PERMANENT PROTECTION AND/OR REPAIR OF FLOOD DAMAGED STRUCTURES, DAMAGED LAND AREAS AND/OR DAMAGED FILLS IN THE STATES OF KANSAS AND MISSOURI. PERMITTEES: General Public, Railroads, Transportation Departments, Pipeline and Utility Companies and Government Agencies

Dear Mr. Berka:

The Kansas Department of Health and Environment has received your request for Section 401 Water Quality Certification. The KDHE has determined the project has the following water pollutant discharge sources:

- a. Repair of levees to existing elevations and cross-section, including breach closures and borrow operations
- b. Bridge embankment protection (armoring) or repair
- c. Repair of pre-existing highway or railroad embankments and the addition or repair of stone (armoring) protection
- d. Repair of pre-existing utility protection structures
- e. Placement of rock and/or earth materials for stream/ditch bank protection and/or stream/ditch bank restoration

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>

- f. Drainage ditch restoration to pre-flood capacity and flow line unless the flow line must be altered due to other damage associated with the flood event
- g. Restoration of creek channels to pre-flooding alignment and capacity
- h. Construction of temporary haul roads to facilitate the completion of any of the listed activities

Discharges from these sources if not minimized or otherwise controlled may cause violations of the provisions of Kansas Water Quality Standards found at KAR 28-16-28 et seq.

Pursuant to Section 401 and KAR 28-16-28(c) the Kansas Department of Health and Environment finds this project will not result in a violation of Kansas Water Quality Standards and herewith issues a Water Quality Certification for execution and subsequent operation of the project subject to the following conditions:

- I. 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

**II.**

**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:

Mr. Larry Hook  
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](http://www.kdheks.gov/stormwater)

3. **Project Water Quality Protection Plan:** Any person wishing to use a Section 404 GP 41 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 (2) 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](mailto: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>.

Mr. Douglas R. Berka (GP-41-2007-0078)

January 31, 2008

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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)-A**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)-A**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](http://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. II. 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](http://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 apprise 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 (2) mile upstream or one-half (2) 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 (see [www.kdheks.gov/nps](http://www.kdheks.gov/nps)) once construction is started.

### III. Special Conditions for Specific Nationwide Permits

1. **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. **Maintenance; Utility Line Activities; and -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. **Aquatic Habitat, Restoration, Establishment and Enhancement Activities and 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 II. 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.

#### IV. **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.

**V. 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(11) and KAR 28-16-28f(e).

**VI. 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](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](http://www.kdheks.gov/befs/download/2006_Surface_Water_Register_Maps.pdf)

Surface Water Quality Standards- [http://www.kdheks.gov/water/28\\_16\\_28b\\_a.pdf](http://www.kdheks.gov/water/28_16_28b_a.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](mailto:nps@kdhe.state.ks.us)

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

www.dnr.mo.gov

FEB 25 2008

Colonel Roger A. Wilson, Jr.  
U.S. Army Corps of Engineers  
Kansas City District  
601 E. 12<sup>th</sup> Street, Suite 700  
700 Federal Building  
Kansas City, MO 64106-2896

GP-41 Statewide  
NWKGP-41/PN07-2078/CEK004650

RE: GP 41, All Districts

Dear Colonel Wilson:

The Missouri Department of Natural Resources' Water Protection Program (department) has reviewed Public Notice General Permit (GP) 41 (PN07-588) CEK004650 in which the applicant proposes to issue regional GP-41 to authorize certain discharges of dredged or fill material in conjunction with the permanent protection and/or repair of flood damaged structures, damaged areas, and/or damaged fills in waters of the United States within the states of Missouri and Kansas.

The proposed General Permit would be applicable to all Army Corps of Engineers' Districts in Missouri (Kansas City - 2007-2078/GP-41; Little Rock - 2008-00066/GP-41, Memphis - 2007-588/GP-41; Rock Island - 2007-2061/GP-35; and St. Louis).

These projects are located along the Missouri River throughout Missouri. The Missouri River is a 303(d) listed water and caution shall be exercised not to negatively impact those sections of the river that are already impaired.

This office certifies that the proposed project will not cause the general or numeric criteria to be exceeded nor impair beneficial uses established in the Water Quality Standards, 10 CSR 20-7.031, provided the following conditions are met:

1. This general permit shall not be used for channelization or channel modification purposes.
2. Only the repair of structures due to flood damage are authorized with this permit. The construction of new structures will need additional review and issuance of a separate water quality certification.
3. Representatives from the department shall be allowed to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the letters and conditions of the permit.

4. Care shall be taken to keep machinery out of the waterway as much as possible. Fuel, oil and other petroleum products, equipment and any solid waste shall not be stored below the ordinary high water mark at any time or in the adjacent floodway beyond normal working hours. All precautions shall be taken to avoid the release of wastes or fuel to streams and other adjacent water bodies as a result of this operation.
5. Petroleum products spilled into any water body or on the banks where the material may enter waters of the state shall be immediately cleaned up and disposed of properly.
6. Only clean, nonpolluting fill shall be used. The following materials are not suitable for bank stabilization and shall not be used due to their potential to cause violations of the general criteria of the Water Quality Standards, 10 CSR 20-7.031 (A) – (H):
  - a. Earthen fill, gravel, broken concrete where the material does not meet the specifications outlined below, and fragmented asphalt, since these materials are usually not substantial enough to withstand erosive flows,
  - b. Concrete with exposed rebar;
  - c. Tires, vehicles or vehicle bodies, construction or demolition debris are solid waste and are excluded from placement in the waters of the state;
  - d. Liquid concrete, including grouted riprap, if not placed as part of an engineered structure; and
  - e. Any material containing chemical pollutants (for example: creosote or pentachlorophenol).

Recycled or broken concrete may be used provided that it is 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 shall not be more than 500 pounds. Gravel and dirt shall not exceed 15 percent 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.

Recycled or broken concrete being used simply as fill need not conform to the well-graded requirement. It shall, however, be free from extraneous materials and shall be placed to eliminate voids within the fill.

7. Clearing of vegetation/trees shall be the minimum necessary to accomplish the activity. A vegetated corridor shall be maintained from the high bank on either side of the jurisdictional channel to protect water quality and to provide for long-term stability of the stream channel, unless physical barriers prevent such a corridor.
8. The riparian area, banks, etc., shall be restored to a stable condition to protect water quality as soon as possible. Seeding, mulching and needed fertilization shall be within three days

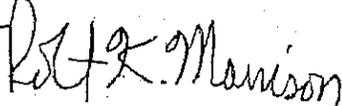
- of final contouring. On-site inspections of these areas shall be conducted as necessary to ensure successful re-vegetation and stabilization, and to ensure that erosion and deposition of soil in waters of the state is not occurring from these projects.
9. Best Management Practices shall be used during construction and/or repair to limit the amount of sedimentation into adjacent water bodies.
  10. Temporary fills shall be removed promptly and the fill site restored immediately following construction.
  11. The attendant Water Quality Certification for this permit shall not be construed or interpreted to imply the requirements for other permits are replaced or superceded. Any National Pollutant Discharge Elimination System (NPDES) Permits, Land Disturbance General Permits, or other requirements shall be complied with.
  12. After avoidance and minimization for projects, impacts must be compensated for. Mitigation for the loss of aquatic stream resources shall be in conformance with the *Missouri Stream Mitigation Method*. This document may be found at the following link:  
[www.mvs.usace.army.mil/permits/permits.asp](http://www.mvs.usace.army.mil/permits/permits.asp).

You may appeal to have the matter heard by the administrative hearing commission. To appeal, you must file a petition with the administrative hearing commission within thirty (30) days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission.

Water Quality Standards must be met during any operations authorized by these permits. If you have any questions, please contact Ms. Carrie M. Schulte of the NPDES Permits and Engineering Section by phone at (573) 751-7023, by e-mail at [carrie.schulte@dnr.mo.gov](mailto:carrie.schulte@dnr.mo.gov), or by mail at Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65109.

Sincerely,

WATER PROTECTION PROGRAM



Robert K. Morrison, P.E., Chief  
Water Pollution Control Branch

RKM:csp

- c: Mr. Bill Goodwin, Missouri Department of Conservation  
Mr. Doyle Brown, Missouri Department of Conservation  
Ms. Janet Sternburg, Missouri Department of Conservation  
Mr. Mike Smith, Missouri Department of Conservation  
Mr. Stuart Miller, Missouri Department of Conservation  
Mr. Doug Berka, Army Corps of Engineers, Kansas City District  
Mr. Keith McMullen, Army Corps of Engineers, St. Louis District  
Mr. Larry Watson, Army Corps of Engineers, Memphis District  
Mr. Wayne Hannel, Army Corps of Engineers, Rock Island District  
Army Corps of Engineers, Kansas City District; MO State Regulatory Office  
Army Corps of Engineers, Kansas City District, Truman Satellite Office  
Army Corps of Engineers, Little Rock District  
Mr. Carl Stevens, U.S. Environmental Protection Agency  
Mr. Rick Hansen, U.S. Fish and Wildlife Service  
DNR – KCRO, SLRO, NERO, SERO, SWRO