

**Finding of No Significant Impact
For
Wakarusa Watershed Joint District No. 35
Floodwater Retarding Dam FRD 24
Douglas County, Kansas**

Introduction

The rehabilitation of Wakarusa Watershed Joint District No. 35, Floodwater Retarding Dam (FRD) 24 (the Project) is a federally assisted action authorized for planning under the Authority of the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566 [PL-566]), and in accordance with Section 102(2)(c) of the National Environmental Policy Act of 1969. This act authorizes the Natural Resources Conservation Service (NRCS) to provide technical and financial assistance to sponsoring local organizations. Sponsoring local organizations (SLO) of the Wakarusa Project are: Wakarusa Watershed Joint District No. 35 and Douglas County Conservation District.

FRD 24 was designed as a low hazard (a) dam. Construction was completed in 1974. The dam has been reclassified as a high hazard (c) dam due to development of ball fields immediately below the dam, increased downstream development, and new roadways.

An environmental assessment was undertaken in conjunction with the development of the supplement to the original watershed plan. NRCS contracted with Kirkham Michael to complete the supplemental watershed plan and environmental assessment and is hereafter referred to as the Project Team. This assessment was conducted in consultation with local, state, and tribal governments; and federal agencies as well as with interested organizations and individuals. Data developed during the assessment is available for public review at the following location:

U.S. Department of Agriculture
Natural Resources Conservation Service
760 South Broadway
Salina, Kansas 67401
www.ks.nrcs.usda.gov

Preferred Alternative

The preferred alternative is to rehabilitate FRD 24 to a high hazard (c) dam. The existing earthfill dam has a principal spillway consisting of a concrete riser, 24 inch barrel, and an earthen auxiliary spillway. The PL-566 purpose for this project is flood prevention.

The preferred alternative will modify the dam to meet current state and NRCS safety standards and maintain flood damage reduction benefits associated with FRD 24. Works of improvement include raising the top of dam elevation, replacement of the principal spillway, widening the auxiliary spillway, and raising the auxiliary spillway elevation. These works of improvement will have a design life of 100 years.

Effect of Preferred Alternative

Alternatives

No significant adverse environmental impacts will result from the rehabilitation of FRD 24 to a high hazard (c) dam.

The planned action is the most practical means of addressing public health and safety issues and continuing to provide flood protection benefits.

A range of alternatives to satisfy the purpose of the Project was initially considered during the original plan formulation. The range of alternatives included both structural and non-structural concepts with which to meet the Project purpose. Alternatives considered were: No Federal Action–Rehabilitate to State Criteria, Federal Decommissioning, and Hazard Removal.

Human health and safety/public health and safety (health and safety) would increase by removing the threat of a breach inundation in the long term. The risk of breach inundation to existing and future downstream property would be reduced. By rehabilitating to current safety criteria, any downstream structures would have additional protection. In addition, this alternative would improve the existing flood control benefits of the structure due to improved floodwater retarding pool storage.

There would be no long-term effect on existing water quality both downstream and within the impoundment. Pollutants such as sediment, nutrients, pesticides, and organic loading are not anticipated to increase downstream. Water quality indicators such as water transparency and aquatic habitat are not anticipated to change.

Temporary short-term effects on surface water quality would result from construction activities. All excavated material not suitable for use in raising the structure, would be placed in a suitable upland location. These construction activities would not have adverse effects on groundwater quality. Standard best management practices (BMPs) such as silt fencing and seeding with sod-forming species on areas removed of vegetation would be implemented to minimize erosion and sediment load transport and the subsequent temporary effects on surface water quality related to construction activities. State permitting requirements would help ensure that surface water quality impacts are kept at an acceptable level.

The dam would continue to provide flood control benefits. The sediment storage capacity for a 100-year design life would be provided. Temporary short-term effects of erosion and sedimentation would result from construction activities. Standard BMPs such as silt fencing and seeding with sod-forming species on areas removed of vegetation would be implemented to minimize erosion and sediment load transport under a storm water pollution prevention plan as more than 1 acre of land is being covered by construction activities.

The preferred alternative provides flood control for events including 100-year rain events by increasing the height of the dam. The existing pipe spillway elevation will remain the same. Due to the increase in floodwater retarding capacity provided by the preferred alternative, a slight increase to existing flood control benefits would occur.

There would be no changes to the normal pool of FRD 24. Minimal loss of land (under 10 acres) would be required for increasing the height and toe of the dam along with potential spillway expansion. Additionally, no prime or unique farmland will be converted to non-agricultural use. This would also mean no permanent land use change from agriculture.

The preferred alternative is anticipated to beneficially affect transportation systems in or around the project area and protect downstream populations from flooding. The preferred alternative will increase flood protection to the downstream transportation systems and decrease the likelihood of a breach.

The Kansas State Historic Preservation Office (SHPO) was contacted. The project area was reviewed by the Kansas State Historical Society. No significant archeological sites were found in the project area. SHPO concurred with the Archeological Survey that no historic properties will be affected. No historic properties are recorded in the project area. Tribal consultation was completed by the NRCS.

As the structure is not over 50 years old, it was not specifically evaluated by a cultural resources specialist / archaeologist meeting the requirements outlined by the Secretary of the Interior's Standards and Guidelines.

A floodplain permit may be necessary. It is not anticipated that the preferred alternative will result in an adverse effect or incompatible development within the base floodplain. The preferred alternative will increase flood protection to downstream properties by raising the auxiliary spillway to federal criteria. True mapping of the floodplains for the Federal Emergency Management Agency (FEMA) is not part of this project.

During construction or reconstruction activities, site restoration activities will be completed to restore grass cover to areas altered by construction activities. Measures will be taken to control noxious weeds through the use of noxious weed-free seed and topsoil according to the NRCS Invasive Species Policy, supporting Executive Order 13112. Noxious weeds will be monitored and controlled through normal operation and maintenance activities.

Based on review of the species letter prepared on October 19, 2009, by the NRCS, the Wakarusa Watershed Site 24 rehabilitation project does not provide habitat and there is no federal critical habitat at this site; the preferred alternative will have no effect on Douglas County, Kansas, federal threatened or endangered species; and no concerns related to state listed species were identified at this time.

Due to increase in width of the structure and extension of the toe of the embankment, there would be a loss of 50 feet of stream channel that averages 36 feet in width. Approximately 100 feet of grass-covered riparian area will be permanently filled and covered below the existing dam. As a result, approximately 0.11 acres of grass-covered riparian area will be replaced by the dam embankment. However, a larger riparian area to the northeast and northwest of the impoundment will not be affected by either alternative as existing pool levels will remain.

As the wetland, riparian, and stream areas are within the same finite area with no other foreseeable future impact, there does not appear to be a significant cumulative impact.

During construction there would be work activity in and at the fringes of the permanent pool, downstream stilling basin, and outlet channel. The remaining pool would be released at a controlled rate to draw down the permanent pool to an elevation at which work could be accomplished. Placement of fill to raise the embankment will encroach into the permanent pool and stilling basin. Any disturbed areas (altered during construction activities) would be restored to pre-work conditions. The preliminary borrow area will be in the impoundment area upstream of the dam.

A wetland determination was conducted by the NRCS in 2009, which revealed approximately 58.6 acres of wetlands at FRD 24, with approximately 58.2 acres located within the existing reservoir. With increased floodwater capacity, wetland areas identified in the existing reservoir may become temporarily or permanently inundated during storm/flood events. No permanent loss of wetlands is anticipated to occur as the pool level will remain the same. However, due to

the extension of the toe of the dam, approximately 0.05 acres of Palustrine, Emergent, Seasonally Flooded would be permanently removed and covered by the dam. This is below the U.S. Army Corp Engineers (USACE) regulatory trigger of 0.1 acres of wetland disturbance allowed by the USACE.

Due to increase in width of the structure and extension of the toe of the embankment, there would be a loss of 50 feet of stream channel that averages 36 feet in width. Approximately 50 feet of stream channel below the current dam will be filled and covered by the dam extension. A nationwide permit is anticipated for re-construction. Nationwide Permit 3 (Maintenance) does not have a stipulation as to the linear feet of stream that can be altered or removed by this action.

An Emergency Action Plan will be developed to establish procedures for notification and evacuation of downstream park users in the event of a potential breach.

The primary cumulative impact issues associated with the preferred alternative would be effects on human health and safety, and flood control.

For the purpose of this evaluation, health and human safety is linked to flood control and potential flood hazard. Currently, there are no plans for major state or county roadway expansions within the Wakarusa Watershed Site 24. Cumulative effects of the Project are analyzed in relation to proposed development near the structure. There are no specific short-or long-term plans for development around the site area; however, the site is adjoining the city limits of the city of Lawrence. The city of Lawrence has seen significant development around the site and within the areas that FRD 24 provides flood protection. Future development does not appear to have cumulative effects on the existing and above-listed resources with the selection of the Federal Reconstruction Alternative.

The existing structure currently provides flood control benefits to downstream areas. If FRD 24 had a catastrophic breach, approximately 940 acres of floodplains located between the toe of the embankment and approximately 2 miles east of US Highway 59 along the Wakarusa River (approximately 5 miles) would be inundated, and thus, a high risk of loss of human life caused by the flooding event. Yankee Tank Creek (the stream channel carrying the breach flow) flows under Kansas Highway 10 in three locations in Douglas County and Lawrence, Kansas. The highway will suffer damage as a result of a breach. A catastrophic breach will overtop Clinton Parkway and Kansas Highway 10. Additional roads, recreational facilities, and native/nature areas are present within the breach area.

The project would provide additional flood control benefits to downstream areas protecting the loss of human life from breaches/flooding in the next 100 years. The cumulative effects on health and human safety are not considered to be significant as the purpose of this structure is flood control.

One potential indirect effect is the preservation of existing developed properties and associated property values as the project will extend flood protection/control for the existing structures and roads in the future.

Consultation--Public Participation

The watershed district and conservation district hold regular meetings that are open to the public.

Interested agencies were invited to the Environmental Evaluation to review the project on August 25, 2009. Comments were requested from interested agencies. No written responses were received.

Tribes with potential interest were identified and sent correspondence to seek any interest in the project. Responses were due by November 27, 2009. Responses were received from the Eastern Shawnee Tribe, Wichita and Affiliated Tribes, and the Osage Nation.

A public meeting was held in Overbrook, Kansas, to review the project and determine what additional issues are associated with this project.

Wakarusa Watershed Board meetings were held on August 25, 2009, January 12, 2010, and April 6, 2010, to review alternatives and their effects on the environment. At the January 12 meeting, alternatives were introduced and the project was explained to the public. The SLOs agreed at the April 6, 2010, meeting that the Federal Reconstruction Alternative was the recommended alternative, meeting the overall purpose and need for the project.

A public meeting was held December 13, 2010, at the Douglas County Courthouse in Lawrence to review and receive public comment on the supplemental watershed plan and environmental assessment. Comments were accepted until December 28, 2010. No comments were received.

Agency Participation

Agencies were requested to participate in an environmental evaluation during the scoping process. Comments were requested by all interested agencies. No comments were received from agencies during the comment period.

Agencies were notified of the August 25, 2009, Wakarusa Watershed Board meeting and asked to provide comments. No written comments were received.

Agencies were notified of the December 13, 2010, public meeting. No comments were received.

Agency Consultation

Several agencies were consulted as cooperating agencies during the development of this plan; including U.S. Fish Wildlife Service (USFWS), Kansas State Historic Preservation Office (SHPO), and Kansas State Historical Society (KSHS) and tribes (under the National Historic Preservation Act [NHPA]).

An environmental assessment, dated October 19, 2009, was completed by the USDA-NRCS. According to the assessment, "Site 24 does not provide habitat and there is no federal critical habitat at this site." Additionally, the assessment noted that "there are no concerns related to the state-listed species at this time."

The Kansas SHPO and KSHS were requested to provide recommendations regarding compliance with section 106 of the NHPA. An on-site investigation was conducted and Kansas SHPO and KSHS provided clearance for the proposed activities associated with this project as no cultural resources or historic properties were identified. Review of the online National Register of Historic Places (NRHP) Web site did not reveal the presence of the site structure on the NRHP. A request for input from tribes, which may have interest in this project, was completed by the NRCS. Responses were received from the Eastern Shawnee Tribe, Wichita

and Affiliated Tribes, and the Osage Nation. All concurred that the proposed project will have no effect on cultural or historic properties. As such, this alternative will be in compliance with section 106 of the NHPA.

The Fish and Wildlife Coordination Act does not apply to PL-566 projects as Section 12 of PL 83-566 requires coordination with the USFWS.

Due to increase in width of the structure and extension of the toe of the embankment, there would be a loss of 50 feet of stream channel that averages 36 feet in width. A Section 404 nationwide permit from the USACE is required for this project and will be authorized prior to construction of the Project. A Section 401 Clean Water Act, Water Quality Certification permit will be obtained prior to construction of the Project, along with the Section 404 permit.

Conclusion

Based on the environmental assessment summarized above, I find that the proposed action is not a major federal action significantly affecting the quality of the human environment, and I have determined that an environmental impact statement for the Wakarusa Watershed Plan is not required.


ERIC B. BANKS
State Conservationist

1-12-11
Date