## Finding of No Significant Impact

For

Rehabilitation of Floodwater Retarding Structure No. 36 of the Sallisaw Creek Watershed
Sequoyah County, Oklahoma

I. AGENCY ROLE AND RESPONSIBILITY – United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS).

In accordance with the NRCS regulations (7 CFR Part 650) implementing the National Environmental Policy Act (NEPA), NRCS has completed an Environmental Assessment (EA) for the following proposed action:

Dam rehabilitation of Floodwater Retarding Structure (FWRS) Sallisaw Creek No. 36 in Sequoyah County, Oklahoma.

#### II. NRCS DECISION TO BE MADE

To determine if the preferred alternative (Rehabilitation of the dam to High Hazard Criteria) will or will not be a major Federal Action significantly affecting the quality of the human environment. The EA accompanying this finding has provided the analysis needed to assess the significance of the potential impacts from the selected alternative.

### III. PURPOSE AND NEED FOR ACTION

The purpose of the proposed action is to reduce the risk of loss of life due to catastrophic dam failure and flooding by bringing the dam into compliance with the current NRCS and Oklahoma safety performance standards and to provide an additional 100 years of flood damage reduction to the project area. The project is needed to sustainably improve dam safety, continue flood damage reduction, and to further protect community resources.

FWRS Sallisaw Creek No. 36 was constructed in 1965 as a low-hazard dam for the purpose of flood control. The original design life of the dam was 50 years, which has been exceeded. It has since been reclassified as a high hazard (Class C) potential dam and NRCS has determined it to be out of compliance with NRCS TR-60 design criteria and performance standards regarding the principal spillway capacity and freeboard capacity. Currently, the dam does not safely convey 100 percent of the Probable Maximum Precipitation (PMP) through the auxiliary spillway without overtopping the dam or have the capacity to safely contain the 100-year, 10-day storm without flowing over the crest of the auxiliary spillway.

#### IV. ALTERNATIVES CONSIDERED IN THE EA

Four alternatives were analyzed in the EA and are characterized as follows:

<u>Alternative 1 – No Action:</u> Under the No Action Alternative, the dam would remain in the existing unsafe condition with no action to improve the dam from its original design or to correct safety deficiencies beyond maintenance or replacements performed in accordance with its operation and maintenance plan. The dam is assumed to eventually fail and not be subsequently rebuilt or rehabilitated.

<u>Alternative 2 – Decommissioning:</u> Decommissioning is a mandatory alternative that must be considered under the NRCS policy for dam rehabilitation. Decommissioning FWRS Sallisaw Creek No. 36 would consist of removing a section of the embankment, reestablishing the stream channel through the sediment pool and embankment footprint, installing a rock riprap grade control structure to stabilize the sediment pool and prevent head-cutting and revegetating the sediment pool and other disturbed areas. Relocation and/or floodproofing and restrictive easements would be needed to prevent induced flooding damage on the areas no longer protected by the dam.

Alternative 3 – Rehabilitation to Low Hazard Criteria (with Floodproofing and Relocation): Rehabilitation of FWRS Sallisaw Creek No. 36 to current low hazard criteria would require relocating and/or flood-proofing 29 houses, two mobile homes, an apartment building, five businesses and obtaining conservation easements on 4,110 acres in the breach impact area to prevent future development. The heavily traveled highway and county roads could not be moved, and motorists would be at risk if there was a catastrophic breach of the dam.

Alternative 4 – Rehabilitation to High Hazard Criteria (Preferred Alternative): Upgrade the dam to meet current NRCS safety criteria and performance standards for a high hazard dam. Extend the service life of the dam to 100 years and maintain flood protection. The principal spillway would be replaced with a new 36-inch diameter RCP conduit, with a standard NRCS design riser. The capacity of the principal spillway would be increased to about 209 cfs. A concrete impact basin would be installed to dissipate energy at the outlet of the conduit. The principal spillway crest would remain at the existing elevation of 674.6, and the sediment pool would have a surface area of 15 acres. The larger principal spillway would reduce the detention pool drawdown time to less than 10 days, eliminating the need for the compensatory detention pool. The auxiliary spillway will be maintained at a width of 250 feet and will be lined with Articulating Concrete Blocks (ACB) to provide erosion control and stability. As a result of the larger principal spillway which provides drawdown of the detention pool within 10 days, and the corrections to the drainage area, the auxiliary spillway crest elevation could be lowered 6.4 feet to elevation 722.8, resulting in a 32-acre decrease in detention pool area, from 153 to 121 acres. The top of dam would remain at elevation 733.9 and the dam height would be 73 feet to average valley floor.

# V. NRCS' DECISION AND FACTORS CONSIDERED IN THE DECISION

Based on the evaluation in the EA, NRCS and the Sponsor selected Alternative 4 (Rehabilitation to High Hazard Criteria) as the preferred alternative. NRCS has taken into consideration all of

the potential impacts of the proposed action, incorporated herein by reference from the EA and balanced those impacts with consideration of the agency's purpose and need for action.

NRCS acknowledges that based on the EA, potential impacts to soil, water, air, plants, animals, energy and humans were considered in account of a public need. As a result, the agency's preferred alternative (Alternative 4: Rehabilitation to High Hazard Criteria) would result in benign short-term and long-term negative impacts while addressing the need for rehabilitation to high hazard to reduce risk of loss of life.

#### VI. FINDING OF NO SIGNIFICANT IMPACT

To determine the significance of the action analyzed in the EA, the agency is required by NEPA regulations at 40 CFR Section 1501 and NRCS regulations at 7 CFR Part 650 to consider the context and intensity of the proposed action. In response to the analysis of the EA, NRCS finds that neither the proposed action nor any of the alternatives is a major Federal Action significantly affecting the quality of the human environment. Therefore, preparation of an Environmental Impact Statement (EIS) on the final action is not required under the NEPA and Council on Environmental Quality (CEQ) implementing regulations (40 CFR Part 1500-1508), or NRCS environmental review procedures (7 CFR Part 650). This finding is based on the following factors:

- Temporary short-term impacts to streams and the conservation pool, due to sedimentation, may occur during construction activities. Environmental consequences of the construction activities will be insignificant due to proposed mitigation, avoidance, and minimization put in place by a required Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will be in place prior to and during all construction activities.
- 2) An additional Aquatic Resources Protection Plan, required by 404 permitting due to impacts to jurisdictional waters, will be in place prior to and during all construction activities. This plan will outline strategies to conserve and manage aquatic ecosystem specific areas, including rivers, lakes, streams, wetlands, and marine ecosystems adjacent to the action area of the project.
- 3) No compensatory mitigation is anticipated with the rehabilitation of the dam. The preferred alternative will keep the permanent conservation pool elevation the same as the existing pool elevation.
- 4) Consultation with United States Fish and Wildlife Service (USFWS) resulted in a "may affect, not likely to adversely affect" conclusion for the Piping plover, Red knot, Monarch butterfly, American burying beetle, Alligator snapping turtle, Gray bat, Indiana bat, Northern-long-eared bat, and Tri-colored bat. It was concluded that there will be a "no effect" conclusion for the Ozark big-eared bat. Consultation with USFWS will be ongoing.

- 5) There will be temporary, short-term adverse impacts to vegetation (trees/shrubs) within the action area. Trees will be felled prior to construction activities and will occur outside of the primary nesting season for migratory birds, and during local bat species inactive period (Nov 15 Mar 15). Upon construction completion, vegetation will be allowed to be reestablished within the action area.
- 6) Permeant impacts are associated with the permanent roller compacted concrete auxiliary spillway over the dam embankment. Approximately two acres will be converted to a concrete spillway. This action will not have long-term adverse effects on any threatened or endangered species or critical habitat.
- 7) The proposed alternative does not significantly impact public health. Dam rehabilitation will reduce the risk associated with a potential catastrophic dam failure, reducing the risk of loss of life.
- 8) NRCS regulations (7 CFR Part 650) and policy (Title 420, GM Part 401) require that NRCS identify, assess, and avoid effects to historic or cultural resources, park lands, prime farmlands, wetlands, or ecologically critical areas (Title 190 National Compliance Handbook). NRCS made the determination of "no historic properties (including archaeological sites) affected" by the proposed Alternative 4. The Oklahoma Archaeological Survey, the Oklahoma State Historic Preservation Office, the Cherokee Nation, and the Osage Nation have concurred with this determination.
- 9) The proposed action does not violate Federal, State, or local law requirements imposed for protection of the environment. The major laws identified with the selection of Alternative 4 include the Clean Water Act, Clean Air Act, Endangered Species Act, National Historic Preservation Act, and Migratory Bird Treaty Act. Alternative 4 is consistent with the requirements of these laws. Based on the information presented in the attached EA, NRCS finds, in accordance with 40 CFR Section 1508.13, that the selection of the agency preferred alternative (Alternative 4: Rehabilitation to High Hazard Criteria) is not a major Federal Action significantly affecting the quality of the human environment; therefore, not requiring preparation of an EIS.

Date

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