Three Rivers Southeast Arkansas Study

Appendix M: Prime Farmlands Analysis

THREE RIVERS SOUTHEAST ARKANSAS

Introduction

The Three Rivers Southeast Arkansas Feasibility Study (Three Rivers Study) is being conducted by the U. S. Army Corps of Engineers (USACE) to recommend modifications to the McClellan-Kerr Arkansas River Navigation System (MKARNS) that would provide long-term sustainable navigation and promote the continued safe and reliable economic use of the MKARNS.

Study Authority

Section 216, Flood Control Act of 1970 (Public Law 91-611) authorizes a feasibility study due to examine significantly changed physical and economic conditions in the Three Rivers study area. The study will evaluate and recommend modifications for long-term sustainable navigation on the MKARNS.

Study Purpose

There is a risk of a breach of the existing Soil Cement Structure near the entrance channel to the MKARNS on the White River. During high water events, Mississippi backwater can create significant head differentials between the Arkansas and White rivers. The existing Soil Cement Structure in the isthmus between the Arkansas and White rivers is subject to damaging overtopping, flanking and seepage flows that could result in a catastrophic breach and failure of the system. The uninhibited development of a breach, or cutoff, has the potential to create navigation hazards, increase the need for dredging, and adversely impact an estimated 200 acres of bottomland hardwood forest in the isthmus.

Based on the Section 216 authority, the study is investigating alternatives that would minimize the risk of cut off development, including reducing the cost of maintence associated with preventing cutoff development, while minimizing impacts to the surrounding ecosystem.

Non-Federal Sponsor

The Arkansas Waterways Commission is the non-federal sponsor for the Three Rivers Southeast Arkansas Study. An amended feasibility cost-sharing agreement was executed in June 2015.

Recommended Plan

The recommended plan consists of a newly constructed 2.5-mile long containment structure at an elevation of 157 feet above mean sea level (ft msl) that would begin on natural high ground just south and west of the existing Melinda Structure located on the south side of Owens Lake. It would continue east and cross the Melinda head cut south of the existing Melinda Structure. From there, it would head northeast and connect to the existing Soil Cement Structure north of Jim Smith Lake. It continues to follow the existing Soil Cement Structure alignment terminating at the existing Historic Closure Structure. The recommended plan also includes a relief opening at the Historic Cutoff to an elevation 145 ft msl regardless of the width. In addition, the existing Melinda Structure would be demolished in place and the debris would be pushed into the deep scour hole at the top of the head cut. Finally, adding an opening in the existing Owens Lake Structure between Owens Lake and the White River would prevent water from backing up into Owens Lake, which would impact the bottomland hardwood forest. The opening would be designed to allow fish passage into Owens Lake.

USDA

United States Department of Agriculture

JUL 06 2017

Craig Hilburn
Regional Technical Specialist
Department of the Army
Little Rock District Corps of Engineers.
Little Rock, Arkansas 72203

Dear Mr. Hernandez:

This letter is in response to your request for information related to prime farmland and statewide importance farmland for the proposed construction of a new containment structure (levee) between the Arkansas and White Rivers in extreme southern Arkansas County. As illustrated on the attached map, several areas along the proposed levee are considered prime farmlands.

Should you have any questions or need additional information, please call me at (501) 301-3172 or email at nelson.rolong@ar.usda.gov.

Sincerely,

Nelson A. Rolong

Nelson A. Rolong, Ph.D.
Assistant State Soil Scientist

Enclosure

cc:
Edgar Mersiovsky, State Soil Scientist, NRCS, Little Rock, AR

Natural Resources Conservation Service
Room 3416, Federal Building
700 West Capitol Avenue
Little Rock, Arkansas 72201-3215

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U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **7/6/17**	4. Sheet 1 of **1**
1. Name of Project **Three Rivers**	5. Federal Agency Involved **USACE**	
2. Type of Project **Construction of containment structures**	6. County and State **Arkansas, Arkansas**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **7/6/17**	2. Person Completing Form **Nelson Rolong**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated **314,596** / Average Farm Size **817**
5. Major Crop(s) **Soybeans**	6. Farmable Land in Government Jurisdiction Acres: **589,493** % **89.1**	7. Amount of Farmland As Defined in FPPA Acres: **401,771** % **60.7**
8. Name Of Land Evaluation System Used **SCS-LESA**	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS **7/6/17**

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____ Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	**49.9**			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	**0**			
C. Total Acres In Corridor	**49.9**			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	**0.00**			
B. Total Acres Statewide And Local Important Farmland	**27.98**			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	**0.0047**			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	**100**			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	42			
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	**15**			
2. Perimeter in Nonurban Use — 10	**10**			
3. Percent Of Corridor Being Farmed — 20	**0**			
4. Protection Provided By State And Local Government — 20	**20**			
5. Size of Present Farm Unit Compared To Average — 10	**0**			
6. Creation Of Nonfarmable Farmland — 25	**0**			
7. Availablility Of Farm Support Services — 5	**0**			
8. On-Farm Investments — 20	**0**			
9. Effects Of Conversion On Farm Support Services — 25	**0**			
10. Compatibility With Existing Agricultural Use — 10	**0**			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	**45**	**0**	**0**	**0**
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	**42**	**0**	**0**	**0**
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	**45**	**0**	**0**	**0**
TOTAL POINTS *(Total of above 2 lines)* — 260	**87**	**0**	**0**	**0**

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
A	**27.98**	**7/6/17**	YES ☐ NO ☑

5. Reason For Selection:

Corridor A is the only suitable site for the new containment structure. A review of NRCS Farmland Classification maps indicate moving the alignment of the structure would not change Farmland designation or acreage.

NOTE: acreage of important farmlands is an overestimate; shapefiles provided to NRCS show containment structure extending farther west than planned.

Signature of Person Completing this Part: **David C. Hilburn, Biologist, Regional Planning and Environmental Center, USACE**

DATE **7/7/17**

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points