# FEDERAL HIGHWAY ADMINISTRATION
# FINDING OF NO SIGNIFICANT IMPACT

## CHESTER BRIDGE
## CROSSING OF THE MISSISSIPPI RIVER

Route 51, Perry County, Missouri and
Route 150, Randolph County, Illinois
MoDOT Job No. J9P3239
Federal Aid No. NHPP-0512037

The FHWA has determined that this project will not have any significant impact on the human environment. This finding of no significant impact is based on the environmental assessment referenced above and subsequent agency and public involvement that is summarized in the attached supporting documentation. This information has been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, the alternatives considered, and the environmental issues and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the referenced environmental assessment.

09/27/2021
Date of Approval

RAEGAN M BALL
Digitally signed by RAEGAN M BALL
Date: 2021.09.27 08:44:09 -05'00'
Ms. Raegan Ball

Acting Deputy Division Administrator
Title

# FINDING OF NO SIGNIFICANT IMPACT

23 CFR 771.121
MISSOURI DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

| FHWA Division | Federal Aid Number | Project Name<br>Environmental Document Type |
|---|---|---|
| Missouri | NHPP-0512037 | Chester Bridge (MO 51/IL 150 Crossing of the Mississippi River)<br>Environmental Assessment |

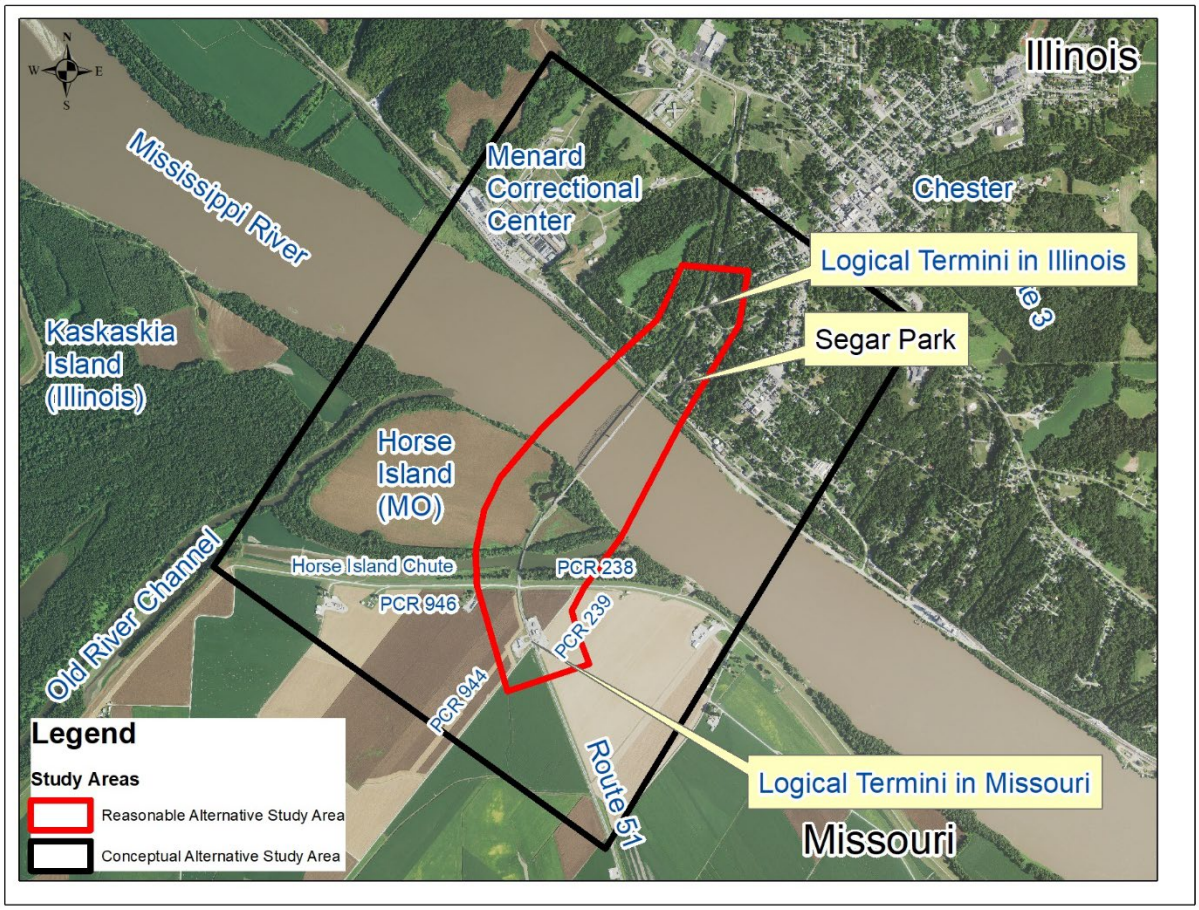
## Decision

The Federal Highway Administration (FHWA) approved the *Chester Bridge Environmental Assessment* (EA) for the crossing of the Mississippi River on Route 51 in Perry County, Missouri, and Route 150 in Randolph County, Illinois, Federal Aid Number NHPP-0512037, on March 22, 2021. Notice of the EA's availability was sent to agencies and the document was made available for public review on April 16, 2021. The EA was available at the Chester Library (733 State Street, Chester, Illinois 62233) and posted on the study website at http://www.chesterbridgestudy.com and the MoDOT website at https://www.modot.org/chesterbridge. The comment period concluded on May 17, 2021.

The Final EA is provided in an Errata format[1]. Changes have been made, where appropriate, to the EA document issued for public review on April 16, 2021. Additional information received following publication of the EA, factual corrections or clarifications, and changes to address comments received on the EA are indicated in yellow highlight within the Final EA. The Final EA is attached herein as **Appendix A**. No public input or comments were received that necessitated changes to any of the alternatives evaluated or in the selection of the Preferred/Selected Alternative (U-1, Near Upstream Alternative).

FONSI **Figure 1** depicts the project study areas.

[1] Errata sheets refer to the use of a list of corrected errors appended to a report. In order to accelerate decision-making, the Council on Environmental Quality allows the use of errata sheets attached to the draft environmental impact statement (DEIS) in lieu of a traditional final environmental impact statement (40 *Code of Federal Regulations* 1503.4(c)). Under these provisions, the use of errata sheets in lieu of rewriting the DEIS is appropriate when comments received on a DEIS are minor, and the responses to those comments are limited to factual corrections or explanations of why the comments do not warrant further response. This approach is applied to the EA document issued for public review on April 16, 2021.




FONSI Figure 1. Study Areas

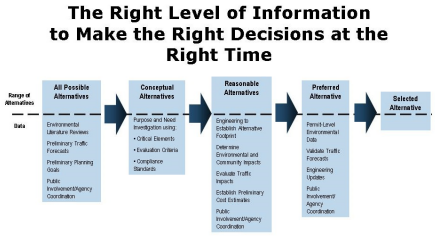
Upon further review by FHWA and MoDOT, the following additions and corrections (indicated either in *italics* or in quotation marks) to the EA have been made and are included in the Final EA/Errata and this Finding of No Significant Impact (FONSI)[2]:

1. Page 1-9, Section 1.3.3.1 – Bois Brule Levee and Drainage District: This section was modified to clarify the discussion of the District's ownership, operation, and assets.

   *The Bois Brule levee system is federally authorized and constructed. It is locally operated and maintained by the nonfederal Sponsor, Bois Brule Levee and Drainage District.*

   *The Bois Brule Levee and Drainage District protects approximately 26,000 acres. The District consists of 33.1 miles of earthen levee with miscellaneous relief wells and pump stations.*

2. Page 2-1, Section 2, Figure 2-1 – Process of Alternative Development and Evaluation: This figure was modified to improve the visibility of the figure.




[2] Errata in the list above include both grammatical edits that did not significantly change the determinations and/or findings of the EA, as well as additional information obtained from agencies and edits that provide more details or clarity regarding the project.

*3.* Page 2-2, Section 2.1.1.2 – Rehabilitate Existing Bridges: This section was modified for grammatical accuracy.

*It is assumed that this alternative would best represent a configuration that could maintain the historic integrity of the existing bridges. As discussed in **Section 2.2.3,** preliminary structural investigations concluded that the rehabilitation would be quite expensive and result in bridges with a shorter operational life.*

*4.* Page 2-9, Section 2.2.1.3 – Criteria for Evaluating Flood-Related Closures: This section was modified to clarify the discussion of the District's ownership.

*The temporary flood wall closes Route 51 and the river crossings. To determine whether an alternative can satisfy this Purpose and Need element, a single screening criterion was used—whether the gap in the Bois Brule Levee will be corrected.*

*5.* Page 2-15, Section 2.2.4.2 – Reuse of Existing Bridges: This section was modified to clarify that the Chester Bridge was marketed for reuse proposals and the Horse Chute Island Bridge was given an exemption from the marketing requirement. This modification was also made to Section 3.5.2.3 Section 4(f) Impacts.

*6.* Page 3-17, Section 3.2.1.3 – Unique Habitats: This section was modified to repeat the environmental commitments associated with notification of blasting within the Mississippi River.

*Based on coordination with IDOT/INDR (EcoCAT response dated October 4, 2018), the following commitments will be added to the project:*

- *IDOT will contact the IDNR Fisheries Lower Mississippi River Biologist at least 60 days prior to blasting (see **Section 5**).*
- *MoDOT has a history of employing repelling charges and millisecond delays during demolition of the bridge. Repelling charges are used to scare fish from the area before bridge spans are dropped into the water. Seasonal restrictions for demolition and any bathymetric surveys needed for US Army Corps of Engineers or US Coast Guard purposes will also be shared and discussed with US Fish and Wildlife Service for Section 7 consultation.*

*7.* Page 3-19 (Page 3-20 in Final EA), Section 3.2.3.1 – Affected Environment (Endangered Species): This section was modified to clarify the extirpated status of the small whorled pogonia.

*The small whorled pogonia is an orchid that occurs on upland sites in mixed-deciduous or mixed-deciduous/coniferous forests that are generally in second- or third-growth successional stages.*

*8.* Pages 3-20 to 3-21, Section 3.2.3.1 – Affected Environment (Endangered Species): This section was modified to clarify the USFWS coordination. Meeting notes and a technical assistance letter have been added to Final EA Appendix F.

*The latest USFWS Information for Planning and Consultation (IPaC) package is included in **Appendix F**. Following a 11/9/2020 coordination call, USFWS issued a technical assistance letter on 12/11/2020. These are also included in **Appendix F**.*

*The completed coordination must be provided as part of the USACE Section 408 application package.*

*9.* Page 3-23, Section 3.2.3.3 – Mitigation Measures and Environmental Commitments (Endangered Species): The first commitment in this section was modified to include obtaining an updated official species list. The eight commitment was revised to reference informal consultation rather than formal consultation in parallel with submittal of the Biological Assessment. These were also updated in Section 5, Environmental Commitments.

*Consultation will include obtaining an updated official species list via IPaC and will be completed prior to construction or before any federal funds or resources (i.e., removal of trees) are obligated.*

*MoDOT will submit a BA and initiate informal consultation for the project.*

*10.* Page 3-33, Section 3.3.4 – Right-of-Way/Property Acquisition: This section was modified to clarify the location within the Bois Brule Levee and Drainage District.

*Most of the needed right-of-way area west of the river is agricultural land within the Bois Brule Levee and Drainage District.*

*11.* Page 3-34, Section 3.4.1 – Mississippi River Floodplain and Bois Brule Levee District: This section was modified to clarify the date of the Flood Insurance Rate Map data shown on Figure 3-8.

*Figure 3-8 updated to include date (September 4, 2019)*

*12.* Page 3-35, Section 3.4.1 – Mississippi River Floodplain and Bois Brule Levee District: This section was modified to clarify the discussion of the Bois Brule Levee and Drainage District.

*Dates of maps (Figure 3-8 and 3-9) added. The term "right descending bank (RDB)" added to description.*

*13.* Page 3-37, Section 3.4.1.1 – Section 14 of the Rivers and Harbors Act: This section was modified to clarify the definition of "alteration" in terms of Section 408 permitting Environmental Commitment (#26) and to clarify that the existing gap in the levee would be addressed during permit coordination. The change was also made to Section 5 (Environmental Commitments).

~~*While no alterations are proposed,*~~ *MoDOT will coordinate (and obtain) a Rivers and Harbors Act Section 408 Permit from USACE for any alterations to USACE structures. Remediation of the existing gap in the levee will be addressed as part of permit coordination with the USACE and Bois Brule Levee District. (Aquatic Environment – Section 3.4.1).*

*14.* Page 3-38, Section 3.4.2.1 Regulatory Environment – National Flood Insurance Program: This section was modified to clarify the commitment to construct the roadway to a 100-year flood level consistent with the discussion in the rest of Section 3.4.2 and to clarify that the existing gap in the levee would be addressed during permit coordination

*MoDOT will design the roadway to a 100-year flood level to accommodate the Brule Bois Levee. Remediation of the existing gap in the levee will be addressed as part of permit coordination with the USACE and Bois Brule Levee District.*

*15.* Page 3-40, Section 3.4.2.6 – Section 10 Permit and Page 4-5, Section 4.9 – Other Direct Agency Coordination: These sections were modified to clarify the ownership of the Bois Brule Levee and Drainage District.

*The Bois Brule levee system is federally authorized and constructed, and locally operated and maintained by the nonfederal Sponsor, the Bois Brule Levee and Drainage District.*

*16.* Page 3-47, Section 3.4.5.4 – Other Well Information: This section was modified to remove well ownership data.

~~*Two were identified as belonging to USACE St. Louis District and installed by John T. Ruester. The third is listed as belonging to the Southern Illinois Penitentiary.*~~

*17.* Page 3-51, Section 3.5.2.3 – Section 4(f) Impacts: This section was modified to clarify that the reuse proposals were requested for the Chester Bridge while a marketing exemption was granted for the Horse Island Chute Bridge.

*Interest in the reuse of the existing bridges for aesthetic, recreational, and bicycle/pedestrian purposes has been expressed during the public involvement process. Pursuant to MoDOT policy, the existing Chester Bridge was made available for donation. Proposals for the reuse of the Chester Bridge were due by December 31, 2018; however, no proposals were submitted by the deadline. The Horse Island Chute Bridge was given an exemption from the marketing requirement. It is a bridge type that is aesthetically not likely to be selected for relocation and its existing location in a notch of the Bois Brule Levee means project's Purpose and Need could not be met while the Horse Island Chute Bridge remains in place. Finally, this bridge is eligible for the National Register of Historic Places under Criterion A for Commerce. Relocation of the bridge would remove the bridge from its association*

*18.* Page 3-58 (Page 3-59 in Final EA), Section 3.6.3.1 – Construction Costs: This section was modified to clarify the costs associated with the alternatives.

*The total cost estimate for the updated Preferred Alternative is $195,800,000 in 2019 dollars. This is 2 percent higher than the original cost estimate. The increase is due to the curvatures needed at the end*

*spans in Illinois to avoid archaeological sites found during the archaeological survey of the Preferred Alternative footprint (see Section 3.6.1.4). The other alternatives would also have to avoid the archaeological sites and incur similar construction cost increases.*

*19.* Page 4-10, Section 4.13 – Substantive Public Comments: This section was modified to clarify the bridge funding commitments from Missouri and Illinois.

*n) What is the breakdown of funding for the new bridge?*
*Missouri and Illinois will share the cost of the Chester Bridge project. On 7/1/2021, the Missouri Highways and Transportation Commission approved the FY 2022–2026 Statewide Transportation Improvement Program (STIP). Subsequently, on 9/9/2021, the Commission approved an amendment to the STIP to include funding for construction and right-of-way acquisition for the replacement of the Chester Bridge. Illinois, through IDOT's FY 2022–2027 Rebuild Illinois Highway Improvement Program, has committed funding for its portion of the cost of the Chester Bridge replacement.*

*20.* Pages 5-1 to 5-4, Section 5 – Environmental Commitments: The note "MoDOT will provide results/BA and all coordination with USFWS to USACE." was referenced in Environmental Commitments 9, 10, 12, 15, and 16.

This note was added to 3.2.3.1 Affected Environment (Endangered Species): *"The completed coordination must be provided as part of the USACE Section 408 application package."*

*21.* Pages 5-1 to 5-4, Section 5 – Environmental Commitments: Environmental Commitment 14 regarding caves was added in this section. Subsequent commitments were renumbered.

*No known occupied caves exist in the study area. If any are identified, MoDOT will coordinate with the USFWS. (Endangered Species – Section 3.2.3)*

*22.* Pages 5-1 to 5-4, Section 5 – Environmental Commitments: The previous final commitment was separated into two commitments as originally intended. These are now numbered 38 regarding the Traffic Management Plan and 39 regarding tribal requests.

*23.* Pages 5-1 to 5-4, Section 5 – Environmental Commitments: Commitment #40 was added to include a notification request from the U.S. Environmental Protection Agency (EPA - Region 7).

*MoDOT will notify the U.S. Environmental Protection Agency (EPA - Region 7) when the final decision has been made on the bridge type and if any deviations in the project plan occur that affect environmental impacts*

*24.* Final EA Appendix A – Exhibits: Three maps were reproduced with the final refined footprint for the Recommended Preferred Alternative. The refinements were previously included in the impact calculations and select figures in the distributed EA.

*25.* Final EA Appendix C – Environmental Site Assessment Summary: The location of the project area in the introduction of the Hazardous Waste Assessment technical memorandum was corrected to reference Perry County, Missouri, and Randolph County, Illinois.

*26.* Final EA Appendix F – Endangered Species Materials: Coordination meeting notes from 11/9/2020 and a subsequent USFWS technical assistance letter dated 12/11/2020 have been added to the previously included materials.

*27.* Final EA Appendix L – The *Aquatic Resources Delineation Report* has been added to the EA appendices as Appendix L, and a reference has been added to Page 3-44, Section 3.4.4 – Wetlands.

*28.* Multiple references to Southeast Metropolitan Planning Organization (SEMPO) have been corrected to reference the Southeast Missouri Regional Planning Commission (SEMO RPC).

## 1.0 Public and Agency Review/Comments on the EA

This section addresses the written comments received during the EA's availability period.

The EA document was made available for public review on April 16, 2021. The EA was available at the Chester Library (733 State Street, Chester, Illinois 62233) and posted on the study website and MoDOT project website at

http://www.chesterbridgestudy.com and https://www.modot.org/chesterbridge. Notice of the EA's availability was sent to broad range of organizations and agencies (**Table 1**). MoDOT published a news release and granted numerous requests for interviews with television, radio, and newspaper outlets. An email blast was sent to all stakeholders who had provided email addresses during the study. Letters regarding EA availability were also sent to the stakeholders who participated on the Community Advisory Group. The comment period concluded on May 17, 2021.

Table 1. Organizations Receiving Notice of EA Availability

| |
|---|
| U.S. Army Corps of Engineers – Section 408 Point of Contact |
| U.S. Army Corps of Engineers – Section 10/404 Point of Contact |
| U.S. Army Corps of Engineers – General NEPA Point of Contact |
| U.S. Army Corps of Engineers – Levee Engineering Point of Contact |
| Eighth Coast Guard District |
| Bois Brule Levee and Drainage District |
| U.S. Department of Agriculture – Natural Resource Conservation Service |
| Missouri State Historic Preservation Office |
| Federal Aviation Administration – Central Region |
| Federal Aviation Administration |
| RideIllinois |
| Randolph County Commissioners |
| U.S. Department of the Interior – U.S. Fish and Wildlife Service |
| Middle Mississippi River National Wildlife Refuge |
| U.S. Department of the Interior – National Park Service |
| State Emergency Management Agency – Missouri Department of Public Safety |
| Federal Emergency Management Agency |
| Missouri Department of Conservation |
| Kaskaskia Island Levee and Drainage District |
| City of Chester |
| Perry County Commissioners |
| Southeast Missouri Regional Planning Commission |
| Southwestern Illinois Metropolitan and Regional Planning Commission |
| U.S. Environmental Protection Agency |
| City of Perryville |
| Perryville Airport |
| New Bourbon Port Authority |
| Missouri Bicycle and Pedestrian Federation |
| Missouri Federal Assistance Clearinghouse |
| Missouri Department of Conservation |

## 1.1 Individual Public Comments

The public was encouraged to submit written comments during the EA's availability period using an online comment form. An email address and mailing address were provided as additional options for submitting comments. The online form allowed participants to provide input during the comment period (April 16 through May 17, 2021). A total of **122** public comments were received. These comments were categorized by the general topics they provided input on. With some comments covering multiple categories, a total of **178** categorized comments were registered. **Table 2** shows the breakdown of the comments. Copies of the actual comments are provided in FONSI **Appendix B**.

No comments opposing the project were recorded; rather, the comments addressed specific suggestions for improvement of the Preferred Alternative.

Table 2. EA Availability Period Comments (see FONSI Appendix B for actual comments)

| Comment Category and Description | Total Number of Category Comments | Percentage of Total Category Comments |
|---|---|---|
| 1. Support for the **Replacement** of the Chester Bridges (this includes those comments specifying that the river crossing stay in Chester) | 59 | 33% |
| 2. Specific support for the **Preferred Alternative** (Alternative U-1) | 24 | 13% |
| 3. Identification that the existing crossing is **Dangerous** (specifically that the design in substandard) | 9 | 5% |
| 4. Identification that the existing crossing is **Unsafe** (specifically that the condition of the bridge poor) | 20 | 11% |
| 5. The project should include **Bicycle/Pedestrian** facilities | 2 | 1% |
| 6. The comment form responses only contained answers to the demographic questions (**None**) | 26 | 15% |
| 7. The replacement of the crossing is important for **transportation and economic** reasons | 25 | 14% |
| 8. The replacement of the crossing should include correction of existing **flooding** issues. | 8 | 5% |
| 9. Repairing the **existing bridge** is acceptable | 4 | 2% |
| 10. Other – Federal Parks | 1 | 1% |
| **Totals** | 178 | 100% |

### 1. Support for the **Replacement** of the Chester Bridges

These comments support a new crossing. Many of these comments specifically address keeping the crossing in Chester. These comments support (tacitly or explicitly) the replacement of the existing bridges. Those comments supporting a possible rehabilitation of the existing bridges are contained in a separate category. This is the largest community of comments; 33 percent of the comments contained this general support.

*Project Team Response* – Support of the project has been strong throughout the project. This category represents that broad support. Many of these commentors also presented other more specific issues.

### 2. Specific support for the **Preferred Alternative**

The Preferred Alternative emerging from the Chester EA is Alternative U-1. Reasonable Alternative U-1 is also known as the Near Upstream Alternative). Shifting the alignment approximately 75 feet farther upstream ensures that that the existing roadway could remain operational during construction of the new embankment

and roadway while avoiding the need for any temporary shoring. Other minor refinements simplify the proposed roadway curvature as it ties into the existing roadway west of Taylor Street in Illinois and complete connections for intersecting roadways at PCR 946/238 in Missouri and Randolph Street in Illinois.

These comments specifically mentioned support for the Preferred Alternative. Thirteen percent of the comment categories address this support for the Preferred Alternative. No other alternative was mentioned in the comments.

*Project Team Response* – Support of the Preferred Alternative has been strong throughout the project. This category represents that strong specific support. The questionnaire was organized as a blank slate, without prompts to address the Preferred Alternative specifically. Consequently, this level of specific support is notable.

3. Identification that the existing crossing is **Dangerous**

Roughly five percent of the comment categories focused on how dangerous they viewed the crossing. Specifically, these people focused on how the design was substandard. Issues included how narrow the lanes are and how the bridge is frequently closed to allow wide loads to cross.

*Project Team Response* – As noted in the EA, the substandard design elements associated with the crossing are a major element of the project's Purpose and Need. Specifically, the EA notes that improving the crossing's design is a transportation problem that is addressed in the Chester Bridge project. Among the specific deficiencies include the following:

- The travel lanes on the existing bridges are 11 feet wide with no shoulders. The American Association of State Highway and Transportation Officials (AASHTO) now recommends a standard lane width of 12 feet.
- There is a complete lack of shoulders on the bridges. Stalled vehicles, wide load crossings, maintenance, and minor accidents on the bridges can result in significant delays. Because of the lack of emergency shoulders, clearing accidents sometimes requires blocking all traffic.
- The approaches at both ends of the existing crossing have curves. To maneuver through these curves, drivers of wider trucks and buses traveling in the right lane often encroach on the left travel lane, making it more difficult for vehicles operating in the left lane.
- The bridge's narrow lane width and lack of shoulders discourage pedestrians and bicyclists from crossing. However, the Chester crossing is a part of the U.S. Bicycle Route 76 (USBR-76) and Illinois' Mississippi River Trail.

4. Identification that the existing crossing is **Unsafe**

The comments regarding safety refer to the deteriorating condition of the crossings. Holes in the pavement were mentioned. Recent closures, during repairs, were another common issue. Many believe the bridge may be forced to close soon, based on the conditions they see. Eleven percent of the comment categories expressed this view.

*Project Team Response* – As noted in the EA, the condition of the crossing is a major element of the project's Purpose and Need. Specifically, the EA notes that addressing closures due to condition issues is a transportation problem that is addressed in the Chester Bridge project.

MoDOT's Bridge Inventory and Inspection System reports that the conditions for the Chester Bridge (L0135) are poor. Overall, from a structural standpoint, the inspection recommendation was consideration for the replacement of the bridge due to substandard load-carrying capacity. The Chester Bridge has been placed on the MoDOT List of Poor Bridges because of historically documented poor conditions. Barge strikes of piers force the closure of the Chester Bridge periodically to investigate the integrity of the piers and the bridge.

MoDOT's Bridge Inventory and Inspection System reports that the overall condition of the Horse Island Chute Bridge (L1004) is fair. Overall, from a structural standpoint, the inspection recommendation was for a bridge rehabilitation because of general structure deterioration and inadequate strength.

5. The project should include **Bicycle/Pedestrian** facilities

Two comments (1%) specifically included their desire for the project to include bicycle/pedestrian facilities.

*Project Team Response* – As mentioned above, the provisions for bicycle/pedestrian facilities were addressed in the Purpose and Need. To determine whether an alternative can satisfy this Purpose and Need element, screening criteria and performance measures were used. These performance measures examined whether bicycle/pedestrian facilities could be provided. It was determined that any New Build Alternative can be designed to accomplish these measures. However, the No-Build Alternative and the Rehabilitate the Existing Bridge Alternative will accomplish none of these measures. As noted in the EA, the substandard design elements associated with the crossing are a major element of the project's Purpose and Need.

## 6. The comment form responses only contained answers to the demographic questions (**None**)

To provide the project team with an understanding of the range of respondents for the online comment form, demographic questions included the location (zip code) of the respondents and asked the respondents to describe themselves (resident, business owner, truck driver). A surprising number of online comment form responses included only answers to these demographic questions without other comments about the project. This was done by 26 commentors (15 percent of comment categories).

*Project Team Response* – This was an unexpected result. Ultimately, the project team concluded that these individuals were supportive of the project and Preferred Alternative. The inclusion of the demographic data seemed to indicate they were aware and interested in the replacement of the existing crossing but did not have specific concerns or suggestions. However, when you consider the totality of public involvement effort, this result should have not been unexpected. Many people fell into the pattern of fact gathering, without strong opinions regarding the specifics of the build alternatives.

## 7. The replacement of the crossing is important for **transportation and economic** reasons

Fourteen percent of the comment categories dealt with the importance of the Chester crossing for local and regional transportation and economic reasons. Commuting, both for school buses and workers, was a common topic. Because of the length of the detour, these local trips would be virtually impossible without the Chester crossing (FONSI **Figure 2**). Regional transportation and economic benefits of the Chester crossing were also commonly addressed.

*Project Team Response* – As noted in the EA, regional connectivity is a major element of the project's Purpose and Need. Specifically, the EA discusses the important connectivity issues associated with the Chester Bridge/Horse Island Chute Bridge. These issues are described in terms of important regional connections as well as accommodating existing local pathways. Among the important connectivity elements described in the EA are the following:

- Consistency with the planning of the Southeast Missouri Regional Planning Commission
- Access to I-55
- Connection to the Truck Bypass
- Access to Chester
- Access to the Mississippi Riverfront
- Farm access
- Local road access


FONSI Figure 2. I-55 and Adjacent Mississippi River Bridges

8. The replacement should include correction of existing **flooding** issues

Five percent of the comment categories dealt with the problems associated with Mississippi River flooding. Predominately, the flooding issue was discussed as a bridge closure issue, rather than a specific flooding issue.

*Project Team Response* – As noted in the EA, Route 51 flood-related closures are a major element of the project's Purpose and Need. Specifically, the EA discusses that on the southwest side of the Mississippi River (Missouri), the topography is broad and flat. Flooding is a dominant feature affecting this landscape. The Bois Brule Levee and Drainage District covers the portion of Missouri in the vicinity of the Chester Bridge EA study area. There is a small gap in the Bois Brule Levee where the Horse Island Chute Bridge meets Route 51. This closes Route 51 and the river crossing.

9. Repairing the **existing bridges** is acceptable

Two percent of the comment categories dealt with the acceptability of repairing the existing bridges.

*Project Team Response* – Based on the questionnaire and the totality of the project's stakeholder outreach, this is a minority view. Rehabilitation of the Chester and Horse Island Chute Bridges would involve major structural steel repairs, deck replacement, cap replacement, and/or rail replacement at both bridges. While this would improve the crossings at the existing locations, it would not return the bridges to their original structural condition. It is assumed that this alternative would best represent a configuration that could maintain the historic integrity of the existing bridges. Preliminary structural investigations concluded that the rehabilitation would be quite expensive and result in bridges with a shorter operational life. During the evaluations of possible rehabilitations, 15- and 50-year rehabilitations were studied. The 50-year rehabilitation seems unlikely to result in a bridge that would retain the bridge's historic integrity. While the 15-year rehabilitation is more likely to retain the bridge's historic integrity, it is not considered a reasonable or cost-effective alternative. In either rehabilitation case, a standard 75-year design life for the existing bridge is not practically obtainable.

10. Other – Federal Parks

Under the Other comment category, it was pointed out, by a single individual, that the Chester Bridge project would provide important access to the Sainte Genevieve National Historical Park.

*Project Team Response* – Located approximately 12 miles upstream of the Chester Bridge, Sainte Genevieve is the first permanent European settlement in Missouri (1750). As discussed in **Section 1.3.4** of the EA (FONSI **Appendix A**), an important element of the project's Purpose and Need is maintaining/improving local and regional connectivity. One specific regionally important connection is via I-55. I-55 passes through rural areas as it makes a north-northwesterly run through the towns of Perryville and Sainte Genevieve before entering the southern reaches of the St. Louis metropolitan area. Consequently, the Chester Bridge EA will maintain/improve access to the Sainte Genevieve National Historical Park.

## 1.2 Agency Comments

Five comments were received from agencies, public groups/organizations, or Tribal Nations. Copies of the actual comments are provided in FONSI Appendix B.

1. Jointly, the Mayors of Chester, Illinois, and Perryville, Missouri, issued a short comment letter. As they have throughout the project, they express strong support for the replacement of the existing bridges. In their letter, they focused on the business consequences of the closure of the crossing.

MoDOT reports that based on recent experience, Route 51 needs to be closed when the river reaches 44 feet on the Chester gauge. According to the National Weather Service, only four events met the 44-foot level. Consequently, closures of Route 51 due to weather are relatively rare. However, all closures have been relatively recent (since 1973) and can be quite lengthy. The 2015 closure lasted roughly a week (December 28 through January 4). The 2017 closure also lasted nearly a week (May 4 through May 10). The most recent closure, occurring in June 2019, lasted 21 days (June 2 through June 22).

Based on their experience with the most recent closures, they focused on the following:

- The cost to workers/commuters who use the crossing. They estimate that thousands of workers per

day fall in this category.
- The companies that have interrelated facilities in both Illinois and Missouri. For example, they cited that the Gilster-Mary Lee company incurred costs of nearly $100,000 per week in additional mileage and lodging costs.
- Farmers' activities, which are similarly limited when their equipment cannot use the crossing

2. The Perry County (Missouri) Commission issued a support letter for the Preferred Alternative. This letter was very similar to the letter from the Mayors of Chester and Perryville.

3. The US Coast Guard (USCG) wrote to inform the project team that they had received and reviewed the EA. They agreed with the Preferred Alternative recommendation.

4. The U.S. Environmental Protection Agency (EPA) (Region 7), in accordance with their responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act, has reviewed the EA. They concluded that "at this time the EPA has no jurisdictional comments that would hinder continuance of this project." They also requested notification when the final decision has been made on the bridge type and if any deviations in the project plan occur that affect environmental impacts. This request was added to the Environmental Commitments (#40).

5. The US Army Corps of Engineers reviewed the EA. Many of the additions and corrections included in the Final EA/Errata are the result of this review.

# 2.0 Selected Alternative

## 2.1 Summary of the Selected Alternative

Based on the project's Purpose and Need, logical termini, study area, and Reasonable Alternatives, a Selected Alternative emerged. This alternative, the Near Upstream Conceptual Alternative (U-1), best addresses the identified Purpose and Need of the project, connects at the logical termini, and, once completed, is expected to be nearly indistinguishable in alignment from the existing crossing. The crossing is approximately 75 feet upstream of the existing corridor.

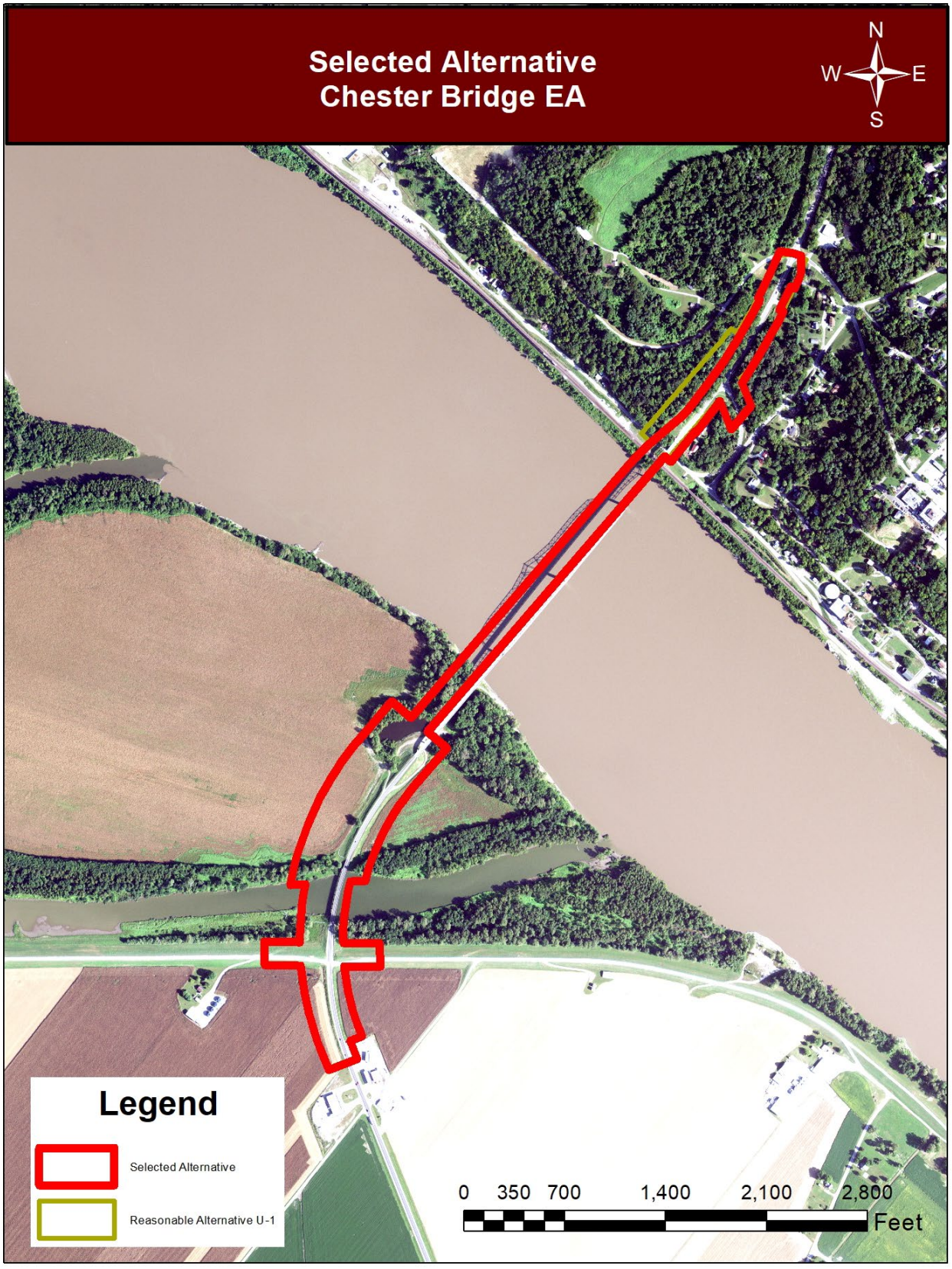
The Selected Alternative recommendation for the Chester Bridge project is the Near Upstream Conceptual Alternative (U-1), which connects at the logical termini and moves the crossing approximately 75 feet upstream of the existing corridor.

For both bridges, the bridge typical section is assumed to be 40 to 44 feet wide, with two 12-foot travel lanes and 8- to 10-foot shoulders. A 16.5-foot minimum vertical clearance is assumed to allow for most oversized loads and large farm equipment to cross the river without stopping traffic and provide room to maneuver during emergencies or to remove disabled vehicles from the travel lanes. The shoulders would allow bicyclists and pedestrians to cross the bridge without using the vehicular travel lanes and provide space for disabled vehicles, incident management, and some maintenance activities.

The roadway typical sections are specified to match the bridge sections (40 to 44 feet wide, with two 12-foot travel lanes and 8- to 10-foot shoulders). Recently, the functional classification of Route 51 was changed from minor arterial to principal arterial, from Perryville to the Missouri/Illinois state line. The design speed and posted speed will be 45 miles per hour. Existing intersections and turning movements will be maintained in their current configurations. Direct access to the roadways for individual driveways will be maintained, to the extent possible.

The Selected Alternative has no obvious shortcomings relative to the bridge types seen as potentially suitable to the conditions. Because vertical clearances can affect navigation and bridge height can affect aviation, agency coordination with the USCG and the Federal Aviation Administration (FAA) will be necessary to establish an appropriate Environmental Commitment to balance bridge height and vertical clearance considerations associated with the Selected Alternative.

FONSI **Figure 3** depicts the Selected Alternative.




FONSI Figure 3. Selected Alternative

## 2.2 Selected Alternative Alterations

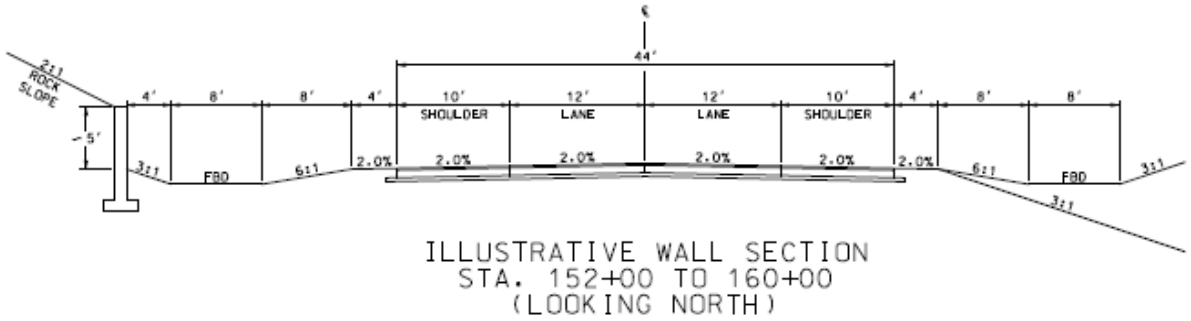
Based on coordination of the Tentative Preferred Alternative, the configuration of the Selected Alternative was modified to avoid important resources. The changes incorporated into the Selected Alternative are within the normal design ranges.

The responsibility for cultural resource investigations was split between the states of Missouri and Illinois. In June 2018, IDOT produced a report documenting known archaeological resources in the Illinois portion of the project area.

An evaluation was conducted to investigate avoidance of cultural resources. Ultimately, proposed modifications were developed that would avoid impacts to the archaeological sites, while avoiding impacts to Segar Memorial Park and the Illinois Welcome Center. In order to accomplish this, the following alterations to the Selected Alternative were proposed:

- A reverse curve was introduced on the Illinois approach of the Chester Bridge and extending into the end bridge spans. The main spans of the bridge are unaffected by this revision.
- Other engineering treatments were considered to reduce the impact of the roadway and avoid encroachment into the known archaeological sites. Such treatments may include rock-lining, which maintains stability while allowing construction of steeper slopes, constructing retaining walls, reducing or eliminating roadside drainage ditches, and others.

**FONSI Figure 4** illustrates a combination of rock-lined slope and retaining wall to minimize impacts to known archaeological sites. While the actual constructed solution may vary from what is depicted on the figure, it will be an environmental commitment to minimize impacts to the archaeological sites. **Section 3** lists the project's environmental commitments.




FONSI Figure 4. Cross-Section Showing Refinements to the Selected Alternative

These changes also affect bridge costs. Construction costs increased due to the curvature in the end spans on the Illinois side of the river bridge. The total cost estimate for the updated Selected Alternative is $195,800,000 in 2019 dollars. This is 2 percent higher than the original cost estimate. Every other configuration would also have to avoid impacts to the archaeological sites, while still avoiding the parcel that contains Segar Memorial Park and the Illinois Welcome Center. The cost increases would also apply to the other configurations.

## 2.3 Funding Commitment

Missouri and Illinois will share the cost of the Chester Bridge project.

The Missouri Highways and Transportation Commission approved the FY 2022–2026 Statewide Transportation Improvement Program (STIP) on 7/1/2021. Subsequently, on 9/9/2021, the Commission approved an amendment to the STIP to include funding for construction and right-of-way acquisition for the replacement of the Chester Bridge.

Illinois, through IDOT's FY 2022–2027 Rebuild Illinois Highway Improvement Program, has committed funding for its portion of the cost of the Chester Bridge replacement.

# 3.0 Environmental Commitments

The project's environmental commitments are depicted below. The referenced sections are where the commitments are discussed in the Final EA (see FONSI **Appendix A**).

1. MoDOT will implement all project and regulatory commitments, whether or not specifically delineated herein, after construction limits are determined. Federal authorization for construction will not be granted until the necessary regulatory obligations have been satisfactorily completed. (**General – Section 3.0**)
2. MoDOT will ensure that if there are changes in the project scope, project limits, existing conditions, pertinent regulations, or environmental commitments, MoDOT must re-evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from FHWA. (**General – Section 3.0**)
3. MoDOT will ensure that, prior to construction, additional Environmental Site Assessments are conducted, as appropriate, at the following locations:
   Site 6: Midwest Petroleum Store No 1020
   Site 7: Midwest Petroleum Store No 1021
4. Additionally, MoDOT will coordinate with FHWA for potential impacts at any high-risk sites, if impacted. **(Hazardous Materials – Section 3.1.2)**
5. MoDOT will ensure that its construction inspector has access to the complete Hazardous Material Site Inventory, including the categorization of the risks associated with these sites. The construction inspector will direct the contractor to cease work at the suspect site if regulated solid or hazardous wastes are found during construction. The construction inspector will contact the appropriate environmental specialist to discuss options for remediation. The environmental specialist, the construction office, and the contractor will develop a plan for sampling, remediation, and continuation of project construction. Independent consulting, analytical, and remediation services will be contracted if necessary. MDNR/IDNR and EPA will be contacted for coordination and approval of required activities. **(Hazardous Materials – Section 3.1.2)**
6. MoDOT will ensure that all needed demolition notices, abatements notices, and project notifications to MDNR/IDNR will be submitted, prior to beginning demolition activities. Asbestos-containing material and demolition debris will be disposed of according to state and federal regulations. **(Hazardous Materials – Section 3.1.2)**
7. MoDOT will ensure that all structures scheduled for demolition are inspected for asbestos-containing material and lead-based paint. MoDOT and the contractor will submit all required demolition notices, abatements notices, and project notifications to MDNR as required by regulation prior to beginning demolition activities. Asbestos-containing material and demolition debris will be disposed of according to state and federal regulations. The reports of these inspections for asbestos and the presence of lead-based paint will be included in the construction bid proposal. **(Hazardous Materials – Section 3.1.2)**
8. Once the project moves into detailed design, IDOT will complete a PESA on the portion of the Selected Alternative that falls within Illinois to identify RECs. Prior to the purchase of property and prior to construction in study areas located in Illinois, a PSI will be performed at each affected property containing a REC to determine the nature and extent of the hazardous material present. The PSI will include assessment for lead-based paint and asbestos containing materials. **(Hazardous Materials – Section 3.1.2)**
9. FHWA is the lead federal agency for this project. MoDOT is the designated non-federal representative for FHWA for completing coordination for compliance with Section 7 of the ESA and with the Missouri Endangered Species Act. Consultation will include obtaining an updated official species list via IPaC and will be completed prior to construction or before any federal funds or resources (i.e., removal of trees) are obligated. **(Endangered Species – Section 3.2.3)** MoDOT will provide BA and all coordination with USFWS to USACE.
10. Prior to consultation, MoDOT will conduct a complete habitat assessment for suitable summer bat roost trees and any use of the Horse Island Chute Bridge for the Selected Alternative. **(Endangered Species – Section 3.2.3)** MoDOT will provide results and all coordination with USFWS to USACE.
11. If necessary, based upon the results of habitat assessment and consultation with USFWS, MoDOT will incorporate seasonal tree-clearing restrictions of suitable roost trees as a conservation

measure/environmental commitment to avoid adversely affecting northern long-eared and Indiana bats. **Tree clearing will not occur prior to consultation being complete. (Endangered Species – Section 3.2.3)**

12. MoDOT will, pursuant to the Migratory Bird Treaty Act, inspect structures for nests prior to construction. If active nests (those with eggs or young) are observed, measures will be taken, including seasonal demolition restrictions, to prevent killing birds and destruction of their eggs and to avoid conflict with the Migratory Bird Treaty Act. The project area will be screened for bald eagle nests prior to construction. If necessary, seasonal restrictions to avoid non-purposeful take will be implemented. **(Endangered Species – Section 3.2.3)** MoDOT will provide results and all coordination with USFWS to USACE.
13. IDOT will contact the IDNR Fisheries Lower Mississippi River Biologist at least 60 days prior to blasting. **(Unique Habitats – Section 3.2.1.3 and Endangered Species – Section 3.2.3)**
14. No known occupied caves exist in the study area. If any are identified, MoDOT will coordinate with the USFWS. **(Endangered Species – Section 3.2.3)**
15. MoDOT has a history of employing repelling charges and millisecond delays during demolition of the bridge. Repelling charges are used to scare fish from the area before bridge spans are dropped into the water. Seasonal restrictions for demolition and any bathymetric surveys needed for US Army Corps of Engineers or US Coast Guard purposes will also be shared and discussed with US Fish and Wildlife Service for Section 7 consultation. MoDOT will provide results and all coordination with USFWS to USACE.
16. MoDOT will submit a BA and initiate informal consultation for the project. Although specific project details are not known at this time, it can be reasonably assumed that project activities could include the following: construction activity, tree clearing, bridge demolition, and rock blasting. The BA currently being prepared further details measures to minimize impacts to bats, such as minimizing the amount of explosives to be used for bridge and/or rock bluff demolition; minimizing pile driving; minimizing tree clearing; completing an acoustic survey; and other appropriate mitigation as determined by the USFWS. The agreed upon measures to minimize impacts will be outlined in the BO rendered by USFWS that will be carried forward as JSPs in the contract documents. **(Endangered Species – Section 3.2.3)** MoDOT will provide BA and all coordination with USFWS to USACE.
17. IDOT will contact the IDNR Fisheries Lower Mississippi River Biologist at least 60 days prior to blasting. (**Unique Habitats – Section 3.2.1.3 and Endangered Species – Section 3.2.3**)
18. MoDOT will also assess the Horse Island Chute Bridge for any nesting birds and apply the MoDOT Migratory Bird Job Special Provision for demolition of both structures, as needed. **(Endangered Species – Section 3.2.3.3)**
19. MoDOT will ensure that the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, be carried out without discrimination based on race, color, national origin, religion, and age and in compliance with Title VI (the Civil Rights Act of 1964), the President's Executive Order on Environmental Justice, and the Americans with Disabilities Act. In accordance with the Uniform Act and the states' relocation programs, fair market compensation will be provided to property owners who are affected by this project. **(Right-of-Way/Property Acquisition – Section 3.3.4)**
20. MoDOT will ensure that, should a floodplain encroachment occur, a floodplain permit will be acquired. MoDOT will conduct an engineering analysis for the Selected Alternative prior to submission of the floodplain development permit application to SEMA and IDNR/Office of Water Resources. The contractor will obtain a floodplain development permit and no-rise certification. **(Aquatic Environment – Section 3.4)**
21. MoDOT will design the roadway to a 100-year flood level to accommodate the Brule Bois Levee. Remediation of the existing gap in the levee will be addressed as part of permit coordination with the USACE and Bois Brule Levee District. **(Aquatic Environment – Section 3.4.2.1)**
22. MoDOT will obtain authorization by an Individual Clean Water Act Section 404 Permit from USACE, including Section 401 Water Quality Certification from MDNR/IEPA. **(Aquatic Environment – Section 3.4.4)**
23. MoDOT will ensure sediment and erosion control BMPs are implemented. MoDOT will develop and implement two SWPPPs to comply with the Missouri State Operating Permit No. MO-R 100007 and the IEPA general National Pollution Discharge Elimination System (NPDES) Permit ILR10. During construction, MoDOT and its contractors would implement the SWPPPs to minimize adverse impacts to the Mississippi River and waters adjacent to the project corridor. The contractor would implement the current SWPPP held by MoDOT for work

in Missouri and would apply for a NPDES permit and develop a SWPPP for work to be completed in Illinois. **(Aquatic Environment – Section 3.4)**

24. MoDOT will obtain a Section 10 Rivers and Harbor Act of 1899 Letter of Permission from USACE for fill and excavation within the Mississippi River. **(Aquatic Environment – Section 3.4.2.5)**
25. MoDOT will obtain a Section 9 Bridge Permit from USCG prior to construction, approving the location and plans of bridges over a commercially navigable waterway in accordance with all applicable federal laws, if required. The contractor will submit a work plan to USCG, who would in turn issue a permit that includes specific requirements such as displaying lights to alert river traffic of barges and new piers. **(Aquatic Environment – Section 3.4.2.4)**
26. MoDOT will coordinate (and obtain) a Rivers and Harbors Act Section 408 Permit from USACE for any alterations to USACE structures. Remediation of the existing gap in the levee will be addressed as part of permit coordination with the USACE and Bois Brule Levee District. **(Aquatic Environment – Section 3.4.1)**
27. MoDOT will coordinate with USCG to halt river traffic during demolition activities. The contractor will submit a work plan to the USCG who would in turn issue a permit that includes specific requirements such as displaying lights to alert river traffic of barges and new piers. Temporary lighting and signage will be installed to direct and warn boaters and barges of construction on the bridge. **(Aquatic Environment – Section 3.4.2.4)**
28. MoDOT will coordinate with the Chester Water Department and the Menard Correctional Center should water quality concerns arise that may negatively affect public drinking water such as an accidental petroleum or chemical spill from contractor operations. If dredge discharge were to be authorized in the Mississippi River, MoDOT would discharge this material downstream from Chester's public drinking-water intake. The No-Build Alternative would not have impacts on existing ground or drinking water. **(Aquatic Environment – Section 3.4.5.3)**
29. MoDOT will submit an official FAA 7460 evaluation and complete required mitigation prior to construction. The 7460 evaluation provides a more precise explanation on the landing surfaces affected and offers mitigation strategies. The submittal of the 7460 evaluation and completion of required mitigation will occur within FHWA's timeframe(s). **(Aviation – Section 3.5.3)**
30. MoDOT and IDOT will ensure that all stipulations outlined in the Section 106 MOA be fulfilled within 5 years of the date of execution of the MOA by FHWA. The MOA will be contained in the **Project Record** and available upon request to the MoDOT Historic Preservation Section. **(Cultural Resources – Sections 3.6.1.3 and 4.12)**
31. Additional archaeological investigations are required if potential impact to the four sites (11R931 to 11R934) cannot be avoided. Further coordination with the SHPO is required after potential impacts to the four sites have been determined. Plans developed for this area will designate avoidance areas. **(Cultural Resources – Section 3.6.1.4)**
32. MoDOT will coordinate with the USCG to schedule dates of the closures of the navigation channel, including the duration of these closures. **(Construction – Section 3.6.3.2)**
33. MoDOT will negotiate and execute an agreement with the Union Pacific Railroad prior to seeking federal authorization for construction. To avoid train-traffic interruptions, the contractor will coordinate to schedule girder settings and for handling other materials over the railroad tracks. Railroad flagmen will be retained during construction when potential impacts to the rail system could occur. Construction of nearby bridge piers will require flaggers during construction operations. **(Construction – Section 3.6.3.2)**
34. MoDOT will ensure that details of utility disposition are determined during project design. Agreements with utilities will be negotiated and executed prior to seeking project federal authorization for construction. MoDOT's and IDOT's utility engineers and representatives of the various utilities will plan the details of individual utility adjustments on a case-by-case basis. MoDOT and IDOT will disconnect and reconnect electrical service lines on the bridge responsible for navigating lighting to the new structure. Temporary power or lights will be maintained for navigation lighting during construction. **(Construction – Section 3.6.3.2)**
35. MoDOT will ensure that contractors control fugitive dust to prevent it from migrating off the limits of the project corridor. **(Construction – Section 3.6.3.2)**
36. MoDOT will include standard specifications in the construction contract requiring all contractors to comply

with all applicable local, state, and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. **(Construction – Section 3.6.3.2)**

37. MoDOT will ensure that careful refueling practices are employed to limit spills of gasoline and diesel fuels. Oil spills will be minimized by frequently evaluating construction equipment. **(Construction – Section 3.6.3.2)**

38. MoDOT will, prior to construction, develop a Traffic Management Plan to create a set of strategies for managing the work zone of the project during construction. The Traffic Management Plan will balance the mobility and safety needs of the motoring public, construction workers, businesses, and the community. Further, it must be reviewed within the context of this NEPA document and its Environmental Commitments. As referenced in Environmental Commitment #1, MoDOT will ensure that if there are changes in the construction impacts used in the EA, prior written approval from FHWA will be required. Further, the distribution of appropriate public information will be required. (**Construction – Section 3.6.3.2)**

39. MoDOT will ensure that all tribal requests be addressed punctually. All existing requests have been addressed and are listed in **Section 4.10**.

40. MoDOT will notify the U.S. Environmental Protection Agency (EPA – Region 7) when the final decision has been made on the bridge type and if any deviations in the project plan occur that affect environmental impacts.

# 4.0 Required Permits

The following permits and approvals will be required for construction of the Selected Alternative:

- Section 404 Permit and Section 401 Water Quality Certification under the Clean Water Act (see Environmental Commitment #22)
- Compliance with the Missouri State Operating Permit No. MO-R 100007 and the IEPA general National Pollution Discharge Elimination System Permit ILR10 (see Environmental Commitment #23)
- Section 10 Rivers and Harbor Act of 1899 Letter of Permission from USACE for fill and excavation within the Mississippi River (see Environmental Commitment #24)
- Section 9 Bridge Permit from USCG prior to construction, approving the location and plans of bridges over a commercially navigable waterway (see Environmental Commitment #25)
- A Rivers and Harbors Act Section 408 Permit from USACE for any alterations to USACE structures, coordinated (and, if necessary, obtained) by MoDOT (see Environmental Commitment #26)
- A USCG permit that includes specific requirements such as displaying lights to alert river traffic of barges and new piers. Temporary lighting and signage will be installed to direct and warn boaters and barges of construction on the bridge (see Environmental Commitment #27).
- The FAA 7460 evaluation and required mitigation, which will be conducted prior to construction (see Environmental Commitment #29)
- A floodplain permit. MoDOT will conduct an engineering analysis for the Selected Alternative prior to submission of the floodplain development permit application to SEMA and IDNR/Office of Water Resources. The contractor will obtain a floodplain development permit and no-rise certification (see Environmental Commitment #20).
- Missouri Land Disturbance Permit
- Missouri Demolition Permit