ARKANSAS STATE HIGHWAY AND

TRANSPORTATION DEPARTMENT

Scott E. Bennett, P.E.

Director

Telephone: (501) 569-2000

Voice/TTY: 711





P.O. Box 2261 Little Rock, AR 72203-2261 Telefax: (501) 569-2400

www.ArkansasHighways.com

October 15, 2015

Ms. M. Elaine Edwards Chief, Regulatory Division Little Rock District Corps of Engineers P.O. Box 867 Little Rock, AR 72203-0867

Re:

AHTD Job Number CA0906 USACE No. SWL 2015-00027

Maxie Camp Rd. - Hwy. 206 (Hwy. 65 Widening)(S)

Boone County

Dear Ms. Edwards:

Enclosed are the draft Non-NEPA documentation, Approved Jurisdictional Determination (AJD), and supporting materials for the referenced project. The proposed AHTD project would widen 4.5 miles of Highway 65. A detailed description of the proposed roadway improvements can be found in the enclosed Non-NEPA documentation.

There are approximately 303 linear feet of permanent stream impacts and approximately 30 feet of temporary stream impacts. The permanent impacts are associated with Stream 8 (Elm Branch) and Stream 9 (an unnamed tributary to Elm Branch). Temporary impacts are associated with Stream 7 (Hog Creek). There will be no wetland impacts due to construction activities.

The AHTD design standards must comply with any FEMA-approved local floodplain ordinances. The proposed project will not impact State lands, National or State wild or scenic rivers, or Extraordinary Resource/Ecologically Sensitive water bodies. Construction of this project should be allowed under terms of a Nationwide Permit 14 for Linear Transportation Projects.

If additional information is required, please contact Josh Seagraves of my staff at (501) 569-2522.

Sincerely,

John Fleming Division Head

Environmental Division

Enclosures: Draft Non-NEPA Documentation USACE AJD Design drawings

Environmental Document

AHTD JOB NUMBER CA0906

Maxie Camp Rd. – Hwy. 206 (Widening) (S) Boone County, Arkansas

Submitted Pursuant to Issue No. 1, an Amendment to Provide Additional Funding for Highways, County Roads, City Streets, Bridges, and Surface Transportation

By the

Arkansas State Highway and Transportation Department

Prepared by:
Jennifer Bell
Burns & McDonnell Engineering Company, Inc.

September 23, 2015

10/1/2015 Date of Approval

John Fleming
John Fleming
Environmental Division Head
Arkansas State Highway and
Transportation Department

AHTD Job Number CA0906 Non-NEPA Environmental Document Page 1 of 2

The Connecting Arkansas Program Manager (CAPM) has reviewed the referenced project as a Non-NEPA project.

The purpose of this project is to improve capacity and safety on this major rural arterial. Total length of the project is 4.5 miles. It extends from Maxie Camp Road to Highway 206 in Boone County. Figure 1 illustrates the project location.

The existing roadway consists of a minimum of two 12-foot-wide paved travel lanes with 6- to 8-foot-wide shoulders. Existing right of way width is 132 feet.

Proposed improvements include four 12-foot-wide paved travel lanes, an 11-foot paved center turn lane, and 8-foot-wide shoulders. Through the City of Valley Springs, proposed improvements include four 11-foot-wide paved travel lanes, a 12-foot paved center turn lane, and 8-foot-wide shoulders. The average additional right of way width will be 63 feet. Approximately 35 acres of additional right of way will be required for this project.

Design data for this project is as follows:

Design Year	Average Daily Traffic	Percent Trucks	Design Speed
2016	8,600	9	60 mph
2036	11,500	9	60 mph

Two archaeological sites and 69 historic-age, non-archaeological resources were documented. One of the archaeological sites (Site 3BO280) and one of the historic-age resources (Structure 38B) were determined to be eligible for inclusion in the National Register of Historic Places (NRHP) (see SHPO response dated April 21, 2015). Because Site 3BO280 cannot be avoided by the project, a Memorandum of Agreement (MOA) with SHPO was signed to resolve the adverse effect on this site (see SHPO response dated June 9, 2015, and attached MOA). Construction in Elm Branch and an unnamed tributary, totaling 303 linear feet of impacts should be allowed under the terms of a Section 404 Nationwide Permit (NWP) 14 for Linear Transportation Projects as defined in Federal Register 77(34):10184-10290. Construction of a work road at Hog Creek, resulting in approximately 30 feet of temporary impacts, should also be allowed under the terms of a NWP 14. Field inspections found four potential hazardous materials sites and/or areas of concern within or adjacent to the environmental boundary for the proposed project. No further investigations were recommended for these sites.

AHTD Job Number CA0906 Non-NEPA Environmental Document Page 2 of 2

There are minor impacts to the Zone A Special Flood Hazard Area (SFHA) for Elm Branch in Valley Springs. There are no published base flood elevations (BFE) for this unstudied stream. However, comparison of existing and proposed condition riverine models indicates an increase in the BFE of 0.3 feet, less than the 1 foot threshold that would require a Conditional Letter of Map Revision within a Zone A SFHA. No building structures will be adversely affected by this minor increase.

There are two residential and two business relocations associated with this project. Public Law 91-646, Uniform Relocation Assistance Act (URAA) of 1970, as amended, will apply.

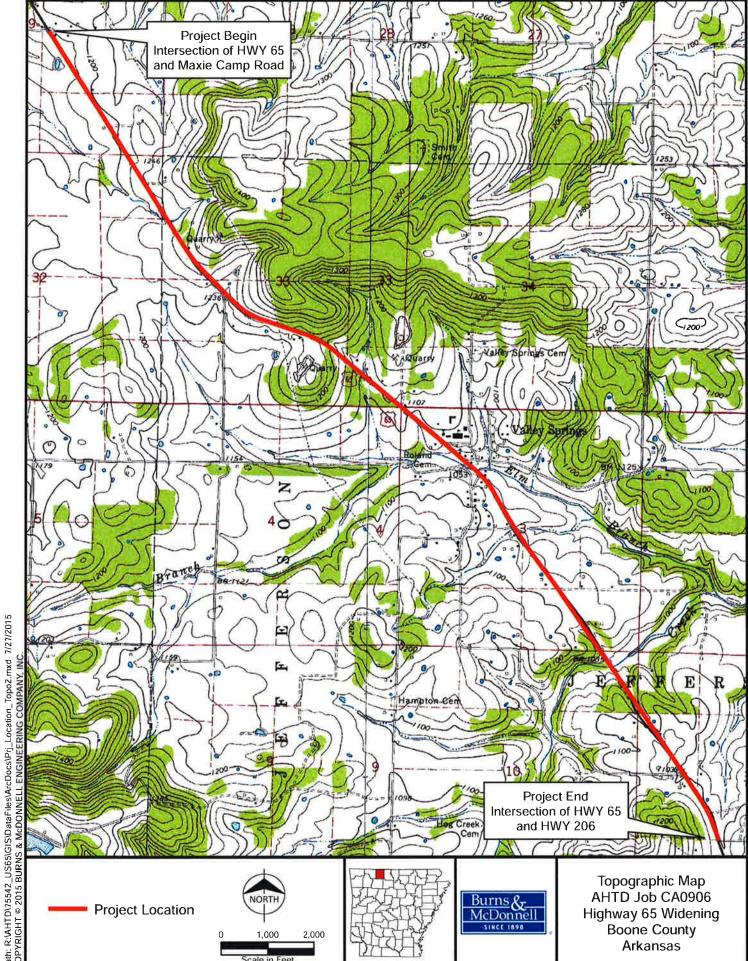
A Public Information Meeting was held on August 5, 2014, at the First Baptist Church Valley Springs (Family Life Center) in Valley Springs, Arkansas. A synopsis of this meeting is attached.

There are no endangered species or Executive Order 12898 Environmental Justice issues involved with this project.

Listing of Commitments

- 1. Wellhead Protection Special Provision
- 2. Restraining Conditions Special Provision
- 3. Water Pollution Control Special Provision
- 4. Cave Discovery Special Provision
- 5. Nesting Sites of Migratory Birds Special Provision
- 6. Section 404 Nationwide Permit 14
- 7. Short Term Activity Authorization
- 8. NPDES Permit
- 9. Floodplain Development Permit
- 10. MOA for Site 3BO280
- 11. Site 38B Architectural Resource Form
- 12. URAA will apply

Path: R:WHTDV5542_US65\GIS\DataFiles\ArcDocs\Pri_Location_Checklist.mxd 3/10/2015 COPYRIGHT © 2015 BURNS & McDONNELL ENGINEERING COMPANY, INC.



Source: USGS Topographic Map, Boone County DRG Mosaic; ESRI Basemap Data, 2010

Issued: 7/27/2015



Asa Hutchinson
Governor

Stacy Hurst Director

Arkansas Arts Council

Arkansas Natural Heritage Commission

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars Cultural Center

Old State House Museum



Arkansas Historic Preservation Program



323 Center Street, Suite 1500 Little Rock, AR 72201

> (501) 324-9880 fax: (501) 324-9184 tdd: 711

> > e-mail:

into *a* arkansaspreservation.org website:

www.arkansaspreservation.com

An Equal Opportunity Employer

April 21, 2015

Mr. Bill McAbee CAP Environmental Program Manager 4701 Northshore Drive North Little Rock, Arkansas 72118

Re: Boone & Newton Counties – General

Section 106 Review - FHWA

AHTD Job No. CA0906 - Hwy 65-Maxie Camp Rd to Hwy 123

(Widening)(S)

Burns & McDonnell Project No. 75542 AHPP Tracking Number 90599.1

Dear Mr. McAbee:

The staff of the Arkansas Historic Preservation Program has reviewed the cultural resource survey report entitled Cultural Resources Survey Arkansas State Highway and Transportation Department Highway 65: Maxie Camp Road to Highway 123 Boone and Newton Counties, Arkansas. This report documents a cultural resources survey that was of sufficient intensity to identify resources that might be eligible for inclusion in the National Register of Historic Places (NRHP) and is acceptable.

Two archeological sites (3BO280 and 3BO281) were recorded as a result of this work. In addition, a previous survey of standing structures resulted in a finding that 68 structures are not eligible for inclusion in the NRHP, but that one (a barn temporarily recorded as structure 38B) is eligible. An Architectural Resource Form should be completed for that structure and submitted to this office for our records.

We agree that 3BO281 is not eligible for inclusion in the NRHP, but disagree that 3BO280 is also not eligible. The documentary research carried out clearly demonstrates that this site is associated with early settlers in the area. Therefore, we recommend that if it cannot be avoided, test excavations be carried out to determine the site's eligibility for inclusion in the NRHP.

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Steve Imhoff of my staff at 501-324-9270.

Sincerely,

Francis Meswall

Frances McSwain

Deputy State Historic Preservation Officer

cc: Dr. Richard Allen Cherokee Nation of Oklahoma

Mr. Everett Bandy, Quapaw Tribe of Oklahoma

Ms. Lisa C. Baker, United Keetoowah Band of Cherokee Indians

Mr. John Fleming, Arkansas State Highway & Transportation Dept.

Ms. Tamara Francis-Fourkiller, Caddo Nation

Mr. Andrew S. Gottsfield, Burns & McDonnell Engineering Co., Inc.

Dr. Andrea Hunter, Osage Nation

Mr. Randal Looney, Federal Highway Administration



June 9, 2015

RECEIVED

Asa Hutchinson Governor

> Stacy Hurst Director

Arkansas Arts Council

Arkansas Natural Heritage Commission

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars Cultural Center

Old State House Museum



Arkansas Historic Preservation Program



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Mr. Bill McAbee CAP Environmental Program Manager Connecting Arkansas Program 4701 Northshore Drive North Little Rock, Arkansas 72118

DIRECTOR'S OFFICE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

JUN 1 2 2015

RE: Boone & Newton County - General Section 106 Review - FHWA

Job No. CA0906 - Hwy. 65-Maxie Camp Rd to Hwy 123

(Widening)(S)

AHPP Tracking Number 90599.3

Dear Mr. McAbee:

This letter is written in response to your inquiry regarding properties of archeological, historical or architectural significance in the area of the proposed undertaking.

My staff has reviewed the revised Memorandum of Agreement (MOA) that details measures needed to mitigate adverse effects to archeological site 3BO280. We find the MOA to be acceptable and have enclosed a copy signed by the Arkansas State Historic Preservation Officer. If the terms of the MOA are carried out, we find that this undertaking will have no adverse effect on historic properties.

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Steve Imhoff of my staff at 501-324-9270.

Sincerely.

Franco weswain

Frances McSwain

Deputy State Historic Preservation Officer

cc: Dr. Richard Allen, Cherokee Nation of Oklahoma

Ms. Lisa C. Baker, United Keetoowah Band of Cherokee Indians

Mr. Everett Bandy, Quapaw Tribe of Oklahoma

Mr. John Fleming, Arkansas State Highway & Transportation Dept.

Mr. Andrew S. Gottsfield, Burns & McDonnel Engineering Co., Inc.

Dr. Andrea Hunter, Osage Nation

Ms. Kim Jumper, Shawnee Tribe of Oklahoma

MEMORANDUM OF AGREEMENT

BETWEEN THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

AND ARKANSAS STATE HISTORIC PRESERVATION OFFICER

Pursuant to 36 CFR §800.6(c)

Regarding the

Arkansas State Highway and Transportation Department

Job Number CA0906

Highway 65: Maxie Camp Road to Highway 123 (Widening) (S)

Boone and Newton Counties, Arkansas

WHEREAS, the Arkansas State Highway and Transportation Department (AHTD) has determined that Job CA0906, the proposed widening of Highway 65 to five lanes for a distance of 7.5 miles between Maxie Camp Road and Highway 123 in Boone and Newton counties, Arkansas, is necessary to serve the transportation needs of the area to improve traffic flow, safety, and capacity in the project area; and

WHEREAS, a cultural resources survey of the area of potential effect (APE) of this undertaking has been completed and all cultural resources have been identified and evaluated for their eligibility for inclusion in the National Register of Historic Places (NRHP) by AHTD in consultation with the Arkansas State Historic Preservation Officer (SHPO); and

WHEREAS, in accordance with 36 CFR §800 regulations implementing Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 F), the AHTD in consultation with the Arkansas State Historic Preservation Officer (SHPO) has determined that Job CA0906 will have an adverse effect on Site 3BO280, an archaeological site determined eligible for listing in the National Register of Historic Places for its association with early settlement in the Valley Springs area; and

WHEREAS, shovel testing completed during the archaeological survey work at the site revealed that the presence of intact archaeological deposits in the area of potential effect (APE) is limited due to very shallow soils over bedrock; and

WHEREAS, the AHTD must fulfill its responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended and the implementing regulations of the Advisory Council on Historic Preservation set forth in 36 CFR Part 800; and

WHEREAS, the regulations of the Advisory Council on Historic Preservation (AHCP) set forth at 36 CFR Part 800 implementing Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470f) are applicable throughout the Memorandum of Agreement (MOA); and

NOW THEREFORE, the AHTD and SHPO agree that in order to mitigate the adverse effect on this historic structure, the Project shall be implemented with the following stipulations.

STIPULATIONS

The ATHD will ensure that the following stipulations are carried out.

- I RESOLUTION OF ADVERSE EFFECT ON THE HISTORIC PROPERTY (Site 3BO280)
 - 1. The AHTD will produce architectural documentation of the structural remains at Site 3BO280 that meets the Secretary of Interior's "Standards and Guidelines for Archaeology and Historic Preservation" set forth in 48 FR 44716. The Arkansas Historic Preservation Program (AHPP) 2009 "Survey Procedures Manual: Guidelines for Historic and Architectural Surveys in Arkansas" meets these standards.
 - 2. This documentation will include the completion of an Arkansas Architectural Resource form, and will be submitted to the SHPO for review and comment.
 - 3. Documentation shall include properly labeled and archived digital color photographs.
 - 4. Documentation shall include a formal report of detailed archival research on 3BO280 that will document the importance of the site and individuals associated with it in local history.
 - 5. No construction will be undertaken on the historic property until all fieldwork portions of the required mitigation have been completed and the SHPO has reviewed the documentation and found it acceptable.
 - 6. The AHTD shall ensure that adequate time and funding are provided to carry out all aspects of the required mitigation.

II. HUMAN REMAINS

If human remains are encountered during implementation of the project, all activity in the vicinity of the discovery shall cease, and the AHTD will immediately notify local law enforcement and the SHPO. The treatment of human remains shall follow the guidelines developed for the Arkansas Burial Law (Act 753 of 1991, as amended) and the Advisory Council on Historic Preservation's "Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects" published February 23, 2007.

III. DURATION

This MOA will remain in effect for a period not to exceed ten years from the date of ratification, or until the proposed construction is complete. It may be extended by agreement of all the signatories.

IV. PROFESSIONAL QUALIFICATIONS STANDARDS

The AHTD shall ensure that all archeological investigations and other historic preservation activities to this MOA are carried out by, or under the direct supervision of, a person or persons meeting the appropriate qualifications set forth in the Secretary of the Interior's professional qualification standards (48 CFR 44739).

V. ARCHEOLOGICAL FIELDWORK AND REPORT STANDARDS

All archeological field work and report writing shall follow the Secretary of the Interior's Standards and Guideline for Archeology and Historic Preservation (48 CFR 44716-39) and Appendix B of *A State Plan for the Conservation of Archeological Resources in Arkansas* (Davis and Early 2010).

VI. DISCOVERY SITUATIONS

Pursuant to 36 CFR part 800.13, if cultural material is discovered during implementation of the project, the AHTD shall ensure that all construction activities cease in the area of the discovery and that the consulting parties are notified. The AHTD and the SHPO shall determine if the discovery is eligible for inclusion in the National Register of Historic Places. If so, the AHTD will develop a treatment plan for historic properties which shall be reviewed and approved by the SHPO. Disputes arising from such review shall be resolved in accordance with Stipulation VII.

VII. DISPUTE RESOLUTION

Should the SHPO or any consulting party object to any findings, proposed actions or determinations made pursuant to this MOA, the AHTD shall consult with the objecting party to resolve the objection. If the AHTD determines that the objection cannot be resolved, it shall request further comments from the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR Part 800.6(b). Any Council comment provided in response to such a request shall be taken into account by the AHTD in accordance with 36 CFR 800.6(b)(2) with reference only to the subject of the dispute. The ATHD responsibility to carry out all actions under this MOA that are not subject to dispute shall remain unchanged.

VIII. MONITORING

The consulting parties or one or more parties in cooperation may monitor the undertaking and stipulations carried out pursuant to this MOA.

IX. AMENDING THE MEMORANDUM OF AGREEMENT

Should any of the signatories to this MOA believe that the terms of this MOA are not being met, or cannot be met, that party shall immediately notify the other signatories and request consultation to amend this MOA in accordance with 36 CFR Part 800.6(c). The process to amend this MOA shall be conducted in a manner similar to that leading to the execution of this MOA.

X. TERMINATING THE MEMORANDUM OF AGREEMENT

Any signatory to this MOA may terminate it by providing thirty (30) calendar days written notice to the other parties, provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the AHTD shall comply with 36 CFR Part 800.4 through 800.6 with regard to the undertaking covered by this MOA.

XI. FAILURE TO CARRY OUT THE MEMORANDUM OF AGREEMENT

In the event the AHTD does not carry out the terms of the MOA, the AHTD shall comply with 36 CFR Part 800.4 through Part 800.6 with regard to the undertaking covered by this MOA.

XII. FULFILLMENT OF SECTION 106 RESPONSIBILITIES

Execution and implementation of this MOA evidences that the AHTD has taken into account the effect of the undertaking on the historic properties.

SIGNATORY PARTIES

ARKANSAS HISTORIC PRESERVATION PROGRAM

Stacy Hurst

Arkansas State Historic Preservation Officer

Data

SIGNATORY PARTIES

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Director of Highways and Transportation

6-15-2015 Date



United States Department of the Interior

FISH AND WILDLIFE SERVICE 110 S. Amity Road, Suite 300 Conway, Arkansas 72032 Tel.: 501/513-4470 Fax: 501/513-4480

June 17, 2014

713-4470 Fax. 301/313-44



Ms. Brenda Price Assistant Environmental Division Head Arkansas Highway and Transportation Department P.O. Box 2261 Little Rock, AR 72203-2261

Re: AHTD Jobs # CA0906 (Hwy. 65 Widening near Western Grove) Boone and Newton Counties, Arkansas

Dear Ms. Price:

This letter provides U.S. Fish and Wildlife Service (Service) comments on the above referenced project and is in reply to your letter dated May 30, 2014. Our comments are submitted in accordance with the Endangered Species Act of 1973 (87 stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The proposed Arkansas State Highway and Transportation Department project involves widening a 7.46 mile segment of Highway 65 from two to four lanes and adding an 11 foot painted median. The project extends from the intersection at Highway 123 in northern Newton County north to the intersection at Maxie Camp Road in southern Boone County.

A review of the proposed project area revealed that no candidate, threatened or endangered species are likely to be affected by the project. As a result, the Service concurs with your agency's determination that the project is not likely to adversely affect listed species. No further consultation is required for this project unless new information regarding listed species is presented prior to or during construction.

Thank you for allowing our agency the opportunity to comment on the proposed project. For future correspondence on this matter, please contact Mitch Wine of this office at (501) 513-4488 or mitch wine@fws.gov.

Sincerely,

Melvin Tobin

Deputy Project Leader

cc:

Randal Looney, Federal Highway Administration
John Fleming, Arkansas Highway and Transportation Department
Cindy Osborne, Arkansas Natural Heritage Commission
Jennifer Sheehan, Arkansas Game and Fish Commission
Johnny McLean, U.S. Army Corps of Engineers
Wanda Boyd, United States Environmental Protection Agency

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Job CA0906

Maxie Camp Rd. - Hwy 206 (Widening) (S)

Boone County

August 5, 2014

An open-forum public involvement meeting for the proposed Maxie Camp Rd. – Hwy. 206 (Widening) (S) was held at the First Baptist Church Valley Springs (Family Life Center) in Valley Springs, Arkansas from 4:00 – 7:00 p.m. on Tuesday, August 5, 2014. Efforts to involve minorities and local property owners in the meeting(s) included:

- Display ad placed in the Harrison Daily Times on July 26 and August 2, 2014
- Letters to public officials mailed on July 23, 13 days prior to the meeting
- Meeting notice flier mailed to adjacent property owners July 24, 12 days prior to the meeting
- Meeting notice flier distributed door-to-door July 30, 7 days prior to the meeting
- News release distributed by the Arkansas State Highway and Transportation Department on August 1, 5 days prior to the meeting
- Meeting notice flier posted on ConnectingArkansasProgram.com and ArkansasHighways.com on July 16

The following information was available for inspection and comment. Small-scale copies of the displays are attached to this synopsis.

- Two aerial photograph roll plots at a scale of 1" = 100', illustrating the entire length of the proposed project
- Two 36" x 48" aerial photographs on mounted boards at a scale of 1" = 500', illustrating the entire length of the proposed project
- Three CAP informational boards

Handouts for the public included a comment sheet and a small-scale map illustrating the project location, which was identical to the aerial photograph display. Copies of these are attached to this synopsis.



Table 1 describes the results of public participation at the meeting.

Table 1				
Public Participation	Total			
Attendance at meeting (including AHTD and CAP staff)	97			
Comments received	36			

Burns & McDonnell reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is random and is not intended to reflect importance or numerical values. Some of the comments were combined and/or paraphrased to simplify the synopsis process.

An analysis of the responses received from the public survey is shown in Table 2.

Table 2				
Survey Results	Totals			
Supports improvements to Highway 65	27 (75%)			
Does not support improvements to Highway 65	6 (17%)			
Knowledge of historical, archeological or cemetery sites	4 (11%)			
Knowledge of area environmental constraints	4 (11%)			
Suggestion to better serve the needs of the community 11 (3				
Believes the project would have beneficial impacts 8				
Believes the project would have adverse impacts 17 (47				
Total Comments Received 36				



The following is a listing of comments concerning issues associated with this project.

Comments expressing concerns about the project:

- Three individuals commented that the project should be left as-is, one noting it is not needed because money was just spent to add the third lane
- One individual commented that the project is not needed because traffic is not bad
- One individual was concerned with safety issues due to proximity of the school to a four-lane highway
- Three individuals commented that their septic lateral lines are close to the highway or that tanks could be impacted
- Five individuals expressed concern over perceived historic resources, one being the store building at Valley, two noting the Rusty Wheels Antique Engine Club, and two noting a historic-age house
- Six individuals were concerned with impacts on property access and driveways, one specifically noting the length of construction and impacts to businesses due to access
- Eight individuals were concerned with the proximity of the widened road to their house, one specifically noting concern over the impact to property value, and two with specific concern over the loss of pasture and buildable property
- Two individuals were concerned with the proximity of relocated power lines to their house
- Three individuals were concerned with removal of trees on adjacent properties
- One individual identified property improvements that would be needed as a result of the project
- Three individuals commented that the project would have an adverse impact on the Faith Baptist Chapel
- One individual was concerned that the project would have an adverse impact on emergency vehicle access at the Valley Springs Fire Department

Comments expressing support of the project:

- Five individuals commented that the proposed project would improve traffic flow and/or safety and benefit the area, with one specifically noting the easing of congestion at the Valley Springs School
- One individual commented that the project is needed to make progress

Comments providing specific recommendations to be considered for the project:

- One individual commented that a turning lane is needed on this segment of Highway 65
- Three individuals suggested that the project would better serve the community if it includes traffic control or bypass lanes for Valley Springs School



- Three individuals suggested that the project would better serve the community if it includes driveway/access improvements
- One individual commented that additional passing zones should be constructed on Highway 65 between Clinton and Harrison

Discussion

The majority of respondents and attendees (75%) were supportive of the project and believed it would improve traffic flow along Highway 65. A particular area of congestion that was raised by several attendees was in the vicinity of Valley Springs School. Currently, there is only one thru lane so during the morning and afternoon, the queuing of vehicles turning into the school renders that lane nearly inoperable. The project will ease this situation by providing an additional lane for thru traffic. There was also interest from several attendees in the extension of these improvements southward toward Western Grove or further; these individuals understood that such improvements were being considered for future projects.

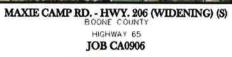
While respondents were supportive of the project, interestingly, more (47%) felt it would have adverse impacts as compared to the 22% who felt it would have beneficial impacts. The responses to this question were the result of property impacts that the widening of the roadway will cause. The concerns expressed by attendees were impacts to septic systems, proximity of the roadway to their home, the removal of their home or church, and removal of trees.

Attachments:

- Small-scale display copy of the aerial photograph board
- Blank comment form
- 11x17 map handout













ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT (AHTD)





CITIZEN COMMENT FORM

AHTD JOB NUMBER CA0906

MAXIE CAMP RD. – HWY. 206 (WIDENING) (HWY. 65)

BOONE COUNTY

LOCATION:

FIRST BAPTIST CHURCH VALLEY SPRINGS (FAMILY LIFE CENTER)
4547 HOG CREEK ROAD
4:00 - 7:00 p.m.
TUESDAY, AUGUST 5, 2014

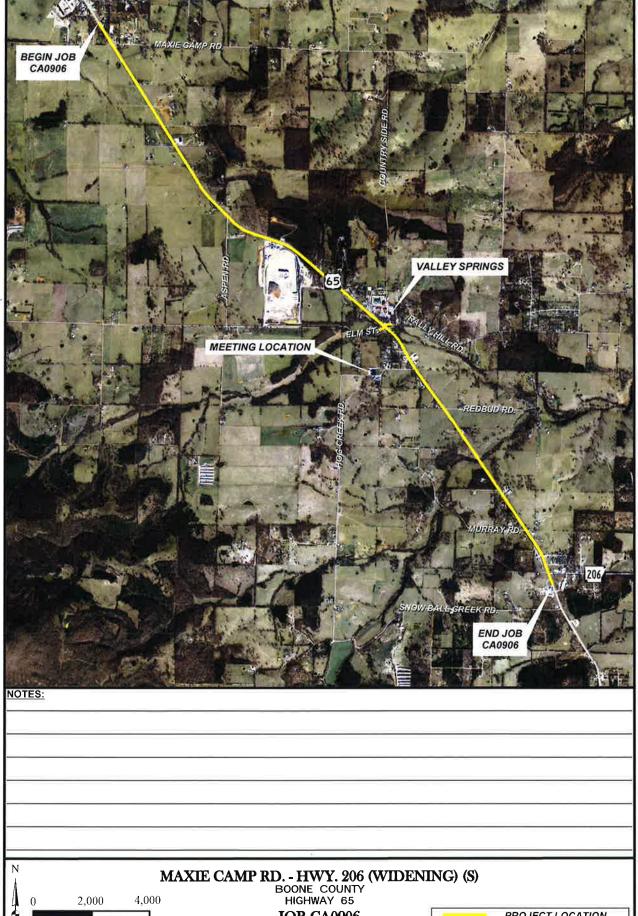
Make your comments on this form and leave it with AHTD Connecting Arkansas Program personnel at the meeting or mail it within 15 days to: AHTD Connecting Arkansas Program, Attn: Jon Hetzel, 4701 Northshore Drive, North Little Rock, AR 72118. Email: Info@ConnectingArkansasProgram.com.

Yes	NO	
		Do you feel there is a need for the proposed widening of Hwy. 65 from Maxie Camp Road to Hwy. 206?
		Do you know of any historical sites, family cemeteries, or archaeological sites in the proposed area? Please note and discuss with staff
		Do you know of any environmental constraints, such as endangered species, hazardous waste sites, existing or former landfills, or parks and public lands in the vicinity of the project? Please note and discuss with staff.

(Continued on back)

Do you feel that the proposed widening project will have any impacts (Beneficial or Adverse) on your property and/or community (e.g. economic, environmental, social, etc.)? Please explain. It is often necessary for the AHTD to contact property owners along potential routes. It you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you. Name: (Please Print) Address: Phone: (
Do you feel that the proposed widening project will have any impacts (Beneficial or Adverse) on your property and/or community (e.g. economic, environmental, social, etc.)? Please explain. It is often necessary for the AHTD to contact property owners along potential routes. I you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you. Name:
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you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you. Name:(Please Print) Address:Phone: ()
you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you. Name:(Please Print) Address:Phone: ()
E-mail:
Please make additional comments here.

For additional information, please visit our website at www.ConnectingArkansasProgram.com





JOB CA0906

PROJECT LOCATION





AHTD ENVIRONMENTAL IMPACTS ASSESSMENT FORM

AHTD Job I	Number	CA0906	FAP Number	9991	
Job Title	Maxie Cam	np Road to Hwy. 20	06 (Hwv. 65 Widening)		

Environmental Impacts	None	Minor	Significant	Comments
Air Quality	Х			
Construction Impacts		Х		Temporary minor impacts
Cultural Resources		Х		SHPO letter attached
Economic	Х			
Endangered Species	Х			
Energy Resources	Х			
Environmental Justice/Title VI	Х			
Fish and Wildlife	Х			,
Floodplains		Х		Zone A, less than 1 foot rise
Forest Service Property	Х			
Hazardous Materials/Landfills	Х			
Land Use Impacts	Х			
Migratory Birds	Х			Nesting Site of Migratory Birds SP
Navigation/Coast Guard	X			
Noise Levels	Х			
Prime Farmland	Х			
Protected Waters	Х			
Public Recreation Lands	X			
Public Water Supply/WHPA	Х			Wellhead Protection and Water
Fublic Water Supply/WHFA	^			Pollution Control SPs
Relocatees		Х		2 residences and 2 businesses
Section 4(f)/6(f)	Х			
Social	Χ			
Underground Storage Tanks	Х			
Visual Impacts	Х			
		х		Bridge replacements; 303 feet
Stream Impacts	- 1			permanently impacted; 30 feet
				temporarily impacted
Water Quality		X		Minor and temporary during
				construction
Wetlands	Χ			
Wildlife Refuges	Χ			

Wildlife Refuges	Х			
Section 401 Water Quality Certif	ication F	Required?	N	
Short-term Activity Authorization	Require	ed?	Y	
Section 404 Permit Required?			Y	Type Nationwide Permit 14

AHTD ENVIRONMENTAL IMPACTS ASSESSMENT FORM

Remarks:				
Signature of Evaluator	July Strul	Date	7/16/2015	

BRIDGE DESIGN INFORMATION

Job Number	CA0906	_FAP Number	9991		County	Boone
		Camp Rd. – Hv				
Design Engine	er <u>Burns</u>	& McDonnell E	ngineering (Company, I	nc.	
Description of Bridge Number	56.000	Bridge: signed_overE	lm Branch			
Bridge Location		Street (a city st				
	Section	on: <u>2 (Hwy. 65</u>)Log M	ile: <u>8.49 (l</u>	Hwy. 65), 8	0 ft Rt.
Length: 10 ft. Type Construct	Br. tion:	Rdwy. width: _(Pipe Culvert	<u>)</u> ft.	Deck width	(Out-to-Ou	t) <u>NA</u> f
Deficiencies <u>l</u>	<u>nadequate</u>	culvert length ar	nd capacity			
HBRRP Eligibil	ity:	_Qualifying Cod	e:	Sufficiency	Rating: _	NA
Proposed Imp Length: 45.23 Travel Lanes:	rovements 3' Br. 14'-14	s: Rdwy, Width: <u>0</u> ‡'	, Shou	_ Deck Widle	dth (Out-to- 1.5' Curb	out) <u>NA</u> &Gutter
Sidewalks: Y	es Loca	tion: <u>Lt. side wi</u>	th 3'-0" gras	s berm	Width:	5'-0"
Superstructure Span Lengths:	tion to exis Type: 45.23	ting bridge: <u>R</u> Quintuple R.C.	Box Culvert		cation & sk	ew
Concrete Volur Is backfill reg'd	ne below C ? No	<u>1046.0</u> No. of E HW:yo	1 ³	Vol. Bent E	xcavation:	<u>NA</u> yd
Is Channel exc Is fill below OH Is riprap req'd?	W req'd? _	'd? <u>Yes</u> S Yes S	urface Área urface Area	: 3,500 ft ² : 1,500 ft ²	Volume: Volume:	110 yd 250 yd ³
Is fill below OH	required? W req'd? <u>N</u>	<u>No</u> Location: <u>A</u> S t backwater crite	urface Area	: <u>NA</u> ft ^r	Top ² Volume:	width: <u>NA</u> f <u>NA</u> yd
Length: NA	ge required Br.	? <u>No</u> Location Rdwy. Width: <u>N</u>	Α	Deck Ele	vation: N	4
Volume of fill be	elow OHW:	NA	vd ³	Surface are	ea∵ NA	ft

DATE	SUBMITTED

BRIDGE DESIGN INFORMATION

Job Number_	CA0906	_FAP Number	9991	Cou	ntyBo	one
Job Name	Maxie	e Camp Rd. – Hw	y. 206 (H	wy 65 Widening)		
Design Engine	er <u>Burns</u>	& McDonnell Er	ngineering	Company, Inc.		
Description o Bridge Numbe	r A087	2 over	Elm 6	3ranch		
Bridge Locatio	n: Rte:	65 Section:	2	Log Mile: 8	3.57	
Length: <u>72 f</u> Type Construc	t. Bi	. Rdwy. width: Concrete Tee E	<u>40 </u>	Deck width (C	out-to-Out)	<u>50</u> ft.
Deficiencies	Inadequate	width, scour of p	iers, poor	structural rating,	deck eleva	tion no
longer met rec	uired roadv	vay geometric de	sign criteri	а		
HBRRP Eligib	ility:	_Qualifying Code	e:	_Sufficiency Ra	ting: <u>54.2 l</u>	٧Q
Travel Lanes:	<u>-0"</u> Br. 11'-1	Rdwy. Width: <u>58</u> 1'-12'-11'-11'	Sho	ulder Width:1	<u>.5' Curb & (</u>	<u>Gutter</u>
Sidewalks:	<u>res</u> Loc	ation: <u>Both sides</u>	with 3'-0"	grass berm	Width:	5'-0"
Construction Location in rel		n sting bridge: <u>S</u>	ame locati	on		
		Continuous Cor				
Span Lengths	50'-6	0'-50'				
Substructure 7	уре:	End bents set of	n piles, in	termediate bents	s set on drill	ed
shaft foundati						
Concrete Volu	me below C	. <u>1044.0</u> No. of DHW: <u>55</u> yo	3	Vol. Bent Exca	vation: 55	5 yd ³
Is Channel exc Is fill below Oh Is riprap req'd'	HVV req'd?_	i'd? <u>Yes</u> Si Yes S	urface Are urface Are	a: <u>1,300</u> ft² V a: <u>2,800</u> ft² V	olume: 12 olume: 3	<u>:0</u> yd ³ 70yd ³
Work Road In	formation:					
Is work road(s) required?	Yes Location:	Downstre	am of structure	Top widt	h: 16 ft
Is fill below OF	∃W req'd?_	Yes S	urface Are	a: <u>2,000</u> ft² Vo	olume: <u>22</u>	<u>25</u> yd ³
Are pipes requ	iired to mee	t backwater crite	ria? <u>Yes</u>			
Detour Inform		d? <u>No</u> Locatior	n in relatio	n to existing hrid	ae. NA	
Length: NA		Rdwy. Width: N		Deck Elevati	_	
Volume of fill k		-	_ yd ³	Surface area:		ft ²

BRIDGE DESIGN INFORMATION

Job Number	CA0906	_FAP Number	9991	C	ounty	Boone
Job Name	Maxie	Camp Rd Hw	y. 206 (Hwy	65 Widenir	ng)	
Design Engine	er <u>Burns</u>	& McDonnell En	gineering Co	ompany, Inc	С.	
Description o Bridge Numbe	r 03736	over	Hog Cre	eek		
Bridge Locatio	n: Rte:	65 Section:	L	_og Mile: _	9.58	
Length: <u>179</u> f	t. Br	. Rdwy. width: _2	<u>88</u> ft.	Deck width	(Out-to-Ou	ut) <u>33.4 f</u> t.
		Steel Stringer		matahura ele	0	مام ماء
		width, column cra quired roadway g				
HRRRP Fligibi	litu:	_Qualifying Code	·	Sufficiency l	Rating 63	6 EO
TIDITATA Eligibi	y	_waamying oode		Juniciency i	valing. <u>00</u>	.010
Proposed Imp	rovements	:				
Length: 202'	-6" Br.	Rdwy. Width: <u>75</u> <u>''-11'-12'-12'</u> tion: <u>NA</u>	-0"	Deck Widt	h (Out-to-o	ut) 74'-2"
Travel Lanes:	12'-12	·'-11'-12'-12'	Should	der Width:	8`'-0"	
Sidewalks: N	lo Loca	tion: NA		-	Width:	NA
Superstructure Span Lengths: Substructure T shaft foundation Ordinary High	ation to exist Type:60'-80 ype:ons Water Elev.	ting bridge: <u>Sa</u> Continuous Con	nposite W-B n piles, inter Bents inside	eam Unit mediate be OHW Cont	nts set on o	
Is backfill req'd	? <u>No</u>					
Is Channel exc Is fill below OH Is riprap req'd?	W req'd? _	d? <u>No</u> Su <u>No</u> Su	rface Area:	<u>NA</u> ft ² V <u>NA</u> ft ² V	olume: <u>N</u> olume: <u>N</u>	IA_yd ³ IA_yd ³
Work Road In	formation:					
ls work road(s) ls fill below OH	required? _ W req'd?	Yes Location: Yes Subackwater criter	rface Area:			
Detour Inform		.				
		? No Location				
Length: <u>NA</u> Volume of fill b		Rdwy. Width: <u>N/</u>		Deck Eleve Surface area		ft ²
volulie of fill b		INA	∵vu S	ourrace area	1. IVA	

DESIGN INFORMATION

Job Number CA0906 FAP Number 9991	County	Boone
Job Name Maxie Camp Rd Hwy. 206 (Hwy 65 Widenin	ıg)	
Design Engineer Burns & McDonnell Engineering Compa	any, Inc.	
Brief Project Description Widening of 4.5 miles of two lane	e roadway to five	alane
roadway		
EXISTING CONDITIONS:		
Roadway Width: 24'-48' Shoulder Width: 6'-8	,	
Number of Lanes and Width: 2 to 3 12' lanes		
Average Existing ROW Width 132'		
PROPOSED CONDITIONS:		
Roadway Width: 56' (urban); 59' (rural) Shoulder W	idth: <u>8'</u>	
Number of Lanes and Width: 12'-12'-11'-12'-12' (rural); 11	'-11'-12'-11'-11'	(urban)
Average Existing ROW Width 195'		
CONSTRUCTION INFORMATION:		
If detour: Where <u>Elm Street</u> Length	0.45 mile	
(Note: Detour is only for a portion of side street construction	n. There are no	detours for
Hwy. 65 traffic.)		
DESIGN DATA:		
2016 ADT 8,600 2036 ADT 11,500 %Trucks 9 Design Spec	ed_60(rural); 45	(urban) mph
Approximate total length of project:		4.5 mile(s)
Justification for improvements:	nd capacity of th	nis major
arterial		



DEPARTMENT OF THE ARMY

LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
POST OFFICE BOX 867
LITTLE ROCK, ARKANSAS 72203-0867
www.swl.usace.army.mil/

MAR 1 0 2015

Regulatory Division

FILE No. SWL 2015-00027

Mr. Ray Balentine CAP Environmental Manager Arkansas Highway and Transportation Department PO Box 2261 Little Rock, Arkansas 72203-2261

Dear Mr. Balentine:

Please refer to your letter concerning a delineation and jurisdictional determination (JD) titled, Wetland Delineation Report, Highway 65 Widening: Maxie Camp Road to Highway 123, dated May 2014, and performed by your contractor, Burns and McDonnell. The project begins approximately 1.5 miles north of Valley Springs, in section 29, T. 18 N., R. 19 W., and extends to just south of Western Grove in section 25, T. 17 N., R. 19 W., Boone and Newton Counties, Arkansas. Total project length is approximately 7.5 miles. Approximately 4,174 linear feet of potentially jurisdictional streams and approximately 0.4 acres of potentially jurisdictional ponds were identified in the Report. We have enclosed project location maps that show the pond and stream locations and two tables from the contractor's report with some of our field notes. This letter will provide information on the extent of the waters of the United States, including wetlands, on the property and the Department of the Army permit requirements pursuant to Section 404 of the Clean Water Act.

We inspected the site with Ms. Kayti Ewing of the Arkansas Highway and Transportation Department (AHTD) on November 4, 2014. Our site inspection revealed that the property contains areas that meet the definition of waters of the United States, as determined by the Corps of Engineers Jurisdictional Determination Form Instructional Guidebook, appropriate guidance, and Department of the Army regulations. Our inspection determined that approximately 2,817 linear of feet of streams are jurisdictional waters of the United States. The following is a brief summary of what we determined to be jurisdictional in each of the areas identified in the Report.

- a. We concur with the Report that Ponds 1, 2, 3 and 4 are not jurisdictional and there are no wetlands within the proposed highway right-of-way for this project.
- b. We concur with the Report that Streams 4, 6 (Snowball Branch), 7 (Hog Creek), 8 (Elm Branch), and 9 are jurisdictional.
 - c. We concur with the Report that Streams 1, 2, 3 and 10 are not jurisdictional.

d. We do not concur that Stream 5 is ephemeral and non-jurisdictional. We noted a defined bed and bank, and pools of water upstream from Highway 65. Therefore, we determined that it is intermittent and jurisdictional.

This letter contains an approved jurisdictional determination (AJD) for the subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Southwestern Division Office at the following address:

Mr. Elliott Carman Administrative Appeals Review Officer (CESWD-PD-O) U.S. Army Corps of Engineers 1100 Commerce Street, Suite 831 Dallas, Texas 75242-1317

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. If you have any questions regarding the appeals process, you can contact Mr. Elliott Carman at 469-487-7061.

It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

This approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision of the determination before the expiration date.

Your cooperation in the Regulatory Program is appreciated. If you have any questions, please contact Mr. Johnny McLean at (501) 324-5295 and refer to Project No. SWL 2015-00027, U.S. Highway 65 Widening from Valley Springs to Western Grove.

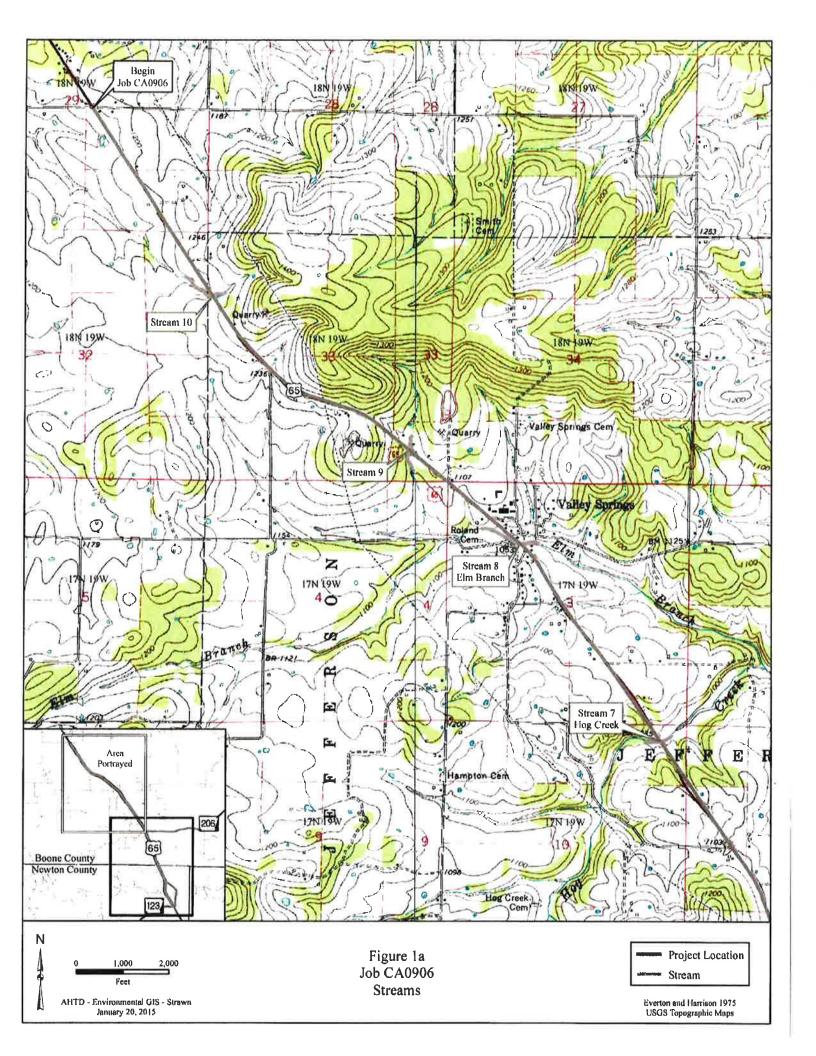
Sincerely,

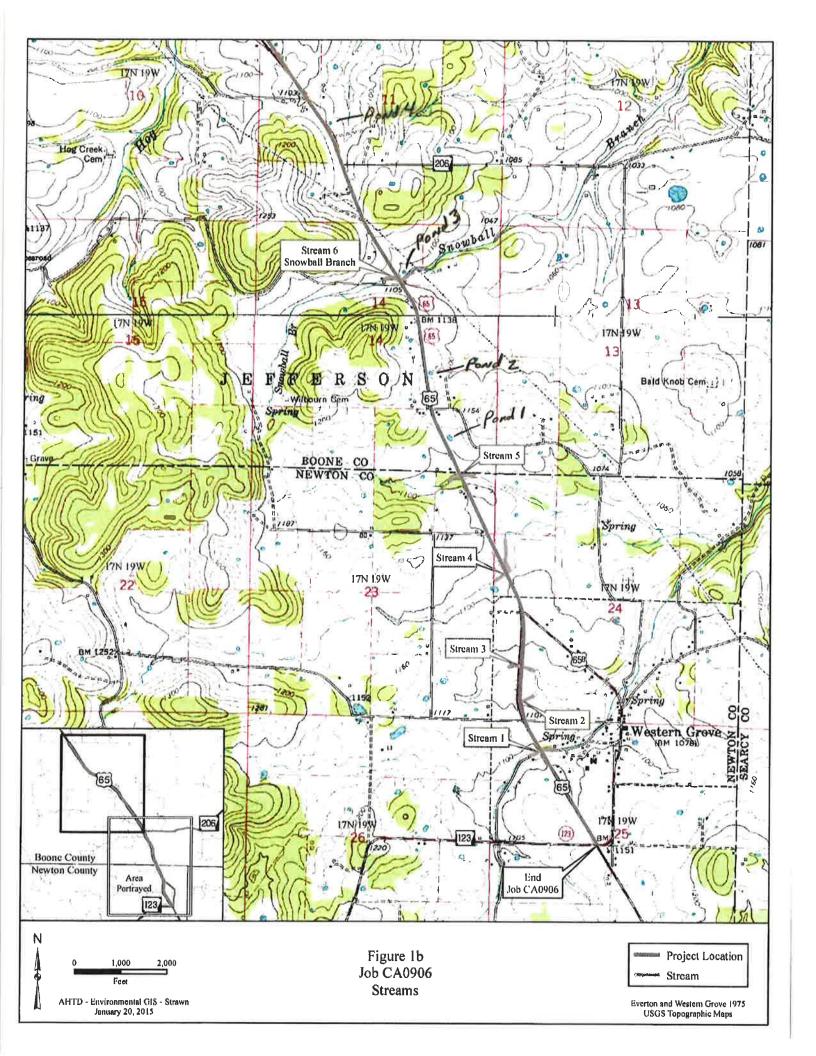
Sarah Chitwood

Chief, Regulatory Evaluation Branch

Enclosures

Copy Furnished: Burns and McDonnell, w/cy encls. AHTD, Mr. Josh Seagraves w/cy encls.







Highway 65 Widening: Maxie Camp Road to Highway 123

AHTD Job No. CA0906

May 29, 2014

Page 5

Table 2: Type and Size of Ponds Identified within the Survey Area

Pond Number	Potentially Jurisdictional?	Area (acre)	
P-1	No ✓	0.110	
P-2	No 🗸	0.107	
P-3	No ~	0.111	
P-4	No ~	0.075	
	Total:	0.403	

Table 3: Type and Length of Streams Identified within the Survey Area

Stream Number	Stream Type	Potentiall Jurisdiction		Delineated Length of Stream (linear feet)*
S-1	Ephemeral	No -	/	331
S-2	Ephemeral	No -		198
S-3	Ephemeral	No ~		324
S-4	Ephemeral	Yes v		582
S-5	Ephemeral - Inter	emotion to)	<	331
S-6- SNOWBALL	Intermittent	Yes	√	432
S-7- Hog	Perennial	Yes .	/	326
S-8- &/M	Perennial	Yes c	/	772
S-9	Ephemeral	Yes +	/	374
S-10	Ephemeral	No -	/	504
			Total:	4,174

Streams

Stream 1 (S-1). Stream 1 is an ephemeral stream that flows southeast below Highway 65 (Figure 4, Appendix I; Photographs 6 and 7, Appendix III). The channel averages approximately two to five feet in width. S-1 ran parallel with Circle Street. The substrate of S-1 consists primarily of rocks and gravel. Riparian vegetation adjacent to the stream channel and on the banks included giant ragweed, mustang grape, eastern red cedar, hackberry, Chinese privet (Ligustrum sinense), and greenbrier. Due to lack of a well-defined OWHM, S-1 would not be considered potentially jurisdictional and would not be regulated under Section 404 of the CWA.

APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I:	BACKGROUND	INFORMATION

- REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD); 1/16/15

В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Little Rock, U.S. Hwy. 65 Widening East of Harrison, SWL 2015-00027
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Arkansas County/parish/borough: Boone and Newton City: Harrison
	Center coordinates of site (lat/long in degree decimal format): Lat. 36.1559° N, Long92.9923° W. Universal Transverse Mercator: Northing 4001239 Easting 500692
	Name of nearest waterbody: Unnanmed Streams 1, 2, 3, 4, 9 and 10
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: White River
	Name of watershed or Hydrologic Unit Code (HUC): Bull Shoals Lake 11010003
	Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
	Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
	Office (Desk) Determination. Date: 1/14/15
	Field Determination. Date(s): 11/4/14
SEC	CTION II: SUMMARY OF FINDINGS
	RHA SECTION 10 DETERMINATION OF JURISDICTION.
ТЬ	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the
	iew area. [Required]
	Waters subject to the ebb and flow of the tide.
	Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce
	Explain: .
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S.
	a. Indicate presence of waters of U.S. in review area (check all that apply): 1
	TNWs, including territorial seas
	Wetlands adjacent to TNWs
	Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs
	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
	Impoundments of jurisdictional waters
	Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: ~1,000 linear feet: 5-10 width (ft) and/or

acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known):

Non-regulated waters/wetlands (check if applicable):3

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Streams 1, 2, 3 and 10 are ephemeral streams that were determined to be non-jurisdictional since they lacked a clearly defined bed, bank and continuous ordinary high water mark.

Boxes checked below shall be supported by completing the appropriate sections in Section III below.

For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

3 Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 2,600 square miles Drainage area: 20-40 acres Average annual rainfall: 48 inches Average annual snowfall: 4 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: Streams 1, 2, 3 and 4 flow into Marshal Branch, Marshal Branch flows into Clear Creek, Clear Creek flows into Crooked Creek, Crooked Creek flows into the White River. Stream 9 flows into Elm Branch, Elm

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: All of these streams are first order streams. (b) General Tributary Characteristics (check all that apply): Tributary is: Artificial (man-made). Explain: Manipulated (man-altered), Explain: Tributary properties with respect to top of bank (estimate): Average width: 5-10 feet Average depth: 0.1-0.5 feet Average side slopes: 2:1. Primary tributary substrate composition (check all that apply): ☐ Silts ☐ Sands ☐ Concrete Gravel ☐ Muck ■ Bedrock ☐ Vegetation. Type/% cover: Other. Explain: Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The three tributaries appear to be stable. Presence of run/riffle/pool complexes. Explain: These intermittent streams do not possess run/riffle/pool complexes. Tributary geometry: Meandering Tributary gradient (approximate average slope): 10 % (c) Flow: Tributary provides for: Ephemeral flow Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: Stream 4 and Stream 9 likely flow for at least 1-2 weeks following rain events. Streams 1, 2, 3 and 10 likely flow for only 1-2 days following rain events. Other information on duration and volume: Surface flow is: Confined. Characteristics: Subsurface flow: Unknown. Explain findings: Dye (or other) test performed: Tributary has (check all that apply): Bed and banks OHWM⁶ (check all indicators that apply): 🛛 clear, natural line impressed on the bank 🖾 the presence of litter and debris changes in the character of soil destruction of terrestrial vegetation shelving the presence of wrack line vegetation matted down, bent, or absent sediment sorting leaf litter disturbed or washed away scour sediment deposition multiple observed or predicted flow events abrupt change in plant community water staining other (list): Discontinuous OHWM. Explain: Streams 1, 2, 3 and 10 did not exhibit a continuous consistent ordinary high water mark. If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Mean High Water Mark indicated by: survey to available datum; oil or scum line along shore objects fine shell or debris deposits (foreshore) physical markings; physical markings/characteristics vegetation lines/changes in vegetation types. tidal gauges other (list):

Branch Flows into Hog Creek, Hog Creek flows into Clear Creek, Clear Creek flows into Crooked Creek, Crooked Creek flows into the White River. Stream 10 flows into Huzzah Creek, Huzzah Creek flows into Crooked Creek, Crooked

Creek flows into the White River.

(iii) Chemical Characteristics:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

Thid

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Water in the tributaries is clear.

Identify specific pollutants, if known: The streams likely receive some pollutants from roadway runoff and some pollutants

from adjacent pasturelands.

	(IV) 1510 	Diparion describes. Characteristics (true average width): Diparion describes. Characteristics (true average width): The givening condition as width a condition of the conditio
to t	าลรทา	res. Î	Riparian corridor. Characteristics (type, average width): The riparian corridor consists of narrow strips of trees adjacent The average width is 10 to 20 feet.
			Wetland fringe. Characteristics:
ė		\boxtimes	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings: .
			Other environmentally-sensitive species. Explain findings:
macroin	verte	brates	Aquatic/wildlife diversity. Explain findings: Aquatic and wildlife species would generally consist of s and a few species of mammals, birds, reptiles and amphibians that utilize the stream corridors for foraging, etc.
2.	Ch	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)		vsical Characteristics:
		(a)	General Wetland Characteristics:
			Properties: Wetland size: acres
			Wetland type. Explain:
			Wetland quality. Explain: .
			Project wetlands cross or serve as state boundaries. Explain:
		41.5	
		(b)	General Flow Relationship with Non-TNW: Flow is: Pick List. Explain:
			riow is. Fick List. Explain:
			Surface flow is: Pick List
			Characteristics: .
			Subsurface flow: Pick List . Explain findings: Dye (or other) test performed:
			Dye (or other) test performed:
		(c)	Wetland Adjacency Determination with Non-TNW:
		` ,	☐ Directly abutting
			Not directly abutting
			Discrete wetland hydrologic connection. Explain:
			☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain:
			Separated by being barrier. Explain.
		(d)	Proximity (Relationship) to TNW
			Project wetlands are Pick List river miles from TNW.
			Project waters are Pick List aerial (straight) miles from TNW.
			Flow is from: Pick List . Estimate approximate location of wetland as within the Pick List floodplain.
			Estimate approximate recarded of wedland as within the Fick List noodplant.
	(ii)	Che	mical Characteristics:
		Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
		T.1	characteristics; etc.). Explain:
		iden	tify specific pollutants, if known:
	(iii)	Biol	ogical Characteristics. Wetland supports (check all that apply):
	` '		Riparian buffer. Characteristics (type, average width):
			Vegetation type/percent cover. Explain: .
		Ш	Habitat for:
			☐ Federally Listed species. Explain findings: ☐ Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings:
-	~		
3.	Cha		eristics of all wetlands adjacent to the tributary (if any) wetland(s) being considered in the cumulative analysis: Pick List
			roximately () acres in total are being considered in the cumulative analysis.
		L.P.	, , ,

_					
HOL	each	wetland.	specify th	ie lol	lowing:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and
 other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: Stream 4 and Stream 9 are part of the White River tributary network. Both streams are well defined channels that flow for several days to several weeks following rain events. Both convey water to the White River tributaries. They have the potential to transport nutrients and pollutants to the White River or to retain nutrients and pollutants where they can be process and broken down before reaching the White River. They also likely provide some habitat for some macroinvertebrates which are able to complete their life cycles in a short period of time. They also provide travel corridors for small mammals, birds, reptiles and amphibians which utilize these corridors for foraging and rearing young. Many of these animals likely utilize these streams during the winter and spring when they possess the most water and then migrate downstream to utilize the larger tributaries during the summer and fall. Streams 1, 2, 3 and 10 did not exhibit a clearly defined bed or bank or a continuous ordinary high water mark. After a rainfall event, these streams likely only flow for 1 to 2 days. They do not have the potential to transport nutrients and pollutants to the White River and they provide little or no habitat for aquatic animals since their flow duration is so limited.
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D.	DETERMINATIONS OF JURISDICTIONAL FINDINGS. T	THE SUBJECT WATERS/WETLANDS ARE (CHECK	(ALL
	THAT APPLY):		

TNWs and Adjacer TNWs: lin Wetlands adjacer	ear feet	width (ft), Or,	apply and provide size acres.	estimates in review area:

2.	Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Tributaries of TNW where tributaries have continuous flow "seesceptle" (a.g., turisally these weetless) are
	Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: ~1000 linear feet 5-10 width (ft). Other non-wetland waters: acres. Identify type(s) of waters:
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
	Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7	Impoundments of jurisdictional waters.9
	As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or
	Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).
DE	PLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10

E.

 ⁸See Footnote # 3.
 To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

	which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Identify water body and summarize rationale supporting determination:
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: . Wetlands: acres.
F.	NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Ephemeral Streams 1, 2, 3 and 10 did not exhibit a clearly defined bed, bank or continuous ordinary high water mark. Therefore, we determined that there is not a significant nexus with the White River. Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
	Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): ~1,000 linear feet, 5-10 width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
SEC	CTION IV: DATA SOURCES.
A.	SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Harrison, Everton and Western Grove 1:24000. USDA Natural Resources Conservation Service Soil Survey. Citation: National wetlands inventory map(s). Cite name: State/Local wetland inventory map(s): FEMA/FIRM maps:

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
\boxtimes	Photographs: Aerial (Name & Date): Google Earth 2014.
	or 🔀 Other (Name & Date): Still photos by Burns and McDonnell on 11/19/13 and by USACE 11/4/14.
	Previous determination(s). File no. and date of response letter:
	Applicable/supporting case law:
	Applicable/supporting scientific literature: .
	Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: The approximate stream lengths for Streams 4 and 9, within the proposed highway right-of-way are as follows: Stream 4 is 583 feet, Stream 9 is 374 feet. Stream 4 flows into Marshal Branch, Marshal Branch flows into Clear Creek, Clear Creek flows into Crooked Creek, Crooked Creek, Crooked Creek flows into the White River. Stream 9 flows into Elm Branch, Elm Branch Flows into Hog Creek, Hog Creek flows into Clear Creek flows into Crooked Creek, Crooked Creek flows into the White River. Both streams have a clearly defined bed, bank, and ordinary high water mark, and both flow for several days to several weeks following rain events. Both streams are clearly are part of the tributary network of the Upper White River. They both have the potential to affect the chemical and biological integrity of the White River. The approximate stream lengths for Streams 1, 2, 3 and 10, within the proposed highway right-of-way are as follows: Stream 1 is 331 feet, Stream 2 is 198 feet, Stream 3 is 324 feet, Stream 10 is 504 feet. Streams 1, 2, 3 and 10 did not exhibit a clearly defined bed or bank or continuous ordinary high water mark and only flow for a short period following rain events; therefore, they do not have the potential to affect the physical, chemical or biological integrity of the White River.

John Mª Cean

APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SEC A.	CTION I: BACKGROUND INFORMATION REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 1/16/15
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Little Rock, U.S. Hwy. 65 Widening East of Harrison, SWL 2015-00027
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Arkansas County/parish/borough: Boone and Newton City: Harrison Center coordinates of site (lat/long in degree decimal format): Lat. 36.1559° N, Long92.9923° W. Universal Transverse Mercator: Northing 4001239 Easting 500692 Name of nearest waterbody: Hog Creek (S-7), Elm Branch (S-8), Snowball Branch (S-6) and Stream 5 (S-5) Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: White River Name of watershed or Hydrologic Unit Code (HUC): Bull Shoals Lake 11010003 Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: 1/14/15 Field Determination. Date(s): 11/4/14
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: ~2,000 linear feet: 10-20 width (ft) and/or Wetlands: acres.
	c. Limits (boundaries) of jurisdiction based on: Established by OHWM. Elevation of established OHWM (if known):
	 Non-regulated waters/wetlands (check if applicable):³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: There were four upland ponds designated as P-1 through P-4 which are not jurisdictional.

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.
² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 2,600 **square miles** Drainage area: 2-4 **square miles** Average annual rainfall: 48 inches Average annual snowfall: 4 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 3 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 30 (or more) aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW⁵: Stream 5 flows into Marshall Branch, Marshal Branch flows into Clear Creek, Clear Creek flows into Crooked Creek, Crooked Creek flows into the White River. Snowball Branch flows into Hog Creek, Hog Creek flows into Clear Creek, Clear Creek flows into Crooked Creek, Crooked Creek flows into the White River. Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

(0)	Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain:
	Tributary properties with respect to top of bank (estimate): Average width: 10-15 feet Average depth: 0.5-1.0 feet Average side slopes: 2:1.
	Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain: .
be stable.	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stream 5 and Snowball Branch appear to
oc stable.	Presence of run/riffle/pool complexes. Explain: These intermittent streams do not possess run/riffle/pool complexes. Tributary geometry: Meandering Tributary gradient (approximate average slope): 10 %
	Flow: Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: Snowball Branch and Stream 5 flow during the winter, spring and early summer, but only emittent pools during the summer and fall. Other information on duration and volume:
	Surface flow is: Confined. Characteristics:
	Subsurface flow: Unknown. Explain findings: Dye (or other) test performed:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): Clear, natural line impressed on the bank Changes in the character of soil Shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. Explain:
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: oil or scum line along shore objects fine shell or debris deposits (foreshore) physical markings/characteristics physical markings/changes in vegetation types. itidal gauges other (list):

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Water in the triburies is clear.

Identify specific pollutants, if known: The streams likely receive some pollutants from roadway runoff and some pollutants

from adjacent pasturelands.

	(iv)		logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): The riparion corridor consists of narrow strips of trees adjacent
to t	oastur		The average width is 10 to 20 feet.
** /			Wetland fringe. Characteristics:
		\boxtimes	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings: Some small fish species likely utilize the streams for spawning during the spring.
			☐ Other environmentally-sensitive species. Explain findings: ☐ Aquatic/wildlife diversity. Explain findings: Aquatic and wildlife species would generally consist of
macroin	vertet	rates	s, small fish species and a few species of mammals, birds, reptiles and amphibians.
2.	Cha	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)		sical Characteristics:
		(a)	General Wetland Characteristics:
			Properties: Wetland size: acres
			Wetland type. Explain: .
			Wetland quality. Explain: .
			Project wetlands cross or serve as state boundaries. Explain:
		(h)	General Flow Relationship with Non-TNW:
		(0)	Flow is: Pick List. Explain:
			APPLICATION OF THE PROPERTY OF
			Surface flow is: Pick List
			Characteristics:
			Subsurface flow: Pick List. Explain findings:
			Dye (or other) test performed:
		(-)	Market A Additional Professional Control of the Con
		(c)	Wetland Adjacency Determination with Non-TNW: Directly abutting
			Not directly abutting
			Discrete wetland hydrologic connection. Explain:
			Ecological connection. Explain:
			Separated by berm/barrier. Explain:
		(d)	Proximity (Relationship) to TNW
		(0)	Project wetlands are Pick List river miles from TNW.
			Project waters are Pick List aerial (straight) miles from TNW.
			Flow is from: Pick List.
			Estimate approximate location of wetland as within the Pick List floodplain.
	(ii)	Che	mical Characteristics:
	` ,	Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
		T 1	characteristics; etc.). Explain:
		iden	tify specific pollutants, if known:
	(iii)	Biol	ogical Characteristics. Wetland supports (check all that apply):
			Riparian buffer. Characteristics (type, average width):
		닖	Vegetation type/percent cover. Explain: Habitat for:
		Ш	Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings:
3,	Cha	racte	eristics of all wetlands adjacent to the tributary (if any)
٥.	-na		wetland(s) being considered in the cumulative analysis: Pick List
			roximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D.	DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL
	THAT APPLY):

1.		width (ft), Or,	and provide size estimates in review area: acres.
1	DDWs that flow discatle as in di		

- Mark that now unectry of multicetry into 114ws.
 - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Hog Creek and Elm Branch are perennial streams. We noted surface flows on 11/4/14 and the consultant noted surface flows on 11/19/13 and there had been very little rainfall immediately preceding these dates.
 - Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Intermittent pools were noted in Stream 5 and Snowball Branch on 11/4/14. Also, the culverts beneath the existing roadway indicate that both streams transport high volumes of water during certain times of the year.

	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 2,000 linear feet 10-20 width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly
	abutting an RPW: Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).
SUC	PLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:

E.

 ⁸ See Footnote # 3.
 9 To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 10 Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination: Provide estimates for jurisdictional waters in the review area (check all that apply): ☐ Tributary waters: linear feet width (ft). Other non-wetland waters: Identify type(s) of waters: Wetlands: acres NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above): Four upland ponds, P1 through P4 were identified on the subject property. No stream channels were identified on the upstream side or downstream side of the ponds. Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres. Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres. **SECTION IV: DATA SOURCES.** A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Everton and Western Grove 1:24000. USDA Natural Resources Conservation Service Soil Survey. Citation: National wetlands inventory map(s). Cite name: State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Google Earth 2014. or Other (Name & Date): Still photos by Burns and McDonnell on 11/19/13 and by USACE 11/4/14. Previous determination(s). File no. and date of response letter:

Applicable/supporting case law:

Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: The approximate stream lengths within the proposed highway right-of-way are as follows: Stream 5 is 331 feet, Stream 6 is 432 feet, Stream 7 is 326 feet, Stream 8 is 772 feet. Ponds 1, 2, 3 and 4 are ponds that were constructed in uplands and they are not jurisdictional. Hog Creek and Elm Branch are perennial streams. Stream 5 and Snowball Branch are intermittent streams that flow seasonally. Stream 5 and Snowball Branch eventually flow into Hog Creek, Hog Creek flows into Clear Creek, Clear Creek flows into Crooked Creek and Crooked Creek flows into the White River which has been designated a Traditionally Navigable Water by the Little Rock District Corps of Engineers.

John Mª Ren 1/16/15

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Appli	cant: Ark. Hw. & Transportation Dept.	File Number: SWL 2015-00027	Date:
Attac	Attached is:		
	INITIAL PROFFERED PERMIT (Standard	A	
	PROFFERED PERMIT (Standard Permit or	Letter of permission)	В
	PERMIT DENIAL		С
1	APPROVED JURISDICTIONAL DETERM	D	
	PRELIMINARY JURISDICTIONAL DETE	ERMINATION	Е

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at

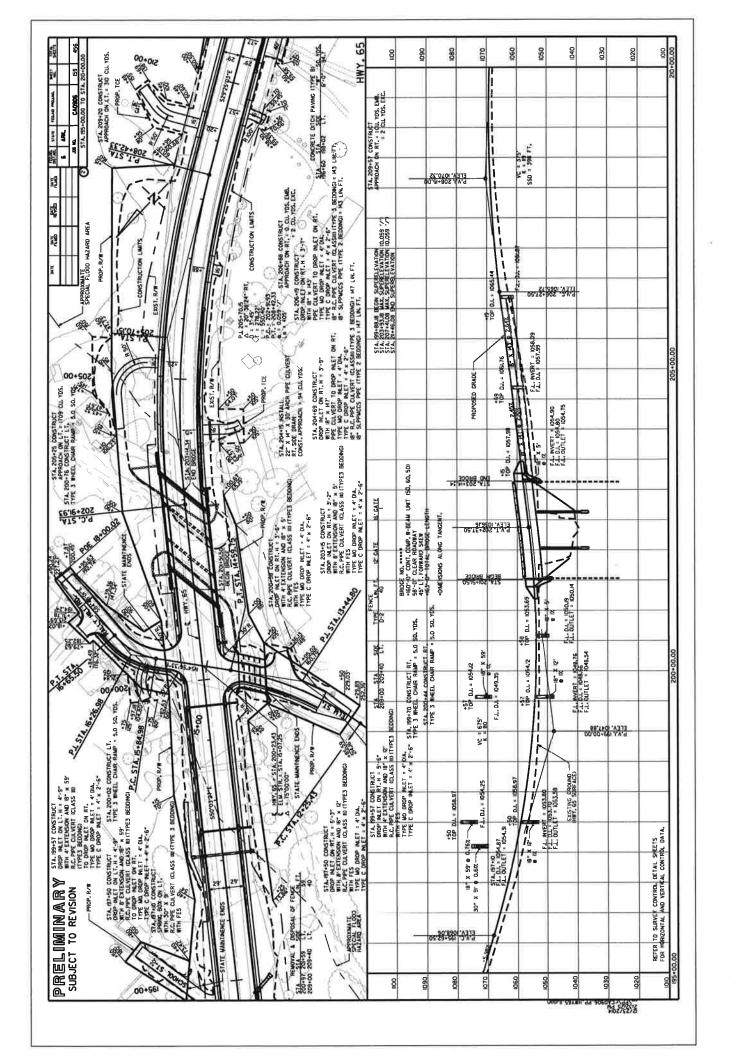
http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

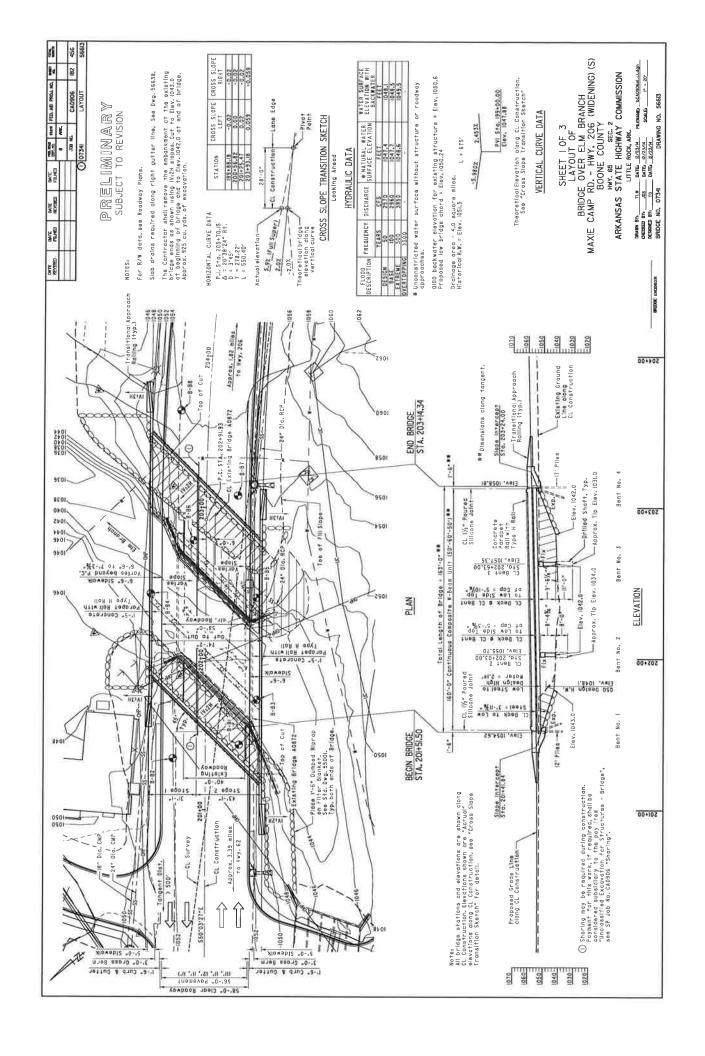
- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final
 authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your
 signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights
 to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final
 authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your
 signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights
 to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you
 may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this
 form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the
 date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date
 of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

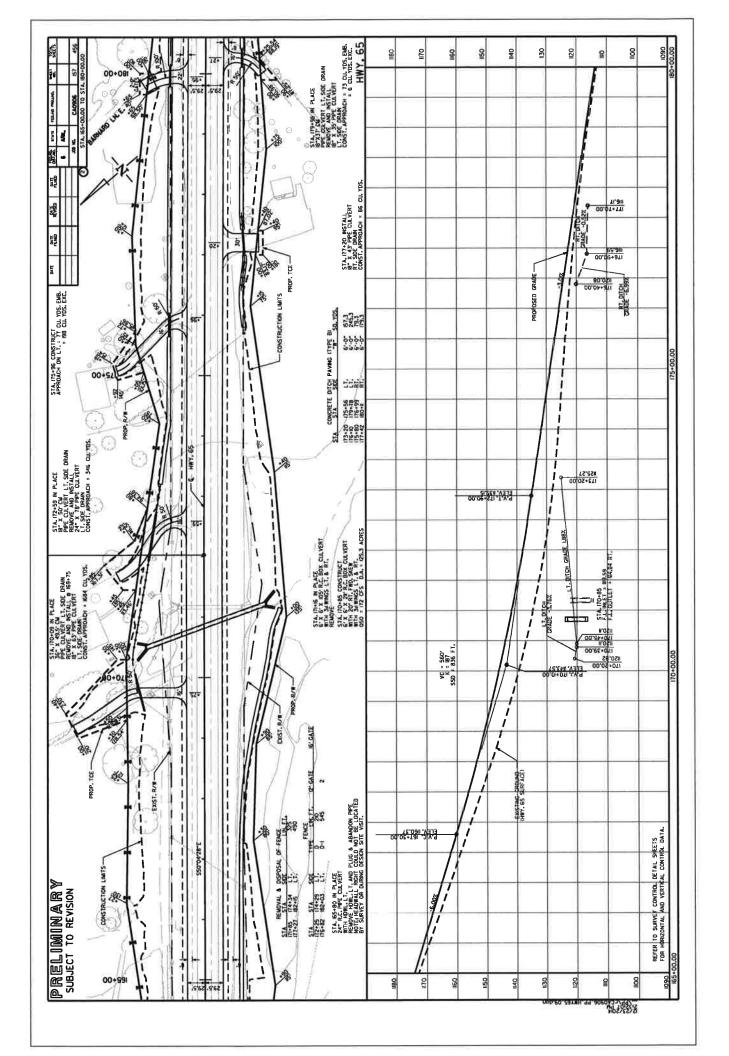
SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT				
REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)				
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	100			
ADDITIONAL INFORMATION: The appeal is limited to a review				
record of the appeal conference or meeting, and any supplemental clarify the administrative record. Neither the appellant nor the Conference of the appellant nor the Conference of the appeal and the ap				
you may provide additional information to clarify the location of in				
POINT OF CONTACT FOR QUESTIONS OR INFOR				
If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regardalso contact:	ging the appeal process you may		
	Mr. Elliott Carman			
	Administrative Appeals Review Officer (CESWD-PD-O) U.S. Army Corps of Engineers			
500	1100 Commerce Street, Suite 831 Dallas, Texas 75242-1317			
	469-487-7061			
RIGHT OF ENTRY: Your signature below grants the right of entry				
consultants, to conduct investigations of the project site during the notice of any site investigation, and will have the opportunity to pa		win be provided a 15 day		
	Date:	Telephone number:		
Signature of appellant or agent.				

CA0906 Maxie Camp Rd. – Hwy. 123 (Widening) Estimated Stream Impacts of the Preferred Alternative

Stream Number	Estimated Length within Proposed Construction Limits (feet)	Estimated Impacts within Proposed Construction Limits (feet)*
Stream 7 (Hog Creek)	0	30 (temporary)
Stream 8 (Elm Branch)	115	87 (permanent)
Stream 9	329	216 (permanent)
	Total:	303 (permanent)
Estimated without length of previous	isly culverted sections of the streams	•







CAOSOS ON 456 SPECIAL DETAILS 8 20 5 8 120 0 060 SPECIAL DETAILS 앝 ß 8 TI, MI 8 F.L. IN = 114.84 8 0 SECTION A" - 8 75.00 0,0 8 -SECTION B-*SI-,OI 8 2 SO.YE 8 2146 00 2140 05 2108 51 210 00 1738 00 20598 80 8 6 PEIN 유 2 20" RICHT FORWARD SKEW 2 224 2 224 18 153 BOX CULVERT DIAGRAM 170+95 -SETTON C 5.-20 ××× (K + W·1 + W·2 +3.46)(1 SIDE)(2' WIDE) / 9 S.F./S.Y 12 60 (GAL /SY SOLID SOODING)/1000 = M. GAL 34 52 28 69 145 69 UNICLASSIFED EXCAVATION FOR STRUCTURES. ROADWAY: 2 TOTAL LES "INCLUDES HDWL, APRONS, & 1 LAP A SECTION
A SECTION
B SECTION
C SECTION
C SECTION
APRON & WINGS (BOTH SIDES) 유 9 A SECTION A SECTION B SECTION C SECTION 7 00 4 WINGS A SECTION B SECTION C SECTION VI. TOTAL C.Y. TOTAL C.Y. SOLID SODDING & WATER: S REMFORCING STEEL: 9-CONCRETE OB, BEN .51-,01 -20 -SCTON B" 8 -96 9 STA. 170+85 CONSTRUCT 6' X 6' X 2II' R.C. BOX CULVERT WITH 20' RT. FWD. SKEW WITH 34 WINGS LT. & RT. 050 = 172 CFS D.A. = 125.3 ACRES 유 -120 PRELIMINARY SUBJECT TO REVISION ison -130 -140 9 20 5 130 2 2 9 060 1060Y-X

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