Pushmataha & McCurtain Counties

Prepared for:
Oklahoma Department of Transportation
U.S. Department of Transportation
Federal Highway Administration

Prepared by:
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April 2009

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
AND
OKLAHOMA DEPARTMENT OF TRANSPORTATION

Environmental Assessment
State Highway 3

FROM JUST WEST OF THE PUSHMATAHA/MCCURTAIN COUNTY LINE IN PUSHMATAHA COUNTY FOR APPROXIMATELY 17 MILES EAST TO THE INTERSECTION OF SH 98

PUSHMATAHA AND MCCURTAIN COUNTIES

FEDERAL AID PROJECT NOS. SEC1702Y-145B(153)SS and STPY-145C(150)
STATE JOBS NOS. 24184(04) and 24185(04)

The proposed project is described as widening, addition of shoulders, bridge replacement, and intersection realignment on SH 3 beginning approximately one mile west of the Pushmataha/McCurtain County Line at the western end of the widened pavement section and extending east approximately 17 miles to the intersection of SH 98.

This highway project is proposed for funding under Title 23, United States Code (USC). This statement for the improvement has been developed in consultation with the Federal Highway Administration and is submitted pursuant to 42 USC-4332(2)(c).

Submitted:

4/21/09
Date

for Environmental Programs Division Engineer
Oklahoma Department of Transportation

Approved:

4/27/2009
Date

for Robert T. Rodrigues
Division Administrator
Federal Highway Administration

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PREFACE

On September 7, 2007, The Oklahoma Department of Transportation (ODOT) and the Federal Highway Administration (FHWA) initiated an Environmental Assessment (EA) for improvements to State Highway 3 from the existing widened segment approximately one mile west of the Pushmataha/McCurtain County line to the City of Broken Bow. Solicitation letters regarding this action were submitted to a variety of public and private agencies to provide input. A public meeting was held on September 27, 2007, to discuss the initial proposals. The proposed improvements were based on the recommendations of a February 2003 corridor study. This study made the following recommendations:

(1) No improvements for the section of SH 3 from 1 mile west of Pushmataha/McCurtain County line extending east 5.3 miles through Pine Creek Reservoir since this section already has 8 ft wide shoulders.

(2) Retention of a two-lane facility with the addition of shoulders, passing lanes, and safety improvements (minor geometric modifications and bridge replacements) for the segment extending east from the "no improvement" section 11.6 miles to SH 98.

(3) A four-lane capacity addition for the remaining segments from SH 98 to City of Broken Bow.

As a result of revised funding estimates making reconstruction of the entire corridor unlikely in the near future, and because the first two segments do not involve added capacity, ODOT and FHWA have elected to develop two separate

environmental documents for this corridor, rather than the single document originally anticipated.

This EA covers only the first two segments which do not involve capacity expansion, and for which sufficient funding is currently available. At a later date, a separate EA will be prepared for the four-lane improvement section.

The two EAs represent projects with independent utility. Further, implementation of the safety improvements proposed for this action will not foreclose consideration of any reasonable alternatives in the EA which will be developed for the four-lane segment from SH 98 to the City of Broken Bow. The EA for the four-lane segment will be completed at a later date. A separate public hearing will be held to present the findings of that document.

List of Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
ABB	American Burying Beetle
AST	Above Ground Storage Tank
BMP	Best Management Practices
dBA	Decibel on the A-weighted scale
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
ISA	Initial Site Assessment
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act of 1969
NRCS	Natural Resources Conservation Service
ODOT	Oklahoma Department of Transportation
ODWC	Oklahoma Department of Wildlife Conservation
OPDES	Oklahoma Pollutant Discharge Elimination System
PCN	Pre-Construction Notification
SH 3	State Highway 3
SHPO	State Historic Preservation Office
USC	United States Code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
WMA	Wildlife Management Area

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1.0 Introduction and Location

The Oklahoma Department of Transportation (ODOT) proposes to improve a portion of State Highway (SH) 3 approximately one mile west of the Pushmataha/ McCurtain County Line and continue east to SH 98 (see **Figure 1**). The existing facility is a two lane facility with 8 foot shoulders for part of the section and no shoulders for the remaining sections.

This Environmental Assessment (EA) has been prepared to comply with the National Environmental Policy Act of 1969 (NEPA), as amended, ODOT NEPA guidelines (2000), Federal Highway Administration (FHWA) Technical Advisory T-6640.8A (1987), and 23 Code of Federal Regulations Part 771 in anticipation of requesting federal funding. This EA will identify the location and basic design components of a feasible roadway alignment within the Project Corridor.

The Study Corridor has been defined as the area within which potential roadway improvements could occur. The Project Corridor is 600 feet wide, 300 feet on either side of the centerline of SH 3; it is wider and longer than the proposed SH 3 improvement to ensure the analysis covers potential effects from the proposed action.

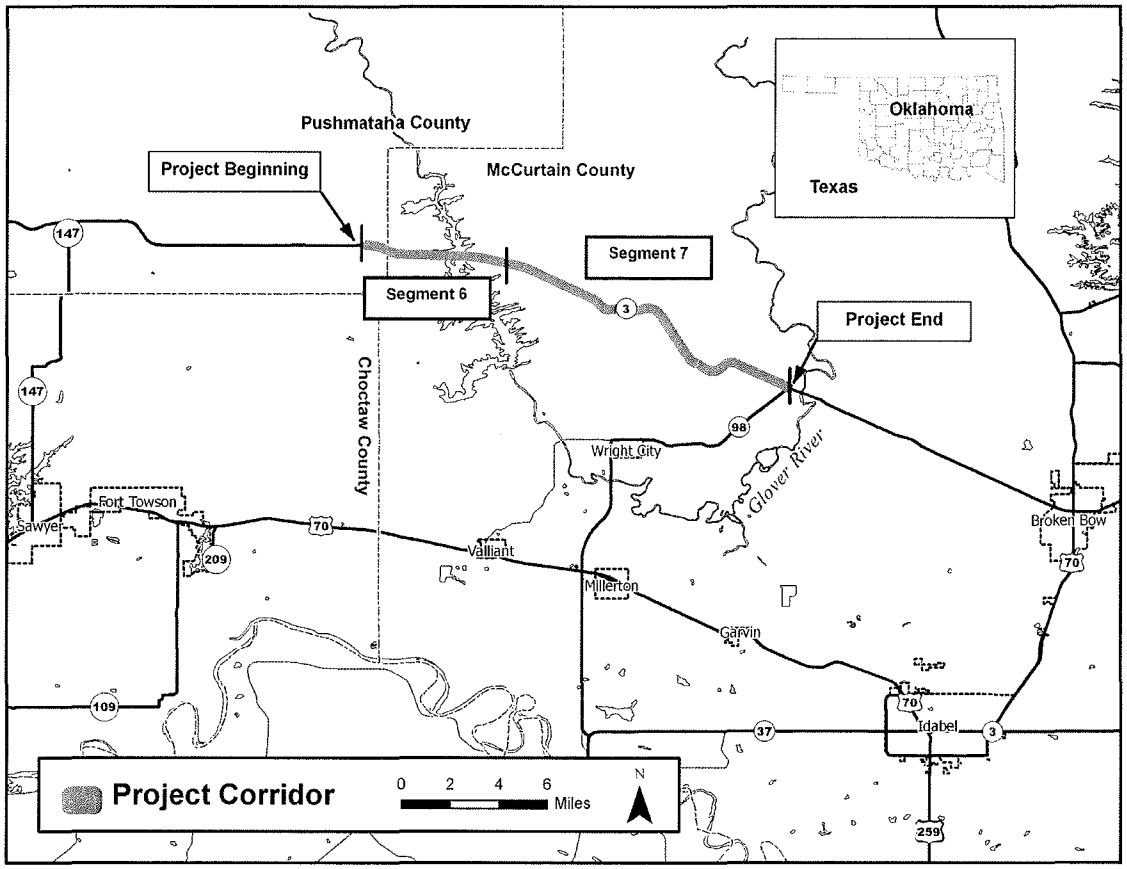

Figure 1: Project Location

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2.0 Purpose and Need for the Project

In February 2003, ODOT completed a Corridor Study which determined the current and future needs for SH 3 from Antlers in Pushmataha County to Broken Bow in McCurtain County. There were two public meetings held to get public input for the corridor. For analysis reasons, the report divided this 55-mile span of SH 3 into ten segments. The 2003 study identified short term and long term improvements for the corridor taking into consideration environmental constraints, cost constraints, public input and currently acceptable engineering design practices. This EA examines the potential for reconstruction of the central portion of the 2003 project corridor, spanning 17 miles, consisting of Segments 6 and 7 (see **Figure 1**). Segment 6 begins 1 mile west of Pushmataha/McCurtain County line and extends east 5.3 miles through the Pine Creek reservoir. This segment already has 8 ft wide shoulders. Segment 7 begins at the end of the section with wide shoulders and extends east 11.6 miles to SH 98.

The purpose of the proposed SH 3 project is to improve safety and mobility taking into consideration the current and future needs.

SH 3 is classified as a principal arterial highway. In the ODOT *2005 Needs Study and Sufficiency Report*, the sufficiency ratings of most segments of this portion of SH 3 were rated as less than adequate. Sufficiency ratings are roadway ratings based on relative point values assigned to elements of roadway design and condition. The sum of these values is 100, of which the design elements account for 65 points and the surface conditions 35 points. A total rating of 70 or above is considered adequate, while a rating of 69 or less is inadequate. Within the SH 3 corridor, Segment 6 and portions of Segment 7 are rated as tolerable (79-70), the remainder of Segment 7 is rated as critical (59-0).

SH 3 serves as both a local and regional transportation link to and from the City of Broken Bow. Some of the region's major employers such as Tyson, Pan Pacific Products, and Weyerhaeuser are located directly off SH 3 west of Broken Bow. SH 3 also provides access to numerous areas managed for timber harvest in support of the major industries of agriculture and manufacturing in McCurtain County. Hence a large portion of traffic on SH 3 consists of heavy trucks accessing these areas. The heavy truck traffic account for as much as 30 percent of the traffic, the narrow cross-section, rolling terrain, and limited opportunities for passing create hazardous driving conditions. In general, no passing zones constitute approximately 65 percent of the corridor.

Annual average daily traffic (AADT) for Segments 6 and 7 are projected to increase by 50 percent over the current AADT of 2000 to 3000 by year 2030. Heavy trucks are expected to remain at 30 percent of the AADT. While the capacity is adequately handled by the existing 2 lanes, the narrow shoulders, frequent access points, heavy truck traffic, and lack of passing opportunities in these segments pose a safety threat.

The 2003 Corridor study recommended a "do nothing" for Segment 6 due to the fact that this segment already has wide shoulders and has an accident rate significantly lower than the statewide average. Since Segment 7 has an accident rate slightly higher than the state average

and lacks shoulders and passing lanes, the Corridor study recommended adding shoulders and passing lanes for this segment as well as some intersection improvements at county roads.

3.0 Alternatives Considered

Since no improvements were recommended for Segment 6 and the recommended improvements for Segment 7 are limited to adding shoulders, passing lanes and intersection improvements, only three build alternatives were considered in this environmental assessment to address the Purpose and Need of this project.

- No Build Alternative – no major transportation improvements would be made along SH 3 within the project corridor.
- Build Alternative No. 1 – Shifting the roadway alignment north of the existing centerline to accommodate any minor realignment needed for the proposed improvements (adding shoulders and passing lanes and realigning intersections). Right-of-way would be acquired on the north side of the roadway.
- Build Alternative No. 2 - Shifting the roadway alignment south of the existing centerline to accommodate any minor realignment needed for the proposed improvements (adding shoulders and passing lanes and realigning intersections). Right-of-way would be acquired on the south side of the roadway.
- Build Alternative No. 3 – This alternative is a hybrid of both Build Alternatives No. 1 and 2. The roadway alignment would be shifted south of the existing centerline to accommodate any minor realignment needed for the proposed improvements (adding shoulders and passing lanes and realigning intersections). Right-of-way would be acquired on the south side of the roadway. However, within the vicinity of Horsehead Creek, the roadway alignment would be shifted north of the existing centerline to avoid impacts to wetlands and waters of the U.S.

All of the 3 build alternatives would require widening or replacement of existing bridges.

Table 1: SH 3 Alternatives Analysis Matrix – Segment 7					
	Evaluation Category	**No Build**	**Build Alternative No. 1 -Offset to North**	**Build Alternative No. 2 -Offset to South**	**Build Alternative No. 3 -Hybrid**
Cost	Commercial Relocations	0	3	6	6
	Residential Relocations	0	8	7	7
Potential impacts: H=high, M=moderate, L=low, or N=none					
Environmental Categories	Wetland Impacts	N	H	M	M
	Archaeological Sites	N	N	N	N
	Historical Sites	N	N	N	N
	Hazardous Waste Sites	N	N	L	L
	Environmental Justice	N	L	L	L
	Endangered Species	N	L	L	L
	Potential Noise Impact	N	N	L	L
	Air Quality	N	L	L	L
	Parks or Wildlife Refuges	N	H	H	H
	Native American Concerns	N	L	L	L
	Social or Economic Issues	N	L	L	L
	Water Quality	N	L	L	L
	Water Body Modifications	N	M	L	L
Potential for improvements: Excellent, Good, Fair, Poor, None					
Engineering	Clear Zone	None	Excellent	Excellent	Excellent
	Safety Improvement Potential	None	Excellent	Excellent	Excellent
	Site Distance	None	Excellent	Excellent	Excellent

Table 1 reflects a "worst case" preliminary evaluation based on potential construction disturbance extending as far as 300 feet north or south of the existing alignment. Actual disturbance will be substantially less, because most of the alignment will stay along the existing centerline with offsets occurring only in the areas of adding passing lanes or minor geometric improvements. Nonetheless, these rough maximum estimates provided a preliminary means of evaluating the potential impacts of the various alternatives.

Based on the preliminary evaluation, the north offset (Build Alternative No.1) had the potential to result in 50 percent fewer commercial relocations than the south offsets (Build Alternatives

No. 2 & No. 3); however, the northern alignment could potentially result in one more residential relocation.

All three alternatives could potentially affect environmental resources. The majority of the waters of the U.S., including wetlands, exist on the north side of the roadway; thus the southern alignment (Build Alternatives No. 2 & No. 3) would result in fewer impacts to wetlands and waters of the U.S. There could be potential noise impacts if the alignment was shifted to the south (Build Alternative No. 2 & No. 3); however, analysis demonstrated noise abatement would not be reasonable and feasible. Three potential hazardous waste sites are located to the south.

These preliminary assessments were used to select a preferred alternative from the four alternatives presented in the matrix. Where shifting is required for proposed improvements (add shoulders and/or passing lanes and realign intersections) the shift in general, is recommended to go to the south. However, within the vicinity of Horsehead Creek, the preferred alignment would be shifted to the north to construct a shoofly which will allow for through traffic during construction and avoid impacts to wetlands and waters of the U.S. on the southern side of the alignment. Hence Build Alternative No. 3, the hybrid alternative, was chosen as the Preferred Alternative upon which to base further preliminary design to avoid or minimize impacts to environmental resources.

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4.0 Social, Economic, and Environmental Impacts

Appendix A lists social, economic, and environmental factors normally considered during project development. Only the resources with the potential to be impacted by the Preferred Alternative are discussed in this Section. Initially, preliminary impact analysis was based on the entire 600 foot study corridor for the preferred alternative subject to potential impacts. To clarify certain potential impacts, further analysis was based on preliminary right-of-way plans developed independently by ODOT.

4.1 Land Use

Land use surrounding SH 3 in Pushmataha and McCurtain counties can be described as rural including conservation, agricultural, residential, and industrial uses. The land is predominately undeveloped with few structures visible from the highway. The counties have no zoning or land use plans for areas outside of city limits. The predominant land use type is conservation with three Wildlife Management Areas (WMA) managed by the Oklahoma Department of Wildlife Conservation (ODWC), as well as a large piece of federal land surrounding Pine Creek Lake managed by the U.S. Army Corps of Engineers (USACE).

Agricultural lands found in the Project Corridor include a small number of cattle and horse grazing lands and large tracts of commercial timber land, many of which are found within the WMAs, owned by forest product companies and managed for timber harvest. Residential land uses include a number of large-lot rural residences found along SH 3 throughout the corridor. A small amount of commercial and industrial land uses also occur sporadically throughout the corridor. The project will require only minimal new right-of-way and there are no expected impacts to land use or zoning as a result of planned improvements to SH 3 as described in this EA. Construction of the Preferred Alternative is not expected to increase the development potential for any lands surrounding the SH 3 corridor and so current land use patterns would be expected to remain the same.

4.1 Farmland

The Farmland Protection Policy Act of 1981 requires federal agencies to consider a project's impacts to farmland and consider steps to minimize the unnecessary and irreversible conversion of farmland to other uses. The Natural Resources Conservation Service (NRCS) data on Prime and Unique Farmland in McCurtain and Pushmataha counties has been analyzed to determine potential impacts that would result from the proposed improvements to SH 3.

Prime and unique farmland in McCurtain and Pushmataha counties are based on soil types, slopes, and current land uses. Of the 1,185,446 total acres in McCurtain County approximately 353,042 (30 percent) are considered prime farmland. Pushmataha County is a total of 894,278 acres of which 80,173 (9 percent) is considered prime farmland.

The preliminary Project Study Area comprises of 1,268 acres in McCurtain and Pushmataha counties. A *Farmland Impact Rating Form AD-1006* was sent to the NRCS officials with jurisdiction over the area associated with this project. While the project would impact prime farmland, the NRCS recommended that the project follow the existing SH 3 corridor to

minimize impacts. The proposed project, which will consist primarily of centerline widening with minor offsets to address safety and geometric deficiencies is consistent with this recommendation NRCS coordination letters and response are included in **Appendix B**.

4.2 Right of Way and Displacements

The existing right-of-way width in the corridor ranges from approximately 100 feet to greater than 250 feet. The Preferred Alternative involves no change within Segment 6 and therefore no impacts are expected in this segment. Segment 7 would involve reconstruction to add shoulders and turn lanes where appropriate with offsets to the south for minor alignment corrections. In order to ensure that any potential offsets were adequately evaluated, this EA initially considered that right-of-way requirements could extend as far as 300 feet from the centerline of the existing facility. The initial alternatives analysis contained in Section 3.0 was based on this maximum estimate. Based on this preliminary evaluation, it was estimated that up to 7 residential structures and 6 commercial structures could potentially be acquired. As more detailed right-of-way plans were developed, however, it was determined that actual right-of-way needs for the Preferred Alternative is far less than initially thought. Based upon these plans, only 1 residential relocation is expected, and no commercial relocation will occur.

To evaluate the local availability of replacement residential properties for the potential relocations, several real estate websites were consulted. Two homes and one plot of land were identified approximately 15 miles west of the project terminus in Rattan, Pushmataha County, Oklahoma. The price for the homes was $109,900 and $560,000 and the price for the land was $480,000. Replacement dwellings shall be decent, safe and sanitary. Housing of last resort will be provided if sufficient comparable replacement housing is not available within the financial means of displacees. Relocation resources are available to all residential and business relocatees without discrimination. There were no properties listed in McCurtain County near the project area. This information serves as possible relocation opportunities. However, data observed from the real estate websites does not represent all available housing and/or land that a potential impacted owner could relocate. Therefore, final decision of relocation opportunities will be decided between ODOT and the property owner during the right-of-way acquisition phase. Statistical information for the businesses will also be collected during final design to assist with relocation opportunities.

Right-of-way acquisition would be in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. ODOT's Relocation Assistance Program provides financial assistance for relocation expense and advisory assistance in relocation resources available within the area.

4.3 Social and Economic Impacts including Environmental Justice

4.3.1 Population Characteristics

The U.S. Census Bureau estimates population in 2006 in McCurtain County to be 34,018, and in Pushmataha County 11,641 (see **Table 2**).

Table 2:Population Change

Geographic Area	Population 2000	Population 2006	Percent Change 2000- 2006
McCurtain	34,402	34,018	-1.1%
Pushmataha	11,667	11,641	-0.2%
Oklahoma	3,450,654	3,577,536	+3.7%

Source: U.S. Census 2000, American Community Survey 2006

The U.S. Census Bureau lists the number of housing units in McCurtain County in 2005 at 15,877 and 5,943 in Pushmataha County. Housing data for the two counties available from the 2000 Census shows McCurtain County having 15,427 housing units of which 13,216 were occupied. The 2000 Census data for Pushmataha County shows 5,795 housing units with 4,739 occupied.

As an important transportation corridor for the region, SH 3 provides access to numerous community facilities including schools, places of worship, shopping, and employment. SH 3 also provides critical access for emergency services including the Ringold Volunteer Fire Station located on SH 3 approximately one mile east of Pine Creek Lake. Community facilities found within the Project Corridor include one place of worship and the Ringold Post Office, located on SH 3 near the fire station.

No changes to population or existing community facilities are expected as a result of improvements to SH 3. Acquisition of one residence may be required as a result of improvements described in this EA. This single acquisition would have no impact to community cohesion.

4.4.2 Economic Profile of Pushmataha & McCurtain Counties

SH 3 is an important transportation corridor for Pushmataha and McCurtain counties and relied upon heavily for commercial traffic and access to employment areas. Businesses located within the Project Corridor include a café, gas and convenience/general stores. Weyerhaeuser is the largest employer in McCurtain County. Weyerhaeuser operates a paper mill and saw mill and owns a large portion of land in the county and within the SH 3 corridor for timber production. Tyson Foods Inc., a poultry processing plant is also located on SH 3. Tourism is also a major industry with Beavers Bend State Resort, Pine Creek Lake (located along the SH 3 corridor), and numerous other hunting and fishing opportunities throughout the county. Pushmataha County also relies heavily on recreation and tourism for its economy; however, agriculture is still the largest industry in the county.

Median household income in 2004 according to the U.S. Census Bureau was $26,113 in McCurtain County and $24,988 in Pushmataha County. McCurtain County had a labor force of 14,470 in 2005 with an unemployment rate at 6.5 percent. Pushmataha County's labor force stood at 5,450 with an unemployment rate of 4.8 percent. Since 1980 manufacturing has consistently been McCurtain County's major industry in terms of employment followed closely by services and then government. In Pushmataha County services has been the major

employment industry over that same time period, followed by government and farm employment, respectively.

Improvements planned for SH 3 would result in an improved transportation system and access to activity centers throughout the region. Impacts to economic resources would be both positive and negative. Increased employment for construction workers and the presence of a larger workforce in the area would have both a direct and a secondary beneficial impact on economic conditions. The use of locally sourced materials would also be a positive economic impact. In the long-term, beneficial impacts would be expected as a result of a safer and improved transportation system for the corridor. This would decrease travel and transport times and costs, reduce safety concerns and in turn would draw more users to the corridor. Enhanced access into and out of the area and improved connections to the regional transportation system may indirectly increase economic development within the City of Broken Bow and throughout the Project Corridor.

Short-term, negative impacts may result during construction from temporary closures and delays that would result in lost time and traveler frustration. In addition, some temporary loss of revenue may be incurred if travelers choose alternate routes that would avoid the construction delays. Based upon preliminary right-of-way plans, the project appears unlikely to require the acquisition of any commercial properties..

Mitigation for economic impacts includes good communication with local businesses and travelers and construction staging to avoid extremely long traffic delays. Good communication includes contact with local businesses potentially impacted and providing access to all businesses during construction. In addition, posting signs to warn travelers of closures and delays is recommended. Construction staging would involve closures occurring at off-peak times of the day and avoiding long-term closures during peak tourist seasons.

4.3.2 Environmental Justice

In February 1994, President Clinton issued Executive Order 12898 requiring federal agencies to incorporate consideration of environmental justice into the NEPA evaluation process. The purpose of this order was to achieve environmental justice by identifying and addressing disproportionately high and adverse human health or environmental impacts to minority and low-income populations and minority-owned businesses as a result of federal actions. Analysis of 2000 Census data shows that there are no block groups within the Project Corridor in which the percentage of minorities is greater than the county average nor do any have a higher percentage of the population that falls below the derived low-income threshold than that of the respective county. Therefore, no disproportionately high and adverse impacts to low-income or minority populations are expected.

The Preferred Alternative would benefit minority and low-income residents within the Project Corridor as well as the overall community by improving mobility, safety, and access to businesses, community facilities, and services. Improvements in traffic flow would provide safer access both within and surrounding the Project Corridor.

4.4 Noise

A traffic noise assessment was prepared in accordance with Oklahoma Department of Transportations (ODOT's) Highway Noise Abatement Policy Directive C-201-3 and Federal Highway Administrations (FHWA's) Noise Abatement Criteria (23 CFR 772). The traffic noise analysis consists of a comparison of physically measured or modeled noise levels for existing conditions with projected noise levels for future conditions. Traffic data, roadway geometry, and receptor site locations were input into the model to determine existing and future noise levels. A receptor is a location, usually representing a dwelling unit, where exterior human activity occurs. The chosen receptors are modeled for noise levels and evaluated for noise impacts.

ODOT considers an impact when, at a given receptor, future noise levels approach by one decibel on the A-weighted scale (dBA), meet, or exceed the FHWA Noise Abatement Criteria (NAC) for its activity category. An impact also occurs when the future noise levels exceed existing noise levels by 15 dBA at a given receptor. Once an impact is identified, then noise abatement is considered for the impacted receptor(s). Only those areas for which mitigation is determined to be feasible and reasonable as defined by ODOT Policy Directive "Highway Noise Abatement" will be recommended (see **Appendix A of the Noise Assessment Report**).

Noise sensitive receptors were identified within the project area and modeled to determine if noise impacts result from the Preferred Alternative. A total of 17 noise sensitive receptors within the study area were modeled under existing and future conditions (see **Appendix B of the Noise Assessment Report**). This was achieved by using FHWA current approved Traffic Noise Model (TNM) 2.5 and in accordance with ODOT Guidelines for Analysis and Abatement for Highway Traffic Noise. Based on current conditions, the average noise levels for all modeled receptors ranged from 54.9 dBA to 64 dBA. No receptors currently approach, equal, or exceed the 67 dBA L_{eq} (h) for NAC category B.

Traffic volumes on this section of SH 3 in McCurtain and Pushmataha Counties are predicted to increase on average 50 percent by 2030. The future noise analysis indicated for the Preferred Alternative (acquisition of right-of-way to the south) that predicted noise levels range from 56 dBA to 66 dBA and 2 residential receptors will approach, equal or exceed the 67 dBA L_{eq}(h) for NAC category B. It is noted that 1 residential receptor may be within the proposed right-of-way limits depending upon final design. Although preliminary right-of-way plans suggest this dwelling will be acquired, it was modeled and included in this noise assessment to allow for the possibility it may be retained in place as final right-of-way needs are determined. The noise levels for the modeled receptors are expected to increase on average 1 - 3 decibels over current conditions. No receptors will experience a 15 decibel increase in noise levels over current conditions which are considered to be a substantial increase for noise impact determination.

The ODOT Noise Policy Directive was used as the traffic noise impact guideline for this assessment. This policy states that predicted noise levels attributed to roadway modifications resulting in increased traffic levels require an evaluation of measured noise impact and possible mitigation measures. Four noise abatement measures were considered for this project: alternation of the vertical alignment of the roadway; noise buffers by acquisition of undeveloped land; traffic management; and noise barriers. Noise abatement measures are not

recommended for this project due to the isolated nature of receptors and property access requirements.

The Department will conduct further evaluation of the noise assessment during final design stages of project development to clarify any potential issues and conduct any necessary coordination with local officials regarding noise compatible land use planning for this corridor. The entire noise assessment is included in **Appendix C**.

4.5 Water Quality

Water resources in the project area consist of ponds, lakes, wetlands, perennial, intermittent, and ephemeral streams. Under Section 303(d) of the Clean Water Act, each state must prepare a list of waters that do not meet water quality standards that are known as impaired waters. The *Draft 2006 Integrated Water Quality Assessment Report and 303(d) List* identifies two water bodies within the Project Corridor as impaired. Pine Creek Lake is listed as impaired for dissolved oxygen and pH levels and Rock Creek is considered impaired for sulfates and total dissolved solids. No major aquifers are located in McCurtain or Pushmataha counties.

Potential impacts to water quality as a result of planned improvements to SH 3 would include both short (construction-related) and long-term (operation-related) impacts. Construction activities have the potential to cause minor impacts to these water bodies as a result of runoff/sedimentation from grading nearby areas, filling, or accidental spills of fuel or other chemicals. Other activities associated with impacts to water quality include clearing, culvert installation, pier/abutment work associated with reconstructing bridges, borrow pit excavation, etc. During construction activities, a temporary increase of sediments in surface runoff may occur. In addition, increased stream sedimentation may occur during the construction of structures at stream crossings.

Long-term impacts to water resources and quality are associated with the increased impervious surface that would accompany additional lanes and widened shoulders. These long-term impacts to surface water quality would result primarily from highway runoff, which could be compounded by runoff from nearby properties. Highway runoff includes contaminants such as suspended solids, oil and grease, heavy metals and nutrients (i.e., from fertilizers). This runoff is directed into streams by way of stormwater systems. This would increase contaminants discharged into the watershed, particularly at the beginning of storm events. However, the increase of impervious surface associated with the Preferred Alternative is minor.

Mitigation of impacts to water resources from construction activities will incorporate best management practices (BMPs) that prevent erosion and sediment deposit into all bodies of water within the corridor. Pollution prevention measures would be implemented to prevent oil, grease, lubricants, and fuels from maintenance equipment from entering surface waters.

Filling and grading activities would be performed in compliance with the Oklahoma Pollutant Discharge Elimination System (OPDES) General Permit for Construction Activities. Improvements would be constructed and operated in compliance with all federal and state laws relating to minimization of water quality impacts.

4.6 Potential Jurisdictional Waters and Wetlands

Biologists completed field surveys in October 2008 to identify and delineate potentially jurisdictional wetlands. Wetlands were delineated using the criteria from the 1987 US Army Corps of Engineers (USACE) Wetland Delineation Manual. Twenty-eight potentially jurisdictional water crossings were observed along the Project Corridor. Please see **Appendix D** for additional information on locations.

Based upon consideration of the preliminary 600 foot study corridor, construction of the Preferred Alternative (Build Alternative No. 3) could result in impact to 21 potentially jurisdictional water crossings in Segment 7 and a potentially jurisdictional wetland. The Preferred Alternative was selected in part because it minimizes wetland impacts. As final design is completed the appropriate Section 404 permit will be determined in coordination with the USACE. At present, it is believed that any potential impacts associated with stream crossings would be covered under Nationwide Permit 14. Nationwide Permit 14 considers each crossing a single and complete project and allows fill of up to 0.50 acre at each stream crossing, provided that pre-construction notification (PCN) is submitted to the USACE for impacts of more than 0.10 acre. For impacts requiring PCN, a mitigation plan must also be submitted to the USACE for approval. Several crossings would have impacts near this PCN threshold. Therefore, it is possible that mitigation will be required by the USACE for several of the crossings, pending final design. Once plans for the proposed project are finalized, impacts at the crossings that are near the PCN threshold can be further refined. At that time, if they are shown to exceed PCN thresholds, an application would be submitted to the USACE for these crossings. Filling and grading activities should be performed in compliance with the Oklahoma Pollutant Discharge Elimination System (OPDES) General Permit for Construction Activities.

4.7 Floodplains

The Federal Emergency Management Agency (FEMA) regulates alterations to, or development within, floodplains as mapped on FEMA Flood Insurance Rate Maps. The Preferred Alternative for Segment 7 would cross three floodplain areas (see **Table 3**). These floodplain areas could be impacted by the placement of fill below the base floodplain elevation to raise or widen the roadbed for the new lanes. Segment 6 crosses the Pine Creek Reservoir floodplain; however, no improvements are proposed for this segment.

Table 3: Mapped Floodplains Within the Project Corridor

Flood Zone	Location	Flood Zone Description	Approximate Flood Zone Extent (Linear Distance Along Right-Of-Way)
Big Branch	Approximately 4.3 miles east of the McCurtain/Pushmataha county line	Zone A, Special Flood Hazard Area	300-linear feet
Fifteen Creek	Approximately 1.2 miles west of intersection of SH 98 and SH 3	Zone A, Special Flood Hazard Area	300-linear feet

FEMA has regulations governing alterations or development within mapped floodplains. Under FEMA regulations, no alteration of flood zones can result in an increase in the 100-year base floodplain elevation or increase the velocity of floodwaters without FEMA approval.

Prior to construction activities that may affect floodplains, coordination would occur between, ODOT, FEMA, and local floodplain administrators with respect to placement of fill or any other activities within floodplains. These agencies would evaluate the project, provide recommendations, and prescribe mitigation options for impacts to floodplains, if necessary.

4.8 Threatened/Endangered Species and Other Biological Resources

The project occurs in an area where there are federally listed endangered or threatened species or their critical habitat. A biological review was performed for this project. ODOT submitted a letter to U.S fish and Wildlife Service (USFWS) stating that the project as proposed will have no effect on federally listed Interior Least Tern, Rock-cockaded Woodpecker, Piping Plover and the Critical Habitat for Leopard Darter and the proposed as proposed may affect or unlikely to adversely affect the Indiana Bat, Ouachita Rock Pocketbook, Scaleshell Mussel, Leopard Darter and the American Alligator. The U.S. Fish and Wildlife Service (USFWS) has concurred with the Department's findings given the implementation of best management practices for stormwater, erosion, and sediment control and chemical and fuel handling measures dictated by Federal Regulations and ODOT's Standard Specifications for Highway Constructions. In addition, the appropriate effects determination and mitigation measures proposed for the American burying beetle will be addressed in the programmatic biological assessment and conservation strategy, and formalized in a Memorandum of Understanding and through conclusion of formal consultation among the Federal Highway Administration, ODOT and the U.S. Fish and Wildlife Service (USFWS).

In addition, to accommodate USFWS's concerns over impacts of the proposed construction on riparian zones, the right-of-way for the proposed project will be minimized as much as reasonable consistent with the needs of public mobility and safety to accommodate the design of the project to meet current design standards and accommodate any utility relocations.

USFWS has noted the project could potentially affect species protected by Migratory Bird Treaty Act (MBTA). To the extent determined appropriate and biologically sound by ODOT biologists, the Department will consider appropriate measures to minimize such impacts on this project. The Department and FHWA are also committed to development of a programmatic understanding with USFWS which balances broad consideration of the MBTA with the needs of transportation improvement in Oklahoma.

Refer to **Appendix D** for complete biological studies and coordination with USFWS.

4.9 Historic/Archeological Preservation

A cultural resources survey has been conducted by the Department's consultant and accepted by the Oklahoma Archeological Survey in consultation with the Oklahoma State Historic Preservation Office (SHPO) and appropriate Native American Tribes. This action involves a determination of no adverse effect by the SHPO. However, plan notes requiring avoidance of

cultural resources in off-project areas will be added to the final project plans under "Environmental Mitigation Notes" per policy Directive C-201-2D(2)

If archaeological remains are encountered during construction, the contractor shall immediately cease the excavation operation and notify the ODOT project engineer. ODOT would contact the proper authorities for excavation.

The Cultural Resources report and copies of the Tribal and Agency Coordination are included in **Appendix E**.

4.10 Hazardous Waste Information

An Initial Site Assessment (ISA) for Hazardous Waste was completed in November 2008 to identify *recognized environmental conditions.* The term *recognized environmental conditions* means the presence or likely presence of any hazardous substance or petroleum product on the property indicating an existing or past release, into structures, the ground water and/or soil. Hazardous waste sites which may have *recognized environmental conditions* would be, but are not limited to, service stations, industrial facilities, landfills, mining sites, and railroad corridors. Once potentially contaminated sites have been identified, they can be avoided or impacts to the project can be minimized.

There were three such sites identified in the Preferred Alternative. If right-of-way acquisition or subsurface utilities are involved in these facilities, a Preliminary Site Investigation will be warranted. These sites include:

Baldwin and Son Store and Station - This facility is located on the south side of SH3. At the time of the field visit, this facility was in service. According to the EDR report, this facility is listed as having aboveground storage tanks (ASTs). However, no known records were found in federal or state databases for this facility.

TJ's Store and Station - This facility is located at the intersection of SH3 and Old Highway 98. At the time of the field visit, this facility was in service. According to the EDR report, this facility is listed as having underground storage tanks (USTs). The building adjacent to this station was not in service and appeared to have abandoned ASTs. The quantity and substance of the storage tanks are unknown. No known records were found in federal or state databases for this facility.

Potential Former Service Station - This facility is located at the intersection of SH3 and Highway 98. At the time of the field visit, this facility was not in service and appeared to have abandoned ASTs. The quantity and substance of the storage tanks are unknown. No known records were found in federal or state databases for this facility.

The locations of known or potential hazardous materials/waste sites within the Project Corridor are shown on the map of Sites with Potential *Recognized Environmental Conditions*, Initial Site Assessment (ISA) Report, Appendix II and can be found in **Appendix F** of this report. Photos of these facilities can be found in the ISA Report, Appendix III.

4.11 Visual Resources

Visual resources within the Project Corridor can best be described as being of the pastoral nature. The terrain is generally made up of steeply rolling hills and frequent stream and river crossings. Land uses are predominantly rural with undeveloped lands, consisting of open fields and heavy, mixed-type forests. Pine Creek Lake is an important scenic resource of the area.

Visual resources of the Project Corridor are most frequently viewed by travelers from SH 3. Scenic quality is an important aspect of the corridor because of the importance of outdoor recreation and tourism to the counties of McCurtain and Pushmataha. Many visitors travel SH 3 to access the public lands surrounding the Project Corridor, including Pine Creek Lake which is managed for scenic quality in addition to other management goals. The view from the residential and commercial properties in the area is also an important consideration for visual resources in the area. Many of these properties currently experience views of the pastoral landscape typical of the area.

Consequences of the SH 3 improvements to visual resources would be both temporary and permanent. Temporary impacts would include views of the construction activities and loss of some vegetation. Long-term impacts could include increased visibility of SH 3 from some particular locations due to the widening of the highway and some loss of vegetation. The vegetation loss may also be evident to travelers on the highway.

5.0 Public Involvement and Agency Coordination

Letters describing the proposed project and soliciting comments were sent to all agencies on the mailing list in early September 2007. A copy of the letter is provided in **Appendix G.** A total of nine responses were received and copies are included in **Appendix H.** Following is a summary of the responses received.

- The City of Broken Bow is excited that ODOT is planning improvements and believes that it will improve safety for travelers and possibly help attract new business to the city.
    - Response: Comment is noted.
- The City of Antlers is in support of any improvements to SH 3 and would like to see it widened to three lanes within the city limits and passing lanes and widened shoulders added throughout. City officials believe improvements will benefit tourism efforts and local industries.
    - Response: Comment is noted.
- The U.S. Department of Transportation, Federal Aviation Administration (FAA) Southwest Region responded that they had no comments regarding the project.
    - Response: Comment is noted.
- The Honorable Jeff Rabon of the Oklahoma State Senate responded questioning whether there would also be improvements occurring on the remainder of SH 3 through Pushmataha County.
    - Response: A response was mailed to Senator Rabon, which explained that the SH 3 project had been broken up into a number of separate projects to efficiently allocate funding for the improvements. It was also explained that other improvement projects on SH 3 had been added to the eight-year construction plan in 2007 and the necessary environmental planning required to accompany projects receiving federal funding had been initiated.
- The Oklahoma Aeronautics Commission responded stating the project does not appear to pose a hazard to the flying public however construction equipment, light poles and fixtures are among the most critical items affecting navigable airspace. Because of this and because the project is taking place in the close vicinity of an active, public-use airport, the Commission recommends that a FAA's form 7460-1 be filed.
    - Response: Comment is noted. FAA form 7460-1 will be filed as necessary.
- The ODWC responded with multiple concerns regarding the project. The first concern related to federally listed threatened or endangered species and the ODWC provided a list of eight species that they feel are most likely to be impacted by the proposed project. The ODWC also has concerns relating to other fish and wildlife species particularly aquatic species. Furthermore, because they see few opportunities for meaningful wildlife habitat improvements associated with the project they recommend minimizing the impact of the project on local wildlife populations. A list of seven measures that should be considered to minimize these impacts is provided.

- Response: Comment is noted. Potential impacts to state and federal species considered threatened or endangered has been analyzed. Appropriate BMPs to minimize impacts to wildlife will be included during project design and construction.

- The Kiamichi Economic Development District of Oklahoma responded that they had no further comments regarding the project.
  - Response: Comment is noted.

- The US Coast Guard responded stating that this project would not require a bridge permit as it did not involve bridges over navigable waters of the US.
  - Response: Comment is noted.

- The Oklahoma Conservation Commission responded that potential hydric soils have been identified within the project area and as a result of potential impacts to wetland resources an on-site investigation is needed and contact with the USACE is required for a determination.
  - Response: Comment is noted.

- The Oklahoma Historical Society responded stating that no historic properties, identified in the cultural resource report, will be affected by the project.
  - Response: Comment is noted.

- The Oklahoma Archeological Survey responded and stated that they defer potential eligibility and project effect of the documented six historic structures to the Historic Archaeologist with the State Historic Preservation Office.
  - Response: Comment is noted.

- The Caddo Tribe of Oklahoma responded stating that they would like to participate in the resolution of any adverse effects to cultural resources, should they occur, and requested a copy of the archaeological report.
  - Response: A cultural resource report has been completed for this project. ODOT will work with the Caddo Tribe of Oklahoma during final design, as appropriate, if adverse effects occur to cultural resources.

5.1 State Highway 3 Corridor Study Public Involvement

During the planning process associated with the *State Highway 3 Corridor Study* two rounds of public meetings were held, the first to discuss potential improvements to the corridor prior to the start of the planning process and the second round occurring afterward to present the findings from the corridor study and discuss the recommendations. The public meetings were held in Broken Bow and Antlers, Oklahoma on May 20 and 21, 2002 and then on November 6th and 7th 2002, with the same information being presented at each meeting. At these public meetings the public was asked for any comments regarding the project and alternatives under consideration, the priority of construction and any environmental concerns. All information

including meeting minutes, attendees, comments and responses can be found in the appendices of the State *Highway 3 Corridor Study, February 2003* .

5.2 Public Meeting

On September 27, 2007, an open house public meeting was held to present information about the project and the EA process. Project representatives were present to answer questions and take comments from the public. Displays set up around the room for the public to review included information on the EA process, a project schedule, an aerial photograph displaying each segment along with cross-sections showing proposed design, a display showing potential relocations along with other known resources for each segment, and information regarding the right-of-way acquisition process.

A comment station was set up where visitors could fill-out comment forms and deposit them in an envelope for the project team to consider. Interested citizens were offered comment forms to take home and submit at a later date.

Sixty people attended the meeting and project representatives were available in the room to answer questions and record comments. Verbal and written comments that were received or expressed at the meeting were recorded and can be found along with examples of public meeting materials in **Appendix I.**

A total of 20 verbal comments were recorded and can be summarized as follows:

- Five comments expressed general support for the project.
- Four comments expressed a concern with the lack of safety resulting in deaths.
- Two comments expressed concern about the high volume of truck traffic.
- One comment thought that the proposed cross-sections were too wide.
- Six comments provided information on resources including locations of Native American burial sites and potential hazardous materials sites.
- Three asked or commented on bridge replacements in the area.
- Two asked about funding and scheduling for the project.

Please note, the number of comments adds to higher than 20 as a result of some comments referring to more than one topic.

Ten written comments were also submitted at the meeting and can be summarized as follows:

- Three comments expressed need for a passing lane.
- One comment expressed issues with vegetation in the right-of-way blocking view of oncoming traffic and creating safety concerns.
- Seven comments expressed general support for the project.
- Five comments indicated concern for the lack of safety resulting in deaths.

- One comment referenced poor workmanship in previous repairs making the highway dangerous.
- One comment reflected the concern that poor highways in the area have restricted mobility to other regions.
- Three comments expressed appreciation for the meeting and the information presented.
- One comment expressed concern about the current volume of trucks on the highway.
- Two comments expressed concern regarding the road safety at night and poor visibility.
- One comment felt that the proposed cross-sections were too wide.

Following the Public Meeting, three letters were received from property owners who had received invitations to the meeting but were unable to attend. All three of these letters were general requests for more information and two requested specific information regarding impacts to their property that would result from proposed improvements. These parties have been contacted in an effort to address their concerns. Copies of these letters are included in **Appendix H**

5.3 Public Hearing

A Public Hearing to consider the social, economic, and environmental effects of the proposed project will be held at the earliest possible date anticipated to be in the spring of 2009. All comments generated by this process will be reviewed and considered prior to preparation of final design plans for the project.

6.0 List of Preparers

Wendy Wallach - Jacobs Engineering Group, Inc., 707 17th Street, Denver, Colorado. Senior Planner, B.A. Geography - Clark University, M.A. Urban and Regional Planning - University of Colorado at Denver, 13 years of experience (Project Management, NEPA report preparation and data collection)

Robert Quinlan - Jacobs Engineering Group, Inc., 707 17th Street, Denver, Colorado. Senior Project Manager, B.S. Biology, M.S. Zoology and Physiology - University of Wyoming, 28 years of experience (Project Management, NEPA report preparation)

Kevin McDermott - Jacobs Engineering Group, Inc., 707 17th Street, Denver, Colorado. Environmental Planner, B.S. Natural Resources Recreation and Tourism, Parks and Protected Area Management - Colorado State University, M.A. Urban and Regional Planning - University of Colorado at Denver, five years of experience (NEPA report preparation and data collection)

Dana Ragusa - Jacobs Engineering Group, Inc., 707 17th Street, Denver, Colorado. Environmental Planner, B.S. Environmental Studies - University of Central Florida, eight years of experience (NEPA report preparation and noise and hazardous materials field studies and data collection)

Lindi Clayton—Jacobs Engineering Group, Inc., Senior Environmental Scientist, M.S. Rangeland Ecology and Management—Texas A&M University, 8 years of experience (Wetlands/Section 404, biological field studies and NEPA report preparation)

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Appendix A:
Social, Economic, and Environmental Factors

Items Normally Considered During Project Development

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Items Normally Considered During Project Development

- Purpose and Need for Project
- Alternatives
- Affected Environment and Possible Environmental Consequences in Regards to the Following Areas:
  - Land Use
  - Farmlands
  - Social Resources
  - Relocation Impacts/ Right-of-Way Acquisition
  - Joint Development
  - Considerations Relating to Pedestrians and Bicyclists
  - Air Quality
  - Environmental Justice
  - Noise
  - Water Quality
  - Permits
  - Wetlands
  - Water Bodies
  - Wildlife
  - Floodplains
  - Wild and Scenic Rivers
  - Rechannelization
  - Threatened or Endangered Species
  - Historic and Archaeological Preservation
  - Hazardous Waste Sites
  - Underground Storage Tanks
  - Visual Resources
  - Energy and Utilities
  - Construction
  - Relationship of Local Short-Term Uses vs. Long-Term Productivity
  - Irreversible and Irretrievable Commitment of Resources
  - Effects on Public Parks, Wildlife and Waterfowl Refuges, and Historic Sites
- Comments
- Drainage Concerns
- Accidents and Safety Concerns

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Appendix B:
Natural Resources Conservation Service Coordination Letters

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JACOBS™

707 17th Street, Suite 2300
Denver, CO 80202 U.S.A.
(303) 820-5240 Fax: (303) 820-2402

October 31, 2008

Mr. Ken Swift
NRCS Idabel Service Center
201 N. Central Ave.
Idabel, OK 74745-3821

Dear Mr. Swift:

In early February we were in contact regarding an Oklahoma Department of Transportation project for planned improvements to State Highway (SH) 3 in McCurtain and Pushmataha Counties for which you had completed a Farmland Conversion Impact Rating Form (AD 1006). Since that time, the project has been altered a great deal and we believe it is appropriate to resubmit a new AD 1006 form to replace the earlier documentation.

The original project involved reconstruction and widening of approximately 28 miles of SH 3 with construction only occurring in the eastern 11 miles. The project has now been split into two projects with the first project being approximately 17 miles in length from just west of the Pushmataha County Line to SH 98 in McCurtain County. Although project designs have not been finalized we are now certain that a portion of the corridor would be widened to the south of the existing alignment with all impacts occurring within 300 ft of the existing centerline.

I have attached a map that depicts the project vicinity, project corridor, the 300 ft within which impacts would occur in, and information downloaded from the NRCS Data Mart regarding Prime and Unique Farmlands in McCurtain and Pushmataha Counties. I have also attached an AD 1006 with the appropriate information filled out in regards to this project. If you would review, complete and sign this form for the project so that we may move forward with the environmental documentation that would be greatly appreciated.

Thank you for your assistance with the completion of these requirements and I apologize for any confusion related to the alterations in the project. When you have completed your assessment please mail the signed Form AD 1006 to the above address. If you have any additional questions regarding the project please contact me at 303-820-4847 or kevin.mcdermott@jacobs.com. When the second project has moved to the planning stage I will get in contact with the appropriate information for that section of the highway in order to work through the second portion of this project.

Sincerely,

Kevin McDermott
Environmental Planner

KM
Enclosure

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

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

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request	4. Sheet 1 of _____
1. Name of Project **State Highway 3: Corinne to SH 98**	5. Federal Agency Involved **FHWA**	
2. Type of Project **Highway Improvement**	6. County and State **McCurtain/Pushmataha OK**	

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

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

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

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

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

United States Department of Agriculture

NRCS

Natural Resources Conservation Service, 201 N. Central Avenue, Idabel, OK 74745 580.286.5342

Mr. Kevin McDermott
Environmental Planner 1
Jacobs Carter Burgess
707 17th Street, Suite 2300
Denver, CO 80202

November 13, 2008

RE: NRCS-CPA-106 for proposed Highway 3 improvement in McCurtain County, OK

Dear Mr. McDermott:

Please find attached the NRCS-CPA-106 form for the proposed highway improvement within McCurtain County, Oklahoma.

The proposed improvements, do involve the conversion of prime farmland, therefore the action does fall under the Farmland Protection Policy Act (FPPA). The map you provided, downloaded from the NRCS Soil Data Mart, shows the location of the soils.

As required, we recommend that you consider alternatives minimizing the impact on prime farmlands, where possible.

Thank-you for the opportunity to comment on the proposed work during the planning phase of the project. If we can be of any further assistance, don't hesitate to contact us.

Sincerely,

Kenneth W. Swift

Kenneth W. Swift
District Conservationist
Natural Resources Conservation Service
Idabel Field Office

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

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

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request	4. Sheet 1 of 1
1. Name of Project: State Highway 3: Corinne to SH 98	5. Federal Agency Involved: FHWA	
2. Type of Project: Highway Improvement	6. County and State: McCurtain/Pushmataha OK	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS: 11/4/2008	2. Person Completing Form: Kenneth W. Swift
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐	4. Acres Irrigated: 1,444	Average Farm Size: 193
5. Major Crop(s): Wheat	6. Farmable Land in Government Jurisdiction: Acres: 483,004 % 40	7. Amount of Farmland As Defined in FPPA: Acres: 404,453 % 33
8. Name Of Land Evaluation System Used: CALES	9. Name of Local Site Assessment System: NONE	10. Date Land Evaluation Returned by NRCS: 11/13/08

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment: Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	42			
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	42	0	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	34			
B. Total Acres Statewide And Local Important Farmland	0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	39.7			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	41.3			
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	15			
2. Perimeter in Nonurban Use — 10	10			
3. Percent Of Corridor Being Farmed — 20	12			
4. Protection Provided By State And Local Government — 20	0			
5. Size of Present Farm Unit Compared To Average — 10	10			
6. Creation Of Nonfarmable Farmland — 25	2			
7. Availability Of Farm Support Services — 5	3			
8. On-Farm Investments — 20	2			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	2			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	56	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	41.3			
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	56	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	107.3	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assesament Used?
A			YES ☐ NO ☒

5. Reason For Selection: Project needs to follow existing SH3 corridor. specific alignment was selected through an Alternatives Analysis procedure weighing constructability and environmental impacts.

Signature of Person Completing this Part: [signature] DATE: 11-14-2008

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

Appendix C:
Noise Assessment Report

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Kevin Larios/ODOT
01/14/09 12:41 PM

To Dana.Ragusa@jacobs.com

cc robert.quinlan@jacobs.com, Wendy.Wallach@jacobs.com, Joan Lindley/ODOT@fd9ns01.okladot.state.ok.us, Siv Sundaram/ODOT@fd9ns01.okladot.state.ok.us, Dawn Sullivan/ODOT@fd9ns01.okladot.state.ok.us

bcc

Subject Approval of Noise Report for SH-3 McCurtain & Pushmataha Counties

Dana,

I have reviewed the attached final version of the Noise Assessment Report for SH-3 McCurtain and Pushmataha Counties. All requested revisions are accounted for and I approve this report to be incorporated in the EA being prepared for this corridor improvement.

Sincerely,

Kevin Larios, P.E.
Noise & Mitigation Engineer
Environmental Programs Division
Oklahoma Department of Transportation
200 NE 21st Street, Room 3D-2a
Oklahoma City, OK 73105-3204
Phone: (405) 522-4420
Fax: (405) 522-5193
email: klarios@odot.org

McCURTAIN 2418504 SH3 Noise Report-final.pdf

NOISE ASSESSMENT REPORT

For

State Highway 3 from Pushmataha County Line to SH 98
McCurtain and Pushmataha Counties, Oklahoma

Prepared For:

Oklahoma Department of Transportation
200 N. E. 21st Street
Oklahoma City, OK 73105

Prepared By:

JACOBS
Carter Burgess

January 2009

Table of Contents

Appendices

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List of Figures

1.0 Introduction

This Noise Assessment Report investigates the noise impacts that could result from proposed improvements to State Highway 3 (SH 3) in McCurtain and Pushmataha Counties, Oklahoma. The project limits include SH 3 approximately one mile before the Pushmataha County line to SH 98, for a total project length of approximately 17 miles (see **Figure 1**, project vicinity map).

In February of 2003, ODOT released the *State Highway 3 Corridor Study* which detailed the feasibility of reconstructing SH3 from Antlers to Broken Bow in Pushmataha and McCurtain Counties. For analysis reasons, the report divided this 55 mile span of SH3 into 10 Segments. This assessment examines the potential for reconstruction of the eastern portion of the 2003 project corridor, spanning 17 miles and consisting of Segments 6 & 7. These segments are shown on **Figure 2**, project corridor segments map.

The existing SH3 throughout the project corridor is predominately a two-lane rural highway consists of 24 feet of driving lanes and a two foot shoulder on each side. Segment 6 near the Pine Creek Reservoir was previously widened to include eight foot shoulders.

No improvements are proposed to segment 6 and would remain as a two lane facility. The proposed improvements to SH 3 within segment 7 would consist of reconstruction of the existing two lane facility to add ten foot paved shoulders and passing lanes where required.

ODOT conducted an alternatives screening analysis to identify a recommended alignment either north or south of the existing roadway that avoided or minimized adverse impacts to environmental resources for improvements to each segment. The assessment area included 300 feet on both sides of SH 3 centerline, for a total project corridor width of 600 feet. If future realignment or reconstruction is needed beyond what is proposed, then it was recommended that the alignment for segment 7 be shifted to the south to avoid or minimize impacts to environmental resources. Therefore, this assessment is based on the Preferred Alternative (alignment to the south).

Noise sensitive receptors were identified within the project area and modeled to determine if there are noise impacts as a result of the Preferred Alternative. This will be achieved by using FHWA current approved Traffic Noise Model (TNM) 2.5. If impacts are found to occur, consideration of abatement will be conducted. The noise analysis will follow the "*Oklahoma Department of Transportation (ODOT) Guidelines for Analysis and Abatement for Highway Traffic Noise.*"

Figure 1: Project Vicinity Map

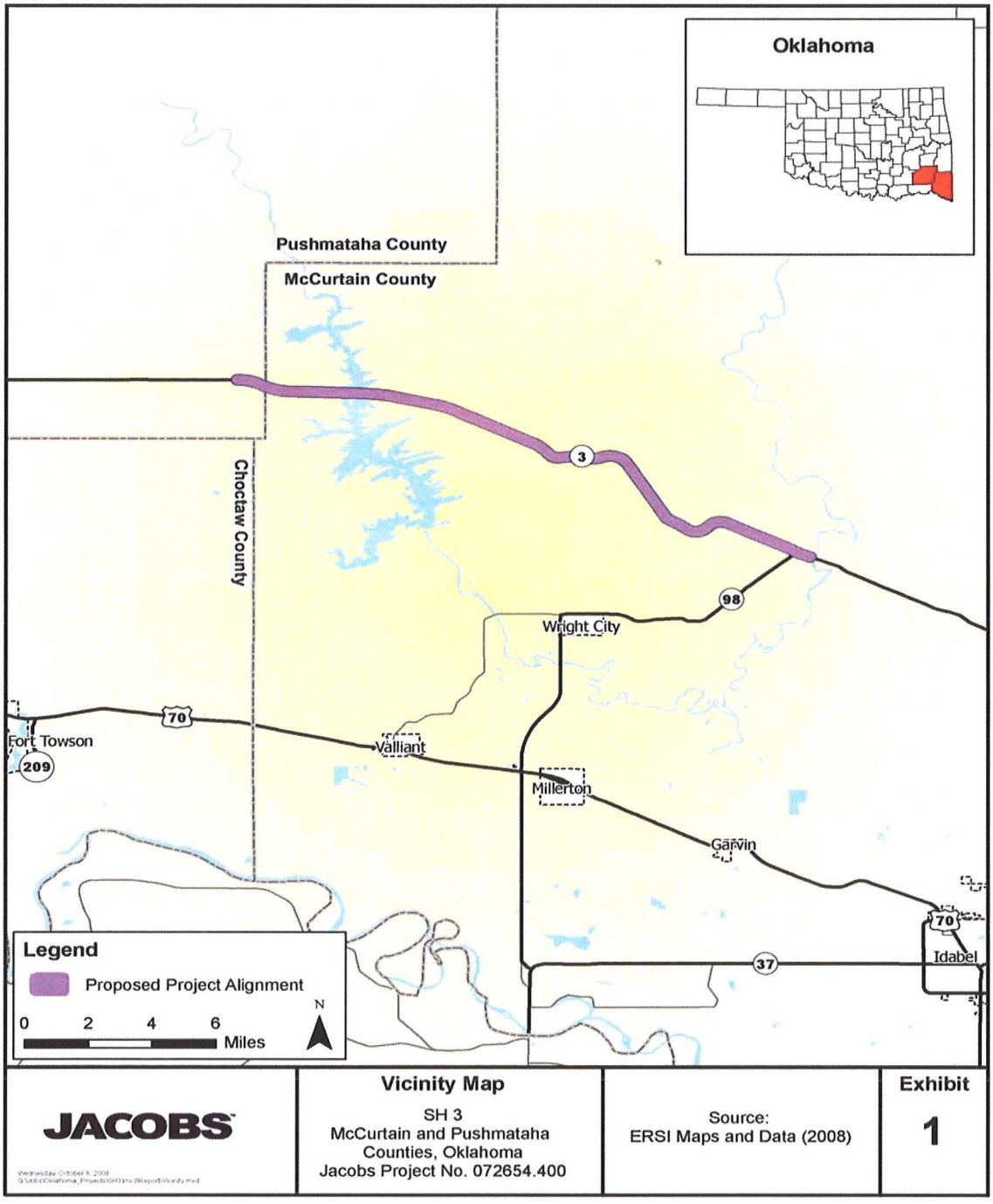
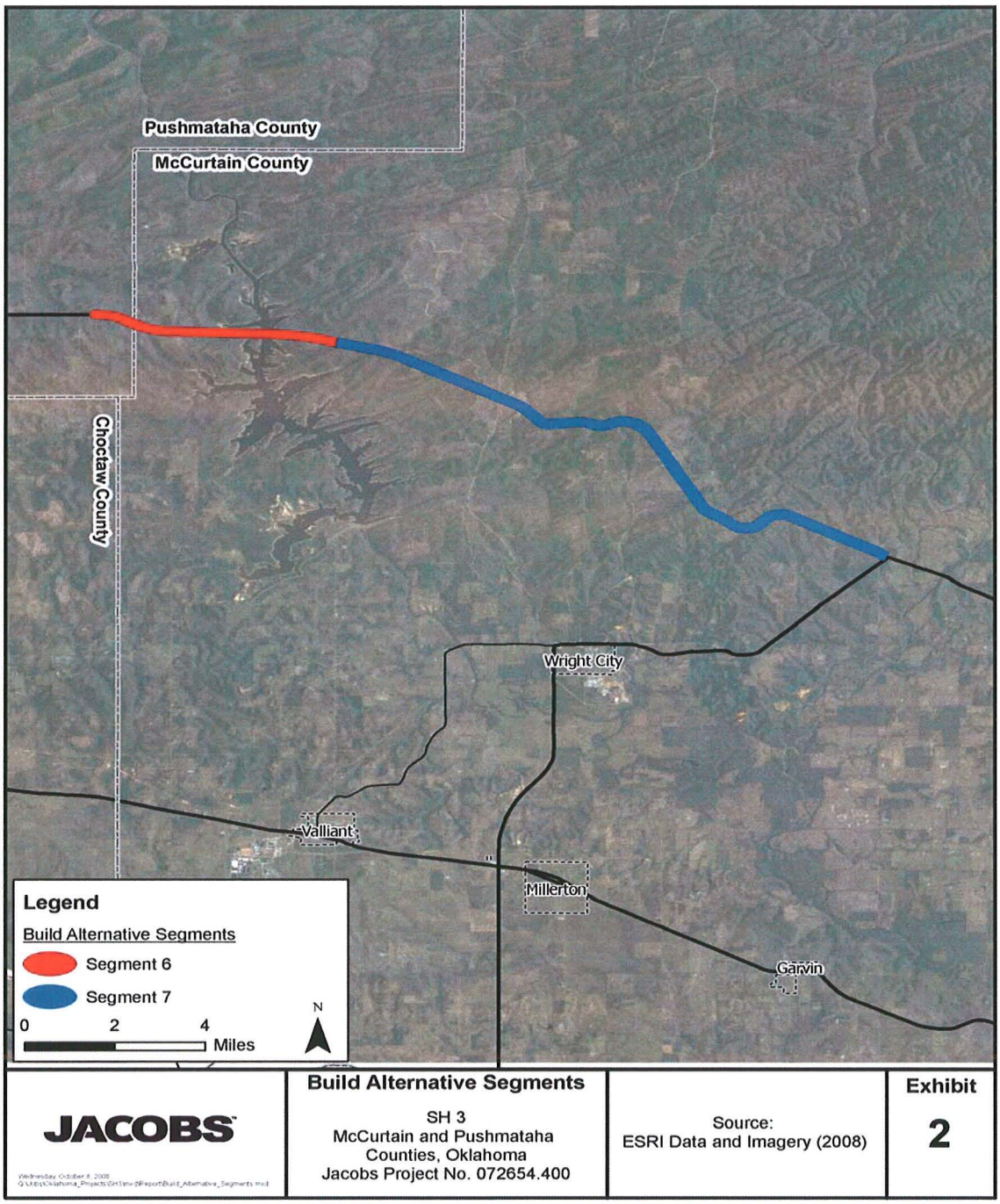


Figure 2: Project Corridor Segments Map



2.0 Terminology and Sound Theory

This noise analysis will discuss noise levels as $L_{eq}(h)$. L_{eq} is defined as the steady-state sound level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level during the same period. $L_{eq}(h)$ is the hourly value of Leq and is based on the more commonly known decibel (dB) and the "A-weighted" decibel unit (dBA). Sound comprises different frequencies, each of which is perceived differently by the human ear. Since human hearing is not sensitive to low and very high frequencies, the A-weighted scale is used to approximate the response of the human ear by compensating for high and low end frequency insensitivity and renders noise level readings more meaningfully. The A-weighted decibel (dBA) unit measures perceptible sound energy and factors out the fringe frequencies.

Decibels (dB) are logarithmic units, as opposed to the more common linear units. For example, temperature units of Fahrenheit and Celsius are linear. A 2-degree increase is twice as much as a one degree increase. However, in decibels, a three dB noise increase results in a doubling of sound energy, but not in the human perception of sound. Research indicates that, to an average listener, a 10 dB increase is perceived as twice as loud. One dBA is the smallest change in sound level an average person can detect. Usually an observer cannot perceive an increase in noise of three to four dB if the increase takes place over several years.

Traffic noise is not constant. It varies as each vehicle passes a point. The time-varying characteristics of environmental noise are analyzed statistically to determine the duration and intensity of noise exposure. In an urban environment, noise is made up of two distinct parts. One is ambient or background noise. Wind noise and distant traffic noise make up the acoustical environment surrounding the project. These sounds are not readily recognized, but combine to produce a nonirritating ambient sound level. This background sound level varies throughout the day, being lowest at night and highest during the day. The other component of urban noise is intermittent and louder than the background noise. Transportation noise and local industrial noise are examples of this type of noise. It is for these reasons that environmental noise is analyzed statistically.

3.0 Methodology

Traffic noise analysis consists of a comparison of physically measured or modeled noise levels for existing conditions with projected noise levels for future conditions. FHWA's software, Traffic Noise Model (TNM) 2.5, was used to model noise levels based on traffic data, roadway geometry, and receptor site locations. A receptor is a location, usually representing a dwelling unit, where exterior human activity occurs. The chosen receptors are modeled for noise levels and evaluated for noise impacts. Design traffic volumes do vary along the proposed SH 3 corridor. The complete TNM 2.5 input/output data are on file with the ODOT Environmental Programs Division.

The FHWA has five noise activity categories based on land use and sound levels, each of which has its own Noise Abatement Criteria (NAC) (see **Table 1**). If a project would result in higher $L_{eq}(h)$ values than the NAC values for a given location, then noise abatement or mitigation measures must be evaluated. In areas where there is no outside human activity (i.e., churches), interior noise levels can be determined using adjustment factors and compared to NAC for determining impacts. ODOT considers an impact when, at a given receptor, future noise levels approach by one dBA, meet, or exceed the FHWA NAC for its activity category. An impact also occurs when the future noise levels exceed existing noise levels by 15 dBA at a given receptor. Once an impact is identified, then noise abatement is considered for the impacted area. Only those areas for which mitigation is determined to be feasible and reasonable as defined by ODOT Policy Directive "Highway Noise Abatement" will be recommended (see **Appendix A**).

Table 1: FHWA Noise Abatement Criteria

Activity Category	Leq (dBA)*	Description of Activity Category
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: U.S. Department of Transportation, 1982.

Field recorded measures were conducted using certified and calibrated noise meters. The meters were placed at a height of five feet above ground surface, which is the average height of the human ear. Noise readings were collected for 15 minutes for each event as required by ODOT. Traffic counts, by vehicle type, were collected simultaneously. The field recorded noise levels and collected traffic data were input into the FHWA TNM 2.5 to determine the accuracy of the model (see **Table 2**, field recorded noise levels). The model is considered validated when the difference between measured and predicted noise levels are less than three dBA. Three decibels is relevant because the human ear can detect change over three dBA. Since the model predicted exactly with the field recorded noise measurements, the TNM is validated.

Table 2: Field Recorded Noise Levels

Receptor #	Location	Field Recorded Noise Level (dBA)	TNM Predicted Noise Level (dBA)	Difference
R4	Resident at Bock	68 dBA	68 dBA	0 dBA

4.0 Traffic Data

Traffic noise calculations for the existing year and predicted design year were performed using the FHWA TNM 2.5. The unit of measure for roadway traffic is the average annual daily traffic (AADT), which is defined as the total number of vehicles during a given time period (greater than one year), divided by the number of days in that time period. The current TNM utilizes the Design Hourly Volume (DHV) to determine both existing and predicted traffic noise levels which area considered the "worst hour for noise" occurring when the highest volume for an hour is combined with the highest speed. DHV is based on the percentage of hourly vehicular traffic present on the facility at the design capacity.

Table 3 shows the AADT volumes and motor vehicle compositions by percentages (dhv) for SH 3 within segments 6 & 7. The directional split of vehicles was used in this analysis to proportion north and south traffic volumes to each direction of the roadway. The intersecting streets were not input into the model since traffic volumes and speeds are considerably lower compared to SH 3. The existing speed for the project corridor is 65 mph and is not proposed to change with future conditions.

Table 3: Traffic Data

Roadway Segment	2007 AADT/hourly*	2030 AADT/hourly*	Directional Split	Percentage of Autos (dhv)	Percentage of Trucks (dhv)
6	2000/200	3000/300	52%	72%	28%
7	2000/200	3000/300	52%	72%	28%

*ODOT uses a 10% factor to determine hourly volumes.

5.0 Identification of Receptors

Noise sensitive receptors, which may be affected by traffic noise, were identified during the field investigation conducted in October 2007. Majority of the study area consist of a rural setting with scattered residential and commercial development. The residential dwellings and places of worship are classified as NAC category B and the commercial land uses are classified as NAC category C.

6.0 Existing Noise Levels

Existing noise levels were modeled using the FHWA TNM 2.5. Traffic counts for the year 2007 along with existing speeds were input into the model. The existing typical section consists of two, 12-foot travel lanes. All 17 noise sensitive receptors within the study area were modeled.

The locations of modeled noise sensitive receptors can be found in **Appendix B** and summarized in **Table 4**. The average noise levels ranged from 54.9 dBA to 64 dBA. No receptors currently approach, equal, or exceed the criteria of 67 dBA for NAC category B.

7.0 Future Noise Levels

The FHWA TNM 2.5 was used to predict future noise levels primarily for the Preferred Alternative No.3 which proposes the realignment to the south of the existing centerline to accommodate any minor realignment needed for the proposed improvements (adding shoulders, passing lanes, and realigning intersections). The typical section can be found in **Appendix C**.

Traffic volumes on this section of SH 3 in McCurtain and Pushmataha Counties are predicted to increase on average 50 percent by 2030. The future noise analysis indicated for the Preferred Alternative section that predicted noise levels range from 56 dBA to 66 dBA and 2 residential receptors will approach, equal or exceed the 67 dBA $L_{eq}(h)$ for NAC category B. It is noted that 7 residential receives are located south of the existing two-lane facility and may be within the proposed right-of-way limits depending upon final design. No preliminary right-of-way plans were available in the preparation of this noise assessment and would have provided for a more accurate number of impacted receptors. As such, these receptors were modeled and included in this noise assessment. **Table 4** summarizes the comparison of future predicted noise levels with existing noise levels for the modeled receptors.

Table 4: Summary of Noise Levels

Receptors							
Roadway Segment	**Receptor #**	**# of receptors by activity***	**Distance from nearest proposed centerline (feet)**	**Existing 2007 (dBA)**	**Future 2030 (dBA)**	**Change in Noise Level (+/- dBA)**	**Noise Impact**
6	R1	1 SF	117	62	64	+2.0	No
7	R2	1 SF	177	59	61	+2.0	No
7	Place of Worship (R3)	1 PW	77	64	66	+2.0	**Yes**
7	R4**	1 SF	145	61	63	+2.0	No
7	R5**	1 SF	149	60	61	+1.0	No
7	R6	1 SF	130	61	61	0	No
7	R7	1 SF	224	57	58	+1.0	No
7	R8	1 SF	213	57	58	+1.0	No
7	R9	1 SF	80	63	66	+3.0	**Yes**
7	R10**	1 SF	135	59	61	+2.0	No
7	R11	1 SF	220	57	58	+1.0	No
7	R12**	1 SF	143	60	62	+2.0	No
7	R13	1 SF	114	62	65	+3.0	No
7	R14	1 SF	239	56	57	+1.0	No
7	R15**	1 SF	151	61	60	-1.0	No

Table 4: Summary of Noise Levels

Receptors							
Roadway Segment	**Receptor #**	**# of receptors by activity***	**Distance from nearest proposed centerline (feet)**	**Existing 2007 (dBA)**	**Future 2030 (dBA)**	**Change in Noise Level (+/- dBA)**	**Noise Impact**
7	R16**	1 SF	255	54.9	56.0	+1.1	No
7	R17**	1 SF	173	59	59	0	No

*SF=single residential dwelling; PW=place of worship; CM=cemetery
**Potential displacement depending on final design.

8.0 Noise Abatement Consideration

If the predicted noise levels for NAC category B receptors approach, equal, or exceed the criteria of 67 dBA or there is a significant increase (15 dBA) over existing noise levels, noise abatement must be considered. ODOT policy does not consider mitigation for commercial or industrial areas or those areas trending to commercial or industrial land uses. As shown in **Table 4** future noise levels would approach, equal, or exceed the criteria of 67 dBA at two locations; therefore, noise abatement was considered. Four noise abatement measures were considered for this project:

- Alteration of the vertical alignment of the roadway
- Noise buffers by acquisition of undeveloped land
- Traffic management
- Noise barriers

Alteration of the vertical or horizontal roadway alignment: The proposed highway will be reconstructed in a manner to provide safe travel for the road users while minimizing right-of-way. The vertical alignment adjustments will be incorporated where needed to enhance safe sight and/or stopping distances and other design reasons in accordance with current design standards. Shifting the horizontal alignment substantially north or south just for noise benefits would increase right-of way costs beyond what normally be required for ultimate design purposes, and therefore, would be considered unreasonable.

Buffer zones: Acquiring undeveloped land for buffer zones would not be reasonable and feasible for individual noise sensitive receptors.

Traffic management: SH-3 is a regional highway used for intrastate commerce. Restriction of heavy trucks, which could reduce overall noise levels, would not be a reasonable mitigation measure due to the fact that there are no other highway facilities to reroute such traffic near the SH-3 corridor. Control devises could be used to reduce the traffic speeds resulting in a minor noise level reduction benefit of one dBA per five mph reduction in speed. The use of signalized

intersections in controlling traffic speeds throughout the project corridor is not reasonable and/or feasible due to the SH-3 functional classification and network characteristics.

Noise barriers: This is the most common noise abatement measure. However, access to SH 3 would be limited with noise barriers. There are numerous driveways and side streets which would cause gaps in the barriers and diminish the effectiveness. Businesses would also be visually shielded by noise barriers. Noise barriers are not reasonable for individual noise sensitive receptors.

The above noise abatement measures were considered, but it was determined that they do not meet the ODOT's reasonable and feasible criteria. Therefore, noise abatement measures are not recommended for this project due to primarily the isolated nature of receptors and property access requirements.

9.0 Information for Local Officials

Traffic noise approaching, meeting and exceeding sound levels specified in the ODOT Noise Directive Policy resulting from the proposed SH-3 corridor improvement have been identified. The distance from the proposed roadway centerline to the future 66 dBA impact line varies considerably due to different alignments being considered in early planning process. However, as a guideline, based on the noise analysis the future 66 dBA ranges from 75 to 80 feet from the centerline of the proposed two-lane facility. As final design plans are developed ODOT will conduct further evaluation of this noise assessment and, if necessary, notify local officials of any potential issues regarding noise compatible land use planning.

10.0 Construction Noise

Noise from construction activities is difficult to predict. Construction activities are anticipated to occur during the daytime hours, which is usually when noise is most tolerable due to other background noise. Therefore, construction noise is not anticipated to impact receptors along the SH 3 corridor.

The ODOT "Highway Noise Abatement" Policy states that any special noise sensitive land uses or activities, which maybe affected by construction noise from the proposed project, would be identified and any special measures that are feasible and reasonable would be added to the project plans and specifications. No such special land uses or activities have been identified.

11.0 Conclusions

Traffic noise impacts have been evaluated for the proposed SH 3 corridor improvements. There were a total of 17 receptors within segments 6 and 7 identified and modeled utilizing FHWA TNM 2.5. No receptors currently approach, equal, or exceed the 67 dBA Leq(h) for NAC category B. Traffic volumes on this section of SH 3 in McCurtain and Pushmataha Counties are predicted to increase on average 50 percent by 2030. The future noise analysis indicated for the Preferred Alternative section that predicted noise levels range from 56 dBA to 66 dBA and 2

residential receptors will equal or exceed the 67 dBA $L_{eq}(h)$ for NAC category B. It is noted that 7 residential receptors are located south of the existing two-lane facility and may be within the proposed right-of-way limits depending upon final design. No preliminary right-of-way plans were available in the preparation of this noise assessment and would have provided for a more accurate number of impacted receptors. As such, these receptors were modeled and included in this noise assessment. The noise levels for the modeled receptors are expected to increase on average 1 – 3 decibels over current conditions. No receptors will experience a 15 decibel increase in noise levels over current conditions which are considered to be a substantial increase for noise impact determination.

The ODOT Noise Policy Directive was used as the traffic noise impact guideline for this assessment. This policy states that predicted noise levels attributed to roadway modifications resulting in increased traffic levels require an evaluation of measured noise impact and possible mitigation measures. Noise abatement measures are not recommended for this project due to primarily the isolated nature of receptors and property access requirements.

The Department will conduct further evaluation of the noise assessment during final design stages of project development in determining any potential issues and any necessary coordination with local officials regarding noise compatible land use planning for this corridor.

Prepared by:

Dana Ragusa

Dana Ragusa, Environmental Planner

January 13, 2009

Appendix A: ODOT Policy Directive "Highway Noise Abatement"

OKLAHOMA DEPARTMENT OF TRANSPORTATION			
POLICY DIRECTIVE			NO. C-201-3
SUBJECT HIGHWAY NOISE ABATEMENT			PAGE NO. 3 of 7 DATED 8-1-96
EFFECTIVE DATE 8-1-96	ISSUED BY DIRECTOR	APPROVED	
POLICY REPLACED NONE	POLICY NO. C-201-3	PAGE NO. All	DATED 8-1-96

2. Determination of existing noise levels.
   a. The existing exterior L_{eq} noise level will be either modeled using a Federal Highway Administration approved noise model or determined by actual noise measurement. Noise levels should reflect the noisiest hour of the day affecting a given receptor.

3. Prediction of traffic noise levels.
   a. The predicted exterior L_{eq} traffic noise levels will be determined using a Federal Highway Administration approved noise model.
   b. The design year traffic volume will be used for prediction of future traffic noise levels.

4. Determination of traffic noise impacts.
   a. Impacts occur when exterior noise levels approach by one (1) decibel or exceed the Federal Highway Administration L_{eq} Noise Abatement Criteria.
   b. Impacts occur when predicted exterior L_{eq} noise levels exceed existing exterior L_{eq} noise levels by fifteen (15) decibels or more.
   c. In those cases where no frequent exterior human activities occur, the interior criterion of the Federal Highway Administration L_{eq} Noise Abatement Criteria shall be used. Impacts occur when interior noise levels approach by one (1) decibel or exceed this interior criterion level.

5. Examination of alternative noise mitigation measures.
   a. Noise mitigation measures which are reasonable and feasible and noise impacted areas for which no apparent solution is available will be identified.
   b. Commercial and industrial areas or those areas trending to commercial or industrial land use are not considered noise sensitive locations and are not eligible for mitigation.

B. Noise Mitigation

In determining and abating traffic noise impacts, primary consideration will be given to exterior areas. Mitigation will usually be considered only where frequent human use occurs and lowered noise levels would be of benefit. The following will guide consideration of mitigation measures:

Feasibility

Mitigation measures must be feasible. "Feasibility" refers to engineering considerations that determine if the following can be achieved.

OKLAHOMA DEPARTMENT OF TRANSPORTATION			
POLICY DIRECTIVE			NO. C-201-3
SUBJECT HIGHWAY NOISE ABATEMENT			PAGE NO. 4 of 7 DATED 8-1-96
EFFECTIVE DATE 8-1-96	ISSUED BY DIRECTOR	APPROVED	
POLICY REPLACED NONE	POLICY NO. C-201-3	PAGE NO. All	DATED 8-1-96

1. Mitigation measures should result in at least a seven (7) decibel reduction in design year highway traffic noise when compared to the design year traffic noise levels without mitigation for first row receptors. Some factors that may limit the ability to achieve noise reduction include topography, access requirements for driveways and cross-streets, and other noise sources in the area.

2. Mitigation measures must be constructable without using extraordinary construction techniques as identified by the Department.

3. Mitigation measures must not create a drainage, maintenance, access or safety problem that cannot be accommodated by appropriate design as determined by the Department.

Reasonableness

Mitigation measures must be reasonable. This reasonableness criteria shall include:

1. The area's residents desire for mitigation. Higher consideration will be given to first row residents adjacent to a transportation facility.

2. The overall magnitude of the future noise levels without mitigation.

3. The magnitude of the future noise levels compared to existing noise levels.

4. The date of development or construction of the residential area compared to the date of initial highway construction.

5. The cost not to exceed $30,000.00 per benefitted residential receptor. A benefitted residential receptor receives at least a five (5) decibel reduction when compared to no mitigation and includes all residential receptors (not only first row receptors).

6. The existing land use zoning, potential for land use change in the area, and actions taken by local officials to control incompatible growth and development adjacent to highways.

All these reasonableness criteria will be used to evaluate the reasonableness of mitigation. No one factor would guarantee or deny mitigation absolutely, but all would be considered by the Department to determine if mitigation is reasonable.

OKLAHOMA DEPARTMENT OF TRANSPORTATION			
POLICY DIRECTIVE			NO. C-201-3
SUBJECT HIGHWAY NOISE ABATEMENT			PAGE NO. 5 of 7 DATED 8-1-96
EFFECTIVE DATE 8-1-96	ISSUED BY DIRECTOR	APPROVED Neal A. McCaleb	
POLICY REPLACED NONE	POLICY NO. C-201-3	PAGE NO. All	DATED 8-1-96

Mitigation at institutions such as churches, schools, and hospitals will be considered by the Department on a case-by-case basis.

Mitigation will not be considered for commercial or industrial areas or for those areas that are trending to commercial or industrial land use, and measures not authorized for federal-aid participation in 23 CFR 772.13(c)(1) through (6) will not be considered on Department projects. The Department will not consider insulation of privately-owned residences.

The Oklahoma Department of Transportation is not responsible for mitigation of noise impacts that occur in developments platted after the Date of Public Knowledge.

C. INFORMATION FOR LOCAL OFFICIALS

The Department will make the results of the noise analyses and any proposed mitigation measures available to local officials within whose jurisdiction the highway project is located. This will include expected noise levels as found in the National Environmental Policy Act (NEPA) document or in separate documentation. This information is provided to assist local officials to protect future land development from becoming incompatible with anticipated highway noise levels.

D. CONSTRUCTION NOISE

The Department will identify any special noise sensitive land uses or activities which may be affected by noise from construction of a project. Any special measures which are feasible and reasonable will be added to the project plans and specifications.

E. DESIGN

1. The Design Division will incorporate noise mitigation measures recommended by Planning Division in project plans. The Planning Division Engineer must be notified in writing of any deviations prior to completion of final construction plans.

2. Mitigation measures not covered in the manual of "Standard Specifications for Highway Construction" will be discussed at the Plan-in-Hand and detailed in the Plan-in-Hand report.

3. Pay items will be established for mitigation measures not covered in the manual of "Standard Specifications for Highway Construction".

OKLAHOMA DEPARTMENT OF TRANSPORTATION			
POLICY DIRECTIVE			NO. C-201-3
SUBJECT HIGHWAY NOISE ABATEMENT			PAGE NO. 6 of 7 DATED 8-1-96
EFFECTIVE DATE 8-1-96	ISSUED BY DIRECTOR	APPROVED	
POLICY REPLACED NONE	POLICY NO. C-201-3	PAGE NO. All	DATED 8-1-96

F. CONSTRUCTION

1. Mitigation measures not covered in the manual of "Standard Specifications for Highway Construction" will be discussed at the pre-work conference and documented in the report of the meeting.

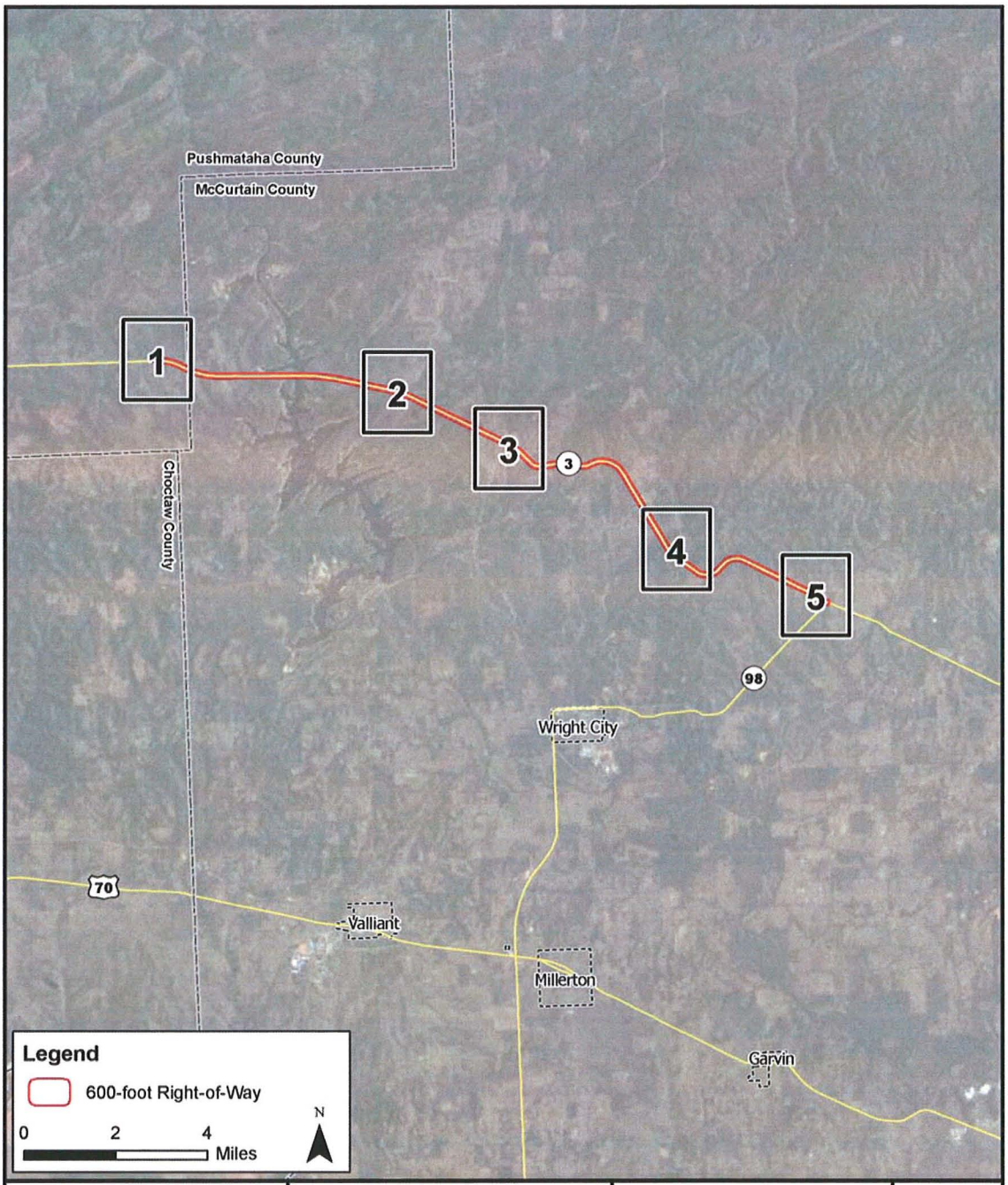
2. The Planning Division Engineer must approve any deviation of mitigation measures from the final construction plans.

OKLAHOMA DEPARTMENT OF TRANSPORTATION			
POLICY DIRECTIVE			NO. C-201-3
SUBJECT HIGHWAY NOISE ABATEMENT			PAGE NO. 7 of 7 DATED 8-1-96
EFFECTIVE DATE 8-1-96	ISSUED BY DIRECTOR	APPROVED	
POLICY REPLACED NONE	POLICY NO. C-201-3	PAGE NO. All	DATED 8-1-96

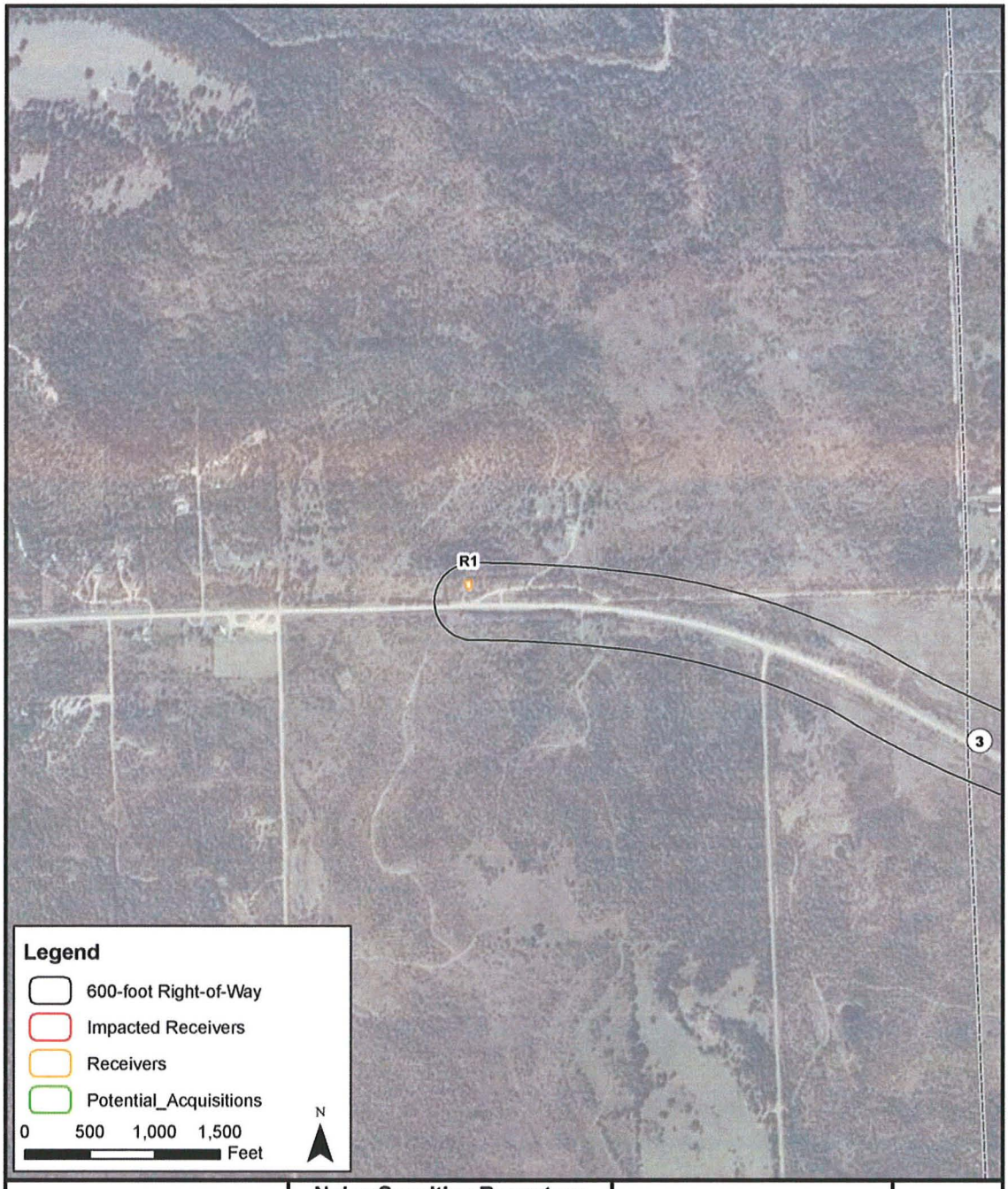
FEDERAL HIGHWAY ADMINISTRATION
NOISE ABATEMENT CRITERIA

Activity Category	Leq Design Noise Level	Description of Activity Category
A	57 (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of these qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Appendix B: Noise Sensitive Receptors Map



JACOBS	**Noise Analysis Index Map** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**Index**



JACOBS

Noise Sensitive Receptors

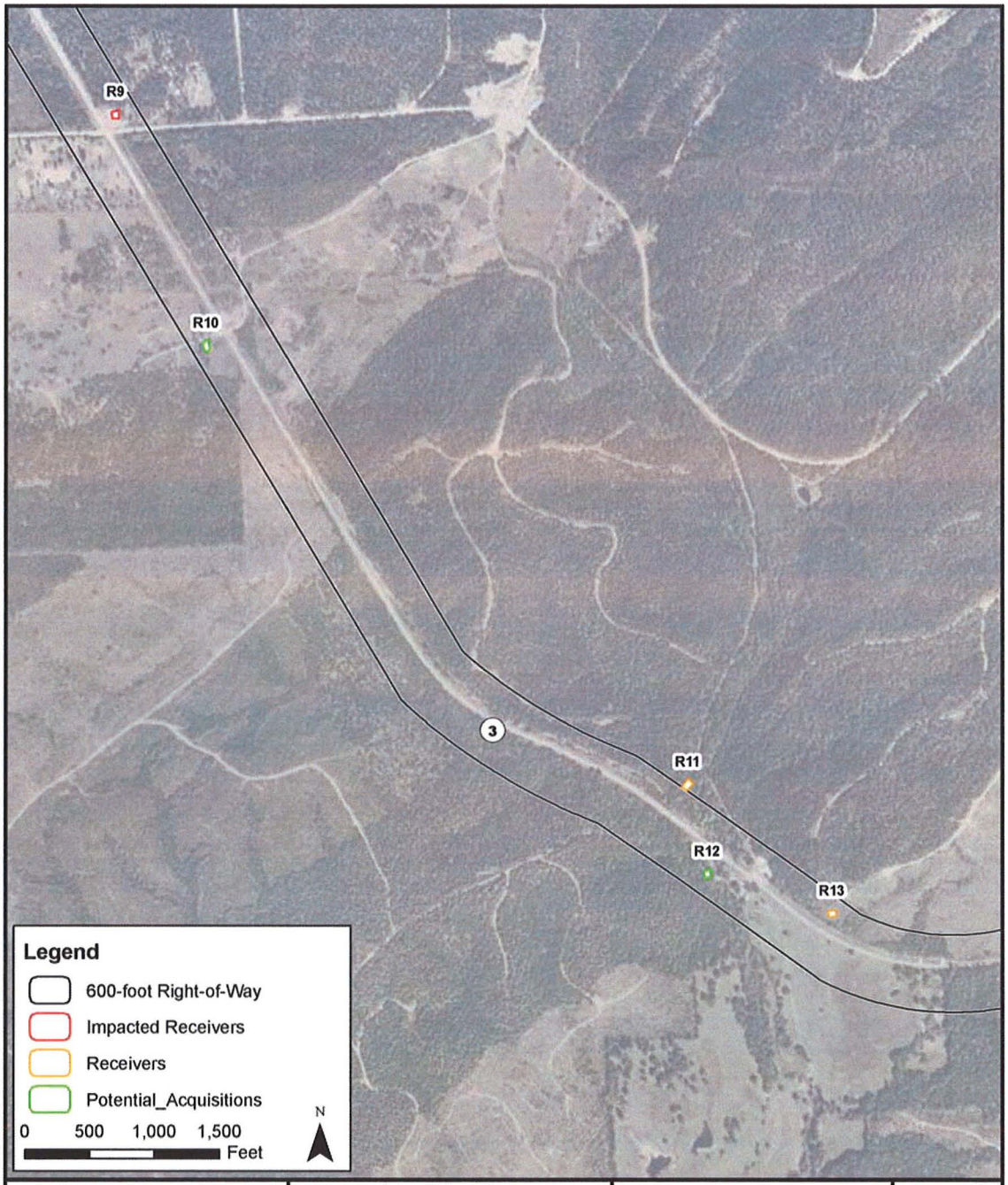
SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

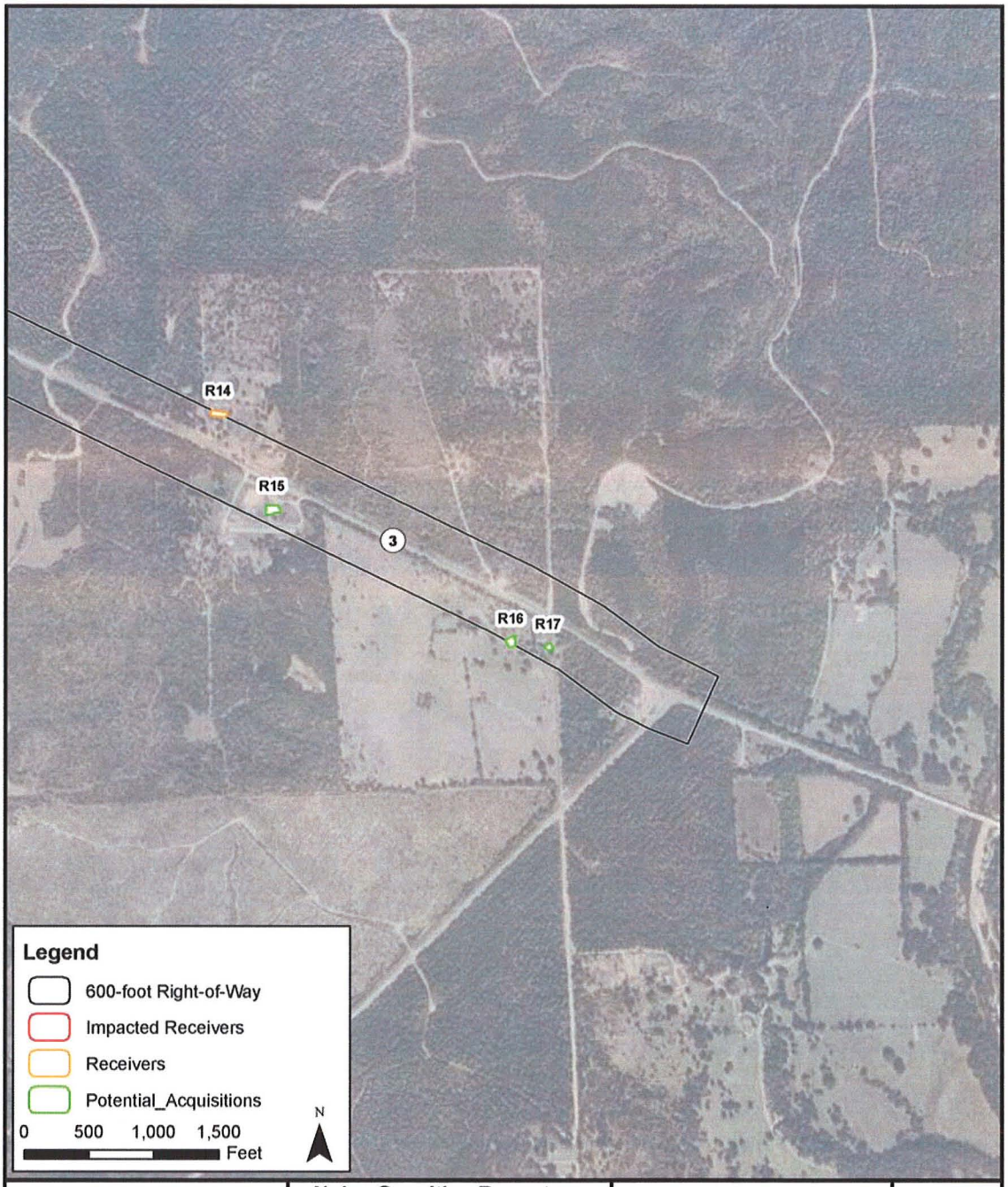
1 of 5

JACOBS	**Noise Sensitive Receptors** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	2 of 5

JACOBS	**Noise Sensitive Receptors** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**3 of 5**



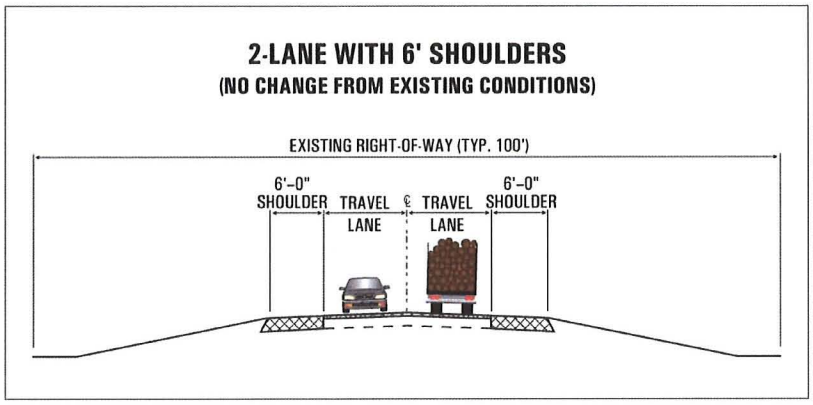
JACOBS	**Noise Sensitive Receptors** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**4 of 5**



JACOBS	**Noise Sensitive Receptors** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**5 of 5**

Appendix C: Typical Sections

SEGMENT 6



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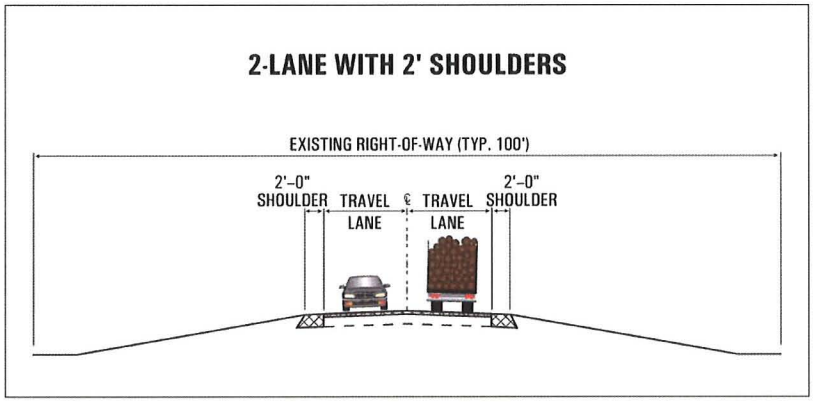
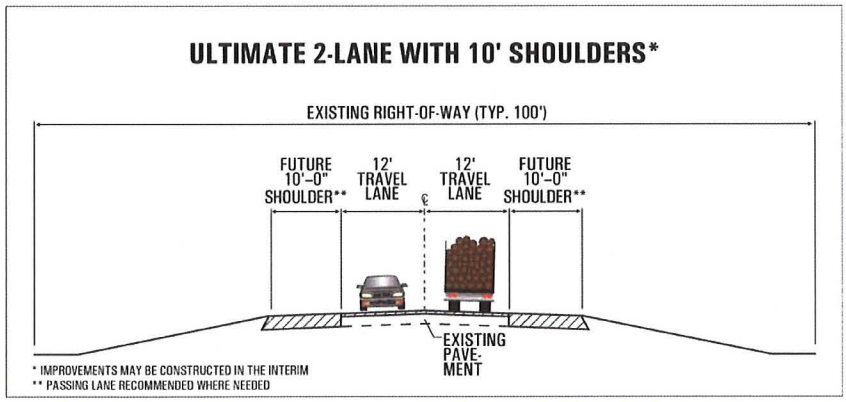


SEGMENT 7



Appendix D:
Biological Assessment

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Oklahoma Department of Transportation
Endangered Species Act Section 7 Biological Assessment
Bald Eagle Assessment
and
Jurisdictional Waters and Wetlands Evaluation

County:	McCurtain	NEPA Coord:	Joan Lindley
J/P Number:	24185(04) & 24184(04)	Project Number:	unknown
Report Prepared by:	Jacob Carter & Burgess	Report Date:	October 23, 2008
USFWS Concurrence Date:	December 2, 2008	Let Date:	ROW - January 2009

1. Project Description:
   a. Project Name: State Highway 3 improvements from Corrine to State Highway 98
   b. Work Description: widen the shoulder from six feet to 10 feet, add passing lanes, and realign the intersections for approximately 11.6 miles of the total 16.9 mile corridor. No change will occur in the eastern 5.3 miles of the corridor.
   c. Footprint acreage: 1,229 acres

2. Federally Listed Species Effect Determinations:

Species	Listing Status	Effect Determination & Concurrence	USFWS Concurrence Requirements
American Burying Beetle	Endangered	may affect, likely to adversely affect	Included in BO
Interior Least Tern	Endangered	no effect	none
Red-cockaded Woodpecker	Endangered	no effect	none
Indiana Bat	Endangered	may affect, unlikely to adversely affect	none
Ouachita Rock Pocketbook	Endangered	may affect, unlikely to adversely affect	Stormwater, erosion and sediment control BMPs
Scaleshell Mussel	Endangered	may affect, unlikely to adversely affect	Stormwater, erosion and sediment control BMPs
Winged Mapleleaf Mussel	Endangered	may affect, unlikely to adversely affect	Stormwater, erosion and sediment control BMPs
Piping Plover	Threatened	no effect	none
Leopard Darter	Threatened	may affect, unlikely to adversely affect	Stormwater, erosion and sediment control BMPs; and chemical/fuel handling measures (dictated by Federal Regulation and the ODOT's Standard Specifications for Highway Construction)
Leopard Darter	Critical Habitat	no effect	none

American Alligator	Threatened	may affect, unlikely to adversely affect	none

3. Acres of ABB suitable habitat: 1,035.25 acres

4. Bald Eagle Assessment: unlikely to have any adverse impact

5. Plan Notes:
   a. ABB Special Provision 656-4

6. Jurisdictional Waters and Wetlands Evaluation:

Segment	Alignment Shift	Total Jurisdictional Total Crossings	Crossings Potentially requiring PCN	Crossings potential requiring Individual Permit	Wetlands	Acres
6	Northern	5	0	0	none	0
7	Northern	20	6 (crossings 6, 11, 12, 13, 14, and 20)	2 (Crossings 11 & 13)	none	0
6	Southern	5	0	0	none	0
7	Southern	21	7 (crossings 13, 14, 15, 20, 21, 22, and 26)	0	1	0.06

Prepared by: Julianne Hoagland, ODOT Wildlife and Natural Resources Biologist

Date: December 4, 2008

cc: Project Management Division 2

Biological Evaluation

State Highway 3

from Corinne to State Highway 98
McCurtain and Pushmataha Counties, Oklahoma

Prepared for:
Oklahoma Department of Transportation

Prepared by:
JACOBS

October 23, 2008

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EXECUTIVE SUMMARY

The Oklahoma Department of Transportation (ODOT) proposes to implement improvements to State Highway (SH) 3, from approximately 0.8 miles west of the McCurtain/Pushmataha county line to the intersection of State Highway 98 west of Broken Bow. Field surveys were conducted from October 15 through 17, 2007 and December 5 and 6, 2007 by Jacobs Engineering Group, Inc. (Jacobs). A list of personnel that contributed to this report is listed below.

- Randy Alexander—Jacobs, Senior Project Manager, B.S. Wildlife and Fisheries Sciences—Texas A&M University, 14 years of experience
- Lindi Clayton—Jacobs, Senior Environmental Scientist, M.S. Rangeland Ecology and Management—Texas A&M University, 8 years of experience
- Ross Crossland—Jacobs, Senior Environmental Scientist, B.S. Geography—Texas A&M University, 11 years of experience
- Ryan Ingram—Jacobs, Environmental Scientist, B.S. Forestry and Wildlife Management—Stephen F. Austin State University, 1 year of experience
- Bill Knapp—Jacobs, Environmental Scientist, B.S. Natural Resources Management—Ohio State University, 7 years of experience
- Robert Rutherford—Jacobs, Planner I, B.S. Biology—Metropolitan State College of Denver, 1 year of experience
- Kevin McDermott— Jacobs, Environmental Planner, B.S. Natural Resource Management—Colorado State University, Masters of Urban and Regional Planning, University of Colorado, 4 years experience

Seven cover types/vegetation communities were identified within the proposed right-of-way. The communities identified within the proposed right-of-way include: mixed hardwood/pine forest, mixed pine/hardwood forest, pastureland, clear cut/pine regeneration, bottomland hardwood, developed, and maintained right-of-way. The primary impact to vegetation resulting from site preparation and construction of the SH 3 would be the removal of existing vegetation from a 300-foot right-of-way either to the north or south side of the existing roadway centerline. Therefore, a total of 634 acres of vegetation will be impacted by the proposed project.

According to the U.S. Fish and Wildlife Service (USFWS), seven endangered species and three threatened McCurtain and Pushmataha counties. Suitable habitat is present within the project corridor for four of these species. Additionally, the proposed project has the potential to affect five of these species. However, it is unlikely to adversely affect four of these species and the fifth, the American burying beetle (*Nicrophorus americanus*), is covered through a programmatic biological assessment with the US Fish and Wildlife Service. It is recommended that consultation with the USFWS would be warranted for the Leopard Darter (*Percina pantherina),*Indiana bat (*Myotis sodalis*),

scaleshell mussel (*Leptodea leptodon*), and winged mapleleaf mussel (*Quadrula fragosa*).

The proposed project would cross 28 potential jurisdictional waters (waters of the U.S.). All impacts associated with stream crossings would potentially be covered under Nationwide Permit 14; with the possible exception of Crossings 11 and 13 associated with the Northern Shift (i.e., impacts at these crossings may exceed the 0.50 acre threshold).

1.0 LOCATION AND DESCRIPTION OF PROPOSED ACTION

The Oklahoma Department of Transportation (ODOT) proposes to implement improvements to State Highway (SH) 3, from approximately 0.8 miles west of the McCurtain/Pushmataha county line to the intersection of SH 98 west of Broken Bow (***Appendix A, Exhibit 1***). Throughout this document existing conditions and impacts are analyzed for an area that extends approximately 2,500 feet beyond the SH 3 and SH 98 junction. This is done in order to fully account for all potential impacts that may result from the project. The project is located in McCurtain and Pushmataha counties, Oklahoma and is approximately 17 miles in length. This project is located in Sections 24 and 25 of Township 4 South, Range 20 East; Sections 26, 27, 28, 29, 30, 35, and 36 of Township 4 South, Range 21 East; Section 31 of Township 4 South, Range 22 East; Sections 3, 4, 5, 10, 11, 13, 14, and 24 of Township 5 South, Range 22 East; and Sections 18, 19, 20, and 21 of Township 5 South, Range 23 East. The project begins at: 95°09'49.35" W, 34°11'09.82" N and ends at: 94°54'37.55" W, 34°06'02.58" N.

The project includes two segments (***Appendix A, Exhibit 2;*** see ***Appendix B*** for example cross-sections):

- Segment 6—No change will occur with this section. The facility will remain as a two-lane roadway with six-foot shoulders for approximately 5.3 miles.

- Segment 7—This section will include widening the shoulder to ten feet, adding passing lanes, and realigning the intersections for approximately 11.6 miles.

2.0 HABITAT TYPES AND NATURAL COMMUNITIES

The potential right-of-way is currently used for a variety of agricultural (pastureland), residential, and commercial (timber, etc.) uses. According to Duck and Fletcher (1943), the project corridor was historically within the Oak-Pine Forest Game Type. The Oak-Pine Forest Game Type occupied the rugged Ouachita Mountain region in southeastern Oklahoma. Throughout most of this type shortleaf pine (*Pinus echinata*) was found in a mixture of various oaks and hickories and, in some areas, rather extensive pure stands of pine were found. The more common trees of this type were shortleaf pine, loblolly pine (*Pinus taeda*), white oak (*Quercus alba*), blackjack oak (*Quercus marilandica*), post oak *(Quercus stellata)*, Shummard's oak *(Quercus shumardii)*, willow oak *(Quercus phellos)*, black locust *(Robinia pseudo-acacia)*, black hickory *(Carya texana)*, basswood *(Tilia americana)*, and sugar maple *(Acer saccharum)*. Huckleberry *(Vaccinium pallidum)*, mock orange *(Philadelphus pubescens)*, pink azelea *(Rhododendron*

prinophyllum), gooseberry *(Ribes* sp.), bladdernut *(Staphylea trifolia)*, and spice bush *(Lindera benzoin)*, are the more common herbs and shrubs. Big bluestem *(Andropogon gerardii)*, was common over the entire type, particularly the drier portions. The major part of this type has been cut for timber and second growth communities provide good game cover. It offered excellent opportunity for the restoration of many important game and furbearing species. The major portion of the State's deer population and the only remaining native wild stock of wild turkey were found here. Bobwhite quail, cottontail rabbits, striped skunk, spotted skunk, and opossum were found mainly around the small farms and clearings. Deer, wild turkey, raccoon and fox were found in the wilder portions. Here the fox squirrel occupied the mountains and ridges, while gray squirrels were found on the bottomlands (Duck and Fletcher 1943).

According to the Ecoregions of Oklahoma (Woods et al. 2007) the project corridor falls within the Ouachita Mountains ecoregion. Within the Ouachita Mountains ecoregion the project corridor falls within two separate sub-ecoregions, Central Mountain Ranges and Western Ouachitas. The Central Mountain Ranges support oak-hickory-pine forest and shallow, stony soils are common. Perennial springs and seeps are common and support diverse vegetation; however they are not large enough to strongly contribute to summer stream flow. Therefore, all except the largest streams stop flowing during the driest parts of the summer. Streams have low nutrient, mineral, and biochemical water quality parameter concentrations (EPA 2007). The Western Ouachitas consist of low mountains, hills, and valleys that are covered with oak-hickory-pine forest, and largely are underlain by sandstone and shale. Ridgetop elevations and forest density generally decline westward. Logging, recreation, and woodland grazing are the main land uses and commercial pine plantations occur (EPA 2007).

2.1 Methodology

During the survey conducted by Jacobs October 15 through 17, 2007 and December 5 and 6, 2007, vegetation communities were delineated within the 600-foot wide project corridor (i.e., 300 feet on either side of the existing roadway centerline) using field data/observations coupled with interpretation of 2006 aerial photography. The environmental scientists characterized habitats and estimated habitat impacts for the proposed right-of-way. In order to account for all potential impacts

2.2 Habitat Analysis

Seven cover types/vegetation communities were identified within the proposed right-of-way based on review of aerial photography and field surveys. The communities identified within the proposed right-of-way include: mixed hardwood/pine forest, mixed pine/hardwood forest, pastureland, clear cut/pine regeneration, bottomland hardwood, developed, and maintained right-of-way (***Appendix A, Exhibit 3, Sheets 1 through 6***). A brief description of each community is provided in the following text. Photographs of the proposed right-of-way are included in ***Appendix C***. **Table 1** presents the acreage of each vegetation type in the proposed right-of-way. Open water areas within the right-of-way larger that 1.0 acres were not classified as vegetation types and are not reflected in the acreage totals presented in this report. These open water areas constituted a total of 11.7 acres.

Table 1: Vegetation Types within the Project Corridor

Vegetation Type	Area (Acres)
Mixed Hardwood / Pine Forest	423.5
Mixed Pine / Hardwood Forest	370.8
Pastureland	100.6
Clear Cut / Pine Regeneration	195.5
Bottomland Hardwood	6.3
Developed	159.5
Open Water	11.7[1]
Maintained Right-of-Way	--[2]
Total:	1,267.9[1]

[1] Open water areas within the right-of-way were not classified as vegetation types and therefore are not included in the acreage totals in this table.

[2] The area of the maintained right-of-way was included in the other mapped vegetation types due to the fact that it could not be accurately delineated from the aerial photographs. However, it does exist throughout the majority of the proposed right-of-way at least 15 feet from the edge of the existing pavement of SH 3.

Each vegetation type within the project corridor is located within five soil associations:

- Tuskahoma-Sherwood-Clebit Association—Shallow and deep, gently sloping to steep, moderately well drained soils that have a loamy surface layer and a loamy or clayey subsoil. Occurs throughout the Ouachita Mountains on valleys, side slopes, and ridges. Used mainly for pasture and woodlands.

- Carnasaw-Sherwood Association—Deep and moderately deep, very gently sloping to moderately steep, well drained, loamy soils. Formed under a cover of trees in material weathered from sandstone and shale. Soils in this association are equally divided between wooded areas and tame pasture.

- Pickens-Alikchi Association—Shallow and moderately deep, nearly level to moderately steep, somewhat excessively drained or poorly drained loamy soils. Formed under a cover of trees in materials weathered from horizontally bedded shale. Because of the shallow and wet soils, nearly all of this association is used for growing trees and for rangeland.

- Ruston-Tiak-Saffell Association—Deep, very gently to moderately steep, well drained, or moderately well drained, loamy soils. Formed under a cover of trees in materials weathered from loamy and clayey sediment. Used mainly for tame pasture.

- Guyton-Ochlockonee Association—Deep, nearly level, poorly drained or well drained, loamy soils on floodplains and terraces other than those along the Red River. Formed under a cover of trees in material weathered from loamy sediment. Used mostly for tame pasture.

Mixed Hardwood/Pine Forest

Mixed hardwood/pine forest within the proposed right-of-way consisted of upland parcels with tree canopy cover generally exceeding 70 percent. Hardwood species composed at least 80 percent of the canopy, with pine species making up the remaining 20 percent. The dominant species within the canopy of the mixed hardwood/pine forest consisted of white oak, water oak (*Quercus nigra*), southern red oak, Texas walnut (*Junglans*

microcarpa), sweetgum (*Liquidambar styraciflua*), cedar elm (*Ulmus crassifolia*), post oak, blackjack oak, mockernut hickory (*Carya alba*), bur oak (*Quercus macrocarpa*), loblolly pine, and shortleaf pine. The dominant species within the understory consisted of Japanese honeysuckle (*Lonicera japonica*), Chinese privet (*Ligustrum sinense*), eastern red cedar (*Juniperus virginiana*), greenbrier (*Smilax bona-nox*), smooth sumac (*Rhus glabra*), redbud (*Cercis canadensis*), broadleaf woodoats (*Chasmanthium latifolium*), narrowleaf woodoats (*Chasmanthium sessilflorum*), American beautyberry (*Callicarpa americana*), and flameleaf sumac (*Rhus capallinum*). The diameter-at-breast height (dbh) ranged from approximately 7 to 15 inches, with heights ranging from 20 to 40 feet. Approximately 423.5 acres of mixed hardwood/pine forest exist within the proposed right-of-way.

Mixed hardwood/pine forest within the proposed right-of-way provides habitat to birds, reptiles, and small mammals. The trees within these areas provide nesting and roosting habitat for birds, as well as serving as a source of food. The wooded uplands also provide feeding habitat and cover for small mammals and reptiles.

Mixed Pine/Hardwood Forest

Mixed pine/hardwood forest within the proposed right-of-way consisted of upland parcels with tree canopy cover generally exceeding 80 percent. The dominant species within the canopy was loblolly pine and shortleaf pine, which made up at least 80 percent of total canopy. The remaining twenty percent of the canopy consisted of southern red oak, bur oak, sweetgum, mockernut hickory, red maple (*Acer rubrum*), blackjack oak, and post oak. The dominant species within the understory consisted of American beautyberry, Japanese honeysuckle, redbud, poison ivy (*Toxicodendron radicans*), little bluestem (*Schizachyrium scoparium*), beaked panicum (*Panicum anceps*), and Christmas fern (*Polystichum acrostichoides*). The dbh ranged from approximately 7 to 15 inches, with height ranges from 20 to 40 feet. Approximately 370.8 acres of mixed pine/hardwood forest exists within the proposed right-of-way.

Mixed pine/hardwood forest within the proposed right-of-way provides habitat to birds, reptiles, and small mammals. The trees within these areas provide nesting and roosting habitat for birds, as well as serving as a source of food. The wooded uplands also provide feeding habitat and cover for small mammals and reptiles. This habitat provides similar components to that of the mixed hardwood/pine forest; however the quality of the habitat is generally lower compared to that of the mixed hardwood/pine forest due to less mast production and generally lower food and forage quality.

Pastureland

Pastureland community consisted of upland pasture and grasslands that are currently used for grazing livestock and set aside for hay production. The dominant species in this community consisted of bermudagrass (*Cynodon dactylon*), wooly croton (*Croton capitatus*), johnsongrass (*Sorghum halepense*), bahiagrass (*Paspalum notatum*), purpletop (*Tridens flavus*), crabgrass (*Digitaria ciliaris*), western ragweed (*Ambrosia psilostachya*), Scribner's panicum (*Dichanthelium oligosanthes*), little bluestem, bitter sneezeweed (*Helenium amarum*), hackberry (*Celtis laevigata*), and honey locust (*Gleditisia triacanthos*). The percent cover of herbaceous vegetation in pastureland within the proposed right-of-way ranged from 50 to 80 percent. The woody species of this community are subdominant (i.e., canopy cover less than five percent). The dbh of

woody vegetation ranged from 4 to 12 inches, with height from 6 to 25 feet. Approximately 100.6 acres of pastureland exist within the proposed right-of-way.

Although livestock grazing is their principal use, pasturelands play an important role in water quality and water supply for the surrounding watersheds. They are also used extensively by passerine birds and small mammals as sources of food and cover.

Clear Cut/Pine Regeneration

Clear cut/pine regeneration community consisted of areas that had been recently clear cut for timber. These habitats contained a woody component that included loblolly pine and shortleaf pine regeneration. Additional woody species included persimmon (*Diospyros texana*), American elm (*Ulmus americana*), and cedar elm. The canopy cover within these habitats ranged from 5 to 30 percent. The dbh of the woody vegetation ranged from less than one inch to five inches, with a height of 2 to 15 feet. Herbaceous vegetation was dominated by purpletop, little bluestem, western ragweed, broomsedge bluestem (*Andropogon virginicus*), Texas cupgrass (*Eriochloa sericea*), Canada wildrye (*Elymus canadensis*), plains lovegrass (*Eragrostis intermedia*), and dog fennel (*Eupatorium capillifolium*). Approximately 195.5 acres of clear cut/pine regeneration exist within the proposed right-of-way.

Although these habitats have been significantly disturbed, they do provide habitat to wildlife, particularly as cover/roost and low quality feeding areas for passerine birds and small mammals.

Bottomland Hardwood

Bottomland hardwood refers to forested areas dominated by mesic hardwood tree species that occur primarily within the 100-year floodplain. Species commonly found in this habitat include white oak, mockernut hickory, green ash (*Fraxinus pennsylvanica*), chittamwood (*Siseroxylon langinosum*), hackberry, greenbrier, broadleaf woodoats, willow oak, water oak, sycamore (*Platanus occidentalis*), Florida maple (*Acer barbatum*), red maple, and sweetgum. Typical overstory trees were approximately 15 to 50 feet tall with a dbh ranging between 5 and 20 inches. Canopy cover ranged from 50 to 75 percent. Approximately 6.3 acres of bottomland hardwood exist within the proposed right-of-way.

Bottomland hardwoods are typically rich in plant and animal diversity, due to the stable water source given their location within the 100-year floodplain and related high nutrient levels. Bottomland hardwood maintains water quality, recharges groundwater, and minimizes flood damage.

Developed

Portions of the proposed right-of-way were mapped as "developed". This cover type consists of areas that have been paved, (including the existing SH 3), or contain structures. Developed areas also include small maintained lawns. This cover type constituted 159.5 acres.

Maintained Right-of-Way

Maintained right-of-way consists of the routinely maintained non-forested areas of the borrow ditch. The dominant vegetation consisted of crabgrass, western ragweed, purpletop, King Ranch bluestem (*Bothriochloa ischaemum*), little bluestem, knotroot

bristlegrass (*Setaria geniculata*), and bermudagrass. The percent cover of herbaceous vegetation in the maintained right-of-way within the proposed right-of-way ranges from 40 to 80 percent. The area of the maintained right-of-way was included in the other mapped vegetation types because it could not be accurately delineated from the aerial photographs. However, it does exist throughout the majority of the proposed right-of-way at least 15 feet from the edge of the existing pavement of SH 3.

2.3 Impacts to Habitat Types

No improvements are planned for Segment 6 so there are no impacts to vegetation in this segment. The primary impact to vegetation resulting from site preparation and construction/expansion of SH 3 would be the removal of existing vegetation from the right-of-way which could consist of up to 300 feet on either the north or south side of the existing roadway centerline. At this time, it is not know which side of the existing right-of way the proposed roadway widening will occur. The Segment 7 build alternative would potentially impact up to 422 acres of vegetation if the full 300 feet from centerline is cleared for construction. Vegetation types are generally similar north and south of the existing right-of-way so the impacts to any vegetation type will also be similar whether the northern or southern alignment is selected (see **Table 1** for total acreages of individual vegetation types).

Vegetation impacts associated with the proposed project would consist of both direct (e.g., mechanical clearing of vegetation) and indirect (e.g., potential impacts to vegetation from dewatering portions of the construction area) impacts. Additionally, some impacts would be temporary (e.g., clearing, mowing, trampling of vegetation from personnel and vehicular traffic), while others would be permanent (e.g., paving). In addition to the areas that would be converted to pavement, additional long-term effects to vegetation would result from maintenance activities (e.g., periodic mowing and brush clearing) on the portions of the proposed right-of-way that would be re-vegetated after construction. Although these areas would be re-vegetated following agency standards, the long-term maintenance of them would result in a park-like vegetation community (as opposed to the communities that are currently present in the corridor).

Impacts to certain vegetation communities, such as those with a significant woody component, as a result of temporary clearing of the right-of-way for construction would be considered permanent, since it is presumed that the new right-of-way will be permanently maintained.

No habitat fragmentation is expected given that the proposed project is occurring along an existing section of the highway (i.e., habitat along the project corridor was fragmented many years ago when the original facility was constructed).

2.4 Mitigation for Impacts to Habitat Types

Mitigation will consist of removal of only the amount of vegetation required for construction and implementation of the measures designed to control erosion and reduce the discharge of pollutants in stormwater runoff from construction sites as required in the Oklahoma Pollution Discharge Elimination System (OPDES) General Permit for Construction Activities. If vegetation is impacted, the disturbed areas will be revegetated in accordance with the guidelines of the appropriate agencies. These mitigative measures apply to all areas along the project corridor where vegetation would

be impacted. Bridges and culverts will be utilized at stream crossings and will continue to provide travel corridors for wildlife species from one side of the highway to the other.

3.0 THREATENED AND ENDANGERED SPECIES EVALUATION

3.1 Methodology

Field surveys were conducted from October 15 through 17, 2007 and December 5 and 6, 2007, to assess the potential right-of-way for protected species habitat. Protected species include all species listed by the U.S. Fish and Wildlife Service (USFWS) as threatened or endangered or proposed for listing as threatened or endangered and all species that are candidates for review for listing by USFWS.

Habitat requirements for species listed on the USFWS Region 2 website for McCurtain and Pushmataha counties (USFWS 2007a and 2007b) and the USFWS Oklahoma Ecological Services Field Offices county occurrences of listed species (USFWS 2007c) were compared with habitats observed within the potential right-of-way.

3.2 Threatened and Endangered Species

Ten listed species were identified as potentially occurring in the project corridor (**Table 2**). Descriptions of these species and their potential for occurrence are provided in the following text. The effects determinations for each species are based solely on evaluation of present habitat within the potential right-of-way. No species specific surveys have been conducted along the potential right-of-way at this time.

Interior Least Terns (*Sterna antillarum*) favor islands or sandbars along large rivers for nesting. The sand must be mostly clear of vegetation. They prefer shallow, relatively clear water for fishing. In Oklahoma, it is known to nest along most of the larger rivers (USFWS 2007e). Suitable nesting habitat for this species is not present in the study corridor. Interior Least Terns could use Pine Creek Reservoir for feeding. Likewise, there are no records in the Oklahoma Biological Survey database for Interior Least Terns in either McCurtain or Pushmataha counties (Oklahoma Biological Survey 2007). No impacts to this species are expected due to the fact that the birds would be able to feed, uninterrupted, in adjacent or far-off portions of the lake while construction is on-going. Operation or use of the finished roadway is not expected to change over the current conditions in the corridor. Additionally, no Interior Least Tern habitat is present within the proposed right-of-way. Therefore, no impacts related to operation of the roadway are expected.

Piping Plovers (*Charadrius melodus*) nest on sandy beaches of the ocean or lakes. Along rivers, they use the bare areas of islands or sandbars. During the winter, they use algal, mud, and sand flats along the Gulf Coast. Piping Plovers migrate through Oklahoma each spring and fall (USFWS 2007f). There are no records in the Oklahoma Biological Survey database for Piping Plover in either Pushmataha or McCurtain counties and no suitable habitat exists for them within the project corridor (Oklahoma Biological Survey 2007). Therefore, no impacts to this species are anticipated.

Table 2: Federal-Listed Species of McCurtain and Pushmataha Counties, Oklahoma

Common Name	Scientific Name	Federal Status	Suitable Habitat Present?	Critical Habitat Present?	Effect Determination
Interior Least Tern	*Sterna antillarum*	E	No	No	No Effect
Piping Plover	*Charadrius melodus*	T	No	No	No Effect
Red-cockaded Woodpecker	*Picoides borealis*	E	No	No	No Effect
Leopard Darter	*Percina pantherina*	T	No	No[1]	May Effect, Unlikely to Adversely Affect[2]
American Burying Beetle	*Nicrophorus americanus*	E	Yes	No	May Effect, Likely to Adversely Affect[3]
Indiana Bat	*Myotis sodalis*	E	Yes	No	May Effect, Unlikely to Adversely Affect
Ouachita Rock Pocketbook Mussel	*Arkansia wheeleri*	E	No	No	No Effect
Scaleshell Mussel	*Leptodea leptodon*	E	Yes	No	May Effect, Unlikely to Adversely Affect[2]
Winged Mapleleaf Mussel	*Quadrula fragosa*	E	Yes[4]	No	May Effect, Unlikely to Adversely Affect[2]
American Alligator	*Alligator mississippiensis*	T, SAT	No	No	No Effect

Source: USFWS 2007a, 2007b, 2007c

[1]Critical habitat exists within McCurtain County in the Glover River approximately 1 mile from the Project Corridor. Project Corridor also crosses Benningfiel and Fifteen Creeks which drain to the Glover River approximately 4 miles downstream.

[2]No effect anticipated due to use of appropriate BMPs during construction. Bridges would be replaced with bridges and culverts would be replaced with culverts in order to allow flows in the stream to continue as they currently do.

[3]The project has been incorporated into the programmatic biological assessment for the American burying beetle (ABB) and the Service has concurred with ODOT's effect determination for the ABB, based upon ODOT's and FHWA's implementation of the Service's July 16, 2008 biological opinion.

[4]Outside the current range of the species. Today it is only known from Minnesota, Wisconsin, Arkansas and Missouri.

Red-cockaded Woodpeckers (*Picoides borealis*) live in old-growth loblolly, shortleaf, and especially slash and longleaf pine forests. Nesting and roosting are made only in living pine trees over 60 years old. Ideal colony sites are located in park-like stands of pines with little or no understory growth. In Oklahoma, they have been restricted to the shortleaf pine areas of southeastern Oklahoma. The Red-cockaded Woodpecker once occupied Bryan, Latimer, LeFlore, McCurtain, Pittsburg, and Pushmataha counties. The current distribution in Oklahoma includes only limited areas of McCurtain and Pushmataha counties (USFWS 2007g). Within the project corridor, there is no suitable habitat (i.e., no old-growth stands of pine with open understory). Therefore, no impacts to this species are expected.

The **leopard darter** (*Percina pantherina*) is found in intermediate to larger streams. They are typically not found in smaller, headwater streams. From May to February, they prefer large, quiet pools with rubble and boulder substrates. Spawning occurs on gravel substrates; however, the dominant riffle substrate may be gravel, rubble, boulder, and bedrock. In Oklahoma, it occurs within the Little River drainage (Mountain Fork, Glover, and Little Rivers) in LeFlore, McCurtain, and Pushmataha counties (USFWS 2007h). Within the project corridor there is no suitable habitat (i.e., the project corridor stops just west of the Glover River crossing). Due to the close proximity of the project corridor to

the Glover River and the fact that the project corridor crosses Fifteen and Benningfield Creeks, which drain to the Glover River approximately 4 miles downstream, the use of appropriate BMPs to protect the water quality within the Glover River is recommended. The proximity of this critical habitat to the corridor invites the potential for impacts although it is felt that use of BMPs would mitigate adverse effects. Even so, consultation for this species is recommended.

Habitat requirements for the **American burying beetle** (*Nicrophorus americanus*), appear to be variable. This species has been found in several habitat types including oak-pine woodlands, open fields, oak-hickory forest, open grasslands, and edge habitat. In Oklahoma the beetle is currently known to occur in 22 counties, including McCurtain and Pushmataha counties (USFWS 2007i). Given that habitats within the corridor appear to be suitable for this beetle, the potential to affect this species exists. The project has been incorporated into the programmatic biological assessment for the American burying beetle (ABB) and the Service has concurred with ODOT's effect determination for the ABB, based upon ODOT's and FHWA's implementation of the Service's July 16, 2008 biological opinion.

For hibernation, the **Indiana bat** (*Myotis sodalis*) needs limestone caves with stable temperatures of 39° to 46°F and 66 to 95 percent humidity. This allows them to maintain a low metabolic rate throughout hibernation. During the summer, they can be found under bridges, in old buildings, under tree bark, or in hollow trees. They forage above small to medium-sized streams. The present Oklahoma range includes Adair, Delaware, LeFlore, and Pushmataha counties. Indiana bats are now rare in Oklahoma, and usually only scattered individuals are found (USFWS 2007j). There are two records of the Indiana bat for Pushmataha County in the Oklahoma Biological Survey database (Oklahoma Biological Survey 2007). Both records are from the Bowers Trail Cave, approximately 12 miles south of Talihina, Oklahoma. This is approximately 30 miles north of the project corridor. Consultation for the Indiana bat is recommended because two bridges (Crossings 12 and 20) will be removed in McCurtain County. It should be noted that the Indiana bat is not listed in McCurtain County although it is listed in neighboring Pushmataha County. No bridges or culverts would be demolished in Pushmataha County.

The **Ouachita rock pocketbook mussel** (*Arkansia wheeleri*) inhabits pools, backwaters, and side channels of certain rivers and large creeks in or near the southern slope of the Ouachita Uplift. The species occupies stable substrates containing gravel, sand, and other materials and always occurs within large mussel beds containing a diversity of mussel species. Recent surveys have found it in small sections of the Little River in Oklahoma, at one locality in the Ouachita River in Arkansas, and within an 88-mile section of the Kiamichi River upstream from Hugo Reservoir (USFWS 2007k). No suitable habitat (i.e., backwaters or pools) was observed at rivers or large creek crossings (Horsehead Creek,) in the project corridor. For this reason, no impacts are anticipated for this species.

Scaleshell mussels (*Leptodea leptodon*) live in medium-sized and large rivers with stable channels and good water quality. They historically occurred across most of the eastern U.S. However, during the last 50 years they have become increasingly rare within their reduced range. Of the 55 historical populations, 14 remain within the Mississippi River basin in Arkansas, Missouri, and Oklahoma (USFWS 2007l). The scaleshell mussel is only found in the Kiamichi and Little River systems in Oklahoma.

Suitable habitat may be present at the larger stream crossings. For this reason, consultation with the USFWS should be conducted for this species.

Winged mapleleaf mussels (*Quadrula fragosa*) are found in riffles, with clean gravel, sand, or rubble bottoms and in clear, high quality water. In the past, this species may also have been found in large rivers and streams on mud, mud-covered gravel, and gravel bottoms. The range of this species once included 13 states where it was found in large streams that flow into the Mississippi River and in one river that flows into the Missouri River. Today it is found in the St. Croix River in Minnesota and Wisconsin, the Ouachita and Saline Rivers in Arkansas, and the Bourbeuse River in Missouri (USFWS 2007m). The winged mapleleaf mussel has been observed in the Kiamichi River in Oklahoma, and in August 2005, a population of what is believed to be this species was discovered in the Little River (Vaughn 2005). Although some of the habitat at the stream crossings in the corridor could be suitable for this species, this project is outside of the species' known current range. However, consultation with the USFWS should be conducted for this species since habitats in the corridor (i.e., at the larger stream crossings) match the description of habitat for this species.

American alligators (*Alligator mississippiensis*) inhabit rivers, swamps, estuaries, lakes, and marshes. Oklahoma represents the northwestern-most reaches of their range. The historic distribution in Oklahoma was limited to the Red River and Little River drainages in southeastern Oklahoma. Currently, they are considered occasional visitors along the Red River in McCurtain County (USFWS 2007n). The American alligator is also found in the Little River drainage and on the Little River National Wildlife Refuge. Since this project is well north of the Little River National Wildlife Refuge (i.e., approximately 12 miles), the likelihood of occurrence is deemed minimal. However, even if American alligators were to venture as far north as the project corridor, impacts to this species would not be anticipated. That is, even in the unlikely event that an alligator was within the project corridor, the animals' mobility would likely preclude impacts (i.e., they would likely vacate the construction area to similar adjacent habitats until construction was completed). Due to the distance from the Red River, impacts to the American alligator are not foreseen for this project.

Bald Eagles (*Haliaeetus leucocephalus*) typically winter along oceans, rivers, lakes, or in areas where carrion are present. In Oklahoma, it is primarily a winter resident and is most common between December and March. During this time they congregate around reservoirs and larger lakes, where they feed on fish (USFWS 2007d). Pine Creek Reservoir could serve as potential feeding habitat for Bald Eagles. However, there are no records in the Oklahoma Biological Survey database for Bald Eagles in either McCurtain or Pushmataha counties (Oklahoma Biological Survey 2007). The Bald Eagle is protected under the Bald Eagle Protection Act of 1940. The law prohibits, except under certain specified conditions, the taking, possession, and commerce of Bald and Golden Eagles. No impact to this species will occur during construction or operation.

4.0 JURISDICTIONAL WATERS EVALUATION

4.1 Methodology

Fieldwork was conducted from October 15 through 17, 2007 and December 5 and 6, 2007, in order to determine the presence, extent, and functions/values of aquatic habitats within the project corridor. Selected areas of the project corridor were mapped using a Trimble GeoXH Global Positioning System (GPS) to determine the location and area of jurisdictional waters. Delineations were performed within a 600-foot wide corridor (i.e., 300 feet on either side of the existing roadway centerline). The GPS has sub-meter accuracy. Data collected in the field was interpreted within ArcGIS®, a geographic information system (GIS) program.

Jurisdictional waters are afforded protection under the Clean Water Act (CWA). Implementation of the Clean Water Act is the responsibility of the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE). The USACE oversees permitting for discharges (i.e., impacts) of dredge and fill material into jurisdictional waters. Jurisdictional waters include rivers, streams (including perennial, intermittent, and ephemeral), bogs, sloughs, lakes, ponds (including stock tanks connected to other jurisdictional waters), and wetlands.

The jurisdictional area of ponds, lakes, rivers, and streams is defined at the ordinary high water mark (OHWM). The OHWM is defined as:

> *"...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed in the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR 328.3)."*

Wetlands are those "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [as defined by the USACE and EPA].

Wetlands are delineated using the criteria from the 1987 USACE Wetland Delineation Manual (USACE 1987). Wetlands must contain three parameters under normal conditions: (1) hydric soils, (2) hydrophytic vegetation, and (3) wetland hydrology.

Prior to the fieldwork for this project, Jacobs biologists reviewed applicable materials in the office to determine those portions along the right-of-way where waters of the U.S. could occur. These materials included the U.S. Geological Survey topographic maps (***Appendix A, Exhibit 4, Sheets 1 through 6***), Natural Resources Conservation Service soil surveys (***Appendix A, Exhibit 5, Sheets 1 through 6***), National Wetland Inventory (NWI) maps (***Appendix A, Exhibit 6, Sheets 1 through 6***), and aerial photographs (***Appendix A, Exhibit 7, Sheets 1 through 6***).

4.2 Jurisdictional Waters Within Proposed Action

Twenty-eight jurisdictional water crossings were observed along the proposed project right-of-way. These waters are shown in ***Appendix A, Exhibit 7, Sheets 1 through 6***. **Table 3** provides a summary of all jurisdictional waters delineated with the 600-foot wide corridor. Descriptions of the types of jurisdictional waters (i.e. ephemeral, intermittent, and perennial streams, open water, and herbaceous wetland) found within the project corridor are provided in the paragraphs below. Additionally, representative photographs of each type of jurisdictional water are provided in ***Appendix D***.

Table 3: Jurisdictional Waters within the Project Corridor

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**
Crossing 1				
Stream 1	Ephemeral Stream	5	317	0.02
Stream 2	Intermittent Stream	7	1,297	0.16
Stream 3	Ephemeral Stream	6	179	0.02
Total Jurisdictional Waters at Crossing 1		**--**	**1,793**	**0.20**
Crossing 2				
Stream 4	Intermittent Stream	13	618	0.18
Crossing 3				
Stream 5	Intermittent Stream	16	2,084	0.98
Stream 6	Ephemeral Stream	2	64	0.003
Total Jurisdictional Waters at Crossing 3		**--**	**2,148**	**0.98**
Crossing 4				
Pine Creek Reservoir	Open Water	--	--	9.86
Crossing 5				
Stream 7	Ephemeral Stream	4	1,985	0.21
Stream 7a	Ephemeral Stream	2	615	0.02
Stream 8	Ephemeral Stream	6	1,967	0.23
Total Jurisdictional Waters at Crossing 5		**--**	**4,567**	**0.46**
Crossing 6				
Stream 9—Big Branch	Intermittent Stream	19	628	0.30
Crossing 7				
Stream 10	Ephemeral Stream	3	305	0.02
Crossing 8				
Stream 11	Intermittent Stream	4	939	0.10
Crossing 9				
Stream 12	Intermittent Stream	4	798	0.08
Stream 12a	Ephemeral Stream	3	257	0.02
Total Jurisdictional Waters at Crossing 9		**--**	**1,055**	**0.10**
Crossing 10				
Stream 13	Ephemeral Stream	4	880	0.07
Crossing 11				
Stream 14	Ephemeral Stream	3	316	0.02
Pond 1—Tucker Lake	Open Water	--	--	2.35
Wetland 1	Herbaceous Wetland	--	--	0.06
Total Jurisdictional Waters at Crossing 11		**--**	**316**	**2.43**
Crossing 12				
Stream 15—Cypress Creek	Perennial Stream	43	584	0.56
Stream 16	Ephemeral Stream	7	155	0.03
Total Jurisdictional Waters at Crossing 12		**--**	**739**	**0.59**

Table 3: Jurisdictional Waters within the Project Corridor

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**
Crossing 13				
Stream 17	Intermittent Stream	14	3,261	1.08
Pond 2	Open Water	--	--	0.66
Total Jurisdictional Waters at Crossing 13		**--**	**3,261**	**1.74**
Crossing 14				
Stream 18	Ephemeral Stream	11	1,762	0.34
Stream 19	Ephemeral Stream	8	107	0.02
Total Jurisdictional Waters at Crossing 14		**--**	**1,869**	**0.36**
Crossing 15				
Stream 20—Rock Creek	Intermittent Stream	12	837	0.21
Crossing 16				
Stream 21	Ephemeral Stream	7	585	0.09
Crossing 17				
Stream 22	Ephemeral Stream	11	378	0.10
Stream 23	Ephemeral Stream	6	278	0.04
Stream 24	Ephemeral Stream	6	86	0.01
Stream 25	Ephemeral Stream	3	265	0.02
Stream 26	Ephemeral Stream	2	136	0.01
Total Jurisdictional Waters at Crossing 17		**--**	**1,143**	**0.18**
Crossing 18				
Stream 27	Ephemeral Stream	3	489	0.05
Crossing 19				
Stream 28	Ephemeral Stream	2	519	0.04
Crossing 20				
Stream 29	Ephemeral Stream	5	2,874	0.34
Stream 29a	Ephemeral Stream	3	441	0.03
Stream 29b	Ephemeral Stream	1	200	0.005
Stream 30—Horse Head Creek	Perennial Stream	30	1,022	0.70
Total Jurisdictional Waters at Crossing 20		**--**	**4,537**	**1.06**
Crossing 21				
Stream 31	Ephemeral Stream	3	671	0.04
Pond 2	Open Water	--	--	0.11
Total Jurisdictional Waters at Crossing 21		**--**	**671**	**0.15**
Crossing 22				
Stream 32	Ephemeral Stream	3	1,234	0.09
Stream 32a	Ephemeral Stream	2	103	0.005
Stream 32b	Intermittent Stream	4	2,954	0.30
Stream 32c	Ephemeral Stream	3	78	0.01
Stream 33	Ephemeral Stream	4	513	0.05
Total Jurisdictional Waters at Crossing 22		**--**	**4,882**	**0.46**
Crossing 23				
Stream 34	Ephemeral Stream	4	429	0.03
Stream 34a	Ephemeral Stream	3	401	0.02
Total Jurisdictional Waters at Crossing 23		**--**	**830**	**0.05**
Crossing 24				
Stream 35	Ephemeral Stream	3	1,305	0.09
Crossing 25				
Stream 36	Ephemeral Stream	4	324	0.03
Crossing 26				
Stream 37—Fifteen Creek	Intermittent Stream	9	966	0.21

Table 3: Jurisdictional Waters within the Project Corridor

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**
Crossing 27				
Stream 38	Ephemeral Stream	9	729	0.15
Crossing 28				
Stream 39	Ephemeral Stream	6	859	0.10

*Represents an average width at the OHWM. However, actual widths area used for all calculations.
**Length and area were calculated using ArcGIS, a geographic information system (GIS).

Ephemeral Streams

An ephemeral stream conveys waters only during, and for a short duration after, precipitation events. Groundwater is not a source of water for these streams. Runoff from rainfall is the primary source of water for stream flow.

Thirty-five ephemeral streams were identified during the field surveys. The ephemeral streams identified within the project corridor had relatively narrow OHWMs (ranging from 1 to 11 feet wide) and relatively narrow riparian corridors (approximately 10 to 30 feet wide). The ephemeral streams within the project corridor had incised banks and few contained in-stream vegetation. The ephemeral streams observed during the field survey were either dry, contained pooled water, or contained flowing water due to recent precipitation events. The majority of the ephemeral streams within the project corridor contained both woody and herbaceous components. Common woody vegetation consisted of post oak, blackjack oak, bur oak, cedar elm, American elm, Osage orange (*Maclura pomifera*), honey locust, hackberry, greenbrier, Alabama supplejack (*Berchemia scandens*), and eastern red cedar. Common herbaceous vegetation consisted of broadleaf woodoats, Japanese honeysuckle, giant ragweed (*Ambrosia trifida*), Canada wildrye, swamp smartweed (*Polygonum* hydropiperoides), trumpet creeper (*Campsis radicans*), meadow dropseed (*Sporobolus asper*), cocklebur (*Xanthium strumarium*), and knotroot bristlegrass.

Ephemeral streams within the project corridor provide short-term water storage and help to absorb hydraulic energy during precipitation events. The amount provided depends on the amount of water the ephemeral streams has to convey during the event. Due to their ephemeral nature, the streams have limited ability to provide short-term water storage. However, their ability to provide short-term water storage will still help to reduce downstream flood conditions. The lack of in-stream vegetation limits their ability to absorb hydraulic energy. These stream types also provide limited diversity of habitat for fish and wildlife, mainly due to the limited amounts of water present throughout the year. The riparian areas adjacent to the stream do provide habitat for wildlife, though this could also be considered limited because they are narrow along the ephemeral streams, and because the diversity of vegetation along each ephemeral stream was low.

Intermittent Streams

An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source for stream flow.

Ten intermittent streams were identified during the field surveys. The intermittent streams identified within the project corridor had varying widths at the OHWMs (ranging from 4 to 19 feet wide) and the majority had substantial riparian corridors (approximately 30 feet plus in width). All of the intermittent streams observed had incised banks and few contained in-stream vegetation. All the intermittent streams had flowing water at the time of the field surveys. This stream type also contained woody and herbaceous components. Common woody vegetation consisted of sycamore, green ash, box elder (*Acer negundo*), red maple, buttonbush (*Chephalanthus occidentalis*), cedar elm, American elm, Shumard's oak, southern red oak, water oak, post oak, bur oak, Alabama supplejack, greenbrier, sweetgum, coralberry (*Symphoricarpos orbiculatus*), and Chinquapin oak (*Quercus muehlenbergii*). Common herbaceous vegetation consisted of bulrush, broadleaf woodoats, narrowleaf woodoats, tall fesue, beaked panicum, Christmas fern, curly dock (*Rumex crispus*), Canada wildrye, swamp swartweed, switchgrass (*Panicum virgatum*), and barnyardgrass (*Echinochloa crus-galli*).

Intermittent streams within the project corridor provide increased water storage and help to absorb more hydraulic energy during precipitation events than that provided by ephemeral streams. Due to intermittent nature, the streams have the ability to provide both short-term and long-term water storage. This increases their ability to provide water storage to help reduce downstream flood conditions. The lack of in-stream vegetation limits their ability to absorb hydraulic energy. This stream type also provides a diversity of habitat for fish and wildlife, due to their ability to maintain water throughout the year, and the increased size of the riparian corridors. The riparian areas adjacent to the stream also provide increased habitat for wildlife due the diversity of vegetation along each stream.

Perennial Streams

A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Two perennial streams were observed during the field survey. The perennial streams identified within the project corridor had wide OHWMs (30 and 43 feet wide) and all consisted of relatively wide, diverse riparian corridors. All perennial streams observed had incised banks and few contained in-stream vegetation. All perennial streams contained flowing water at the time of the field surveys. This stream type contained woody and herbaceous components and the species composition was similar to that observed along the intermittent streams.

Perennial streams within the project corridor provide increased water storage and help to absorb hydraulic energy during precipitation events. These streams have the ability to provide long-term water storage, which in turn will provide the ability to help reduce downstream flood conditions during certain events. The lack of in-stream vegetation limits their ability to absorb hydraulic energy. This stream type also provides a diversity of habitat for fish and wildlife, due to their ability to maintain water throughout the year, and the increase size of the riparian corridors. The riparian areas adjacent to the stream also provide increased habitat for wildlife due the diversity of vegetation along each stream.

Open Water

Open water is an area that during a year with normal patterns of precipitation has standing or flowing water for sufficient duration to establish an OHWM. All jurisdictional on-channel ponds and lakes within the project corridor were classified as open water.

Four open water areas were identified during the field survey. These areas ranged in size from large lakes, such as Pine Creek Reservoir, to small on-channel ponds just over 0.10 acre in size. All open waters contained standing and/or flowing water at the time of the field surveys. Aquatic vegetation consisted of both woody and herbaceous components, with only Pond 2 consisting of only herbaceous vegetation. The woody vegetation observed at the open water features included buttonbush, American elm, cedar elm, shortleaf pine, loblolly pine, bur oak, southern red oak, black walnut (*Juglans nigra*), black willow (*Salix nigra*), honey locust, redbud, coralberry, red maple, sweetgum, American beautyberry, and eastern red cedar. The herbaceous vegetation consisted of cocklebur, swamp smartweed, bahiagrass, broadleaf woodoats, narrowleaf woodoats, Japanese honeysuckle, beaked panicum, bermudagrass, little bluestem, cattail (*Typha latifolia*), King Ranch bluestem, and tall fescue (*Festuca arundinacea*).

Open water provides long-term water storage during normal precipitation years. They can act as flood control features for the entire watershed. Their long-term storage capacity provides habitat for aquatic species such as fish, amphibians, turtles, and aquatic invertebrates. Their long-term storage capacity also allows water to filter slowly down into the water table keeping the water table high during times of low rainfall. Replenishing the water table provides water to surrounding trees and other vegetation, which in turn provides habitat and forage for wildlife species. These features also allow particulates in the water to settle out which results in reduced transport of nutrients downstream.

Herbaceous Wetland

An herbaceous wetland is a depressional area dominated by hydrophytic herbaceous plant species, contains hydric soils, and has wetland hydrology. One herbaceous wetland was found with the project corridor. The wetland determination data forms for this wetland are provided in *Appendix E*. This wetland was located below Pond 1—Tucker Lake and water from the wetland flowed into an ephemeral stream (Stream 14). This wetland had saturated soils just below the soil surface (i.e. 0.5 feet) and drainage patterns within the wetland area were observed. Oxidized root channel were present and the soil had a low chroma color. The vegetation consisted of yellow nutsedge (*Cyperus esculentus*), common spikerush (*Eleocharis palustris*), water smartweed (*Polygonum amphibium*), southern dewberry (*Rubus trivialis*), lizard's tail (*Saururus cernuus*), bald cypress (*Taxodium distichum*), and black willow.

Wetlands provide biological productivity and diversity of wildlife habitat adjacent to Stream 14. Because of the close proximity to Stream 14, this wetland is able to remove sediment in runoff from Tucker Lake and SH 3, as well as remove pollutants from the runoff while still allowing valuable nutrients to reach downstream. for the wetland also provides additional ground water recharge in the area. The wetland produces organic matter, which is deposited on the substrate and then broken down to a nutrient source for plants. This increased organic matter and the retention of sediment and nutrients in the wetland allows for greater diversity of plant species.

4.3 Impacts to Jurisdictional Waters Within Proposed Action

Impacts to jurisdictional waters include both direct impacts (i.e., related to construction activities and placement of culverts or fill) and indirect impacts (i.e., related to stormwater runoff from construction activities and from operation of the expanded roadway). For calculating impacts, it was assumed that stream crossings where an existing bridge was in place would also be bridged. Construction of bridges results in less impact to streams since the shape (i.e., bed and bank) of the channel is left natural, as opposed to culverts where the stream is routed through concrete/metal pipes or boxes. The project is composed of two segments (Segments 6 and 7) and the impacts associated with each segment, are presented in the following sections.

Segment 6

The current roadway/alignment would remain unchanged. The facility will remain as two lanes with six foot shoulders. This will result in no impacts to Crossings 1 through 5. Currently, jurisdictional waters are impacted by storm water runoff from the existing roadway. This runoff likely contains minor amounts of petroleum products (oil and grease), and other chemicals associated with roadways. This situation would remain the same under the Segment 6 build alternative.

Segment 7

Impacts for Segment 7 were assessed using a 300-foot right-of-way. The proposed cross-section (see **Appendix B**) includes the 100-foot existing right-of-way where the shoulders will be widened to ten feet, passing lanes will be added at some locations, and intersections will be realigned. At this time it is unknown where or on which side passing lanes will be added, therefore potential impacts were estimated using a 300-foot wide area extending to each side of the roadway (north and south from the existing centerline of the roadway). Consequently, these impacts presented in **Tables 4 and 5** are likely overestimated. It is assumed that existing bridges and culverts will not be removed, resulting in no impacts in these locations, unless otherwise noted. Impacts are described below for both a northern and southern shift of the roadway.

Segment 7—Northern Shift

Construction of Segment 7—Northern Shift will result in impact (discharge of dredge/fill material) to 20 jurisdictional water crossings. This alternative will include construction of 10-foot shoulders, passing lanes, and realignment of intersections. Currently, jurisdictional waters are impacted by storm water runoff from the existing road system. This runoff likely contains minor amounts of petroleum products (oil and grease) and other chemicals associated with roadways. Short-term impacts to jurisdictional waters could also result from runoff during construction activities such as grading. Construction activities could also impact jurisdictional waters by directly affecting adjacent habitats. For instance, damage to root systems of plants or compaction of soils adjacent to jurisdictional waters could have an effect on the way water enters the jurisdictional water, and hence, on the water themselves.

It should be noted that impacts to Stream 15—Cypress Creek (Crossing 12) and Stream 30—Horse Head Creek (Crossing 20) were calculated by assuming that two 50-foot wide temporary construction crossings will be needed to install the new bridge beams when the existing bridges are replaced. **Table 4** provides the potential impacts to jurisdictional waters associated with the construction of Segment 7—Northern Shift.

Table 4: Potential Impact to Jurisdictional Waters within Segment 7—North Shift

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**	PCN*** Required
Crossing 6					
Stream 9—Big Branch	Intermittent Stream	25	264	0.15	Potential
Crossing 8					
Stream 11	Intermittent Stream	6	549	0.07	No
Crossing 9					
Stream 12	Intermittent Stream	5	384	0.04	--
Stream 12a	Ephemeral Stream	3	256	0.02	--
Total Potential Impacts to Jurisdictional Water at Crossing 9:		--	640	0.06	No
Crossing 10					
Stream 13	Ephemeral Stream	4	457	0.04	No
Crossing 11					
Pond 1—Tucker Lake	Open Water	--	--	2.35	Potential
Crossing 12					
Stream 15—Cypress Creek	Perennial Stream	35	100	0.08	--
Stream 16	Ephemeral Stream	7	155	0.03	--
Total Potential Impacts to Jurisdictional Water at Crossing 12:		--	255	0.11	Potential
Crossing 13					
Stream 17	Intermittent Stream	12	2,716	0.94	--
Pond 2	Open Water	--	--	0.66	--
Total Potential Impacts to Jurisdictional Waters at Crossing 13:		--	2,716	1.60	Potential
Crossing 14					
Stream 18	Ephemeral Stream	10	935	0.17	--
Stream 19	Ephemeral Stream	8	107	0.02	--
Total Potential Impacts to Jurisdictional Waters at Crossing 14:		--	1,042	0.19	Potental
Crossing 15					
Stream 20—Rock Creek	Intermittent Stream	11	372	0.06	No
Crossing 16					
Stream 21	Ephemeral Stream	7	260	0.04	No
Crossing 17					
Stream 23	Ephemeral Stream	6	278	0.04	--
Stream 24	Ephemeral Stream	6	86	0.01	--
Stream 25	Ephemeral Stream	3	265	0.02	--
Stream 26	Ephemeral Stream	2	136	0.01	--
Total Potential Impacts to Jurisdictional Waters at Crossing 17:		--	765	0.08	No
Crossing 18					
Stream 27	Ephemeral Stream	5	314	0.04	No
Crossing 19					
Stream 28	Ephemeral Stream	4	409	0.04	No
Crossing 20					
Stream 29	Ephemeral Stream	8	298	0.05	--
Stream 29b	Ephemeral Stream	1	200	0.005	--
Stream 30—Horse Head Creek	Perennial Stream	30	100	0.07	--
Total Potential Impacts to Jurisdictional Waters at Crossing 20:		--	598	0.13	Potential

Table 4: Potential Impact to Jurisdictional Waters within Segment 7—North Shift

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**	PCN*** Required
Crossing 21					
Stream 31	Ephemeral Stream	3	302	0.02	No
Crossing 22					
Stream 32	Ephemeral Stream	3	341	0.02	--
Stream 32b	Intermittent Stream	6	30	0.004	--
Stream 32c	Ephemeral Stream	3	23	0.002	--
Stream 33	Ephemeral Stream	4	468	0.04	
Total Jurisdictional Waters at Crossing 22:		--	862	0.07	No
Crossing 24					
Stream 35	Ephemeral Stream	3	798	0.05	No
Crossing 25					
Stream 36	Ephemeral Stream	4	324	0.03	No
Crossing 26					
Stream 37—Fifteen Creek	Intermittent Stream	10	381	0.09	No
Crossing 27					
Stream 38	Ephemeral Stream	10	299	0.07	No

*Represents an average width at the Ordinary High Water Mark (OHWM). However, actual widths area used for all calculations.

**Length and area were calculated using ArcGIS, a geographic information system (GIS).

***Some nationwide permits authorize impacts without prior notification to the USACE. If impacts exceed 0.10 acres or involve wetlands at waters of the U.S. crossings, a notification to the USACE is required under Nationwide Permit 14. This notification is considered a pre-construction notification (PCN).

Segment 7—Southern Shift

Construction of Segment 7—Southern Shift will result in impact (discharge of dredge/fill material) to 21 jurisdictional water crossings. This alternative will include construction of 10-foot shoulders, passing lanes, and realignment of intersections. The types of impacts (e.g. fill of waters of the U.S., temporary construction impacts to runoff and adjacent habitats, permanent roadway storm water impacts, etc.) are similar to that described in Segment 7—Northern Shift.

It should be noted that impacts to Stream 15—Cypress Creek (Crossing 12) and Stream 30—Horse Head Creek (Crossing 20) were calculated by assuming that two 50-foot wide temporary construction crossings will be needed to install the new bridge beams when the existing bridges are replaced. **Table 5** provides the potential impacts to jurisdictional waters associated with the construction of Segment 7—Southern Shift.

Table 5: Potential Impact to Jurisdictional Waters within Segment 7—Southern Shift

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**	PCN*** Required
Crossing 6					
Stream 9—Big Branch	Intermittent Stream	15	211	0.08	No
Crossing 7					
Stream 10	Ephemeral Stream	3	305	0.02	No
Crossing 8					
Stream 11	Intermittent Stream	4	325	0.03	No
Crossing 9					
Stream 12	Intermittent Stream	3	328	0.02	No

Table 5: Potential Impact to Jurisdictional Waters within Segment 7—Southern Shift

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**	PCN*** Required
Crossing 10					
Stream 13	Ephemeral Stream	4	343	0.03	No
Crossing 11					
Wetland 1	Herbaceous Wetland	--	--	0.06	--
Stream 14	Ephemeral Stream	3	316	0.02	--
Total Potential Impacts to Jurisdictional Water at Crossing 11:		--	316	0.08	No
Crossing 12					
Stream 15—Cypress Creek	Perennial Stream	45	100	0.10	No
Crossing 13					
Stream 17	Intermittent Stream	12	442	0.12	Potential
Crossing 14					
Stream 18	Ephemeral Stream	11	722	0.15	Potential
Crossing 15					
Stream 20—Rock Creek	Intermittent Stream	13	420	0.14	Potential
Crossing 16					
Stream 21	Ephemeral Stream	4	235	0.03	No
Crossing 17					
Stream 22	Ephemeral Stream	12	298	0.08	No
Crossing 18					
Stream 27	Ephemeral Stream	3	110	0.01	No
Crossing 19					
Stream 28	Ephemeral Stream	1	31	0.001	No
Crossing 20					
Stream 29	Ephemeral Stream	5	2,596	0.28	--
Stream 29a	Ephemeral Stream	3	241	0.02	--
Stream 30—Horse Head Creek	Perennial Stream	30	100	0.07	--
Total Potential Impacts to Jurisdictional Waters at Crossing 20:		--	2,937	0.37	Potential
Crossing 21					
Stream 31	Ephemeral Stream	3	298	0.02	--
Pond 3	Open Water	--	--	0.11	--
Total Potential Impacts to Jurisdictional Waters at Crossing 21:		--	298	0.13	Potential
Crossing 22					
Stream 32	Ephemeral Stream	3	827	0.06	--
Stream 32a	Ephemeral Stream	2	103	0.005	--
Stream 32b	Intermittent Stream	4	2,921	0.30	--
Stream 32c	Ephemeral Stream	3	55	0.004	--
Total Jurisdictional Waters at Crossing 22:		--	3,906	0.37	Potential
Crossing 23					
Stream 34	Ephemeral Stream	4	429	0.03	--
Stream 34a	Ephemeral Stream	3	401	0.02	--
Total Jurisdictional Waters at Crossing 23:		--	830	0.05	No
Crossing 24					
Stream 35	Ephemeral Stream	3	416	0.03	No
Crossing 26					
Stream 37—Fifteen Creek	Intermittent Stream	9	534	0.11	Potential
Crossing 27					
Stream 38	Ephemeral Stream	8	344	0.06	No

Table 5: Potential Impact to Jurisdictional Waters within Segment 7—Southern Shift

Jurisdictional Water	Jurisdictional Water Type	Average OHWM (feet)*	Length (feet)**	Area (acres)**	PCN*** Required

*Represents an average width at the Ordinary High Water Mark (OHWM). However, actual widths area used for all calculations.

**Length and area were calculated using ArcGIS, a geographic information system (GIS).

***Some nationwide permits authorize impacts without prior notification to the USACE. If impacts exceed 0.10 acres or involve wetlands at waters of the U.S. crossings, a notification to the USACE is required under Nationwide Permit 14. This notification is considered a pre-construction notification (PCN).

4.4 Mitigation for Impacts to Jurisdictional Waters

Several jurisdictional water crossings would be impacted (through discharge of dredge/fill material) in the various project segments. All impacts associated with stream crossings for the two section alternatives would potentially be covered under Nationwide Permit 14; with the possible exception of Crossings 11, and 13 associated with the Northern Shift (i.e., impacts at this crossing may exceed the 0.50 acre threshold). Nationwide Permit 14 considers each crossing a single and complete project and allows fill of up to 0.50 acre at each stream crossing, provided that pre-construction notification (PCN) is submitted to the USACE for impacts of more than 0.10 acre. For impacts requiring PCN, a mitigation plan must also be submitted to the USACE for approval. Several of the crossings would have impacts near to this PCN threshold. Therefore, it is possible that mitigation will be required by the USACE for several of the crossings, pending final design.

Once plans for the proposed project corridor are clarified, impacts at the crossings that area near the PCN threshold can be further refined. At that time, if they are shown to exceed PCN thresholds, an application (PCN) would have to be submitted to the USACE for these crossings.

Filling and grading activities should be performed in compliance with the Oklahoma Pollution Discharge Elimination System (OPDES) General Permit for Construction Activities.

5.0 CONCLUSIONS

ODOT proposes to implement improvements to State Highway (SH) 3, from approximately 0.8 miles west of the McCurtain/Pushmataha southeast to State Highway 98.

Seven cover types/vegetation communities were identified within the proposed right-of-way. The communities identified within the proposed right-of-way include: mixed hardwood/pine forest, mixed pine/hardwood forest, pastureland, clear cut/pine regeneration, bottomland hardwood, developed, and maintained right-of-way. No improvements are planned for Segment 6 so there are no impacts to vegetation in that segment. The primary impact to vegetation resulting from site preparation and construction of the SH 3 would be the removal of existing vegetation from a 300-foot right-of-way on either side of the existing roadway centerline. At this time it is not known which side of the existing roadway the widening will occur on. The Segment 7 build

alternative would potentially impact up to 422 acres of vegetation if the full 300 feet from centerline is cleared for construction. Vegetation types are generally similar north and south of the existing right-of-way so impacts will be similar whichever alternative is selected.

According to the USFWS, seven endangered species and three threatened McCurtain and Pushmataha counties. Suitable habitat is present within the project corridor for four of these species. Additionally, the proposed project has the potential to affect five of these species. However, it is unlikely to adversely affect four of these species and the fifth, the American Burying Beetle, is covered under a programmatic biological assessment. It is recommended that consultation with the USFWS would be warranted for the leopard darter, Indiana bat, scaleshell mussel, and winged mapleleaf mussel.

The proposed project consists of 28 separate jurisdictional waters crossings. All impacts associated with stream crossings would potentially be covered under Nationwide Permit 14; with the possible exception of Crossings 11 and 13 associated with the Northern Shift (i.e., impacts at this crossing may exceed the 0.50 acre threshold). However, the impacts presented in this report are only estimates given the level of planning currently available. Once construction plans are better know, determination of the need for coordination with the USACE can be finalized for Crossings 6, 12, 14, and 20 associated with the Northern Shift and Crossings 13, 14, 15, 20, 21, 22, and 26 associated with the Southern Shift.

6.0 REFERENCES

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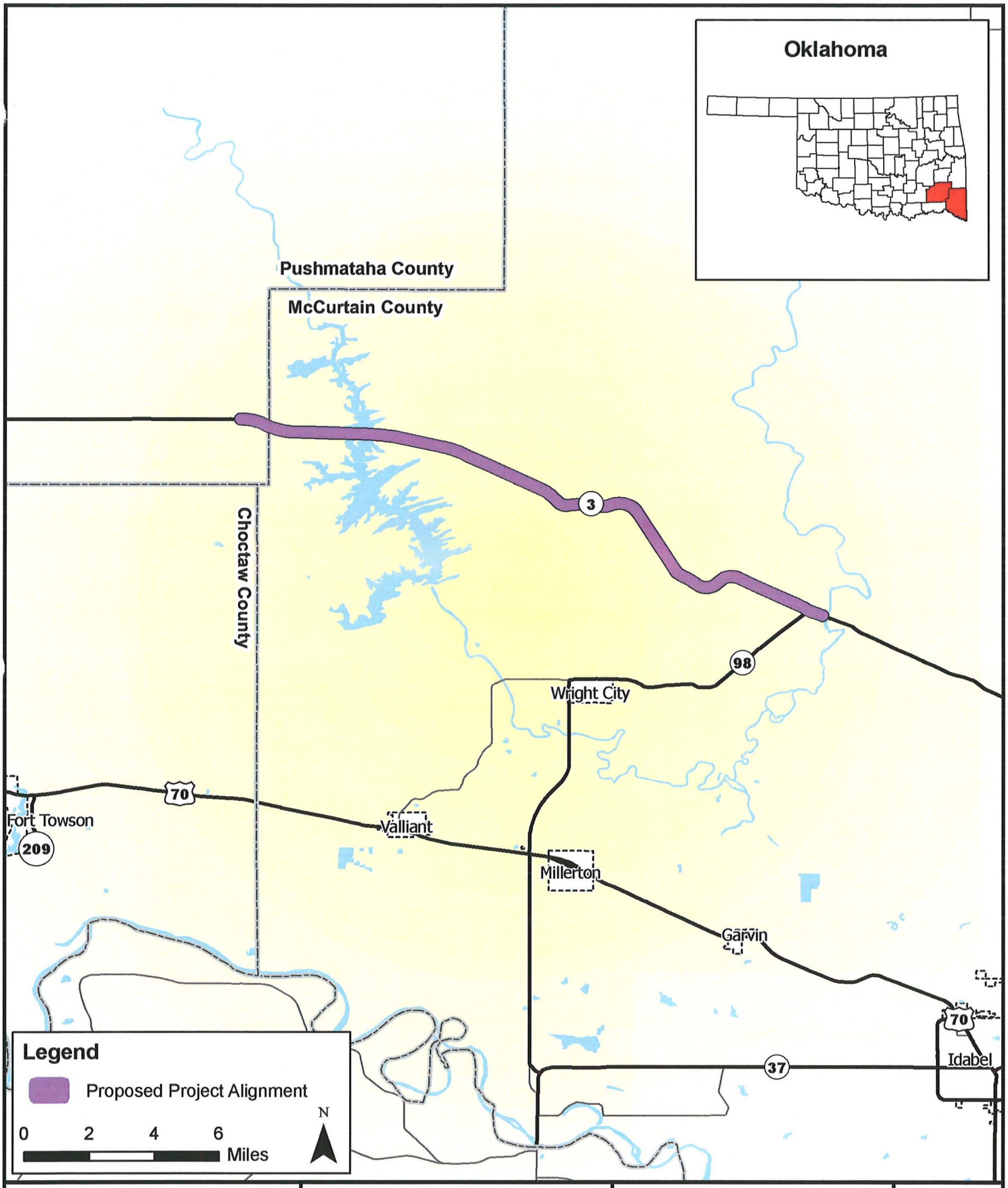
APPENDIX A: EXHIBITS



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Wednesday, October 8, 2008
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Vicinity Map

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ERSI Maps and Data (2008)

Exhibit

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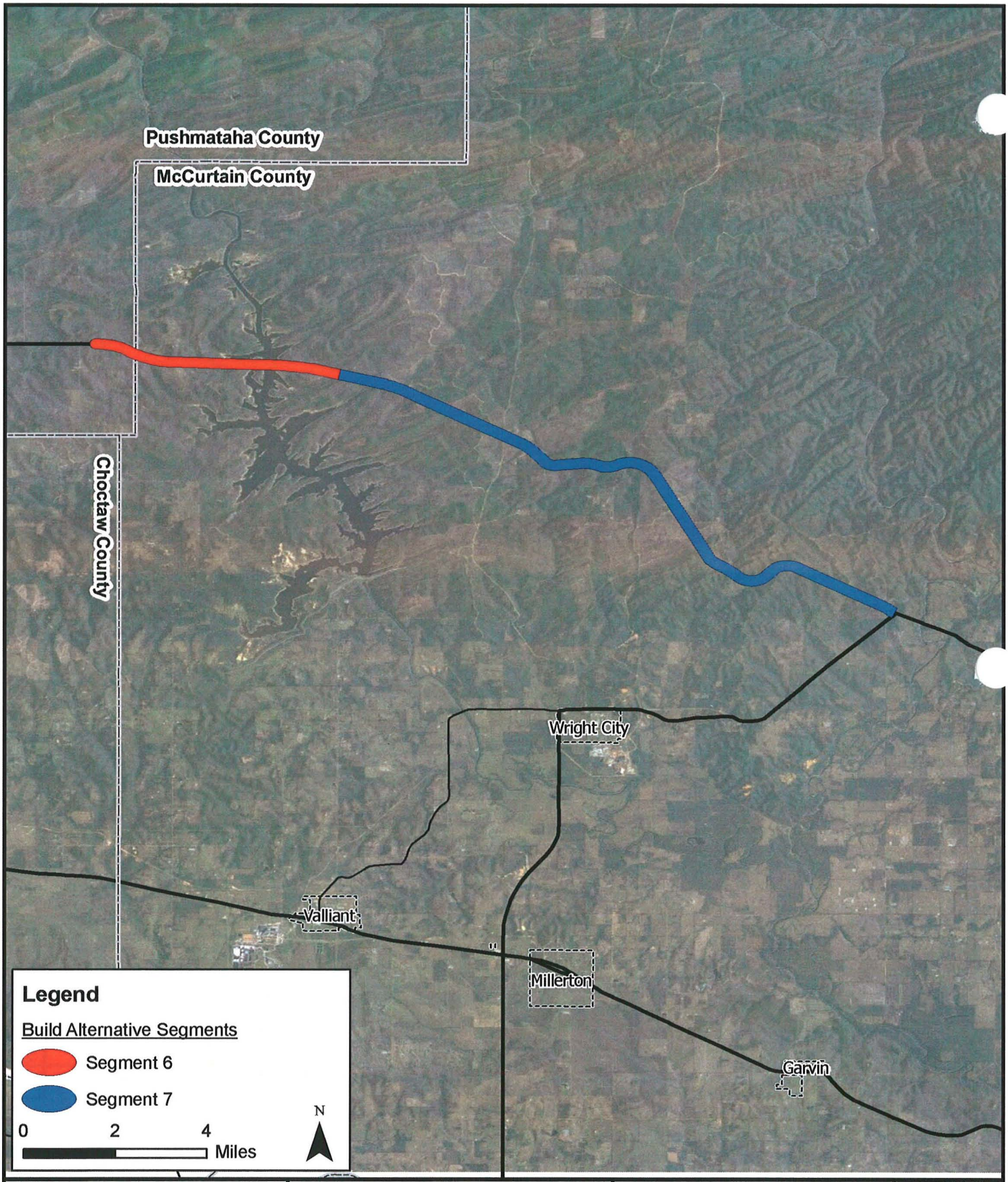

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Build Alternative Segments

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

2

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Wednesday, October 8, 2008
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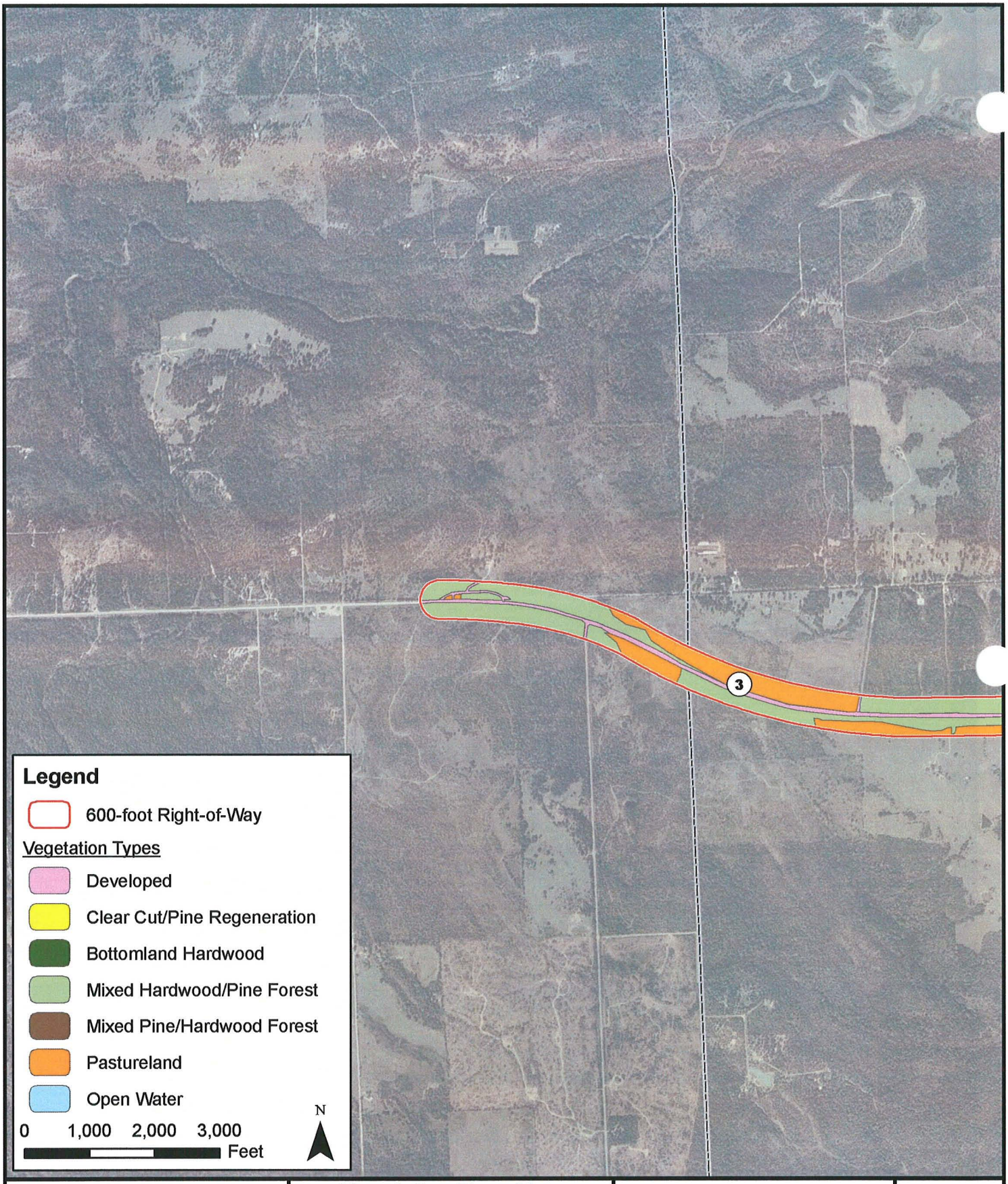
Vegetation Type Index Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

3



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Vegetation Type Map

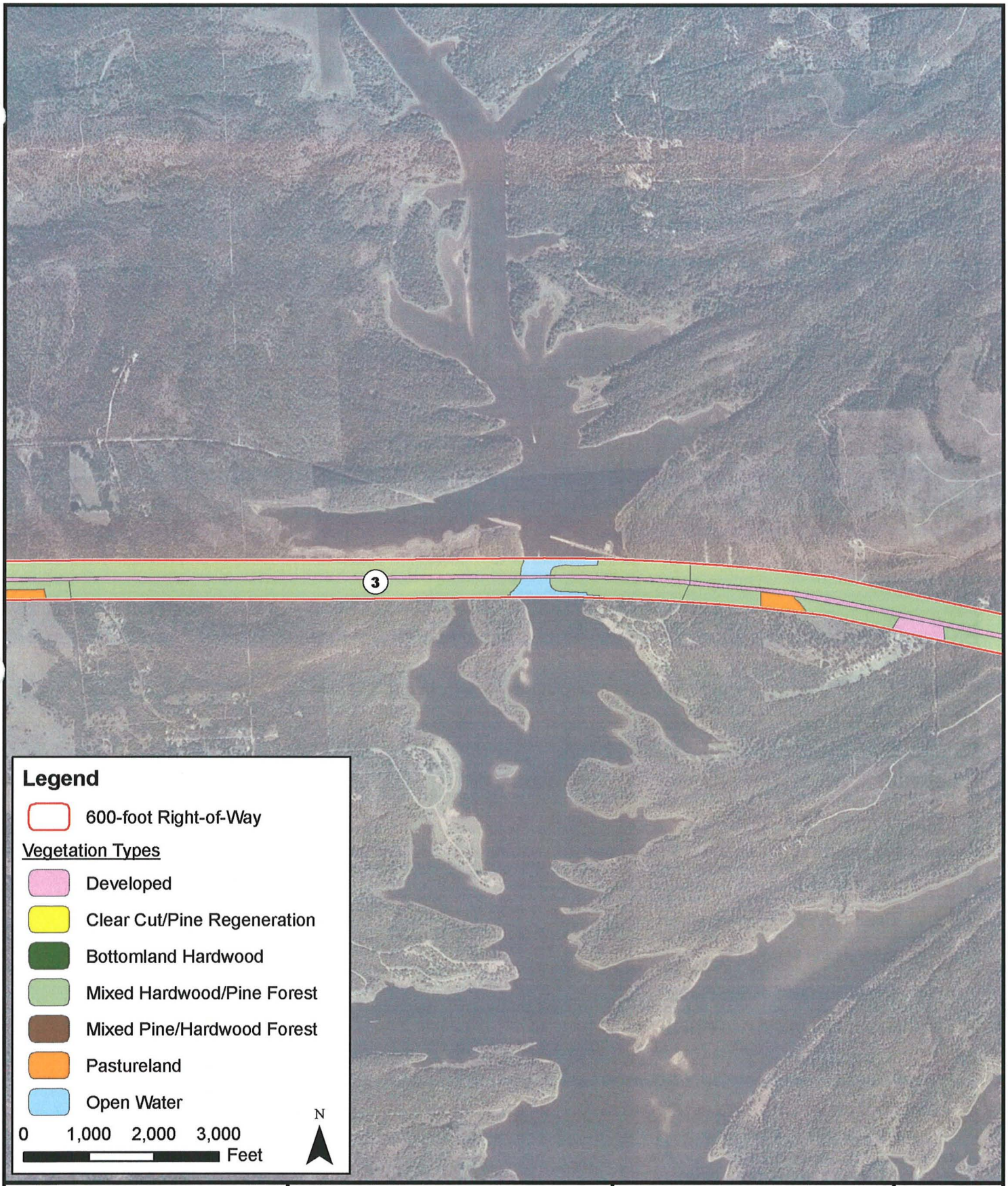
SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

3

1 of 6



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Vegetation Type Map

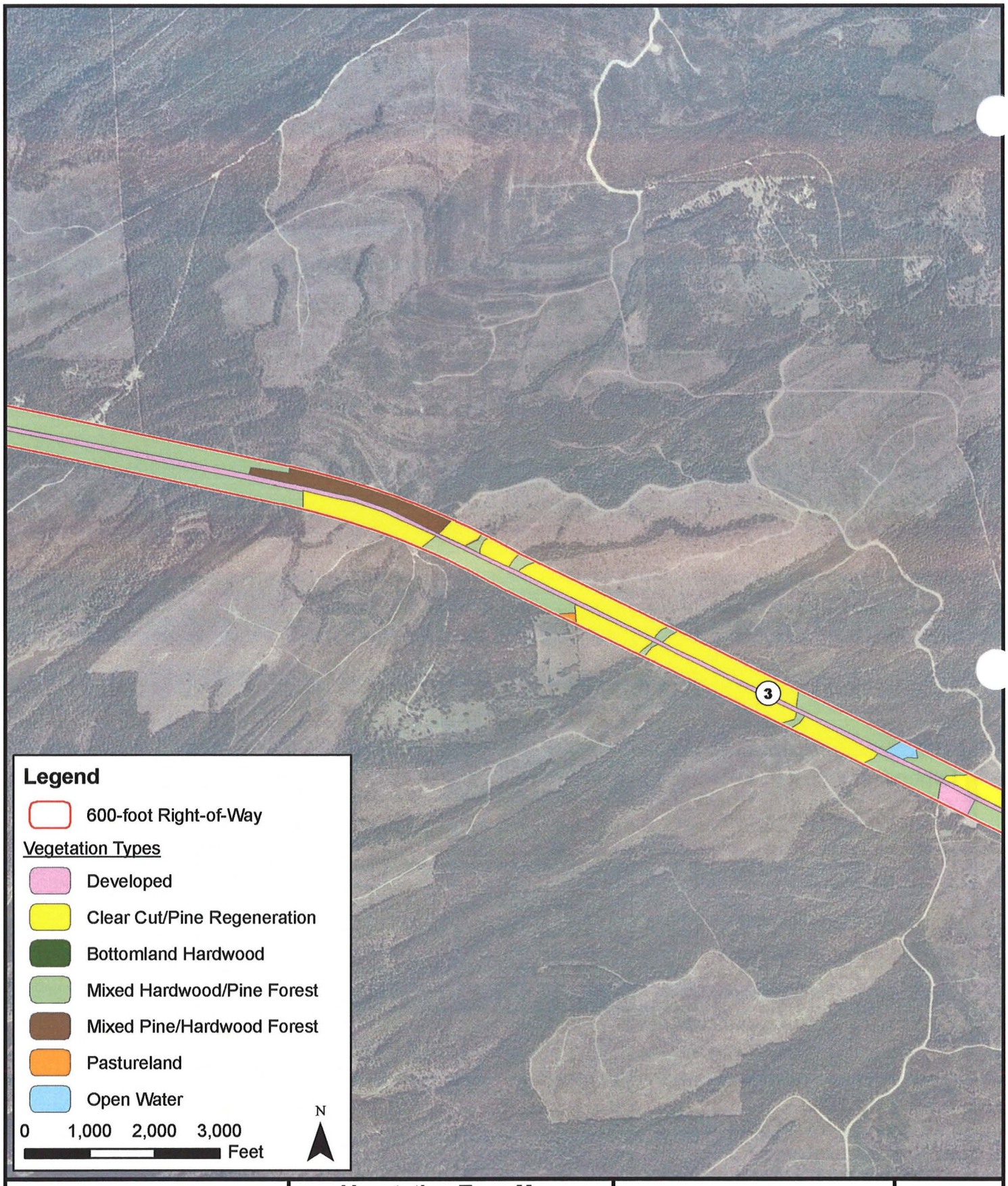
SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

3

2 of 6



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Vegetation Type Map

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Source:
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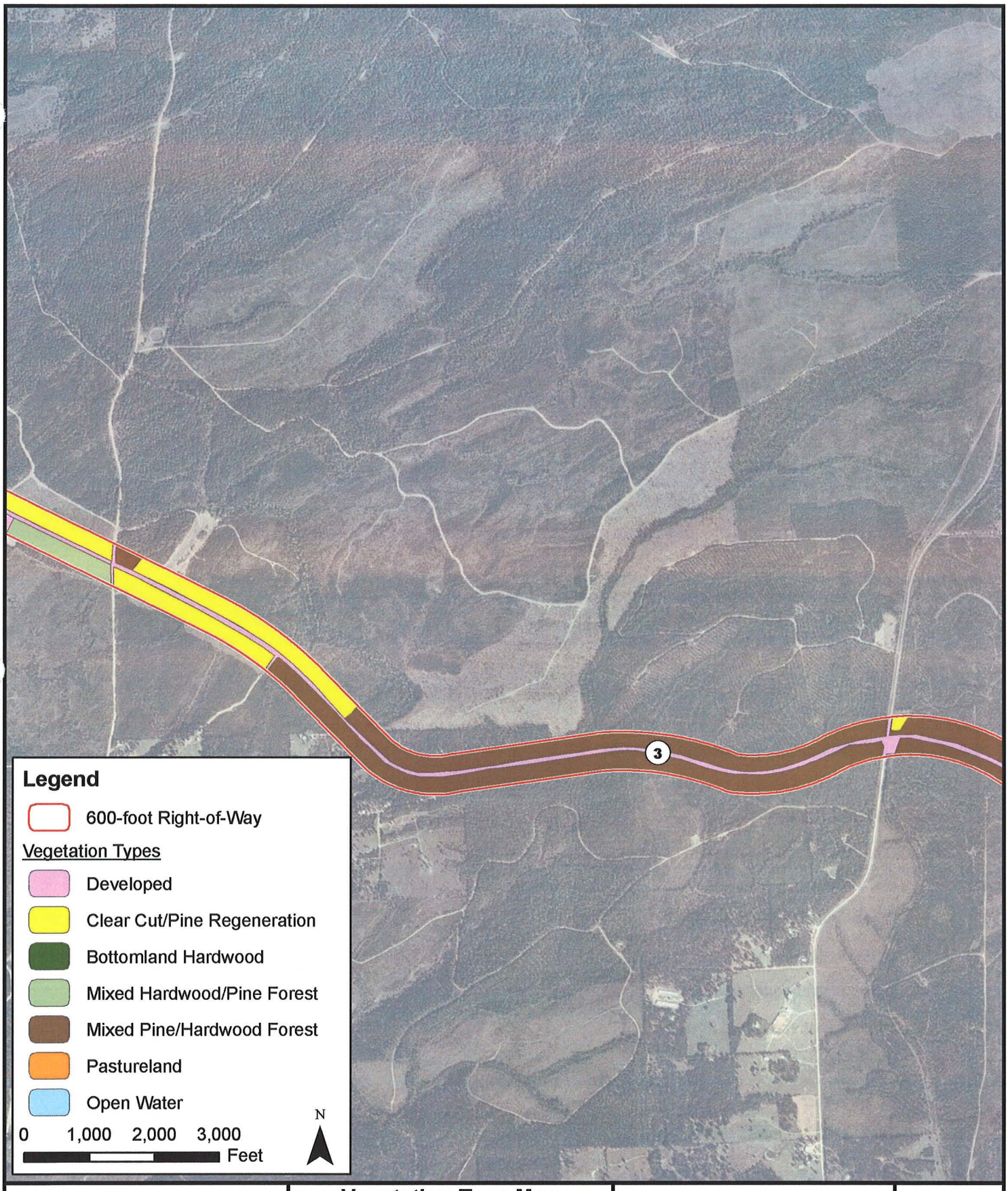
3 of 6



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Vegetation Type Map

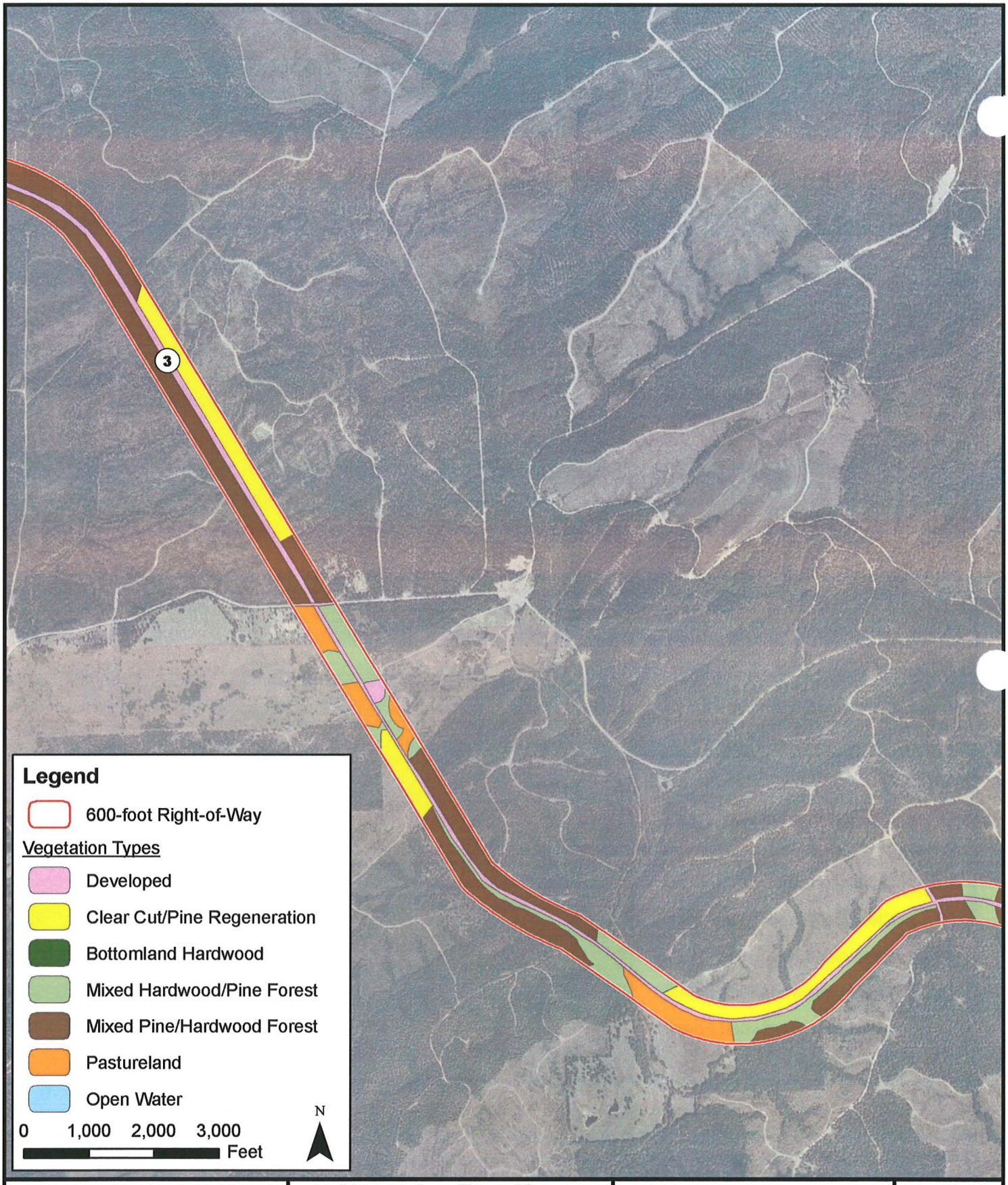
SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

3

4 of 6



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Vegetation Type Map

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Jacobs Project No. 072654.400

Source:
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Exhibit

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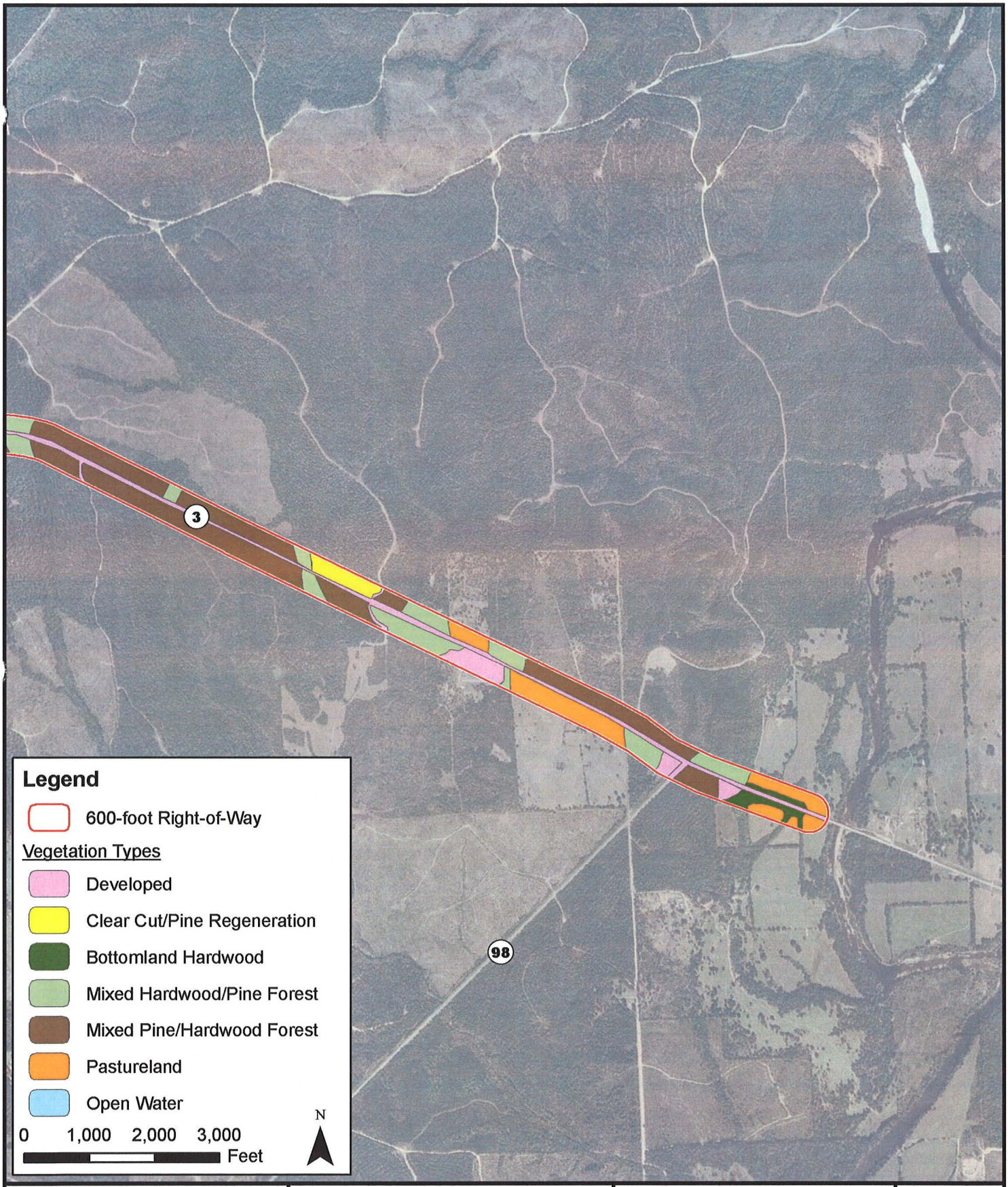

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Vegetation Type Map

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Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
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Exhibit

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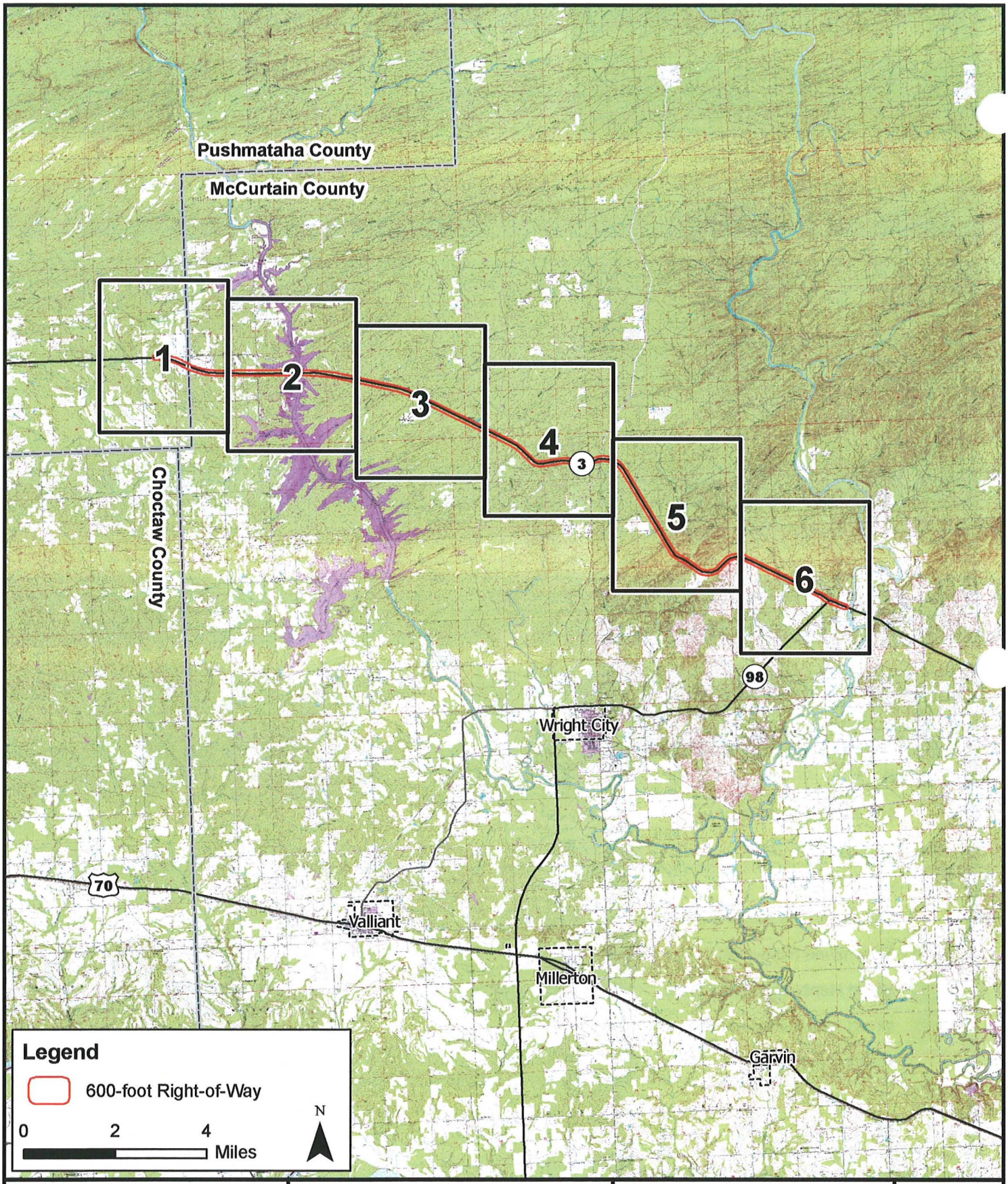
6 of 6



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U.S.G.S. Topographic Index Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
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Exhibit

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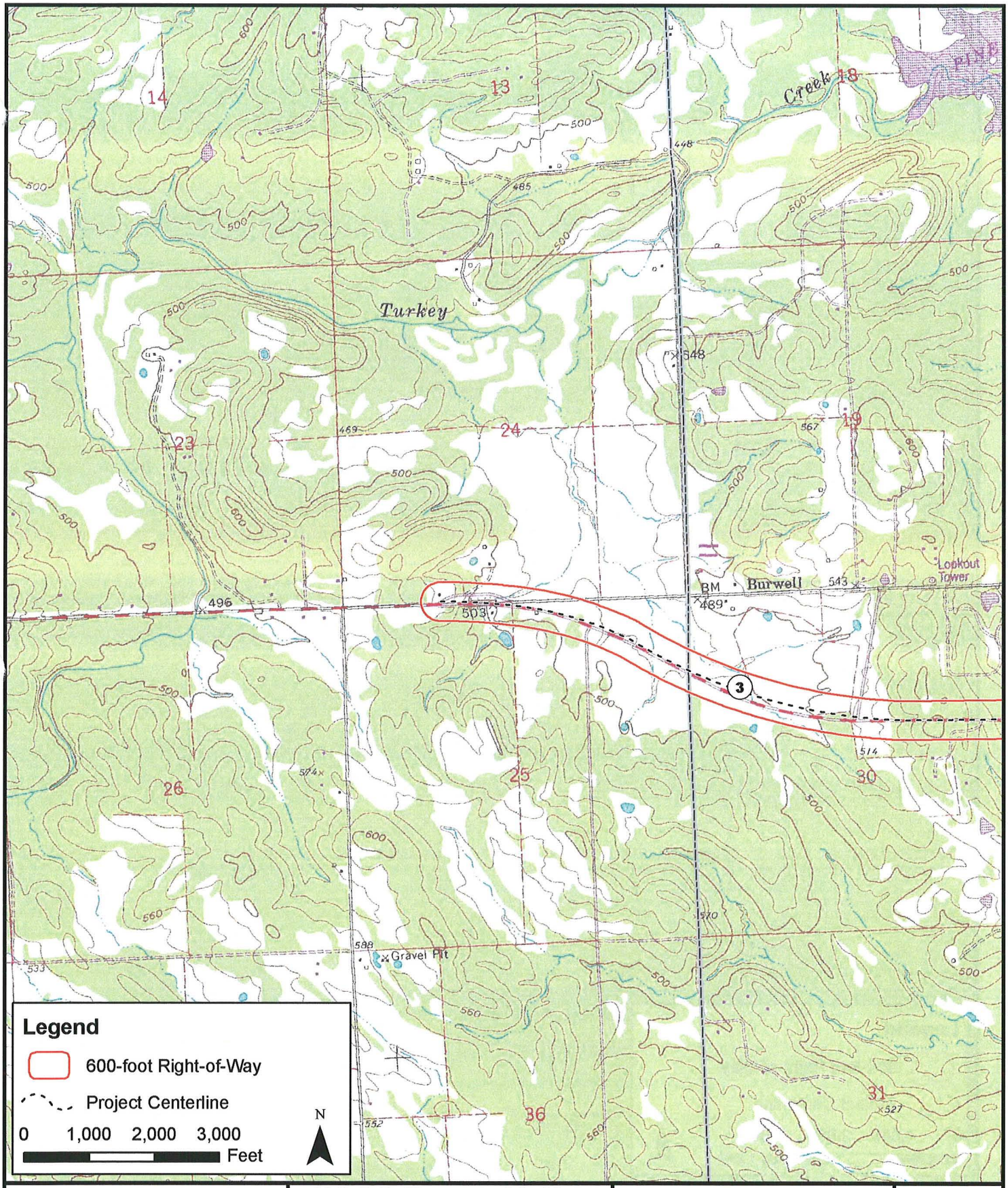

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U.S.G.S. Topographic Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
U.S. Geological Survey
7.5 Minute Series Quadrangles-
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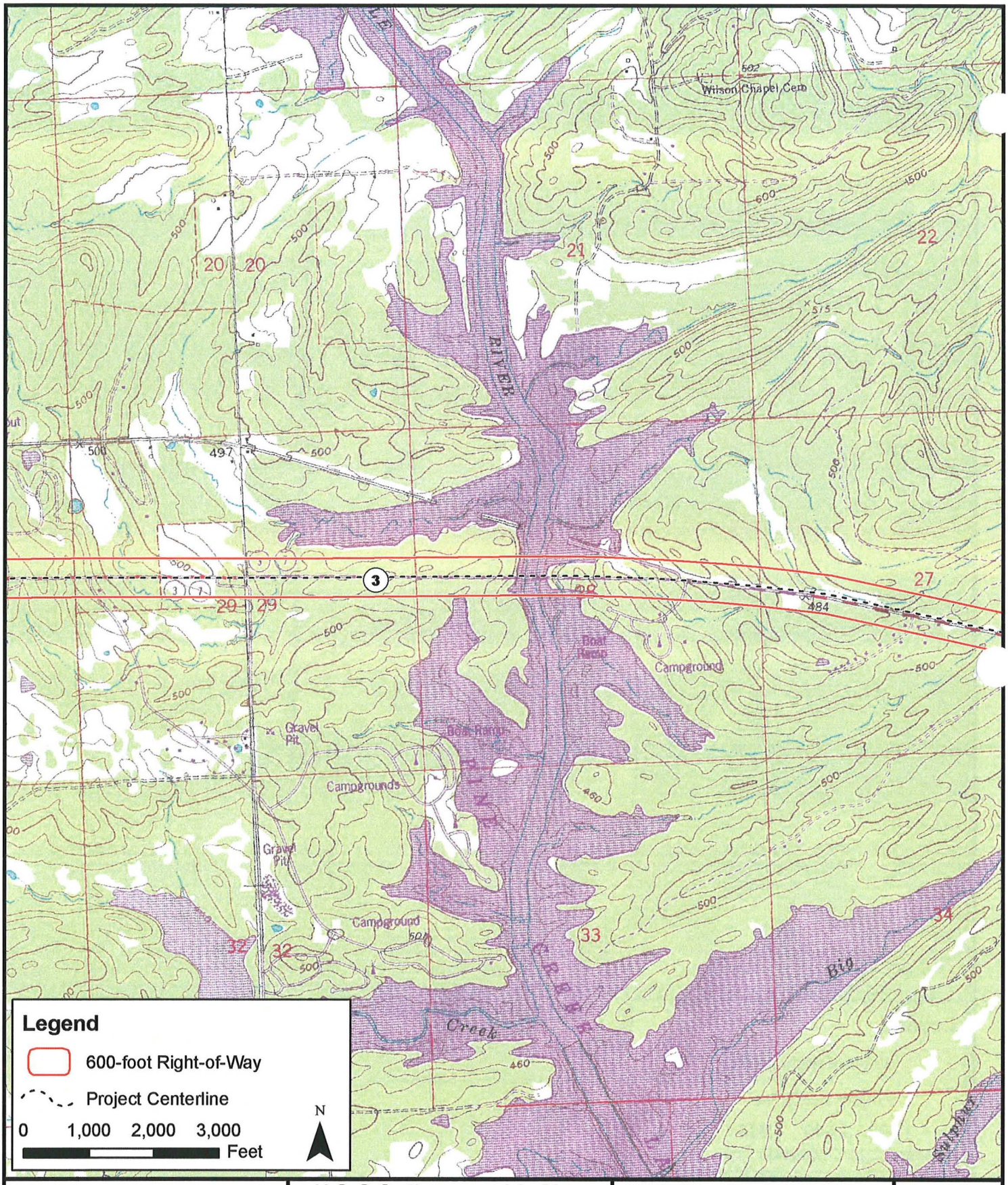
Steel Junction (1982)
Broken Bow (1982)

Exhibit

4

1 of 6



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Jacobs Project No. 072654.400

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Exhibit

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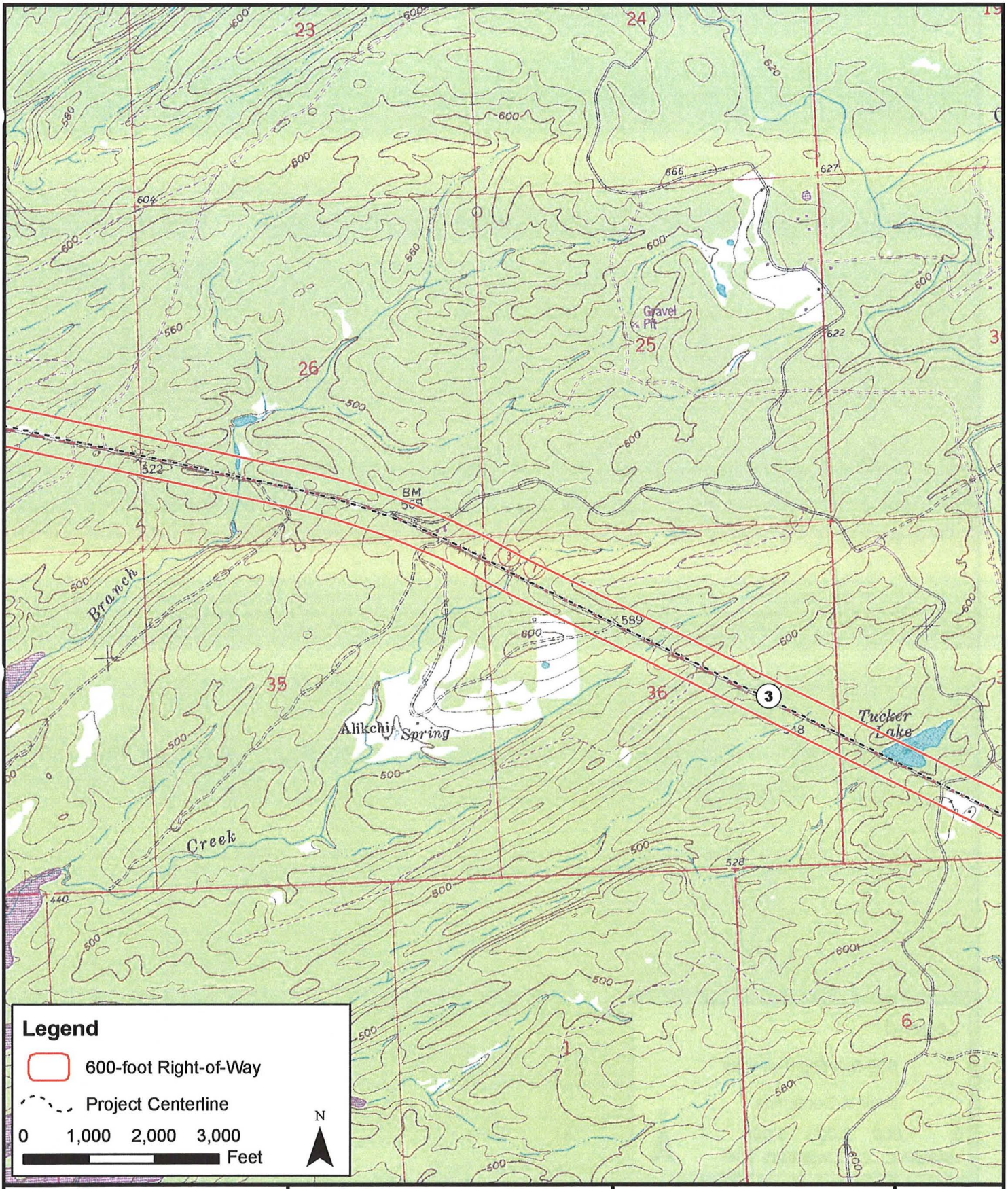

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SH 3
McCurtain and Pushmataha
Counties, Oklahoma
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Source:
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Golden (1982)
Steel Junction (1982)
Broken Bow (1982)

Exhibit

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U.S.G.S. Topographic Map

SH 3
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Source:
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Exhibit

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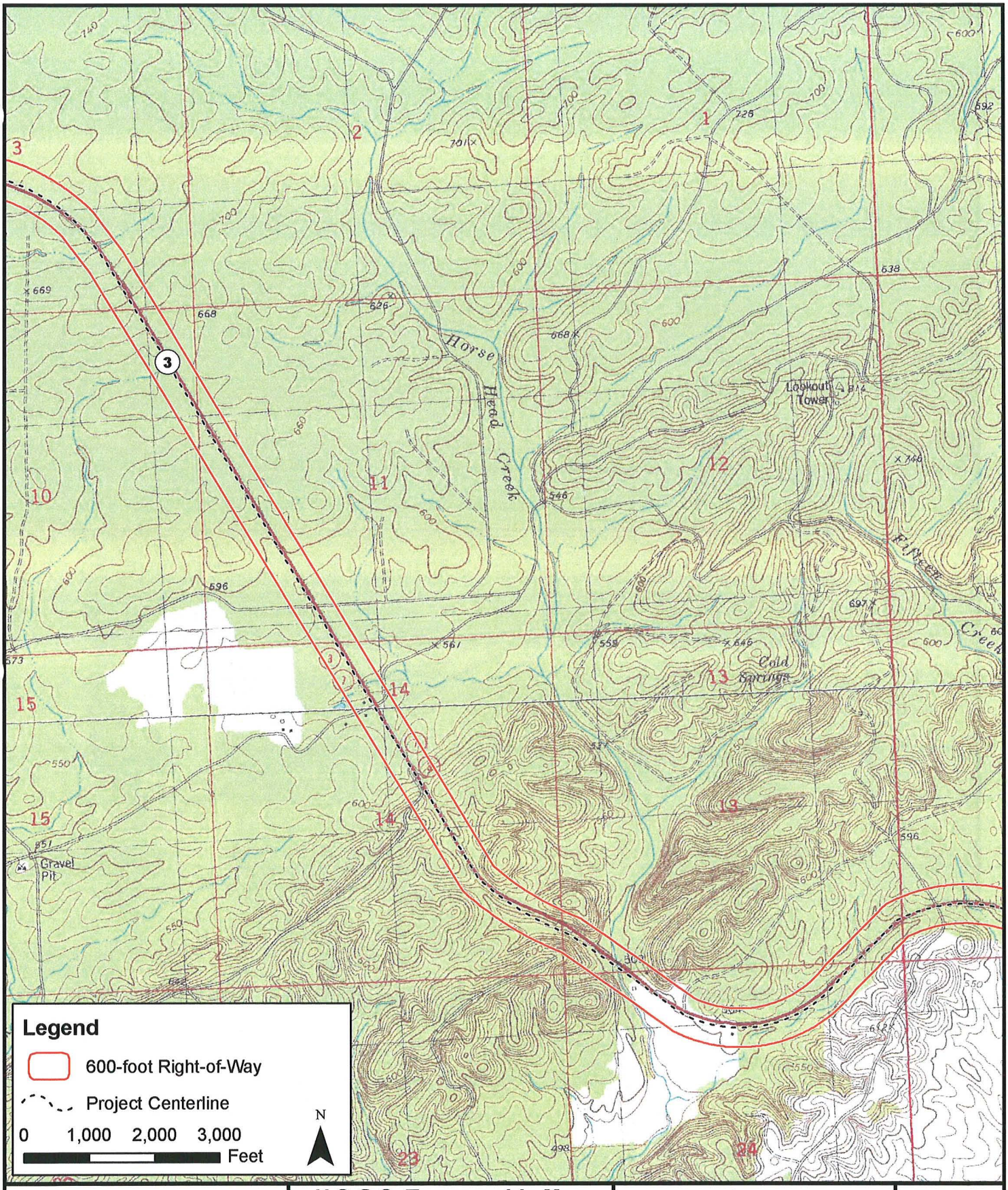
4 of 6



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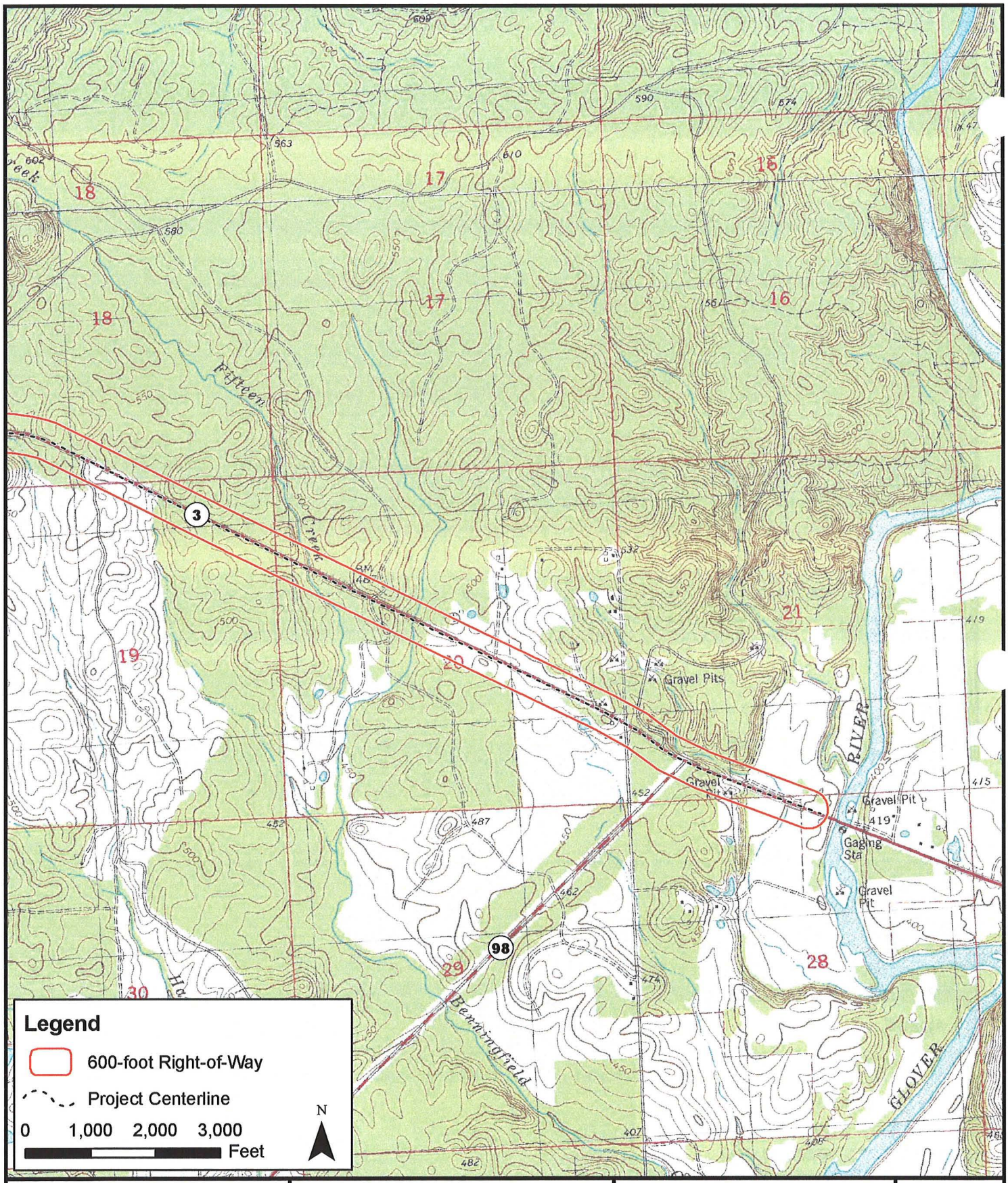

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Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
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Exhibit

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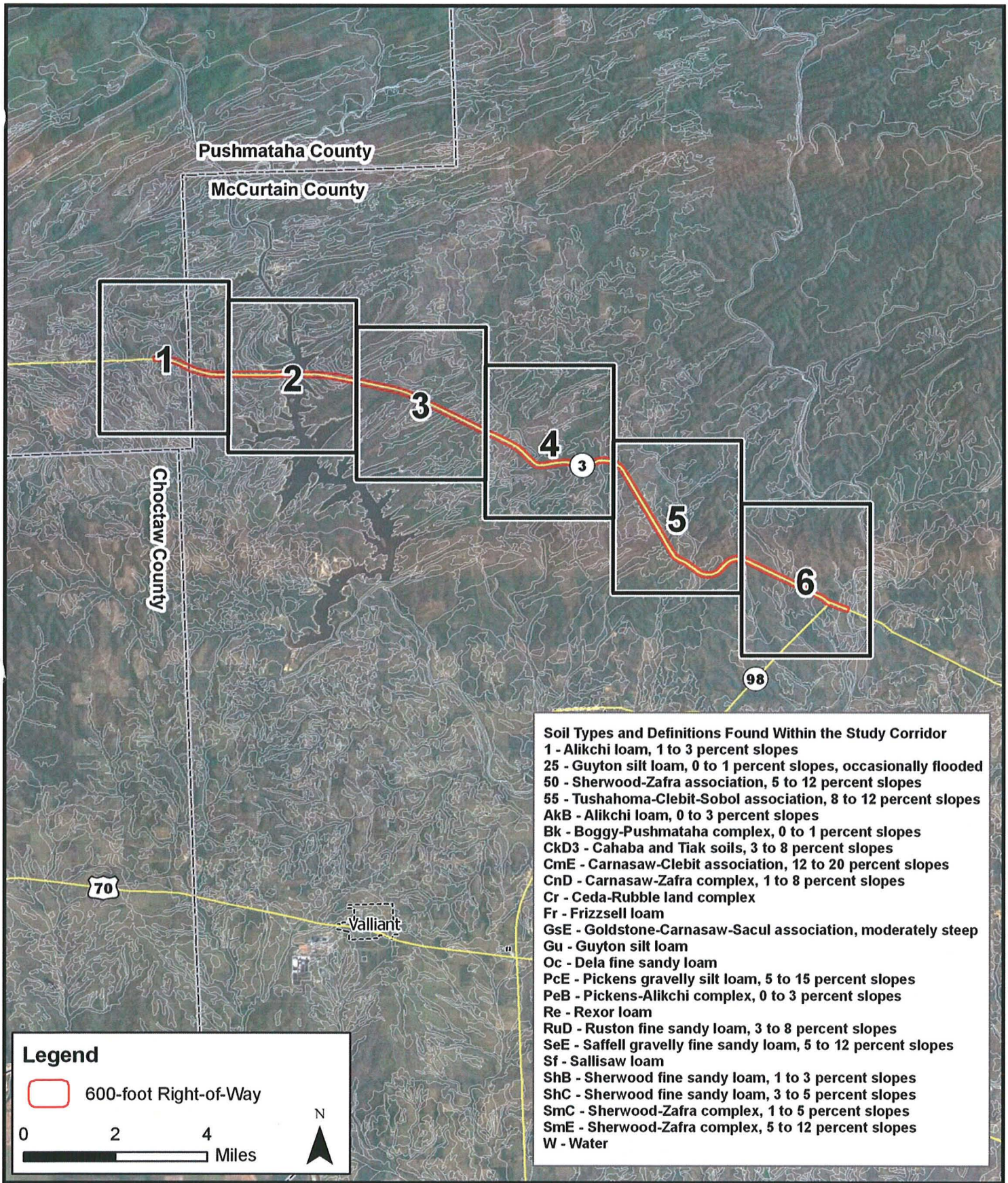
6 of 6



Soil Types and Definitions Found Within the Study Corridor

1 - Alikchi loam, 1 to 3 percent slopes
25 - Guyton silt loam, 0 to 1 percent slopes, occasionally flooded
50 - Sherwood-Zafra association, 5 to 12 percent slopes
55 - Tushahoma-Clebit-Sobol association, 8 to 12 percent slopes
AkB - Alikchi loam, 0 to 3 percent slopes
Bk - Boggy-Pushmataha complex, 0 to 1 percent slopes
CkD3 - Cahaba and Tiak soils, 3 to 8 percent slopes
CmE - Carnasaw-Clebit association, 12 to 20 percent slopes
CnD - Carnasaw-Zafra complex, 1 to 8 percent slopes
Cr - Ceda-Rubble land complex
Fr - Frizzsell loam
GsE - Goldstone-Carnasaw-Sacul association, moderately steep
Gu - Guyton silt loam
Oc - Dela fine sandy loam
PcE - Pickens gravelly silt loam, 5 to 15 percent slopes
PeB - Pickens-Alikchi complex, 0 to 3 percent slopes
Re - Rexor loam
RuD - Ruston fine sandy loam, 3 to 8 percent slopes
SeE - Saffell gravelly fine sandy loam, 5 to 12 percent slopes
Sf - Sallisaw loam
ShB - Sherwood fine sandy loam, 1 to 3 percent slopes
ShC - Sherwood fine sandy loam, 3 to 5 percent slopes
SmC - Sherwood-Zafra complex, 1 to 5 percent slopes
SmE - Sherwood-Zafra complex, 5 to 12 percent slopes
W - Water

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Wednesday, October 8, 2008
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Soil Survey Index Map

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)
Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database for McCurtain and Pushmataha Counties

Exhibit

5

JACOBS

Thursday, October 9, 2008
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Soil Survey Map

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

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Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database for McCurtain and Pushmataha Counties

Exhibit

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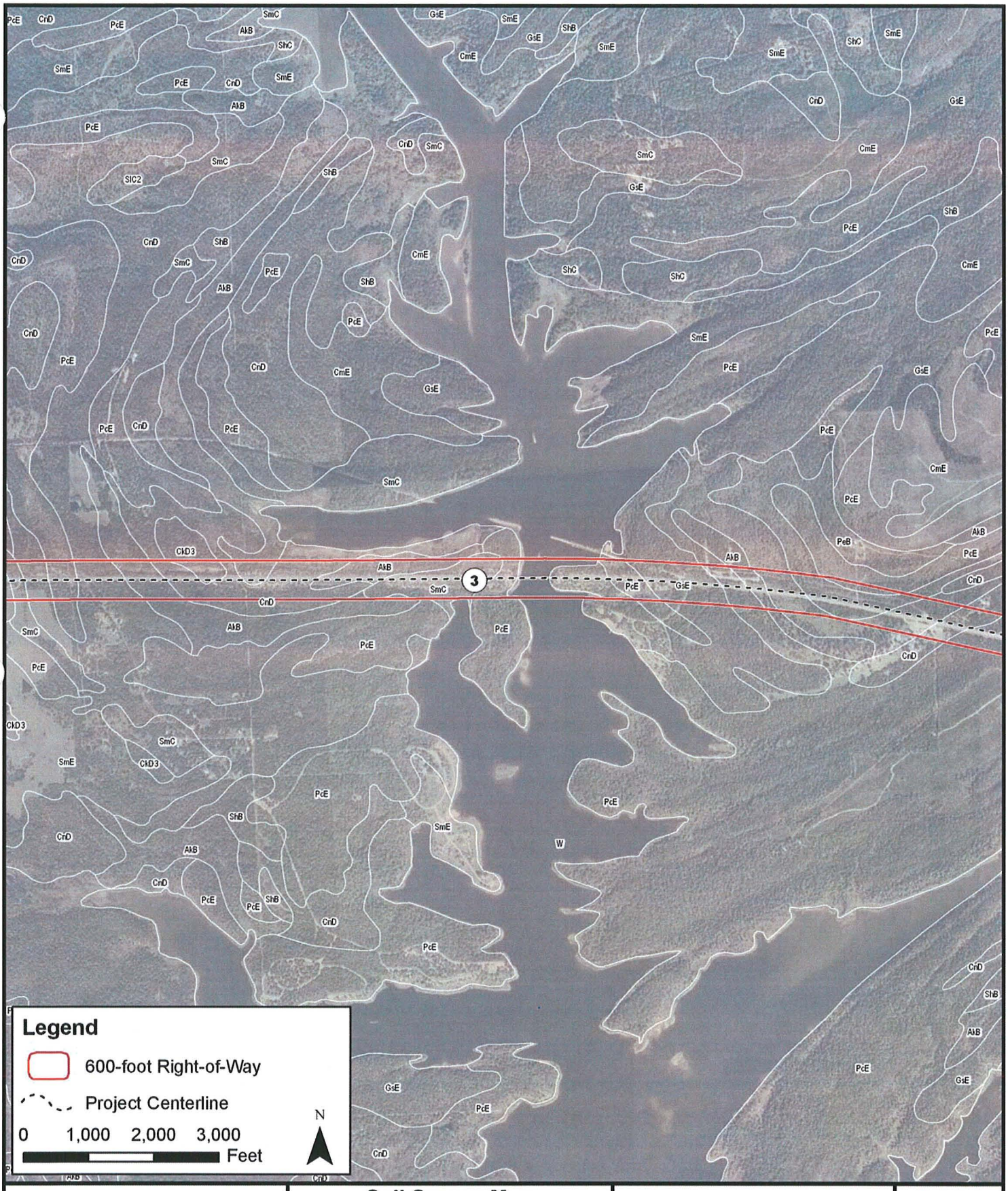

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Soil Survey Map

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
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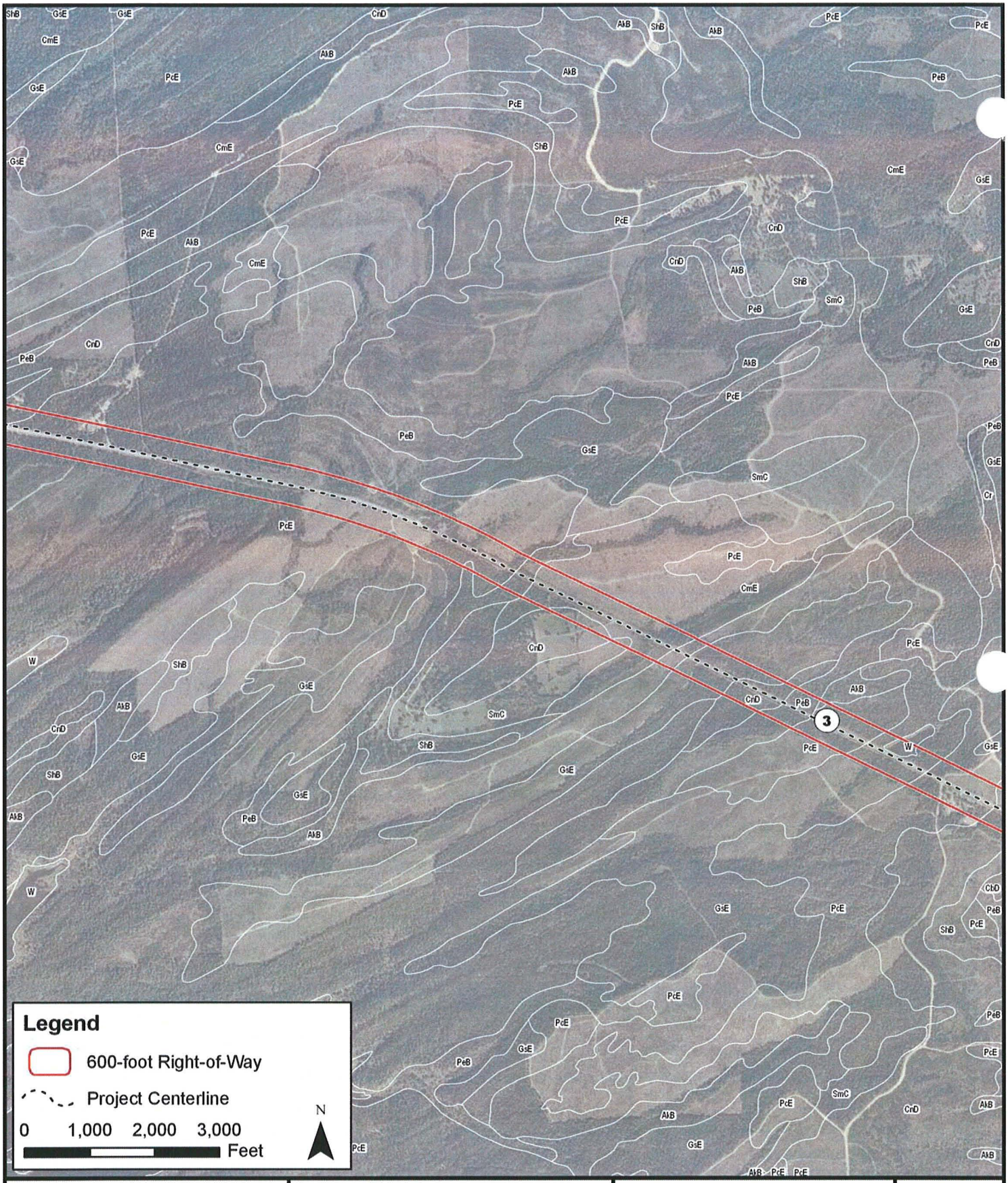
Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database for McCurtain and Pushmataha Counties

Exhibit

5

2 of 6



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Soil Survey Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)
Natural Resources Conservation Service
Soil Survey Geographic (SSURGO)
Database for McCurtain and
Pushmataha Counties

Exhibit

5

3 of 6

JACOBS

Thursday, October 9, 2008
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Soil Survey Map

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
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Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database for McCurtain and Pushmataha Counties

Exhibit

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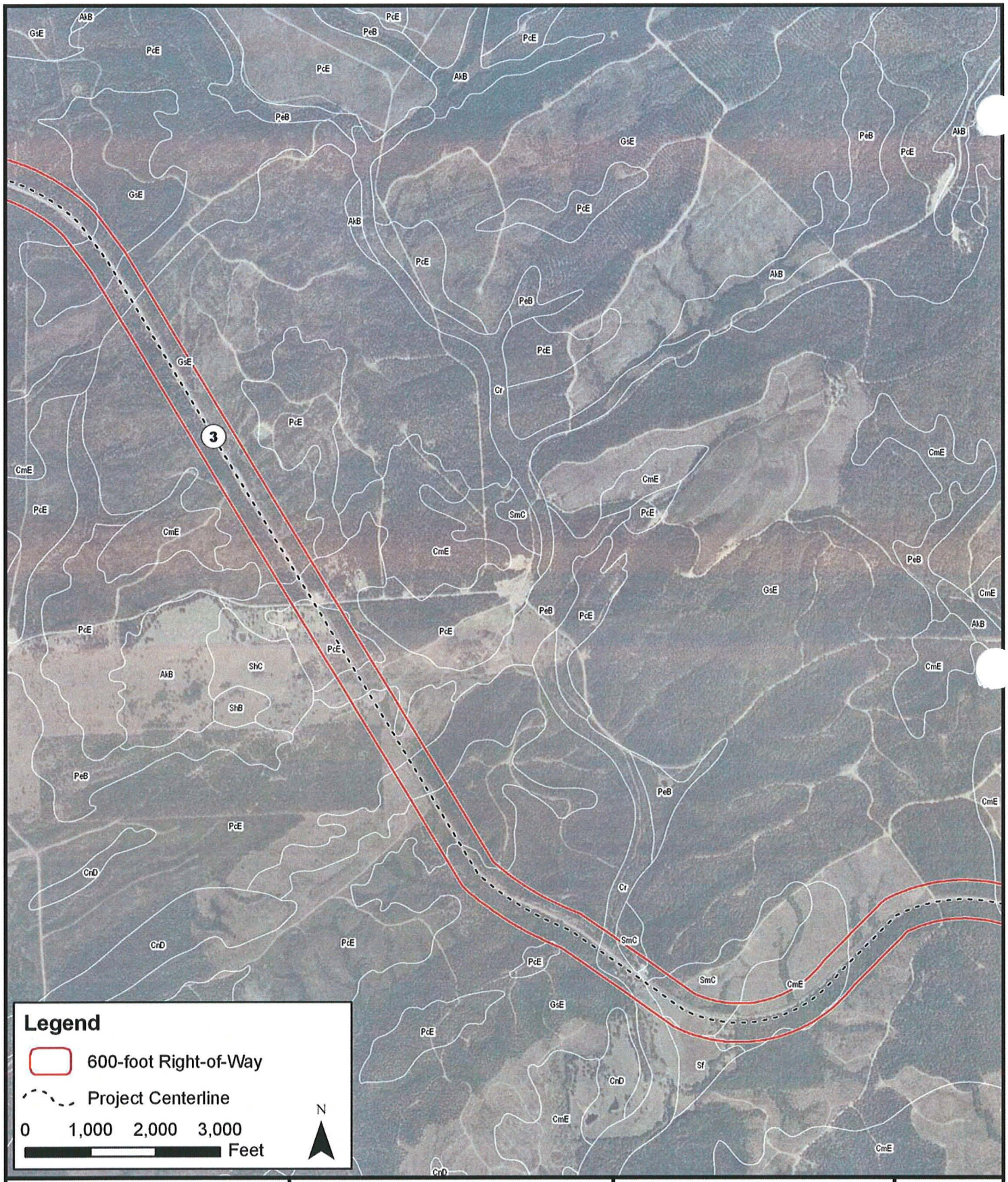
4 of 6



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Soil Survey Map

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)
Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database for McCurtain and Pushmataha Counties

Exhibit

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Thursday, October 9, 2008
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Soil Survey Map

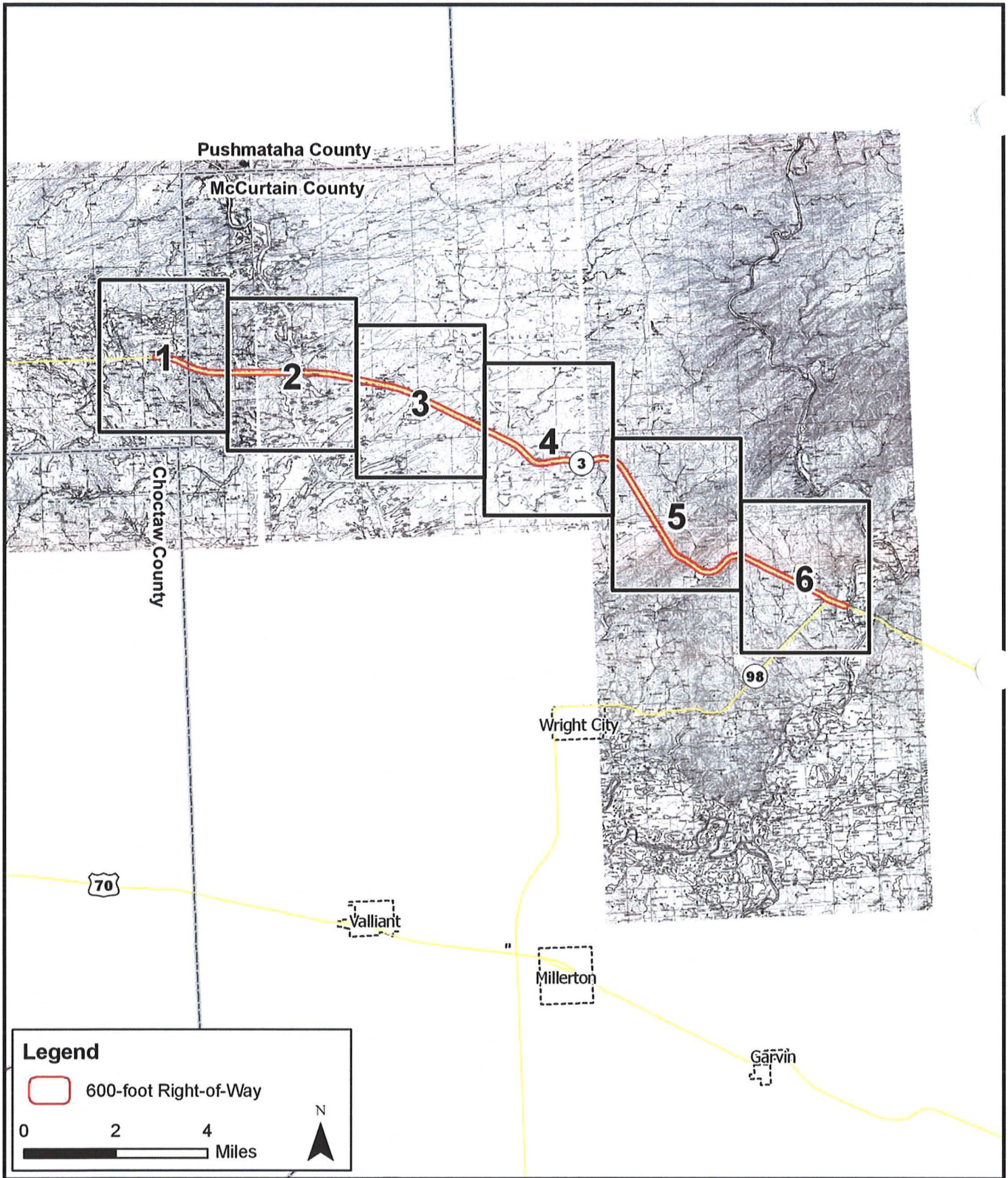
SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)
Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database for McCurtain and Pushmataha Counties

Exhibit

5

6 of 6



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National Wetlands Inventory Index Map

SH 3
McCurtain and Pushmataha Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and
U.S. Fish and Wildlife Service (2008)

Exhibit

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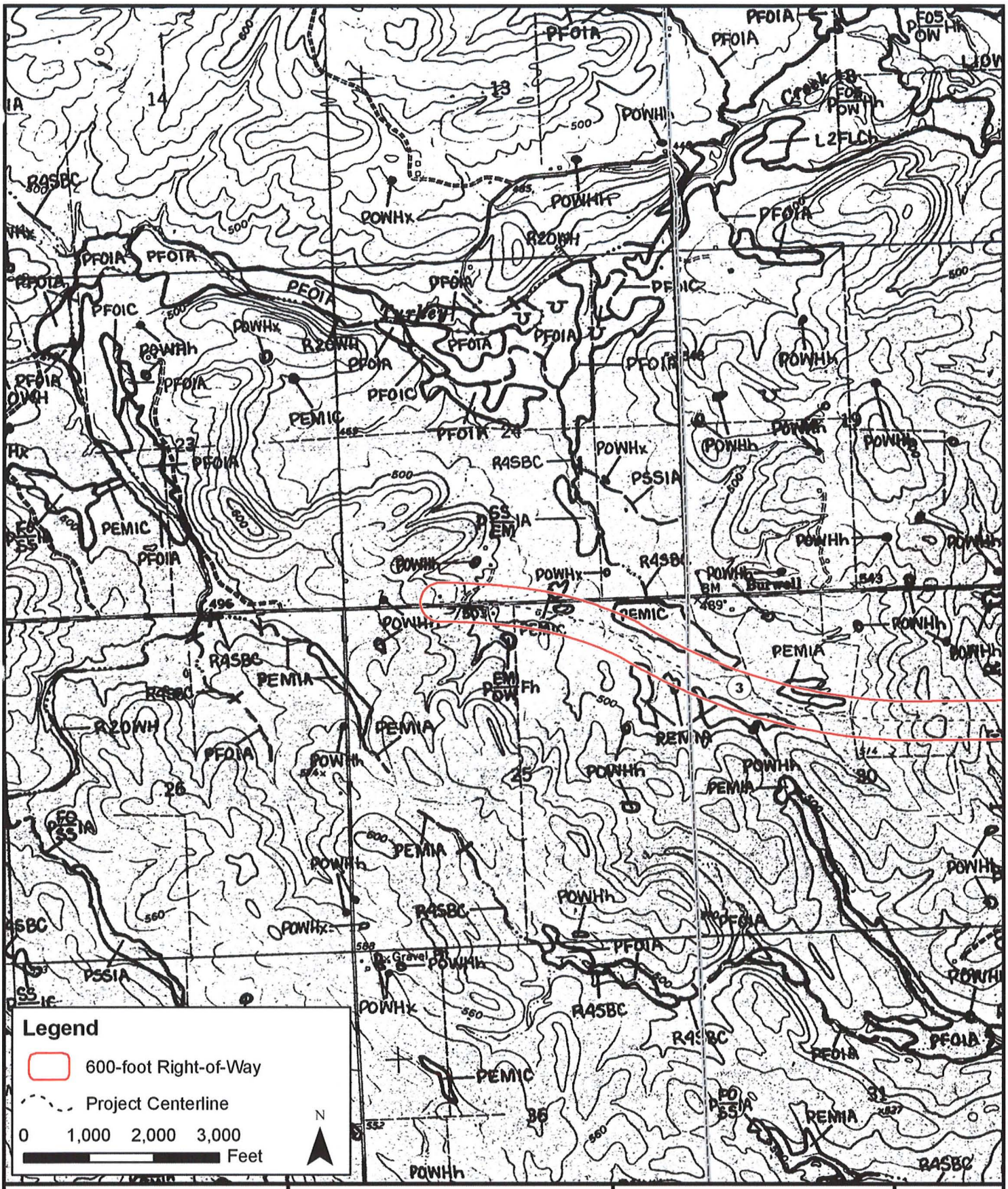

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National Wetlands Inventory Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
U.S. Fish and Wildlife Service
U.S. Geological Survey
7.5 Minute Series Quadrangles-
Sobol (1962)
Alikichi (1962)
Bear Mountain (1982)
Golden (1982)
Steel Junction (1982)
Broken Bow (1982)

Exhibit

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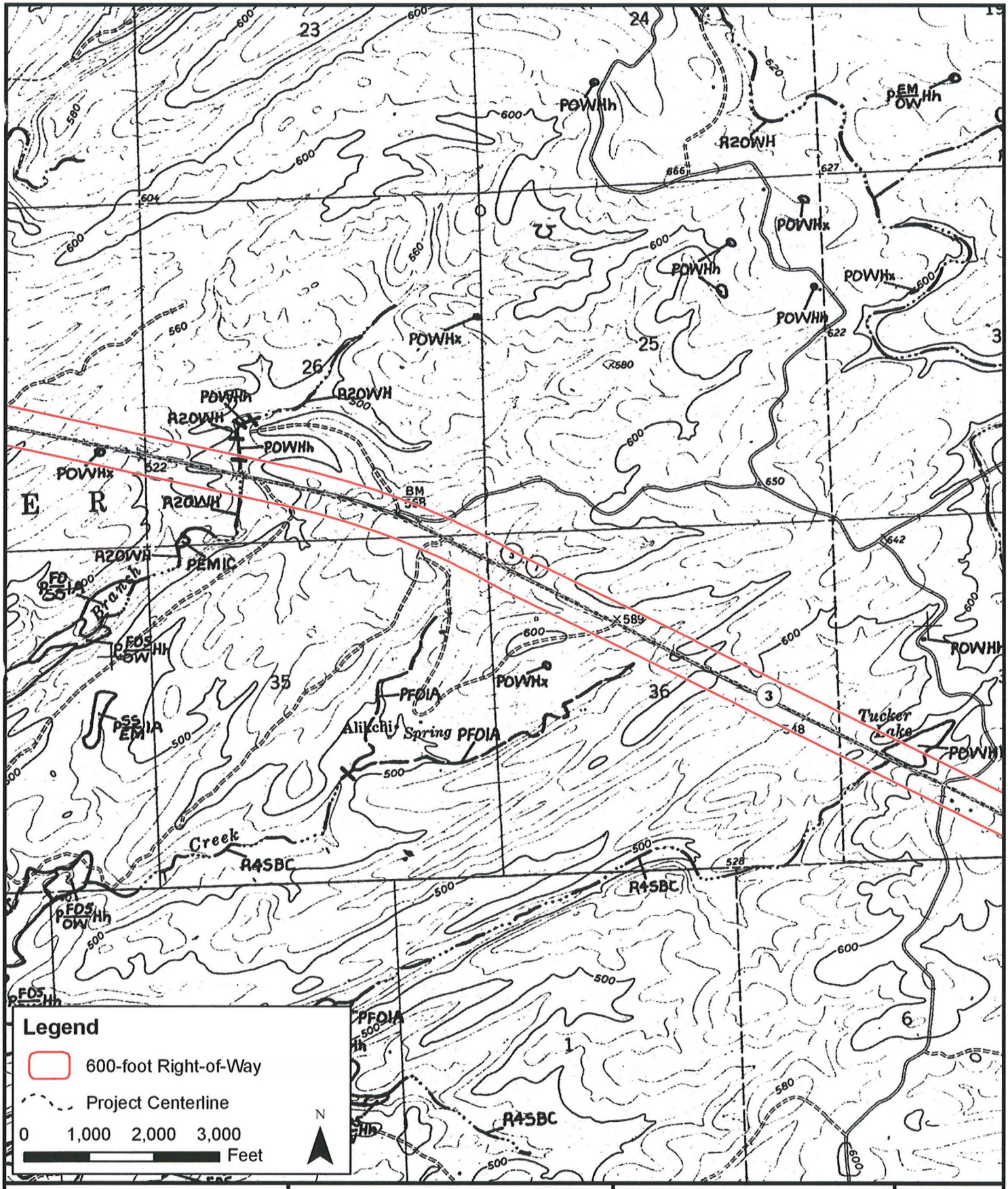

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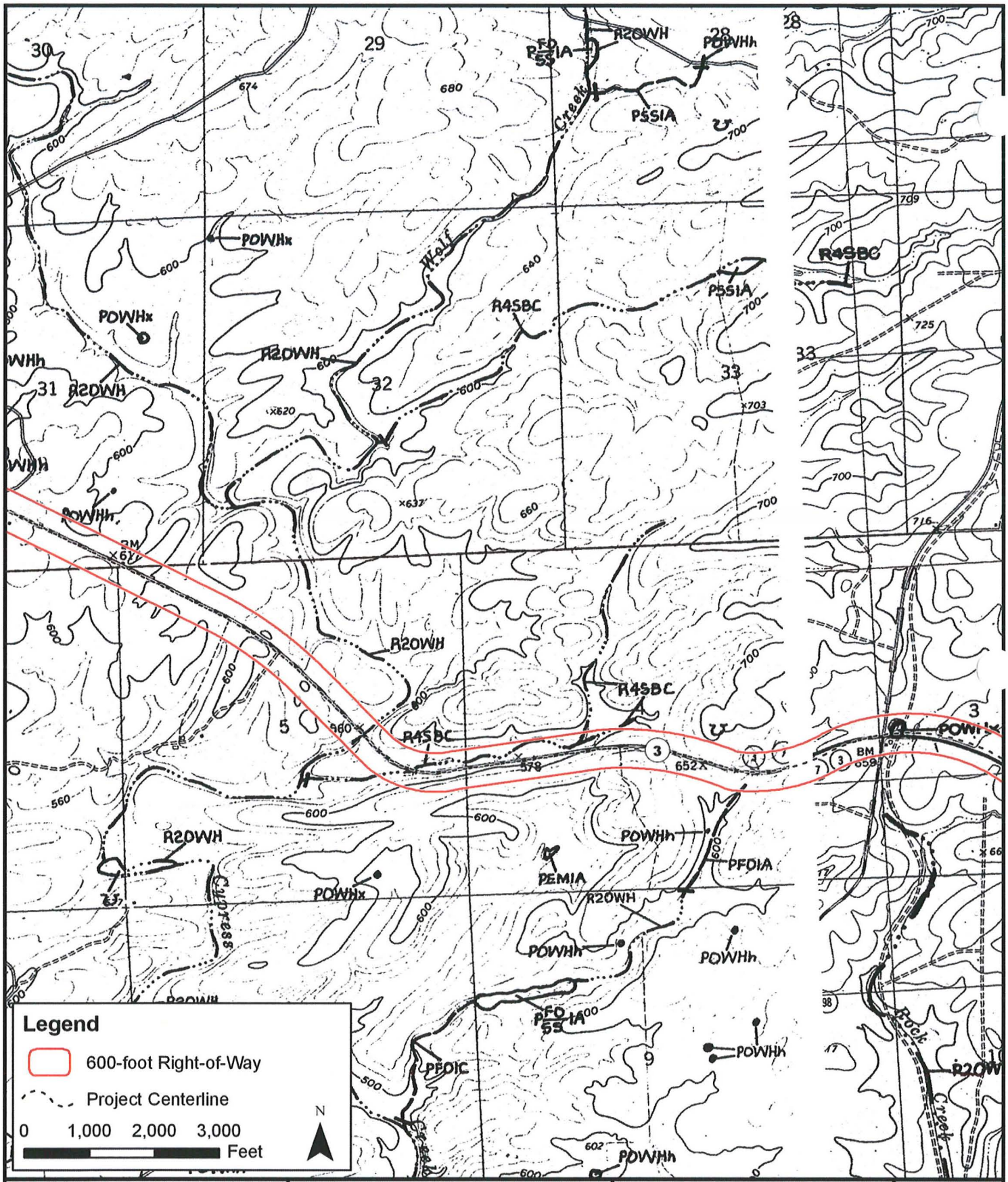

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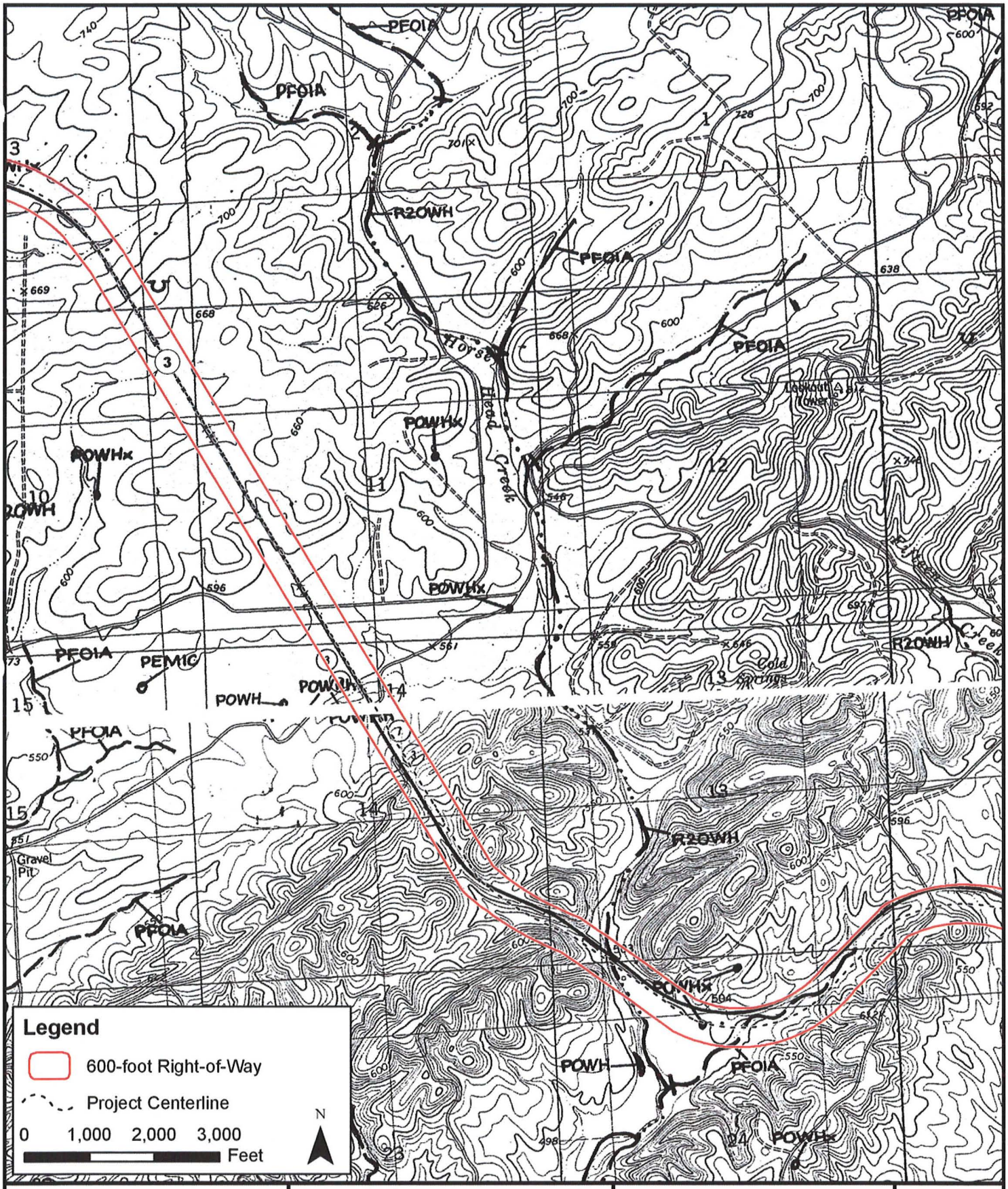

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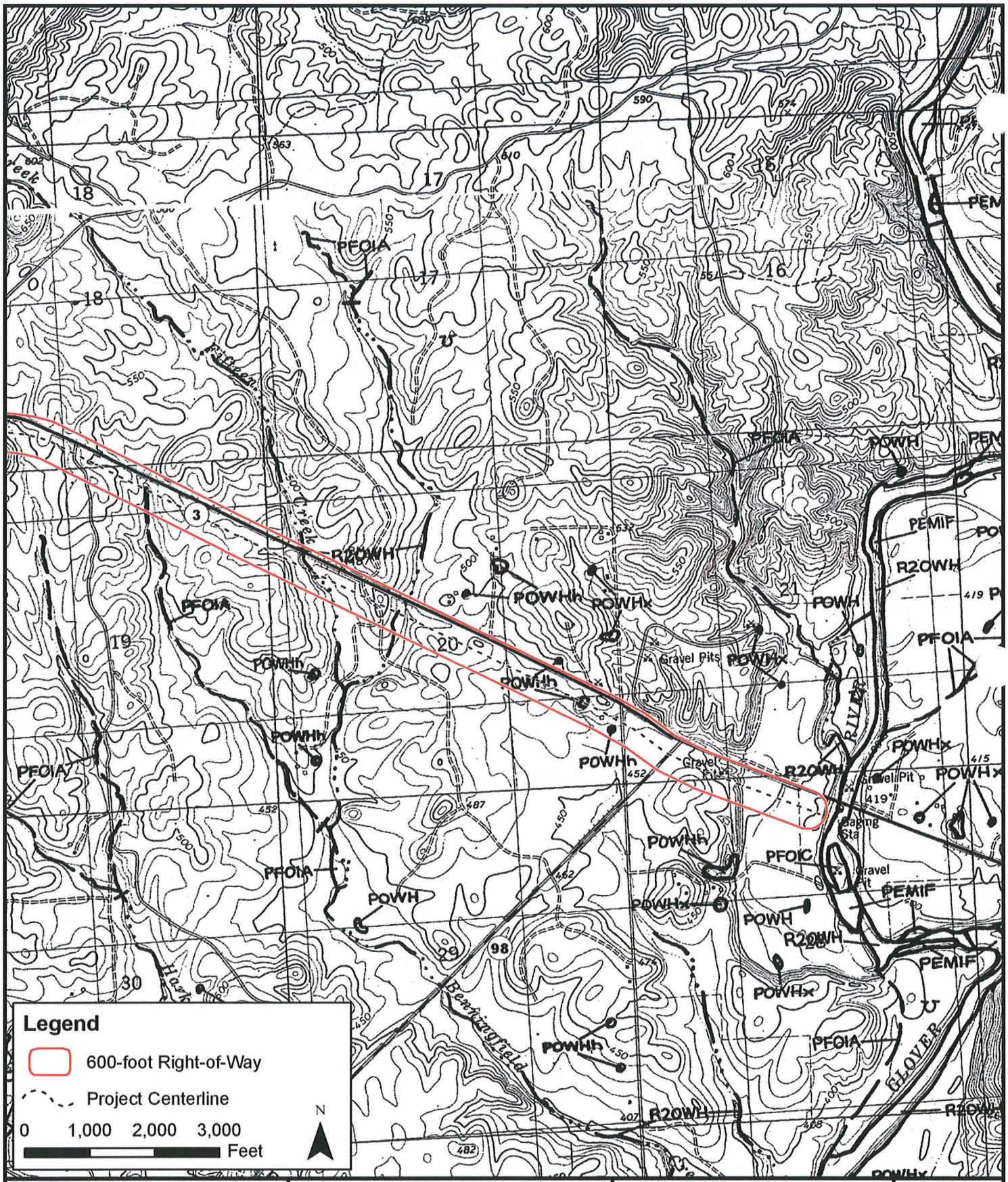

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National Wetlands Inventory Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

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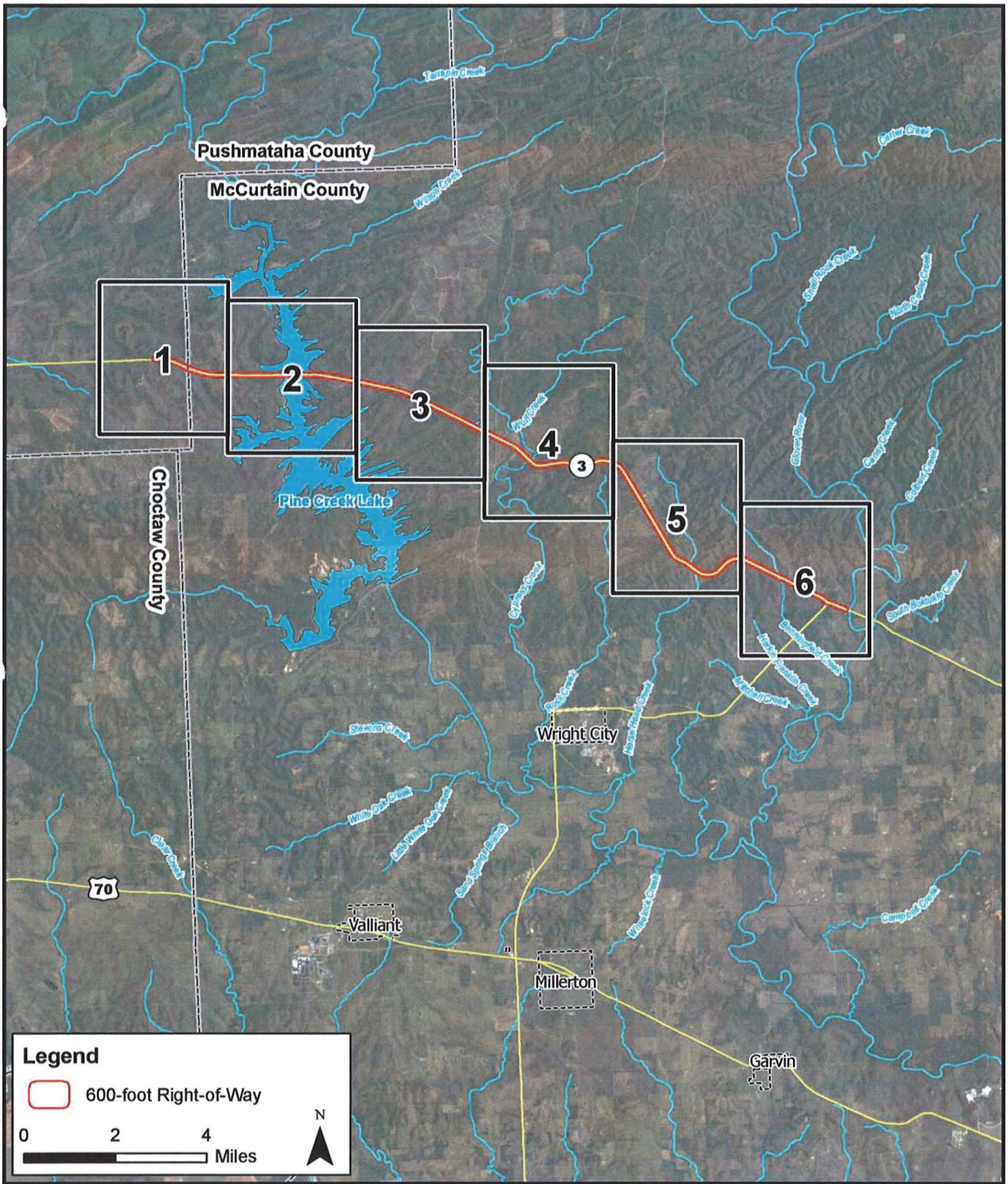
6 of 6



JACOBS Thursday, October 9, 2008 Q:\Jobs\Oklahoma_Projects\SH3\mxd\Report\JurisdictionalWaters_Index.mxd	**Jurisdictional Waters Index Map** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**Exhibit** **7**

JACOBS

Thursday, October 9, 2008
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Jurisdictional Waters Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

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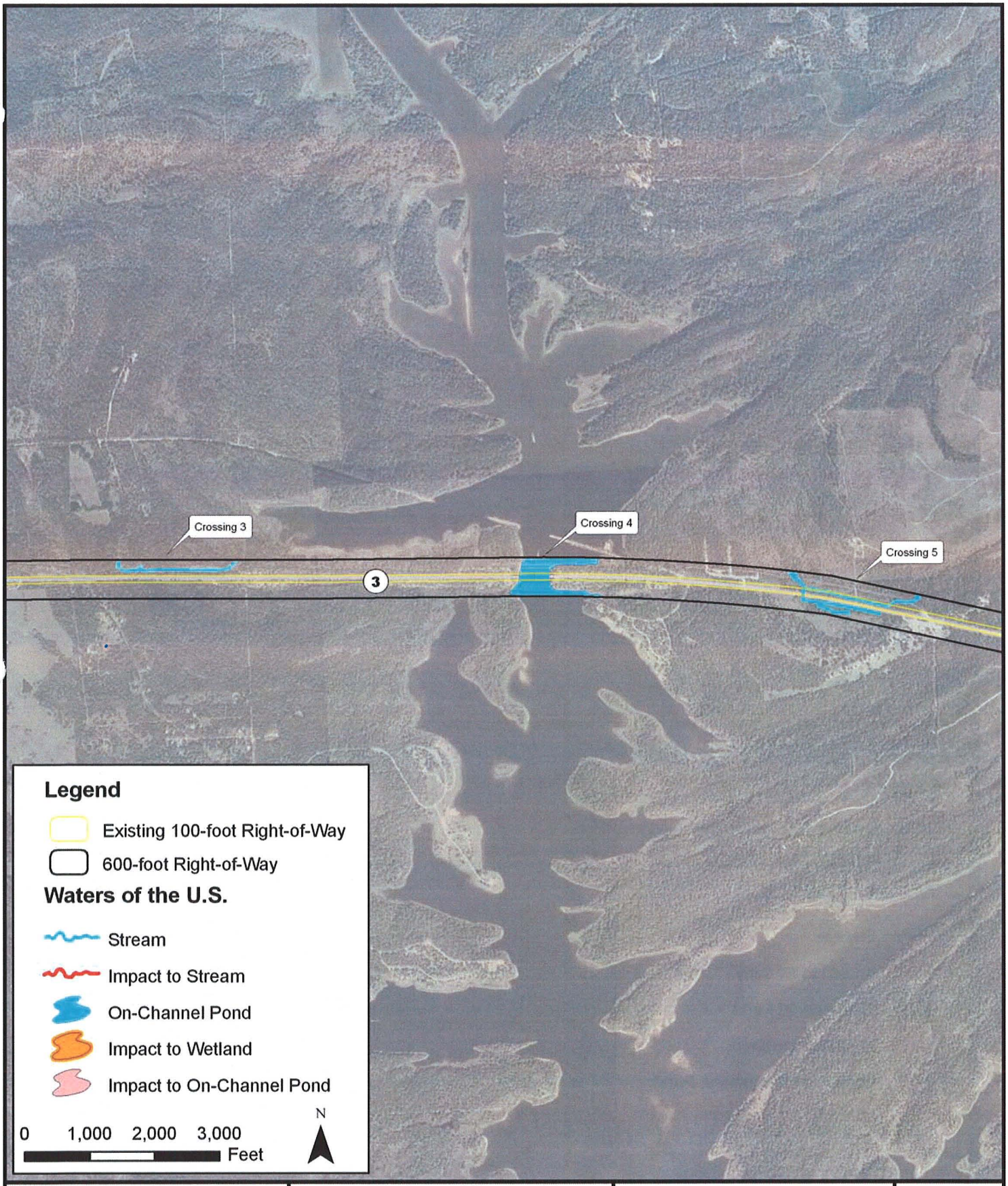
1 of 6



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Jurisdictional Waters Map

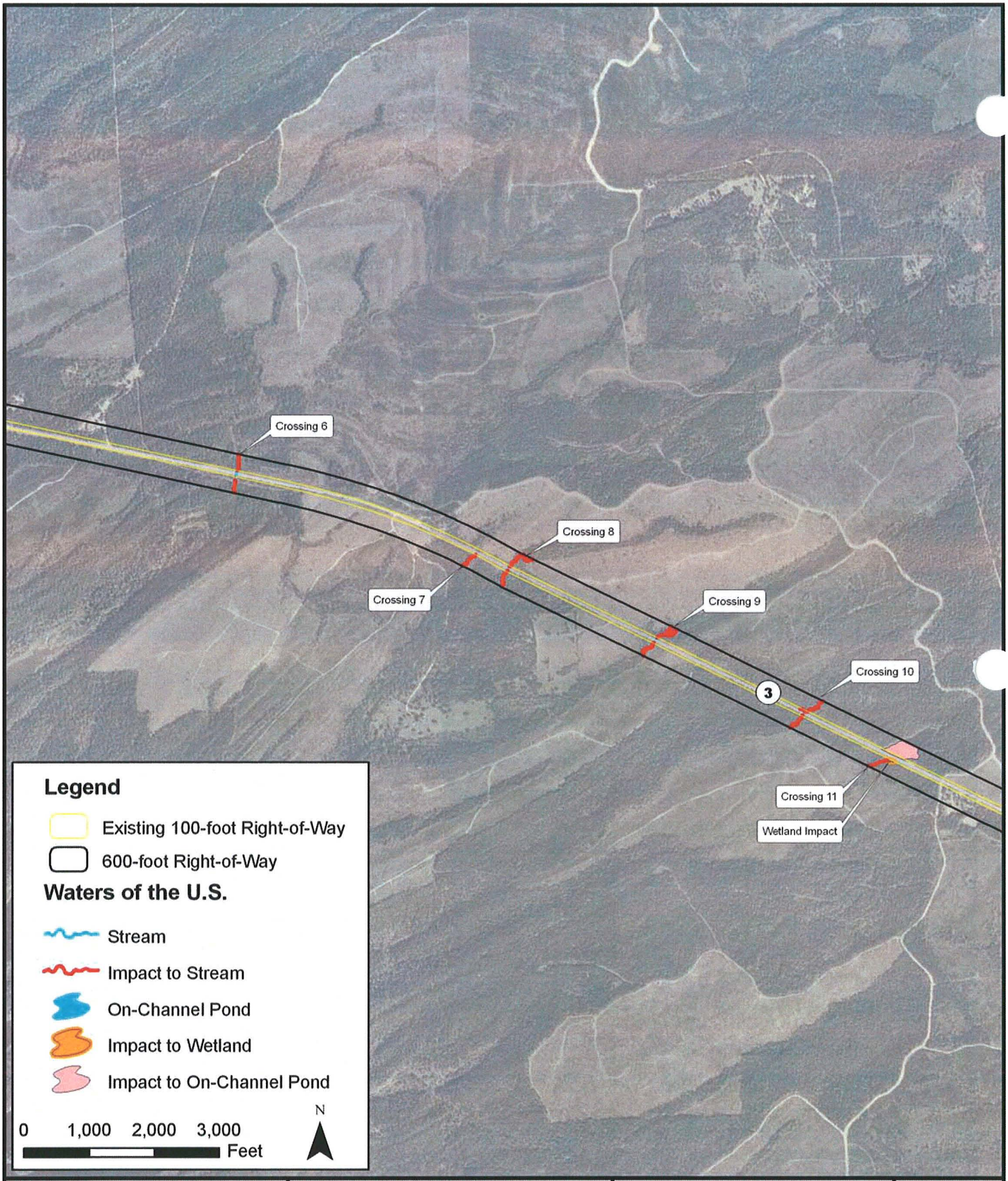
SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

7

2 of 6



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Jurisdictional Waters Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

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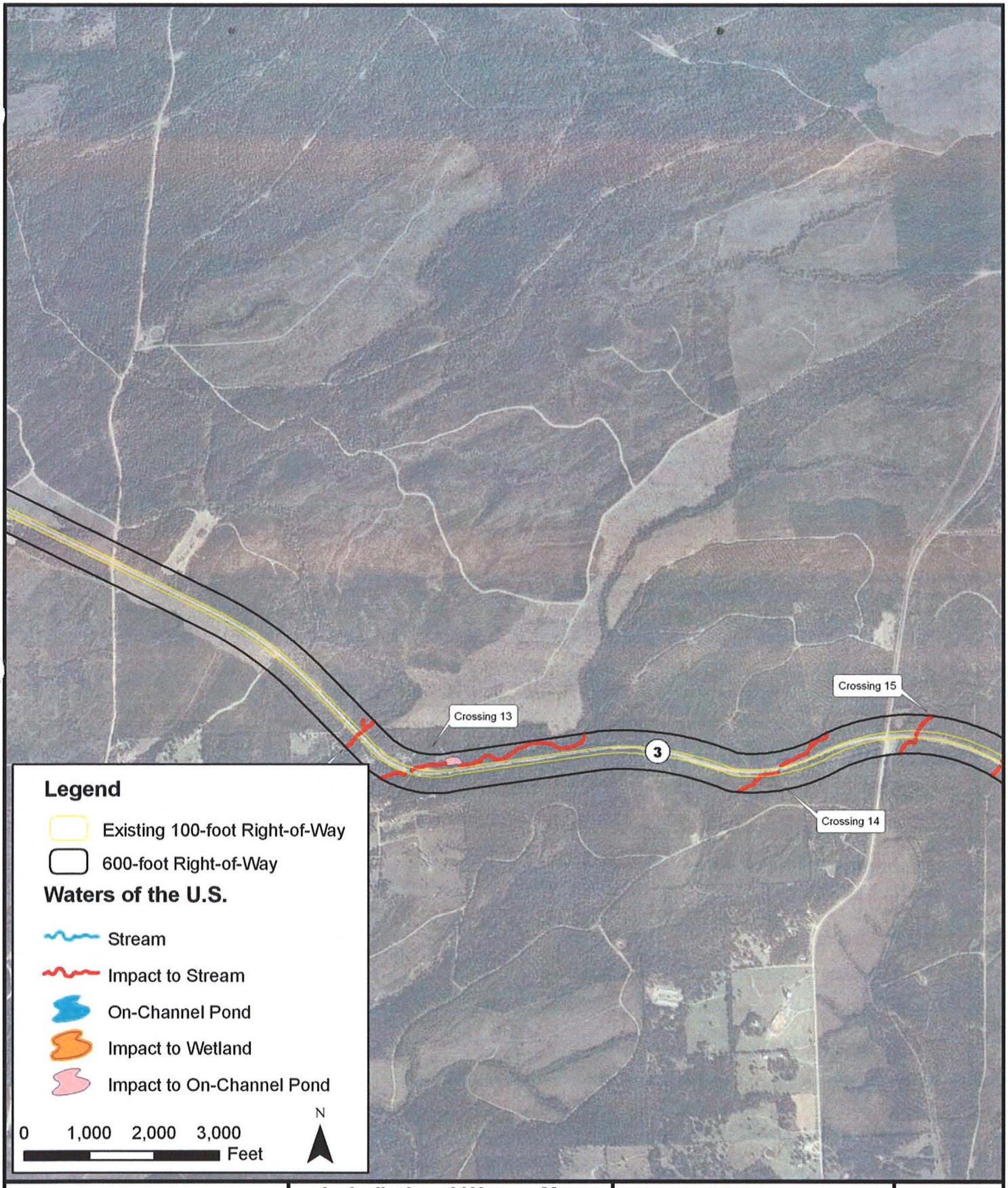
3 of 6



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Jurisdictional Waters Map

SH 3
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Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

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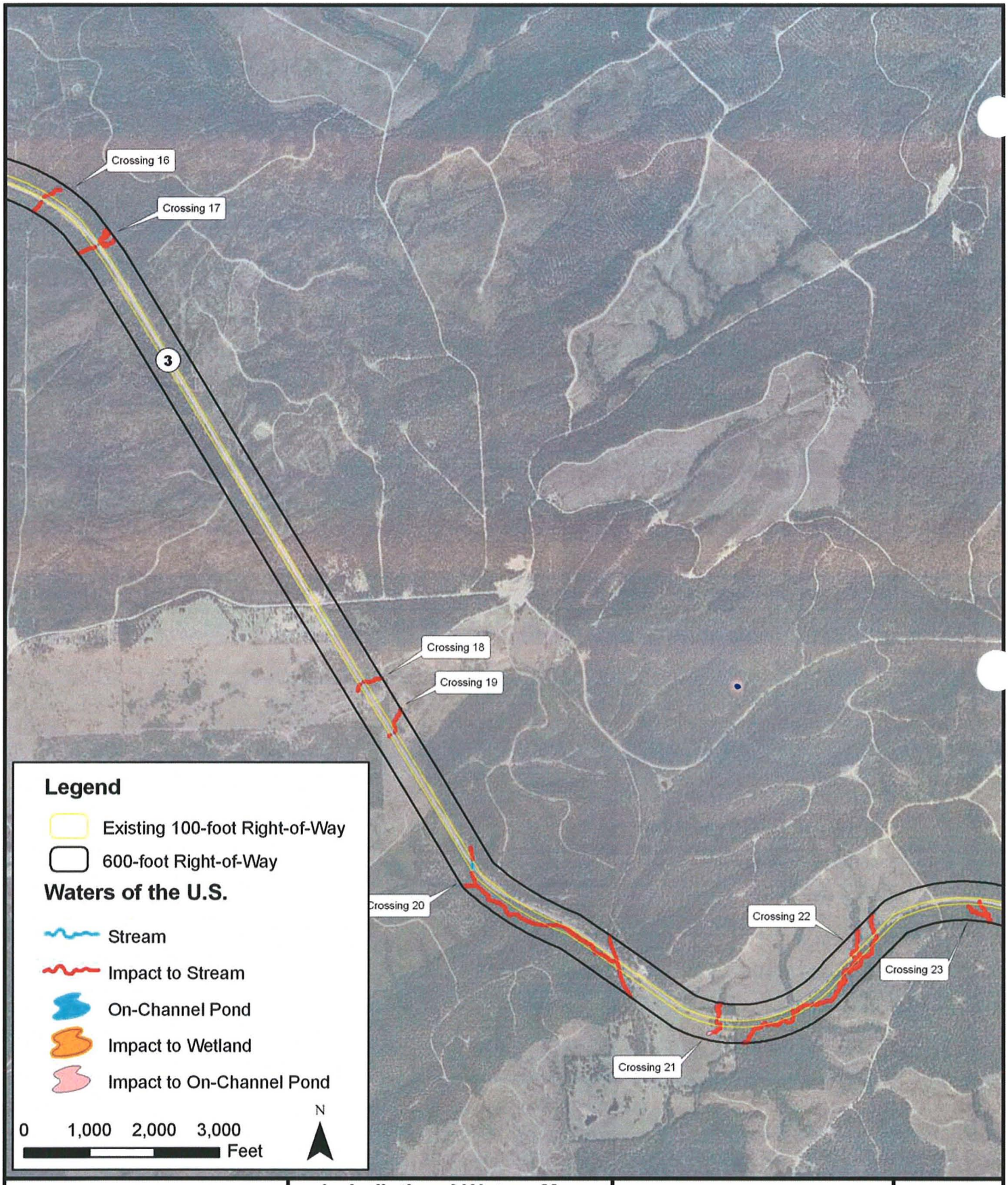
4 of 6



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Jurisdictional Waters Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

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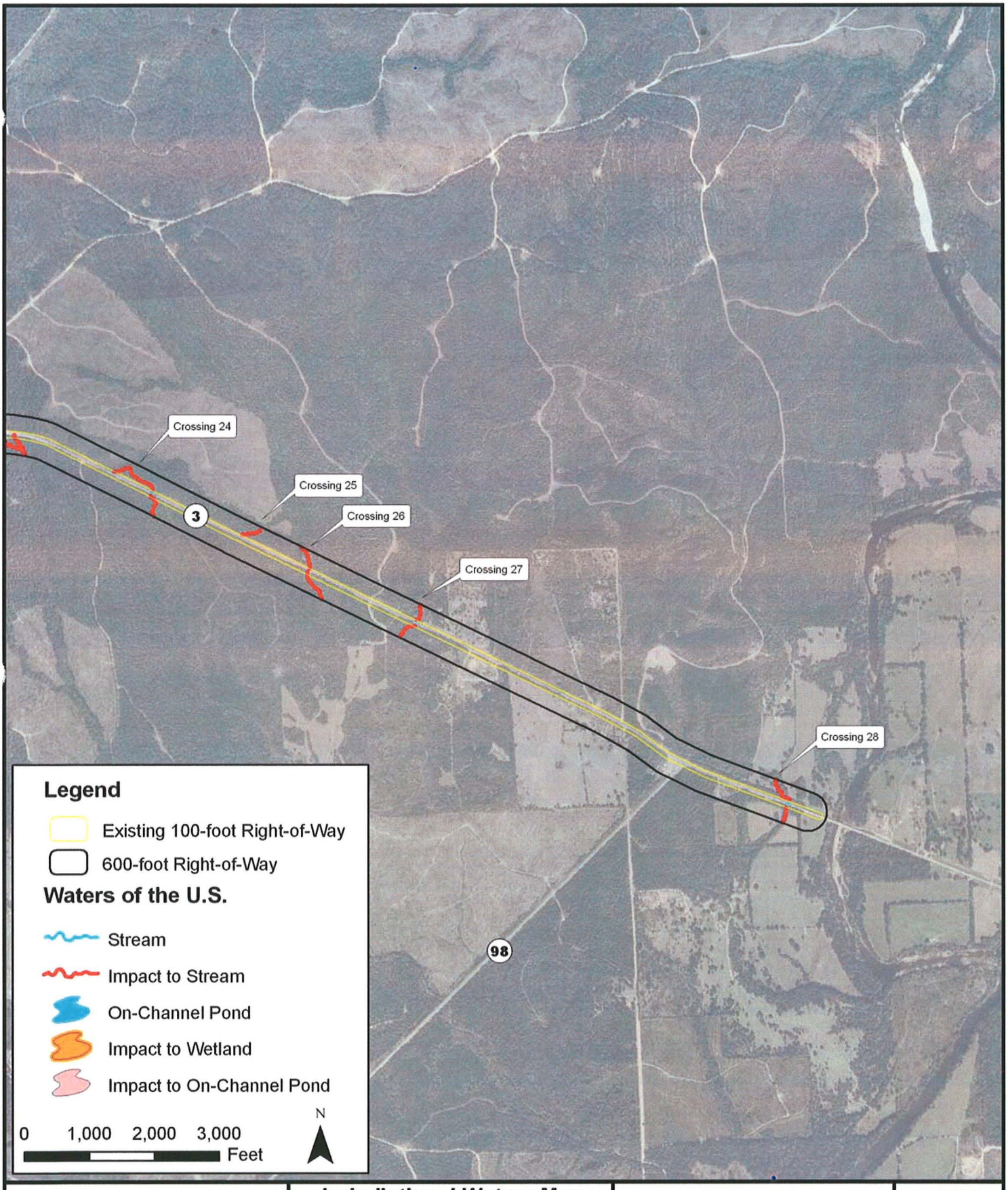
5 of 6



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Thursday, October 9, 2008
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Jurisdictional Waters Map

SH 3
McCurtain and Pushmataha
Counties, Oklahoma
Jacobs Project No. 072654.400

Source:
ESRI Data and Imagery (2008)

Exhibit

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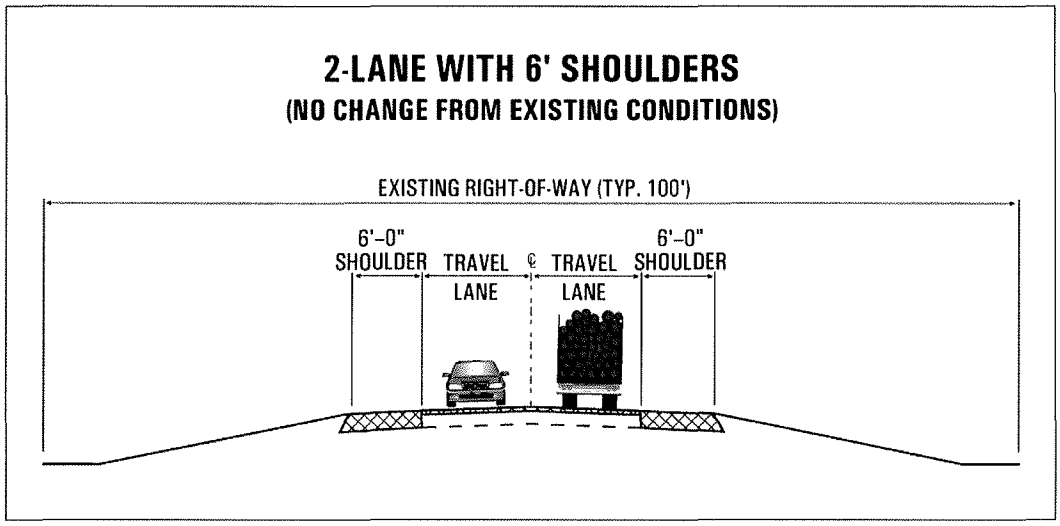
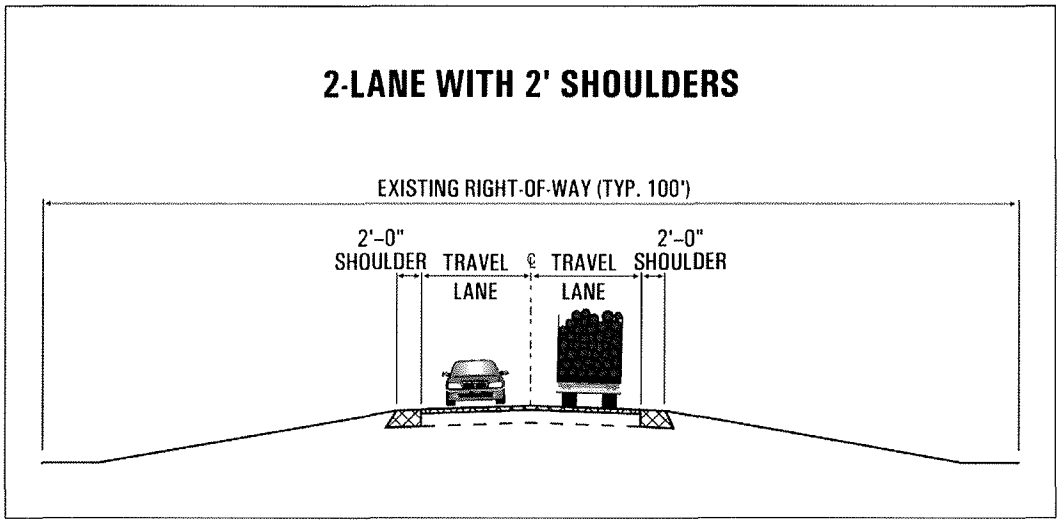
APPENDIX B: CROSS-SECTIONS OF BUILD SECTIONS

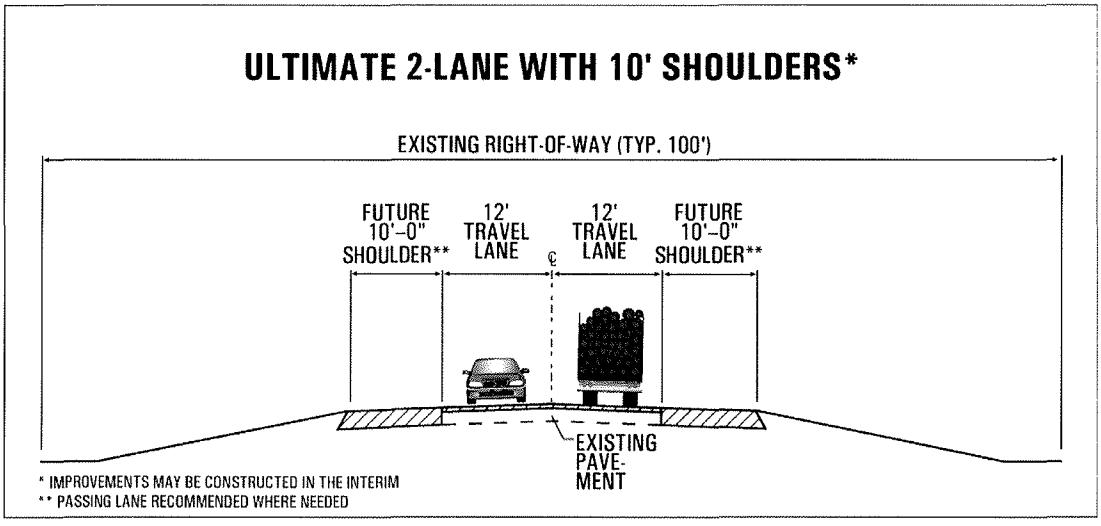
SEGMENT 6



SEGMENT 7 EXISTING



SEGMENT 7



APPENDIX C: PHOTOGRAPHS OF HABITAT TYPES

Photograph 1. Mixed Hardwood/Pine Forest community (October 16, 2007).

Photograph 2. Mixed Pine/Hardwood Forest community (October 17, 2007).

Photograph 3. Pastureland community (October 17, 2007).

Photograph 4. Clear Cut/Pine Regeneration (October 17, 2007).

Photograph 5. Bottomland Hardwood (December 5, 2007).

Photograph 6. Maintained Right-of-Way (October 16, 2007).

APPENDIX D: PHOTOGRAPHS OF JURISDICTIONAL WATER TYPES

Photograph 1. Representative view of ephemeral streams found within project area (December 5, 2007).

Photograph 2. Representative view of ephemeral streams found within project area (December 6, 2007).

Photograph 3. Representative view of intermittent streams found within project area (December 6, 2007).

Photograph 4. Representative view of intermittent streams found within project area (December 6, 2007).

Photograph 5. Representative view of perennial streams found within project area. This photo was taken of Stream 40 (October 17, 2007).

Photograph 6. Representative view of perennial streams found within project area (October 16, 2007).

Photograph 7. Representative view of open water found within project area. This photo was taken of Pine Creek Reservoir (October 16, 2007).

Photograph 8. Representative view of open water found within project area (October 17, 2007).

Photograph 9. Representative view of herbaceous wetland found within project area. This photo was taken of Wetland 1 (October 16, 2007).

APPENDIX E: WETLAND DETERMINATION DATA FORMS

ROUTINE WETLAND DETERMINATION DATA FORM

Wetland Delineation Sheet 1

Project Site: State Highway 3
Applicant/Owner:
Investigator: Bill Knapp and Ryan Ingram

Date: October 16, 2007
County: McCurtain County
State: Oklahoma

Do Normal Circumstances exist on the site?	X	Yes		No	Community ID: Herbaceous Wetland
Is the site significantly disturbed (Atypical Situation)?		Yes	X	No	Transect ID:
Is the area a potential Problem Area? (If needed, explain)		Yes	X	No	Plot ID: Wetland 1

VEGETATION

	Dominant Plant Species	Indicator	Stratum		Dominant Plant Species	Indicator	Stratum
1.	*Cyperus esculentus*	FACW	Herbaceous	9.			
2.	*Eleocharis palustris*	OBL	Herbaceous	10.			
3.	*Polygonum amphibium*	OBL	Herbaceous	11.			
4.	*Rubus trivialis*	FAC	Herbaceous	12.			
5.	*Saururus cernuus*	OBL	Herbaceous	13.			
6.	*Taxodium distichum*	OBL	Tree	14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 6/6 = 100%
Remarks:

HYDROLOGY

_____ Recorded Data Available (Describe in Remarks):
_____ Aerial Photographs
_____ Other
_____ No Recorded Data Available

Field Observations*:

Depth of Surface Water	None	(in.)
Depth to Free Water in Pit:	0.5	(in.)
Depth to Saturated Soil:	0.5	(in.)

Remarks:

Wetland Hydrology Indicators:
Primary Indicators:
_____ Inundated
X Saturated in Upper 12 inches
_____ Water Marks
_____ Drift Lines
_____ Sediment Deposits
X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
X Oxidized Root Channels in Upper 12 inches
_____ Water-Stained Leaves
_____ Local Soil Survey Data
X FAC-Neutral Test
_____ Other (Explain in Remarks)

SOILS

Map Unit Name: Clebit-Carnasaw-Stapp association
Series & Phase: 12 to 20 percent slopes
Drainage Class: Well-drained
Taxonomy Subgroup:
Field Observations Confirm Map Type? X* Yes _____ No
Profile Description:

Depth (in.)	Horizon	Matrix Color	Mottle Colors	Mottle Abundance/ Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/2 and 10 YR 3/1	--		Silty Clay Loam

Hydric Soil Indicators:
_____ Histosol
_____ Histic Epipedon
_____ Sulfidic Odor
_____ Aquic Moisture Regime
_____ Reducing Conditions
_____ Gleyed
X Low-Chroma Colors
_____ Concretions
_____ High Organic Content in Surface Layer in Sandy Soils
_____ Organic Streaking in Sandy Soils
_____ Listed on Local Hydric Soils List
_____ Listed on National Hydric Soils List
_____ Other (Explain in Remarks)

Remarks:
*Delineators are not professional soil scientists; however the soil does appears to match soil survey description.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	X	Yes		No	
Wetland Hydrology Present?	X	Yes		No	Is this Sampling Point within a Wetland? X Yes _____ No
Hydric Soils Present?	X	Yes		No	

Remarks:

ROUTINE WETLAND DETERMINATION DATA FORM

Wetland Delineation Sheet 2

Project Site: State Highway 3 — Date: October 16, 2007
Applicant/Owner: — County: McCurtain County
Investigator: Bill Knapp and Ryan Ingram — State: Oklahoma

			Community ID:	Herbaceous Wetland 1
Do Normal Circumstances exist on the site?	X Yes	No		
Is the site significantly disturbed (Atypical Situation)?	Yes	X No	Transect ID:	
Is the area a potential Problem Area?	Yes	X No	Plot ID:	Wetland 2 – Upland Comparison
(If needed, explain)				

VEGETATION

	Dominant Plant Species	Indicator	Stratum		Dominant Plant Species	Indicator	Stratum
1.	*Bothriochloa ischaemum*	UPL	Herbaceous	9.			
2.	*Cynodon dactylon*	FACU+	Herbaceous	10.			
3.				11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 0/2 = 0%
Remarks:

HYDROLOGY

_____ Recorded Data Available (Describe in Remarks):
_____ Aerial Photographs
_____ Other
_____ No Recorded Data Available

Field Observations*:
Depth of Surface Water: None (in.)
Depth to Free Water in Pit: None (in.)
Depth to Saturated Soil: None (in.)

Remarks:

Wetland Hydrology Indicators:
Primary Indicators:
_____ Inundated
_____ Saturated in Upper 12 inches
_____ Water Marks
_____ Drift Lines
_____ Sediment Deposits
_____ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
_____ Oxidized Root Channels in Upper 12 inches
_____ Water-Stained Leaves
_____ Local Soil Survey Data
_____ FAC-Neutral Test
_____ Other (Explain in Remarks)

SOILS

Map Unit Name: Clebit-Carnasaw-Stapp association — Series & Phase: 12 to 20 percent slopes — Drainage Class: Well-drained
Taxonomy Subgroup: — Field Observations Confirm Map Type? X* Yes _____ No
Profile Description:

Depth (in.)	Horizon	Matrix Color	Mottle Colors	Mottle Abundance/ Contrast	Texture, Concretions, Structure, etc.
0-18		10 YR 2/2	N/A	N/A	Silty Clay loam

Hydric Soil Indicators:
_____ Histosol
_____ Histic Epipedon
_____ Sulfidic Odor
_____ Aquic Moisture Regime
_____ Reducing Conditions
_____ Gleyed
_____ Low-Chroma Colors
_____ Concretions
_____ High Organic Content in Surface Layer in Sandy Soils
_____ Organic Streaking in Sandy Soils
_____ Listed on Local Hydric Soils List
_____ Listed on National Hydric Soils List
_____ Other (Explain in Remarks)

Remarks:
*Delineators are not professional soil scientists; however the soil does appears to match soil survey description.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	_____ Yes	X No		
Wetland Hydrology Present?	_____ Yes	X No	Is this Sampling Point within a Wetland?	_____ Yes X No
Hydric Soils Present?	_____ Yes	X No		

Remarks:

Appendix E:
Cultural Resources Coordination

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FINAL CULTURAL RESOURCES STUDY

For the Environmental Assessment for SH-3 for the proposed addition of shoulders and bridge replacement on SH-3 beginning approximately one mile west of the Pushmataha/McCurtain County Line at the western end of the widened pavement section and extending east approximately 17 miles to the intersection of SH-98, Pushmataha and McCurtain Counties, Oklahoma.

Information regarding the location, character and ownership of cultural resources contained in this section is protected from general public disclosure by Section 304 of the National Historic Preservation Act. Prior authorization pertaining to release of this information must be obtained from the Oklahoma Department of Transportation and the Federal Highway Administration.

Requests for the cultural resources study report prepared for the SH-3 Environmental Assessment must be done so in writing to:

Environmental Programs Division Engineer
Oklahoma Department of Transportation
200 N.E. 21st Street
Oklahoma City, Oklahoma 73105-3204

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Appendix F:
Hazardous Materials Initial Site Assessment

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Oklahoma Department of Transportation

Environmental Programs Division Office 521-3050 Fax 521-6917

DATE: **December 8, 2008**

TO: Right of Way Division

FROM: Environmental Programs Division

SUBJECT: **SH-3 from Pushmataha County to SH-98 (Sections #6 & #7), McCurtain County. J/P No. 24185(04), 24184(04)**

Two active and one former gas stations are located adjacent and south to SH-3. **If right-of-way acquisitions or subsurface utilities are to involve these facilities, the Environmental Programs Division must be notified so that a Preliminary Site Investigation may be conducted.**

- Baldwin and Son Store and Station (3.5 miles east of Pushmataha County Line)
- TJ's Store and Station (9.5 miles east of Pushmataha County Line)
- Former Service Station (16.10 miles east of Pushmataha County Line)

This mitigation measure should be discussed at all pre-work conferences per Policy Directive C-201-2-E(1).

If you have any questions, please contact Greg Worrell at (405) 521-2673.

GAW

Xc: NEPA Project Coordinator
Division 2 Engineer
Project Management Division
Roadway Division
Bridge Division

OKLAHOMA DEPARTMENT OF TRANSPORTATION
HAZARDOUS WASTE & LUST REPORT

Prepared By: Greg Worrell
Survey Date: Jacobs Carter Burgess
Project No.:

Report Date: December 8, 2008
County: McCurtain
J/P Number: 24185(04) & 24184(04)

---

1. PROJECT DESCRIPTION:

Widen SH-3 from one mile east of the Pushmataha County Line east to SH-98.

---

2. LAND USE AND CHARACTERISTICS:

Undeveloped, agricultural, commercial, religious and residential properties.

---

3. PROJECT METHODOLOGY:

A. Records Search:

XXX LUST List

_____ Files at Oklahoma Corporation Commission Viewed

XXX CERCLA List (incl DEQ Voluntary Cleanup Program)

_____ Files at Department of Environmental Quality Viewed

XXX Landfill List

XXX Database Search: EDR (Sept. 5, 2007) in Jacobs Carter Burgess ISA

XXX Other: Aerial Photos

B. Field Investigation Methodology: (by Consultant)

_____ Site not Visited

XXX Site Visited

_____ Interviews Conducted:

C. Results of Field Investigation: (observed by Tetra Tech)

Physical Features In Immediate Project Area (USTs, AST, Others):
USTs, ASTs, former service station, pole-mounted transformers

Contamination (Vegetation Damage, Staining, Sheen, Other):
None Seen other than roadside litter

---

4. RESULTS OF INVESTIGATION:

_____ No Hazardous Waste / LUST site(s) identified in project area.

XXX Suspected Hazardous Waste / LUST site(s) identified in project area.

_____ Known LUST site(s) identified in project area.

---

5. RECOMMENDATIONS:

_____ Approval to Proceed

XXX Approval to Proceed, Pending:

XXX Notify Env. Programs Div. if USTs/ASTs in ROW take or Utilities Area

_____ Plan Notes regarding LUST Site (See Section 6)

_____ Completion of Preliminary Site Investigation.

_____ Approval NOT Recommended.

---

6. MITIGATION NOTES:

See attached Memo regarding USTs and ASTs

---

7. GENERAL COMMENTS:

If ASTs/USTs or Service Station are involved in ROW take or Utilities Area, the Environmental Programs Division must be notified and PSI may be necessary.

Initial Site Assessment

for

State Highway 3
from Pushmataha County Line to SH 98
McCurtain and Pushmataha Counties, Oklahoma

Prepared for and Submitted to:

Oklahoma Department of Transportation
200 N. E. 21st Street
Oklahoma City, OK 73105

Prepared by and Submitted by:

JACOBS
Carter Burgess

November 2008

Dana Ragusa, Environmental Planner
Jacobs Carter Burgess

Craig Carter, P.G.
Jacobs Carter Burgess

Table of Contents

Appendices

List of Tables

1.0 INTRODUCTION

Jacobs Carter Burgess, Inc. (JCB) has conducted an Initial Site Assessment (ISA) for State Highway 3 (SH3) in McCurtain and Pushmataha Counties in Oklahoma. The project limits include SH 3 approximately one mile before the Pushmataha County line to SH 98, for a total project length of approximately 17 miles (see Vicinity Map, **Appendix I**). This ISA was conducted in accordance with the Oklahoma Department of Transportation (ODOT).

In February of 2003, ODOT released the *State Highway 3 Corridor Study* which detailed the feasibility of reconstructing SH3 from Antlers to Broken Bow in Pushmataha and McCurtain Counties. For analysis reasons, the report divided this 55 mile span of SH3 into 10 Segments. This assessment examines the potential for reconstruction of the eastern portion of the 2003 project corridor, spanning 17 miles and consisting of Segments 6 & 7 (see Build Alternative Segment Map, **Appendix I**).

ODOT conducted an alternatives screening analysis to identify a recommended alignment either north or south of the existing roadway that avoided or minimized adverse impacts to environmental resources for improvements to each segment. The assessment area included 300 feet on both sides of SH 3 centerline, for a total project corridor width of 600 feet. If future realignment or reconstruction is needed beyond what is proposed, then it was recommended that the alignment for segment 7 be shifted to the south to avoid or minimize impacts to environmental resources. Therefore, this assessment is based on the Preferred Alternative (alignment to the south).

1.1 Purpose

The purpose of the ISA was to evaluate current and past uses of the proposed project area and its surroundings assessing the potential for *recognized environmental conditions* that could be the result of current or historical activities within the boundaries of the proposed project. Specifically, the objective of the ISA was to identify potential sites, as well as conditions that might indicate an existing release, a past release, or a material threat of a release of hazardous waste or petroleum products into the ground, groundwater, or surface water in the vicinity of the proposed project.

1.2 Special Terms and Conditions

This ISA is qualitative in nature, based on available existing information, records searches, and field observations. Field observations were limited to reconnaissance of the study area and a windshield survey of adjacent properties. This assessment does not include the collection or analysis of soil, air, water, or material samples. In addition and as specified by ODOT, easements, leases, recorded waste management units, and environmental liens were not conducted as a part of this scope of services.

The ISA report is presumed to be valid for 180 days without updating certain components of the inquiries.

1.3 Methodology

The project study corridor was inspected by an environmental professional via pedestrian and vehicular reconnaissance. The surrounding areas were observed via windshield survey due to limited access. Sites with the potential for *recognized environmental conditions* are shown on the maps in **Appendix II**.

A review of federal and state regulatory databases was performed prior to conducting a field survey to locate potential *recognized environmental conditions* within the project corridor. Environmental Data Resources Inc. (EDR) maintains the regulatory agency database. A report was generated by EDR which meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-05. The EDR report was reviewed to obtain available information pertaining to hazardous waste activity.

Note that this database search should be considered as an initial screening of certain available public documents for the possible presence of *recognized environmental conditions* that may warrant further study. These limitations should be recognized when consideration is given to various alternatives for future actions.

Photographs of the study corridor and potential *recognized environmental conditions* are included in **Appendix III**.

2.0 PREVIOUS ENVIRONMENTAL ASSESSMENTS

This ISA did not reveal the existence of any previously conducted ISAs, environmental site assessments, or preliminary site assessments for the proposed vicinity.

3.0 PROJECT SETTING

The project area is located on SH 3 from approximately one mile before the McCurtain County line to SH 98 in McCurtain and Pushmataha Counties, Oklahoma. The project corridor land uses consists of agricultural, commercial, residential, religious, and interstate highway right-of-way. Roadside trash was observed along SH 3 which consisted of tire pieces and household trash.

Soil maps from the National Resources Conservation Service (NRCS) were reviewed to determine soil types within the project corridor (see **Table 1** and **Table 2** below).

Table 1: Soil types within Pushmataha County along SH 3 corridor

Soil Unit Symbol	Soil Unit Name
1	Alikchi loam, 1 to 3 percent slopes
8	Boggy fine sandy loam, 0 to 1 percent slopes, frequently flooded
22	Dela fine sandy loam, 0 to 2 percent slopes, frequently flooded
25	Guyton silt loam, 0 to 1 percent slopes, occasionally flooded
30	Kullit fine sandy loam, 0 to 1 percent slopes
37	Pushmataha loam, 0 to 1 percent slopes, occasionally flooded
38	Pushmataha, Elysian, and Guyton soils, 0 to 3 percent slopes
41	Ruston loamy fine sand, 3 to 8 percent slopes
43	Ruston fine sandy loam, 3 to 5 percent slopes
48	Shermore fine sandy loam, 3 to 5 percent slopes, eroded

49	Sherwood – Zafra association, 3 to 5 percent slopes
50	Sherwood – Zafra association, 5 to 12 percent slopes
51	Smithdale fine sandy loam, 5 to 8 percent slopes
52	Sobol clay loam, 3 to 5 percent slopes
53	Sobol – Tuskahoma association, 8 to 12 percent slopes
55	Tuskahoma – Clebit – Sobol association, 8 to 12 percent slopes

Table 2: Soil types within McCurtain County along SH 3 corridor

Soil Unit Symbol	Soil Unit Name
Ad	Adaton loam, 0 to 3 percent slopes
AkB	Alikchi loam, 0 to 3 percent slopes
BlB	Blevins fine sandy loam, 1 to 3 percent slopes
Bk	Boggy – Pushmataha complex, 0 to 1 percent slopes, frequently flooded
ChA	Cahaba fine sandy loam, 0 to 1 percent slopes
CmE	Carnasaw – Clebit association, 12 to 20 percent slopes
CnD	Carnasaw – Zafra complex, 1 to 8 percent slopes
Cr	Ceda – Rubble land complex, 0 to 2 percent slopes, frequently flooded
Fr	Frizzell loam, 0 to 1 percent slopes, occasionally flooded
GsE	Clebit – Carnasaw – Stapp association, 12 to 20 percent slopes
Gu	Guyton silt loam, 0 to 1 percent slopes, frequently flooded
Gy	Guyton – Elysian complex, 0 to 3 percent slopes
KuB	Kullit fine sandy loam, 1 to 3 percent slopes
Oc	Dela fine sandy loam, 0 to 1 percent slopes, occasionally flooded
PcE	Pickens gravelly silt loam, 5 to 15 percent slopes
PeB	Pickens – Alikchi complex, 0 to 3 percent slopes
Re	Rexor loam, 0 to 1 percent slopes, occasionally flooded
RuD	Ruston fine sandy loam, 3 to 8 percent slopes
SeC	Saffell gravelly fine sandy loam, 1 to 5 percent slopes
SeE	Saffell gravelly fine sandy loam, 5 to 12 percent slopes
Sf	Sallisaw loam, 0 to 1 percnet slopes
ShB	Sherwood fine sandy loam, 1 to 3 percent slopes
ShC	Sherwood fine sandy loam, 3 to 5 percent slopes
SmC	Sherwood – Zafra complex, 1 to 5 percent slopes
TfC	Tiak fine sandy loam, 3 to 5 percent slopes
TfD	Tiak fine sandy loam, 5 to 8 percent slopes
TkE	Tiak – Ruston complex, 5 to 15 percent slopes

4.0 HISTORIC AERIAL PHOTO REVIEW

Historic aerial photographs for the years 1978, 1984, and 2004 were reviewed from the Oklahoma Division of Forestry for interpretation as to current and past uses of the project area and adjoining properties.

The 1978 aerials showed all major roadways (SH 3, Hwy 98, Old Hwy 98) were present. The majority of the land use adjacent to SH 3 consisted of scattered residential development, agricultural, and undeveloped lands. The 1984 aerials showed an increase in minor roadways and residential development. The 2004 aerials showed the project area and surrounding areas similar to present day.

Sanborn Fire Insurance Maps were not available for this area in Oklahoma.

5.0 REGULATORY DATABASE REVIEW

5.1 Federal, State, and Local Environmental Regulatory Records

This ISA provides a hazardous materials (soil contamination, product storage, hazardous waste sites, or other potential liabilities) inventory of potential hazardous/regulated sites and their locations in the vicinity of the SH3 corridor. Environmental records reviewed for the proposed project and surrounding properties included records maintained by the U.S. Environmental Protection Agency (EPA), Oklahoma Department of Environmental Quality (DEQ), the Oklahoma Water Resources Board (OWRB), and the Oklahoma Corporation Commission (OCC).

At the national level, control of hazardous materials is overseen by the EPA. The EPA maintains several databases of information regarding hazardous waste sites to aid in classification, prioritization, and cleanup of the identified facilities. For this project, EPA databases were reviewed for facilities providing notification of hazardous waste activity under the Resource Conservation and Recovery Information System (RCRIS) to include RCRIS Corrective Action Sites (CORRACTS). EPA databases were also reviewed for sites on the Comprehensive and Liability Act (CERCLA) National Priorities List (NPL); potential or abandoned hazardous waste sites maintained on the CERCLA Information System (CERCLIS); CERCLIS No Further Remedial Action Planned (CERC-NFRAP); and spill incidents reported on the Emergency Response Notification System (ERNS). As a supplement to the EPA databases, the following databases were also reviewed: Superfund (CERCLA) Consent Decrees (CONSENT); Records of Decision (ROD); the National Priority List Deletions (Delisted NPL); Material Licensing Tracking system (MLTS); Mines Master Index File (MINES); Federal Superfund Liens (NPL Liens); RCRA Administrative Action Tracking System (RAATS); Toxic Chemical Release Inventory System (TRIS); Toxic Substances Control Act (TSCA); and Section 7 Tracking Systems (SSTS).

The DEQ, OWRD, and the OCC have authority under the EPA for facilities operating and managing various hazardous waste activities within the State of Oklahoma. These state agencies maintain the databases to aid in management of these facilities. For this project, the DEQ databases were reviewed for hazardous and solid waste management facilities, State Equivalent Priority List (SPL), State Equivalent CERCLIS List (SCL), municipal solid waste landfills, brownfields, air quality records, toxic release inventory, and spill incident reports. The OCC's existing databases were reviewed for aboveground petroleum storage tanks (AST) and underground petroleum storage tanks (UST), leaking underground petroleum storage tanks (LUST), and oil and gas wells activities. The database for existing state groundwater wells was obtained through the OWRB.

The locations of known or potential hazardous materials/waste sites within the proposed project area are shown on the map of Sites with Potential *Recognized Environmental Conditions* in **Appendix II**.

5.2 Hazardous Material Database Search

A hazardous material/waste data search and survey of pre-existing hazardous waste sites within the study area was conducted to identify potentially contaminated sites located within

the boundaries of the proposed project. The EDR database report includes all listed sites near the City of Broken Bow. Due to the rural setting of segments 6 & 7 this area was not included in the database search. EPA holds all files for listed properties with *recognized environmental conditions*. Therefore, EPA files were searched for all observed properties with potential *recognized environmental conditions*.

6.0 UNLISTED SITES

The following sites were observed within a ¼ mile radius of the project corridor and are listed in the EDR report as orphan sites. Sites listed as orphan sites can not be located by the address listed for the facility or the site is outside of the radius search.

Little Oklahoma Quick Stop - This facility is located on the south side of SH3. At the time of the field visit, this facility was in service. According to the EDR report, this facility is listed as having ASTs. However, no known records were found in federal or state databases for this facility. Improvements are not proposed for segment 6. Therefore, since this site is located ¼ mile west of the segment 6 terminus, this site does not pose a risk to the study area.

Baldwin and Son Store and Station - This facility is located on the south side of SH3. At the time of the field visit, this facility was in service. According to the EDR report, this facility is listed as having ASTs. Records searched on the Oklahoma Conservation Commission website indicated that this facility had several violations. However, the status of these violations is unknown. The severity of the violations can vary from a minor administration issue to a major violation such as a leaking storage tank. Therefore, further assessment is recommended prior to construction to determine the status of the violation and if remedial action is required. This site is rated as a low risk to the study area.

TJ's Store and Station - This facility is located at the intersection of SH3 and Old Highway 98. At the time of the field visit, this facility was in service. According to the EDR report, this facility is listed as having USTs. The building adjacent to this station was not in service and appeared to have abandoned ASTs. The quantity and substance of the storage tanks are unknown. Records searched on the Oklahoma Conservation Commission website indicated that this facility had several violations. However, the status of these violations is unknown. The severity of the violations can vary from a minor administration issue to a major violation such as a leaking storage tank. Therefore, further assessment is recommended prior to construction to determine the status of the violation and if remedial action is required. This site is rated as a low risk to the study area.

Potential Former Service Station - This facility is located at the intersection of SH3 and Highway 98. At the time of the field visit, this facility was not in service and appeared to have abandoned ASTs. The quantity and substance of the storage tanks are unknown. No known records were found in federal or state databases for this facility. Therefore, further assessment is recommended to determine if there were violations and/or remedial action has been completed for this site. This site is rated as a low risk to the study area.

The locations of known or potential hazardous materials/waste sites within the project corridor are shown on the map of Sites with Potential *Recognized Environmental Conditions*, **Appendix II**.

Photos of these facilities can be found in **Appendix III**.

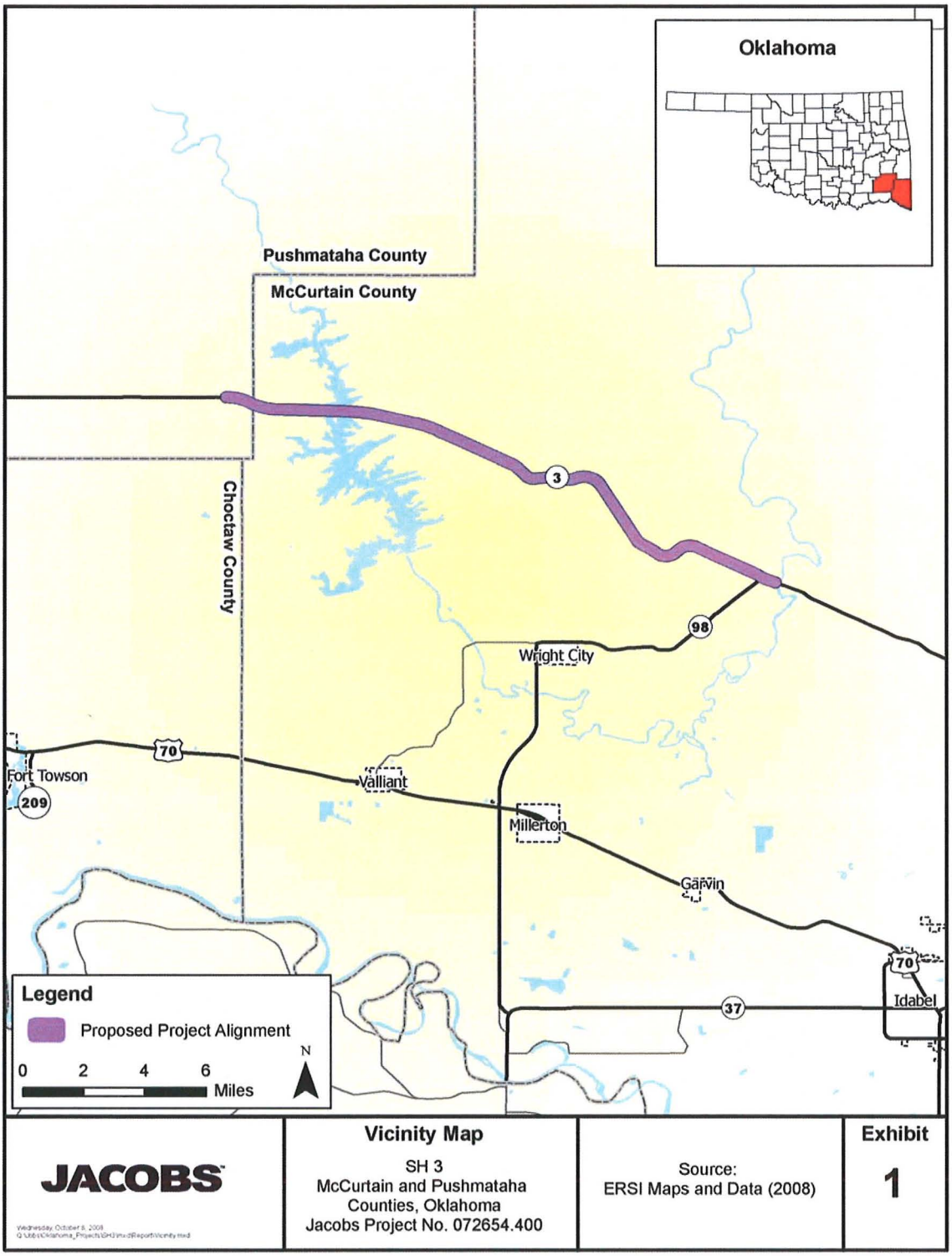
Powerlines and several pole-mounted transformers were observed on the north and south sides of SH 3. These transformers seem to be in good condition. No rusting or leaking was observed and the vegetation underneath each transformer appeared healthy. If any transformers must be removed, relocated or replaced during construction, the owner(s) should be notified to inspect the transformers for leaks and properly remediate any contaminated soil.

7.0 SUMMARY

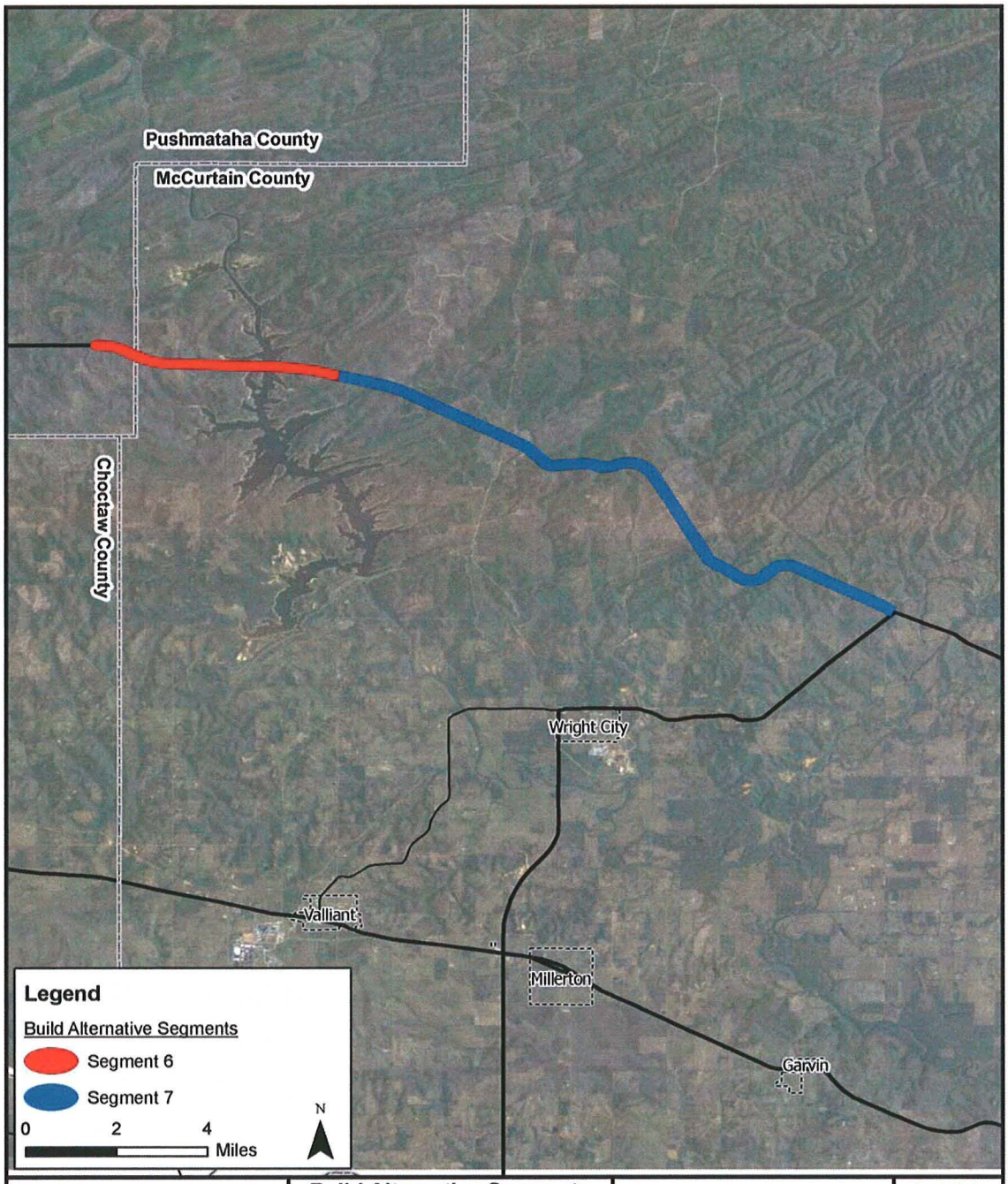
JCB has performed an Initial Site Assessment for segments 6 & 7 along the SH 3 project corridor, located in McCurtain and Pushmataha Counties, Oklahoma. If future realignment or reconstruction is needed beyond what is proposed, then it was recommended that the alignment for segment 7 be shifted to the south to avoid or minimize impacts to other environmental resources. However, there are several listed sites with potential *recognized environmental conditions* located south of the proposed alignment. These sites have been rated as having a low risk to the right-of-way since known information for these sites was unavailable. Therefore, JCB recommends further investigation of *recognized environmental conditions* be performed where acquisitions of property are planned as part of the project. Further, investigation is recommended for *recognized environmental conditions* in areas where subsurface excavation is planned for the project.

Subsurface contamination may exist for which there are no surface indicators. Excavations in the vicinity of these sites should be carefully observed for indications of contamination (stained soil, petroleum or chemical odors, drums, debris, etc.). When structures are removed, caution should be taken to identify potential asbestos.

Appendix I: Location and Segment Maps



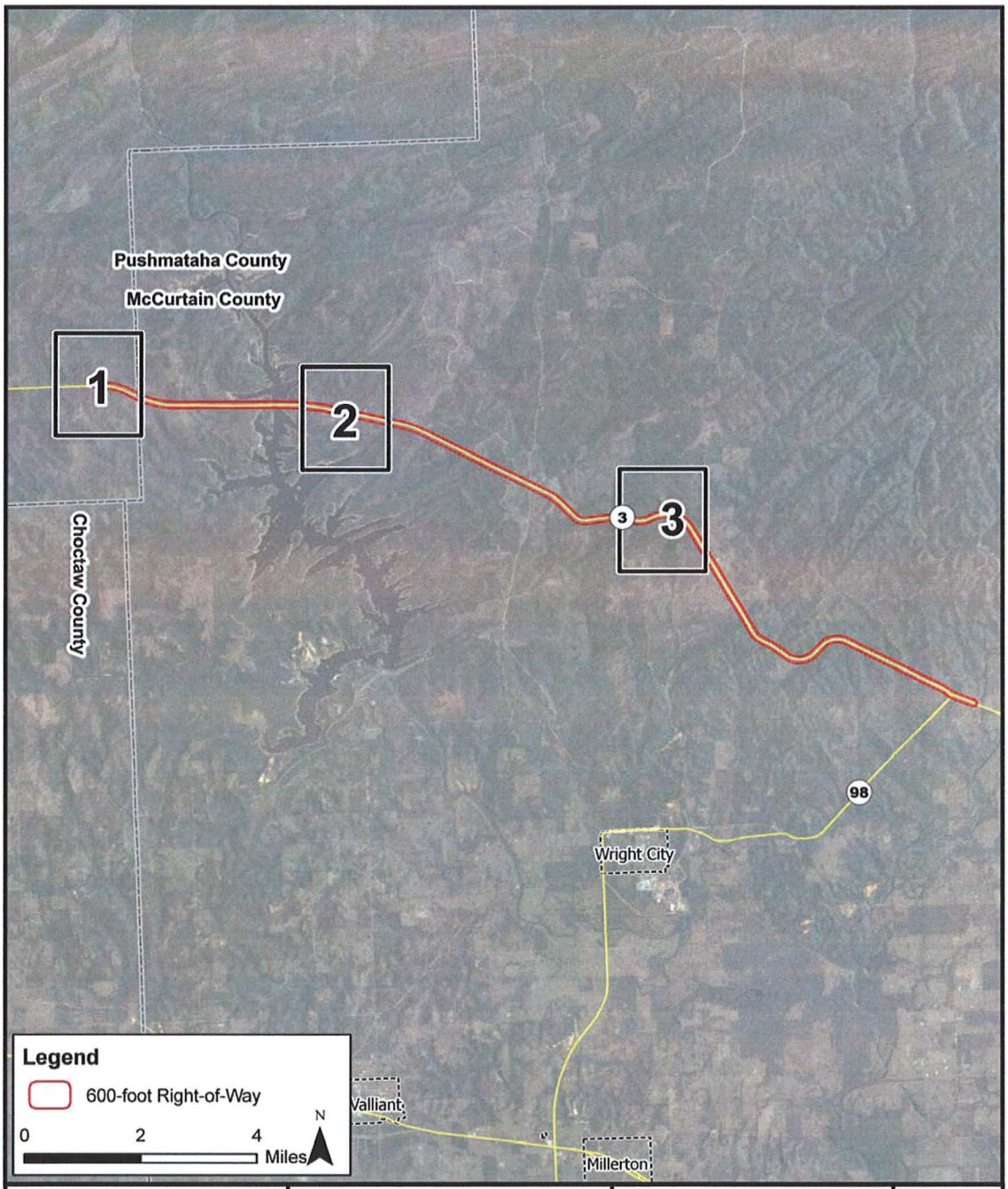
JACOBS	Vicinity Map SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ERSI Maps and Data (2008)	Exhibit 1



JACOBS	**Build Alternative Segments** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**Exhibit** **2**

Wednesday, October 8, 2008
Q:\Jobs\Oklahoma_Projects\SH3\mxd\Report\Build_Alternative_Segments.mxd

Appendix II: Sites with Potential Recognized Environmental Conditions



JACOBS Monday, October 27, 2008 Q:\Jobs\Oklahoma_Projects\SH3\mxd\Report\HazMat_Index.mxd	**Sites with Potential RECs Index Map** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**Index**

JACOBS Monday, October 27, 2008 Q:\Jobs\Oklahoma_Projects\SH3.mxd\Report\HazMat_Sheets.mxd	**Sites with Potential RECs** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**1 of 3**

JACOBS Monday, October 27, 2008 Q:\Jobs\Oklahoma_Projects\SH3.mxd\Report HazMat_Sheets.mxd	**Sites with Potential RECs** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**2 of 3**

JACOBS Monday, October 27, 2008 O:\Jobs\Oklahoma_Projects\SH3.mxd\Report\HazMat_Sheets.mxd	**Sites with Potential RECs** SH 3 McCurtain and Pushmataha Counties, Oklahoma Jacobs Project No. 072654.400	Source: ESRI Data and Imagery (2008)	**3 of 3**

Appendix III: Photographs

Initial Site Assessment
State Highway 3 Oklahoma Segments 6 & 7
Photographs 2007

SH3 Corridor

Little Oklahoma Quick Stop

Baldwin and Son Store and Station

TJ's Store and Station

Abandoned Gas Station – SH3 and Hwy 98

Appendix G: Solicitation Letters

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September 7, 2007

[Name]
[Title]
[Street Address]
[City, State, Zip]

Re: State Highway 3 Proposed Improvements

Dear [Name]:

The Oklahoma Department of Transportation (ODOT) is soliciting comments on the proposed improvements to State Highway 3 (SH 3) from the western end of the widened pavement section approximately 1 mile west of the Pushmataha County line to the city of Broken Bow in McCurtain County, Oklahoma (see attached map). A corridor study was completed in February of 2003 and the Department is now proceeding with the necessary environmental study in accordance with the National Environmental Policy Act. Any comments relative to the social, economic, or environmental effects of this proposal are encouraged.

The existing SH 3 is a two-lane roadway, exhibiting low sufficiency ratings and nearing or exceeding its capacity in some sections. The Department proposes to reconstruct the highway to improve safety, operational function and capacity. The Environmental Assessment will explore a variety of options and their impacts on social and environmental resources in order to assist the planning team in finding the best possible alternative that will meet the goals, purpose and need for this project.

To allow adequate time for evaluation of your suggestions, we would appreciate receiving your comments within 15 days from the date of this letter. Your written comments should be directed to the Planning and Research Division Engineer, Oklahoma Department of Transportation, 200 Northeast 21st Street, Rm. 3-A7, Oklahoma City, Oklahoma 73105.

We sincerely appreciate your cooperation in this matter. Should you desire any additional information please contact our consultant, Wendy Wallach at (303) 820-4807 or wendy.wallach@c-b.com.

Sincerely,

Dawn R. Sullivan, P.E.
Planning and Research Division Engineer

Attachment: Project Area Map

Jerry Don Smith, Mayor
City of Broken Bow
210 N. Broadway
Broken Bow, OK 74728

Brenda Reich, Mayor
Town of Wright City
P.O. Box 370
Wright City, OK 74766-0370

Brent Franks, Mayor
City of Antlers
100 SE 2nd Street
Antlers, OK 74523-4000

Joel Taylor, City Manager
City of Antlers
101 SE 2nd Street
Antlers, OK 74523-4001

Board of County Commissioners,
Pushmataha County
County Courthouse, 203 SW 3rd Street
Antlers, OK 74523-3809

Carolyn Baker, City Manager
City of Broken Bow
210 N. Broadway
Broken Bow, OK 74728

Joretia Smith, Mayor
Town of Rattan
P.O. Box 269
Rattan, OK 74562-0269

Jerry Shinn, Mayor
City of Idabel
201 E. Main
Idabel, OK 74745-4875

Board of County Commissioners,
McCurtain County
County Courthouse,PO Box 1078
Idabel, OK 74745-1078

Chester Dennis, Executive Director
KEDDO
P.O. Box 638
Wilburton, OK 74578-0638

Wright City School District
P.O. Box 329
Wright City, OK 74766

Broken Bow School District
108 W. 5th Street
Broken Bow, OK 74728

Valiant School District
604 E. Lucas Street
Valiant, OK 74764

Glover School District
R.R. 3 Box 385
Broken Bow, OK 74728

Lukfatta School District
R.R. 2 Box 649
Broken Bow, OK 74728

Rattan School District
P.O. Box 44
Rattan, OK 74562

James Allard, Field Office Manager,
OKC
Bureau of Reclamation
5924 NW 2nd Street, Ste. 200
Oklahoma City, OK 73127

Michael J. Ryan, Regional Director
Bureau of Reclamation
P.O. Box 36900
Billings, MT 59107

Philip Keasling,
Bureau of Land Management,
Oklahoma Resources Area
221 North Service Road
Moore, OK 73160-4946

Mary Lou Drywater, Field Station
Manager
Bureau of Land Management
221 N. Service Road
Moore, OK 73160-4946

John Melholf, Field Office Manager
Bureau of Land Management
7906 E. 33rd Street, Suite 101
Tulsa, OK 74145-1352

Linda Rundell, State Director
Bureau of Land Management
P.O. Box 27115
Santa Fe, NM 87502-0115

Bridge Management
U.S. Coast Guard
Eighth Coast Guard District
500 Poudras Street
New Orleans, LA 70130

Gary D. Carino, Division Administrator
Federal Highway Administration
300 N. Meridian, Room 105S
Oklahoma City, OK 73107-6560

Cathy Gilmore, Nepa Coordinator
USA EPA, Region 6
Compliance Assurance & Enforcement
Division
1445 Ross Avenue
Dallas, TX 75202-2733

David Manning, Regulatory Branch Chief
Tulsa District Corps of Engineers
Environmental Analysis Section
1645 S. 101 E. Avenue
Tulsa, OK 74128-4629

Colonel Anthony Funkhouser
District Engineer
Tulsa District Corps of Engineers
1646 S. 101 E. Avenue
Tulsa, OK 74128-4629

Larry Houge, Chief
Tulsa District Corps of Engineers
Planning, Environmental & Regulatory
1647 S. 101 E. Avenue
Tulsa, OK 74128-4629

Jeanette Hanna, Regional Director
Bureau of Indian Affairs
Eastern OK Regional Office
101 North 5th Street
Muskogee, OK 74401

Dan Deerinwater, Director
Bureau of Indian Affairs
South Plains Regional Office, WCD
Office Complex
PO Box 368
Anadarko, OK 73005

Jerry Brabander, Field Supervisor (ES)
US Fish & Wildlife Service
9014 East 21st Street
Tulsa, OK 74129-1428

Mark Yachmetz, Assoc. Administrator
Railroad Development
Federal Railroad Administration
Office of Railroad
1120 Vermont Avenue - Mail Stop 20
Washington, DC 20590

Mike Snyder, Regional Director
National Park Service
Intermountain Region Office, Planning & Environmental Quality
12795 W. Alameda Parkway
Lakewood, CO 80228

Victor N. Bird, Director
Oklahoma Aeronautics Commission
3700 North Classen Blvd., Suite 240
Oklahoma City, OK 73118

Margaret M. Graham, Environmental Review Coordinator
D.E.Q. - Customer Assistance Program
PO Box 1677
Oklahoma City, OK 73101

Mike Thralls, Executive Director
Oklahoma Conservation Commission
2800 North Lincoln Blvd.
Oklahoma City, OK 73105

Dr. Charles J. Mankin, Director
Oklahoma Geological Survey
100 East Boyd, Room N-131
Norman, OK 73019-0628

Gary Ridley, Director
Oklahoma Department of Transportation
200 Northeast 21st Street
Oklahoma City, OK 73105-3204

The Honorable James M. Inhofe
United States Senate
453 Russell Senate Office Building
Washington, DC 20510-3603

The Honorable Jeff W. Rabon
State Senate
2300 North Linclon Boulevard,
Room 522
Oklahoma City, OK 73105

Regional Director
US Fish & Wildlife Service
Ecological Services Regional Office
PO Box 1306
Albuquerque, NM 87103

Federal Railroad Administration
Region 5
4100 International Plaza, Ste. 450
Fort Worth, TX 76109-4820

Steve Spencer, Regional Director
U.S. Department of the Interior
PO Box 26567
Albuquerque, NM 87125-6567

Lori Wrotenbery,
Oil & Gas Conservation Division
Oklahoma Corporation Commission, Jim Thorpe Building
2101 North Lincoln Blvd.
Oklahoma City, OK 73105

Clayton Robertson/Carolyn Sullivan,
Oklahoma Department of Commerce
900 North Stiles
Oklahoma City, OK 73104

Commissioner Terry L. Peach, Secretary of Agriculture
Department of Agriculture
2801 North Lincoln Blvd.
PO Box 54298
Oklahoma City, OK 73105-4298

Dr. Robert Brooks,
Oklahoma Archaeological Survey
111 East Chesapeake, Building 134
Norman, OK 73019-5111

Kristina S. Marek, Director
Oklahoma Tourism & Recreation Department
First National Center
120 North Robinson Avenue, Ste. 600
Oklahoma City, OK 73102

The Honorable Tom A. Coburn
United States Senate
172 Russell Senate Office Building
Washington, DC 20510-3603

The Honorable Jerry Ellis
State Representative
2300 North Linclon Boulevard,
Room 505
Oklahoma City, OK 73105-4805

Ron L. Hillrard, State Conservationist
The Natural Resources Conservation Service
100 USDA, Suite 206
Stillwater, OK 74074-2655

Ronald Miles, Field Office Director
U.S. Housing and Urban Development
Williams Center Tower II
2 West 2nd Street, Ste. 400
Tulsa, OK 74103

Edward Agnew, Manager
U.S. Department of Transportation - FAA
Southwest Region
Arkansas/OK Airport Development Office, ASW-630
2601 Meacham Blvd.
Fort Worth, TX 76137-4298

Dr. Bob Blackburn, Executive Director
Oklahoma Historical Society
2401 N. Laird Avenue
Oklahoma City, OK 73105

Greg Duffy, Director
Department of Wildlife Conservation
1801 North Lincoln Blvd.
PO Box 53465
Oklahoma City, OK 73152-8804

Gavin Brady,
Oklahoma Water Resources Board
3800 North Classen
Oklahoma City, OK 73118

Sandy Garrett, State Superintendent
State Department of Education
2500 North Lincoln Blvd., Room 121
Oklahoma City, OK 73105-4599

Gary Collins, Division Director
Oklahoma Department of Environmental Quality
PO Box 1677
Oklahoma City, OK 73101-1677

The Honorable Daniel Boren
U.S. House of Representatives
216 Cannon House Office Building
Washington, DC 20515-0001

Chief Gregory E. Pyle
Choctaw Nation of Oklahoma
Drawer 1210
Durant, OK 74702

Chairperson Larue Parker
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Robert Cast, Historic Preservation
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Bobby Gonzales, NAGPRA Coordinator
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Terry Cole, Tribal Historic Preservation Officer
Choctaw Nation of Oklahoma
Drawer 1210
Durant, OK 74702

President Gary McAdams
Wichita and Affiliated Tribes
P.O. Box 729
Andarko, OK 73005

Stratford Williams,
Wichita and Affiliated Tribes
P.O. Box 729
Andarko, OK 73005

Appendix H:
Responses to Solicitation Letter

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OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

September 7, 2007

Mike Snyder
Regional Director
National Park Service
Intermountain Region Office, Planning & Environmental Quality
12795 W. Alameda Parkway
Lakewood, CO 80228

Re: State Highway 3 Proposed Improvements

Dear Mr. Snyder:

The Oklahoma Department of Transportation (ODOT) is soliciting comments on the proposed improvements to State Highway 3 (SH 3) from the western end of the widened pavement section approximately 1 mile west of the Pushmataha County line to the city of Broken Bow in McCurtain County, Oklahoma (see attached map). A corridor study was completed in February of 2003 and the Department is now proceeding with the necessary environmental study in accordance with the National Environmental Policy Act. Any comments relative to the social, economic, or environmental effects of this proposal are encouraged.

The existing SH 3 is a two-lane roadway, exhibiting low sufficiency ratings and nearing or exceeding its capacity in some sections. The Department proposes to reconstruct the highway to improve safety, operational function and capacity. The Environmental Assessment will explore a variety of options and their impacts on social and environmental resources in order to assist the planning team in finding the best possible alternative that will meet the goals, purpose and need for this project.

To allow adequate time for evaluation of your suggestions, we would appreciate receiving your comments within 15 days from the date of this letter. Your written comments should be directed to the Planning and Research Division Engineer, Oklahoma Department of Transportation, 200 Northeast 21st Street, Rm. 3-A7, Oklahoma City, Oklahoma 73105.

We sincerely appreciate your cooperation in this matter. Should you desire any additional information please contact our consultant, Wendy Wallach at (303) 820-4807 or wendy.wallach@c-b.com.

Sincerely,

for Dawn R. Sullivan, P.E.
Planning and Research Division Engineer

The National Park Service reviewed this project, and determined that no parks will be affected; therefore, we have no comments.
Signed Christine L. Lee Date: 9/17/07

Attachment: Project Area Map

City of Broken Bow
Public Works Authority
Kulli Chito Environmental Authority
210 N. Broadway • Broken Bow, Oklahoma 74728
(580) 584-3407 • (580) 584-2885 • (580) 584-2282 • fax (580) 584-6898

September 21, 2007

Planning and Research Division Engineer
Oklahoma Department of Transportation
200 N E 21st Street
Oklahoma City, OK 73105-3204

Re: **State Highway 3 Proposed Improvements**

To Whom It May Concern:

The City of Broken Bow is very excited to learn the Oklahoma Department of Transportation is considering improvements to State Highway 3 from Pushmataha County to our city. We believe this will provide our citizens and visitors alike safer passage into and out of our area from the west. We also believe this will help the community in attracting additional business prospects into Broken Bow and the surrounding area.

Sincerely,

John R. Dean, Jr.
City Manager, City of Broken Bow

City of Antlers
100 SE 2nd
Antlers OK 74523

9-10-2007

Oklahoma Dept. of Transportation
Planning and Research Division Engineer
200 NE 21st Street
Room 3-A7
Oklahoma City OK 73105

Greetings,

This letter is in support of the proposed improvements to SH 3 in Pushmataha and McCurtain counties. The City of Antlers would like to see SH 3 widened to at least three lanes thru the city limits if possible. Also SH 3 is in need of passing lanes and widening of shoulders in many places as I am sure you are well aware. We are very much in support of any improvements that can be made on SH 3 because of the benefits to our tourism efforts as well as local industries including the logging industry which puts a heavy toll on our area highways.

Sincerely,

Joel F. Taylor

Joel Taylor
City Manager

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

Arkansas/Oklahoma ADO
9/11/07

September 7, 2007

Edward Agnew
Manager
U.S. Department of Transportation - FAA Southwest Region
Arkansas/OK Airport Development Office, ASW-630
2601 Meacham Blvd.
Fort Worth, TX 76137-4298

Re: State Highway 3 Proposed Improvements

Dear Mr. Agnew:

The Oklahoma Department of Transportation (ODOT) is soliciting comments on the proposed improvements to State Highway 3 (SH 3) from the western end of the widened pavement section approximately 1 mile west of the Pushmataha County line to the city of Broken Bow in McCurtain County, Oklahoma (see attached map). A corridor study was completed in February of 2003 and the Department is now proceeding with the necessary environmental study in accordance with the National Environmental Policy Act. Any comments relative to the social, economic, or environmental effects of this proposal are encouraged.

The existing SH 3 is a two-lane roadway, exhibiting low sufficiency ratings and nearing or exceeding its capacity in some sections. The Department proposes to reconstruct the highway to improve safety, operational function and capacity. The Environmental Assessment will explore a variety of options and their impacts on social and environmental resources in order to assist the planning team in finding the best possible alternative that will meet the goals, purpose and need for this project.

To allow adequate time for evaluation of your suggestions, we would appreciate receiving your comments within 15 days from the date of this letter. Your written comments should be directed to the Planning and Research Division Engineer, Oklahoma Department of Transportation, 200 Northeast 21st Street, Rm. 3-A7, Oklahoma City, Oklahoma 73105.

We sincerely appreciate your cooperation in this matter. Should you desire any additional information please contact our consultant, Wendy Wallach at (303) 820-4807 or wendy.wallach@c-b.com.

Sincerely,

for Dawn R. Sullivan, P.E.
Planning and Research Division Engineer

NO COMMENTS
C. L. Jan
9/12/07

Attachment: Project Area Map

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

October 22, 2007

The Honorable Jeff W. Rabon
State Senate
2300 North Lincoln Boulevard, Room 522
Oklahoma City, Oklahoma 73105

Dear Senator Rabon:

Re: State Highway 3 Proposed Improvements in McCurtain County

We are writing this letter in response to your query about the referenced project in response to our solicitation letter dated September 7, 2007. The Oklahoma Department of Transportation completed a Corridor Study in February 2003 for SH 3 from Antlers to Broken Bow, Oklahoma. As part of the study, there was public input and recommendations for improvements to various Segments of SH 3. The recommendations from the study for various segments are shown in the attached Project Priority Map.

In 2007, the Department added several projects to improve SH 3 in McCurtain County to the 8 Year Construction Program. These projects include:

State Job Piece	Description	Right-of-Way Date	Construction Let Date
24184(04)	SH 3 beginning 10.54 mi east of Pushmataha County Line and extending east 5.51 miles	Jan-2009	2013
24185(04)	SH 3 beginning 4.5 mi east of Pushmataha County Line and extending east 6 miles	Jan-2009	2011
24219(04)	SH 3 beginning 5.09 mi west of Broken Bow extending 5.09 mi east	2014	Unscheduled
24409(04)	SH 3 beginning 16.05 mi east of Pushmataha County Line and extending 6 mi east	2013	Unscheduled

Since federal funds will be used on the above projects, the Department has started performing the necessary environmental studies in accordance with the National Environmental Policy Act. For the purpose of the studies, the Department picked the Segment of SH 3 from the Feasibility Study beginning closest (Segment 6) to the McCurtain/Pushmataha county line as one terminus of the study area. This segment starts just 1 mile west of the county line. The other terminus of the study area is in Broken Bow. Future studies on the Pushmataha section of SH 3 from Antlers to the beginning of this study area will begin when projects in this section are added to the 8 Year Construction Program.

If you have any questions or need further information, please contact Siv Sundaram, Assistant Division Engineer, at (405) 522 3791 or ssundaram@odot.org.

Sincerely,

Dawn R. Sullivan, P.E.
Environmental Programs Division Engineer

DRS::SS

Attachment: Project Priority Map

Copy to: Environmental Studies Coordinator for Division II, Joan Lindley
Project Management Division, Bill Simon
Division II Engineer, David Smith

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

Gary, what about Push. Co.? It's not all in McCurtain Co.

September 7, 2007

The Honorable Jeff W. Rabon
State Senate
2300 North Linclon Boulevard, Room 522
Oklahoma City, OK 73105

Re: State Highway 3 Proposed Improvements

Dear Senator Rabon:

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We sincerely appreciate your cooperation in this matter. Should you desire any additional information please contact our consultant, Wendy Wallach at (303) 820-4807 or wendy.wallach@c-b.com.

Sincerely,

for Dawn R. Sullivan, P.E.
Planning and Research Division Engineer

Attachment: Project Area Map

OKLAHOMA AERONAUTICS COMMISSION

September 14, 2007

Ms. Dawn R. Sullivan, P.E.
Planning and Research Division Engineer
Oklahoma Department of Transportation
Oklahoma City, OK 73105-3204

Dear Ms. Sullivan

This is in reference to your September 7, 2007 letter, concerning the proposed improvements to State Highway 3(SH3) from the western end of the widened pavement section approximately 1 mile west of the Pushmataha County line to the city of Broken Bow in McCurtain County, Oklahoma near the Broken Bow Municipal Airport. The Commission would like to draw your attention to the Federal Aviation Administration (FAA) advisory circular (AC) No. 70/7460.2K.

Based on the limited information provided in your letter, the project does not appear to pose a hazard to the flying public. However, sometimes the most critical items effecting navigable airspace can be construction equipment (i.e. cranes etc.), light poles and fixtures. Because of this and since construction will take place in the close vicinity of an active public-use airport, the Commission recommends that FAA's form 7460-1 be filed at the earliest at the address given below.

Mr. Edward N. Agnew
Manager, Arkansas/Oklahoma ADO,ASW-630
Federal Aviation Administration
2601 Meacham Blvd.
Fort Worth, TX 76137

Should you have any questions in the matter, please feel free to call (405-604-6902) or email (vivek.khanna@oac.state.ok.us) me.

Thanks and regards

Sincerely,

Vivek Khanna

Vivek Khanna
(Airport Engineer)

3700 N. Classen Blvd., Suite 240 • Oklahoma City, OK 73118 • (405) 604-6900 (405) 604-6919 Fax

OKLAHOMA

BRAD HENRY, GOVERNOR

GREG D. DUFFY, DIRECTOR

DEPARTMENT OF WILDLIFE CONSERVATION

P.O. Box 53465 Oklahoma City, OK 73152 PH. (405) 521-3851

October 9, 2007

Dawn R. Sullivan, P.E.
Planning and Research Division Engineer
Oklahoma Department of Transportation
200 N.E. 21st Street
Oklahoma City, OK 73105-3204

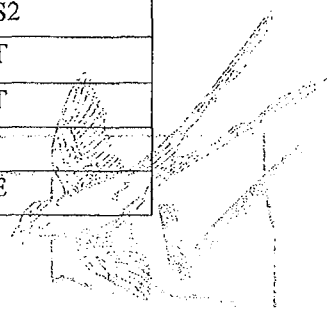
RE: State Highway 3 Proposed improvements

Dear Ms Sullivan,

This responds to your letter of September 7, 2007 requesting information on environmental impacts with respect to the above referenced project. This project involves widening State Highway 3 between the Pushmataha County line and the city of Broken Bow, McCurtain County, Oklahoma.

Please understand that, due to financial and a personnel constraint, the Oklahoma Department of Wildlife Conservation has not conducted an actual field survey of the proposed project to determine its impacts on species. Based on an intensive map review, several state or federally listed threatened or endangered species are associated with the proposed site. Table 1 lists the T&E species most likely to be impacted by your proposed project along with their respective status on both the state and federal T&E species lists.

COMMON NAME	SCIENTIFIC NAME	STATUS	
		Federal	**State**
Scaleshell Mussel	*Leptodea leptodon*	E	SS2
Oachita rock Pocketbook	*Arkansia wheeleri*	E	E
Rabbitsfoot Mussel	*Quadrula cylindrical*		SS2
Southern Brook Lamprey	*Ichthyomyzon gagei*		SS2
Blackside Darter	*Percina maculata*		T
Leopard Darter	*Percina pantherina*	T	T
Wood Stork	*Mycteria Americana*	E	
Least Tern	*Sterna antillarum*	E	E



Additionally, we do have other concerns relating to fish and wildlife resources, particularly aquatic, that may be affected by highway construction.

Few opportunities exist for meaningful wildlife habitat improvement or enhancement in association with highway construction or reconstruction projects. The best course of action is to minimize the impact of highway projects on local wildlife populations and to mitigate for habitat losses and degradations. As general guidelines, we recommend the following measures to reduce the impact of highway construction on local wildlife populations through the alteration or loss of habitat.

1) Disturbance to the following habitat types should be avoided to the greatest extent possible during construction: streams, wetlands, springs, rock outcrops, caves, and old-growth deciduous forest (>70 years). These habitat types are usually limited in quantity and their loss is difficult to mitigate. Highway routes should be chosen which take advantage of previously disturbed lands such as crop fields, improved pastures and existing road or utility right-of-ways.

2) The wildlife-related impact of cement barriers between lanes of opposing traffic is still poorly understood. In general, we support the use of cement barriers for short distances (<700 feet) in the vicinity of stream crossings to reduce the overall width of disturbed right-of-way and stream bank. We do not, however, recommend cement barriers for extended lengths because of their potential to block the local movement of wildlife.

3) All wetland loses should be mitigated in accordance with the provisions of Sections 404 and 401 of the Clean Water Act. This includes losses of riparian forest/bottomland hardwood forest associated with stream and river crossings.

4) Erosion control measures should be installed and maintained throughout the construction phase of the project. This is especially important in the vicinity of streams and wetlands. At a minimum, this should involve the use of Best Management Practices for the control of erosion and storm water runoff and may include a combination of:

a) vegetated buffer zones around the construction area and all streams or wetlands,
b) silt fencing around the construction area,
c) stabilization of disturbed ground using mulch, erosion control fabric or temporary vegetation during construction, or

d) the construction of storm water retention or detention basins.

The existing bank stabilization within the proposed boundary may provide some benefits in terms of mitigating project-related disturbances. However, runoff from the construction area should be monitored on a regular basis to ensure minimum loss of fish and wildlife habitat and to maintain water quality of the adjacent river.

**We recommend that you contact your county office of the Natural Resources Conservation Service for more information regarding these Best Management Practices.*

6) Final revegetation of disturbed ground on highway right-of-ways should be accomplished using only native grasses and forbs. The use of exotic plant species should be avoided to minimize the spread of these species into undisturbed habitats. Attached with this letter is a list of recommended native plants which are suitable for right-of-way revegetation and a list of potential seed vendors.

7) Nonselective blanket-spraying of vegetation should be avoided as a means of vegetation control during routine right-of-way maintenance. We recommend brush-hogging, mowing or other mechanical methods rather than the application of broadleaf herbicides. The non-selective used of broadleaf herbicides can reduce the diversity of forbs and shrubs on the right-of-way which are important sources of food and cover for wildlife species such as quail, rabbits and some songbirds.

For additional information regarding the locations of sensitive species, we recommend that you contact the Oklahoma Natural Heritage Inventory, 111 E. Chesapeake Street, Norman, Oklahoma 73019. For information on federally listed threatened or endangered species, please contact the U.S. Fish and Wildlife Service, Ecological Services, 9014 E. 21st Street, Tulsa, Oklahoma 74129 or at http://www.fws.gov/southwest/es/oklahoma/endsp.htm.

We appreciate the opportunity to review this project and submit comments. If we can be of further assistance, please contact our Environmental Section at 405-424-6062.

Sincerely,

William Ray
Environmental Biologist

Attachment

Recommendations for the Revegetation of Land to Native Grasses in Eastern Oklahoma

A mixture of perennial grasses and forbs is recommended for revegetating disturbed areas to native grassland. The ratio of grasses to forbs can be varied, but should approximate 70% grass species to 30% perennial forbs. At a minimum, the forb mixture should contain several species of legumes (clovers and their relatives) and composites (sunflowers and their relatives). Seeds should be planted in a tilled seed bed or broadcast over and raked lightly into moist soil. Consult your seed distributor for the recommended amount of seed per acre for your planting area. The use of a culti-packer or other roller device on the seedbed after planting is beneficial for successful seedling establishment. For the best germination results, planting should be conducted shortly after a rainfall event of one-inch or more in spring, early summer or mid-fall. A light straw mulch is beneficial for retaining soil moisture and protecting seedlings from wind exposure. The plant list below is comprised primarily of perennial species adapted to the rainfall patterns and soil conditions of eastern Oklahoma. If soil disturbance occurs the winter or summer months, mulch or erosion control fabric should be applied over the area until planting can take place (after early March or mid-September).

Recommended Plant Species:

Grasses

Switchgrass (Panicum virgatum)
Indian Grass (Sorgastrum nutans)
Eastern Gammagrass (Trypisicum dactyloides)
Reed Canary Grass (Phalaris arundinacea)
Big Bluestem (Andropogon gerardi)
Little Bluestem (Schizachyrium scoparium)

Forbs & Legumes

Purple Prairie Clover (Dalea purpurea)
Leadplant (Amorpha canescens)
Illinois Bundleflower (Desmanthus illinoensis)
Birdsfoot Trefoil (Lotus corniculantus)
Yellow Sweet Clover (Melilotus officinalis)
Prairie Plum (Astragalus crassicarpus)
Blue Indigo (Baptisia australis)
White Indigo (Baptisia leucantha)
Sensitive Briar (Schrankia uncinata)
Partridge Pea (Cassia fasiculata)
Roundhead Bush Clover (Lespedeza capitata)
Slender Lespedeza (Lespedeza virginica)

Composites

Smooth Blue Aster (Aster laevis)
New England Aster (Aster novae-angliae)
Purple Coneflower (Echinacea purpurea)
Pale Purple Coneflower (Echinacea pallida)
Dotted Blazing Star (Liatris punctata)
Largeflowered Coreopsis (Coreopsis grandiflora)
Lanceleaf Coreopsis (Coreopsis lanceolata)
Tall Coreopsis (Coreopsis tripteris)
Plains Coreopsis (Coreopsis tinctoria)
Maximillian Sunflower (Helianthus maximiliani)
Swamp Sunflower (Helianthus angustifolia)
Ashy Sunflower (Helianthus mollis)
Stiff Sunflower (Helianthus rigidus)
Willow-leaf Sunflower (Helianthus salicifolius)
Ox-eye Sunflower (Heliopsis helianthoides)
Gray-headed Prairie Coneflower (Rudbeckia pinnata)
Perennial Blanketflower (Gaillardia aristata)
Compass Plant (Silphium laciniatum)
Rosinweed (Silphium integrifolium)
Stiff Goldenrod (Solidago rigida)
Showy Goldenrod (Solidago speciosa)
Wrinkle-leaf Goldenrod (Solidago rugosa)

Misc.

Standing Cypress (Ipomosis rubra)
Lemon Mint (Monarda citriodora)
Pitcher Sage (Salvia pitcheri)
Showy Milkweed (Asclepias speciosa)
Butterfly Milkweed (A. tuberosa)
Purple Poppy Mallow (Callirhoe involucrata)
Wild Bergamont (Monarda fistulosa)
Beardtongue (Penstemon cobea)
Praire Penstemon (Penstemon tubaflorus)
White Penstemon (Penstemon digitalis)
Large-flowering Penstemon (Penstemon grandiflorus)
Rose Verbena (Verbena canadensis)
Hoary Vervain (Verbena stricta)

Several shrub species are suitable for planting over pipelines. The species listed below typically remain under three feet in height and do not produce root masses that are difficult to remove if line repairs become necessary. Planting scattered clumps of small shrubs provides additional wildlife cover and provides nesting sites for many species of birds.

Recommended Shrubs

Fragrant Sumac (Rhus aromatica)
American Beautyberry (Callicarpa americana)
Golden Current (Ribes aureum)
Blackberry species (Rubus sp.)

For grass and forb seeds, plants, etc., contact a local commercial nursery or vendor. If they cannot provide the necessary species, Please contact the sources below.

Oklahoma

Grasslander
Chuck Grimes
Rt. 1, Box 56
Hennessey, OK 73742
(405) 853-2607

Jonhston Seed Company
Ed Shovanec
P.O. Box 1392
Enid, OK 73702
(405) 233-5800

Guy's Seed Company
Rodney Guy
2520 Main Street
Woodward, OK 73801
(405) 254-2926

Lorenz OK Seed
Fred Lorenz
Rt. 2, Box 3
Okeene, OK 73763
1-800-826-3655

Out of State

Wild Flowers from the Ozarks
Hi-Mountain Farm
Seligman, MO 65745
(417) 662-2641

Browning Seed, Inc.
Box 1836
Plainview, TX 79072
(806) 293-5271

Plants of the Southwest
1812 Second Street
Sante Fe, NM 87501
(505) 983-1548

Turner Seed Co.
211 CR 151
Breckenridge, TX 76424-0978
1-800-722-8616

Stock Seed Farms, Inc.
RR 1, Box 112
Murdock, NE 68407
(402) 867-3771

Sharp Bros. Seed Co.
P.O. Box 665
Clinton, MO 64735
1-800-451-3779

Missouri Wildflower Nursery

Wildseed Farms

Route 2, Box 373
Jefferson City, MO 65109
(314) 496-3492

Wildlife Nurseries, Inc.
P.O. Box 2724
Oshkosh, Wisconsin 54903-2734
Specializes in wetland plants

Taylor Creek Restoration Nursery
Rt. 3, Smith Road
P.O. Box 256
Broadhead, WI 53520
(608) 897-8641

Western Native Seed
P.O. Box 1463-C
Salida, CO 81201
(719) 539-1071

P.O. Box 308
Eagle Lake, TX 77434
1-800-848-0078

Grassland West
P.O. Box 1604
Greeley, CO 80632
1-800-782-5947

Ion Exchange Nursery
1878 Old Mission Drive
Harpers Ferry, IA 52146
1-800-291-2143

Prairie Moon Nursery
Rt. 3, Box 163
Winona, MN 55987
(507) 452-1362

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

September 7, 2007

Chester Dennis
Executive Director
KEDDO
P.O. Box 638
Wilburton, OK 74578-0638

Re: State Highway 3 Proposed Improvements

Dear Mr. Dennis:

The Oklahoma Department of Transportation (ODOT) is soliciting comments on the proposed improvements to State Highway 3 (SH 3) from the western end of the widened pavement section approximately 1 mile west of the Pushmataha County line to the city of Broken Bow in McCurtain County, Oklahoma (see attached map). A corridor study was completed in February of 2003 and the Department is now proceeding with the necessary environmental study in accordance with the National Environmental Policy Act. Any comments relative to the social, economic, or environmental effects of this proposal are encouraged.

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To allow adequate time for evaluation of your suggestions, we would appreciate receiving your comments within 15 days from the date of this letter. Your written comments should be directed to the Planning and Research Division Engineer, Oklahoma Department of Transportation, 200 Northeast 21st Street, Rm. 3-A7, Oklahoma City, Oklahoma 73105.

We sincerely appreciate your cooperation in this matter. Should you desire any additional information please contact our consultant, Wendy Wallach at (303) 820-4807 or wendy.wallach@c-b.com.

Sincerely,

for Dawn R. Sullivan, P.E.
Planning and Research Division Engineer

NO FINDINGS
KEDDO has no further comment on the descr
Date 8/26/07
Approved by
Kiamichi Economic Development District

Attachment: Project Area Map

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: dwb
Phone: (314)269-2378
Fax: (314)269-2737
Email:

16591.1/ OK HWY 3
October 1, 2007

Ms. Dawn Sullivan
Planning and Research Division Engineer
Oklahoma Department of Transportation
200 Northeast 21st Street, Room 3-A7
Oklahoma City, OK 73105

Subj: OKLAHOMA HIGHWAY 3 IMPROVEMENT PROJECT, PUSHMATAHA AND McCURTAIN COUNTIES

Dear Ms. Sullivan:

Please refer to your correspondence of September 18, 2007. We have determined that the proposed improvements will involve work over Pine Creek Lake, and Lukfata, Glover, and Cypress Creeks. Pursuant to the Coast Guard Authorization Act of 1982, the subject project does not involve bridges over navigable waters of the United States. Therefore, a Coast Guard bridge permit is not required for this project.

We appreciate the opportunity to comment on the project.

Sincerely,

ROGER K. WIEBUSCH
Bridge Administrator
By direction of the District Commander

BRAD HENRY
GOVERNOR

JARI ASKINS
LIEUTENANT GOVERNOR

OKLAHOMA CONSERVATION COMMISSION

MIKE THRALLS
EXECUTIVE DIRECTOR

BEN POLLARD
ASSISTANT DIRECTOR

Responsible Care For Oklahoma's Natural Resources

October 4, 2007

Dawn Sullivan
Planning & Research Engineer
ODOT
200 N.E. 21st Street
Oklahoma City, OK 73105

RE: State Highway 3 Proposed Improvements

Dear Ms. Sullivan:

Your request for comments for the referenced project, as described in your letter of September 7, 2007 has been reviewed using the Soil Surveys of Pushmataha and McCurtain Counties. Alikchi Loam and Guyton Silt Loam were identified at the site. These are possible hydric soils. Due to the potential impact on wetland resources, an on-site investigation may be needed. Consequently, you will need to contact the U.S. Army Corps of Engineers for a determination. Their address and phone number are:

U.S. Army Corps of Engineers
Mr. David Manning
Chief of Regulatory Branch
1645 South 101st East Avenue
Tulsa, OK 74128-4629
918/669-7400

If you have any further questions or concerns, please contact me at 405/522-4733.

Sincerely,

Christopher R. DuBois
Wetlands Program Coordinator
Oklahoma Conservation Commission
Water Quality Division
2800 N. Lincoln Blvd. Rm. 160
Oklahoma City, OK 73105

CRD/

City of Antlers
100 SE 2nd
Antlers OK 74523

9-10-2007

Oklahoma Dept. of Transportation
Planning and Research Division Engineer
200 NE 21st Street
Room 3-A7
Oklahoma City OK 73105

Greetings,

This letter is in support of the proposed improvements to SH 3 in Pushmataha and McCurtain counties. The City of Antlers would like to see SH 3 widened to at least three lanes thru the city limits if possible. Also SH 3 is in need of passing lanes and widening of shoulders in many places as I am sure you are well aware. We are very much in support of any improvements that can be made on SH 3 because of the benefits to our tourism efforts as well as local industries including the logging industry which puts a heavy toll on our area highways.

Sincerely,

Joel F. Taylor

Joel Taylor
City Manager

Appendix I:
Public Meeting Materials

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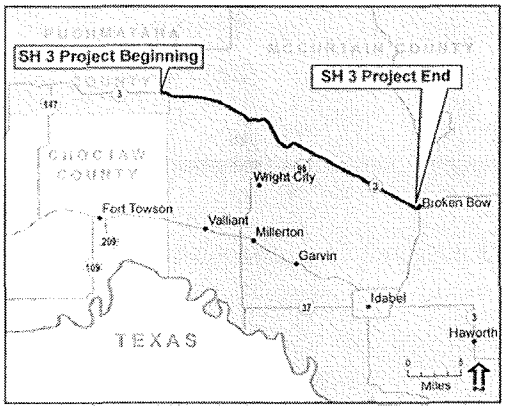
State Highway 3
environmental assessment

Public Open House Announcement

The Oklahoma Department of Transportation will be holding a public open house to present information and receive input on issues and concerns related to the proposed improvements to State Highway 3 from approximately 1 mile west of the Pushmataha County line to the city of Broken Bow in McCurtain County. The Department proposes to reconstruct the highway to improve safety, operational function and capacity.

In compliance with the Americans with Disabilities Act, for any special accommodations, please call Mr. Craig Moody at (405) 522-1465, or contact him by e-mail at **cmoody@odot.org**.

If you are not able to attend but would like more information or to submit comments please contact Ms. Joan Lindley, NEPA Coordinator, at (405) 521-3651 or by e-mail at **jlindley@odot.org**. Comments must be received no later than October 8, 2007.



Public Open House

Thursday, September 27, 2007
6:00 ~ 8:00 p.m. Broken Bow Public Library
404 North Broadway, Broken Bow, OK

PUBLIC MEETING SUMMARY

Project: **State Highway 3 Environmental Assessment**

Purpose: Public Open House

Date Held: September 27, 2007

Location: Broken Bow Public Library, Broken Bow OK

Attendees:

Public:	See Sign-in Sheet	
ODOT:	David Smith	Bob Rusch
	Craig Moody	Joan Lindley
	Chris Bohannon	Mohamed Nazari
	Bill Simon	
C&B:	Wendy Wallach	Kevin McDermott

Copies: File, Siv Sundaram P.E.

This meeting was an open house format. There was no formal presentation however displays were set up around the room presenting information about the project and the Environmental Assessment (EA) Process. Representatives from Carter & Burgess and the Oklahoma Department of Transportation were on hand to answer questions and take comments from the public.

There were five stations set up around the room described as follows:

1. Welcome and Sign-In Table: Here guests received handouts with information on the project and the purpose of the meeting. Guests were also encouraged to sign-in.
2. Environmental Assessment Information: Offering information on the Environmental Assessment process.
3. Project Schedule and Proposed Improvements: This station included a general timeframe for the EA process showing where we are now and what the next steps would be. An aerial photograph also displayed each segment along with cross-sections showing proposed design. Another display also showed potential relocations along with other possible resource issues for each segment.
4. Right-of-Way Information: This station was staffed by a right-of-way specialist from ODOT and offered information regarding the right-of-way acquisition process.
5. How to Submit Comments: A comment station was set up where visitors could fill-out comment forms and deposit them in an envelope for project managers to address. Other methods of submitting comments were explained and interested citizens were offered comment forms to take home and submit at a later date.

Approximately 60 people showed up for the meeting and project representatives were available in the room to answer questions and record comments.

A total of twenty verbal comments were recorded and can be summarized as follows:

- Five comments expressed general support for the project.
- Four comments expressed a concern with the lack of safety resulting in deaths.
- Two comments expressed concern about the high volume of truck traffic.
- One comment thought that the proposed cross-sections were too wide.
- Six comments provided information on resources including locations of Native American burial sites and potential hazardous materials sites.
- Three asked or commented on bridge replacements in the area.
- Two asked about funding and scheduling for the project.

Please Note: The number of comments adds to higher than twenty as a result of some comments referring to more than one topic.

Ten written comments were also submitted at the meeting and can be summarized as follows:

- Three comments expressed need for a passing lane.
- One comment expressed issues with vegetation in the Right-of-Way blocking view of oncoming traffic and creating safety concerns.
- Seven comments expressed general support for the project.
- Five comments were concerned with lack of safety resulting in deaths.
- One comment referenced poor workmanship in previous repairs making the highway dangerous.
- One comment reflected the concern that poor highways in the area have restricted mobility to other regions.
- Three comments expressed appreciation for the meeting and the information presented.
- One comment expressed concern about the current volume of trucks on the highway.
- Two comments concerned the roads safety at night and the inability to see the road.
- One comment felt that the proposed cross-sections were too wide.

Please Note: The number of comments adds to higher than twenty as a result of some comments referring to more than one topic.

NAME	ADDRESS	BUSINESS OR ORGANIZATION	GENDER/RACE (OPTIONAL)		
☑ Mr. ☐ Mrs. ☐ Ms. [illegible] Rugh	200 NE 21st St. Oklahoma City	ODOT	☑ Male ☐ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. ☐ Mrs. ☐ Ms. Craig Moody	" "	" "	☑ Male ☐ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. ☐ Mrs. ☐ Ms. Mohamed Nazari	ODOT Roadway		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. ☐ Mrs. ☐ Ms. Bill Simon	OKC ODOT - PMD	ODOT	☑ Male ☐ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms. Joan Lindley	OKC - Env. Div.	ODOT	☐ Male ☑ Female	☐ White ☑ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. ☐ Mrs. ☐ Ms. [illegible] Lynch	[illegible]		☑ Male ☐ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☑ Ms. [illegible] Jones			☐ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. [illegible] Vinson ☐ Mrs. Cathy Vinson ☐ Ms.	[illegible] Rd	Lucky's Garage Cathy's Beauty Shop	☑ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other

NAME	ADDRESS	BUSINESS OR ORGANIZATION	GENDER/RACE (OPTIONAL)		
☐ Mr. ☒ Mrs. Jane Speck ☐ Ms.	Rt 3 Box 500 Broken Bow OK		☐ Male ☒ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. Wilma Watkins ☐ Ms.	PO BOX 834 74728 BROKEN BOW		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. Nancy ☐ Mrs. Billy Thurman ☐ Ms.	Box 463 Broken Bow		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. ☐ Mrs. Chris Bokenkamp ☐ Ms.	ODOT	ODOT	☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. Daryl ☐ Mrs. Thomason ☐ Ms.	PO Box 219 B B OK 74728	Thomason Trucking	☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms. Matthew Smith		Ci	☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. ☐ Mrs. ☐ Ms. Earl Westbrook	RT 3 BX 296 BB		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. ☐ Mrs. ☐ Ms. Jan Westbrook	RT3 Box 260 B.B.		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other

NAME	ADDRESS	BUSINESS OR ORGANIZATION	GENDER/RACE (OPTIONAL)		
☐ (Mr) Charles Bond ☐ Mrs. ☐ Ms.	RT 3 Box 256 B. B. OK	Retired	☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. Jerry Don Smith ☐ Mrs. ☐ Ms.	502 E. Sherry Ln Broken Bow 74725	City of Broken Bow	☒ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. Jerm Capps ☐ Mrs. ☐ Ms.	HC 68 BOX 68 Ringold Okla	Ringold Fire Chief	☒ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. DWAYNE ☐ Mrs. BEAN ☐ Ms.	RT-2 Box 759 Broken Bow OK 74725		☒ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☒ Mrs. Cheryl ☐ Ms. McDaniel	505 E. Sherry Ln Broken Bow, OK 74725		☐ Male ☒ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. Gene ☐ Mrs. Frances ☐ Ms.	P.O. Box 188 Broken Bow - OK 74728		☒ Male ☒ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. Earl Wrights ☐ Mrs. Sandra " ☐ Ms.	HC 74 Box 615 Wright City, OK 74766	Retired / Carpentry	☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. Mark Webb ☐ Mrs. ☐ Ms.	Rt 2 Box 18 Broken Bow		☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other

NAME	ADDRESS	BUSINESS OR ORGANIZATION	GENDER/RACE (OPTIONAL)		
☒ Mr. Jerry Passmore ☐ Mrs. ☐ Ms.	HC 74 Box 596 Wright City OK		☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☒ Mrs. Linda Dickson ☐ Ms.	Rt. 5 Box 450	—	☐ Male ☒ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. ☐ Mrs. Brandon Sharrock ☐ Ms.	Rt 4 Box 321 Broken Bow 74728		☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. Buddy Mallett ☐ Mrs. Linda Mallett ☐ Ms.	Rt 2 Box 2 Broken Bow		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. Nancee Fisher ☒ Ms.	Rt 3 Box 80 Broken Bow		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. ☐ Mrs. John Dean ☐ Ms.	RR 2 Box 386-2 Broken Bow	City of Broken Bow	☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. Charles ☐ Mrs. ☐ Ms. Manning	Rt 3 - Box 310-4 3 Bow		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. Wes & Lindsay ☒ Mrs. Easley ☐ Ms.	HC74 Box 598 W-City		☒ Male ☒ Female	☒ White ☐ Asian ☒ Native American	☐ Hispanic ☐ Black ☐ Other

NAME	ADDRESS	BUSINESS OR ORGANIZATION	GENDER/RACE (OPTIONAL)		
☐ Mr. Betty ☒ Mrs. ☐ Ms. Wharton	RR 3 Box 256 Broken Bow, Okla 74728		☐ Male ☒ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. David ☐ Mrs. ☐ Ms. Wharton	RR 3 Box 256 Broken Bow, OK 74728		☒ Male ☐ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☑ Mrs. Judy ☐ Ms. Williams	Rt 5 Box 800 Broken Bow, OK 74728		☐ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. Charles ☐ Mrs. ☐ Ms. Singleton	Rt 1 Box 254 Broken Bow o/c 74728		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☒ Mrs. WYNONA Cooksey ☐ Ms.	PO Bx 811 Ringold Ok 74754	Ringold Cafe	☐ Male ☒ Female	☒ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. Linda ☒ Mrs. ☐ Ms. Williams	105 Beavers St. Broken Bow, Ok		☐ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☒ Mr. James ☐ Mrs. ☐ Ms. Williams	105 Beavers St. Broken Bow, Ok		☐ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. Robert ☐ Mrs. ☐ Ms. Bean	RT 2 Box 22 Broken Bow.		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other

NAME	ADDRESS	BUSINESS OR ORGANIZATION	GENDER/RACE (OPTIONAL)		
☑ Mr. ☑ Mrs. ☐ Ms. J.W. Gaston	Rt 3 Box 302 Broken Bow, Okla		☑ Male ☐ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☑ Mrs. ☐ Ms. Maryann Gaston	Rt 3 Box 302 Broken Bow, Okla		☐ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☑ Ms. LaWona Watkins	410 W. 1st Street Broken Bow, Ok. 74728		☐ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms. MARK WATKINS	P.O. BOX 582 BROKEN BOW, OK 74728		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. ☑ Mrs. ☐ Ms. Charles + Betty Bush	HC 68 Box 429 Ringold, OK 74754		☑ Male ☑ Female	☑ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms. Clifford & Shirley Gantt	P.O Box 197 Wright City OK 74766		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. ☐ Mrs. ☐ Ms. DAVID SMITH	PO 628, ANTLERS	ODOT	☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☑ Mr. ☐ Mrs. ☐ Ms. Roy JONES	HC 74 Box 599 W/C OK 7466		☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other

NAME	ADDRESS	BUSINESS OR ORGANIZATION	GENDER/RACE (OPTIONAL)		
☒ Mr. ☒ Mrs. Charlotte Hearn +1 ☐ Ms.	Northside Store	→	☐ Male ☒ Female	☐ White ☐ Asian ☒ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. Jerry Ellis ☐ Ms.	P.O. Box 317 Valliant	State Rep.	☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms.			☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms.			☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms.			☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms.			☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms.			☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other
☐ Mr. ☐ Mrs. ☐ Ms.			☐ Male ☐ Female	☐ White ☐ Asian ☐ Native American	☐ Hispanic ☐ Black ☐ Other

State Highway 3
environmental assessment

SH 3 EA Open House

September 27, 2007; 6:00 – 8:00 p.m.

Welcome to the State Highway 3 (SH 3) Environmental Assessment Public Open House. The purpose of tonight's meeting is to obtain information on important issues pertaining to the proposed SH 3 improvements and to answer questions and concerns about the project and the Environmental Assessment process. The meeting is an open house format. There will be no presentation. Project representatives are on hand to explain the displays and answer questions.

Meeting Organization: The open house is organized into five stations.

1. Welcome and Sign-In Table: Please sign in. There are informational handouts and comment sheets available here. Also, information on the purpose of tonight's meeting will be provided.
2. Environmental Assessment Information: This station will have information on the environmental assessment process.
3. Project Schedule and Proposed Improvements: Here you will see a general timeframe for the Environmental Assessment process as well as where we are and what the next steps will be. The aerial photograph displayed here shows the project area and preliminary recommendations for improvements to the different segments of the roadway.
4. Right-of-Way Information: This station will have information on the right-of-way process.
5. How to Submit Comments: You are encouraged to fill out a comment form and leave it in the box, or you can mail it in later.

Project Information:

The existing SH 3 is predominantly a two-lane road, some segments of which have low sufficiency ratings due to restricted sight distances for passing opportunities and lack of adequate shoulders. The traffic volumes in some areas are nearing or exceeding the capacity of a two-lane road and there are high volumes of heavy trucks which use the corridor.

Preliminary recommendations to address these issues include improving or adding shoulders, adding passing lanes, and improving safety on curves. Other possibilities include replacing bridges, adding turn lanes, and improving intersection alignments. The environmental assessment will explore these options and their impacts on social and environmental resources in order to assist the planning team in finding the best possible alternative to meet the goals, purpose and need for this project.

How to Submit Written Comments:

ODOT is very interested in receiving your comments relative to the proposed improvements to SH 3. Any information you can provide regarding resources such as social, economic, historic (including Native American sites) or environmental (including hazardous materials sites) will be greatly appreciated. Please submit comments by 10/8/07.

Your Written Comments Should Be Mailed To:

Attn: Joan Lindley
Planning & Research Division, Rm. 3-A7
Oklahoma Department of Transportation
200 Northeast 21st Street
Oklahoma City, Oklahoma 73105
By no later than October 8, 2007

State Highway 3
environmental assessment

Frequently Asked Questions

To assist in answering the most frequently asked questions about this project, a list of questions and responses has been developed. This list is not all inclusive; however, we hope that it will offer a better understanding of the project and the reasons behind it.

- **Why is this project being undertaken?**
  State Highway 3 has experienced an increasingly high accident due to factors including: restricted sight distances for passing opportunities; lack of adequate shoulders to provide for roadside pull-offs and safety; and poorly designed intersection alignments. In addition some segments of the roadway are experiencing traffic volumes that are nearing or exceeding the capacity for a two-lane roadway with a large number of those vehicles being large commercial trucks. This project is being undertaken to address these issues and improve safety, operational function and capacity of the roadway.

- **Will the project require the taking of any homes?**
  The Feasibility Study completed in 2003, identified seven residences and one commercial property which may be acquired as a result of the proposed ultimate improvements. Right-of-way acquisition will comply with the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (as amended).

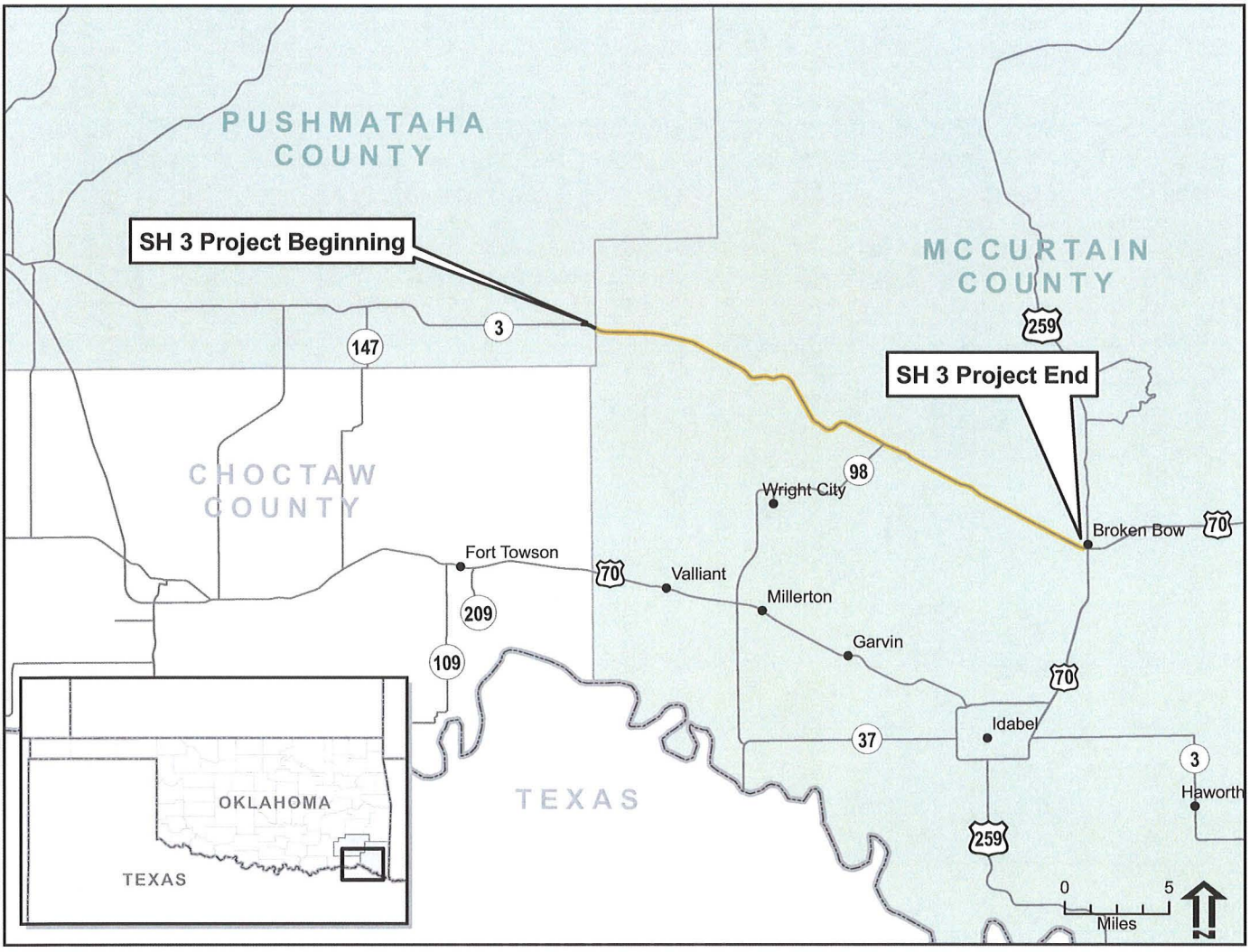
- **Will any bridges on the route be removed and reconstructed?**
  Preliminary studies indicated that at least three bridges within the project corridor may need to be reconstructed as part of this project. These include bridges located over Boktulo Creek, Lukfata Creek and Yashau Creek.

- **When will construction begin?**
  Environmental clearance is anticipated to be completed in July of 2008. The current construction program shows interim improvements beginning in 2011.

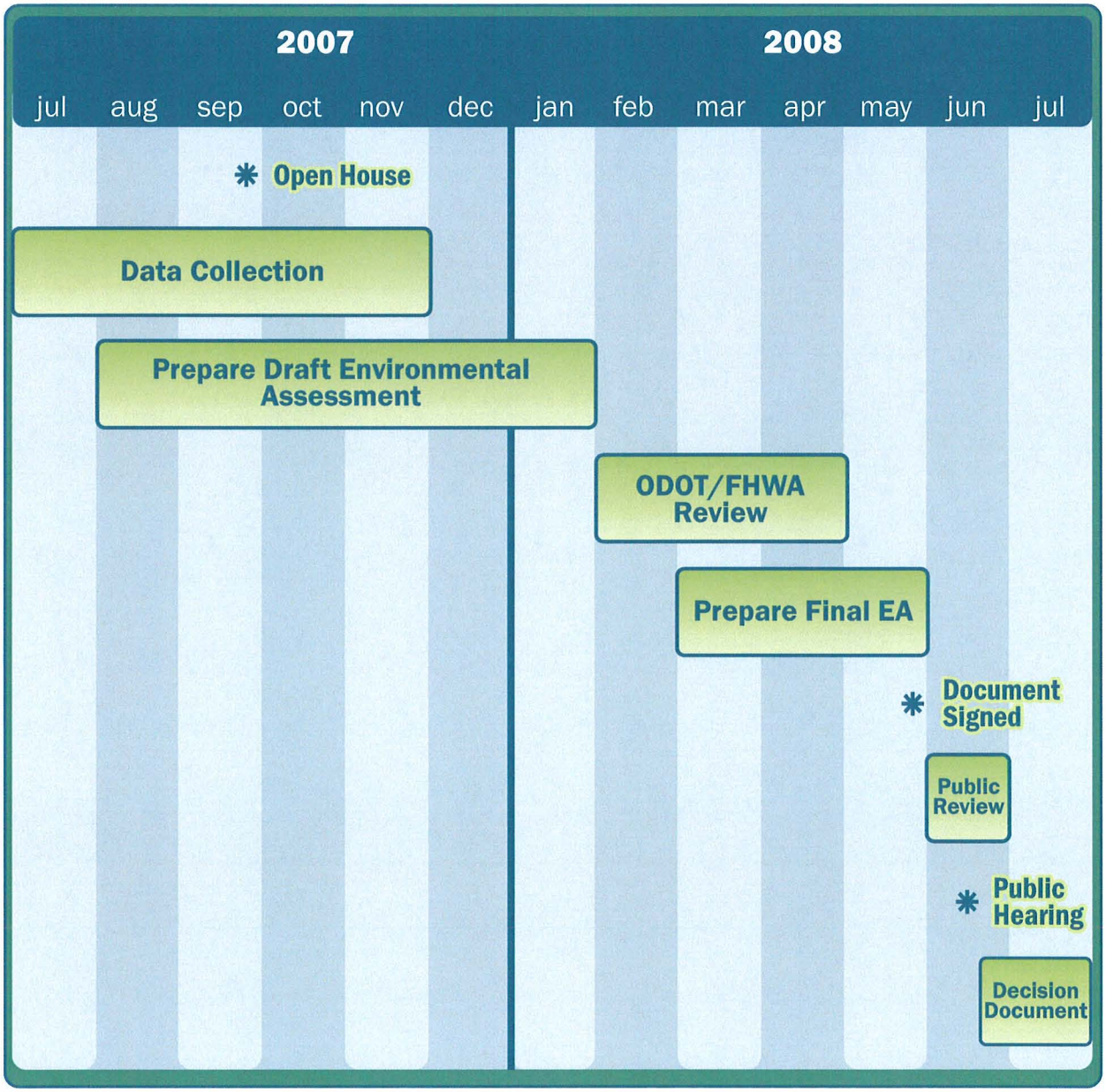
- **What kind of delays can I expect during the construction period?**
  There may be short-term delays associated with construction of improvements proposed to occur on State Highway 3. Impacts to residents and businesses would be minimized by providing good communication to emergency services providers, communities and residents with regard to road delays, changes in access and special construction activities.

- **What information can I offer that will assist in the project planning?**
  Please feel free to submit comments, suggestions or concerns that we will attempt to address through the planning process or design alternatives. Of particular interest to us at this time is information regarding specific environmental, social, economic or historic resources that may be impacted by the proposed improvements. These may include locations of Native American sites, or possible locations of hazardous materials sites near the project area.

Project Location



Proposed Schedule



Q - The bridge across river or two?

One to begin with.

Will the bridge over Yashaw Creek be widened?

Have you done any studies on the bridge over Clover? It needs to be replaced. (Its rigid) Flooding problems

North Pole
Store gas
Pumps may be
on right-of-way.

Old Gas Station 30 yrs ago
West of Horse Head Church on S.
side of road - Building still there
Blount Trading Post across from this
site -

Myrtle Mannings
lives right there.
behind mound
where there are
burials.

Turning towards Broken Bow going to 98, there are burials in the hill. ROW is 60' and hill start at 60' Unmarked. house right behind mound

3 miles west of Broken Bow - myrtlewood baptist church - Native American grave sites (6 or 7 sites) church knows

I don't think
4 lane is
needed but widening
is to accommodate
log trucks.

we have a high percentage of truck traffic.

After rainfall, trucks were able to get back on roads in August & truck traffic will really increase.

It's really dangerous out there

4 people killed in 2½ years.

I support doing it.

All for it. It's needed for safety + traffic control.

Just wish you could start now!

We need better highways in this area.

We will do whatever it takes - there are way too many deaths.

A 4-lane divided highway would be nice.

Where are you going to get money for this?

When would this be built?

State Highway 3 Environmental Assessment — Public Open House

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

A 4 lane is not nissatary, but a passing lane would be good or a little more room on the side, so a car could pull over to let a truck pass would be great.

Name: Nancy + Billy Thurman

Address: Box 463 Broken Bow

Phone: 420 7339
(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment — Public Open House

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

Improvements are really needed!

Name: Liz Vaughn

Address: 99 SE Camp Eagletown OK 74734

Phone: 580-835-7430
(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment — Public Open House

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

Name:

Address:

Phone:
(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment **Public Open House**

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

Great meeting very informational
this road has no shoulders.
YES!! We need improvement to
make it safer.
Alot of traffic including large log
trucks.
Dangerous at night.

Name:

Address:

Phone:
(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment **Public Open House**

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

Yes, please do whatever needs to be done. I drive about 7 miles of Hwy 3 every day and it needs improvements to make it safer especially at night.

Name: Kathleen Stofregen

Address: P.O. Box 637 or Rt. 5 Box 589

Phone: 580-236-1660
(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment **Public Open House**

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

YES!

We Need this Improvement.

Name: Cotton Williams

Address: Rt 5 Box 8376

Phone: 420-3738
(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment **Public Open House**

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

Yes Please Please, we need this State Hwy 3 improvement project to go through. Highway now is unsafe Too many lives have been lost on this highway!

Great Informative Meeting!

Name: Judy Williams

Address: Rt 3 Box 800

Phone: 580 - 420 - 3738
(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment **Public Open House**

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

We really need Highway 3 improvement. We need to be able to travel to Antlers on a safe highway. We also need to be able to get to Indian Nation Turnpike so we can travel to Tulsa or OKC easier. Hwy 3 is a dangerous highway.

Wonderful Meeting.

Name: Harriet Martin

Address: Rt. 1, Box 398 Broken Bow, OK 74728

Phone: 580-584-2234

(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment **Public Open House**

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

Highway 3 has a high percentage of auto deaths. I live on the East side of highway 3. There have been 8 deaths within 5 miles of my home on highway 3.

When the highway is retopped it is not complete. They skip places & They don't pave off the highway into driveways, this causes problems & makes it hard to pull out onto the highway or pull off the highway.

Right now you can drive down the east side of Lukfata Hill where they have patched the road & the sloppy workmanship will cause your car to pull to the left & then to the right as you come down the hill.

Name: Jane Speck

Address: Rt 3 Box 300 Broken Bow, OK 74728

Phone: 580-420-6233

(the above information is optional)

Mail Comments to address on other side.

State Highway 3 Environmental Assessment **Public Open House**

Comment Form

September 27, 2007
Please Submit by October 8, 2007

I have the following comments regarding the State Highway 3 Improvement project:

① West of Horse head Creek, beginning at the bridge and proceeding up the hill west, there needs to be a passing lane in the plan for slower traffic.

② The existing right-of-ways need to be cleaned up so that motorists can see around curves and home owners can see up & down the highway before pulling out onto the highway.

We feel very strongly about these improvements, because we have lost several love ones & neighbors on highway 3.

Thank you

Name: Earl Wright

Address: HC 74 Bx 6615 Wright City, Ok 74766

Phone: 580-981-2802

(the above information is optional)

Mail Comments to address on other side.

over

3.) There needs to be a passing lane at the South Pole Store & Jct. Old 28 highway & State Hwy 3. (18 miles west of Broken Bow)

Fold Here – Tape Do Not Staple

Return Address:

Place stamp here

_____

_____

_____

Planning & Research Division Engineer, Rm. 3-A7
Oklahoma Department of Transportation
200 Northeast 21st Street
Oklahoma City, Oklahoma 73105

Fold Here – Tape Do Not Staple

"Woody Wood"
<woodyf106@sbcglobal.net
>
09/27/2007 06:31 PM

To <jlindley@odot.org>
cc
bcc
Subject Hwy 3 Open House

Ms. Joan Lindley, NEPA Coordinator:

Thanks for the yellow card notifying me of the open house in Broken Bow tonight, 9/27/2007. I live in Dallas and am unable to attend, but would appreciate any package of materials you may provide, either by email or snail. Also, if you leave information at the Library, available for the public to review, I occasionally use that library when visiting Broken Bow.

My main interest is any impact on my approximate 400 foot frontage and access on the north side of Hwy 3, immediately east of Yashau Creek near the west edge of Broken Bow.

Questions I'd ask tonight: (1) Will the highway be widened to the north or south of the current right-of-way? (2) Will road become 4-lane and separated by a median? (3) Will a second bridge be built over Yashau or will current bridge be widened? (4) What is the timetable for construction—from survey, land acquisition, construction, etc? (5) What is the web site, if any, where I could review plans and progress? (6) Currently, highway 3 is elevated as it approaches the east end of the bridge and that embankment blocks the ditch, diverting water out onto my pasture during heavy rain. This may be way premature to ask, but will drainage be changed (with culverts or large pipe) so the ditch will drain into the creek? (7) Why did it take $.67 to mail the post card?

Probably way too many questions—but thanks for what you can provide. It is really good news that the highway is being improved—it is far too dangerous with the traffic load.

Thanks for your help. William M. (Woody) Wood, 3615 Gillespie St #E, Dallas TX 75219, 214-522-5594, woodyf106@sbcglobal.net

Steve Chapman
<schapman@joplin.com>
09/26/2007 08:37 PM

To jlindley@odot.org
cc
bcc
Subject public open house

My family owns a piece of land--legal description SEC. 3-5-22 NESW Less 3A. We are unable to attend your public meeting. How will the proposed changes to Highway 3 effect this particular property ?
Please send any pertinent information to:
Easter Chapman
17402 Kentucky Rd.
Neosho, MO 64850

or e-mail at schapman@joplin.com

Thank you,
E. Chapman

Cheryl McDaniel
<cherylmcdaniel815@yahoo.com>
09/20/2007 12:07 PM

To jlindley@odot.org
cc
bcc
Subject State Highway 3 Project

Ms. Lindley,

I'm not sure I will be able to attend the public open house announcment for the state highway 3 envionment assessment on September 27th in Broken Bow. If possible, please email or send information pertaining to this meeting.

Thank You,

Cheryl McDaniel