

Appendix C

**Community Impact
Assessment Technical
Memorandum**

Prepared by:



U.S. Department of Transportation
**Federal Highway
Administration**

**Federal Highway
Administration**



**River Valley Regional
Intermodal Facilities
Authority**

and



**Arkansas State Highway
and Transportation
Department**

In cooperation with:



**Little Rock District,
U.S. Army Corps of
Engineers**

COMMUNITY IMPACT ASSESSMENT TECHNICAL MEMORANDUM

**River Valley Intermodal Facility
Environmental Impact Statement**

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Section 1: Summary

1.1 BACKGROUND

The River Valley Regional Intermodal Facilities Authority (Authority) is proposing the development of an intermodal facility adjacent to the Arkansas River east of State Highway 7 and south of State Highway 247. A primary purpose of the Authority is the promotion of economic development and employment opportunities in the Arkansas River Valley (ARV). It is the intent of the Authority to take advantage of multi-modal transportation opportunities for serving existing industry and attracting new industries and businesses to the region. A primary advantage of an intermodal transportation facility is the realization of transportation efficiencies (cost savings) associated with water transportation.

Two Build Alternatives, the Red Alternative and the Green Alternative, have been developed in addition to the No-Action Alternative for the proposed facility. Under either Action Alternative the proposed project area will encompass over 800 acres for the development of a slackwater harbor, rail/truck/water transfer facilities, freight handling/shipping yards, foreign trade sub-zone, and associated warehousing and industrial uses. The site would have direct access to the McClellan-Kerr Arkansas River Navigation System (MKARNS), Interstate 40 via State Highway 7 or State Highway 247, and the Union Pacific Railroad main line via the Dardanelle-Russellville short line railroad.

1.2 AFFECTED ENVIRONMENT

The area considered for community assessment and impact analysis consists of the six counties of Conway, Johnson, Logan, Perry, Pope, and Yell, with an emphasis on Pope County and Russellville. The population of the six-county area was 151,420 in 1999 according to the 2000 U.S. Census, a 17 percent increase since 1990. The City of Russellville is the largest city within the study area with a population exceeding 23,000. Approximately eight percent of the region's population is minority with almost 17 percent below the poverty level. There are over 65,000 housing units within the region, with 70 percent of the units owner-occupied. The median value of owner-occupied housing approximates \$59,000 with a median household income of almost \$30,000.

The six-county region had a civilian labor force of 72,650 and an unemployment rate of 4.7 percent in March 2005. Total employment within the region increased five percent during the 1995-2000 period compared to a State-wide increase of eight percent. Services,

manufacturing, government, and retail trade are the major employment sectors, with services and manufacturing accounting for 45 percent of the total regional employment. Pope County is the primary center of economic activity, with the City of Russellville being the economic hub of the region. The poultry industry, manufacturing, timber, and utilities (Arkansas Nuclear Plant One) comprise the major industry sector employers in Pope County.

The ARV is afforded excellent transportation facilities with direct access to Interstate 40, the Union Pacific Railroad, and the MKARNS. There are five private ports and terminals along the MKARNS within the six-county study area, with the Port of Dardanelle located adjacent to the proposed intermodal facility. Currently, shipments by truck account for 87 percent of total commodity movement within the region, with rail accounting for eight percent and water five percent. Major waterway inbound/outbound cargo includes grain, fertilizers, petroleum products, coal, chemicals, aggregates, paper, and wood products.

The proposed project area is physically non-cohesive and economically underutilized consisting of a mixture of agricultural, industrial, and residential land uses. The project area is in unincorporated Pope County and is within the extra-territorial planning and zoning jurisdiction of the City of Russellville. The majority of the area within the build alternatives is within the 100-year floodplain, is used for agricultural purposes and lacks basic infrastructure improvements. The current population within the proposed project area is estimated at between 20 and 25 people.

1.3 COMMUNITY IMPACTS

Under the No-Action Alternative the proposed project area will continue to be physically substandard and economically under-utilized. Potential future economic development of the area would be adversely impacted as no new employment, personal income, and tax revenues would be generated. The potential for enhancement and expansion of intermodal transportation facilities and services would not be realized under this alternative.

Development of the project area as proposed under either the Red or Green Alternatives would have the potential for significant contributions to the economic growth and development of the ARV. Direct and indirect long-term beneficial economic impacts would be realized in respect to employment, personal income, and business volume. Savings incurred by the business sector from expanded use of water transportation would be available for future business expansions and investments. The intermodal port facility would most likely attract new industries into the region. Additional population growth would be expected as a result of expanded employment opportunities directly or indirectly related to the port and its activities. The local and regional business community, including service and supply vendors, would be expected to realize increased business volume, income, and employment opportunities.

Additional long-term beneficial economic impacts would be realized from the increased real property tax revenues generated by port-related private development. The local school district and other taxing entities would be the beneficiaries of this increased revenue.

Some short-term adverse social and economic impacts would occur as a result of implementation of the proposed action. These impacts would primarily be comprised of a small number of residential, business, and non-profit displacements; temporary loss of real property tax revenues from conversion of the privately held land to a public entity; and loss of revenues from conversion of agricultural land to the port facility and associated industrial uses.

1.4 MITIGATION

Projects that are considered federal actions through the use of Federal-aid funds or federal permits and approvals must comply with the National Environmental Policy Act (NEPA) as well as other applicable federal and state environmental laws and regulations. NEPA requires all federal agencies, as well as the implementing agencies, to consider the impacts of their actions on human, natural, and cultural resources. Consideration of these impacts also means that measures necessary to mitigate adverse impacts be incorporated into the "action" or project. Environmental mitigation involves measures or procedures to avoid, minimize, restore, reduce, or compensate for environmental impacts on the above resources as a result of a proposed federal action.

Mitigation measures will be necessary to compensate potential displaced households, businesses, and non-profit organizations within the proposed project area. There are a small number of residential and business displacements under both the Red and Green Alternatives, in addition to one non-profit organization displacement under the Red Alternative. Relocation assistance would be provided by the Arkansas State Highway and Transportation Department (AHTD) in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Act of 1970* (Public Law 91-646). The AHTD provides written assurance of compliance with the Public Law 91-646, and that all replacement housing is fair housing, or open and available to all persons regardless of race, color, religion, sex, or national origin. Existing housing resources within the City of Russellville or the region would be necessary for relocation of the displaced households from the project area. Housing of Last Resort (HLR) is presented as relocation by the AHTD relocation agents as circumstances require. A relocation office would be established within the vicinity of the project area at the initiation of negotiations for property acquisition.

Section 2: Affected Environment & Community Impacts

2.1 AFFECTED ENVIRONMENT

2.1.1 Land Use, Planning, and Zoning

Land use within the project area is dominated by agricultural uses, primarily row crops, pasture, and hay. The only non-agricultural uses occur in the northwest portion of the study area along Jennings Road, Levi Lane, and Robinson Lane. These uses consist of a sand and gravel operation, commercial horse stable, and a few scattered residences.

The jurisdiction of Pope County does not have a Comprehensive Land Use Plan or Zoning Ordinance in effect. However, the City of Russellville has both a Comprehensive Land Use Plan and Zoning Ordinance in force. Since unincorporated Pope County does not have a Comprehensive Land Use Plan or Zoning Ordinance, the City of Russellville has the legal authority under the Arkansas State Statutes (Chapter 14-56-413) to administer and enforce extra-territorial land use planning, land subdivision and development, and zoning codes in an area up to one mile beyond its corporate limits.

The 2020 Comprehensive Development Plan for Russellville (Burnham Group, 2000) was completed and adopted by the City Council in September 1999. The Plan contains a series of goals and objectives related to community growth, public facilities, and economic development for the City. The provision of adequate and appropriate multi-modal transportation service that would link rail service to the potential industrial port area along the Arkansas River is identified as a major long-range objective for the City. Among the major planning issues identified is the current inadequate rail service to the proposed intermodal facility adjacent to the Arkansas River south of State Highway 247. An associated objective includes development of a southern/eastern by-pass (Highway 247) to serve as a new truck route around the City and to encourage additional industrial development.

2.1.2 Population

The demographic characteristics of the six-county area and selected cities within the area are shown in Tables 2.1, 2.2, and 2.3. Data include population trends, components of population change, and population estimates and projections.

Table 2.1 Population Trends, 1990-2000			
Geographic Area	Percent Population Change (1990-2000)	2000 Population	1990 Population
Conway County	6.1	20,336	19,151
Johnson County	25.0	22,781	18,221
Logan County	9.4	22,486	20,557
Perry County	28.1	10,209	7,969
Pope County	18.7	54,469	45,883
Yell County	19.0	21,139	17,759
TOTAL	16.9	151,420	129,540
City of Clarksville	32.2	7,719	5,833
City of Dardanelle	13.6	4,228	3,722
City of Morrilton	-	6,550	6,551
City of Pottsville	29.1	1,271	984
City of Russellville	11.4	23,682	21,260
State of Arkansas	13.7	2,673,400	2,350,725
<i>Source: U.S. Department of Commerce, U.S. Census Bureau, 1990 and 2000 Census.</i>			

As shown in Table 2.1 the population within the six-county region totaled 151,420 in 2000, which represented an approximate 17 percent increase between 1990 and 2000. This relative growth rate exceeded that of the State of Arkansas during the same time period. The greatest absolute increase occurred in Pope County, with the largest relative increases in Perry and Johnson Counties. Over one-third of the population within the six-county region resides in Pope County.

The City of Russellville, which is the largest incorporated city within the six-county area, increased in population by approximately 11 percent during this period, while the City of Clarksville increased 32 percent and the City of Pottsville increased 29 percent. However, the City of Russellville had the greatest absolute increase in population among the municipalities within the six-county region.

Table 2.2 shows the components of population change for each of the six counties during the 1990-2000 period. As shown in Table 2.2, over 70 percent of the population increase within the six-county area during this period was due to net immigration. Immigration accounted for a higher proportion of the population gain in Johnson County and Perry County. Among the six counties, Pope County had the smallest percent of its population increase attributable to immigration. The net immigration is the result of both internal migration within the six-county area, and external immigration from outside the region. Immigration accounted for a greater portion of the population increase within the region compared to the State of Arkansas as shown in Table 2.2.

Table 2.2 Components of Population Change, 1990-2000¹				
Jurisdiction	Population Change	Natural Increase	Net Immigration	Percent Due to Migration
Conway County	1,185	255	589	69.8
Johnson County	4,560	452	2,765	86.7
Logan County	1,929	197	488	71.2
Perry County	2,240	74	1,661	95.7
Pope County	8,586	2,785	4,185	60.0
Yell County	3,380	407	779	65.7
TOTAL	21,880	4,170	10,467	71.5
State of Arkansas	322,675	85,943	121,082	58.5
<i>Source: U.S. Department of Commerce, U.S. Census Bureau, Population Estimates Program, Population Division.</i> ¹ The totals for natural increase and net migration will not equal total population change as net Federal movement and residual population categories are not included in the components of population change.				

Population estimates for 2003/2004 and projections for 2010 for each county are shown in Table 2.3. The most current population estimates indicate an approximate two percent increase in population for the six-county region since 2000, similar to the relative increase for the State of Arkansas during this same time period. Pope County and Johnson County have experienced the greatest increases, while Conway County and Perry County have experienced little population growth during this period.

Population projections for 2010 indicate a 5.4 percent growth during the 2004-2010 period for the six-county region, greater than the 3.6 percent growth rate projected for the State of Arkansas. Pope County and Perry County are projected to experience higher growth rates, with the greatest absolute growth occurring in Pope County.

Table 2.3 Population Estimates and Projections, 2003/2004-2010			
Jurisdiction	2003/2004 Population Estimates¹	2010 Population Projections³	Percent Change
Conway County	20,589 ¹	20,511	<1.0
Johnson County	23,713 ¹	24,922	5.6
Logan County	22,899 ¹	23,179	1.5
Perry County	10,456 ¹	11,328	8.2
Pope County	55,933 ¹	60,622	9.8
Yell County	21,318 ¹	22,786	6.1
TOTAL	154,908¹	163,348	5.4
City of Clarksville	8,084 ²	NA	NA
City of Dardanelle	4,319 ²	NA	NA
City of Morrilton	6,532 ²	NA	NA
City of Pottsville	1,320 ²	NA	NA
City of Russellville	24,719 ²	NA	NA
State of Arkansas	2,752,629 ¹	2,851,890	3.6
<i>Source: U.S. Department of Commerce, U.S. Census Bureau, Population Division.</i>			
¹ July 1, 2004 estimates.			
² July 1, 2003 estimates.			
³ Demographic Research Division, University of Arkansas, Little Rock. Time Series Extrapolations.			
NA = Not Available			

2.1.3 Environmental Justice

On February 11, 1994, President Clinton issued Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*. This Order was issued to provide that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations.”

A Presidential memorandum that accompanied EO 12898 specified that Federal agencies “shall analyze the environmental effects, including human health, economic, and social effects, of Federal actions, including effects on minority communities and low-income communities when such analysis is required by the National Environmental Policy Act (NEPA) of 1969.” The memorandum further stated that Federal agencies “shall provide opportunities for community input into the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities.”

The initial step in this process is the identification of minority and low-income populations that might be affected by implementation of the proposed action or alternatives. For environmental

justice considerations, these populations are defined as individuals or groups of individuals that are subject to an actual or potential health, economic, or environmental threats arising from existing or proposed Federal actions and policies.

Table 2.4 shows the distribution and frequency of minority population and population below the poverty level for the six-county region. Based on the 2000 U.S. Census, approximately eight percent of the population within the six-county region consisted of minority population, with approximately 17 percent of the population classified as low-income or below the poverty level. The poverty level for a family of four in 2000 was \$17,463 and \$19,157 in 2004. African-American, Hispanic, and Asian respectively comprise the largest minority populations. As shown in Table 2.4, the percent of persons below the poverty level within the six-county region is similar to the State-wide frequency, while the percent of minority population is considerably below the State-wide frequency of 20 percent.

Table 2.4 Minority and Low-Income Population, 2000			
Jurisdiction	Total Population (2000)	Percent Minority Population (2000)	Percent Persons Below Poverty Level¹ (2004)
Conway County	20,336	15.7	16.5
Johnson County	22,781	6.3	18.0
Logan County	22,486	3.5	16.8
Perry County	10,209	4.4	15.9
Pope County	54,469	6.3	16.1
Yell County	21,139	13.4	16.5
TOTAL	151,420	8.0	16.6
<i>State of Arkansas</i>	<i>2,673,400</i>	<i>20.0</i>	<i>16.3</i>
City of Clarksville	7,719	12.4	20.3
City of Dardanelle	4,228	24.8	19.6
City of Morrilton	6,550	21.6	17.1
City of Russellville	23,682	10.3	15.6
City of Pottsville	1,271	2.5	16.7
Project Area			
Census Tract 9516	5,710	8.9	18.9
Block Group 5	1,129	3.4	22.4
Block 5015	205	4.8	NA
<p>1 The poverty level for a family of four in 2004 was \$19,157, and \$17,463 in 2000.</p> <p>NA Information not available at this geographic level.</p> <p>Source: U.S. Department of Commerce, U.S. Census Bureau, <i>Small Area Income and Poverty Estimates, 2002</i>.</p>			

The highest concentrations of minority population are in Conway County and Yell County, and in the communities of Dardanelle and Morrilton. Both of these latter communities have minority populations representing over 20 percent of the respective community's total population. The population below the poverty level is quite uniformly distributed throughout the six-county region with no real geographic concentrations of low-income population. The percent of persons below the poverty level is slightly greater than the regional average in Johnson County and Logan

County, and in the communities of Clarksville (20 percent), Dardanelle (19.6 percent), and Morrilton (17.1 percent).

The majority of the project area is located in Census Tract 9516, Block Group 5, Block 5015. As shown in Table 2.4, less than five percent of the population is minority in Block 5015. Income data are not available on the Census Block level. However, over 22 percent of the population in Block Group 5 was below the poverty level in 2000 compared to less than 16 percent for the City of Russellville. The median income for Block Group 5 was \$27,422 compared to \$30,772 for the City of Russellville. In addition, the median age of the population was 36.7 for Block 5015 compared to 31.8 for the City of Russellville. The current population within the project area is estimated at between 20-25 people, with several of the households considered low-income.

2.1.4 Housing

Housing data for the six-county study area and selected cities within the area are shown in Table 2.5. Data include housing units, housing tenure, vacancy rates, median value of owner-occupied units, median monthly rents paid, and median value of owner-occupied housing. There are over 65,000 housing units within the six-county region, the majority of which are detached single-family. The 65,000 units represent a 20 percent increase in housing units since 1990. Within the City of Russellville, permits were issued for 645 single-family units during the 1996-2003 period, or an average of 80 units per year. Building permit data are not maintained by Pope County.

Approximately 70 percent of the single-family units are owner-occupied, with the highest owner-occupancy rates in Perry County and Conway County. According to the 2000 U.S. Census, approximately 12 percent of the housing units within the region were vacant, with the highest vacancy rate in Yell County and lowest vacancy rate in Pope County. The owner-occupancy and vacancy rates for the six-county region are similar to the State-wide owner-occupancy and vacancy rates.

As shown in Table 2.5 the median value of owner-occupied housing approximates \$60,000, less than the statewide median value of \$67,400. The highest median values are in Pope County (\$66,600) and in the City of Russellville (\$72,800), with the lowest values in Logan and Perry Counties. Median monthly contract rent according to the 2000 U.S. Census was approximately \$300 in the six-county region, with the highest rents prevailing in Pope County (Russellville) and Johnson County (Clarksville). Median household income within the region was approximately \$30,000, less than the statewide median of \$32,182. The highest median household incomes occur in Pope County (Russellville), with the lowest incomes in Johnson and Logan Counties.

Jurisdiction	Total Housing Units	Percent Owner-Occupied	Percent Vacant	Median Value (Owner-Occupied)	Median Monthly Contract Rent	Median Household Income
Conway County	9,028	78.1	11.8	\$58,100	\$279	\$31,209
Johnson County	9,926	73.1	12.0	\$56,500	\$313	\$27,910
Logan County	9,942	77.1	12.6	\$54,000	\$266	\$28,344
Perry County	4,702	82.2	15.2	\$55,700	\$274	\$31,083
Pope County	22,851	71.2	9.4	\$66,600	\$323	\$32,069
Yell County	9,157	72.9	13.5	\$56,700	\$269	\$28,916
TOTAL	65,606	75.0	11.7	\$59,355	\$290	\$29,920
City of Clarksville	3,240	58.1	8.6	\$62,300	\$350	\$24,548
City of Dardanelle	1,747	55.9	8.1	\$59,900	\$283	\$25,727
City of Morrilton	2,947	61.9	10.2	\$58,800	\$291	\$28,007
City of Russellville	10,234	56.7	9.7	\$72,800	\$332	\$30,772
City of Pottsville	500	75.4	5.0	\$63,500	\$309	\$32,841
State of Arkansas	1,173,043	69.3	11.1	\$67,400	\$339	\$32,182

Source: U. S. Department of Commerce, U.S. Census Bureau, 2000 Census.

An analysis of the Russellville Multiple Listing Service reveals that there were 176 single-family homes, including only four mobile homes, listed for sale in May 2005, in Russellville and the immediate vicinity. As shown in Table 2.6, only 12 percent of the listings were under \$50,000 with approximately one-third of the listings for under \$75,000. The largest listing price category was the over \$150,000 group which comprised almost 30 percent of all listings.

There are 2,000 or more apartments in Russellville and the immediate surrounding area. A survey of local Russellville apartment managers indicates that there is usually an overall apartment vacancy rate ranging between 5-10 percent. Typical monthly rents range from \$300-\$400 for the majority of one- to two-bedroom apartments.

Price Range	Number	Percent
Under \$25,000	4	2
\$25,000 - \$50,000	18	10
\$50,000 - \$75,000	34	19
\$75,000 - \$100,000	28	16
\$100,000 - \$125,000	29	17
\$125,000 - \$150,000	14	8
Over \$150,000	49	28
TOTAL	176	100
<i>Source: Russellville, Arkansas, Multiple Listing Service, May, 2005.</i>		

2.1.5 Community Facilities

The Community Church on Levi Lane represents the only community facility within the proposed project area. There are no police stations, fire stations, or other public facilities within or near the project area. The project area is served by the Pottsville School District and Fire District.

2.1.6 Community Cohesion

The project area currently does not represent a cohesive neighborhood or community. The current mixture of agricultural uses, open areas, and a few scattered residences and businesses without supportive infrastructure represents a non-cohesive area without a defined or reckonable neighborhood identity and definitive boundaries.

2.1.7 Economy

Table 2.7 shows the civilian labor force and unemployment rate for each county within the six-county study area. The March 2005 civilian labor force of 72,650 represents an approximate four percent increase in the regional civilian labor force since 1999. The greatest absolute increases in the labor force during this five-year period occurred in Johnson and Yell Counties. During the same time period, the State-wide labor force increased almost six percent. The current (March 2005) unemployment rate of 4.7 percent for the six-county region is less than the State-wide unemployment rate of 5.4 percent.

Jurisdiction	Labor Force, 2005 ^{1,2}	Employment, 2005 ^{1,2}	Unemployment Rate 2005 ^{1,2}
Conway County	9,450	8,950	5.3
Johnson County	10,850	10,325	4.7
Logan County	9,750	9,275	4.9
Perry County	4,975	4,700	5.6
Pope County	27,450	26,200	4.5
Yell County	10,175	9,750	4.1
TOTAL	72,650	69,200	4.7
State of Arkansas	1,321,500	1,250,400	5.4
<i>Source: Arkansas Employment Security Department, Bureau of Labor Statistics Programs, March, 2005.</i>			
¹ March, 2005.			
² Not seasonally adjusted.			

Table 2.8 shows employment by place of work for the major North American Industry Classification System (NAICS) sectors for each county within the six-county region for the year 2003. The total employment of 76,111 represents an approximate five percent increase in regional employment since 1995, compared to an eight percent State-wide increase in employment during the same time period. Over 40 percent of the total employment within the six-county region is located in Pope County, specifically within the Russellville and Pottsville area. The remainder of the regional employment is rather evenly distributed between the other five counties, with the exception of Perry County, which has less than five percent of the regional employment.

Services, manufacturing, government, and retail trade are the major employment sectors within the region. Services and manufacturing account for 45 percent of total regional employment, while government (15 percent) and retail trade (13 percent) comprise the majority of the remaining employment. Manufacturing is a more important contributor to the regional economy than on a State-wide level as this industry sector comprises 21 percent of the regional employment compared to less than 15 percent of total employment State-wide. However, reflective of national and State trends, regional employment in manufacturing has decreased 20 percent since 1995. In addition, regional employment in transportation, warehousing, and public utilities also decreased during the 1995-2003 period. Meanwhile, employment in transportation, warehousing and public utilities on the State-wide level remained generally unchanged during this period. Conversely, all of the regional employment increase has been in the retail trade, services, and government sectors.

Average weekly earnings for all industries in Arkansas was \$548 (2003) compared to \$514 in Pope County. Average weekly earnings in Pope County was \$561 dollars in the manufacturing sector, \$604 in the construction sector, \$1,006 in the transportation, warehousing, utilities sector; while only \$335 in the retail trade sector and \$370 for general services.

Industry Sector (NAICS Categories)	Conway	Johnson	Logan	Perry	Pope	Yell	Total¹
Farming	916	742	1,100	456	1,146	982	5,342
Agric., Forest. Fish.	(D)	102	93	(D)	(D)	(D)	195
Mining	(D)	46	91	(D)	(D)	(D)	137
Construction	1,093	570	489	338	1,837	666	4,993
Manufacturing	1,193	3,247	2,095	100	4,227	3,007	13,869
Transportation, Warehousing, & Utilities	494	(D)	195	(D)	1,747	214	2,650
Information	56	48	47	(D)	328	69	548
Wholesale Trade	(D)	75	98	22	(D)	(D)	195
Retail Trade	1,232	1,333	1,007	277	3,818	693	8,360
Fin., Ins., Real Est.	442	515	437	78	1,373	415	3,260
Services	1,649	1,382	2,116	653	10,312	1,307	17,419
Government	1,456	1,228	1,469	525	3,855	1,534	10,068
Total Employment	10,725	11,633	9,245	2,897	31,665	9,946	76,111
<i>Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts, 2003.</i> NAICS = North American Industry Classification System. (D) = Not shown to avoid disclosure of confidential information. ¹ Total will not match the total employment because of undisclosed data for some of the industry sectors							

Pope County is the primary center of economic activity within the six-county region. Table 2.9 shows the major employers and associated employment in Pope County. The poultry industry, manufacturing, timber, and utilities (Arkansas Nuclear One Plant) comprise the major industry sector employers in the County. The City of Russellville is the economic hub of Pope County and the six-county region, and it is the commercial and retail center for the ARV. Facilities of ten "Fortune 500" companies are also located in Russellville, including Firestone, Dow Chemical, International Paper, and Tyson Foods.

Company	City	Product	Employees
ConAgra, Inc.	Russellville/Atkins	Frozen Foods and Feed	1,000 - 1,500
Arkansas Nuclear One	Russellville	Utility	1,000 - 1,500
Tyson Foods	Russellville	Poultry	500 - 1,000
Arkansas Tech Univ.	Russellville	University	500 - 1,000
Friendship Comm. Care	Russellville	Schools	250 - 500
Firestone Tube Co.	Russellville	Inner-tubes	250 - 500
Wal-Mart	Russellville	Retail	250 - 500
Bibler Brothers	Russellville	Yellow Pine Lumber	100 - 250
Dana Corporation	Russellville	Camshafts	100 - 250
International Paper	Russellville	Corrugated Containers	100 - 250
Transco Leasing, Inc.	Russellville	Transportation	100 - 250

Source: An Economic Analysis of Pope County in Northwest Arkansas, Sam M. Walton College of Business, Center for Business and Economic Research, August 30, 2002.

Table 2.10 shows the commuting pattern of workers within the six-county study area for 1990 and 2000 based on U.S. Census data. The commuting pattern is distinguished between internal regional commuting and external commuting, or commuting from/to outside the six-county region. Pope County is the employment magnet for the six-county region as it is the only county within the region that has a significant net immigration of workers, or more workers commuting into the County for employment than workers commuting out of the County for employment. Conway County, has a lower net immigration of workers, while the remaining four counties all have a net emigration. Perry County has the greatest net emigration of workers to other counties in within the region for employment. Also, Perry County, in addition to Conway County, has the greatest net external commuting, or more workers commuting to their jobs outside of the six-county area than commuting into the six-county area. The major counties outside the six-county area, which draw a net exodus of workers from within the six-county area, are Faulkner, Pulaski, and Sebastian. Table 2.10 shows that both internal and external commuting has considerably increased for the six-county region since 1990. Net emigration or external commuting of workers has doubled since 1990. Pope County has the lowest percentage of its labor force commuting outside the County for employment, while Perry County has the greatest proportion of its work force commuting outside the County for employment.

Table 2.10 Commuting Patterns, 2000 and 1990.				
	2000		1990	
Jurisdiction	Total Internal Net Commuting¹	Net External Commuting from/to Region²	Total Internal Net Commuting¹	Net External Commuting from/to Region²
Conway County	+ 439	- 2,044	+ 261	- 1,075
Johnson County	- 106	- 113	- 382	+ 73
Logan County	- 624	- 913	- 476	- 729
Perry County	- 541	- 2,236	- 574	- 1,106
Pope County	+ 2,270	- 549	+ 1,567	- 211
Yell County	- 1,438	- 273	- 396	+ 16
TOTAL	NA	- 6,128	NA	- 3,032
<i>Source: U.S. Department of Commerce, U.S. Census Bureau, 1990 and 2000.</i> + = Net inflow - = Net outflow ¹ Difference between in-commuters and out-commuters within the six-county region. ² Difference between in-commuters and out-commuters from/to outside the six-county region.				

2.1.8 Waterway and Freight Commerce

The River and Harbors Act of July 24, 1946, authorized development of the Arkansas River and its tributaries for purposes of navigation, flood control, hydropower, water supply, recreation, and fish and wildlife. Public Law 91-629 stated that the project would be known as the McClelland-Kerr Arkansas River Navigation System (MKARNS). Development and construction on the MKARNS began in 1957 and was completed in 1971. The MKARNS is approximately 445 miles in length and includes a series of 18 locks and dams (17 existing and 1 currently under construction) that provide for commercial navigation throughout the length of the MKARNS from the Tulsa, Oklahoma, Port of Catoosa to the Mississippi River. The Dardanelle Lock and Dam are located just upstream from Russellville at Navigation Mile 205.5 along the border of Pope and Yell Counties.

The U.S. Army Corps of Engineers (USACE) maintains a 9-foot deep channel and is currently studying the feasibility of dredging and maintaining a 12-foot channel along the length of the Arkansas River. There are five public ports and over 90 private ports and terminals along the MKARNS on which both foreign and domestic trade are conducted. The MKARNS was utilized for the shipment (outbound and inbound) of 12,930,000 tons of goods in 2003, a 20 percent increase in tonnage from 2000. Outbound shipments account for 41 percent of the tonnage, while inbound shipments account for 33 percent and internal traffic for 23 percent of the tonnage shipments on the MKARNS. The major inbound commodities are agricultural chemicals, metals and non-metallic minerals (e.g., sand, gravel, rock, stone), and manufactured goods. The major outbound commodities include food and farm products, and non-metallic minerals. Non-metallic minerals, primarily sand and gravel, are the major internal shipments.

Table 2.11 shows the annual historic traffic on the MKARNS since 1990 and the projected traffic to the year 2070. The annual growth rate in river traffic was approximately 2.7 percent during the 1990 - 2003 period and is projected to increase at generally the same annual rate into the future. In 2003, 7.1 million tons of commodities were locked through the Dardanelle Lock, a 92 percent increase from 1990. Locked tonnage through the Dardanelle Lock is projected to increase to 8.3 million tons by 2010 and 9.2 million tons in 2020.

Table 2.11 Historic and Projected Traffic on the MCKARNS (1,000s short tons)	
Year	Tons
1990	8,786
1991	9,014
1992	8,526
1993	9,382
1994	10,706
1995	10,348
1996	10,551
1997	11,154
1998	12,036
1999	11,716
2000	10,733
2001	11,206
2002	11,704
2003	11,881
Projected	
2005	12,454
2010	14,393
2020	16,020
2030	17,381
2040	18,735
2050	20,206
2060	21,807
2070	23,552
<i>Source: 2002 Waterborne Commerce of the United States, Part 2, USACE, Institute for Water Resources.</i>	

There are five private ports and terminals along the MKARNS within the study area, which are shown in Table 2.12. The Port of Dardanelle offers transfer and general warehouse and storage facilities and provides automatic loading and unloading capabilities. The port is served by fourteen barge lines carrying a variety of commodities. The D & R Railroad provides rail service to the port by connecting to the Union Pacific Railroad.

River Mile	Name	City
172.2L	Bruce Oakley, Inc., Mooring	Morrilton
172.7L	Oakley Port, Bruce Oakley, Inc.	Morrilton
203.2L	Mobley Construction Co., Inc., Dock	Dardanelle
203.3L	Oakley Port, Bruce Oakley, Inc.	Dardanelle
232.8R	Arkansas Valley Terminal	Morrison
233.0R	Five Rivers Distribution	Morrison
<i>Source: Arkansas River Navigation Study EIS, USACE, Little Rock and Tulsa Districts, December, 2004</i>		

A major indicator of the economic activity within the ARV is the movement of inbound and outbound freight. The major waterway inbound/outbound cargo includes grain, fertilizers, petroleum products, aggregates, paper, coal, chemicals, steel, and wood products. Data from the Waterborne Commerce Statistics Center for 1996 indicate waterway commodity movements for the Russellville area were 55,000 tons inbound and approximately 1.5 million tons outbound. The major outbound commodities were aggregates, forest products, and soybeans. Meanwhile, inbound rail traffic accounted for 716,000 tons of cargo with outbound cargo comprising 17,000 tons in the Russellville area. Table 2.13 shows the regional freight activity by transportation mode and county. Approximately 40 percent of the regional freight activity occurred in Pope County and 20 percent in Conway County. Shipments by truck accounted for 87 percent of total commodity movement within the six-county region, with rail accounting for eight percent and water five percent.

County	Rail	Truck	Water	Total
Conway	0	3,121,883	1,241	3,123,124
Johnson	269,228	1,896,061	0	2,165,289
Logan	0	1,829,386	604,199	2,433,585
Perry	223,842	357,827	0	581,669
Pope	754,263	5,339,934	285,748	6,379,945
Yell	0	2,013,183	0	2,013,183
<i>Source: Arkansas State Highway and Transportation Department, Freight Component, Arkansas Statewide Long-Range Intermodal Transportation Plan. May, 2002.</i>				
Note: County totals include inbound, outbound, and intrastate freight movements. Intrastate movements (movements within the state) are included in both the county where the movement began and the county where it ended.				

2.1.9 Development Trends and Objectives

Table 2.14 shows the trends in real property assessed valuation for the 1994-2003 period for the six-county study area. Increases in real property valuations primarily reflect an increase in property development in the form of new residential, commercial, and industrial development. Some of the increases as shown in Table 2.14 also reflect bi-annual property reassessments by the respective counties during this period.

The major increase in real property assessment has occurred in Pope County, which accounts for almost 40 percent of the total real property valuation in the six-county study area as shown on Table 2.14.. Although Pope County had the greatest absolute increase in real property assessed valuation during this period, its relative increase of 50 percent was the lowest among the six counties. This situation is due partially to the larger absolute base of the real property value. However, Pope County's share of the six-county total real property assessed valuation has slightly declined during the 1994-2003 period. The greatest relative increase in real property valuation has occurred in Johnson County. During this ten-year time period the real property assessed valuation increased 60 percent in the six-county area compared to a State-wide increase of almost 74 percent.

Geographic Area	Percent Change (1994-2003)	2003 Assessed Valuation	1998 Assessed Valuation	1994 Assessed Valuation
Conway County	52.4	107.8	93.9	70.7
Johnson County	82.3	144.2	95.5	79.1
Logan County	72.3	117.0	85.3	67.9
Perry County	77.9	47.5	39.3	26.7
Pope County	50.5	331.7	266.9	220.3
Yell County	53.0	94.1	77.1	61.5
TOTAL	60.0	842.3	658.0	526.2
State of Arkansas	73.8	19,404.1	14,081.5	11,163.7

Source: State of Arkansas, Assessment Coordination Department.

More recent development within Russellville and the immediate surrounding area has occurred primarily along I-40. This development has taken a linear form paralleling I-40 east and west of Russellville. Major commercial developments (e.g., Wal-Mart Supercenter) and some industrial developments have occurred adjacent to I-40, with new residential subdivisions being second and third-tier developments. Sustaining and expanding a diversified local employment base, the expansion of existing industries, and development of new industries remain among the primary objectives of the community of Russellville.

The primary responsibility for economic development in the ARV is assumed by the Arkansas Valley Alliance for Economic Development (The Alliance). The Alliance has successfully marketed building and industrial sites in the ARV, coordinating its economic development efforts with the Arkansas Department of Economic Development and other cities within the region. There are currently three available industrial sites in Pope County. The first site consists of 380 acres directly served by I-40 and U.S. Highway 64 outside the city limits of Atkins east of Russellville. The second site is located within the city limits of Russellville and is owned by the Economic Development Corporation. This site consists of 147 acres of available land served by the Union Pacific Railroad approximately two miles south of I-40. The third site, comprising 18 acres, is located outside the city limits of Russellville and is owned by the D&R Railroad.

2.2 COMMUNITY IMPACTS

2.2.1 No Action Alternative

2.2.1.1 Social Impacts

Potential long-term adverse social impacts could occur under the No Action Alternative. The existing substandard physical and economic conditions of the project area would continue. Lack of development of the area as a potential employment center could result in stagnation or retardation of population growth in the region.

2.2.1.2 Impacts on Community Facilities

No direct impacts on community facilities would occur under the No-Action Alternative. Potential adverse indirect impacts could occur as lack of development of the project area could retard future development of community related facilities within the immediate vicinity.

2.2.1.3 Impacts on Community Cohesion

The existing non-cohesive neighborhood fabric and land use pattern of the project area would most likely continue under the No-Action alternative. The project area does not represent a cohesive community as there are no definitive boundaries or identity associated with the area.

2.2.1.4 Economic Impacts

The current economic under-utilization and undeveloped nature of the project area would most likely continue under the No Action Alternative. The physical features of the project area and lack of infrastructure would continue as major constraints to future development without major private and/or public investment. The current physically substandard and economically depressed conditions of the project area would continue to remain.

The continuation of the existing land uses and level of development within the project area under the No Action Alternative would result in no additional real property valuation increases. Thus, there would be no future new tax revenues and other revenues realized under this alternative. No new employment, personal income, and purchasing power would result under this alternative. No cost-saving efficiencies would be gained from the improvement of the existing multi-modal transportation network.. In addition, the current shortage of prime developable industrial land would continue in the area, thereby resulting in the lack of potential development and business opportunities. There are currently less than 70 acres of prime developable land remaining in the Russellville industrial parks.

2.2.1.5 Cumulative Impacts

Cumulative impacts represent the total effects, including both direct and indirect effects, on a resource caused by the aggregate of the past, present, and reasonably foreseeable future actions as a result of the proposed action. The Council on Environmental Quality (CEQ) regulations define cumulative effects as the “incremental effect of the action when added to other past, present, and reasonably foreseeable future actions” (40 CFR, 1508.7).

Cumulative effects of a proposed action can occur beyond the time frame of the proposed action with such effects materializing several years into the future. Examples

of cumulative impacts on socioeconomic resources include over-burdened social services or infrastructure resulting from sudden population changes; unstable labor markets resulting from “boom and bust” phases of development; loss of neighborhoods or community character through incremental development; and change in community dynamics resulting from incremental displacement of critical community members. The primary objective of cumulative analysis is to determine cause-and-effect relationships and the magnitude and significance of the cumulative impacts.

There would be potential adverse long-term cumulative impacts under the No Action Alternative. Under this alternative the Russellville community and the ARV would not be afforded the opportunity to take full advantage of the MKARNS resource available to the area. In addition, the potential benefits of the proposed channel deepening of the Arkansas River for navigation purposes and the planned construction of the Highway 247 bypass would not be fully realized under this alternative. Thus, opportunities for potential social and economic growth of the region would be minimized under this alternative as the potential for business expansion could be curtailed, thereby adversely affecting employment and income opportunities in the region.

2.2.1.6 Mitigation

No mitigation measures would be necessary to eliminate or minimize any adverse impacts as the current conditions would continue to exist under this alternative.

2.2.2 Red Alternative

2.2.2.1 Social Impacts

There would be both direct short-term adverse and long-term beneficial social impacts under the Red Alternative. Short-term adverse impacts would include the potential displacement and relocation of eight residences and one not-for-profit organization. One of the residences is a farmstead associated with a farming operation. In addition, one business displacement and a partial business displacement would occur. Relocation assistance would be provided by the AHTD in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Act of 1970* (Public Law 91-646).

Existing housing resources within the City of Russellville or the region would be adequate for relocation of the displaced households from the project area. Current vacant housing is of sufficient supply in the area and would be utilized for this purpose. Several of the displaced households may be relocated in housing of higher quality and value than their existing residence under the policies and guidelines of the *Uniform Relocation Assistance and Real Property Acquisition Act*.

Long-term beneficial social impacts could include additional population growth potentially attributable to employment and other opportunities afforded by the proposed intermodal facility. The currently undeveloped or under developed areas in the vicinity of the proposed project could potentially be developed for residential uses, especially in the areas east and north of the project area.

Potential additional population growth fostered by increased employment and other opportunities afforded by the proposed facility would require provision of additional public services. However, the increased tax base resulting from the new development would contribute to financing the costs of these additional services. In addition, local

school districts would be impacted as increased school enrollment would most likely occur.

2.2.2.2 Impacts on Community Facilities

Implementation of the Red Alternative would result in the displacement of the Community Church on Levi Lane. Displacement and relocation services would be provided by the AHTD in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Act of 1970*.

2.2.2.3 Impacts on Community Cohesion

The current mixture of agricultural uses, open areas, and a few scattered residences and businesses without supportive infrastructure represents a non-cohesive community without neighborhood identity and definitive boundaries. No splitting or truncation of existing neighborhoods, communities, or business districts would occur because of project implementation. Thus, neighborhood and community cohesion would not be adversely impacted by implementation of the proposed project.

Development of the project area under either the Red or Green Alternatives would serve to establish a homogenous and cohesive community in the form of an integrated transportation facility and associated industrial and related uses. The proposed development would be aligned and associated with the adjacent Arkansas River, a significant in-State water transportation resource currently underutilized by the City of Russellville, Pope County, and the ARV. Proposed development under either Build Alternative would enhance functionality and viability of the project area, and foster interaction between the project area and the local and regional community in the form of new transportation and employment opportunities.

2.2.2.4 Economic Impacts

Economic impacts considered include potential beneficial and adverse short- and long-term direct, indirect, and cumulative impacts on the property tax base; property tax revenues; business taxes; employment; income; business volume; waterway commerce; business and industrial establishment; and secondary induced impacts.

Both short-term and long-term beneficial and adverse economic impacts would occur under the Red Alternative. Short-term beneficial impacts would be realized by employment associated with construction of the intermodal port facilities and subsequent construction of associated industrial, commercial, and other facilities related to the port. This new construction-related employment would create additional personal income for the local and regional purchase of consumer goods and services during the construction period, which would most likely occur intermittently over a period of 15-20 years.

Long-term beneficial impacts would be realized by operation of the intermodal facility. According to a study completed on the economic feasibility of the intermodal facility (G. Hamilton et al., 2002), there are over 500 potential waterway users in the Arkansas Valley six-county area. These potential users include twelve industry classifications that have a high or medium potential for using the MKARNS. Industries included in such classifications that would benefit the most from the intermodal facility are paper and allied products; primary and fabricated metals; clay/glass products; industrial machinery; lumber and wood products; food products; and stone, clay, and mining products. The same study identified two distinct major types of benefits of the intermodal facility.

These include cost savings to current waterway users, and the shift-of-mode benefits for cargos that would reallocate to waterborne transport from their current non-waterborne transportation.

A study by the USACE (USACE, May, 2001) projected waterborne cargo flows within the six-county region “without project” and “with project.” The projections indicated that by the year 2022 over 35 percent of the total regional cargo or commodity movement would consist of waterborne transport under the “with project” versus only 14 percent under the “without project.” The majority of this increase in waterborne traffic would be the result of a shift-of-mode for commodity movement. The intermodal facility would provide for economic development of the region by offering a competitive advantage in transportation efficiencies.

Specific long-term beneficial economic impacts would be incurred with new employment associated with the intermodal facilities and the industrial, commercial, and other facilities within the project area associated directly or indirectly with the port. Development of the intermodal facility would enhance the capacity of the region for the retention and expansion of existing industries and the attraction of new industries. It is anticipated that employment levels associated with the intermodal facility and associated industrial park at full build-out could range between 1,500 and 2,000 employees. The new permanent employment generated would create additional personal income for consumption of goods and services in the local and regional economy. This additional direct annual employment income could range from \$37 million to \$50 million in current (2005) dollars, with additional indirect personal income created by indirect or secondary employment generated by the intermodal facility.

Additional long-term economic benefits would be realized with increased real property and other tax revenues resulting from development of the intermodal facility. It is anticipated that full-build out of the project area could potentially result in the construction of 2-3 million square feet of industrial, warehousing, and commercial building space. Under the current real property taxation rates, full development of the project area could potentially generate between \$700,000 and \$1,000,000 in real property taxes annually. The majority (90%) of this new tax revenue would be collected by the local school district. Since the land would be owned and leased by the Authority, tax revenues would only be generated by private improvements within the project area.

Short-term adverse economic impacts would be realized with the loss of tax revenue producing real property and subsequent removal from the tax rolls because of acquisition by a public entity. Under the Red Alternative improved and unimproved parcels with a total assessed valuation ranging between \$150,000 to \$160,000 would be removed from the local real property tax roll. This loss of tax revenue producing property translates into an approximate annual loss of \$7,500 to \$8,000 in real property tax revenue, of which approximately 90 percent would be lost to the Pottsville School District.

Indirect short-term beneficial impacts would be realized in the form of additional jobs created because of the direct job creation associated with facility construction. Indirect employment would result in the form of jobs associated with the provision of supportive goods, supplies, and services necessary for the construction phase of the project. This

creation of indirect employment would result in additional indirect personal income for the purchase of goods and services within the region.

Additional indirect long-term economic impacts would be incurred from the operations of the intermodal facility and associated development. These impacts would again be in the form of indirect employment and personal income created because of the direct employment associated with the facilities. Local and regional retail and service outlets would realize increased business volume and personal income. In addition, local and regional vendors of goods and supplies for businesses within the project area would benefit from the proposed action. A recently completed study on the impact of waterways in Arkansas (Nachtmann, 2002) estimated that indirect impacts on job creation and personal income are approximately equal to direct impacts on employment and income.

Other indirect beneficial impacts could result from the potential expansion of existing businesses and development of new businesses that would have an interest in the transportation and other services offered by the intermodal facility. In addition, development of a less expensive mode of transportation and a shift-of-mode in commodity movement could create more savings for businesses. It is also expected that land values within the vicinity of the proposed facility would increase because of new development opportunities afforded by the facility and associated industrial/warehousing facilities.

Development of the project area as proposed would require provision of new infrastructure and public services in the project area, including water, sewer, electricity, natural gas, communication, fire, police, and EMS services. Costs associated with such include the initial construction and subsequent provision of these services. Development of utilities would result in the generation of additional utility franchise tax revenue.

Potentially long-term indirect adverse economic impacts could be realized by the private Port of Dardanelle, located upstream and adjacent to the proposed intermodal facility, and the Dardanelle School District. It is impossible to speculate on the degree or severity of the economic impact on the Port of Dardanelle because of competition from the proposed public intermodal facility. Adverse impacts on the existing private port may result in loss of employment and personal income associated with the Port and its activities. In addition, the Dardanelle School District could be adversely impacted because of the loss of real property tax revenues if the Port ceased to operate, and if no reuse of the site and facilities subsequently occurred. Currently, the Dardanelle School District receives approximately \$4,500 in annual real property tax revenues from this facility.

Other long-term indirect adverse economic impacts include the loss of productive farmland within the project area. Approximately 461 acres of farmland, consisting primarily of soybeans, would be removed from agricultural production under the Red Alternative. Based on recent five-year average yield and price data from the United States Department of Agriculture, Arkansas Statistical Office, approximately \$90,000 of gross revenue from soybean production would be lost annually. In addition, there would be an annual loss of revenue from cessation of the production and sale of hay on over 80 acres used for this purpose.

2.2.2.5 Cumulative Impacts

The proposed Intermodal facility would create improved and expanded transportation services in the ARV by providing for a more economically feasible movement of goods by a combination of truck, rail, and water. Currently, the region is lacking the availability of shipping choices and transportation support facilities that facilitate use of different transportation modes. The proposed facility would result in direct benefits in the form of additional jobs, personal income, transportation costs savings, and other monetary returns associated with manufacturing and distribution activities..

Other related developments are proposed or planned that would have direct cumulative impacts associated with the intermodal port facility. These developments include the following: (1) the improvement of State Highway 247 to four lanes from State Highway 7 to the I-40/Highway 363 interchange in Pottsville; (2) extension/improvement of the D&R Railroad from the Union-Pacific Railroad's main line to the intermodal facility; and (3) potential deepening of the Arkansas River main channel to eleven or twelve feet (USACE, 2005). State Highway 247 would provide direct access to the intermodal facility and serve as a bypass for the likely increased volume of heavy truck traffic anticipated to be generated by the facility when fully developed. These three improvements would serve to greatly enhance truck, rail, and water transportation within the region, respectively.

Additional potential indirect cumulative impacts include expansion of existing or establishment of new market areas, and greater product values accruing from lower transportation costs. Other secondary cumulative impacts include the potential attraction of highway-oriented business along improved Highway 247. Additional cumulative impacts would include the potential resultant volumes of increased traffic associated with the intermodal facility and related developments and land use changes in adjacent areas as a result of secondary development opportunities afforded by the intermodal facility.

2.2.2.6 Mitigation

The displacement and relocation of affected residences, businesses, and non-profit organizations would be addressed and minimized by appropriate authorities. Relocation assistance would be provided by the AHTD in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Act of 1970* (Public Law 91-646). It is policy of the AHTD that no person shall be displaced unless and until comparable replacement housing has been provided. The AHTD provides written assurance of compliance with the Public Law 91-646, and all replacement housing is fair housing, or open and available to all persons regardless of race, color, religion, sex, or national origin. The AHTD's relocation policy also includes construction of HLR if comparable, decent, safe, and sanitary replacement housing is not available in the local housing market.

A more detailed description and explanation of the displacement/relocation procedure is contained in the *Conceptual Relocation Plan Technical Memorandum*.

2.2.3 Green Alternative

2.2.3.1 Social Impacts

The direct short-term and long-term beneficial and adverse social impacts would be similar to those under the Red Alternative. There would be six residential displacements, including one farming operation. Business displacements would be the same as under the Red Alternative.

Indirect short-term and long-term beneficial and adverse social impacts would be similar to those under the Red Alternative, only to a slightly lesser degree.

2.2.3.2 Impacts on Community Facilities

There would be no direct impact on community facilities as the Community Church is not within the Green Alternative project area. Indirect impacts on community facilities would be the same as those under the Red Alternative.

2.2.3.3 Impacts on Community Cohesion

Impacts on community cohesion would be the same as those under the Red Alternative.

2.2.3.4 Economic Impacts

Direct and indirect short-term and long-term beneficial and adverse economic impacts would be similar to those under the Red Alternative. However, some impacts would be greater under the Green Alternative. For example, approximately 155 additional acres of soybeans will be removed from production. Based on recent five-year average yield and price data from the United States Department of Agriculture, Arkansas Statistical Office, approximately \$127,000 of gross revenue from soybean production would be lost annually, or \$37,000 more than under the Red Alternative.

2.2.3.5 Cumulative Impacts

Cumulative impacts would be similar to those under the Red Alternative.

2.2.3.6 Mitigation

Mitigation measures to address the relocation of displaced housing will be the same as that described under the Red Alternative.