SEPTEMBER 14, 2021

SOCIOECONOMIC STUDY
THE GRAND RIVER DAM AUTHORITY—PENSACOLA PROJECT

ENERCON

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1.0 Demography and Socioeconomic Conditions

The Pensacola Hydroelectric Project (Pensacola Project or Project), owned and operated by the Grand River Dam Authority (GRDA), is licensed by the Federal Energy Regulatory Commission (FERC or Commission) as Project No. 1494. GRDA is a non-appropriated agency of the State of Oklahoma, created by the Oklahoma legislature in 1935 to be a "conservation and reclamation district for the waters of the Grand River." As licensed by FERC, the Project serves multiple purposes, including hydropower generation, water supply, public recreation, and wildlife enhancement. As directed by Congress under the Flood Control Act of 1944, 58 Stat. 887, 890-91, the U.S. Army Corps of Engineers (USACE) has exclusive jurisdiction over Grand Lake for flood control purposes. The Pensacola Project dam and hydroelectric generating facility are located northeast of Tulsa on the Grand (Neosho) River (Grand River) in Craig, Delaware, Mayes, and Ottawa counties, Oklahoma (see Figure 1). The Pensacola Dam creates the Grand Lake O' The Cherokees, also known as Grand Lake. This section presents information on the socioeconomics, including land use patterns, population, and employment, of the Project and the State of Oklahoma (GRDA 2017a). The region of influence (ROI) for socioeconomic impacts are defined as Craig, Delaware, Mayes and Ottawa County, Oklahoma, where the project impacts is located (FERC 2018). Socioeconomic and demographic data utilized in this discussion to establish baseline conditions consist of publicly available information about the ROI and, to provide perspective, the state of Oklahoma (Attachment A).

1.1 General Land Use Patterns

As shown in Figure 2, primary land use and land cover types in the four-county ROI are agricultural and forest covering approximately 86.2 percent of the area. As listed in Table 1, developed areas cover 6.3 percent of the land and are indicative of residential, commercial/industrial, and recreational development. Land cover has changed very little between 2001 and 2019, with most categories changing less than one percent. As of 2019, approximately 66.8 percent of lands adjacent to Grand Lake are forested or woody wetlands, 14.6 percent are designated as agricultural/crop lands, and 9.6 percent are developed areas (MRCL 2021). Lands in the ROI are generally rural and undeveloped, but historically, mining for lead and zinc was prevalent in Ottawa County, mining for coal was prevalent in Craig County, and agriculture played a major role in Delaware and Mayes counties (Oklahoma Historical Society 2020).

Table 1: Land Use Land Cover

Land Cover Category	2019 Percentage	2001 Percentage
Open Water	3.8	3.76
Developed, Open Space	3.59	3.88
Developed, Low Intensity	1.6	1.03
Developed, Medium Intensity	0.79	0.34
Developed, High Intensity	0.27	0.12
Barren Land	0.23	0.22
Deciduous Forest	26.95	28.07
Evergreen Forest	0.27	0.26

Land Cover Category	2019 Percentage	2001 Percentage
Mixed Forest	1.16	1.18
Shrub/Scrub	0.89	0.24
Herbaceous	2.49	1.92
Hay/Pasture	52.86	54.88
Cultivated Crops	3.95	3.06
Woody Wetlands	1	0.92
Emergent Herbaceous Wetlands	0.14	0.11

Northeastern Oklahoma is commonly referred to as the "Green Country," denoting its rolling green hills, tumbling rivers, expansive lakes, tallgrass prairies, and mild climate. Green Country includes 18 counties, including Craig, Delaware, Mayes, and Ottawa counties (TOK 2021). The ROI contains eight state parks, 20 city parks, six local recreational areas such as ballparks, Lake Eucha Park, Fort Gibson Lake, Fort Gibson Public Hunting Area & Waterfowl Refuge Portion, the Spavinaw Game Management Area, and the Spavinaw Public Hunting Area. As shown in Figure 3, of these recreational areas, five state parks and four local parks are adjacent to Grand Lake. The Ozark Plateau National Wildlife refuge has one of its nine units in the ROI, adjacent to Grand Lake (USFWS 2021; USGS 2020).

Grand Lake is a premier recreational lake in northeastern Oklahoma that is wholly or partially within Craig, Delaware, Mayes and Ottawa counties in Oklahoma. There are five state parks located around the shoreline and more than a dozen privately operated facilities. There are also numerous boat launches, marinas, tailwater fishing facilities, and fishing piers available to the public, as well as several wildlife areas, two visitor centers, several public overlooks, and one golf course. There are also many sites that can be used to access Grand Lake, as well as many areas offering tent, trailer, and recreational vehicle sites. GRDA operates and maintains the Duck Creek Bridge Public Access Area, Seaplane Bass Public Access Area, Monkey Island Public Boat Ramp, Big Hollow Public Access, and Wolf Creek Public Access Area (GRDA 2017a).

Development along the shoreline of Grand Lake primarily consists of residential, commercial, and business, with limited agricultural lands. Grand Lake is a popular location for recreation and residential development, particularly summer homes, due in part to the scenic quality of the reservoir and surrounding landscape, recreational fishing, and proximity to major population centers in Oklahoma, Kansas, Missouri, and Arkansas (GRDA 2017a). A comprehensive shoreline management plan was developed, submitted to FERC, and put in place to manage multiple resources (i.e., recreation, land use, aquatic habitat, terrestrial, cultural, etc.) and promote responsible growth-sensitive areas around Grand Lake (GRDA 2017d). The plan manages land use surrounding the lake by providing clear guidance to determine whether a proposed land use is appropriate. (GRDA 2008).

1.2 Population Trends and Demography

The population of the State of Oklahoma increased consistently between 2000 and 2020. As seen in Table 2, the state's population increased since the previous decennial census in 2010 from 3,751,351 to 3,959,353 in the latest decennial census in 2020. The previous estimated population

of Oklahoma was 3,956,971 persons in 2019 (USCB 2020a; USCB 2021). The population in the ROI increased between 2000 and 2010, but decreased between 2010 and 2020 (ODC 2015b). Based on the *Demographic State of the State* report, Oklahoma is expected to see a population increase up to 5,560,007 by 2075, with the population in the ROI expected to reach 198,444 for the same time period (ODC 2015b). Table 2 provides a summary of the population characteristics for the four counties that comprise the ROI and the state of Oklahoma.

Table 2: Population Characteristics

Characteristic	Craig County	Delaware County	Mayes County	Ottawa County	Oklahoma
2010 Population Total (Decennial)[a]	15,029	41,487	41,259	31,848	3,751,351
2019 Population Total (Estimate)[a]	14,142	43,009	41,100	31,127	3,956,971
2020 Population Total (Decennial)[b]	14,107	40,397	39,046	30,285	3,959,353
2075 Population Total (Projection)[c]	14,075	79,945	68,504	35,920	5,560,007
White[b]	60.8%	62.9%	61.3%	63.9%	63.5%
Black or African American[b]	2.7%	0.3%	0.5%	1%	7.3%
American Indian and Alaska Native[b]	20.2%	21.5%	21.1%	18.8%	8.4%
Asian[b]	0.5%	1.2%	0.5%	0.5%	2.3%
Native Hawaiian and Other Pacific Islander[b]	0.02%	0.1%	0.1%	0.8%	0.2%
Some Other Race[d]	1.1%	1.5%	1.1%	1.8%	5.4%
Two or More Races[b]	14.6%	12.5%	15.5%	13.1%	12.8%
Hispanic or Latino[b]	3.0%	4.0%	3.5%	5.6%	11.9%
Poverty (Families)[d]	12.9%	13.3%	14.1%	15.8%	10.8%
Poverty (Individual)[d]	18.6%	18.3%	18.1%	20.7%	15.2%
Persons under 18 years[b]	21.5%	20.0%	24.0%	23.4%	24.0%
Education – high school graduate or higher, percent of persons age 25 years+, 2014–2018 estimate[a]	86.6%	83.9%	86.6%	84.9%	87.8%

a. USCB 2020a

b. USCB 2021

c. ODC 2015b

d. USCB 2020b

1.2.1   Craig County

Craig County is a predominantly rural county in northeastern Oklahoma. The population density of the county was 19.7 persons per square mile in 2010, and the population experienced a slight increase between 2000 and 2010. Craig County had a population of 17,404 in 1910 with a peak population of 21,083 in 1940. (ODC 2015b) As seen in Table 2, since the previous decennial census in 2010, Craig County's population has decreased from 15,029 to 14,107 persons as indicated in the latest decennial census in 2020. During the same time period, the state of Oklahoma increased its population from 3,751,351 persons in 2010 to 3,959,353 persons in 2020. (USCB 2020a; USCB 2021) Based on the *Demographic State of the State* report, Craig County is expected to experience a decrease in population, reaching 14,075 by 2075 (ODC 2015b).

In 2020, Craig County had 21.5 percent of its population under 18 years of age, which is less than the state of Oklahoma (24.0 percent) (USCB 2021). As of 2014 through 2018, Craig County was estimated to have persons 65 years and over represent 19.6 percent of the population, which is more than the state of Oklahoma (15.7 percent). As seen in Table 2, the state of Oklahoma has a higher percentage of persons who have high school diplomas (or higher attainment) than Craig County (87.8 percent and 86.6 percent, respectively). (USCB 2020a)

1.2.2   Delaware County

Delaware County is a predominantly rural county in northeastern Oklahoma. The population density of the county was 56.2 persons per square mile in 2010. As seen in Table 2, since the previous decennial census in 2010, Delaware County has decreased from 41,487 to 40,397 persons in 2020. During the same time period, the state of Oklahoma has increased its population from 3,751,351 persons in 2010 to 3,959,353 persons in 2020. (USCB 2020a; USCB 2021) The population of Delaware County peaked in 1940 and started to decline, but had been increasing steadily since 1960 due to a surge in tourism, a tight labor market, aggressive action to attract employers, and a growing economy in northwestern Arkansas (OHS 2020). The latest decennial census indicates a decline in population. Based on the *Demographic State of the State* report, Delaware County is expected to experience an increase in population reaching 79,945 by 2075 (ODC 2015b).

In 2020, Delaware County had 20 percent of its population under 18 years of age, which is less than the state of Oklahoma (24.0 percent). From 2014 through 2018, Delaware County was estimated to have persons 65 years and over represent 25 percent of the population, which is more than the state of Oklahoma (15.7 percent). As seen in Table 2, the state of Oklahoma has a higher percentage of persons who have high school diplomas (or higher attainment) than Delaware County (87.8 percent and 83.9 percent, respectively). (USCB 2020a)

1.2.3   Mayes County

Mayes County is a predominantly rural county in northeastern Oklahoma. The population of Mayes County peaked in 1940 and started to decline, but has been increasing steadily since 1960. (ODC 2015b) The population density of the county was 63.0 persons per square mile in 2010, and the county experienced an increase in population between 2000 and 2010 (USCB 2020a; ODC 2015b). As described in Table 2, since the previous decennial census in 2010, Mayes County decreased from 41,259 to 39,046 persons as indicated the latest decennial census

of 2020. During the same time period, the state of Oklahoma has increased its population from 3,751,351 persons in 2010 to 3,959,353 persons in 2020. (USCB 2020a; USCB 2021) Based on the *Demographic State of the State* report, Mayes County is expected to experience an increase in population reaching 68,504 by 2075 (ODC 2015b).

In 2020, Mayes County was estimated to have 24.0 percent of its population under 18 years of age, which is the same as the state of Oklahoma (24.0 percent) (USCB 2021). As of 2014 through 2018, Mayes County was estimated to have persons 65 years and over represent 18.4 percent of the population, which is more than the state of Oklahoma (15.7 percent). As seen in Table 2, the state of Oklahoma has a higher percentage of persons who have high school diplomas (or higher attainment) than Mayes County (87.8 percent and 86.6 percent, respectively). (USCB 2020a)

1.2.4   Ottawa County

Ottawa County is a predominantly rural county in northeastern Oklahoma. The population density of the county is 67.6 persons per square mile, and the population experienced a slight decrease between 2000 and 2010 (USCB 2020a; ODC 2015b). As described in Table 2, since the previous decennial census in 2010, the population of Ottawa County has decreased from 31,848 to 30,285 persons in 2020. During the same time period, the state of Oklahoma has increased its population from 3,751,351 persons in 2010 to 3,959, 353 persons in 2020. (USCB 2020a) The population of Ottawa County declined until 1960, but had shown an increasing trend since that time. However, the latest three decennial censuses show a decline from 2000 through 2020. Based on the *Demographic State of the State* report, Ottawa County is expected to increase in population reaching 35,920 by 2075 (ODC 2015b).

In 2020, Ottawa County had 23.4 percent of its population under 18 years of age, which is less than the state of Oklahoma (24.0 percent) (USCB 2021). From 2014 through 2018, Ottawa County was estimated to have persons 65 years and over represent 18.3 percent of the population, which is more than the state of Oklahoma (15.7 percent). As listed in Table 2, the state of Oklahoma has a higher percentage of persons who have high school diplomas (or higher attainment) than Ottawa County (87.8 percent and 84.9 percent, respectively). (USCB 2020a)

1.3   Housing

As presented in Table 3, the availability of vacant housing in the ROI has been consistent since 2000. The 2020 percentage of available housing indicate that with any growth in population in the ROI, there are sufficient vacant homes available to keep up with any population increase. In 2020, availability of housing in Craig County was 14.8 percent, 30.8 percent in Delaware County, 16.7 percent in Mayes County and 13.5 percent in Ottawa County. When compared to the State of Oklahoma, all four counties had higher housing availability. (USCB 2020c)

Table 3: Housing

Name	2000	2010	2000 to 2010 Change (%)	2020	2010 to 2020 Change (%)
Craig County					
Total Housing Units	6,459	6,725	4.1	6,369	-5.3
Occupied Units	5,620	5,682	1.1	5,424	-4.5
Vacancy Units	839	1,043	24.3	945	-9.4
Vacancy (percent)	13	15.5	2.5	14.8	-0.7
Delaware County					
Total Housing Units	22,290	24,534	10.1	24,086	-1.8
Occupied Units	14,838	16,070	8.3	16,677	3.8
Vacancy Units	7,452	8,464	13.6	7,409	-12.5
Vacancy (percent)	33.4	34.5	1.1	30.8	-3.7
Mayes County					
Total Housing Units	17,423	19,015	9.1	18,263	-4.0
Occupied Units	14,823	16,073	8.4	15,219	-5.3
Vacancy Units	2,600	2,942	13.2	3,044	3.5
Vacancy (percent)	14.9	15.5	0.6	16.7	1.2
Ottawa County					
Total Housing Units	14,842	14,253	-4.0	13,714	-3.8
Occupied Units	12,984	12,164	-6.3	11,859	-2.5
Vacancy Units	1,858	2,089	12.4	1,855	-11.2
Vacancy (percent)	12.5	14.7	2.2	13.5	-1.2
Oklahoma					
Total Housing Units	1,514,400	1,666,205	10.0	1,746,807	4.8
Occupied Units	1,342,293	1,432,959	6.8	1,535,830	7.2
Vacancy Units	172,107	233,246	35.5	210,977	-9.5
Vacancy (percent)	11.4	14	2.6	12.1	-1.9

(USCB 2020c; USCB 2021)

Table 4 details the rise in median housing values that has taken place over the years. Between 2000 and 2010, the median house value rose by 67.0 percent in Craig County, 12.8 percent in Delaware County, 34.1 percent in Mayes County, and 66.7 percent in Ottawa County. Between 2010 and 2019 the median housing values in Craig County rose by 25.3 percent; 27.6 percent in

Delaware County, 26.5 percent in Mayes County and 9.7 percent in Ottawa County. Of the four counties, as of 2019 Delaware County median house values are the highest ($117,900) and Ottawa County median house values are the lowest ($86,300). The State of Oklahoma had higher median housing values than all four counties. (USCB 2020c)

Between 2000 and 2010, median monthly rents increased along with median housing values in the four counties. In Craig County, between 2000 and 2010 median monthly rents rose by 39.1 percent; and rose again by 36.5 percent between 2010 and 2019. Delaware County rose by 37.2 percent between 2000 and 2010, with an increase in the rise of median monthly rents between 2010 and 2019 of 28.6 percent. Median rent in Mayes County rose by 47.5 percent between 2000 and 2010, with an increase between 2010 and 2019 of 28.2 percent. In Ottawa County, between 2000 and 2010 median monthly rents rose by 46.5 percent and rose by 30.2 percent between 2010 and 2019. Of the four counties, Craig County has the highest median monthly rents ($752) and Ottawa County has the lowest monthly rents ($677). The State of Oklahoma had higher median monthly rent that all four of the counties. (USCB 2020c)

Table 4: Housing Value and Rent

Name	2000	2010	2000 to 2010 Change (%)	2019 Estimate	2010 to 2019 Change (%)
Craig County					
Median House Value ($)	52,100	87,000	67.0	109,000	25.3
Median Rent ($/month)	396	551	39.1	752	36.5
Delaware County					
Median House Value ($)	81,900	92,400	12.8	117,900	27.6
Median Rent ($/month)	390	535	37.2	688	28.6
Mayes County					
Median House Value ($)	66,500	89,200	34.1	112,800	26.5
Median Rent ($/month)	394	581	47.5	745	28.2
Ottawa County					
Median House Value ($)	47,200	78,700	66.7	86,300	9.7
Median Rent ($/month)	355	520	46.5	677	30.2
Oklahoma					
Median House Value ($)	70,700	111,400	57.6	147,000	32.0
Median Rent ($/month)	456	659	44.5	814	23.5

(USBC 2020c)

1.4   Economic Activity

The State of Oklahoma's gross domestic product (GDP) for 2020 was $190.8 billion. In the last quarter of 2020, the top five non-farm industries contributing to earnings within Oklahoma were trade, transportation, and utilities (19.9 percent); government (19.8 percent); professional and business services (12.2 percent); educational and health services (12.17 percent); and

manufacturing (8.7 percent). Metropolitan areas contribute greatly to the state's real GDP; the cities of Enid, Tulsa, Lawton, and Oklahoma City contribute approximately 71.5 percent to the state's GDP, whereas the balance of the state contributes 28.5 percent. (OESC 2021) The job opportunities, low electricity rates (approximately 45 percent lower than the national average), and quality of life attract individuals to move to Oklahoma (ODC 2015a).

In 2018, the GDP of Craig County was $437 million, Delaware County was $781.9 million, Mayes County was $1.4 billion, and Ottawa County $889.8 million. Economic activity in the ROI differs from economic activity throughout the State of Oklahoma. Government and agriculture are the dominant industries for Craig, Delaware, Mayes, and Ottawa counties; manufacturing, retail, construction, real estate, health care, transportation, arts and entertainment, forestry and utilities contribute to the local employment base. (NaCo 2020) GRDA also creates a multitude of jobs and careers within the ROI (GRDA 2017a).

The popularity of water-based recreation at Grand Lake has resulted in significant economic development, particularly in real estate, goods, and services. Grand Lake is host to many marinas, resorts, and other commercial operations such as campgrounds and restaurants (GRDA 2017a). Grand Lake is the third largest reservoir in Oklahoma, with over one million visitors annually (GRDA 2017b). The primary reasons for visiting Grand Lake are camping, recreational fishing, boating, swimming, tournament fishing, off-roading, and canoeing or kayaking (GRDA 2017c). In 2018, total spending on travel in the ROI includes $18.0 million in Craig County, $194.6 million in Delaware County, $49.8 million in Mayes County, and $337 million in Ottawa County (OTRD 2019).

The Oklahoma Department of Commerce published *The Economic Impact of the Grand River Dam Authority* in March 2015. This economic impact study summarizes the economic benefits associated with operating, constructing, and positive externalities from GRDA. Between 2015 and 2020, the estimated impact of operating GRDA represents an annual economic activity of $510 to $581 million (ODC 2015a). These values result from the employment and payroll associated with operating the GRDA. In addition, the estimated economic impact resulting from construction and investment activities associated with the construction of the combined-cycle gas generation plant at the Grand River Energy Center, are projected to generate $210 million in additional economic activity within the first year of construction and another $214 million in the second year. The estimated economic impact resulting from tourism, quality of life, and relative power costs—all provided by GRDA, including its Grand Lake facility—are expected to contribute approximately $240–$260 million (ODC 2015a).

1.5 Employment

In 2016, the top specialized industry by employment in Craig (19.0 percent) and Ottawa (35.2 percent) counties was state and local government. Delaware County's top specialized industry by employment was agriculture at 8.4 percent, and manufacturing was the top specialized in Mayes County with 15.5 percent. (NACo 2020) In 2018, the largest total employment for the ROI was found in Mayes County (19,028), followed by Delaware County (17,360), Ottawa County (13,891), and Craig County (5,904). The largest labor force was found in Mayes County (19,694), followed by Delaware County (18,065), Ottawa County (14,389), and Craig County (6,115). (OKWorks 2020) Table 5 summarizes the top five specialized industries by employment for the four counties within the ROI.

Table 5: Top Specialized Industry by Employment

Industries	Percent	Jobs (thousands)
Craig County		
State and Local Government	19	1.7
Agriculture	14.3	1.3
Health and Social Assistance	10.6	.95
Transportation	2.7	.24
Utilities	2	.18
Delaware County		
Agriculture	8.4	1.4
Construction	8.3	1.4
Real Estate	4.8	.78
Arts and Entertainment	2.2	.35
Forestry and Fishing	0.5	.09
Mayes County		
Manufacturing	15.5	2.8
State and Local Government	13.6	2.5
Retail	12.4	2.2
Agriculture	9	1.6
Construction	9	1.6
Ottawa County		
State and Local Government	35.2	5.7
Agriculture	7.4	1.2
Manufacturing	7	1.1
Other Services	5.9	.96
Forestry and Fishing	0.5	.09

(NACo 2020)

As shown in Table 6, for 2014 through 2018, the four counties in the ROI all had a lower estimated population in the labor force than the state of Oklahoma (60.7 percent). Mayes County had the highest labor force participation (56.0 percent), followed by Ottawa County (55.5 percent), Craig County (51.9 percent), and Delaware County (48.1 percent). (USCB 2020a)

Based on the most recent data available (2015 and 2016), GRDA supports over 7,100 jobs in Oklahoma's economy. Of these 7,100 jobs, approximately 25 percent are directly related to construction of the Grand River Energy Center, approximately 40 percent of these jobs are day-to-day operational positions, and approximately 35 percent of these jobs are derived from tourism,

amenities, low power costs combined with high quality of life benefits associated with living in close proximity to GRDA (ODC 2015a).

1.6   Income and Poverty

As listed in Table 5, the median household income for the four counties in the ROI is lower than the state of Oklahoma. All four counties had a lower per capita income than the state of Oklahoma. In 2020, the State of Oklahoma reported a higher unemployment rate than Craig County, Delaware County, Mayes County and Ottawa County. As listed in Table 5, the employment status of the four counties was lower than the state. The annual unemployment rate has nearly doubled statewide since 2019. The monthly unemployment rate peaked in April of 2020 for Oklahoma and all four counties in the ROI declined (USBLS 2020). The United States has experienced higher unemployment rates due to the effects of Covid-19 mitigation; however, the peak occurred in January of 2020 (OSU 2021).

The percentage of people living below the poverty level is higher in Craig, Delaware, and Ottawa counties than in the state of Oklahoma. The percentage of people living below the poverty level in Mayes County is lower than the state. Figure 4 illustrates areas where the percent of people living below poverty exceed 20 percentage points above the state of Oklahoma's poverty level (15.6 percent).

Based on the most recent data available (2015 and 2016), disposable income, as a result from employment within GRDA, amounts to $310–$337 million. Approximately 50 percent of disposable income is generated from day-to-day operational positions. GRDA operations provide a wide variety of occupations, with an hourly rate ranging from $11.39 through $38.41 (ODC 2015a).

Table 6: Employment and Income

Measure	Craig County	Delaware County	Mayes County	Ottawa County	Oklahoma
2020 Unemployment Rate (annual average)	5.4	5.3	5.0	5.7	6.1
2019 Unemployment Rate (annual average)	3.3	3.6	2.9	3.2	3.1
Employment Status (civilian population 16 years and over in labor force)	51.9%	48.1%	56.0%	55.5%	60.7%
Median household income (in 2018 dollars)	$41,701	$39,742	$48,853	$39,070	$51,424
Per capita income in past 12 months (in 2018 dollars)	$20,704	$22,976	$23,861	$20,209	$27,432
Persons in poverty (percent)	19.5	20.7	15.5	20.6	15.6

(USBLS 2020; USCB 2020a)

2.0 Agency and Stakeholder Outreach

GRDA sent letters to various stakeholders, including local tribes, organizations, and businesses, in the ROI to request additional socioeconomic information. GRDA requested additional information on industry trends (e.g., goods and services, agricultural use), trends in land and resource values (e.g., hunting, fishing, ecotourism, outfitting, trapping, recreation, exploration, and mining activities), as well as other socioeconomic information that may be relevant to a socioeconomic analysis (GRDA 2020 letter). Responses were received from eight stakeholders and are included in Attachment B. A detailed list of stakeholders who were included in the outreach are provided in Table 7.

Table 7: List of Contacts

Organization	Contact	Date Mailed
Federal Agencies		
Advisory Council on Historic Preservation	Dr. John Eddins	7/15/20
U.S. Army Corps of Engineers	Mr. Andrew Commer, Chief	7/15/20
U.S. Bureau of Indian Affairs	Mr. Eddie Streater, Regional Director	7/15/20
U.S. Bureau of Land Management	Mr. Robert Pawelek, Field Manager	7/15/20
U.S. Department of the Army	U.S. Department of the Army	7/15/20
U.S. Department of the Interior	Mr. Conor Cleary, U.S. Department of the Interior	7/15/20
U S Environmental Protection Agency	Ms. Kimeka Price, NEPA Project Manager	7/15/20
U.S. Fish and Wildlife Service	Ms. Jonna Polk, U.S. Fish and Wildlife Service	7/15/20
U.S. Forest Service	Chief Tony Tooke, U.S. Forest Service	7/15/20
U.S. Geological Survey	Jason Lewis, U.S. Geological Survey	7/15/20
U.S. Natural Resources Conservation Service	Acting Chief Leonard Jordan, U.S. Natural Resources Conservation Service	7/15/20
National Park Service	Sue Masica, Regional Director	7/15/20
National Weather Service	Ms. Nicole McGavock, National Weather Service	7/15/20
State Agencies		
Oklahoma Archeological Survey	Dr. Kary Stackelbeck, State Archeologist	7/23/20
Oklahoma Department of Commerce	Ms. Deby Snodgrass, Executive Director	7/23/20
Oklahoma Conservation Commission	Mr. Brooks Tramell, Director of Monitoring, Assessment & Wetlands	7/23/20
Oklahoma Corporation Commission	Mr. Tim Rhodes, Director of Administration	7/23/20

Organization	Contact	Date Mailed
Oklahoma Department of Agriculture	Mr. Jim Reese, Commissioner	7/23/20
Oklahoma Department of Environmental Quality	Mr. Joe Long, Environmental Programs Manager	7/23/20
Oklahoma Office of Emergency Management	Mr. Charles Kerns, Oklahoma Office of Emergency Management	7/23/20
Oklahoma Department of Health	Ms. Valauna Grissom, Secretary	7/23/20
Oklahoma Department of Transportation	Mr. Mike Patterson, Executive Director	7/23/20
Oklahoma Tourism and Recreation Department	Mr. Dick Dutton, Executive Director	7/23/20
Oklahoma Department of Wildlife Conservation	Mr. JD Strong, Director	7/23/20
Oklahoma Historical Society	Ms. Lynda Ozan, Deputy State Historic Preservation Officer	7/23/20
Oklahoma Water Resources Board	Ms. Julie Cunningham, Executive Director	7/23/20
Office of State Fire Marshal	Mr. Luke Tallant, Office of State Fire Marshal	7/23/20
Tribal Organizations		
Inter-Tribal Council Inc.	Inter-Tribal Council Inc.	7/23/20
Alabama-Quassarte Tribal Town	Chief Nelson Harjo, Alabama-Quassarte Tribal Town	7/23/20
Apache Tribe of Oklahoma	Chairman Bobby Komardley, Apache Tribe of Oklahoma	7/23/20
Caddo Nation of Oklahoma	Chairman Tamara Francis-Fourkiller, Caddo Nation of Oklahoma	7/23/20
Caddo Nation	Derek Hill, 106 Specialist	7/23/20
Cherokee Nation	Chief Chuck Hoskins, Cherokee Nation	7/23/20
Delaware Nation	Ms. Deborah Dotson, President	7/23/20
Delaware Tribe of Indians	Chief Chester Brooks, Delaware Tribe of Indians	7/23/20
Eastern Shawnee Tribe of Oklahoma	Chief Glenna J. Wallace, Eastern Shawnee Tribe of Oklahoma	7/23/20
Iowa Tribe of Oklahoma	Chairman Bobby Walkup, Iowa Tribe of Oklahoma	7/23/20
Kiowa Tribe	Ms. Kellie Lewis, Acting Tribal Historic Preservation Officer	7/23/20
Little Traverse Bay Bands of Odawa Indians	Ms. Regina Gasco-Bentley, Little Traverse Bay Bands of Odawa Indians	7/23/20
Miami Tribe of Oklahoma	Chief Douglas G. Lankford, Miami Tribe of Oklahoma	7/23/20

Organization	Contact	Date Mailed
Miami Nation	Mr. Joe Halloran, Counsel for Miami Nation	7/23/20
Modoc Tribe of Oklahoma	Chief Bill Follis, Modoc Tribe of Oklahoma	7/23/20
Muscogee (Creek) Nation	Chief James Floyd, Muscogee (Creek) Nation	7/23/20
Osage Nation	Chief Geoffrey Standing Bear, Osage Nation	7/23/20
Ottawa Tribe of Oklahoma	Chief Ethel Cook, Ottawa Tribe of Oklahoma	7/23/20
Otoe-Missouria Tribe of Indians	Chairman John Shotton, Otoe-Missouria Tribe of Indians	7/23/20
Peoria Tribe of Oklahoma	Chief Craig Harper, Peoria Tribe of Oklahoma	7/23/20
Quapaw Tribe of Oklahoma	Chairman John Berrey, Quapaw Tribe of Oklahoma	7/23/20
Sac and Fox Nation of Oklahoma	Chief Kay Rhoads, Sac and Fox Nation of Oklahoma	7/23/20
Seneca-Cayuga Nation	Chief William Fisher, Seneca-Cayuga Nation	7/23/20
Shawnee Tribe of Oklahoma	Chief Ron Sparkman, Shawnee Tribe of Oklahoma	7/23/20
Tonkawa Tribe of Oklahoma	President Russell Martin, Tonkawa Tribe of Oklahoma	7/23/20
United Keetoowah Band of Cherokees	Chief Joe Bunch, United Keetoowah Band of Cherokees	7/23/20
Wichita and Affiliated Tribes	President Terri Parton, Wichita and Affiliated Tribes	7/23/20
Wyandotte Tribe of Oklahoma	Chief Billy Friend, Wyandotte Tribe of Oklahoma	7/23/20
Wyandotte Nation	Mr. Norman Hildebrand, Jr., Second Chief; Wyandotte Nation	7/23/20
Additional Tribal Names		
Cherokee Nation	Ms. Elizabeth Toombs, Cherokee Nation	7/23/20
Osage Nation Historic Preservation Office	Mr. James Munkres, Archaeologist	7/23/20
Osage Nation Historic Preservation Office	Dr. Andrea Hunter, Tribal Historic Preservation Officer	7/23/20
Ottawa Tribe of Oklahoma	Ms. Rhonda Hayworth, Tribal Historic Preservation Officer	7/23/20
Quapaw Tribe of Oklahoma	Mr. Everett Bandy, Quapaw Tribe of Oklahoma	7/23/20

Organization	Contact	Date Mailed
Congressional Delegation		
The Honorable James Mountain Inhofe United States Senate	The Honorable James Mountain Inhofe, United States Senate	7/23/20
The Honorable James Lankford United States Senate	The Honorable James Lankford, United States Senate	7/23/20
The Honorable Jim Bridenstine	The Honorable Jim Bridenstine	7/23/20
The Honorable Markwayne Mullin	The Honorable Markwayne Mullin	7/23/20
The Honorable Michael Bergstrom Oklahoma State Senate, District 1	The Honorable Michael Bergstrom, Oklahoma State Senate, District 1	7/23/20
The Honorable Marty Quinn Oklahoma State Senate, District 2	The Honorable Marty Quinn, Oklahoma State Senate, District 2	7/23/20
The Honorable Wayne Shaw Oklahoma State Senate, District 3	The Honorable Wayne Shaw, Oklahoma State Senate, District 3	7/23/20
The Honorable Josh West House of Representatives, District 5	The Honorable Josh West, House of Representatives, District 5	7/23/20
The Honorable Chuck Hoskin House of Representatives, District 6	The Honorable Chuck Hoskin, House of Representatives, District 6	7/23/20
The Honorable Ben Loring House of Representatives, District 7	The Honorable Ben Loring, House of Representatives, District 7	7/23/20
The Honorable Tom Gann House of Representatives, District 8	The Honorable Tom Gann, House of Representatives, District 8	7/23/20
Governor of Oklahoma	The Honorable Kevin Stitt, Governor of Oklahoma	7/23/20
Secretary of Energy and Environment	The Honorable Kenneth (Ken) Wagner, Secretary of Energy and Environment	7/23/20
Other Governmental Entities		
Afton Public Works Authority	Afton Public Works Authority	7/23/20
City of Grove	Mr. Bill Keefer, City Manager, City of Grove	7/23/20
City of Miami	Mayor Bless Parker, City of Miami	7/23/20
Davis Wright Tremaine LLP	Ms. Barbara S. Jost, Davis Wright Tremaine LLP	7/23/20
Coo-Y-Yah Museum	Coo-Y-Yah Museum	7/23/20
Craig County Commissioner, District 1	Mr. Lowell Walker, Craig County Commissioner District 1	7/23/20
Craig County Commissioner, District 2	Mr. Mike Fitzpatrick, Craig County Commissioner District 2	7/23/20
Craig County Commissioner, District 3	Mr. Dan Peetom, Craig County Commissioner District 3	7/23/20

Organization	Contact	Date Mailed
Craig County	Mr. Morris Bluejacket, Craig County Flood Plain Manager	7/23/20
Craig County Conservation District	Cambra Fields, District Conservationist	7/23/20
Delaware County Commissioners, District 1	Mr. David Poindexter, Delaware County Commissioner District 1	7/23/20
Delaware County Commissioners, District 2	Mr. Russell Martin, Delaware County Commissioner District 2	7/23/20
Delaware County Commissioners, District 3	Martin Kirk, Delaware County Commissioner District 3	7/23/20
Delaware County	Mr. Robert Real, Delaware County Floodplain Administrator	7/23/20
Delaware County Historical Society & Museum	Delaware County Historical Society & Museum	7/23/20
Delaware County Conservation District	Delaware County Conservation District	7/23/20
Eastern Trails Museum	Eastern Trails Museum	7/23/20
Integris Health Center	Mr. Jonas Rabel, Administrator	7/23/20
Ketchum Public Works Authority	Ms. Jill Lambert, Ketchum Public Works Authority	7/23/20
Mayes County Commissioners, District 1	Mr. Matt Swift, Mayes County Commissioner District 1	7/23/20
Mayes County Commissioners, District 2	Ms. Meredith Frailey, Mayes County Commissioner District 2	7/23/20
Mayes County Commissioners, District 3	Mr. Ryan Ball, Mayes County Commissioner	7/23/20
Mayes County Conservation District	Mayes County Conservation District	7/23/20
Mayes County	Mr. Johnny Janzen, Mayes County Floodplain Manager	7/23/20
Miami Public Schools	Mr. Jeremy Hogan, Superintendent	7/23/20
Miami Regional Chamber of Commerce	Mr. Steve Gilbert, Director	7/23/20
NE Ward 1	Mr. David Davis, Council Member	7/23/20
NE Ward 2	Mr. Doug Weston, Council Member	7/23/20
SW Ward 3	Mr. Ryan Orcutt, Council Member	7/23/20
SE Ward 4	Ms. Vicki Lewis, Council Member	7/23/20
Ottawa County Emergency Management	Mr. Joe Dan Morgan, Ottawa County Emergency Management	7/23/20
Ottawa County Commissioners, District 1	Chairman John Clarke, Ottawa County Commissioner, District 1	7/23/20
Ottawa County Commissioners, District 2	Mr. Chad Masterson, Ottawa County Commissioner District #2	7/23/20

Organization	Contact	Date Mailed
Ottawa County Commissioners, District 3	Mr. Russell Earls, Ottawa County Commissioner District #3	7/23/20
Ottawa County Conservation District	Ottawa County Conservation District	7/23/20
Ottawa County Historical Society (Dobson Museum)	Ottawa County Historical Society, (Dobson Museum)	7/23/20
RWD #3 Delaware County	Mr. Matt Outhier, RWD #3 Delaware County	7/23/20
RWD #3 Mayes County – Disney	RWD #3 Mayes County – Disney	7/23/20
Town of Afton	Town of Afton	7/23/20
Town of Bernice	Town of Bernice	7/23/20
Town of Disney	Town of Disney	7/23/20
Town of Fairland	Town of Fairland	7/23/20
Town of Ketchum	Town of Ketchum	7/23/20
Town of Langley	Ms. Melissa Yarbrough, Town of Langley	7/23/20
City of Vinita	City of Vinita	7/23/20
Town of Wyandotte	Town of Wyandotte	7/23/20
Non-Governmental Organizations		
American Rivers	American Rivers	7/23/20
American Whitewater	American Whitewater	7/23/20
Ducks Unlimited	Dillon Schroeder, Ducks Unlimited	7/23/20
Grand Lake Audubon Society	Grand Lake Audubon Society	7/23/20
Grand Lake Sail and Power Squadron	Mr. Bruce Watson, Squadron Commander, Grand Lake Sail and Power Squadron	7/23/20
Grand Lake Watershed Alliance Foundation	Grand Lake Watershed Alliance Foundation	7/23/20
Local Environmental Action Demanded Inc.	Ms. Rebecca Jim, Local Environmental Action Demanded Inc.	7/23/20
The Nature Conservancy	Ms. Melissa Shackford, Director of Land Protection	7/23/20
The Nature Conservancy -Tulsa	Mike Fuhr	7/23/20
Trout Unlimited	Mr. Chris Wood, President, Trout Unlimited	7/23/20
Tulsa Audubon Society	Mr. John Kennington, President, Tulsa Audubon Society	7/23/20
Public Citizens		
Larry Bork	Larry Bork, GSEP	7/23/20

Organization	Contact	Date Mailed
Cherokee Grove Golf at Carey Bay	Mr. Clayton Garner, Cherokee Grove Golf at Carey Bay	7/23/20
Grand Bluffs Development	Grand Bluffs Development	7/23/20
Shangri-La Management	Mr.Jason Sheffield, Shangri-La Management	7/23/20
Spinnaker Point	Mr. Robert Steinkirchner, Spinnaker Point, Manager	7/23/20
Shoreline, LLC	Mr. Andy Stewart, Shoreline, LLC	7/23/20
Spinnaker Point Estates	Mr. Eric Grimshaw, Spinnaker Point Estates	7/23/20
Tera Miranda Shores Inc.	Mr. Bruce Hensley, Tera Miranda Shores Inc.	7/23/20
The University of Oklahoma	Dr. Robert Nairn, School of Civil Engineering	7/23/20
Oklahoma State University	Oklahoma State University, Burns Hargis, President	7/23/20
Northeastern Oklahoma A & M College	Mr. Kyle Stafford, President	7/23/20
OSU-A&M College Board of Regents	Mr. Steve Stephens, General Counsel	7/23/20
Rogers State University	Dr. Keith Martin, Dean, Professor of Biology	7/23/20
Miami Flood Mitigation Advisory Board	Miami Flood Mitigation Advisory Board	7/23/20
Grand Seaplanes, LLC	Grand Seaplanes, LLC	7/23/20
Anglers in Action	Anglers in Action	7/23/20
Grand Lake Association & Visitor Center	Grand Lake Association & Visitor Center	7/23/20
Grand Lakers United Enterprise	Rusty Fleming Executive Director	7/23/20
Grand Lake Association	Mr. Jay Cranke, Director Grand Lake Association	7/23/20
Grove Area Chamber of Commerce	Mr. Donnie Crain, President	7/23/20
South Grand Lake Area Chamber of Commerce	South Grand Lake Area Chamber of Commerce	7/23/20
Miami Area Chamber of Commerce	Director Michele Bolton, Miami Area Chamber of Commerce	7/23/20
Oklahoma Association of Realtors	Oklahoma Association of Realtors	7/23/20
Har-Ber Village	Har-Ber Village	7/23/20
Dr. Mark Osborn	Dr. Mark Osborn	7/23/20
Mr. Jack Dalrymple	Mr. Jack Dalrymple	7/23/20
Shangri-La Marina	Mr. Mike Williams, Director of Communications & Gov't Relations	7/23/20

Organization	Contact	Date Mailed
Cherokee Yacht Club Marina	Mr. Tom McKibben, General Manager	7/23/20
Port Carlos	Mr. Gary Stuart, Manager	7/23/20
Arrowhead Yacht Club (North & South)	Mr. Joe Harwood, Owner	7/23/20
Clearwater Bay Marina	Mr. Mike Whorton, Owner	7/23/20
Harbors View Marina	Ms. Robin Carpenter, General Manager	7/23/20
Safe Harbor Marinas	Mr. Jeff Rose, Regional Manager	7/23/20
Thunder Bay Marina LLC	Mr. Jason Macer, Manager	7/23/20
Cedar Port Marina	Mr. Jerry Cookson, Manager	7/23/20
Tera Miranda Marina Resort	Mr. Tom Berry, Manager	7/23/20
Honey Creek Landing Marina	Ms. April Cummins, Manager	7/23/20
Willow Park Marina	Mr. Greg Crenshaw	7/23/20
Southwinds Marina	Mr. Ted Peitz, Owner	7/23/20
The Landings Marina	Mr. Paul Staten, Owner	7/23/20
Scotty's Cove, Inc	Scotty's Cove, Inc	7/23/20
Hammerhead Marina	Mr. Nick Powell, Manager	7/23/20
Grand Lakeside Marina	Grand Lakeside Marina	7/23/20
Indian Hills Resort and Marina	Mr. Todd Elson, Manager	7/23/20
Hi-Lift Marina LLC	Mr. Kevin McClure, Manager	7/23/20
Dripping Springs Yacht Club	Mr. Harry Cole, Owner	7/23/20
Red Arrow Marina	Mr. Sam Chapman, Owner	7/23/20
Elk River Landing	Mr. Russ Allard, Owner	7/23/20

3.0   Cumulative Socioeconomic Impacts

Cumulative impacts analysis involves determining if there is an overlapping or compounding of the anticipated impacts of the continued operation of the Pensacola Dam during the proposed operating term with past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions.

GRDA considered potential cumulative impacts during the renewal period in its socioeconomic analysis associated with the resources discussed in the previous sections. For the purposes of this analysis, past actions are those related to the resources at the time of hydro-power plant licensing and construction or to the earliest date of available data, present actions are those related to the resources at the time of current operation of the hydro-power plant, and future actions are considered to be those that are reasonably foreseeable through the end of hydro-power plant operation. These criteria are in line with FERC guidance (FERC 2008). The geographic area over which past, present, and future actions would occur is dependent on the type of action considered and is described below for each impact area. The effects of past actions are already reflected in the socioeconomic analysis.

As discussed previously, the presence of the Pensacola Project provides significant economic benefit to the economy in the ROI. Existing and ongoing studies provide extensive information for use in evaluation of Project operations. In addition, the City of Miami, tribes, and other interested parties have raised the issue of flooding in the area and potential economic impacts on the community. The proposed operations model and hydraulic model will provide information to evaluate any reasonably foreseeable effect that has a reasonably close causal relationship to hydroelectric project operations or USACE flood control operations. Initially the dam was developed to provide power to the region. Currently, in addition to power, the dam provides flood control for the region and allows for tourism around Grand Lake (GRDA 2017a).

The cumulative socioeconomic impact analysis is described below in Section 3.1 through Section 3.6. The result of this analysis has concluded that the continued operation of the Pensacola Dam will result in continued significant economic benefits for the region.

3.1   General Land Use Patterns

As discussed in Section 1.1, land use has changed by less than one percent for most land use categories between 2001 and 2019 in the ROI. As listed in Table 1, the pasture and hay category has declined the most (2.02 percent) followed by deciduous forest (1.12 percent). It would be reasonable for economic stimulation and population changes to drive land use changes and it would be reasonable to expect a similar amount of change as listed in Table 1. There are no expected projects related to the Pensacola Dam hydroelectric project that would require any changes in land use or zoning, and the shoreline management plan mitigates impacts related to shoreline land use changes. As such, relicensing the Pensacola Dam hydroelectric project would not likely contribute to any reasonably foreseeable effect that has a reasonably close causal relationship to land use changes along the shoreline and in the ROI.

3.2   Population Trends

Population increases due to the construction of the Pensacola Dam have already occurred in the ROI and could account for the historic population peak in 1940 described in Section 1.2. The section further states the population of the ROI increased between 2000 and 2010 but decreased

between 2010 and 2020. Based on the State of the State report, the population of the ROI is expected to increase over the projection period presented (ODC 2015b). Because there are no expected changes in the number of jobs or changes in economic activity due to the operation of the Pensacola Dam, there are no expected additional impacts on population counts. As such, the continued operation of the Pensacola Dam hydroelectric project would not be expected to contribute to any reasonably foreseeable effect that has a reasonably close causal relationship that would drive population changes in the ROI.

3.3   Housing

As discussed in Section 1.3, housing availability is currently high and has increased since 2000 reducing the need for new housing. Median housing values and median rent in the ROI have been increasing since 2000. There are no expected projects related to the Pensacola Dam hydroelectric project that would drive any changes in vacancy, home values or rent prices beyond the changes that have already occurred. As such, any reasonably foreseeable effects on housing that has a reasonably close causal relationship to the hydroelectric project is not expected in the ROI.

3.4   Economic Activity

As discussed in Section 1.4 the economic activity of GRDA continues to contribute a large portion of the GDP in the ROI as well as a measurable contribution to the state. Job opportunities, low electricity rates, recreational opportunities, and quality of life will continue to attract individuals to Oklahoma and are expected to continue into the foreseeable future. As such, GRDA has a large beneficial impact to the local economy and, to a lesser extent, to the entire State of Oklahoma. Economic impacts due to additional local economic stimulation are expected to contribute to the large beneficial reasonably foreseeable effect that has a reasonably close causal relationship associated with the continued operation of the Pensacola Dam.

3.5   Employment

As stated in Section 1.5, GRDA operation will continue to support a large portion of direct and indirect jobs in the ROI. There are no expected projects related to the operation and ongoing maintenance of the Pensacola Dam hydroelectric project that would add any jobs to the jobs already present in the ROI. Impacts of other employers in the four-county area combined with jobs supported by GRDA will continue to be a beneficial reasonably foreseeable effect that has a reasonably close causal relationship.

3.6   Income and Poverty

Economic performance and employment opportunities provide pathways for higher wages and the reduction of poverty. Companies competing for workers drive wages up and produce disposable income that can be used to infuse additional industries with cash. As experienced by most of the United States, Oklahoma saw significant economic impacts associated with the COVID 19 pandemic including effect on employment. This is illustrated by the employment information for 2019 and 2020 as listed in Table 5 and discussed in Section 1.6. The beneficial economic impacts associated with continued operation of the Pensacola project combined with other economic activities will assist in the economic recovery of the state and ROI.

4.0   References

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GRDA. 2017b. Pensacola Hydropower Project (FERC 1494), Estimating Lake Amenity Values on Grand Lake o' the Cherokees. June 2017.

GRDA. 2017c. Pensacola Hydropower Project (FERC 1494), Estimating Non-Market Value for the Grand River Watershed. May 2017.

GRDA. 2017d. Pensacola Hydropower Project (FERC 1494), Shoreline Management Plan for Grand Lake. June 2017. Retrieved from <https://www.grda.com/shoreline-management-plan/> (accessed August 31, 2021).

MRLC (Multi-Resolution Land Characteristic Consortium). 2021. National Land Cover Database (NLCD) 2019 Land Cover. Retrieved from <https://mrlc.gov/data> (accessed July 7, 2021).

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ODC. 2015b.Demographic State of the State Report. Retrieved from < https://www.okcommerce.gov/wp-content/uploads/Population-Projections-Report-2012.pdf > (accessed May 29, 2020)

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OSU (Oklahoma State University). 2021. How the Coronavirus has Impacted the General Economies of the U.S. and Oklahoma. Retrieved from <https://extension.okstate.edu/coronavirus/business-and-economic-development/site-files/docs/general-economies.pdf> (accessed July 7, 2021)

OTRD (Oklahoma Tourism and Recreation Department). 2019. The Economic Impact of Travel on Oklahoma, 2010-2018 State Estimates. December 2019.

TOK (Travel OK). 2021. Counties and Regions, Green Country. Retrieved from <https://www.travelok.com/regions/green_country> (accessed July 7, 2021).

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USCB. 2020d. TIGERLine Shapefiles – 2019. Retrieved from <https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.2019.html> (accessed May 29, 2020).

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USGS (U.S. Geological Survey). 2020. The Protected Areas Database of the United States (PAD-US). Version 2.1. Retrieved from <https://mrlc.gov/data> (accessed June 1, 2021).

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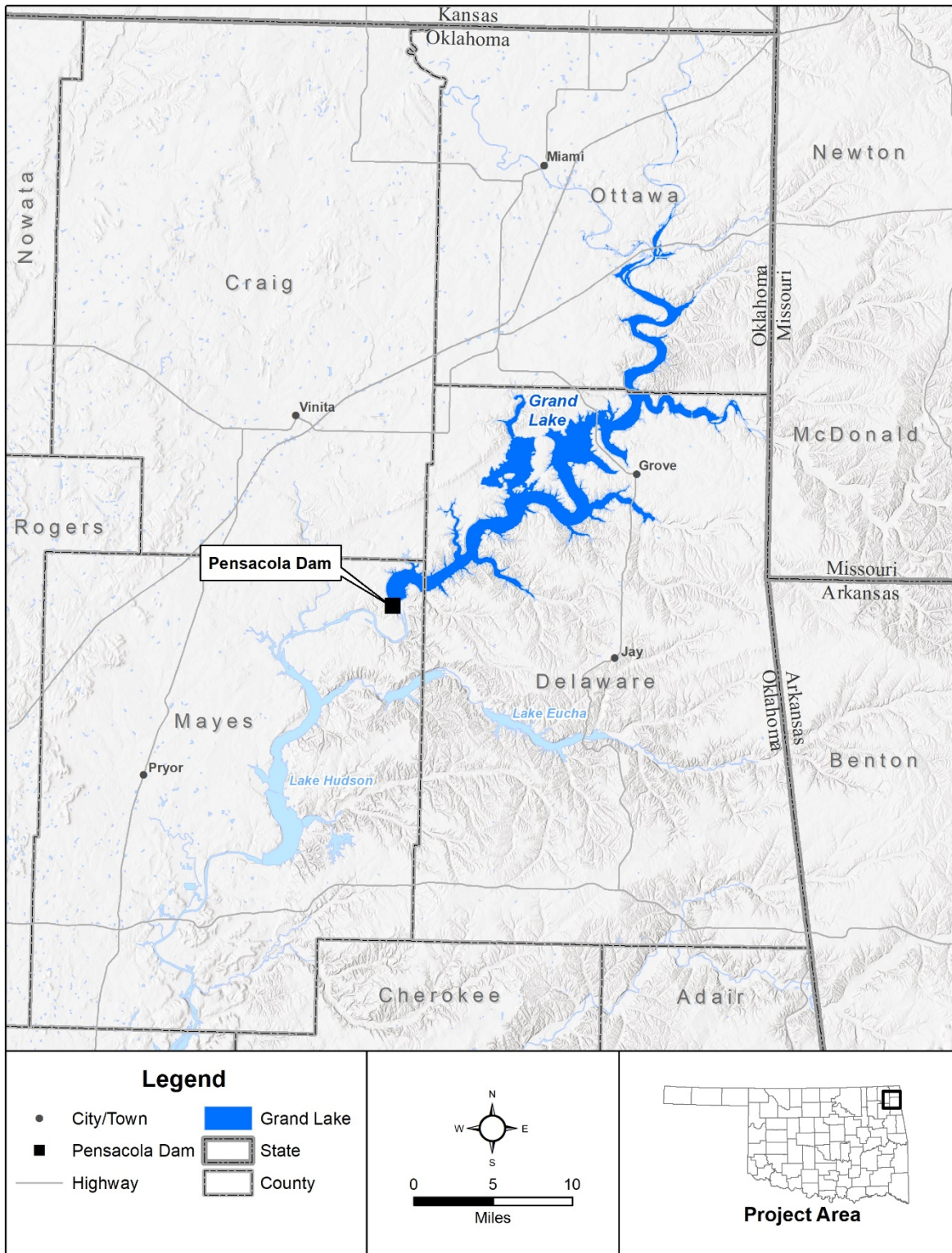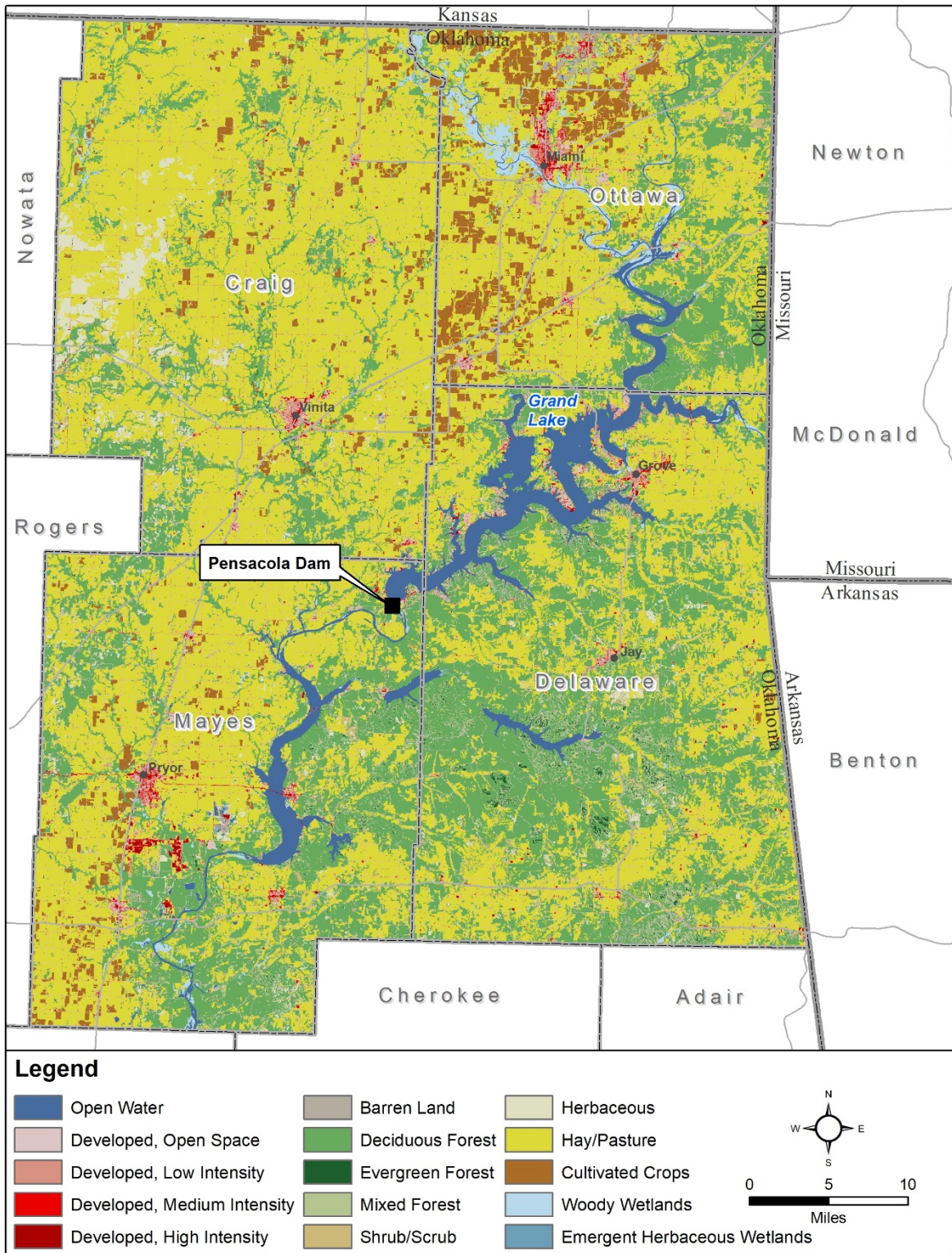
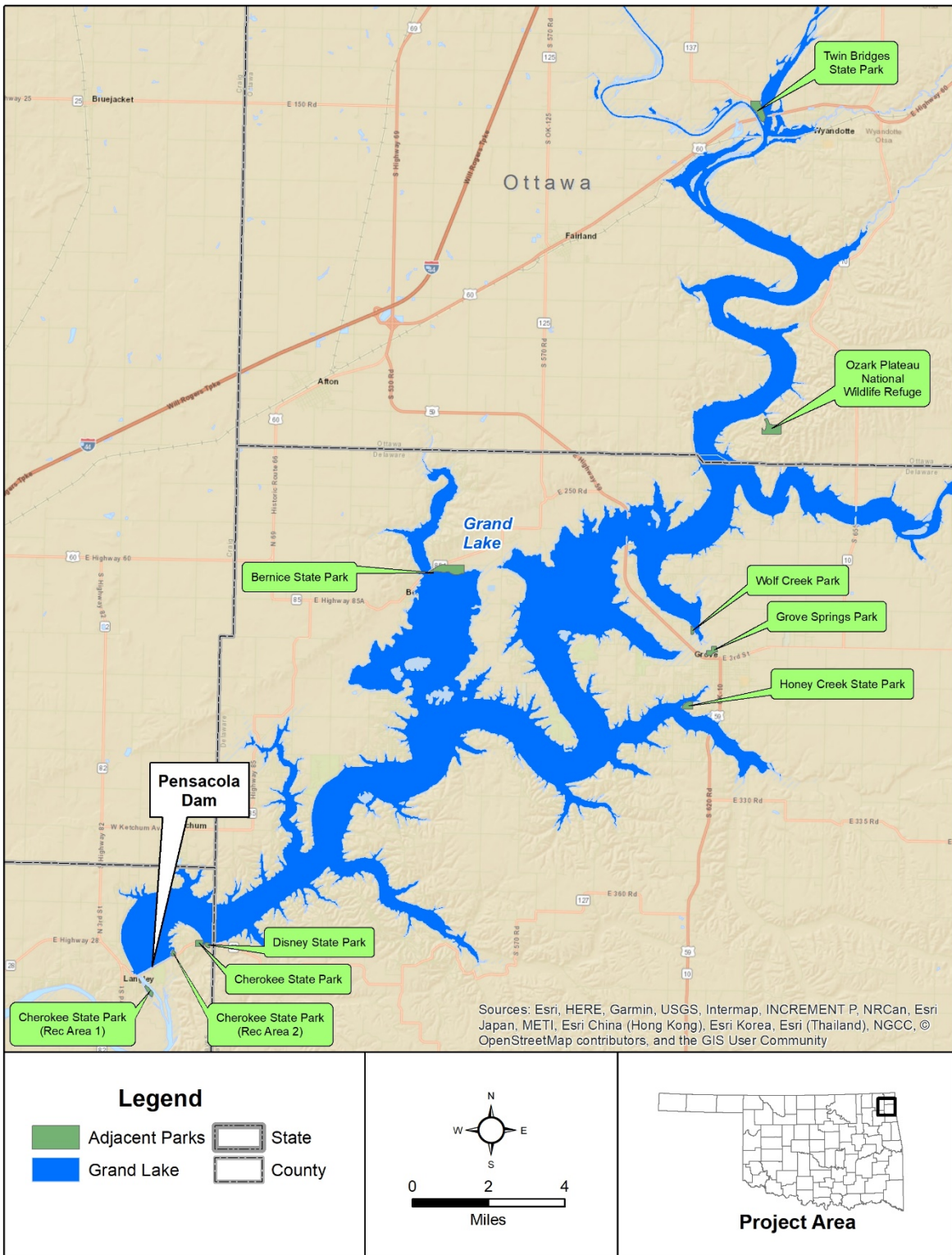**Figure 1: Project Area Map**

Figure 2: Land Use Land Cover
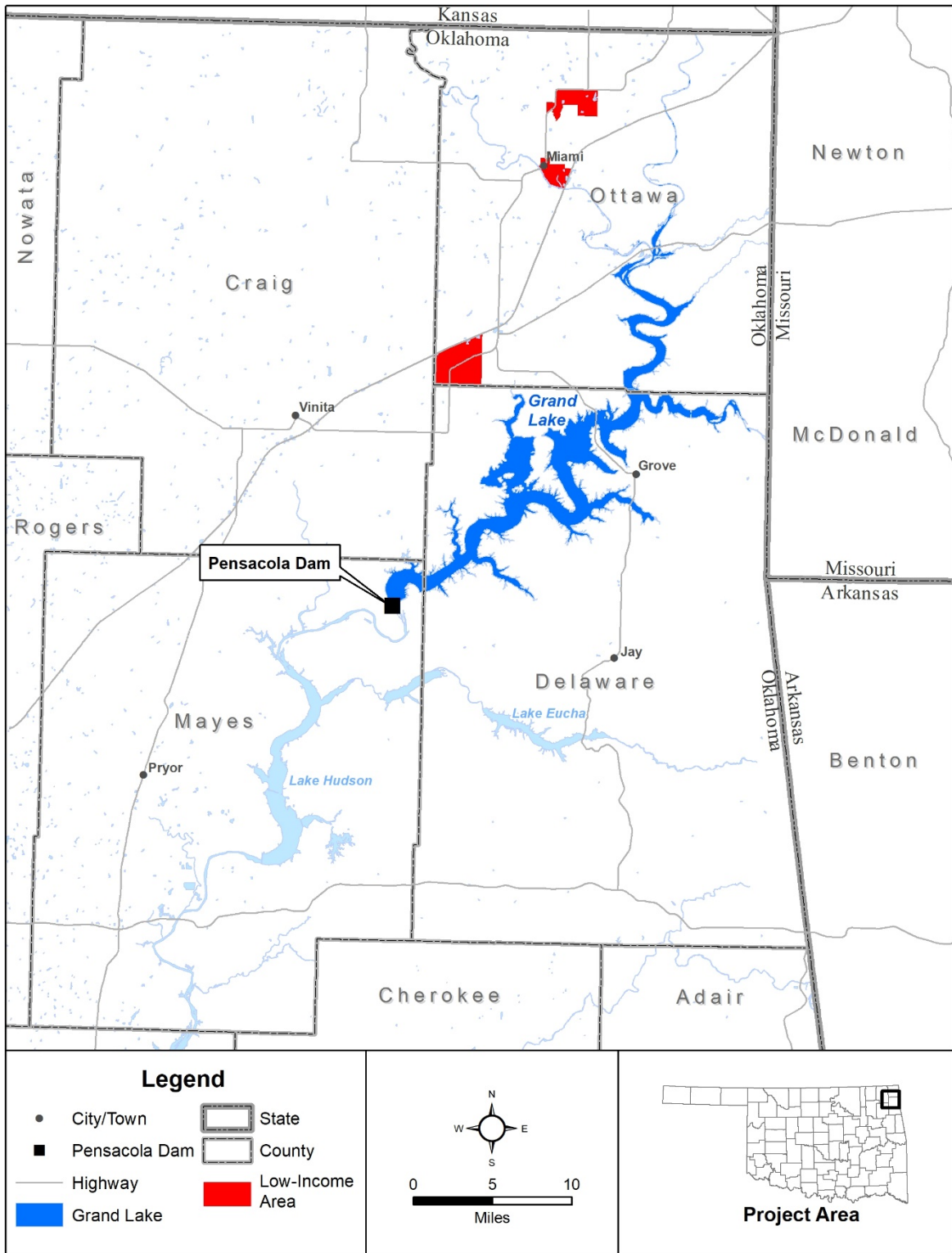
Figure 3: Adjacent Parks

Figure 4: Poverty Map

Attachment A

Tract-Level Data

The index table below provides a guide to the tract-level data included with the socioeconomics report for the GRDA Pensacola Dam project.

Tract-Level Data Index

Subject	Census Table	File Name
Population and Race	B02001	B02001.xlxs
Ethnicity	B03001	B03001.xlsx
Poverty (Families)	B17017	B17017.xlsx
Poverty (Individual)	B17021	B17021.xlsx
Sex and Age	S0101	S0101.xlsx
Selected Housing Characteristics	DP04	DP04.xlsx
Education	S1501	S1501.xlsx
Employment Status (civilian population 16 years and over in labor force)	S2301	S2301.xlsx
Median Household Income	S1901	S1901.xlsx
Per Capita Income	S1902	S1902.xlsx
2019 Tract Tiger Files	(Shapefile)	TL2019Geo.zip

Note: File names refer to the .zip files enclosed in the "Tract-Level Data" folder.

Attachment B

Stakeholder Responses