ZOAR LEVEE & DIVERSION DAM, DAM SAFETY MODIFICATION STUDY, PLANNING BASELINE STUDY:

TASK II.C – FINAL COMMUNITY IMPACTS BASELINE STUDY

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1. INTRODUCTION: PURPOSE & NEED[1]

Jack Faucett Associates, Inc. (JFA) under contract to Tetra Tech, Inc. was tasked by the U.S. Army Corps of Engineers (USACE), Huntington District (Huntington), to perform Task II of the Baseline Planning Assessment for the Zoar Levee & Diversion Dam, Dam Safety Modification Study (DSMS) (Appendix 1: Scope of Work). The Dam Safety Modification Study is being conducted by Huntington to identify a long-term risk management plan to address seepage and stability issues associated with Zoar Levee & Diversion Dam.

Zoar Levee & Diversion Dam was constructed to help protect Zoar Village from water being impounded by Dover Dam, located 4 miles downstream on the Tuscarawas Rive. Zoar Levee & Diversion Dam are also located approximately 4 miles downstream of Bolivar Dam. (Figure 1.1 – Map Charting Zoar Levee & Diversion Dam in relation to Dover Dam). Without Zoar Levee & Diversion Dam, all portions of Zoar Village located at or below elevation 916' above mean sea level would have been evacuated at the time of Dover Dam's construction in the mid 1930s. This is the elevation of Dover Dam's spillway and the flowage easement the federal government maintains upstream of Dover Dam.

Task II is the completion of a Community Impacts Baseline study for the Village of Zoar, which is located in the DSMS study area (Figure 1.2 – Map Charting Location of Study Area) (Appendix 1: Scope of Work). The purpose of this Community Impacts Baseline Study is to provide the USACE with an accounting of the existing socioeconomic conditions and unique social characteristics that may be impacted by Zoar Levee and Diversion Dam modification project. The information presented in this study feeds into the DSM study process. It will help guide the evaluation and comparison of various formulated risk management alternatives.

[1] "Chapter 1 – Introduction" authored by the Huntington District.

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Figure 1.1: Zoar Levee & Diversion Dam in relation to Dover Dam

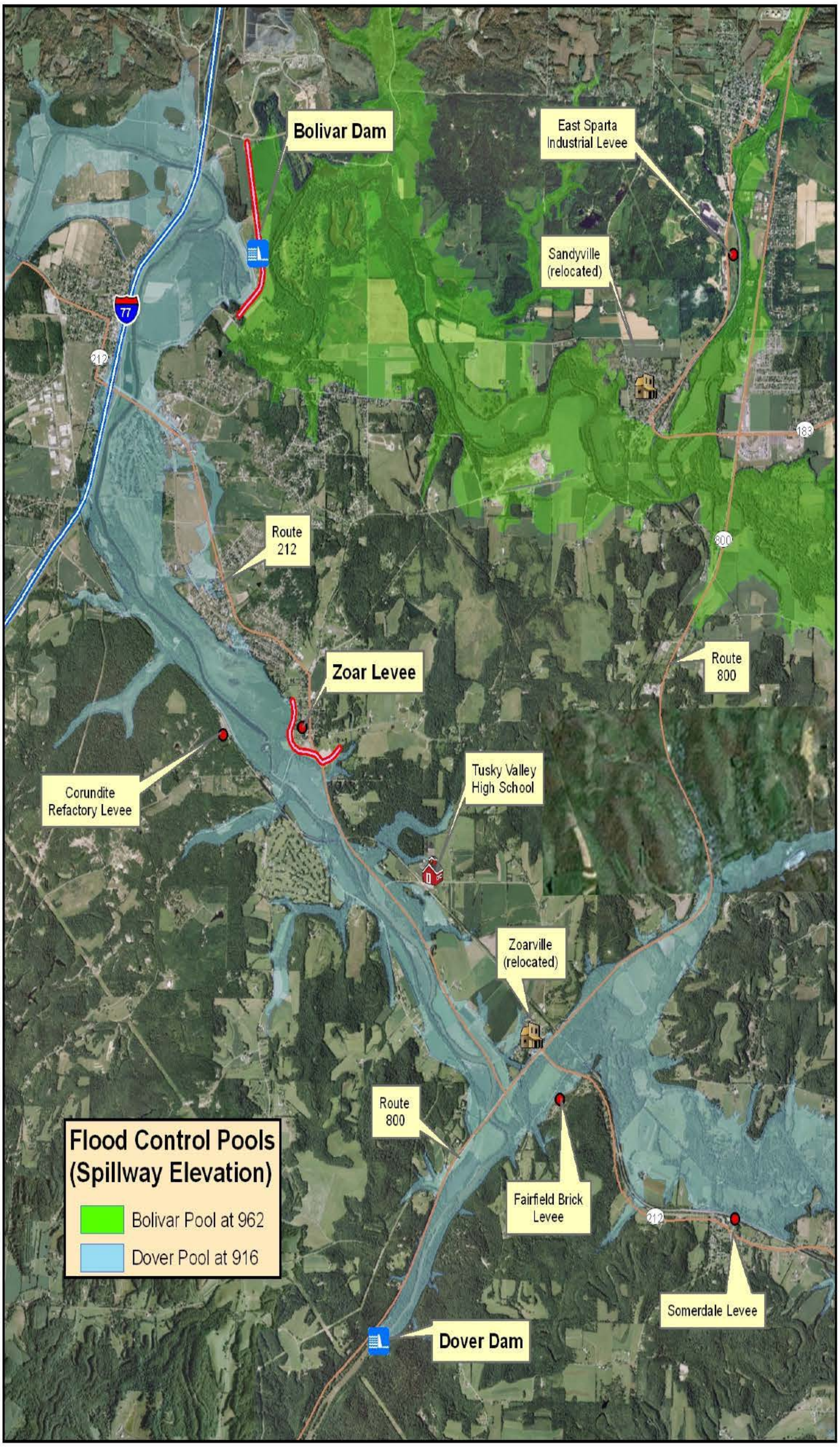

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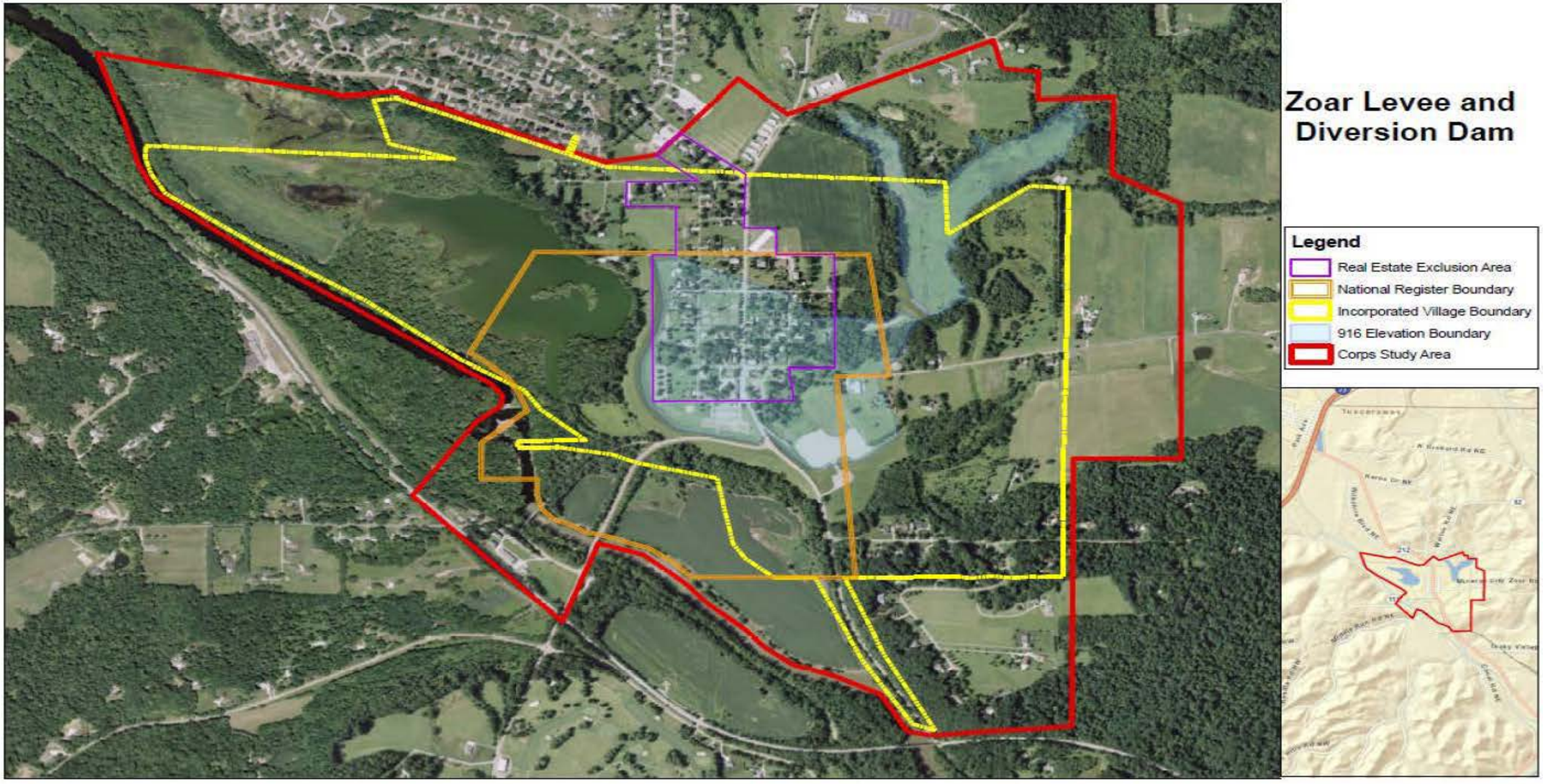
Figure 1.2: Baseline Planning Assessment Study Area



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The following is the Community Social Profile Report as required by Task II.C & II.E.3-4.

Task I is the completion of a Historic Property Baseline Survey, which is being completed by Hardlines Design Company (HDC) and reported separately.[2]

1.1 Brief History of Zoar Village

Zoar Village is an example of a rare or unusual living community with noteworthy historical significance on a national level. Zoar Village is located in east central Ohio, along the Tuscarawas River in Tuscarawas County, about 70 miles south of Cleveland, Ohio (Figure 1.3 – Map of Zoar Village showing NRHP boundary and elevation 916'). Zoar Village was established in 1817 by a group of German separatists called Zoarites, seeking a new home where they could freely practice their religion without oppression. The Society of Separatists of Zoar existed from 1817 to 1898, and at its height included over 300 members and held up to 12,000 acres of land surrounding Zoar Village. Although founded primarily as a religious community, the separatists introduced a communal system to pay their debts for land and guarantee their economic and social security.

Much of Zoar Village was documented in 1936 by the Historic American Building Survey (HABS). This study concluded that Zoar Village was "the most successful communist experiment ever conducted in the United States" (HABS 1936). In the 1960s, the Ohio General Assembly appropriated $300,000 to purchase significant buildings in Zoar Village to preserve, restore and interpret them. The Ohio Historical Society (OHS) now manages several buildings in Zoar Village as a State Memorial Site.

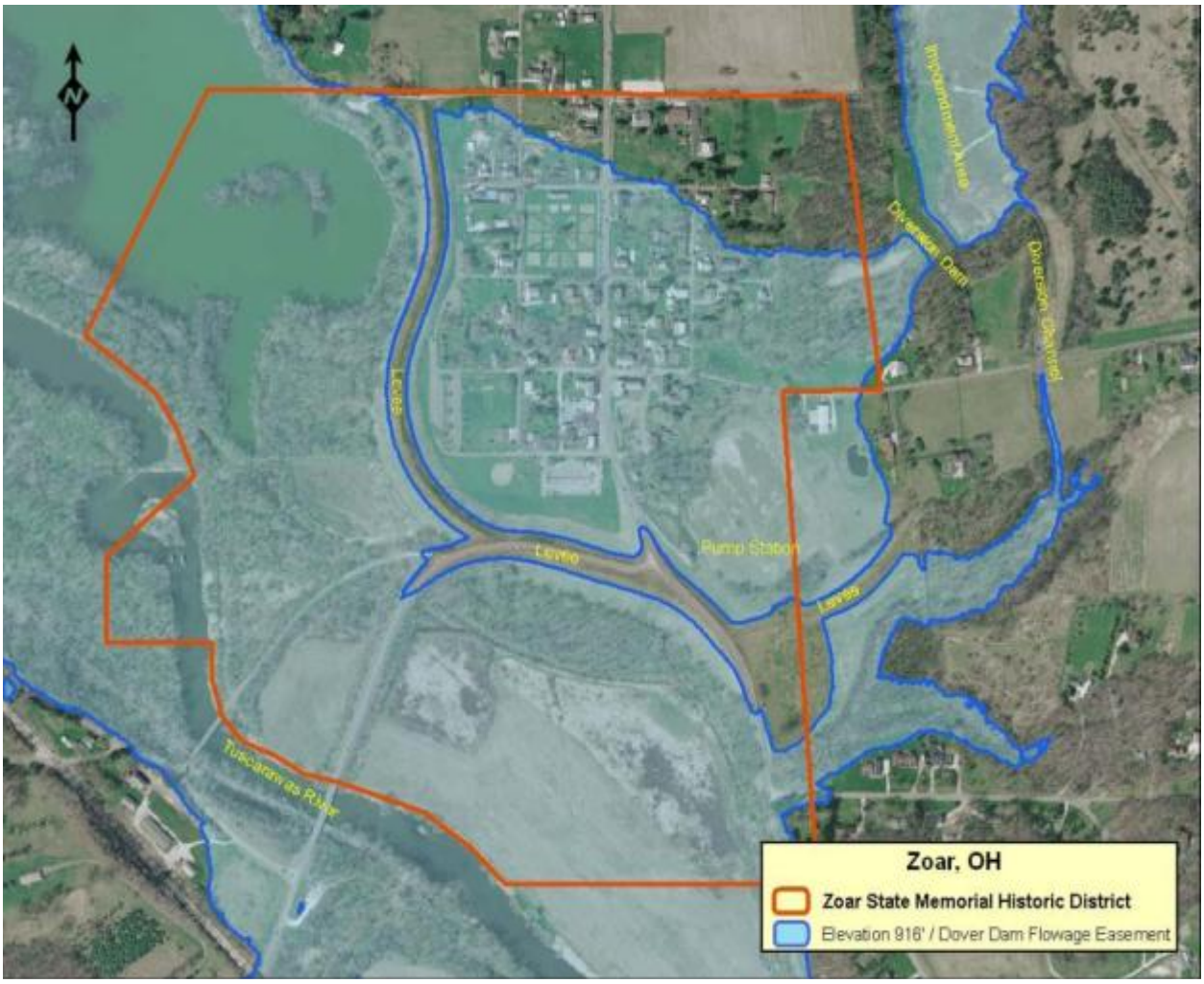
In 1967, the Zoar Community Association (ZCA) was founded to ensure the preservation of Zoar Village and the surrounding areas and to assist in the maintenance of the economic vitality of Zoar Village area.

The Zoar State Memorial Historic District was placed on the National Register of Historic Places (NRHP) in 1969 (Pratt 1969) and its boundary was increased in 1975 (Darbee and Pratt 1975) (Figure 1.3 – Map of Zoar Village showing NRHP boundary and elevation 916'). The NRHP boundary is shown below in Figure 1.4. The community was listed under National Register Evaluation Criterion A for its association with the 19th century German separatist movement and under National Register Evaluation Criterion C for its outstanding examples of nineteenth century architecture. As currently listed, its period of significance extends from 1817 to 1898.

The historic District measures 176.7 total acres, 54 acres of which is located behind Zoar Levee within elevation 916. A total of 57 of 98 (84 percent) of the buildings in Zoar Village are located at or below elevation 916 date from between 1814–1898 (Figure 1.3 – Map of Zoar Village showing NRHP boundary and 916). Approximately one-fifth of the historic District is above elevation 916. Key institutional buildings, such as the church, school, and weaving house, along with several residences are located above elevation 916.

[2] Hardlines Design Company, "Historic Property Baseline Survey of Zoar Village" forthcoming Fall 2012.

Figure 1.3: Current NRHP Boundary for Zoar State Memorial Historic District in relation to elevation 916'



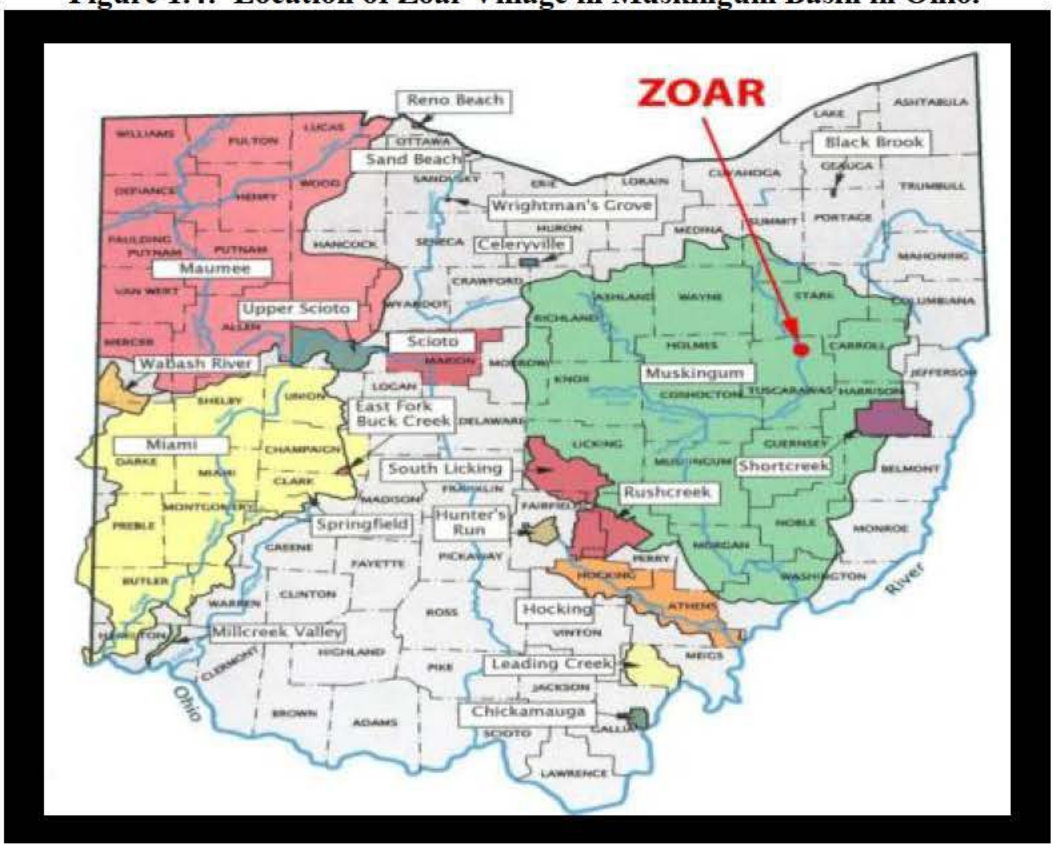
Today, Zoar Village stands remarkably intact with numerous buildings from period of significance still standing and it continues to be a heritage tourist assessment as a result of its unique history, the quality of surviving historical integrity, and an active and thriving community. Zoar Village association hosts several festivals and events each year. The ZCA is now under contract to manage and runs tours of several of the buildings in Zoar Village for the OHS. Zoar Village is also listed as an important component of the Ohio & Erie Canal National Heritage Corridor. For more information concerning Zoar Village or the Ohio & Erie Canal National Heritage Corridor, please visit http://www.zca.org/home.html, http://ohsweb.ohiohistory.org/places/ne10/index.shtml, or www.ohioeriecanal.org

1.2 Brief History of Zoar Levee and Diversion Dam

In response to the State of Ohio's Flood of 1913, which killed over 400 people and destroyed over 20,000 homes, several studies were conducted to find the best way to manage water resources in the Muskingum River Basin. Zoar Levee and Diversion Dam is part of the Muskingum River Basin System (Figure 1.4 – Map of Muskingum River Basin). The Muskingum River Basin is the site of Ohio's first multiple purpose water management and land conservation river basin project. The Muskingum Watershed Conservancy District (MWCD) was created on 3 June 1933 for the purpose of development this project. The initial plan called for 14 flood control reservoirs. In 1933, the Public Works Administration (PWA) awarded a grant of $22,090,000.00 to the USACE to construct the proposed plan. In 1934, the Federal Government executed a contract with the MWCD to allow the USACE to conduct investigations and draft a final plan. This official plan for the basin was approved by the MWCD on 19 November 1934. Construction of the project began in 1935 and the completed system was turned over to the MWCD in 1938. The Flood Control Act of 1939 returned the dams to the federal government and flood control operations back to USACE. Today Huntington manages these projects.

Zoar Levee is an appurtenant structure to the Dover Dam and is located approximately four miles upstream of the dam on the Tuscarawas River (Figure 1.1 – Map Charting Zoar Levee & Diversion Dam in relation to Dover Dam). Dover Dam is a dry dam and retains pools only during events to attenuate downstream flooding in coordination with other Muskingum Basin projects.

Figure 1.4: Location of Zoar Village in Muskingum Basin in Ohio.



Zoar Levee (Figure 1.5 – Map showing Zoar Levee Components and Elevation 916) provides flood damage reduction benefits to Zoar Village and provides protection from flooding when Dover Dam is retaining a pool above El. 890 (a 3-year event). As such, the original crest elevation of the Zoar levee was designed to correspond to the spillway elevation of Dover Dam of 916, with an additional 3 feet of freeboard for a resulting crest elevation of 919. The current crest elevation, following the 1951 work, is 928.5. The Federal Government still maintains flowage easement upstream of Dover Dam to elevation 916. Without Zoar Levee & Diversion Dam, all portions of Zoar Village located at or below elevation 916' below mean sea level would have been evacuated at the time of Dover Dam's construction.

Zoar Diversion Dam (Figure 1.5 – Map showing Zoar Levee Components and Elevation 916) is located on Goose Run, about 1,000 feet upstream of Zoar Levee and was built to work in conjunction with the levee. The Diversion Dam is a retention structure for runoff in the Goose Run watershed, which flows into a ponding area for the Zoar Levee pump station. The Zoar Diversion Channel is an auxiliary spillway for the Zoar Diversion Dam.

Original documentation concerning the decision to construct the levee versus removing the town from Dover Dam's flowage easement indicates that the MWCD and USACE considered the historical significance of the community when it originally constructed the levee.

A Valley Renewed: The History of the Muskingum Watershed Conservancy District, states that protecting Zoar Village was a high priority. During hearings held by the Conservancy Court (which oversees MWCD) in 1934, it was decided to amend the official plan for flood control reservoirs to substitute Bolivar Reservoir for one planned at Massillon reservoir to allow lowering of Dover Dam's spillway height by four feet to elevation 916 to "*…provide easier access to the village of Zoar..*" and … simplify "*…the problem of protecting the historic village of Zoar*." (Hal Jenkins 1976:76-77).

A 1949 design memorandum concerning the capacity of the Zoar pump station states that "*…protection of the village instead of evacuation was adopted because of its historical significance…*"

A 1950 memorandum concerning raising the crest of Zoar Levee stated:

> "*At the time Dover Dam was being planned, consideration was given to evacuating the population of 200 persons. However, since the village is of considerable historical importance and since two state-owned museums are located there, it was decided to protect the site by constructing earth levees rather than to evacuate the population*."

Further, a 2001 article from the National Park Service's magazine entitled CRM stated:

> "*…in 1929, under pressure from the U.S. Army Corps of Engineers to move the town to higher ground to accommodate a nearby flood-control dam, the villagers began to recognize their heritage and restored the central garden and opened a museum. A levee was built instead*." (Fernandez 2001).

Figure 1.5: Zoar Levee and Diversion Dam Project Components

A recent history of the Muskingum Basin also indicates that the historical significance of Zoar Village and the heritage asset is provided the State of Ohio is a major reason Zoar Levee & Diversion Dam were constructed (Kemp 2002:151-152).

Huntington has recognized in consultation with the Ohio Historic Preservation Office (OHPO) that the Muskingum Basin projects, including Zoar Levee and Diversion Dam, are collectively eligible for inclusion in the National Register of Historic Places under National Register Evaluation Criterion A for their association with Federal investments to flood control improvements in Muskingum Basin. The consultation was formalized on 11 May 2011 with the execution of a Programmatic Agreement, pursuant to 36 CFR 800.14(b) to take into account effects and mitigate adverse effects potential actions may have on historic properties in the Muskingum Basin project.

1.3 Summary of Dam Safety Issues with the Project

In the 1990's the District conducted a Limited Re-embankment Analysis of Zoar Diversion Dam, which resulted in the installation of an Upstream Seepage Control and Downstream Seepage Blanked and Collection System. It was also determined that Zoar Diversion Dam was not suitable for maintaining a permanent impoundment due to safety issues.

In January of 2005, a record high water event resulted in Dover Dam's impoundment reaching a record pool of elevation 907.4. During this event, pin boils were noted on the interior of the levee. These pin boils were the result of water seeping beneath the levee that had piped into channels and were now moving material with them, which appeared to be piping unconsolidated fill from beneath the levee's foundation. To remediate the situation, the District installed rings of sand bags around the boils to prevent their enlargement and installed filter fabric over the area of concern to reduce the movement of material with water. Information presented by District in 2006 during the Screening Portfolio Risk Assessment was later used in 2007 to classify the project as Dam Safety Action Class (DSAC) II or "Urgent – Failure Initiation Foreseen." This was due to significant seepage through the soil and rock foundation of the levee and through the rock foundation/abutment of the diversion dam.

Following a flood event in Spring of 2008, in which much larger boils were noted, Zoar Levee was reclassified as a DSAC I or "Urgent and Compelling – Critically Near Failure," due to large amounts of under seepage through the Rock Knoll portion of the levee foundation which was shown to be increasing with each successive event.

1.4 Current Dam Safety Modification Study

To find a long-term plan to reduce risk to Zoar Village, the District is currently preparing a Dam Safety Modification Report for the Zoar Levee and Diversion Dam in accordance with Draft Engineer Regulation (ER) 1110-2-1156. This ER is the result of Section 2033 of the Water Resources Development Act (WRDA) of 2007, which among other things, required the USACE to adopt a risk analysis approach to project cost estimates for water resource projects and ensure that the benefits and costs associated with structural and nonstructural alternatives are evaluated in an equitable manner.

A DSM report is required to justify modifying a USACE project to address risk associated with Dam Safety to meet tolerable risk guidelines with the goal being to find the best risk management plan. The objective of the DSM study is to identify and recommend an alternative risk management plan.

1.5 Summary of Scope of Work

As a part of the DSM report, Huntington will be categorizing impacts in accordance with the National Environmental Policy Act and several resource specific acts. This work will also help to capture certain benefits and costs or project impacts through a series of established national accounts including, but not limited to the Environmental Quality (EQ) and Other Social Effects (OSE) accounts, as established by the *Economic and Environmental Principles and Guidelines*

for Water and Related Land Resources Implementation Studies developed by the Water Resources Council in 1983.

JFA was scoped under Task II of the Scope of Work for Baseline Planning Assessments for Zoar Levee and Diversion Dam, Dam Safety Modification Study to prepare a community baseline study (Task II.C) and a workshop delivery plan (Task II.D) (Appendix 1 – Scope of Work). These services will aid Huntington in considering the effects different alternatives may have on these resources during the formulation, evaluation and comparison of those alternatives.

This report presents the community baseline study (Task II.C). The objective of this task is to identify and collect information that describes a complete social profile of the current Zoar Village, Ohio. This profile includes socioeconomic information obtained from existing records including U.S. Census, state, county and local databases or reports. Where available, data was collected from comparison communities selected by Huntington and JFA. This report compiles all available information and provides a preliminary analysis of Zoar Village's social, cultural and economic health.

In the next phase of the project, JFA will complete Task II.D, which will entail developing in coordination with the USACE Zoar Project Delivery team a Small-Group Workshop Delivery Plan that addresses a strategic process for gathering other social effects information from Zoar Village residents during the development of project alternatives through selection of the recommended plan. This plan will provide justification for holding workshops, identify workshop objectives, proposed groups and schedules and include a list of specific questions to be posed to participants. The USACE Contracting Officer will submit the questions for approval by the Office of Management and Budget (OMB) prior to use.

1.6 Study Approach & Methodology

To complete Task II.C, the JFA project team undertook data collection and implemented the Other Social Effects (OSE) identification methodologies and guidelines outlined in the "Handbook on Applying Other Social Effects Factors in Corps of Engineering of Water Resources Planning" (OSE Handbook) published by the USACE Institute for Water Resources (IWR) in December 2009. This handbook identifies categories of OSE and data associated with characterizing each indicator.

Note, that due to Office of Management and Budget (OMB) regulations that protect the public from the burden of time-consuming paperwork and potentially invasive information gathering activities by public agencies, the data and information presented in this study were collected from public and readily available local sources. These include the US Census, state and county records, previous studies, news reports, public comments submitted to the USACE and community group marketing materials, websites and records. More detailed information about Zoar Village residents and the community's cohesiveness will be collected during the following phases of the DSM study.

The next phase of this effort involves the design and delivery of a series of Small Group Workshops that will be held during evaluation and comparison of risk management alternatives

(Appendix 1 – Scope of Work -Task II.D). These workshops will provide the forum for the USACE to pose OMB-approved questions regarding potential economic and social impacts of the project and potential alternatives directly to the residents.

1.7 Study Organization

The remainder of this document provides presents a comprehensive look at the demographic, economic, and social characteristics of Zoar Village. It is organized into the following chapters:

- **Chapter 2** presents baseline socioeconomic data that describes the current Zoar Village. This includes U.S. Census and other publically available data that sheds light on the community's demographic health and economic health and well-being.
- **Chapter 3** presents a preliminary profile of Zoar Village's social characteristics and describes OSE indicators including group identity, social connectedness, economic vitality, and recreation and leisure.
- **Chapter 4** summarizes the study's key findings and presents its conclusions and recommendations for future investigations and research.

2. BASELINE SOCIOECONOMIC PROFILE OF ZOAR VILLAGE

This chapter presents the most recent socioeconomic statistics on Zoar Village, selected comparison communities, and Tuscarawas County. Through data comparisons, the JFA project team identified a number of socioeconomic characteristics of Zoar Village that made the community stand out from its surrounding area and the rest of the County. The socioeconomic data provided in this section includes the following six major categories:

1. Population
2. Households
3. Employment
4. Travel to work
5. Wealth and poverty
6. Housing

The study area of this report is defined as Zoar Village, Ohio. Table 2.1 provides a summary of the study area's geographic information.

Table 2.1: Geographic Information about Zoar Village, Ohio

Category	Profile of Zoar Village
Geographic Area Code (FIPS)	88168
Geographic location- NAD 83	Latitude: 40.61397 N. Longitude: 81.42432 W
Zip code	44697
Census tract	203
Census blocks	2019, 2022-2036, 2045-2048, 2053-2057, 2063
Total number of Census blocks	26

Notes: FIPS acronym stands for Federal Information Processing Standards.
Sources: 2010 Census; 2010 Census Block Maps – Place. U.S. Census Bureau.
http://www.census.gov/geo/www/maps/DC10_GUBlkMap/place/dc10blk_st39_place html#Z

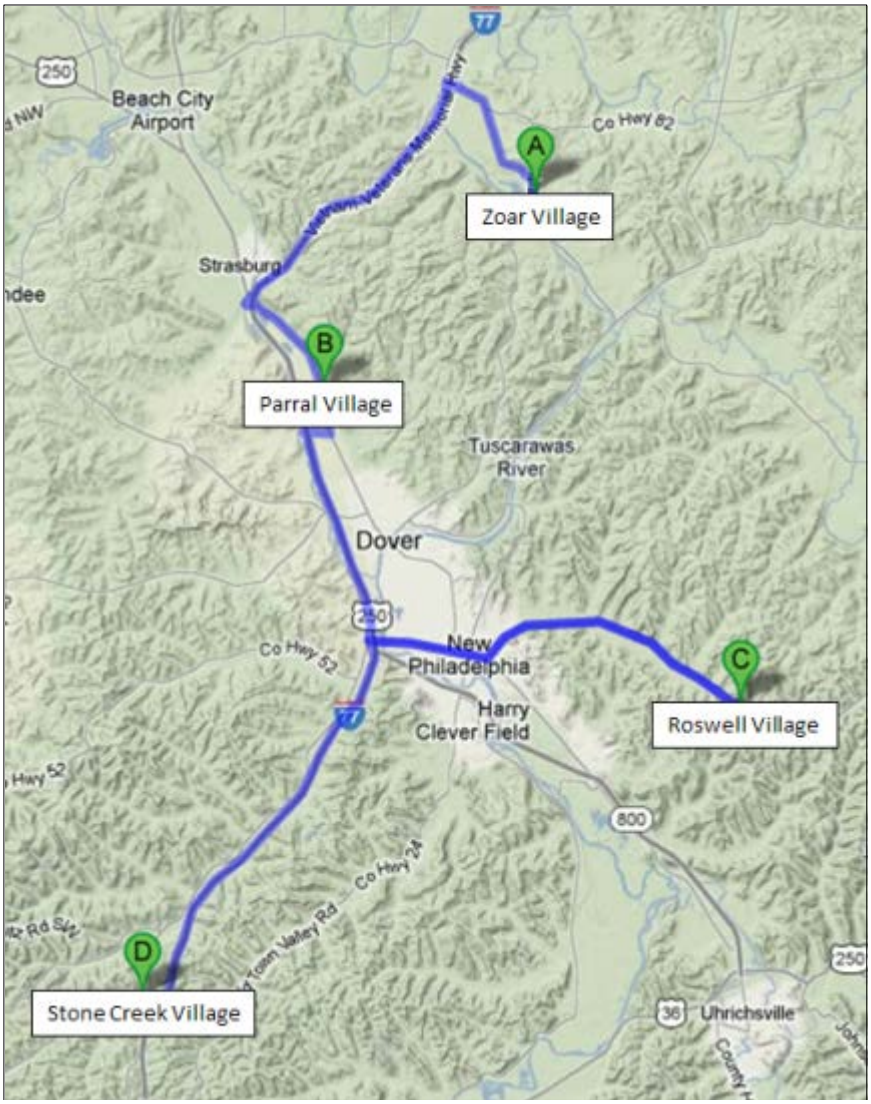
The remainder of this chapter is divided into the following three sections:

- Section 2.1 provides a brief introduction to the three selected comparison communities and the reason why they were selected for this study.
- Section 2.2 presents socioeconomic and demographic statistics on Zoar Village, the comparison communities, and Tuscarawas County, and discusses the unique socioeconomic characteristics of Zoar Village based on this data.
- Section 2.3 provides a summary of the major differences between Zoar Village and its surrounding communities identified in this study.

2.1 Introduction to Selected Comparison Communities

Although Zoar Village is a small community with a population of less than 200 people, the community stands out from the rest of Tuscarawas County and the State of Ohio with its unique history and culture. In order to identify the distinctive socioeconomic characteristics of Zoar Village, three small-sized communities within Tuscarawas County were selected as comparison communities in this study. These communities are Parral Village (11 miles from Zoar Village), Roswell Village (15 miles from Zoar Village), and Stone Creek Village (21 miles from Zoar Village).[3] Figure 2.1 provides the locations of Zoar Village and the comparison communities.

Figure 2.1: Map of Zoar Village and Comparison Communities



Source: Google Maps

[3] Google Maps. https://maps.google.com/

Table 2.2 provides a summary of the population and population density of Zoar Village and the three comparison communities. The data shows that the comparison communities are relatively similar to Zoar Village in terms of population size, total area, density, and the number of households.

Table 2.2: Basic Socioeconomic Characteristics of Zoar Village and Comparison Communities

Characteristic	Zoar	Parral	Roswell	Stone Creek
Population	169	218	219	177
Land area (square mile)	0.58	0.18	0.26	0.43
Population density (persons/square mile)[4]	291	1,211	842	412
Total households	77	100	85	65

Sources: 2010 Census; 2010 Demographic Profile Data. U.S. Census Bureau.

2.2 Socioeconomic Data - Comparative Analysis

This section provides population, household, employment, travel, wealth and poverty, and housing statistics on Zoar Village, the comparison communities, and Tuscarawas County. Based on the data collected, this section highlights the major differences between Zoar Village and the comparison communities.

2.2.1 Population Characteristics

The population characteristics of Zoar Village, the comparison communities, and Tuscarawas County are presented in Table 2.3. According to the 2010 Census, Zoar Village has a population of 169, with a male-to-female ratio of 1:1 and a median age of 52.6. The population of Zoar Village is 98 percent white.

The population of Zoar Village is older relative to the comparison communities and to the County. The median age in Zoar Village is the highest among the four comparable communities, and is 11 years older than the median age in the County. Moreover, 26 percent of the total population in Zoar Village is over 65 years old, while the same age bracket is less than 20 percent of the population in the three comparison communities and in the County.

Statistics on educational attainment were obtained for Zoar Village and the comparison communities. About 93 percent of the population over 25 years old in Zoar Village holds a high school or higher degree, which is higher when compared to the other communities and the County. About 34 percent of the population over 25 years old in Zoar Village holds a Bachelor's or higher degree, approximately double that of the County and more than ten times greater than that of Roswell.

[4] The population density is calculated by dividing the number of persons in a community by the size of that community. The unit for population density is therefore persons per square mile, although all of these communities are less than one square mile in size.

Table 2.3: Population Characteristics of Zoar Village, Comparison Regions, and Tuscarawas County

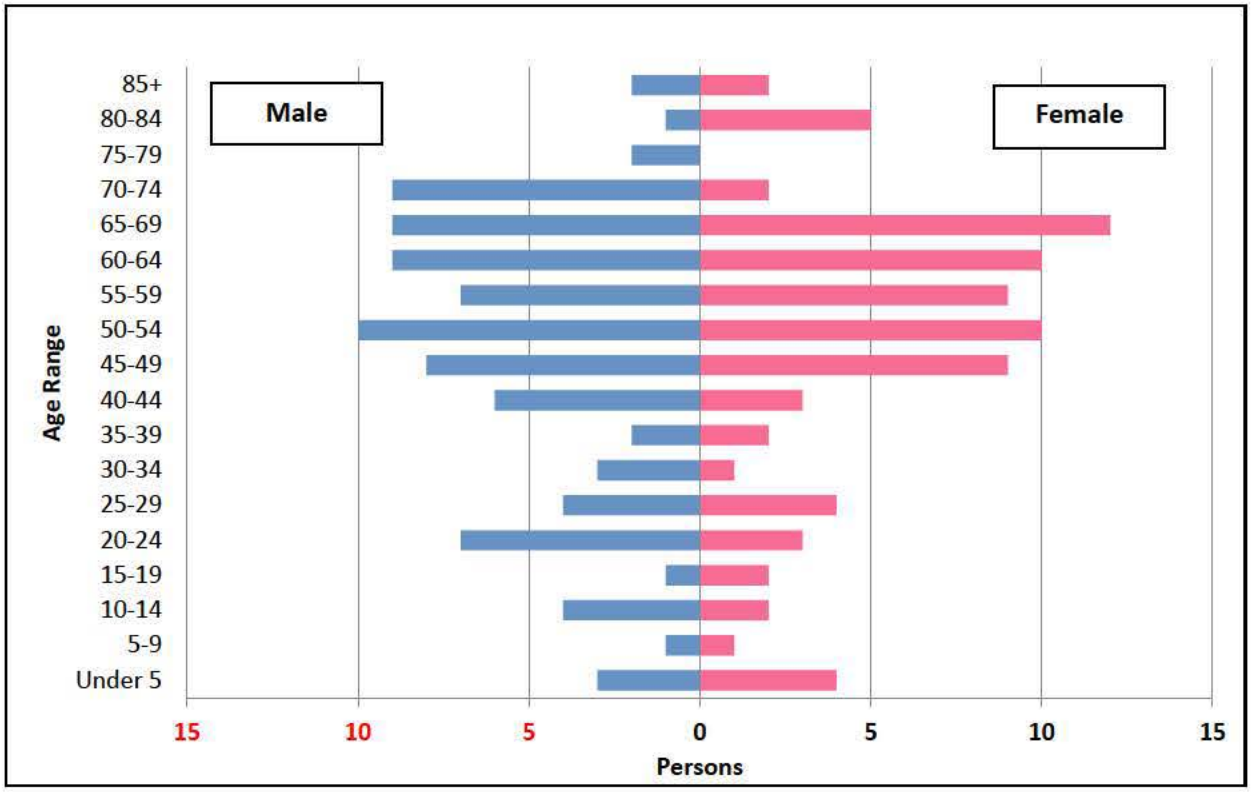
Characteristic	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Population					
Total population	169	218	219	177	92,582
Population density (persons/square mile)	291	1,211	842	412	163
Gender					
Male	52.1%	51.8%	47.5%	53.1%	49.1%
Female	47.9%	48.2%	52.5%	46.9%	50.9%
Age Distribution					
Median age	52.6	49.0	34.1	35.5	40.9
65 and over	26.0%	19.7%	9.1%	13.0%	16.4%
Under 15	8.9%	13.3%	23.7%	21.5%	19.5%
Racial Distribution					
White	98.2%	95.0%	98.6%	97.7%	96.6%
Black	0.0%	0.5%	0.0%	0.6%	0.8%
Asian	0.6%	0.0%	0.6%	0.0%	0.3%
Other	1.2%	4.6%	0.9%	1.7%	2.3%
Ethnicity Distribution					
Hispanic or Latino	0.6%	2.3%	0.5%	0.6%	1.9%
Non-Hispanic or Latino	99.4%	97.7%	99.5%	99.4%	98.1%
Educational Attainment					
High school graduate or higher	92.5%	82.0%	70.1%	89.2%	87.3%
Bachelor's degree or higher	34.2%	7.2%	2.1%	6.7%	17.8%

Sources: 2010 Census; 2010 Demographic Profile Data; 2010 American Community Survey. U.S. Census Bureau.[5]

Figure 2.2 shows the distribution of Zoar Village's population by age and gender. The largest age bracket is between 65 to 69 years old, which consists of 9 males and 12 females. Approximately 55 percent of the total population in Zoar Village is between 45 and 69 years old. This age group consists of 43 males and 50 females.

[5] Note totals may not sum up to 100 percent due to rounding and overlaps.

Figure 2.2: Population of Zoar Village by Age and Gender



Source: 2010 Census. U.S. Census Bureau.

2.2.2 Household Characteristics

The household characteristics for Zoar Village, the comparison communities, and Tuscarawas County are presented in Table 2.4. Zoar Village hosts 77 households, of which 75 percent are family households. The share of family households in Zoar Village is relatively high when compared to the other three villages and the County. The average household size in Zoar Village and the percentage of households with one person living alone are both relatively low, suggesting a relatively large share of households with two people. Zoar Village also has the lowest number of female head of households among the comparison communities, which correlates with its high household income status.

Table 2.4: Household Characteristics of Zoar Village, Comparison Communities, and Tuscarawas County

Characteristic	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Total households	77	100	85	65	36,965
Family households	75%	65%	69%	83%	69%
Average household size	2.19	2.18	2.58	2.72	2.53
Female head of household	7.8%	8.0%	15.3%	9.2%	9.8%
Household living alone	20.8%	32.0%	25.9%	12.3%	26.6%
Median total household income	$80,625	$37,500	$36,250	$54,345	$42,081

Sources: 2010 Census; 2010 American Community Survey. U.S. Census Bureau.

Based on household data in Table 2.4, one of the biggest differences between Zoar Village and the comparison communities is median household income. The median household income in Zoar Village is $80,625, which is significantly higher than those of the comparison communities and almost twice as large as that of Tuscarawas County. The high income level in Zoar Village is likely connected to the high level of educational attainment of its residents.

2.2.3 Employment Characteristics

Employment Status:

Table 2.5 provides a summary of the employment status of residents in Zoar Village, the comparison communities, and Tuscarawas County. The labor forces in Zoar Village and the three comparison communities are solely composed of civilians, and 99.9 percent of the labor force in Tuscarawas County is composed of the civilian labor force. The employment rate in Zoar Village is 100 percent, while the employment rates in Parral and Roswell are 85 percent and 77 percent respectively. Forty-four percent of the working age population (57 people) are retired, which gives Zoar Village the highest retirement rate among the four comparable communities.

Table 2.5: Employment Status in Zoar Village, Comparison Communities, and Tuscarawas County

Characteristic	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Population 16 years and over	130	219	113	154	72,974
In labor force	73	134	74	114	45,516
Civilian labor force	73	134	74	114	45,486
Unemployed	0	20	17	0	19,195
Employment rate of non-retired working age residents	100%	85%	77%	100%	58%
Retired[6]	57	85	39	40	27,458
Retirement rate of working age residents	44%	39%	35%	26%	38%

Source: 2010 American Community Survey. U.S. Census Bureau.

Table 2.6 provides a summary of employment trends for workers in Zoar Village, the comparison communities, and Tuscarawas County. Among the four communities and the County, Zoar Village has the largest shares of self-employed workers and unpaid family workers. [7] Total self-employed and unpaid family workers make up 13 percent of the working population in Zoar Village, which is significantly greater than the share of the same worker category in Parral (2 percent), Roswell (4 percent), Stone Creek (0 percent), and Tuscarawas County (6 percent). The high rate of self-employed and family workers in Zoar Village has attributed to the community's high employment rate (100 percent). In addition, Zoar Village has the largest share of public institution employees among the four comparison communities.

[6] The U.S. Census Bureau does not provide data on the number of retired workers. It is assumed that the number of retired workers is equal to the number of working age residents who are not in the labor force.
[7] The U.S. Census Bureau defines unpaid family workers as people who work 15 hours or more without pay in a business or on a farm operated by a relative.

Table 2.6: Employment Characteristics in Zoar Village, Comparison Communities, and Tuscarawas County

Characteristic	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Employer Type					
Private company	81%	96%	96%	96%	83.8%
Public institution	7%	2%	0%	4%	10.0%
Self-employed	10%	2%	4%	0%	6.0%
Unpaid family workers	3%	0%	0%	0%	0.1%
Industry of employment					
Education and health services	43.8%	3.5%	7.0%	17.5%	20.9%
Professional, scientific, and management	21.9%	0.0%	5.3%	7.0%	6.4%
Retail trade	11.0%	14.9%	1.8%	14.9%	11.2%
Construction	6.8%	1.8%	3.5%	0.9%	5.6%
Leisure and hospitality	4.1%	11.4%	3.5%	13.2%	9.0%
Manufacturing	2.7%	37.7%	63.2%	16.7%	23.6%
Wholesale trade	2.7%	4.4%	3.5%	5.3%	3.2%
Agriculture, forestry, fishing, and mining	0.0%	0.0%	0.0%	3.5%	2.7%
Information services	0.0%	0.9%	3.5%	0.0%	1.4%
Finance and real estate	0.0%	6.1%	0.0%	3.5%	3.5%
Transportation, warehousing, and utilities	0.0%	12.3%	3.5%	12.3%	5.2%
Other services	6.8%	7.0%	5.3%	5.3%	7.2%

Source: 2010 American Community Survey. U.S. Census Bureau.

Major Industries and Employers in Zoar Village

The top three industries with the largest numbers of employees in Zoar Village are a) education and health services, b) professional, scientific, and management, and c) retail trade. The industry of education and health services employs nearly half of the working population in Zoar Village, while the industry employs less than 20 percent of the working populations in the three comparison communities. The concentration of jobs in education, health services, science, and management is likely attributable to the high educational attainment of the community and is consistent with its age distribution.

The following are the largest employers in Zoar Village identified by the Zoar Community Association (ZCA):

1. **Firehouse Grill** - a restaurant with 20 full and part time employees
2. **Whitemyer Advertising** – a full service ad agency with 12 professional employees
3. **Antoneios** – a restaurant with 15 full and part time employees

4. **Zoar Community Association** – a historical museum operation with 6 full and part time employees
5. **U.S. Post Office** – Federal organization with 2 employees

There are also 12 home-based businesses in Zoar Village that sell gifts, specialty foods and antiques, provide lawn care and hair care services, and serve as bed and breakfasts.

Note that publically available information on the number of Zoar residents employed at the five largest employers does not exist. Data is also unavailable on the employment statistics of the home-based businesses. However, it can be assumed that each home-based establishment employs at least one person. Pending OMB approval, the Small Group Workshop Plan (Task II.D) will include questions that may collect this information.

Place of Work

Table 2.7 provides information about the place of work for workers in Zoar Village and the comparison communities. Nearly half of the workers in Zoar Village work outside Tuscarawas County. Compared to the other three communities, Zoar Village has the largest share of workers who work outside the County.

Table 2.7: Place of Work for Workers in Zoar Village and Comparison Communities

Place of Work	Percentage of Workers			
	Zoar	Parral	Roswell	Stone Creek
Work in state of residence	100.0%	100.0%	97.6%	100.0%
Work in county of residence	56.2%	69.1%	75.6%	81.4%
Work outside county of residence	43.8%	30.9%	22.0%	18.6%
Work outside state of residence	0.0%	0.0%	2.4%	0.0%

Source: 2010 American Community Survey. U.S. Census Bureau.

Note that data on the place of work and residence of Village of Zoar dwellers and those that commute into Zoar Village for work is not publically available. Pending OMB approval, this information will be sought during Small Group Workshops.

2.2.4 Travel to Work Characteristics

Table 2.8 provides a comparison of travel characteristics of workers in Zoar Village, the comparison communities, and Tuscarawas County. Compared to other regions, Zoar Village has a significantly higher percentage of workers who work at home. All of the commuting workers in Zoar Village travel to work by driving alone, which shows an interesting picture of a historic community whose population embraces the modern conveniences of travel.

Below are two hypotheses on why workers in Zoar Village choose to drive alone to work. Pending OMB approval, the reasons why driving alone is preferred will be sought during Small Group Workshops.

First, the work places of workers from Zoar Village may be more scattered than the work places of workers from other communities, which is indicated by the fact that 44 percent of workers in Zoar Village work outside Tuscarawas County. As a result, many workers in Zoar Village need to travel independently to their work destinations. Second, privately-owned vehicles are largely available for households in Zoar Village, which can be explained by the high income levels of these households. In Zoar Village, approximately 52 percent of the households have two vehicles, and approximately 45 percent of these households have three (3) or more vehicles.[8] The high vehicle-to-household ratio in Zoar Village provides working family members with the option of driving alone to work, while workers in other communities have to carpool or travel by other means. In general, workers in the four communities and Tuscarawas County are not dependent on public transportation to earn a living. Only one out of a thousand commuting workers in Tuscarawas County travel to work by using public transportation services.

Table 2.8: Commute Mode of Workers in Zoar Village, Comparison Communities, and Tuscarawas County

Mode	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Worked at home	11.0%	0.0%	0.0%	0.0%	2.4%
Car, truck, or van	89.0%	95.5%	96.4%	84.8%	94.2%
Drove alone	89.0%	91.0%	92.7%	83.9%	87.8%
Carpooled	0.0%	4.5%	3.6%	0.9%	6.5%
Public transportation (excluding taxi)	0.0%	0.0%	0.0%	0.0%	0.1%
Walked	0.0%	2.7%	0.0%	2.7%	1.9%
Bicycle	0.0%	1.8%	0.0%	0.0%	0.6%
Taxi, motorcycle, or other means	0.0%	0.0%	3.6%	12.5%	0.8%

Source: 2010 American Community Survey. U.S. Census Bureau.

In general, workers in the four communities and Tuscarawas County are not dependent on public transportation to earn a living. Only one out of a thousand commuting workers in Tuscarawas County travel to work by using public transportation services. In Zoar, all workers over 16 years old, including those who work at home, live in owner-occupied housing units with at least one vehicle available. In fact, 52.1 percent of the Zoar Village households have two (2) vehicles, and 45.2 percent of these households have three (3) or more vehicles.[9] This trend correlates to the high level of household income in Zoar Village.

Table 2.9 provides information on the commute time and distance for the 65 workers in Zoar Village who drive to work. Approximately 81.5 percent of these workers drive for 15 to 34 minutes to their place of employment, while 7.7 percent of these workers drive for one hour or longer to where they work. The mean commute time for all workers in Zoar Village is 25.3 minutes.[10] Assuming the average driving speed of workers in Zoar Village is 50 miles per hour, most workers drive approximately 13 to 28 miles to work.

[8] 2010 American Community Survey. U.S. Census Bureau.
[9] 2010 American Community Survey. U.S. Census Bureau.
[10] Ibid.

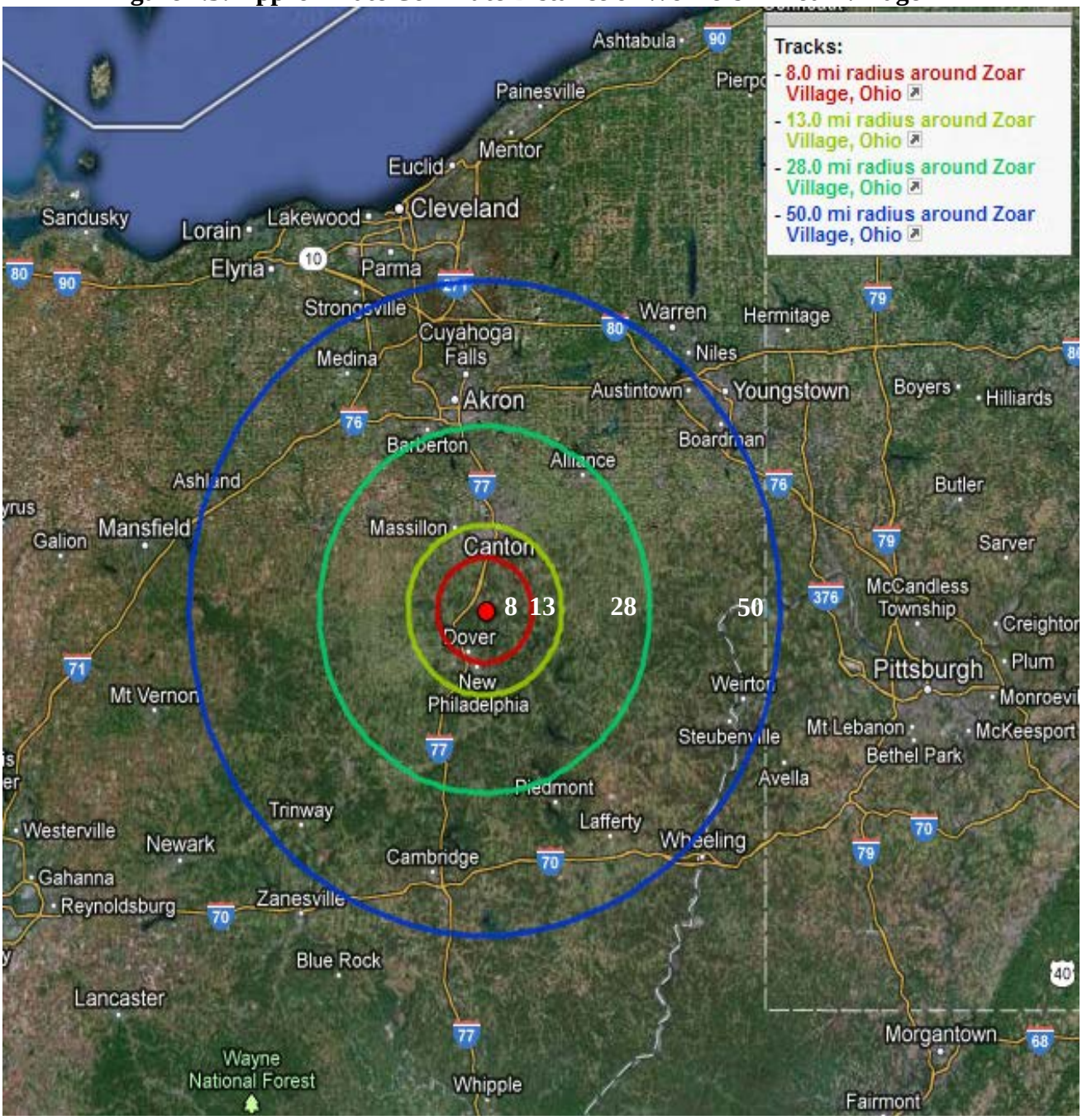
Table 2.9: Commute Time of Workers in Zoar Village

Commute Time	Commute Distance	Persons	Percentage
Less than 10 minutes	Less than 8 miles	3	4.6%
10 to 14 minutes	8 to 12 miles	2	3.1%
15 to 19 minutes	13 to 16 miles	17	26.2%
20 to 24 minutes	17 to 20 miles	9	13.8%
25 to 29 minutes	21 to 24 miles	3	4.6%
30 to 34 minutes	25 to 28 miles	24	36.9%
35 to 44 minutes	29 to 37 miles	0	0.0%
45 to 59 minutes	38 to 49 miles	2	3.1%
60 or more minutes	50 or more miles	5	7.7%

Source: 2010 American Community Survey. U.S. Census Bureau.

Figure 2.3 provides a map with circles defining the approximate commute distance of Zoar Village workers, assuming an average driving speed of 50 miles per hour. Approximately 4.6 percent of commuting workers work within the red circle (8-mile radius), where Dover is located. Approximately 81.5 percent of commuting workers work in the area between the light green circle (13-mile distance) and the dark green circle (28-mile radius). Major towns and cities located in this area include Massillon, Canton, Green, Louisville, East Rochester, Carrollton, and Uhrichsville. Approximately 3.1 percent of commuting workers work in the area between the dark green circle (28-mile distance) and the blue circle (50-mile radius). Major towns and cities located in this area include Akron, Steubenville, Piedmont, Lafferty, and Cambridge.

Figure 2.3: Approximate Commute Distance of Workers in Zoar Village



Source: GPS Visualizer. http://www.gpsvisualizer.com/calculators

2.2.5 Wealth and Poverty

Table 2.10 provides a summary of income and poverty data on Zoar Village, the comparison communities, and Tuscarawas County. The per capita personal income in Zoar Village is nearly $40,000, which is approximately $21,600 higher than the average per capital personal income of Parral, Roswell, and Stone Creek. The per capita income in Zoar Village is also nearly twice as large as that of Tuscarawas County. Zoar Village has a significantly lower poverty rate when compared to the comparison communities and to Tuscarawas County.

Approximately 8.5 percent of households in Zoar Village receive Supplemental Security Income (SSI) in addition to monthly Social Security benefits. The SSI program makes payments to people with low income who are age 65 or older or are blind or have a disability.[11] The rate of SSI program participation in Zoar Village is higher than in the comparison communities or Tuscarawas County, which is likely attributable to Zoar Village's older population and its large number of retirees relative to its total population. According to 2010 Census estimates, 26 percent of the population in Zoar Village are age 65 or older.[12] Despite the relatively high participation rate in the SSI program, Zoar Village has the lowest percentage of households who receive food stamps or Supplemental Nutrition Assistance Program (SNAP) benefits among the four comparison communities.

Pending approval from OMB, additional information to identify income trends in Zoar Village will be sought during the Small Group Workshops. For example, self-reported income data for new residents could be compared to established residents to determine if the community's socioeconomic composition is changing.

Table 2.10: Income in Zoar Village, Comparison Communities, and Tuscarawas County

Income Indicator	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Per capita personal income	$39,911	$20,824	$15,526	$18,604	$20,536
Percentage of persons living below poverty rate	2.2%	17.1%	22.6%	9.7%	12.8%
Households with Supplemental Security Income (SSI)	8.5%	0.0%	7.1%	0.0%	3.9%
Households with cash public assistance income	3.4%	2.6%	0.0%	0.0%	2.3%
Households with food stamp/SNAP benefits in the past 12 months	3.4%	8.8%	16.1%	6.2%	11.0%

Source: 2010 American Community Survey. U.S. Census Bureau.

[11] "Supplemental Security Income (SSI)." U.S. Social Security Administration. http://www.socialsecurity.gov/pubs/11000.html
[12] 2010 Census, U.S. Census Bureau.

By Ohio State Law, property values in Tuscarawas County are assessed every six years. The most recent property assessment in the County took place in 2010. Table 2.11 provides a comparison of selected housing characteristics in Zoar Village, the comparison communities, and Tuscarawas County in 2000 and in 2010. As shown in the table, total housing units and the shares of owner- and renter-occupied housing units in Zoar Village remained stable from 2000 to 2010. The percentage of owner-occupied housing units in Zoar Village decreased slightly from 87.3 percent in 2000 to 87.0 percent in 2010, while the same percentage for the comparison communities and for Tuscarawas County experienced greater declines over the decade.

Table 2.11: Housing Characteristics in Zoar Village, Comparison Communities, and Tuscarawas County (2000 and 2010)

Characteristic	Zoar		Parral		Roswell		Stone Creek		Tuscarawas	
	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010
Total housing units	81	85	107	106	98	85	70	69	38,113	40,206
Occupied housing units	79	77	106	100	91	85	66	49	35,653	36,965
Owner-occupied	87.3%	87.0%	81.1%	77.0%	80.2%	68.2%	78.8%	75.4%	74.9%	72.2%
Renter-occupied	12.7%	13.0%	18.9%	23.0%	19.8%	31.8%	21.2%	24.6%	25.1%	27.8%

Sources: 2000 and 2010 Census. U.S. Census Bureau.

Table 2.12 presents the distributions of owner-occupied housing values in Zoar Village, the comparison communities, and Tuscarawas County in 2000 and in 2010. In both years, the values of owner-occupied housing units in Zoar Village were in the range from $50,000 to $500,000. However, the median housing value in Zoar Village increased by 30 percent from $145,300 in 2000 to $189,000 in 2010. The median value of owner-occupied housing units in Zoar Village was $57,200 higher than that of Tuscarawas County in 2000. This gap increased by 36.5 percent to $78,100 over the decade.

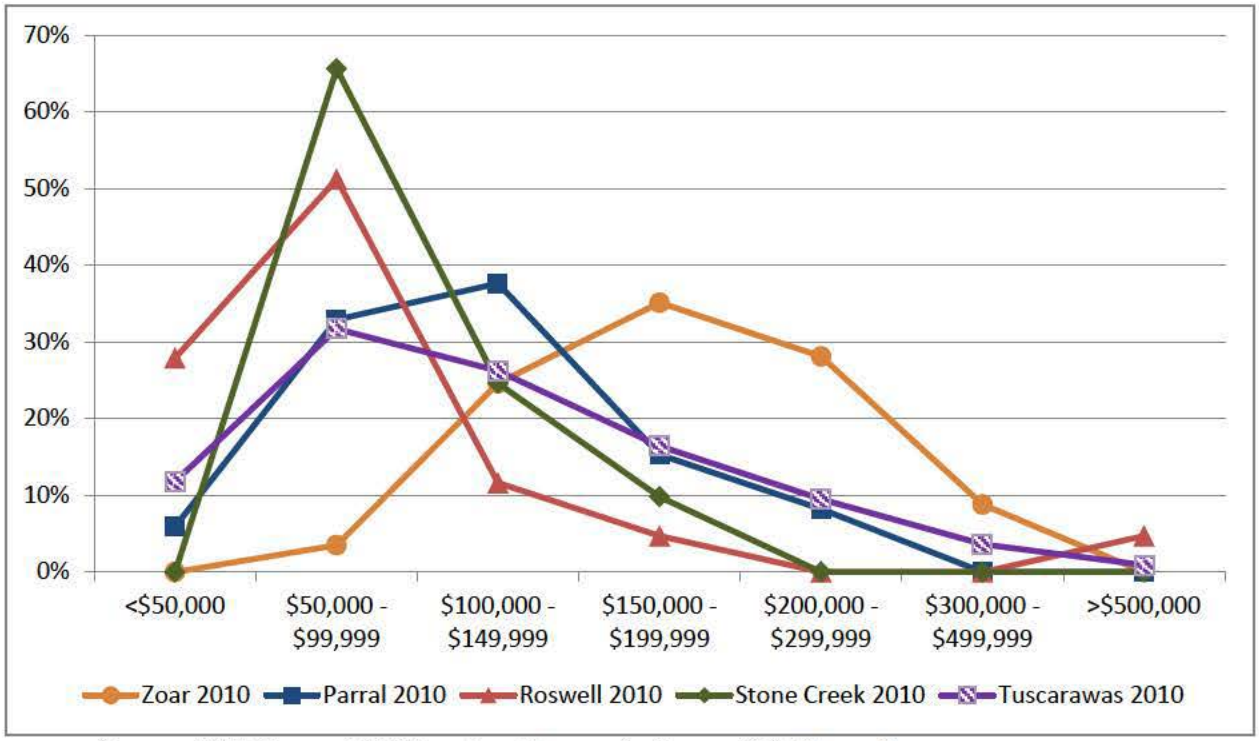
Table 2.12: Distribution of Owner-Occupied Housing Values in Zoar Village, Comparison Communities, and Tuscarawas County (2000 and 2010)

Housing Value	Zoar		Parral		Roswell		Stone Creek		Tuscarawas	
	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010
Less than $50,000	0.0%	0.0%	2.3%	5.9%	47.4%	27.9%	30.0%	0.0%	11.7%	11.8%
$50,000 to $99,999	28.1%	3.5%	72.4%	32.9%	52.6%	51.2%	62.0%	65.6%	51.4%	31.7%
$100,000 to $149,999	24.6%	24.6%	25.3%	37.6%	0.0%	11.6%	8.0%	24.6%	24.4%	26.2%
$150,000 to $199,999	31.6%	35.1%	0.0%	15.3%	0.0%	4.7%	0.0%	9.8%	8.1%	16.4%
$200,000 to $299,999	12.3%	28.1%	0.0%	8.2%	0.0%	0.0%	0.0%	0.0%	3.5%	9.5%
$300,000 to $499,999	3.5%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	3.6%
$500,000 or more	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	0.0%	0.0%	0.2%	0.9%
Median value of owner-occupied housing	**$145,300**	**$189,000**	**$85,800**	**$109,100**	**$53,000**	**$67,500**	**$61,800**	**$84,500**	**$88,100**	**$110,900**

Sources: 2000 Census; 2010 American Community Survey. U.S. Census Bureau.

Figure 2.4 illustrates the distribution of owner-occupied housing in 2010 for Zoar Village, the comparison communities, and Tuscarawas County.

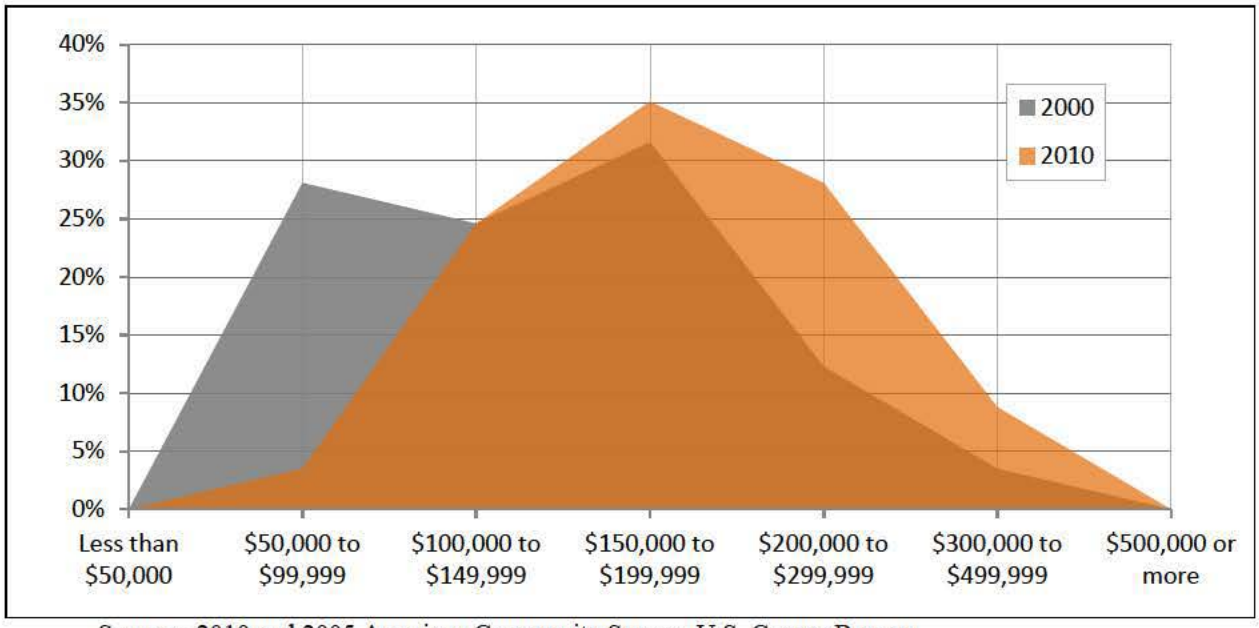
Figure 2.4: Distribution of Owner-Occupied Housing Values in Zoar Village, Comparison Communities, and Tuscarawas County (2010)



Sources: 2000 Census; 2010 American Community Survey. U.S. Census Bureau.

Figure 2.5 shows Zoar Village owner-occupied housing value distribution in 2000 and in 2010. The overlap between 2000 and 2010 housing values indicates a shift in the housing value distribution. In general, the share of housing units within the lower price range was much higher in 2000. For example, the percentage of housing units between $50,000 and $100,000 declined sharply from 28 percent to 3.5 percent between 2000 and 2010. Correspondingly, the share of housing units within the higher price range was much greater in 2010. The percentage of housing units over $200,000 rose from 16 percent to 37 percent over the decade. This increase may be associated with the growing tourism sector in Zoar Village, which will be discussed in later sections.

Figure 2.5: Growth in Owner-Occupied Housing Values in Zoar Village (2000 and 2010)



Sources: 2010 and 2005 American Community Survey. U.S. Census Bureau.

Table 2.13 provides the values of taxable properties in Zoar Village in 2011 by property type. The taxable value of real estate is 35 percent of market value in Ohio. As shown in the table, the total taxable value of properties in Zoar Village is approximately $4.18 million, including $3.55 million (85 percent) from residential properties, $0.35 million (8 percent) from commercial properties, $0.16 million (2 percent) from agricultural properties, and $0.13 million (2 percent) from utility properties.

Table 2.13: Values of Taxable Properties in Zoar Village

Property Type	Land Value	Improved Value	Total Market Value	Taxable Value (35 Percent of Total Market Value)
Residential	$2,772,480	$7,362,730	$10,135,210	$3,547,370
Commercial	$248,200	$765,670	$1,013,870	$354,890
Agricultural	$214,600	$228,490	$443,090	$155,080
Utility	$361,080	$0	$361,080	$126,380
Total	**$3,596,360**	**$8,356,890**	**$11,953,250**	**$4,183,720**

Source: Tuscarawas County Auditor. Retrieved on June 28, 2012 [13]

Table 2.14 provides the total taxable value of properties in Zoar Village, the comparison communities, and Tuscarawas County in 2011 by property type. As shown in the table, Zoar Village has the largest tax base among the comparison communities. The total taxable property value of Zoar Village makes up 0.36 percent of the total taxable property value of Tuscarawas County, while the population of the Village is only 0.18 percent of the population of the County.

Table 2.14: Taxable Values of Properties in Zoar Village, Comparison Communities, and Tuscarawas County (2011)

Property Type	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Residential	$3,547,370	$2,952,460	$1,399,600	$1,632,310	$822,171,760
Commercial	$354,890	$649,710	$70,570	$350,660	$171,997,280
Agricultural	$155,080	$16,750	$90,390	$83,710	$110,748,020
Utility	$126,380	$95,220	$103,080	$158,300	$0
Industrial	$0	$6,470	$177,960	$86,880	$59,406,560
Mineral	$0	$0	$0	$0	$0
Total	**$4,183,720**	**$3,720,610**	**$1,841,600**	**$2,311,860**	**$1,164,323,620**

Source: Tuscarawas County Auditor. Retrieved on March 22, 2013

Table 2.15 provides a comparison of 2010 and 2011 taxable property values in Zoar Village. The total taxable property value in Zoar Village decreased slightly (by 0.16 percent) from 2010 to 2011. This was mainly due to a loss of $14,410 in the taxable value of residential properties. Between 2010 and 2011, the taxable value of utility properties in Zoar Village increased by $7,700. The loss of taxable residential property values is likely to be attributable to the overall economic recession and drop in property values nationwide.

[13] The effective property tax rates for Zoar Village and the comparison communities are calculated for two types of properties – Class 1 includes residential and agricultural properties, and Class 2 includes commercial, industrial, mineral, and public utility properties. The effective tax rates for Class 1 and Class 2 properties in these communities are: 5.09% and 5.22% in Zoar Village, 5.15% and 6.04% in Parral, 5.16% and 6.07% in Roswell, and 4.64% and 5.09% in Stone Creek.

Table 2.15: Percentage Change in Taxable Values of Properties in Zoar Village (2010 and 2011)

Property Type	2010	2011	Percentage Change
Residential	$3,561,780	$3,547,370	-0.40%
Commercial	$354,890	$354,890	0.00%
Agricultural	$155,080	$155,080	0.00%
Utility	$118,680	$126,380	6.49%
All	**$4,190,430**	**$4,183,720**	**-0.16%**

Source: Tuscarawas County Auditor. Retrieved on June 28, 2012.

Table 2.16 provides a comparison of 2010 and 2011 taxable property values in Zoar Village, the comparison communities, and Tuscarawas County. As shown in the table, the total taxable values of the residential properties in Stone Creek and Tuscarawas County both increased slightly from 2010 to 2011, while the total taxable values of the residential properties in Parral, Roswell, and Zoar Village all declined by less than one percent. Since residential properties provide the largest share of property taxes in these communities, the trend in total taxable property values are consistent with the trend in taxable residential property values.

Table 2.16: Percentage Changes in Taxable Values of Properties in Zoar Village, Comparison Communities, and Tuscarawas County (2010 and 2011)

Property Type	Zoar	Parral	Roswell	Stone Creek	Tuscarawas
Residential	-0.40%	-0.24%	-0.90%	0.25%	0.42%
Commercial	0.00%	0.00%	0.00%	119.52%[14]	-0.31%
Agricultural	0.00%	0.00%	-0.35%	0.00%	0.81%
Utility	6.49%	4.86%	5.01%	3.82%	0.00%
Industrial	N/A	0.00%	0.00%	0.00%	2.68%
Mineral	N/A	N/A	N/A	N/A	0.00%
Total	**-0.16%**	**-0.07%**	**-0.44%**	**9.51%**	**0.46%**

Source: Tuscarawas County Auditor. Retrieved on July 16, 2012 (N/A = not available)

It is worth noting that a relatively large portion of Zoar Village is owned by the federal government. Table 2.17 provides the land use pattern of Zoar Village as of spring 2010. About 17 percent of the land in Zoar Village is federal land owned by USACE. In addition, about 3.4 percent of the land in Zoar Village is used for government and institution facilities, which include Ohio Historical Society properties, schools, churches, and other similar facilities.[15]

[14] Two parcels in Stone Creek were previously tax-exempt as a church. This property was sold in 2010 and is currently categorized as a commercial property. This status may change if the new owner obtains a tax exemption.
[15] Village of Zoar Comprehensive Plan. July 2010.

Table 2.17: Land Use Pattern in Zoar Village[16]

Land Use	Percentage
Residential	24.4%
Government/Institution	3.4%
Commercial	0.8%
Federal Land	17.0%
Parks & Cemeteries	3.3%
Agriculture	25.7%
Conservation	25.4%
Total	**100.0%**

Source: Village of Zoar Comprehensive Plan. July 2010.

2.3 Summary & Conclusions

Based on the data comparisons, Zoar Village differs from its surrounding communities mainly in the following aspects:

- **Senior population:** Zoar Village has a relatively high median age and a relatively large share of senior population. Over one-fourth of the total population in Zoar Village is over 65 years old.
- **White-collar jobs:** Jobs in Zoar Village are concentrated in the industries of education, health services, science, and management. The industry of education and health services employs nearly half of the working population in Zoar Village.
- **Highly educated population:** Compared to the other three communities and Tuscarawas County, Zoar Village has a much greater share of population over 25 years old that have a Bachelor's or higher degree.
- **High income:** The per capita personal income and median household income in Zoar Village are both significantly higher than those of the comparison communities and the County.
- **High housing value:** The median value of owner-occupied housing units in Zoar Village is $189,000, approximately $78,000 higher than the County estimate.
- **Large shares of workers working at home or working outside the County:** Among the four communities, Zoar Village has the highest percentage of workers who work at home (11 percent) and the highest share of workers who work outside Tuscarawas County (44 percent). All the commuting workers in Zoar commute by driving alone.

These socioeconomic characteristics are largely associated with each other. For example, the high income level of residents in Zoar Village is closely related to their high level of educational attainment and the relatively large share of white-collar jobs in the local market. The large share of management jobs is consistent with the relatively older working population. The property

[16] Similar land use and ownership information for the comparison communities and Tuscarawas County is not publicly available. The research team has requested this data from Tuscarawas County Auditor's Office.

value in Zoar Village reflects its residents' income level and population's age distribution. All of the commuting workers in Zoar Village travel to work by driving alone, which shows an interesting picture of a historic community whose population embraces the modern conveniences of travel.

Pending OMB approval, the reasons why driving alone is preferred will be sought during Small Group Workshops. One possible explanation for this phenomenon is that the work places of Zoar Village workers may be quite scattered, considering nearly half of these workers work outside Tuscarawas County. Residents of Zoar Village have higher education levels (34.2 percent with Bachelor's Degree or higher versus 17.8 percent countywide) and a greater percentage of residents are employed in health and education industries. This indicates a lack of job opportunities in high-paying industries such as health and education in close proximity to Zoar Village. However, the fact that villagers choose to commute further to work instead of moving closer to their job locations reflects their commitment to Zoar Village. In addition, workers in Zoar Village can afford the cost of driving alone to work given their high income levels. The high vehicle-to-household ratio in Zoar Village provides working family members with the option of driving alone to work.

Zoar Village is home to a higher percentage of older white-collar workers and retirees than the comparison communities and the county. The community does not appear to be a place where people grow up and stay. The 2010 US Census data shows that over 44 percent of Zoar Village's working age population (57 people) is retired compared to 38 percent of Tuscarawas County's population. The median age of Zoar Village residents is roughly 53 while the median age in the County is 41. Nearly 65 percent of Zoar Village residents work in high-paying industries such as education, health services, management and science, while only about 27 percent of County residents work in these fields.

Note that data on the origin of birth of Zoar Village residents is not publically available. Pending OMB approval, this information will be sought during Small Group Workshops. This information is important for understanding how and why individuals decide to locate and stay in Zoar Village. For example, the data may confirm that Zoar Village is a community populated by older generations that locate to the community post-child rearing or in their retirement stage of life rather than those that were born and raised their all their lives.

Zoar Village is home to small businesses that depend on the community's tourism for income. These businesses produce artisan food products and crafts goods that are sold to tourists at the Zoar Village retail outlets and events. At least 12 home-based arts and crafts businesses were reported by the ZCA. Among the comparison communities and the county, Zoar Village has the largest share of self-employed workers and unpaid family workers. Total self-employed and unpaid family workers make up 13 percent of the working population in Zoar Village, which is significantly greater than the share of the same worker category in Parral (2 percent), Roswell (4 percent), Stone Creek (0 percent), and Tuscarawas County (6 percent).

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3. SOCIAL PROFILE & OTHER SOCIAL EFFECTS

While Chapter 2 focused on baseline demographic and socioeconomic conditions in Zoar Village, this chapter documents the community's current social characteristics and interactions. It also identifies potential other social effects that may occur. This information will enable the USACE to evaluate the widest possible range of potential effects alternatives may have on the community's social wellbeing during evaluation and comparison of those alternatives.

3.1 Introduction to Other Social Effects (OSE) Accounting

In the course of project planning and the formulation of alternatives and evaluation, the USACE analyzes costs and benefits through a series of four accounts. Those accounts include the National Economic Development or NED account, the Regional Economic Development or RED account, the Environmental Quality or EQ account and the Other Social Effects or OSE account. Both the NED and RED accounts use monetized values for evaluation while other intangible benefits, costs, and impacts of projects are captured using the "Other Social Effects" (OSE) account. The "Handbook on Applying Other Social Effects Factors in Corps of Engineering of Water Resources Planning" (OSE Handbook), published by the USACE Institute for Water Resources (IWR), defines OSE as the changes in the core elements of life that influence personal and group definitions of satisfaction, well-being, and happiness because of a condition or proposed action.[17] Key social well-being indicators and descriptions adapted from the OSE Handbook are presented in the table below.

Table 3.1: Other Social Effects Indicators and Descriptions

OSE Indicator	Description
Identity	The sense of self as a member of a group, distinct from and distinguished from other groups by values, beliefs, roles, and culture
Health and Safety	Personal and group safety associated with a future without- and a future with – project condition
Economic Vitality	Personal and group economic opportunities and standard of living associated with a future without- and a future with – project condition
Social Connectedness	The pattern of social networks within which individuals interact associated with a future without- and a future with – project condition
Participation	The ability of community members to interact with others and to influence social outcomes
Leisure and Recreation	The recreational pursuits and leisure time opportunities associated with a future without- and a future with – project condition

[17] Institute for Water Resources, US Army Corps of Engineers, "Handbook on Applying "Other Social Effects" Factors in Corps of Engineers Water Resource Planning" December 2009.

The inclusion of social effects in the project alternatives formulation and evaluation process demonstrates the emphasis that the Federal Government places on people's wellbeing during project development. OSE are typically difficult to quantify and monetize, but are considered by the USACE on an equal footing with traditional project costs and benefits during formulation of a project plan.[18]

3.2 Preliminary OSE Identification Methodology

The study provides a preliminary accounting of OSE identified in Zoar Village. The objective is to develop a baseline of current social conditions. To meet this objective, the study staff adhered to the guidelines set forth in the OSE Handbook regarding social well being factors and recommended data sources. The study staff identified OSE by collecting data and developing detailed profiles of the organizations, community groups, religious institutions and activities that form Zoar Village's social fabric.

Due to Office of Management and Budget (OMB) regulations that protect the public from the burden of time-consuming paperwork and potentially invasive information gathering activities by public agencies, the data and information presented were collected from secondary data sources. These include the US Census, state and county records, and other publically available sources of local data and information. Study staff collected information from Zoar Village community organization websites, directories, marketing materials, news articles, membership reports and information submitted to the Huntington District.

Note that this baseline social profile is the first step in identifying and documenting potential OSE. Secondary data sources alone cannot accurately capture the depth and breadth of OSE needed to fully inform the alternatives evaluation process. This preliminary baseline will be augmented with data collected from primary sources at a later date in the study process. In the next phase of the data collection for the OSE evaluation, the USACE will design and implement a series of Small Group Workshops to solicit feedback on formulated project alternatives. During these workshops, a number of specific questions (based on OMB approval) will be posed to workshop participants in an effort to further clarify information obtained from secondary sources. Prior to implementation of the workshops, those specific questions will be transmitted to OMB for formal approval.

The remainder of this chapter presents available baseline information on OSE indicators.

3.3 Identity: Zoar Village Actively Maintains and Promotes its Distinctiveness

According to the IWR OSE Handbook, the concept of identity is defined as the "sense of self as a member of a group, distinct from and distinguished from other groups by values, beliefs, norms, roles, and culture."[19] Investment of time and resources by the State of Ohio, Zoar Village's government and its community groups to preserve the community's buildings and traditions demonstrates an ongoing recognition the community's unique identity. Today, Zoar

[18] ER 1105-2-1000, Appendix D Amendment No. 1, June 20, 2004
[19] Ibid. Pg. 5

Village is a thriving vibrant community of civic groups, associations, religious institutions, and individuals that actively promote the community's heritage and the well-being of its residents. Several grassroots groups and religious organizations in Zoar Village continue to work to ensure the historic identity of the community is preserved and its traditions are practiced today. These organizations provide multiple opportunities for residents and tourists alike to participate in Zoar Village's social, economic, and cultural activities. As shown in the table below, membership figures for several of these groups easily exceed the 169 Zoar Village residents reported in the 2010 US Census.

Table 3.2: Zoar Village Community Group Membership Statistics (2012)

Organization	Number of Members
Zoar Community Association	274
Zoar Volunteer Fire Department*	28
Zoar Holy Trinity Church	400
Zoar United Church of Christ**	104
Earth Action Partnership***	11
Ohio Historical Society****	7,691
Ohio & Erie Canalway Coalition*****	1,000+

*Data includes 14 department members and 14 social members. See Section 3.4 for details.
**Data from 2010/2011 Tax Return (four voting members, seven volunteers)
***Data from 2009
****Statewide membership statistics

The subsections below present profiles of these groups and the activities they undertake. This information documents Zoar Village's reliance on its identity as a source of civic pride, way of life and economic opportunity.

3.3.1 Zoar Village Community Association

Mission:
The Zoar Community Association (ZCA), founded in 1967, seeks to "preserve, interpret, and celebrate the culture and heritage of the Society of Separatists and historic Zoar Village through education, activities, and events that promote both the legacy of the Society and the present Zoar community."[20] This non-profit organization is the community's most active advocate and promoter of Zoar Village as an asset to the region and State of Ohio and a tourist destination.

Membership:
Membership in the ZCA hails from across the country and all walks of life. Table 3.3 provides a summary of ZCA membership statistics. As of June 2012, ZCA membership consists of 274 private individuals and businesses owners from Zoar Village, Ohio, and several other states including Missouri, Florida, Texas, Colorado, Utah and Washington. Seventy-three (73) of the 274 ZCA members are classified as Zoarite descendants.

[20] Zoar Community Association Mission Statement, http://historiczoarvillage.com/mission.html Last Accessed July 2012

ZCA memberships are available in a number of different fee-based categories. Each membership type grants the member specific benefits ranging from discounts on goods purchased at the Zoar Store and School House facility rentals to lifetime free admission to the Harvest Festival, Christmas in Zoar or Civil War Re-enactment events and name recognition in ZCA event programs and publications. Many of ZCA members serve as volunteers at these heritage events and festivals.

Table 3.3: Zoar Village Community Association Membership 2012 Statistics

Member Level	Benefits	Number
Individual	1 VIP pass for one-time use at Harvest Festival, Christmas in Zoar or Civil War Re-enactment	**50**
Family	2 VIP passes for one-time use at Harvest Festival, Christmas in Zoar or Civil War Re-enactment	**91**
Patron	2 VIP passes. Recognition as a Patron member in event program listings	**25**
Sustaining	4 VIP passes. Recognition as a Sustaining member in event program listings	**10**
Lifetime	Lifetime pass to Harvest Festival, Christmas in Zoar or Civil War Re-enactment. Recognition as a Lifetime Member in event programs listings.	**92**
Corporate	For businesses and organizations interested in supporting the Zoar Community Association	**6**
Total		**274**

Source: Zoar Community Association, Membership Report, June 2012

Key Activities:

To achieve its mission, the ZCA oversees and conducts dozens of activities ranging from educational events, historical building tours and demonstrations, and several major featured events. The association manages the Zoar State Memorial Historic District and is currently under contract with the Ohio Historical Society (OHS) to operate and maintain several Zoar buildings. The ZCA operates several buildings in Zoar Village including the:

- Zoar Store, a retail gift shop and visitor/welcome center;
- Historic Zoar Bakery, which offers period baking demonstrations and retail sales;
- Zoar Museum, which contains historic artifacts and period furniture ;
- Zoar School House, which serves as the ZCA base of operations and is available for event rentals;
- Blacksmith and Wagon Shops, which were restored by OHS in 1972 and are open to the public; and
- Zoar Garden and Garden House

In addition, the ZCA leases three other historic building spaces that also offer period tours, educational classes and retail operations: The Westbrooks Cannery, The Zoar Stitchery, and Springhouse Primitives.

The ZCA plays a vital role preserving Zoar Village's historic identify and marketing it as a tourist destination. The ZCA maintains and operates several websites that seek to promote the village including:

- Historiczoarvillage.com – the homepage of the ZCA that provides information on events, programs and village history
- Savehistoriczoar.org – a website primarily used to raise awareness of Zoar preservation issues.
- ZoarZone.com – a website the provides recent news information and a calendar of upcoming events.
- Facebook pages for both the ZCA and Zoar Zone.

Historic and Cultural Education Events:

The ZCA organizes and markets cultural activities and educational events that occur nearly year around. These events educate the public, engage residents in Zoarite culture, and play a key role in maintaining the group's identity. An accounting of these events is provided in the table below. Information regarding the frequency and duration of these events is also included where available.

Table 3.4: ZCA Educational Classes and Events

Event Type	Description
Rug and Rag Rug Weaving Classes	Participants learn to make a rag rug or table runner on a two -harness loom. Classes are 7 hours in duration and are available twice a year.
Canning Classes	Participants learn the basics of canning at the Westbrook Cannery of Zoar. One class was held in January 2012.
Sewing Classes	Participants learn basic hand sewing techniques at the Zoar Stichery. This two-hour course was held twice in January 2012.
Quilting Classes	Over the course of five hours, participants learn about traditional quilting techniques, fabrics and batting. One class was held in February 2012.
Volunteer Training & Education Class	Once a year, volunteers are trained to interpret Zoar Village's historic buildings and their operations. For example, participants are trained on the beehive ovens and baking techniques of the Historic Zoar Bakery.
Blacksmithing Classes	Held at the Zoar Black Smith Shop, this eight-hour course allows participants to work with traditional tools and learn how to make a hook and nail, basic fire building techniques and the history of blacksmithing in Zoar Village. This class is scheduled twice in 2012 (August and October).
Bird Scavenger Hunt At Zoar Lake	Co-sponsored with the Ohio State University, participants hike the wetland trails of Zoar Village and learn about the local native birds in Zoar Village area.
Speaker Series	Local experts on the history of Zoar Village conduct walking tours and interpret the community's buildings, customs, and history. For example, the "Zoar and the Canal" speaking event leads participants on a hike to the Zoar Dam, sawmill and side cut canal. Other speaking events include "The Zoar Brewery and other Ohio Breweries" and "The Geology of Zoar Canal Locks". This event is typically held on a Saturday
"Werktag" (Work Day)	Attendees participate in weaving, butter making, kraut making, and gardening. Costumed interpreters and artisans provide demonstrations in historic buildings.
Guided Tours	ZCA provides guided tours of Zoar Village's historic buildings and grounds. Programs are available for adults and youth. Tours are approximately 4 hours long and are scheduled by request Tuesday through Sunday from February through December.
School Tours	ZCA provides special programs for school groups and home schooled students, which include building tours, hands-on activities and lessons in communal living. For example, the "Old School Zoar" tour demonstrates a day in the life of an 1860's Zoar child. Tours last the entire day and are available for by appointment Tuesday through Sunday from February through December.
Just for Kids Camps	The ZCA offers full and half-day camps for students K though 3 and Grades 4-7. Camps offer history lessons, activities, games, and craft projects. Two camps were held in July 2012.

Source: Historic Zoar Village 2012 Events Calendar, ZCA.

Major Featured Events:

In addition to these educational programs, the ZCA holds several large events that promote Zoar Village's identity.

"Zoar Harvest Festival"

Considered by the Ohio Office of Tourism to be "one of the most respected antiques show and sale in the country", the Annual Zoar Harvest Festival offers visitors a glimpse into Zoar Village's past.[21] In 2011, this annual 38 year-old event featured over 65 arts and crafts dealers, antique carriage and buggy displays, children's period games in the gardens, horse drawn wagon rides and homemade German food. Costumed interpreters and artisans provided building tours and facilitated classes in making candles, soap, doing laundry, canning, baking, and weaving. ZCA estimates attendance at this event was 2,700 in 2010 and 3,000 in 2011.

"Christmas in Zoar"

This annual event, typically held in early December, provides visitors with the opportunity to tour historic private homes and public buildings decorated much like Zoar villagers would have during the 1850s. The event also features a holiday craft fair where traditional German Christmas decorations and food can be purchased. Traditional food is available throughout Zoar Village from local craft persons, restaurants, and church groups. The main attraction is the tree lighting in the Zoar Garden, a focal point of the Village. According to the OHS, the Zoar Garden was the Zoarite's "most public manifestation of their faith."[22] (See Section 3.4 for details.) Attendance at this holiday event drew an estimated 1,500 visitors in 2010 and 2,500 visitors 2011.[23]

Christmas in Zoar provides significant exposure of Zoar Village to the public. In addition to being advertised on the ZCA website (http://historiczoarvillage.com), it is publicized in print and online editions of news outlets, personal blogs and government and private travel websites including:

- *The Times Reporter*, a newspaper which covers the area of Dover and New Philadelphia, OH;
- About.com Cleveland Edition, a subsidiary of The New York Times Company;
- Ohio.Com Lifestyle & Travel Section;
- OhioTraveler.com; and
- The Tuscarawas County, Ohio Convention & Visitors Bureau.

[21] Ohio Department of Development, Ohio Office of Tourism, Zoar Harvest Festival Information http://consumer.discoverohio.com/searchdetails.aspx?detail=77678 Last Accessed July 2012.
[22] Ohio Historical Society Marker #19-79, Zoar Garden http://www.remarkableohio.org/HistoricalMarker.aspx?historicalMarkerId=106089&fileId=123022
[23] Event attendance estimates provided by Jon Elsasser, ZCA President, via email Jennifer Sandy, National Trust for Historic Preservation on December 28, 2011.

"Civil War Reenactment"

The ZCA also organizes a Civil War Reenactment every other year. Billed as the "largest Civil War event in the State of Ohio," Zoar Village hosts over 1,000 paid Civil War actors that reenact a major battle.[24] In 2011, the Civil War Reenactment brought approximately 3,000 visitors to Zoar Village.[25] There are demonstrations and displays of cavalry, artillery, clothing, campfires, and the period entertainment. Vendors feature period and reproduction weapons, clothing, tools, books, and games. In addition, a themed ball allows visitors to dress and learn to dance a period dance. Guided tours are also available of the historic buildings.

The Zoar Village's Civil War event plays a significant role in the region's educational programs. It provides an opportunity for students from schools throughout Ohio to experience and learn about Civil War battles and period culture. During the most recent reenactment held in September 2011, the ZCA reported over 1,230 students attended.[26] This large-scale participation emphasizes the role of Zoar Village in the education of school age students.

"Oktoberfest Festival"

The ZCA hosts Oktoberfest, one of the most famous events in Germany, in October every year. The Oktoberfest events include a feast that features German-style microbrews and cuisine, and walking and biking tours that feature various sites and points of interest, including the Brewery, the Zoar Lake and Wetland Arboretum, and the original village washroom and wine cellar. One of the Oktoberfest events is a behind-the-scenes tour that allows visitors to see areas that are usually closed to the public and view rare historical artifacts from the special collection.[27]

This event recognizes Zoar Village's German heritage and brewery activities. According to OhioBreweriana.com, a site dedicated to the study and exhibition of breweries in Ohio, Zoar Village beer making began in the mid-1820s after the completion of the Ohio and Erie Canal. A brewery operated in a wooden building built at the west end of the village. By the 1870s, the brewery reportedly produced between 200 and 400 barrels of lager beer per year, which was sold locally at the Zoar Hotel's tavern or exported via the canal boats.[28]

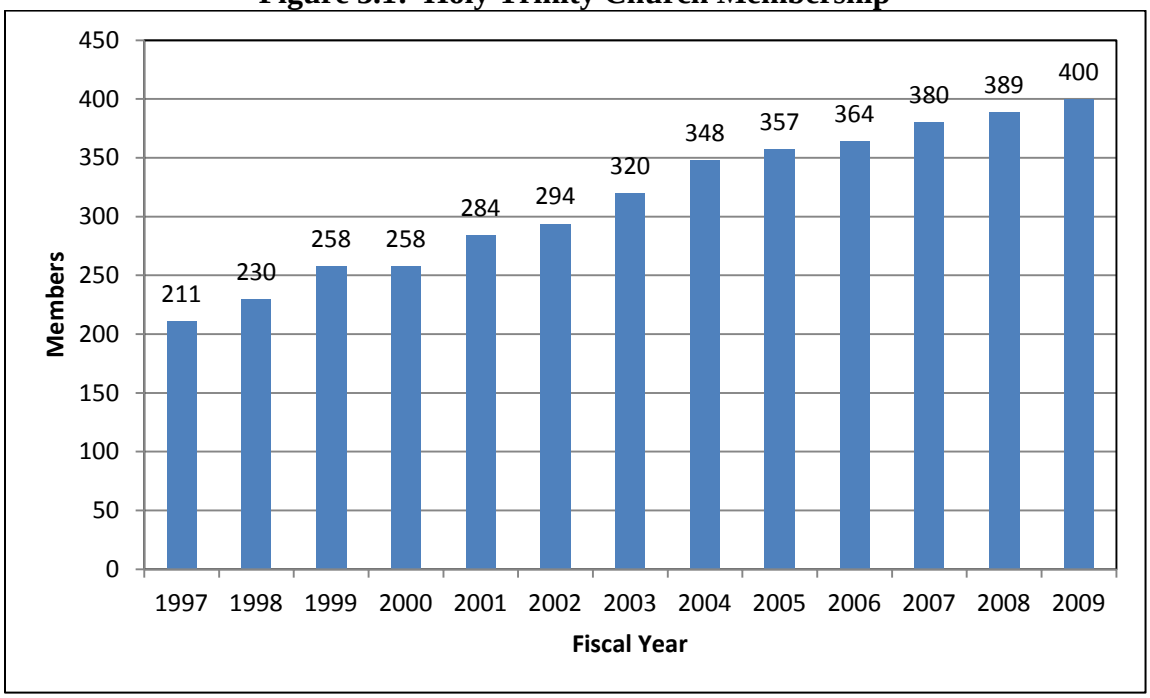
3.3.2 Church of the Holy Trinity

Located in Bolivar, approximately half a mile from Zoar Village, the Church of the Holy Trinity (Holy Trinity) serves Northern Tuscarawas County's Catholic community. Built in 2001, the Church's temporary Hall serves as a place of worship for members from three former churches from the region: St. Aloysius from Strasburg, Saint Patrick from Mineral City, and St. Stephen

[24] TimesReporter.com, "Zoar will host Civil War re-enactment", September 14, 2011. http://www.timesreporter.com/communities/x1587953675/Zoar-will-host-Civil-War-re-enactment
[25] Event attendance estimate provided by Jon Elsasser, ZCA President, via email Jennifer Sandy, National Trust for Historic Preservation on December 28, 2011.
[26] Event attendance provided by ZCA Site Manager via email on June 21, 2012.
[27] TimesReporter.com, "Zoar Oktoberfest set for Oct. 15", October 5, 2011.
[28] Ohiobreweriana.com, "Brewing Beer In The Buckeye State, Volume I" by Dr. Robert A. Musson. http://www.ohiobreweriana.com/library/holdings/zoar.shtml Last Accessed July 2012

from Bolivar. Each of these parishes was dissolved to form the Holy Trinity parish. The purpose of this reorganization was to address the future pastoral needs and pooling resources in the northeastern part of the Diocese of Columbus into one parish.[29] Available membership data provided in Figure 3.1 below shows an increase of nearly 90 percent in church membership between 1997 and 2009.

Figure 3.1: Holy Trinity Church Membership



Source: Holy Trinity Church, June 2012

Association with Zoar Village's Identity:

The Holy Trinity Church considers "Zoar as the heart of the parish" and a fundamental part of their identity.[30] The church specifically selected the location to benefit and contribute to Zoar Village's culture and historical and social significance.[31] The fact that the church uses the "Zoar" name in its website address (www.holytrinityzoar.com) demonstrates this strong association with the Village's identity. According to church representatives, approximately 11 church member families live in Zoar Village.

The preservation of Zoar Village is critical to the Holy Trinity's membership. All of the church's educational and service programs target residents of the Village and the neighboring areas. Programs include:

- Spiritual Life and Liturgy
- Communication and Evangelization

[29] Holy Trinity Church website, http://www holytrinityzoar.org/catholicroots htm Last Accessed July 2012
[30] "Draft Zoar Commitment to Expansion – Village Study" submitted by Mr. Larry Kerr, Project Manager, Church of the Holy Trinity, July 3, 2012.
[31] Ibid.

- Social Justice and Community Concerns
- Finance and Maintenance
- Religious Education
- Family Life

Specific program activities include:

- **Parish School of Religion (PSR) Program** – A religious education program for youth parishioners held after Sunday services.
- **Rite of Christian Initiation of Adults Program** – An educational program for individuals seeking to join the Catholic faith community.
- **Women's Club** – A civic service group.
- **Knights of Columbus** – A local chapter of this national church and community service organization.
- **Rosary Maker Group** – Parish members meet and craft prayer rosaries that are sent to communities across the world.

Major Investment in Zoar Village Region:

Perhaps the strongest indicator of Church of the Holy Trinity's commitment to the Zoar Village community identity is the fact that the parish is making major investments in the area. The parish recently received approval for $3 million to construct a new church building. The program is underway and on schedule. The church project manager reports that over $1.3 million has been pledged and collected to date with the target of $3 Million.[32] The new building is already designed and will be adjacent and attached to the parish's present facility up on the hill overlooking Zoar Village. This 12,000 square foot building will be located approximately .5 miles from Zoar Village at 1835 Dover-Zoar Road N. E.

3.3.3 Zoar United Church of Christ

The Zoar United Church of Christ (Zoar U.C.C.) also contributes to maintaining and expanding Zoar Village's identity in the region. It has 104 registered members, 27 of which are residents of Zoar Village.[33] The church currently holds services in the 1853 Meeting House, which originally served as a gathering place for lectures and meetings attended by society members. Average attendance for these services is 50 individuals.[34] As shown in Table 3.5, its membership participates in several organized events and activities including a bible study group and public service group.

[32] Ibid.
[33] Membership information, event statistics, and church program information provided via by Mary Clay, President, Zoar United Church of Christ, June 16, 2012.
[34] Ibid.

Table 3.5: The Zoar United Church of Christ Event Member Participation*

Church Event Or Activity	Number of Participating Members
Monthly Fellowship Missions Breakfast	50
Sunday School	15
Dinner & Movie Night	12
Jerusalem Assembly (Biblical Acting Troupe)	12
Women's Guild (Public Service Group)	15
Church Choir	10

Source: Zoar U.C.C.
*Data as of as of June 2012

The Zoar U.C.C is also an active part of Zoar Village's community and contributor to regional social welfare organizations such as the "Salvation Army for Bolivar-Wilkshire Hills-Zoar Area" managed by the St. John United Church of Christ located in Bolivar. For example, The Women's Guild organizes fundraisers and uses dues and raised funds to purchase church materials and donations to local needs groups. The church also uses proceeds from the Fellowship Missions meals to contribute to local welfare programs such as the "Church Food Pantry", "Clothes Closet", and Christmas giveaway for local needy children.

As a member of the ZCA, the Zoar U.C.C is also involved in the "Zoar Harvest Festival", "Civil War Reenactment", and "Christmas in Zoar". Approximately 25 to 30 church members support these events by volunteering, participating in entertainment performances, selling traditional German food and providing guided tours of the Meeting House.

The Zoar U.C.C.'s two-year plan is to become more involved in the local community by conducting social events. For example, the church is planning a "Biblical Laugh-In" performance in late Fall 2012. Work is also underway on developing an official church Facebook page and news releases to advertise the planned performances in local and county church publications.

3.3.4 Ohio & Erie Canalway Association (OECA) & Ohio & Erie Canal Coalition (OECC)

Mission:

The Ohio & Erie Canalway Association (OECA) is a private, non-profit organization established in 1989 to support the development of the Ohio & Erie National Canalway. The OECA operates as a regional extension of two founding organizations - the Ohio Canal Corridor (OCC) and the Ohio & Erie Canalway Coalition (OECC). The OECA focuses primarily on the northern section of the Canalway (Cleveland and Cuyahoga County).[35] Its mission is to develop a park system that follows the route of the historic Ohio Canal from Cleveland to Dover/New Philadelphia by promoting historic preservation and interpretation, expanded recreational opportunities and

[35] Ohio Canal Corridor website: www.ohiocanal.org

sensitive economic developments. The OECC focuses its efforts on the Southern sections of the Canalway in Summit, Stark and Tuscarawas Counties.[36] Its mission focuses on stimulating public interest and support for the protection, preservation, development and enrichment of the historical, natural and recreational resources along the route of the Ohio & Erie Canal. [37] The heads of the OECC and OCC serve together as Co-Executive Directors of the Association. Together these two founding organizations leverage the greater OECA membership and support from businesses, government agencies and residents to promote the Canalway.

In 1996, Congress designated the Ohio & Erie Canalway a "National Heritage Area". The National Heritage designation, only one of 49 in existence, enables the Ohio & Erie Canalway to receive national recognition and limited funding assistance through the U.S. Department of the Interior. The purpose of designation is to help local entities protect and use historic, cultural, and recreational resources while raising regional and national awareness of their importance. The National Heritage Area, managed by the OECA, consists of a 110- mile corridor between Lake Erie and Dove/New Philadelphia corridor. The corridor's boundary documents the linkages between the natural environment, communities, businesses, transportation networks and industrial growth that grew as a direct result of the Ohio Erie Canal's construction and operation. According to the OECA, Zoar Village's inclusion in the area's boundaries played a critical part in securing the National Heritage Area designation. The OECA's application highlighted Zoar Village's rich history as an original German settlement whose people contributed to the construction of the canal and economic growth of the Ohio.

A key feature of the Ohio & Erie Canalway National Heritage Area is the Towpath Trail, an 81-mile multi-use recreational path that follows the old canal. The Towpath Trail originally served as a path for the horses and mules pulling the canal boats. Today, approximately 3.4 million people live in regions along the corridor and 1.7 million hikers and bikers use the Towpath Trail annually.[38] Zoar Village is part of the Southern leg of the Towpath Trail and serves as the path's gateway for Tuscarawas County and New Philadelphia.

Key Activities:

To work towards its mission, the OECC provides educational programs, events and publications about the Canalway while developing strong working relationships with partners to preserve and interpret the natural, historical and recreational resources in the Summit, Stark and Tuscarawas Counties. Key activities include:

- "Coordinating and representing the interests of the citizens, corporate community and government agencies in Summit, Stark and Tuscarawas counties.
- Working toward establishing a continuous physical link along or near the planned Canalway.
- Encouraging and assisting the development of compatible economic ventures throughout the National Heritage Canalway.

[36] Ohio & Erie Canalway website: http://www.ohioeriecanal.org
[37] Ibid.
[38] Ohio & Erie Canalway Coalition, "Corridor Management Plan" 2000. http://www.ohioanderiecanalway.com/Main/Pages/6.aspx

- Developing strong working relationships with partners to preserve and interpret the natural, recreational and historic resources throughout the Canalway.
- Incorporating the needs of the local community into the Canalway plan through meetings with government and business leaders to enhance the quality of life along the Canalway.
- Promoting and developing educational programs, which interpret the natural, historical and recreational resources along the Canalway.
- Hosting educational programs including the Cargill Bluegill Fishing Derby, Cargill Canoe Adventure, Tour Du Towpath and the Goodyear Towpath Trek. These events are designed to educate children and adults on the historical, recreational and educational resources along the Ohio & Erie Canalway.
- Producing and distributing materials to encourage use of the Ohio & Erie National Heritage Canalway including the Canalway Visitor's Guide printed by Ohio Magazine, the Ohio Erie Canal Association Canalway Calendar of Events, and the quarterly Silver Ribbon newsletter.
- Promoting health and wellness with "Healthy Steps, stepping your way to a healthier lifestyle" along the Towpath Trail. In 2010, approximately nine hundred people participated in this health and wellness program.
- Working with elected officials, community leaders, park districts, local businesses, and volunteers to develop trail and green space plans in Summit and Tuscarawas Counties. [39]"

The OEEC's "Bike and Brew" event specifically highlights the natural resources and historical value of Zoar Village. This event, an eight-mile bike ride from Zoar to Bolivar, features the original and new sections of the Towpath Trail. Visitors are encouraged to observe the virtually unchanged natural environment of the area and participate in an Oktoberfest event held in Zoar Village. This Oktoberfest event features traditional German food and music and celebrates Zoar Village's history as a tourist destination and renowned brewery location. In fact, according to the OECC President, early ancestors of the owners of Ohio's largest brewers, the Great Lakes Brewery Company, visited Zoar Village to experience the traditional German beers and later settled in Cleveland where they started and operate the company today.

Membership:

OECC membership consists of approximately 100 businesses and corporate members that contribute funding and participate in the OECC activities. Members receive access to OECC's "Silver Ribbon Newsletter" and discounts at OECC events. "Trailblazers" is a category of membership consisting of local businesses that provide significant donations to the OECC and the Towpath Trail. The following is a listing of Trailblazer members located in Tuscarawas County:

- The Timken Company,
- Civil Design,
- Zimmer,
- COMDOC,
- Hammontree and Associates,

[39] Ibid.

- Dominion,
- WTUZ radio station,
- PNC Bank,
- FirstMerit Bank,
- ME Companies, and
- URS.[40]

OECC membership also includes over 40 different government agencies and community groups called "Heritage Partners". These partnerships allow the OECC to collaborate and represent the interests of the local community-based communities. Examples of Heritage Partners include:

- Bolivar/Lawrence Township Canal Corridor Committee
- Cities of Arkon, Barberton, Canal Fulton, Dover, Massillon
- The National Park Service
- New Philadelphia Canal Corridor Committee
- State of Ohio Departments of Natural Resources, Transportation, and Environmental Protection Agency
- The Ohio Historical Society and
- Tuscarawas County.[41]

Association with Zoar Village's Identity:

Zoar Village is a key component of the OECA's mission and future. As previously mentioned, the OECA manages the Towpath Trail, an 81+ mile multi-use recreational path that follows the old canal. The Zoar Village portion of the Towpath Trail represents the southern terminus of the trail. According to the OECA Management Plan, the Towpath Trail portions in Zoar Village have not changed since the 1800s.[42] The area's undeveloped physical environment coupled with Zoar Village's historic buildings and canal-related structures epitomize the resources and culture the organization seeks to promote and preserve.[43] Zoar Village's historic attractions and natural environment are highlighted throughout the organization's marketing brochures, newsletters, websites, and informational pamphlets.

The Ohio & Erie Canalway's National Heritage Area designation and the future of the Towpath Trail are threatened by the potential loss or relocation of Zoar Village.[44] The OECA's commitment to preserving and promoting Zoar Village's history and natural resources were key components of the application for designation submitted to the Department of Interior. If Zoar were to be abandoned or relocated, the corridor's National Heritage Area designation and boundaries would need to be reevaluated. Loss of the National Heritage Area designation would likely result in cessation of Federal funding and reduce the social, recreational, tourism and economic development benefits the OECC creates for the communities along the canalway and

[40] Listing of Tuscarawas County Trailblazers provided OECC Coalition President, Dan Rice, via email on August 13, 2012.
[41] A full listing of OECC Heritage Partners can be accessed at: http://www.ohioeriecanal.org/heritagepartners.html
[42] Ohio & Erie Canalway Coalition, "Corridor Management Plan" 2000.
[43] Interview with OECC President and Chief Executive Officer, Dan Rice, August 7, 2012.
[44] Ibid.

for the State as a whole. Without Zoar Village as a gateway to the south, the OECA would face the difficult challenge of rerouting the Towpath Trail along rail lines and city streets because the Ohio Erie Canal now runs through private lands. The resulting revaluation of the corridor's boundaries could result in simply terminating the Towpath Trail at Bolivar. This would effectively eliminate over 15 miles of the trail to New Philadelphia and cutoff the local access to the Towpath Trail by Tuscarawas County residents.[45]

Major Investment in Zoar Village Region:

According to the OECA, since the founding of the Ohio & Erie Canalway, Congress has awarded over $8.3 million for projects, plans and programs along the Canalway. Grants received matching funding of more than $28 million from private, local, state, and other non-federal funding sources.[46] These projects enable the Ohio & Erie Canalway to contribute to the construction of the Ohio & Erie Canal Towpath Trail, the Cuyahoga Valley Scenic Railroad, the America's Byway, and Visitor Facilities and Services throughout the Canalway. Additional projects funded support local cities, towns and villages through community development efforts that feature historic preservation and/or natural conservation.

The OECA continues this work today by collaborating with local jurisdictions, communities and businesses to preserve and improve access to the canalway recreational opportunities and natural resources. The OECA manages a Strategic Initiatives Program, which disburses federal funding aligned with key elements found in its congressionally designated Corridor Management Plan. The table below summarizes major federal grants awarded in the Zoar Village area and the Towpath Trail. Recent Zoar Village area projects include the rehabilitation and restoration of the Zoar Village Hall, Zoar Hotel, and Bimeler House and paving the Towpath Trail along the Tuscarawas River in Zoar Village area. The OECC commissioned a study to identify "CanalWay Centers" along the corridor. These centers are locations where visitors can find detailed interpretive information and knowledgeable staff. Three CanalWay Centers were identified: Cleveland, Akron and the Bolivar/Zoar Village.[47] These investments demonstrate the importance of Zoar Village to the Ohio & Erie Canalway's National Heritage Area and represent an investment in the community's future.

Table 3.6: Ohio Erie Canalway National Heritage Corridor Federal Grants Administered in the Zoar Village Area

Project	Federal Grant
Zoar Village Hall Restoration & Preservation	$125,000
Zoar Hotel Restoration & Preservation	$75,000
Bilmer House Restoration & Preservation	$30,000
Zoar Visitors Center Study	$25,000
Towpath Trail Construction	$125,000
Zoar Village Related Signage	$6,000
Bolivar Towpath Trail Construction	$125,000

[45] Ibid.
[46] http://www.ohioanderiecanalway.com/Main/Pages/76.aspx
[47] Ohio & Erie Canalway Coalition, "Corridor Management Plan" page 8, 2000.

3.3.5 Ohio Historical Society

Mission:

Ohio Historical Society (OHS) is a nonprofit organization established to preserve and interpret Ohio's history, archaeology, natural history and historic places. OHS oversees a statewide network of more than 50 historic sites, including Zoar Village. OHS also operates the Ohio Historical Preservation Office and the state archives. OHS was the original steward of the Zoar State Memorial Historic District and was responsible for the majority of Zoar Village building restoration and preservation projects. OHS still administers Zoar Village Historic District today. However, local management of the District's activities and educational programs were transferred to ZCA in January 2010.[48]

OHS continues to play a significant role in marketing and sponsoring programs and events in Zoar Village in collaboration with ZCA. These programs and events include "Saturdays in Zoar Speaker Series" and "Garden Tour: Behind the Fences of Zoar".

Association with Zoar Village's Identity:

The State of Ohio and OHS's commitment to the preservation of Zoar Village stems as far back as the 1930's. A 2001 article published in the National Park Service's "Cultural Resource Management" magazine states that:

> "In 1929, under pressure from the U. S. Army Corps of Engineers to move the town to higher ground to accommodate a nearby flood-control dam, the villagers began to recognize their heritage and restored the central garden and opened a museum. A levee was built instead. The Ohio Historical Society assumed management of the museum and garden in 1942, and began to acquire more buildings. Since then, it has continued to reconstruct and restore parts of the village as it appeared in the period of its greatest prosperity. Ten buildings are open seasonally as a historic site. Other historic buildings are shops, bed-and-breakfast inns, and private.[49]"

During the 1960s, the Ohio General Assembly appropriated $300,000 to purchase buildings in Zoar Village in order to preserve, restore and interpret them. The OHS was selected to administer the initiative and manage these sites. Historical operating budget data of the OHS and data on funds specifically invested in Zoar Village were not publically available. Pending OMB approval, this information will be sought during the Small Group Workshops.

Major Investment in Zoar Village Region:

Today, the State of Ohio through the OHS continues to make major investments in Zoar Village's future. In 2012, the State Controlling Board released $396,859 to the OHS to fund the

[48] Interview with Jenny Donato, ZCA Site Manager
[49] "Zoar Village State Memorial" National Park Service Cultural Resource Management No 9 -2001 http://crm.cr nps.gov/archive/24-09/24-09-12.pdf (Last Accessed October 20, 2012)

construction of a new basement for the 1869 Bimeler Museum. The museum was damaged from the floods of 2005. In 2008, the museum was also damaged after water pumped out of the basement resulted in loss of equalized hydrologic pressures. This caused the surrounding sediment to liquefy and heave onto the load bearing foundation walls in the house. In addition, the OHS received approval for $661,319 to repair and maintain historical sites statewide. A portion of those funds will be used to replace the furnaces at the Zoar Village Bakery and Dairy and repair the foundation and front porch of the Number One House.[50]

The OHS is currently spearheading a collaborative effort with the Zoar Village government, the ZCA and other preservation organizations to amend Zoar Village's National Register nomination and prepare an application to The National Park Service (NPS) to designate Zoar Village as a National Historic Landmark (NHL). Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Fewer than 2,500 historic places bear this national distinction today.

There are multiple benefits afforded by a NHL designation. First, landowners and community organizations within the NHL boundary have access to grants and loan programs through the Historic Preservation Fund and other state and local government grant programs that support historic preservation. Several funding sources also give priority to National Historic Landmarks, such as the National Park Service's Save America's Treasures Grant Program. The designation also makes Federal income tax incentives available for easements and for rehabilitation. Properties such as income-generating buildings may be eligible for federal income tax incentives. Finally, the NPS also offers NHL landowners access its Technical Preservation Services (TPS). TPS is the nation's leading provider of technical information and guidance on the care of historic buildings. Questions regarding preservation issues are answered by phone, letter, or e-mail. TPS also offers guidance bulletins on dealing with a wide range of preservation topics, as well as advice on Historic Preservation Tax Incentives.

3.3.6 Earth Action Partnership

Mission:

Earth Action Partnership (EAP) is a community-based nonprofit organization that maintains and operates the Zoar Wetland Arboretum. The mission of the organization is to interpret the history and natural features of the Zoar Wetland through education and recreation.[51]

The organization operates entirely from private contributions. Membership and operating budget data for the EAP was not publically available. Pending OMB approval, this information will be sought during the Small Group Workshops.

[50] Zoar Star (A Zoar Community Association Publication), "Good News for the Bimeler Museum" Summer 2012 http://zoarpressroom.com/PDF/2q_zs_2012.pdf Last Accessed July 2012
[51] Earth Action Partnership website. http://www.earthactionpartnership.org/

Key Activities:

EAP hosts summer camps, educational forest tours, and hands-on tree care workshops for visitor groups in Zoar Village. The organization also offers presentations to students, government agencies, garden clubs, and other groups. In addition, Earth Action Partnership participates in the "Saturdays in Zoar Speaker Series" in partnership with ZCA and OHS.

3.4 Social Connectedness & Wellbeing: Participation & Networking

A community is a social group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage. The following section presents a baseline profile of Zoar Village community's social connectedness and wellbeing. The concept of social connectedness refers to the "pattern of social networks within which individuals interact, which largely provides meaning and structure to life."[52] Social networks are the relationships and interactions of individuals, groups and organizations. According to the IWR OSE Handbook, communities with multiple opportunities to connect with its membership are more likely to be economically and socially resilient.[53] Eliminating the civic infrastructure that encourages and fosters these social networks may reduce or hinder an individual's sense of connectedness to the community and opportunities for social and economic mobility.

3.4.1 Civic Participation & Volunteering

Civic participation is an indicator of social connectedness. The more active individual members are in organizations and group activities the more linked they become. Zoar Village is a small tight-knit community. Its members actively participate in groups and perform volunteer activities. These groups collaborate to preserve and promote Zoar Village's historic identity, encourage social interactions and support community safety and security. This section documents these social linkages.

The Zoar Volunteer Fire Department:

For over 161 years, the Zoar Volunteer Fire Department (ZVFD) has played a role in supporting the safety and security of Zoar Village. Today, this all-volunteer organization provides fire suppression, protection and emergency services to the area using modern technology, and equipment secured through grants, fundraisers, and a fire tax levy in the area. Since the tax levy only provides $10,000 to $12,000 dollars in annual funding, the ZVFD relies on income generated from fund raising events organized by its membership.[54]

The ZVFD's membership consists of 14 fire department staff and 14 social members. Social members are volunteers that do not provide fire suppression services. Their purpose is to assist the ZVFD organize and carry out fund raising events including physical setting of tables and

[52] Institute for Water Resources, US Army Corps of Engineers, "Handbook on Applying "Other Social Effects" Factors in Corps of Engineers Water Resource Planning", pg 7.
[53] Ibid. Table II-3 – Social Connectedness Indicators, pg. 57.
[54] Letter from Zoar Volunteer Fire Department to Project Team, June 20, 2012.

serving as cashiers at events. Several residents of the Village and friends and family of ZVFD members also provide support, but are not recorded on the membership roster.
The ZVFD fundraising activities also provide opportunities for Village residents and outsiders to gather and socialize. "Spaghetti Dinners" are held once a month in September through May and draws approximately 650 to 1,000 participants at each dinner event. "Pancake Breakfasts" occur on the fourth Saturday of each month year-round with attendance averaging 150 to 300 attendees. The ZVFD also holds periodic auctions, fashion shows, dances, luncheons, and an annual Christmas Craft Show.

The ZVFD also supports community-wide events and collaborates with the ZCA. For the Harvest Festival and Civil War Reenactment events, the department allows access to the department's parking lot for handicapped visitors and operates a food stand. The ZVFD also allows the Tuskey Valley Band Boosters, a Tuscarawas County high school organization, to conduct fruit and flower sales at the building at no charge. The fire station is also often used by local school organizations for fund raising events, banquets, award ceremonies, and meetings.

The ZVFD plays a major role in providing a sense of general community safety and security. During the 2005 flood event, the department provided flood evacuation support to affected community members, provided meals to local fire and police staff that came to assist, and served as the communications center of recovery operations. The staff assisted in transporting stranded individuals and worked to get people medicine and food. The ZVFD also responds to smoke alarms and fire calls at OHS managed buildings.

Zoar Community Association:

As described in Section 3.3, the ZCA membership consists of 274 members, who regularly volunteer to staff tours and events that promote Zoar's historical roots and tourism sites. ZCA data shows the number of volunteer hours in 2010 was 6,599. In 2011, this figure was estimated at 7,840 hours.[55] Events hosted by the ZCA that specifically foster social interaction among residents include:

- **"The Zoar Dinner Event Series" –** Scheduled throughout the year, these dinner events feature traditional German foods.
- **"Saturdays in Zoar Speaker Series" –** Held in the beginning of each month, this event features lectures about Zoar Village's history and culture from local experts. Topics include "The Utopian Movement in Ohio", biographies of Society members, the Civil War, the history of Zoar Village and the Ohio-Erie Canal, and the history of Zoar Village's breweries. Walking tours are also conducted to observe local plant life and geological features.
- **Volunteer Training & Education Classes –** Held annually, this class brings together volunteers to learn how to interpret Zoar Village buildings and receive training on traditional activities.

Note that complete details on ZCA's other programs and events are provided in Section 3.3.1.

[55] Data collected by the Huntington District and transmitted via email to Jennifer Sandy, National Trust for Historic Preservation, December 20, 2011.

Zoar United Church of Christ:

As a member of the ZCA, the Zoar U.C.C also provides support to the "Zoar Harvest Festival", "Civil War Reenactment" and "Christmas in Zoar". Approximately 25 to 30 church members volunteer to perform in entertainment events, sell traditional German food and provide guided tours of the Meeting House. The church's monthly breakfast and dinner events are organized and staffed by volunteers.

Church of the Holy Trinity:

The over 400 members of the Holy Trinity parish, located approximately .5 miles outside of Zoar Village, also actively participate in and contribute to the Zoar region's social network. The Church Hall is a venue for several community activities. Twice a year the parish holds a Christian Men's Breakfast that draws 75 to 100 attendees. During Christmas and Easter, the church organizes children's pageants. Fish dinners held on Fridays during Lent typically draw approximately 500 people. The parish also held a "Monte Carlo" themed casino night and golf outing in 2011, which was attended by over 500 people.[56]

The Holy Trinity parish also contributes to the social welfare and safety of Zoar Village region. During the Catholic Lenten season, the church collaborates with other churches in the community to pool part of each church's collection proceeds to donate to the disabled. The Church Hall is designated a Red Cross Certified Emergency Center.

3.4.2 Online Social Networking

Online social networking services are internet-based platforms that facilitate interactions among individuals who share interests, activities, backgrounds, or real-life connections. These services allow the user to develop a profile of personal information and establish links to other individual users, groups, and affiliations. Users of these networks interact via messaging, email, and message boards to share ideas and interests as well as to publicize events and news.

The use of these social networks is an indicator of a community's social connectedness. The table below details the social networking presence of major Zoar community organizations. The study staff collected publically available data from two prominent online services: Facebook and Twitter. The number of "likes" or "followers" signifies the number of individuals who express an interest or support the organization.

[56] Draft Zoar Commitment to Expansion – Village Study", Church of the Holy Trinity, July 3, 2012.

Table 3.7: Zoar Community Group Online Social Networking Statistics*

Organization	Social Networking Platform	Number of Affiliations
Zoar Community Association	Facebook Twitter	748 Likes 79 Followers
Zoar Zone[57]	Facebook	256 Likes
Zoar Volunteer Fire Department	Facebook	123 Likes
Zoar United Church of Christ	Facebook	16 Likes
The Church of the Holy Trinity	Facebook	14 Likes
Ohio & Erie Canalway Coalition	Facebook Twitter	526 Likes 45 Followers

Source: Facebook.com, Twitter.com
*Data as of July 6, 2012

Data to determine the number of residents in Zoar Village who subscribe to each group of online social network or how many of these residents are linked to one another through personal profiles is not publically available. However, the statistics above demonstrate that the members of the Zoar community and the outside public express interest in Zoar Village's organizations and their missions.

3.4.3 Impact of Dam Safety Modification Study on Social Connectivity & Identity

Perhaps one of the strongest contributing factors to social connectivity and group identity in Zoar Village today is the Dam Safety Modification Study (DSMS) itself. Initiated in March 2011, the DSMS pushed Zoar's historical significance and future into the national spotlight. The DSMS process and subsequent community marketing campaigns have resulted in dozens of Zoar-related news articles on the radio, in print and on the television; including a Western Reserve Public Broadcast Station (PBS) documentary and *The New York Times* article.[58] Although project alternatives have not been officially identified or thoroughly studied to date by the USACE, the public perception is that Zoar Village is at risk of being relocated or destroyed if the levee is not repaired.[59] This heightened awareness about Zoar Village's history, culture and uncertain future has galvanized its residents, community groups, and outside organizations and fostered a stronger sense of group identity and new collaborations.

This section provides examples that document these impacts. However, it should be noted that publically available information needed to document the extent of these impacts is limited. Pending OMB approval, this information will be sought from primary sources (residents and representatives of public and private organizations) during the Small Group Workshops.

[57] Note that Zoar Zone is a website (zoarzone.com) and Facebook page maintained by the ZCA that provides information on upcoming events.
[58] "Levee Needing Costly Repairs Lands Ohio Village on Endangered List", The New York Times, August 28, 2012 http://www.nytimes.com/2012/08/28/us/aging-levee-puts-village-of-zoar-ohio-on-endangered-list.html?_r=0
[59] The Zoar Community Association website (www.zca.org) identifies "three main options" for the USACE including: "1) Repair the levee, 2) Relocate a portion of the Village and 3) Acquire the portion in danger and raze it."

The DSMS Created New Relationships Between Zoar Village and Outside Groups

The DSMS and the potential threat to Zoar Village created new and deeper connections between Zoar Village's community groups and outside organizations. For example, a representative of the National Trust for Historic Preservation (National Trust), a nonprofit organization that works to save America's historic places, indicated that the DSMS was the only reason the organization began working with the community. In a letter to research staff, a National Trust Field Officer stated:

> "The DSMS, and by extension, the threat that it imposes on the Village of Zoar, is the sole reason that the National Trust for Historic Preservation became engaged with this community. It was because of the DSMS and the potential alternatives being discussed, including partial or complete demolition or relocation of the town, that the National Trust made the decision to get involved with the effort to save this significant historic place.[60]"

The National Trust's designation of Zoar Village as one of America's *11 Most Endangered Historic Places* was also solely born out of the DSMS process. During the dedication ceremony, the President of the National Trust, Stephanie Meeks, described Zoar Village as "one of those very few places in the country that transports visitors back in time, giving people an authentic glimpse of what life was like for previous generations. Working closely with the U.S. Army Corps of Engineers, we believe a solution can be found that spares this one-of-a-kind Village from catastrophic flooding or demolition.[61]"

In fact, because of the DSMS, one of the National Trust's goals is now to "save the village from catastrophic flooding, relocation or demolition.[62]" To help realize this objective, the National Trust also designated Zoar Village as a *National Treasure*, one of only 33 sites across the United States. National Treasures are defined as irreplaceable, critically threatened places across the country where the National Trust will make significant investments. According to the representative, the National Trust would not be investing any staff time or resources into promoting Zoar Village's preservation if it were not threatened by the outcome of the DSMS. A National Trust Field Officer described the organization's rational for investing in community as follows:

> "When we selected Zoar as a National Treasure, we made a commitment to focus our time and resources on this issue until at least the summer of 2014. We estimate that our work to help save Zoar over a 31-month period is equivalent to approximately **$130,000**. This figure includes staff salaries, travel, professional services, and indirect expenses. Our investment could increase depending upon developments with the DSMS (for instance, if the study schedule continues to lengthen or if an extended advocacy campaign is required in response to the selected alternatives). None of these expenditures would have been made if not

[60] Email from Jennifer Sandy, Field Officer at The National Trust for Historic Preservation, to research staff, October 19, 2012.
[61] Ibid.
[62] Ibid.

> for Zoar's selection as a National Treasure, which directly results from the DSMS.[63]"

According to the Field Officer, The National Trust did not have relationship with Zoar Village representatives or residents prior to the DSMS. It was only after the organization became aware of the DSMS and Zoar Village's situation from the Ohio Historical Society that the Village was designated as one of the 11 Most Endangered Historic Places and a National Treasure. The National Trust forged new collaborative relationships with local organizations including: Zoar Village government, the ZCA, Save Historic Zoar, and community residents.

One example of this collaboration is the June 2012 media event announcing the Village's selection for the 11 Most Endangered Historic Places list. The event, hosted in Zoar Garden, brought together groups that may have not previously or regularly interacted with one other prior to the DSMS. The National Trust indicated it had very limited relationships with state and regional organizations including the Tuscarawas County Convention and Visitors Bureau, Ohio and Erie Canalway Coalition, Ohio Archaeological Council, and Tuscarawas County Commissioners. All of these organizations contributed to the program. The event featured speeches from local stakeholders, a free sack lunch, building tours and an interview with an Zoarite descendant. The event received widespread coverage locally and across the State. Over 20 different media representatives from radio, print, and TV attended.

The DSMS Created Greater Public Recognition of Zoar Village's Identity & Value

Other outside organizations are now interacting with Zoar residents and local groups and investing in marketing the Zoar's unique historic identity since the start of the DSMS. For example, Heritage Ohio, a statwide nonprofit organization that promotes statewide economic development and sustainability through preservation, revitalization, and promotion of cultural tourism, also became more involved in the Save Historic Zoar campaign since the initiation of the DSMS and designation of the community as one of the 11 Most Endangered Historic Places.

Heritage Ohio manages a program entitled, "Ohio's Top Preservation Opportunities". Each year the organization accepts nominations from around the state, which are reviewed on a variety of criteria including geographic distribution, building variety type, historic significance; and the nature of technical assistance needs. Only ten properties are designated each year. Technical assistance includes offering training to local organizations and volunteer groups on how to solicit grant funding, increase membership participation, develop marketing campaigns and create networks of contacts.

In 2012, Heritage Ohio designated Zoar Village as one of Ohio's Top Preservation Opportunities. Heritage Ohio is assembling a team of experts, and arranging a site visit to talk with property owners and local activists to help find solutions and a better future. Historic Ohio created a page on their website to market Zoar Village.[64] The webpage encourages the public to contact the Huntington District and expressing support for the Save Historic Zoar.

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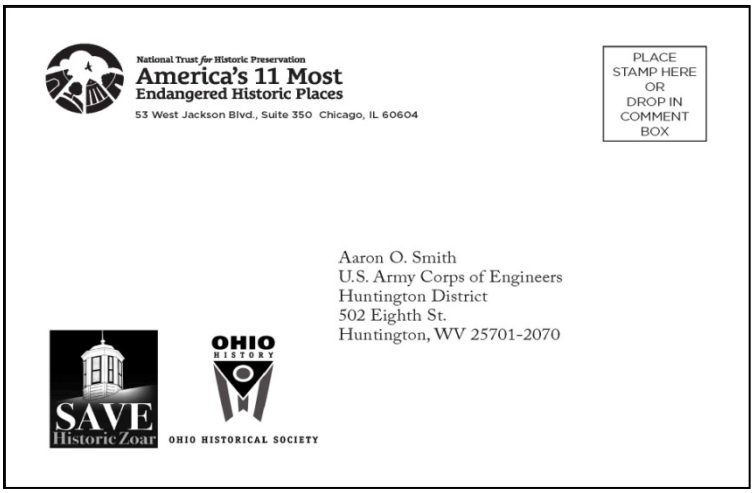
[63] Ibid. (Emphasis added)
[64] Heritage Ohio Top Opportunities webpage for Zoar Village: http://www.heritageohio.org/programs/top-opportunities/village-of-zoar/

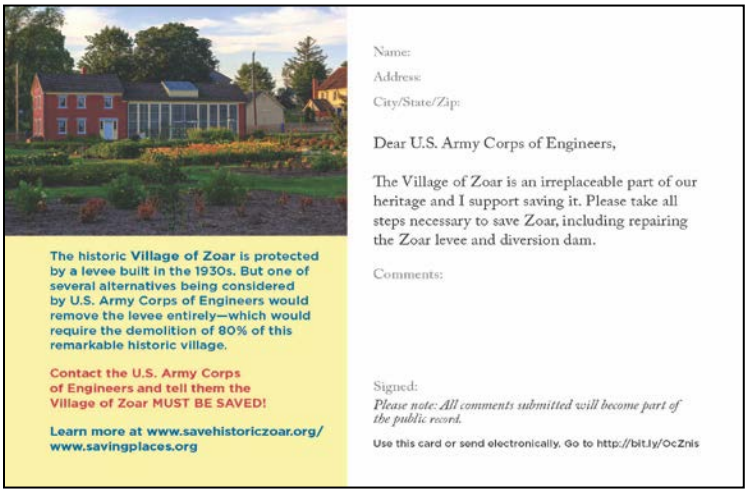
Grassroots marketing efforts to preserve Zoar Village have also received new support and national exposure since the DSMS began. Most recently, the "Save Historic Zoar" Campaign, originally organized and managed by the ZCA, became part of National 'This Place Matters' Program administered by the National Trust.[65] This new collaborative campaign includes the design and printing of postcards and tri-fold brochures urging the public to take action to save Zoar by expressing their opinions to the USACE. The postcard, shown below, is pre-addressed to the Huntington District. Copies were handed out at this year's Annual Harvest Festival. Over 550 postcards have been received and distribution is ongoing. The National Trust also collaborated with local stakeholders to prepare and submit an application for National Trust Preservation Fund grant money to support a Marketing and Outreach Plan for Zoar. The application is currently under review.

Figure 3.2: Save Historic Zoar Public Comment Postcard

Front:



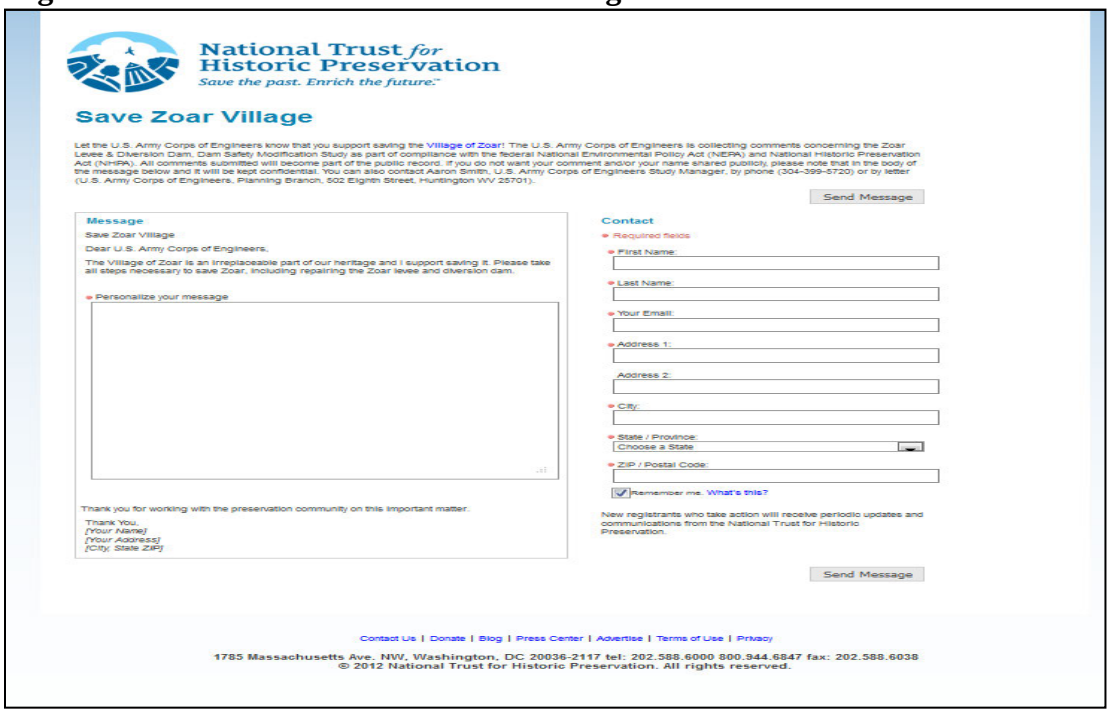
Back:



[65] Save Historic Zoar website: http://www.savehistoriczoar.org

The National Trust, in partnership with local Zoar stakeholders, developed and marketed a letter writing campaign that encourages the public to contact the Huntington District directly to express support for saving Zoar Village. The organization created an online form (reproduced below) to facilitate the public comment process electronically. Links to this comment form can be found on partner websites including Heritage Ohio and ZCA.

Figure 3.3: National Trust "Save Zoar Village" Online Public Comment Form[66]



The DSMS has also prompted other forms of national recognition of Zoar's unique identity. Most recently, U.S. Senators Brown and Portman from Ohio introduced Federal legislation to "require the Corps of Engineers to preserve the historical integrity of Zoar, Ohio, while carrying out any study relating to or construction of flood damage reduction measures, including levees, in Zoar, Ohio.[67]" In October 2012, The National Trust published an article entitled, "It Takes a Village: New Legislation and Creative Partnerships at the Village of Zoar" on the Preservation Leadership Forum of the National Historic Trust Preservation. This blog's audience includes leadership of preservationists throughout the country including over 2,800 preservation leaders, professionals, students activities and experts, who share ideas, information and advice for preserving historic places and communities. The article details the threat facing the Zoar Village and highlights the unique collaborative partnerships and outreach efforts between the organization and local stakeholders. Information about Zoar Village and the community's efforts to save it has also been included in National Trust e-newsletters targeted at national partner organizations across the country.

[66] National Trust, Save Zoar Village Online Public Comment Form: https://secure2.convio net/nthp/site/Advocacy?cmd=display&page=UserAction&id=711 Last Accessed October 22, 2012.
[67] Senate Bill 3580 introduced September 12, 2012

DSMS Fostered More Local Activism and Collaboration with Village Government

Anecdotal evidence indicates that the DSMS process and the subsequent perceived threat to Zoar Village has encouraged Village organizations to work more closely with one another and the Village government. For example, the ZCA President indicated that the organization has come close with government residents since the start of the study. Examples of new cooperative efforts include participation on the Save Historic Zoar Committee and collective marketing and administration of a "Brick Sales" program where supporters can purchase and engrave their name onto a brick that will be set into new brick sidewalks on Main Street. The ZCA also cites a closer working relationship with the OHS and National Trust for Historic Preservation. The three organizations are currently collaborating on the preparation of a National Historic Landmark application.

DSMS Impact on Villager Connectivity & Group Identity

The DSMS process may have also affected social connectedness and group identity at the Village level. That is, the study may have fostered or diminished interactions between individual village residents and local groups. Unfortunately, this information is not available from secondary sources. However, U.S. Army Corps of Engineers, Huntington District (Huntington District) staff have regularly interacted with Zoar Village stakeholders and been in a position to observe changes in social connectedness and group identity. The following are casual observations the Huntington District.[68] They are largely anecdotal in nature and are not based on any scientific or scholarly study. These observations do not claim to reflect the views of the organization. Note that pending OMB approval, information pertaining to changes in group identification and social interactions attributed to the DSMS will be sought during Small Group Workshops and documented in subsequent reports.

Anecdotally, Huntington has heard Zoar Levee creates a "bowl-effect" enhancing the sense of community. Others have told Huntington that Dover Dam's flowage easement, located outside of the levee, has helped protect the integrity of the historic nature of the community, by reducing the possibility of encroaching modern development. The affect the levee has had on community cohesion should be sought in the Small Group Workshops.

The affect the 2005 and 2008 flood events had on community cohesion, including when Huntington took emergency action to prevent a potential failure of the levee, is unknown. The affect that these events had on community cohesion shall be sought during the Small Group Workshops.

An immediate response to the announcement of the DSMS on March 21, 2011 occurred. Zoar Village Mayor Larry Bell stood up at the meeting and displayed an aerial photograph, altered using Photoshop, showing Zoar Village gone. He said the study of removing the levee was the greatest threat Zoar Village had faced since the construction of Dover Dam. Mayor Bell urged the community to come together to fight this threat and ensure that Zoar Village was here 70 years from now. That night, Mayor Bell created the "Mayor's Steering Committee" in an effort

[68] The following section is comprised largely of anecdotal observations provided to rearch by the USACE Huntington District on October 23, 2012.

to save Zoar Village. He requested participation from local political leaders, the President of the Zoar Community Association, the CEO of the Ohio & Erie Canalway Coalition, Historic Sites Director from the OHS, as well as others in the legal and public relations industries.

Since March 2011, this committee has organized several campaigns with other stakeholders, including the "Save Historic Zoar" movement. Save Historic Zoar has resulted in a letter writing campaign to Huntington as well as increased media and political attention on Zoar Village they may have not gotten otherwise. As of August 16, 2012, Huntington has received 937 comments (Table 3.8). The great majority of these comments request that Huntington rehabilitate Zoar Levee and Diversion Dam to ensure the survival of Zoar Village's historical significance.

Table 3.8: Comments Received by Category on the Zoar Levee & Diversion Dam, DSMS as of 16 August 2012

Category of Comment	Number of Comments
General Public	874
Academic or Academic Institutions	8
International Persons or Organizations	7
Zoarite Descendants	19
Historical Groups or Organizations	15
Governments or Public Institutions/Organizations	14

In the succeeding months since March 2011, Huntington has been engaged by a number of stakeholders (Table 3.9). It is unknown how many were aware of Zoar Village or did not perceive a significant connection to Zoar Village prior to the initiation of the DSMS. This information shall be sought during the Small Group Workshops. As described earlier in this chapter, both Heritage Ohio and the National Trust for Historic Preservation (National Trust) have taken active roles in the community as a direct result of the DSMS.

Table 3.9: List of Section 106 of the National Historic Preservation Act Consulting & Interested Parties for the Zoar Levee & Diversion Dam, DSMS

Zoar Village
Zoar Community Association
Lawrence Township Trustees
Tuscarawas County Commissioners
Ohio Historical Society
Ohio Historic Preservation Office
Ohio & Erie Canalway Coalition
Advisory Council on Historic Preservation
Ohio Archaeological Council
Heritage Ohio
National Trust for Historic Preservation
Oneida Indian Nation
Wyandotte Tribe of Oklahoma
Seneca Nations of Indians
National Park Service (Interested Party Only)

As previously mentioned, OHS is now seeking National Historic Landmark (NHL) status in the hopes that it would limit selecting certain risk management alternatives, such as removing the levee. OHS indicated to Huntington that the initiation of the DSMS specifically prompted OHS to seek NHL status for Zoar Village. This work involves collaboration with local organizations including Zoar Village government and the ZCA.

Representatives of the ZCA support the notion that there has been a noticeable increase of activism in Zoar since the DSMS process began. However, the ZCA believes that increases may also be attributed to the transition of management of the historic site from the OHS to the ZCA.[69] As a result of this transition, ZCA increased their efforts and spending on all aspects of marketing and communications. New investments include engaging with a public relations (PR) firm for strategic advice and a local communications professional for execution. The ZCA also increased their contact with local and regional media. The ZCA did note that more residents, Zoar descendents and people throughout the region are now more interested and engaged in ZCA and the Save Historic Zoar initiative than before. For example, a Zorite descendent from Florida donated $5,000 after he learned the threat to Zoar Village. In addition, a group of 12 Zoar residents traveled to Germany to learn more about the history of Separatists of Zoar. The ZCA believes trip may have not happened prior to the DSMS issue.

Some residents have expressed concern to Huntington that they have lost property value because the levee was de-accredited by FEMA due to seepage and stability issues. Some residents believe this problem has been exacerbated by the DSMS; particularly the consideration of levee removal. Some residents have also told Huntington personnel they wish to leave Zoar Village, but feel they cannot sell their property until the DSMS is completed and a plan is recommended. The reality of that perception is unknown and therefore the affect it is having on community cohesion is unknown.

Other residents have expressed confidence that the significance of Zoar Village should ensure that the levee is rehabilitated. The affect that level of confidence is having on community cohesion is unknown. The USACE outreach efforts, including the creation of a Community Advisory Committee (CAC) may have also had some effect on community cohesion, but the extent of that effect is not known.

Attendance to CAC meetings has recently dropped off. One possible reason for this is study fatigue, but this cannot be said with confidence. Many residents of Zoar Village have not attended CAC meetings. There are approximately 38 households signed up for the CAC and nearly 200 residents in the Village. It is rare to have more than 10 of the 38 CAC members come to a meeting. The significance of this to community cohesion is unknown. These topics shall be explored during the Small Groups Workshops.

[69] Email from ZCA President, Jon Elasser, to project team staff, October 23, 2012.

3.5 Economic Vitality: Zoar Village's Tourism & Community Vision

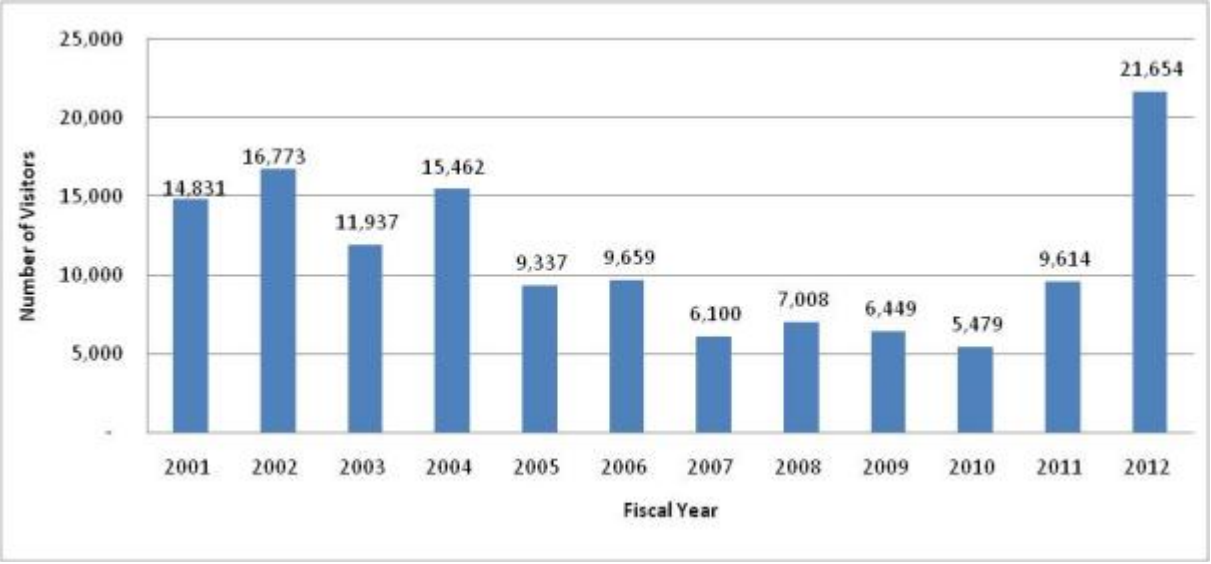
The OSE Handbook refers to the concept of economic vitality as "the capacity of the local economy to provide a good standard of living for residents now and into the future."[70] This standard of living is achieved by community reinvestment and the creation of economic development opportunities. Disruptions to the economy may result in lost wages, growth opportunities, and community health.

This section documents the importance of the tourism industry in Zoar Village, the community's vision for the future, and planned activities to achieve its goals.

3.5.1 Tourism Industry Significance

The local economy and the majority of Zoar Village's social organizations rely heavily on the tourism industry because of the income it provides and the social bonds it creates among members. Each organization in Zoar Village shares a common interest in preserving and marketing the Village's heritage. To date, these groups have been successful. Based on data compiled from the OHS, the original stewards of the Zoar State Memorial Park District, and the ZCA, who currently is under contract with the OHS to manage the district, there have been 114,226 visitors to Zoar Village between 2001 and 2012. As shown in the figure below, the number of visitors increased 46 percent from 2001 to 2012. The visitors showed a nearly a threefold increase from 2010 to 2012.

Figure 3.4: Zoar Village Visitor Statistics: FY 2001 to FY 2012 Year to Date*



Source: Ohio Historical Society
*Fiscal Year is July 1 to June 30. Data as of June 28, 2012.

[70] Institute for Water Resources, US Army Corps of Engineers, Handbook on Applying "Other Social Effects" Factors in Corps of Engineers Water Resource Planning, p. 58, 2009.

According to the OHS, the significant increase in the number of visitors from 2010 onward can be attributed, in part, to the ZCA, which assumed management of Zoar Village tourism programs and activities in January 2010. According to a ZCA representative, prior to 2010, State budget cuts reduced the OHS's ability to manage and market Zoar Village and Ohio's other historic communities as aggressively as it intended. As a result, OHS contracted with ZCA to perform these duties while serving as an administrator and an active partner. The ZCA advertising and marketing campaigns have drawn in significant amount of tourists to Zoar Village and bolstered the tourism industry.

Zoar Village's Reliance on Tourism Income:

Zoar Village's community groups and businesses rely on income from visitors, who spend money while attending the special events, classes, and tours described in Section 3.2, as well as patronizing the local restaurants and retail shops. The following documents the community's dependence on tourism income.

The ZCA earns income from various events and tours and retail outlets. The ZCA operates retail stores in several historic buildings including The Zoar Store, the Historic Zoar Bakery, The Westbrooks Cannery, The Zoar Stitchery, and Springhouse Primitives. From 2001 to 2011, the ZCA estimates earning a combined total of $523,000 in revenue from its stores, programs and events. This is a substantial figure when compared to the income received over the same period from the ZCA's two other main sources: membership ($57,000) and contributions and grants ($275,000).[71]

The Church of the Holy Trinity also depends on income generated from Zoar Village's tourism events to support its organization. In 2011, the church reported earning a total of $62,876 in revenue from participating in the Harvest Festival ($32,623), Civil War Reenactment ($15,031), and Christmas in Zoar ($15,222) events. These tourism dollars amount to nearly 58 percent of the parish's total income from special events that year.[72]

While data on tourism income for the two restaurants in Zoar Village, 12+ home-based craft businesses and Village artisans is not publically available, it is reasonable to assume their reliance on the Village's tourism dollars is significant considering the data reported for community groups above. Additional information on their dependency on the Village's tourism revenue and potential impacts resulting from the DSM project will need to be collected by direct contact and interviews with business owners during the Small Group Workshop phase of the DSM study.

These small businesses are labeled by the U.S. Census as "non-employers". A non-employer business is one that has no paid employees, has annual business receipts of $1,000 or more, and is subject to federal income taxes. Most non-employers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner's principal source of

[71] Zoar Community Association income data collected by the Huntington District and reported via email to Jennifer Sandy, National Trust for Historic Preservation, December 20, 2011.
[72] Draft Zoar Commitment to Expansion – Village Study, submitted by Mr. Larry Kerr, Project Manager, Church of the Holy Trinity, July 3, 2012.

income. The U.S. Census reports non-employer data at the county level. In 2009, the most recent data year available, there were 5,550 non-employers in Tuscarawas County.[73]

Impact of Zoar Village Tourism on the Local Economy:

In 2011, the Tuscarawas County Convention and Visitors Bureau (CVB) published an analysis of Zoar Village's economic contribution to the state and local economy. The CVB found that "78% of all U.S. leisure travelers participate in cultural and/or heritage activities while traveling, translating to 118.3 million adults per year. [74]" These adults spend on average $944 per trip and contribute over $192 billion to the U.S. economy. Combining visitor data and the per trip spending estimate, the CVB estimated tourism to Zoar Village contributed over $10.5 million to the local economy.[75] As a result, the CVB recommends that the USACE preserve Zoar Village. The CVB concluded the analysis with the following statement:

> "While we recognize that state and federal budgets are very tight, we ask that you [USACE] repair or replace the levee in Zoar. This expenditure of dollars will come back to the village, the country, the state and the nation 10-fold over the next decade.[76]"

3.5.2 Community Vision of the Future

This section documents Zoar Village's vision of its physical, social and economic future. The primary source of this information is the Zoar Comprehensive Plan published in July 2010. This document, developed through a series of community input meetings, expresses the community's vision for the future and outlines policy guidelines to achieve it. Specifically, the Zoar Comprehensive Plan:

- Responds to identified public needs with respect to the natural and built environment,
- Expresses a desired vision of the future, and
- Presents strategies for protecting and developing land to shape the future character of the Zoar.[77]

Future Land Use Expectations:

Key future condition desires outlined in the "Future Land Use Plan" and "Future Development Plan" chapters of the 2010 Comprehensive Plan are as follows:

- Zoar Village seeks to protect agriculture use land and open space by supporting cluster housing techniques. This technique maintains overall housing densities by allowing

[73] U.S. Census 2009 Non-employer Statistics (http://www.census.gov/econ/nonemployer)
[74] Tuscarawas County Convention & Visitor's Board, "Please help us save historic Zoar Village" Situation Analysis, (unknown publication date) received by The Huntington District via email on July 29, 2011.
[75] Ibid.
[76] Ibid.
[77] Zoar Village Comprehensive Plan, Zoar Village, July 2010.

dwellings to be positioned on smaller portions of larger parcels. The remaining land on these parcels can be undeveloped or assume agricultural uses.

- Zoar Village recognizes that USACE owned land may serve purposes beyond flood control. The community expresses interest in working the USACE to promote these lands potential to serve as trailheads and streetscape elements.
- Zoar Village seeks to convert current land use configuration to increase acreages for conservation areas, recreational areas, parks and cemeteries. This initiative supports Zoar Village's desire to support and grow its tourism industry by creating new recreational opportunities.

The table below details current and future land use information for Zoar Village. The 2010 Comprehensive Plan describes the desire to reduce residential and agricultural acreage and increase conservation and parks and cemeteries acreage. This demonstrates the community's commitment to preserving the natural and historical environment and creating open space opportunities for its residents.

Table 3.10: Comparison of Existing and Future Land Use in Zoar Village

Land Use Category	Existing Use (Acres)	Future Land Use (Acres)	Difference (Acres)
Residential	102.1	99.5	-2.6
Government/Institution	14.0	14.0	0
Commercial	3.3	3.3	0
Federal Land	71.0	64.6	-6.4
Parks & Cemeteries	13.9	20.4	+6.4
Agriculture	107.5	66.5	-41.0
Conservation	106.0	149.5	+43.5
Total Acreage	**417.8**	**417.8**	

Source: Zoar Village 2010 Comprehensive Plan

Zoar Village is also concerned with maintaining the integrity of open space on parcels outside the Village. This land serves as a gateway into the community and affects the quality of life for Village residents. Zoar Village government seeks to work with the neighboring Lawrence Township to draft regulations that maintain open space and are compatible with Township and County plans.[78]

Future Tourism & Economic Development:

The 2010 Comprehensive Plan states that Zoar Village's "historic setting and opportunities for social interaction are crucial to the ongoing vitality of the community."[79] The Comprehensive Plan identifies multiple actions to expand its tourism industry and create new economic

[78] Ibid. P. 20
[79] Ibid. P. 24

opportunities for residents. For example, it includes the makings of a preliminary Streetscape Plan. This plan, which that requires additional refinement and funding sources before implementation, seeks to slow traffic, make Main Street more pedestrian-friendly, enhance parking areas, and improve the Village's gateways with signage, fencing, and plants. The Comprehensive Plan also details recommended actions to grow the local economy including:

- Maintaining mutually supportive relationships with the ZCA and Ohio & Erie Canalway Collation in support of common economic development and tourism goals.
- Promoting Zoar Village as a business location for enterprises that use technology while maintaining the small town identity.
- Explore agri-tourism and farm market activities that support and expand the farm character of Zoar Village.
- Link the Village's historic attractions with natural resources, such as the Towpath Trail, to draw visitors.

Consistent with the Comprehensive Plan's objective to support the village's tourism economic, the Zoar Village government plans to implement façade and streetscape improvements to enhance the community's pedestrian accessibility and signage. For example, Zoar Village is preparing to install brick pavers between the street and the sidewalk. Contrasting colored bricks will also be installed in crosswalks as a safety measure. This project is funded by grants from the Ohio Department of Transportation grant and the Reeves Foundation.[80]

3.6 Leisure & Recreation: Zoar Village's Garden Traditions & Outdoors

The OSE Handbook outlines several indicators of leisure and recreation impacts including:

- Favorite community pastimes;
- Hours spent on recreational activities; and
- Location and average distance travelled to recreational areas. [81]

Public data is unavailable to characterize the extent of Zoar Village's recreational and leisure activities. This information will need to be collected via direct questions of residents conducted during future Small Group Workshops. However, initial research indicates two major recreation related factors. First, gardening serves as a link to the Village's historical identity, a recreational outlet of residents, and a component of the Village's modern day tourism industry. Secondly, the community values its natural environment. Zoar Village is working to preserve and leverage its open space and trails to create additional recreational opportunities and attract more tourists to the area.

[80] "Zoar to Seek Renewal Levies" TimesReporter.com, July 11, 2012 http://www.timesreporter.com/newsnow/x1062471490/Zoar-to-seek-renewal-levies

[81] Institute for Water Resources, US Army Corps of Engineers, Handbook on Applying "Other Social Effects" Factors in Corps of Engineers Water Resource Planning, p. 59

Zoar Village Gardens Culture and Events:

Gardening is a one of Zoar Village's historic leisure and recreational pastimes. The Zoarites built a Garden House in 1935 in the center of the Village that featured flowers and vegetables and served as a recreational area for Society members. According to the OHS, "The Zoar Garden was the Separatist's most public manifestation of their faith, its religious symbolism masked by its lush beauty. It provided both residents and visitors with a place to relax and reflect."[82] The Garden was important enough to the community that during the 1930s, Zoar Villagers and decedents invested time and resources to restore and preserve the garden.[83]

Today, gardening in Zoar Village is still a community pastime, a symbol of civic pride, and a mechanism for social interaction. For example, community volunteers work to keep the Zoar Garden's flower and vegetable bed shapes consistent with original Zoarite designs each season.[84] The ZCA organizes an event called "Beyond the Fences of Zoar – The gardens and backyards of Zoar Village." This event features seminars by local gardening experts conducted in Zoar Village's historic buildings, a luncheon, crafts sold by local vendors and artisans and guided tours through the Village's public and private gardens. This event drew 340 participants in 2010.[85]

Zoar Village Trails and Outdoor Activities

Outdoor recreation is a key part of the Zoar Village community activities and a major draw for tourists from around the region. The Zoar Village Comprehensive Plan expresses the community's desire to maintain the natural environment and expand access to the village's historic natural assets. Specifically, the plan calls for working with other agencies and partners to construct or rehabilitate trails. In 2011, the Earth Action Partnership (EAP), a community-based nonprofit organization that operates and maintains the Zoar Wetland Arboretum, partnered with the ZCA to create and contribute to new tourism and educational programs. The wetland is now being used as an outdoor classroom for Zoar. EAP members interpret the natural environment area during adult and school group tours, nature walks, and day camps scheduled throughout the year.[86] EAP members also volunteer labor and resources to maintain and preserve the Zoar Wetland Arboretum.

As previously noted, Zoar Village is designated as a key heritage stop on the Towpath Trail, an 81+ mile multi-use trail running along the Ohio Erie Canal. Managed by the Ohio & Erie Canalway Coalition, which consists of a collaborative group of local and county jurisdictions

[82] Ohio Historical Society Marker #19-79, Zoar Garden, http://www.remarkableohio.org/HistoricalMarker.aspx?historicalMarkerId=106089&fileId=123022 Last accessed July 4, 2012.
[83] "Zoar Levee: To Preserve and Protect" Documentary, Western Reserve Public Media, April 2012. http://video.westernreservepublicmedia.org/video/2222472761 Last Accessed July 4, 2012.
[84] Zoar Community Association "#11 Garden House 1835" website: http://historiczoarvillage.com/gardenhouse.html Last accessed July 4, 2012.
[85] [85] Garden Tour attendance data reported by Jon Elsasser, ZCA President, via email to Jennifer Sandy, National Trust for Historic Preservation, December 28, 2011.
[86] Earth Action Partnership, Zoar Wetland Arboretum website: http://www.earthactionpartnership.org

along the canal, the Towpath Trail serves over 2.5 million visitors each year.[87] Trail users dine and shop at Zoar Village establishments. The trail is becoming is a major asset for the Zoar Village economy and a major recreational opportunity for Ohio residents and tourists alike. In fact, the Ohio & Erie Canalway Coalition was awarded $150,000 in October 2011 to complete paving 2.75 miles of the Towpath Trail along the Tuscarawas River in Zoar Village area. The Coalition received this award from the Ohio Department of Natural Resources, who received grant funds from the Recreational Trails Program supported by the U.S. Federal Highway Administration.[88]

The Muskingum River Watershed Conservancy District (MWCD) is the largest conservancy district in the state with operational jurisdiction in all or portions of an 18-county area including Tuscarawas County. MWCD serves as stewards dedicated to providing the benefits of flood reduction, conservation and recreational opportunities. The organization is currently planning for a multi-purpose trail circling Atwood Lake, a major sailing and water recreational asset located approximately 15 miles from Zoar Village. While MWCD is in the planning phase for the Atwood Lake trail project, representatives state that the organization is considering linking this trail to the Towpath Trail in Zoar in the future.[89]

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[87] Ohio & Erie Canalway Coaliton, Towpath Trail website: http://www.ohioanderiecanalway.com/Main/Pages/The_Towpath_Trail_56.aspx

[88] Ohio & Erie Canalway Coalition website, "More Than $1.7 Million Awarded for Community Trail Projects Across Ohio", 2011.

[89] Email correspondence with John Oliver, Muskingum Watershed Conservancy District, July 24, 2012.

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4. SUMMARY AND CONCLUSION

Using the OSE Handbook as a guide, this Community Impacts Baseline Study of Zoar Village documents the key features of the community's socioeconomic and social characteristics. This study provides the USACE with information needed to establish a baseline for evaluating the potential costs, benefits and other social effects of modifications to the Zoar Levee and Diversion Dam project. This chapter summarizes the study's key findings.

4.1 Key Study Findings

4.1.1 Socio-economic Baseline Profile

In order to identify the unique socioeconomic characteristics of Zoar Village, Parral Village, Roswell Village, and Stone Creek Village in Tuscarawas County were included in this study as comparison communities. These villages are similar to Zoar Village in terms of population, area size, density, and total households. Based on the most recent socioeconomic statistics, the study discussed the characteristics of Zoar Village and its comparison communities in six areas, including population, households, employment, travel to work, wealth and poverty, and housing.

Through the comparison analysis, the study identified a number of characteristics of Zoar Village that has made it a unique community. Key findings from the comparison analysis are provided below:

- **Senior population:** Zoar Village has a relatively high median age and a relatively large share of senior population. Over one-fourth of the total population in Zoar Village is over 65 years old.
- **White-collar jobs:** Jobs in Zoar Village are concentrated in the industries of education, health services, science, and management. The industry of education and health services employs nearly half of the working population in the community.
- **Highly educated population:** Compared to the other three communities and Tuscarawas County, Zoar has a much greater share of population over 25 years old that have a Bachelor's or higher degree.
- **High income:** The per capita personal income and median household income in Zoar Village are both significantly higher than those of the comparison communities and the County.
- **High housing value:** The median value of owner-occupied housing units in Zoar Village is $189,000, approximately $78,000 higher than the County estimate.
- **Large shares of workers working at home or working outside the County:** Among the four communities, Zoar Village has the highest percentage of workers who work at home (11 percent) and the highest share of workers who work outside Tuscarawas County (44 percent). All the commuting workers in Zoar commute by driving alone.

These socioeconomic characteristics are largely associated with one another. For example, the high income level of residents in Zoar Village is closely related to their high level of educational attainment and the relatively large share of white-collar jobs in the local market. The large share

of management jobs is consistent with the relatively older working population. The property value in Zoar Village reflects its residents' income level and population's age distribution.

All of the commuting workers in Zoar Village travel to work by driving alone. One possible explanation for this phenomenon is that the work places of Zoar Village workers are quite scattered since nearly half of these workers work outside Tuscarawas County. Zoar Village's higher education levels (34.2 percent with Bachelor's Degree or higher versus 17.8 percent countywide) and greater percentage of residents employed in the health and education industries requires residents travel greater distances to employment opportunities. The fact that Zoar Village resident's elect to stay in and live in Zoar Village despite increase commuting times and associates costs indicates their strong commitment to the commitment.

Zoar Village is home to a higher percentage of older white-collar workers and retirees than the comparison communities and the county. The 2010 US Census data shows that over 44 percent of Zoar Village's working age population (57 people) is retired compared to 38 percent of Tuscarawas County's population. The median age of Zoar Village residents is roughly 53 while the median age in the County is 41. Nearly 65 percent of Zoar Village residents work in private sector as in the education, health services, management or scientific industries. Only about 27 percent County residents work in these fields.

Zoar Village is home to small businesses that depend on the community's tourism for income. These businesses produce artisan food products and crafts goods that are sold to tourists at the Zoar Village retail outlets and events. At least 12 home-based arts and crafts businesses were reported by the ZCA. Among the comparison communities and the county, Zoar Village has the largest share of self-employed workers and unpaid family workers. Total self-employed and unpaid family workers make up 13 percent of the working population in Zoar Village, which is significantly greater than the share of the same worker category in Parral (2 percent), Roswell (4 percent), Stone Creek (0 percent), and Tuscarawas County (6 percent).

4.1.2 Other Social Effects Baseline Profile

In the course of water resources project planning and the formulation of alternatives, the USACE addresses and analyzes other intangible benefits, costs, and impacts of projects using an account referred to as "Other Social Effects" (OSE). This study provides a baseline of current social conditions and preliminary identification of OSE in Zoar Village. Study staff identified OSE by collecting data and developing detailed profiles of the organizations, community groups, religious institutions and activities that form Zoar Village's social fabric. Key findings from the study are as follows.

Group Identity:

Zoar Village is a thriving vibrant community comprised of civic associations, religious institutions, and individuals that actively promote the community's identity as a living example of a small German Separatist village. These groups work in concert to provide multiple opportunities for residents and tourists to participate in Zoar Village's social, economic, and cultural activities. Affiliation to Zoar community identity extends well beyond the Village's

417.8 acres. Membership data for Zoar community groups exceed the number of residents living in Zoar Village and include individuals in the County, State of Ohio and across the United States.

The ZCA indicates that more residents, Zoar descendents and people throughout the region are now more interested and engaged in ZCA and the Save Historic Zoar initiative than before. For example, a Zorite descendent from Florida donated $5,000 after he learned the threat to Zoar Village. In addition, a group of 12 Zoar residents traveled to Germany to learn more about the history of Separatists of Zoar. The ZCA believes trip may have not happened prior to the DSMS issue. This topic shall be explored during the Small Groups Workshops.

In fact, several outside several organizations have expressed a strong interest in preserving the community's historic identity. These organizations are now regularly communicating and collaborating with residents and local groups to achieve a common goal of preserving Zoar Village. These new collaborations have included joint marketing of Zoar's unique historic identity and events. For example, The National Trust for Historic Preservation, a nonprofit organization that works to save America's historic places, recently included the Save Historic Zoar campaign into their national "This Place Matters" historic preservation awareness and marketing program. Heritage Ohio, a statewide nonprofit organization that promotes statewide economic development and sustainability through preservation, revitalization, and promotion of cultural tourism, also became more involved in promoting the Save Historic Zoar campaign through their website and marketing materials.

Social Connectedness:

Members of Zoar Village's community interact with one another by joining groups, participating in volunteer activities, and utilizing online social networks. Zoar Village's community groups collaborate to preserve and promote the community's historic identity, encourage social interactions and support community safety and security. Key examples of social connectedness are as follows:

- Every community group in Zoar Village participates and contributes to the Harvest Festival, Christmas in Zoar and Civil War Reenactment events.
- Zoar Village's churches, the Zoar United Church of Christ and Church of the Holy Trinity, provide: 1) socialization opportunities by organizing group meals and activities, 2) social welfare services by organizing donations and food drives, and 3) a sense of security by offering refuge during emergencies (Holy Trinity Red Cross Certified Emergency Center).
- The ZVFD provides fire suppression and emergency services to the community and conducts regular social events.
- The ZCA serves as the local chamber of commerce and supports business interests.
- The Save Historic Zoar marketing campaign
- Zoar groups maintain online social network profiles that facilitate communication of members.

Economic Vitality:

Zoar Village depends heavily on the tourism industry as a major source of income and its ability to forge social bonds between the community's residents and organized groups. The community members are connected by a common interest in preserving and marketing the Village's heritage. Zoar Village's community groups and businesses rely on income from tourists that patronize their special events, classes, tours, and retail stores. Key indicators of the importance of tourism are as follows:

- From 2001 to July 2012, 114,226 people have visited Zoar Village.
- From 2001 to 2011, the ZCA estimated earning a combined total of $523,000 in revenue from its stores, programs, and events. This is a substantial figure when compared to the income received over the same period from the ZCA's two other main sources: 1) membership ($57,000) and 2) contributions and grants ($275,000).
- In 2011, the Church of the Holy Trinity reported earning a total of $62,876 in revenue from participating in the Harvest Festival ($32,623), Civil War Reenactment ($15,031), and Christmas in Zoar ($15,222) events. These tourism dollars amount to nearly 58 percent of the parish's total income from special events that year.
- In 2011, the Tuscarawas County Convention and Visitors Bureau (The Bureau) published an analysis of Zoar Village's economic contribution to the state and local economy. The Bureau found that "78% of all U.S. leisure travelers participate in cultural and/or heritage activities while traveling, translating to 118.3 million adults per year. [90]" These adults spend on average $944 per trip and contribute over $192 billion to the U.S. economy. Combining visitor data and the per trip spending estimate, the Bureau estimated Zoar Village's tourism contributed over $10.5 million to the local economy.

Economic Impact of Zoar Village on the Local Economy:

In 2011, the Tuscarawas County Convention and Visitors Bureau (CVB) published an analysis of Zoar Village's economic contribution to the state and local economy. The CVB found that "78% of all U.S. leisure travelers participate in cultural and/or heritage activities while traveling, translating to 118.3 million adults per year. [91]" It also found that these adults spend on average $944 per trip and contribute over $192 billion to the U.S. economy. Combining statistics on the number of Zoar Village visitors and the per trip spending figure, the CVB estimated Zoar Village's tourism contributed over $10.5 million to the local economy in 2010.[92]

[90] Tuscarawas County Convention & Visitor's Board, "Please help us save historic Zoar Village" Situation Analysis, (unknown publication date) received by The Huntington District via email on July 29, 2011.
[91] Tuscarawas County Convention & Visitor's Board, "Please help us save historic Zoar Village" Situation Analysis, (unknown publication date) received by The Huntington District via email on July 29, 2011.
[92] Ibid.

Community Vision of the Future:

Research indicates that Zoar Village is committed to maintaining its historic identity into the future. This community vision is documented in the 2010 Zoar Comprehensive Plan. Key elements of this vision are as follows:

- Zoar Village seeks to protect agriculture use land and open space through zoning regulations and land use changes.
- Zoar Village is interested in creating partnerships with the USACE to leverage federal lands to serve as potential trailheads and streetscape/ gateway elements to attract more visitors and improve the quality of life.
- Zoar Village seeks to alter current land use configurations to increase open space areas including parks and conservation areas to preserve its natural environment, which will encourage social interaction and tourism.

Consistent with the Comprehensive Plan's objective to support the village's tourism economic, the Zoar Village government plans to implement façade and streetscape improvements to enhance the community's pedestrian accessibility and signage. For example, Zoar Village is preparing to install brick pavers to better separate the street and the sidewalk. Contrasting colored bricks will also be installed in crosswalks as a safety measure. This project is funded by an Ohio Department of Transportation grant and a $15,000 grant from the Reeves Foundation.[93] In addition, the Church of the Holy Trinity's commitment to invest $3 million to construct a new church building just outside of the Village is a strong indicator of its membership's association desire to preserve the community future. Church representatives indicate that the new church's hilltop location, approximately .5 miles outside from Zoar, was selected because of its view and proximity to Zoar Village.

The State of Ohio by way of the OHS is also investing in Zoar Village's future. In 2012, the State Controlling Board released $396,859 to the OHS to fund the construction of a new basement for the 1869 Bimeler Museum. The museum was damaged from the floods of 2005. In 2008, the museum was also damaged after water pumped out of the basement resulted in loss of equalized hydrologic pressures. This caused the surrounding sediment to liquefy and heave onto the load bearing foundation walls in the house. In addition, the OHS received approval for $661,319 to repair and maintain historical sites statewide. A portion of those funds will be used to replace the furnaces at the Zoar Village Bakery and Dairy and repair the foundation and front porch of the Number One House.[94]

The OHS, in collaboration with the Zoar Village government, the ZCA and other preservation organizations, is working to amend Zoar Village's National Register nomination and prepare an application to The National Park Service (NPS) to designate Zoar Village as a National Historic Landmark (NHL). A National Historic Landmark designation would afford landowners and

[93] "Zoar to Seek Renewal Levies" TimesReporter.com, July 11, 2012 http://www.timesreporter.com/newsnow/x1062471490/Zoar-to-seek-renewal-levies
[94] Zoar Star (A Zoar Community Association Publication), "Good News for the Bimeler Museum" Summer 2012 http://zoarpressroom.com/PDF/2q_zs_2012.pdf Last Accessed July 2012

organizations access to grant, loan, and Federal income tax incentive programs to support preservation, rehabilitation and easement projects.

Leisure & Recreation:

Gardening is one of the historic leisure and recreational pastimes of Zoar Village that continues today. It is an activity that encourages social interaction, a sense of civic pride and tourism. Key indicators of this activity include:

- Community volunteers work to keep the Zoar Garden's flower and vegetable bed shapes consistent with original Zoarite designs each season.
- The ZCA organizes an event called "Beyond the Fences of Zoar – The gardens and backyards of Zoar Village". This event features seminars by local gardening experts conducted in Zoar Village's historic buildings, a luncheon, crafts sold by local vendors and artisans and guided tours through the Village's public and private gardens. This event drew 340 participants in 2010.
- Earth Action Partnership, in partnership with the ZCA, hosts summer camps, educational tours of the Zoar Wetland Arboretum, and hands-on tree care workshops for visitor groups. The organization also offers presentations to students, government agencies, garden clubs, and other groups.
- Ohio & Erie Canal Coalition provides educational programs, events and publications about the Canalway and the Towpath Trail.
- The Muskingum Watershed Conservancy District is considering linking a planned trail at Atwood Lake Park to the Towpath Trail in Zoar in the future.

Zoar Village continues to play an important role as a natural resource, recreational and economic development asset for the region and the State of Ohio. For example, Zoar Village is a key part of the Ohio & Erie Canalway National Heritage Area managed by the Ohio Erie Canal Association (OECA). Zoar Village serves as southern anchor for the OECA's Towpath Trail and is a gateway for the National Heritage Area corridor leading to New Philadelphia. The OECA's commitment to preserving and promoting Zoar Village's history and natural resources were key components of the application for corridor's designation as a National Heritage Area by U.S. Department of Interior. The potential loss Zoar Village places that designation at risk.[95] The relocation or acquisition of Zoar Village could require a revaluation of the National Heritage Area's integrity and result in boundary reconfiguration and/or loss of the designation. Loss of the designation would cut off access to Federal funding opportunities and limit the OECA's ability to carry out its mission. Reconfiguration of the corridor could also result in ceasing the Towpath Trail's development at Bolivar. This action would effectively eliminate over 15 miles of planned trail to New Philadelphia and reduce local access to the Towpath Trail for residents in Tuscarawas County.

[95] Ibid.

4.2 Conclusions & Recommendations

The data collected during the course of this study indicates Zoar Village is a vibrant community that:

- Identifies with the heritage of the Society of Separatists,
- Fosters social connections and interactions among its members,
- Provides social welfare and a sense of safety and security,
- Encourages economic development and opportunity, and
- Supports the recreational needs of its residents and the people of Ohio.

The community of Zoar Village exhibits a strong sense of civic pride and participation. It expresses a desire to preserve its historical character into the future by establishing plans to safeguard the quality of life and support the economic health of its residents and businesses. Stakeholders from the Tuscarawas region, the State of Ohio, and individuals across the country that have joined Zoar community groups also share this vision. For example, Zoar Village was designated "One of America's 11 Most Endangered Places" by the National Trust for Historic Preservation. This designation, which garnered national press coverage, attests that the architectural, cultural, and natural heritage and environment of Zoar Village are valued.

It is recommended that primary source data collection be conducted to develop a more complete profile of Zoar Village's community with respect to the OSE indicators of economic vitality, social connectedness and group identity, safety and security, and leisure and recreation. Due to the small size of the community, the availability of secondary data that speak to these indicators is limited. For example, information on tourism revenue dependency of the Village's two restaurants and 12+ home-based craft businesses and artisans is not publically available. However, it is reasonable to assume their reliance on tourism dollars is significant considering the data reported high percentage share of total revenue from tourism reported by the ZCA and Church of the Holy Trinity. Much of this information may only be available through direct questioning of Zoar Village residents, business owners, and community group representatives during the Small Group Workshops when project alternatives are being presented. Responses to appropriate questions, questions formally approved by OMB, should reveal the extent to which these businesses depend on tourism for financial survival.

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APPENDIX 1 – SCOPE OF WORK

SCOPE OF WORK
BASELINE PLANNING ASSESSMENTS FOR ZOAR LEVEE & DIVERSION DAM, DAM SAFETY MODIFICATION STUDY, TUSCARAWAS COUNTY, OHIO

INTRODUCTION

Zoar Levee and Diversion Dam is part of the Muskingum River Basin System (Figure 1). The Muskingum River Basin is the site of Ohio's first multiple purpose water management and land conservation river basin project. The Muskingum Watershed Conservancy District (MWCD) was created on 3 June 1933 for the purpose of development this project. The initial plan called for 14 flood control reservoirs. In 1933, the Public Works Administration (PWA) awarded a grant of $22,090,000.00 to the USACE to construct the proposed plan. In 1934, the Federal Government executed a contract with the MWCD to allow the U.S. Army Corps of Engineers (USACE) to conduct investigations and draft a final plan. This official plan for the basin was approved by the MWCD on 19 November 1934. Construction of the project began in 1935 and the completed system was turned over to the MWCD in 1938. The Flood Control Act of 1939 returned the dams to the federal government and flood control operations back to USACE. Today the Huntington District (District) manages these projects.

Figure 1. Location of Zoar in Ohio.

Page **1** of **25**

Zoar Levee is an appurtenant structure to the Dover Dam and is located approximately four miles upstream of the dam on the Tuscarawas River (Figure 2). Dover Dam is a dry dam and retains pools only during events to attenuate downstream flooding in coordination with other Muskingum Basin projects.

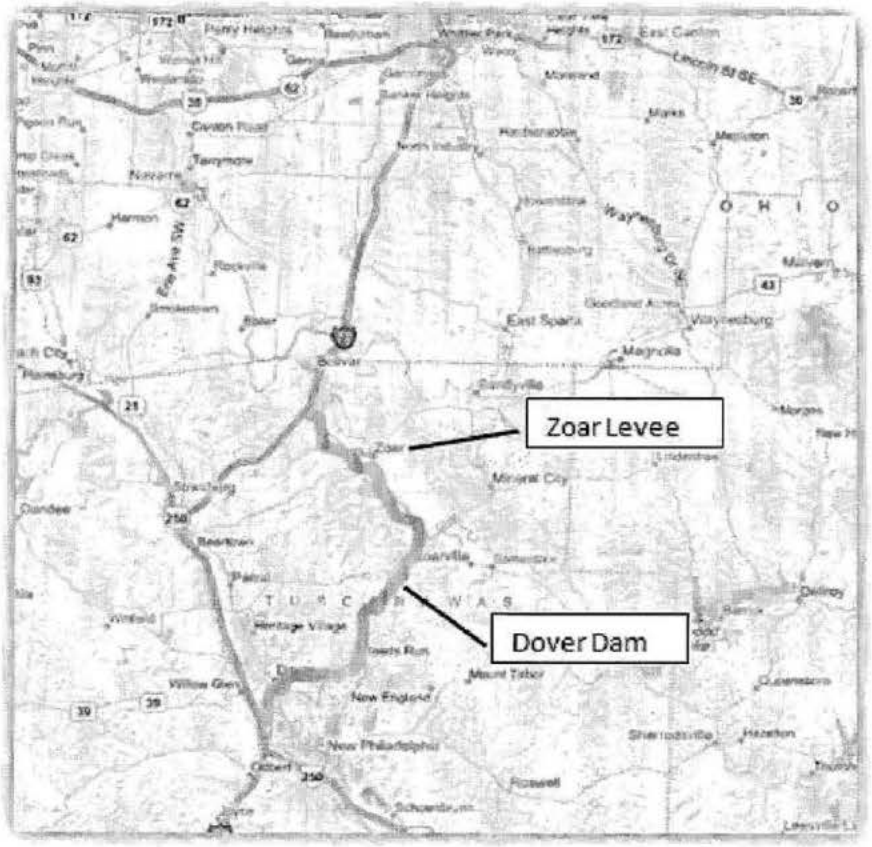

Figure 2. Zoar Levee in Relation to Dover Dam.

Zoar Levee (Figures 3-5) provides flood damage reduction benefits to the Village of Zoar and provides protection from flooding when Dover Dam is retaining a pool above El. 890 (a 3-year event). As such the original crest elevation of the Zoar levee was designed to correspond to the spillway elevation of Dover Dam of 916, with an additional 3 feet of freeboard for a resulting crest elevation of 919. The current crest elevation, following the 1951 work, is 928.5.

Zoar Diversion Dam is located on Goose Run, about 1,000 feet upstream of Zoar Levee and was built to work in conjunction with the levee. The Diversion Dam is a retention

structure for runoff in the Goose Run watershed, which flows into a ponding area for the Zoar Levee pump station.

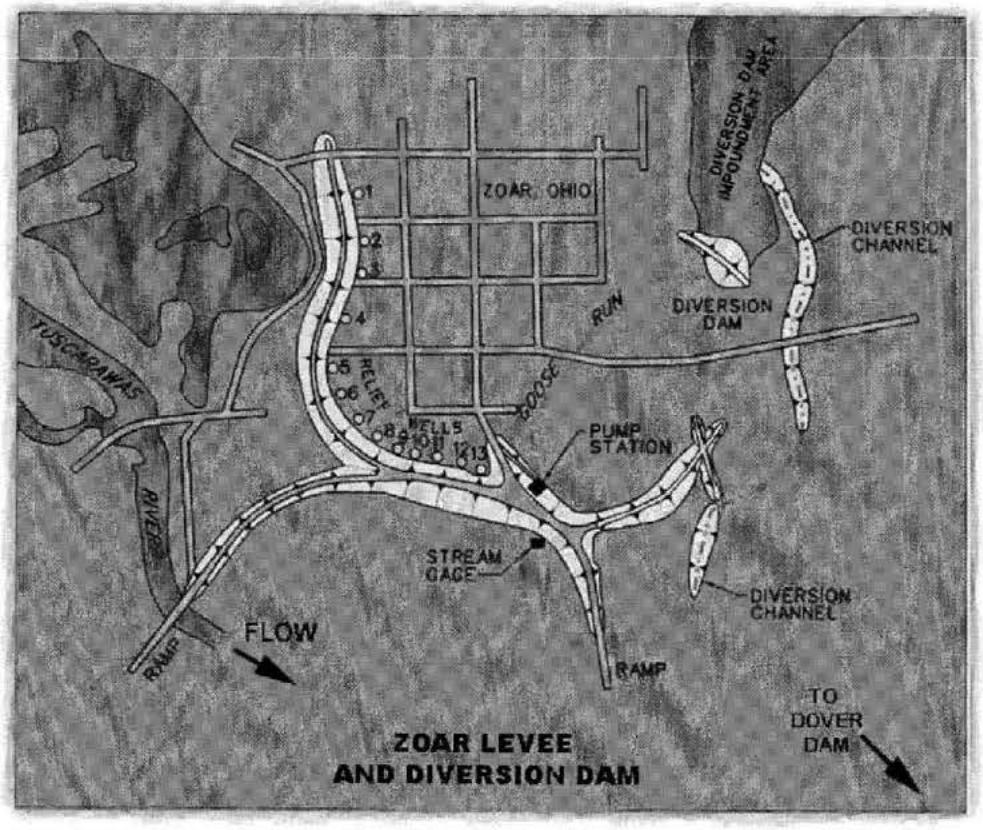

Figure 3. Zoar Levee and Diversion Dam Project Components.

The District has recognized in consultation with the Ohio Historic Preservation Office (OHPO) that the MUR projects, including Zoar Levee and Diversion Dam, are collectively eligible for inclusion in the National Register of Historic Places under Criterion A for their association with Federal investments to flood control improvements in Muskingum Basin. The consultation was formalized on 11 May 2011 with the execution of a Programmatic Agreement, pursuant to 36 CFR 800.14(b) to take into account effects and mitigate adverse effects potential actions may have on historic properties in the MUR.

seven, two of which are not historic and are small in scale. The bakery is a constructed frame over a thick rubble stone lower level with brick oven and rear appendage. The landmark three-story No. 1 House is a monumental dressed stone and brick building that has been described as having the elegant overall composition and detailing of a gentleman's county house in northern Europe, circa 1800.

The Village of Zoar was established in 1817 by a group of German separatists called Zoarites. Although founded primarily as a religious community, the separatists introduced a communal system to pay their debts for land and guarantee their economic and social security. The village contained a church, a communal bakery, tin shop, blacksmith shop, a store, a furniture shop, weaving and sewing houses, a pottery, several mills, a brewery, a large ornamental garden with greenhouse, as well as residences. Barns and stables were situated on the outskirts of town and a

Figure 5. Dover Dam's Pool at Elevation 916 in relation to Zoar Levee and Diversion Dam, showing those portions of Zoar Village that would be otherwise in the flowage easement.

hotel was erected along the canal which ran nearby. Two blast furnaces were operated in the vicinity. The community prospered in agricultural and industry until waning idealism and internal dissention brought its dissolution in 1898.

The Village of Zoar is unique in the State of Ohio, because it contains a significant collection of German folk architecture from a unique 19th century utopian community. Original documentation concerning the decision to construct the levee verses remove the town from Dover Dam's flowage easement, which was done in at least one other case (e.g. Zoarville), is vague. However, extant data indicates that the USACE considered the historical significance of the community when it originally constructed the levee.

A 1949 design memorandum concerning the capacity of the Zoar pump station states that "*...protection of the village instead of evacuation was adopted because of its historical significance...*"

A 1950 memorandum concerning raising the crest of Zoar Levee stated:

> "*At the time Dover Dam was being planned, consideration was given to evacuating the population of 200 persons. However, since the village is of considerable historical importance and since two state-owned museums are located there, it was decided to protect the site by constructing earth levees rather than to evacuate the population.*"

Further, a 2001 article from the National Park Service's magazine entitled CRM stated:

> "*...in 1929, under pressure from the U.S. Army Corps of Engineers to move the town to higher ground to accommodate a nearby flood-control dam, the villagers began to recognize their heritage and restored the central garden and opened a museum. A levee was built instead.*".

Much of Zoar was documented in 1936 by the Historic American Building Survey (HABS). In the 1960s, the Ohio General Assembly appropriated $300,000 to purchase significant buildings in Zoar to preserve, restore and interpret them. The Ohio Historical Society (OHS) now operates several buildings in the Village of Zoar. The OHS is also contracted by the State of Ohio to operate the State Historic Preservation Office.

In 1967, the Zoar Community Association was founded to ensure the preservation of the Village of Zoar and the surrounding areas and to assist in the maintenance of the economic vitality of the Zoar area. The community association hosts several festivals and events each year, and the village is a regional asset associated with tourism. The ZCA is now under contract to manage and runs tours of several of the buildings in Zoar for the OHS. For more information concerning the community, please visit http://www.zca.org/home.html or http://ohsweb.ohiohistory.org/places/ne10/index.shtml.

The Zoar State Memorial Historic District was placed on the National Register of Historic Places (NRHP) in 1969 and its boundary was increased in 1975 (Figure 6). The NRHP boundary is shown below in Figure 4. The community was listed under Criterion

A for its association with the 19th century German separatist movement and under Criterion C for its outstanding examples of nineteenth century architecture. As currently listed, its period of significance extends from 1817 to 1899.

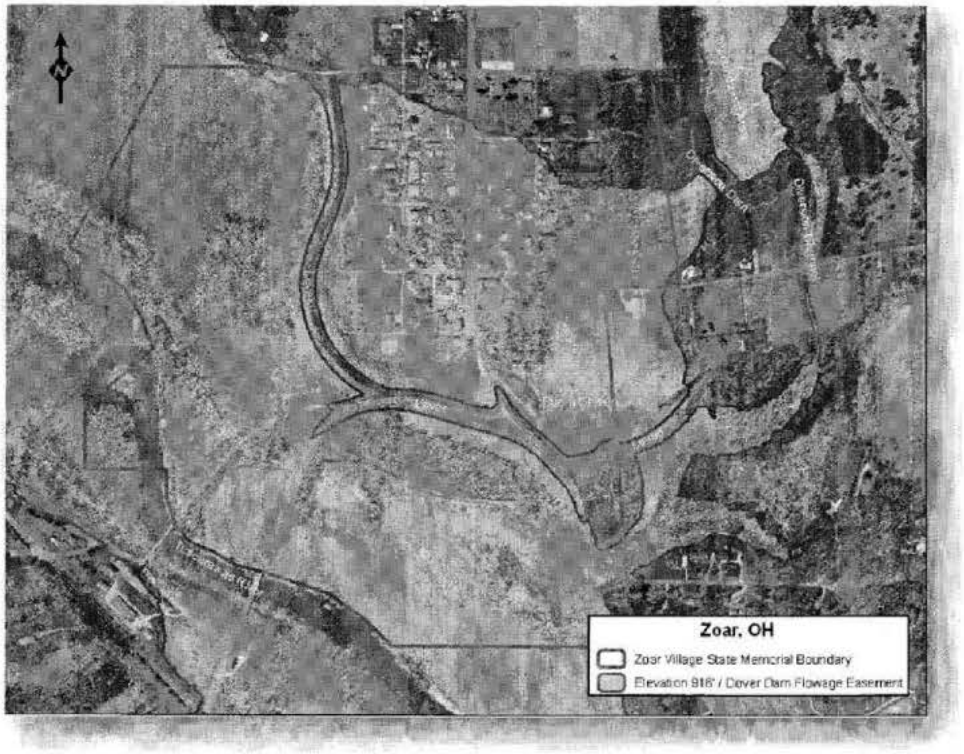

Figure 6. Current NRHP Boundaries for Zoar State Memorial Historic District.

The historic district measures 176.7 total acres, 54 acres of which is located behind Zoar Levee within elevation 916. A total of 57 of 98 (84 percent) of the buildings in Zoar are located at or below 916 elevation date from between 1814–1898. Approximately one-fifth of the historic District is above elevation 916. Key institutional buildings, such as the church, school, and weaving house, along with several residences are located above elevation 916.

SUMMARY OF DAM SAFETY ISSUES WITH THE PROJECT

In the 1990's the District conducted a Limited Re-embankment Analysis of Zoar Diversion Dam which resulted in the installation of an Upstream Seepage Control and Downstream Seepage Blanked and Collection System. It was also determined that Zoar Diversion Dam was not suitable for maintaining a permanent impoundment due to safety issues.

In January of 2005, a record high water event, resulted in Dover Dam's impoundment reaching a record pool of elevation 907.4. During this event, pin boils were noted on the interior of the levee. These pin boils were the result of water seeping beneath the levee that had piped into channels and were now moving material with them which appeared to be piping unconsolidated fill from beneath the levee's foundation. To remediate the situation, the District installed rings of sand bags around the boils to prevent their enlargement and installed filter fabric over the area of concern to reduce the movement of material with water. Information presented by District in 2006 during the Screening Portfolio Risk Assessment was later used in 2007 to classify the project as Dam Safety Action Class II or "Urgent – Failure Initiation Foreseen." This was due to significant seepage through the soil and rock foundation of the levee and through the rock foundation/abutment of the diversion dam.

Following a flood event in Spring of 2008, in which much larger boils were noted, Zoar Levee was reclassified as a DSAC I or "Urgent and Compelling – Critically Near Failure," due to large amounts of under seepage through the rock knoll portion of the levee foundation which was shown to be increasing with each successive event

CURRENT DAM SAFETY MODIFICATION STUDY

To find a long-term plan to reduce risk to the Village of Zoar, the District is currently preparing a Dam Safety Modification Report for the Zoar Levee and Diversion Dam in accordance with Draft ER 1110-2-1156. This ER is the result of Section 2033 of the Water Resources Development Act (WRDA) of 2007, which among other things, required the U.S. Army Corps of Engineers (USACE) to adopt a risk analysis approach to project cost estimates for water resource projects and ensure that the benefits and costs associated with structural and nonstructural alternatives are evaluated in an equitable manner.

A DSM report is required to justify modifying a USACE project to address risk associated with Dam Safety to meet tolerable risk guidelines with the goal being to find the best risk management plan. The objective of the DSM study is to identify and recommend an alternative risk management plan that supports the expeditious and cost effective reduction of risk. In accordance with Section 2033 of WRDA 2007, nonstructural alternatives, including but not limited to breaching the levee and diversion dam and acquiring portions of the Village located below the 916' elevation, must be considered and evaluated and compared equally to potential structural alternatives, or alternatives that look to physically modify Zoar Levee and Diversion Dam to address dam safety deficiencies.

SERVICES REQUIRED

As a part of the DSM report, the District will be categorizing impacts in accordance with the National Environmental Policy Act and several resource specific acts, including but not limited the National Historic Preservation Act. This work will also help to capture certain benefits and costs or project impacts through a series of established national accounts including, but not limited to the the Environmental Quality (EQ) and Other

Social Effects (OSE) accounts, as established by the Principle and Guidelines for Water Resources Planning established in 1983.

The services required of the Contractor shall consist of conducting a historic property and community baseline study that includes a workshop delivery plan. These services will aid the District consider the effects different alternatives may have on these resources during the formulation, evaluation and comparison of those alternatives.

The services to be rendered by the Contractor under this scope of services include all labor, materials, and travel necessary to complete the following work.

I. HISTORIC PROPERTY BASELINE STUDY

A. Qualifications: The District requires that all work be supervised by persons meeting the Professional Qualification Standards set forth in the U.S. Secretary of Interior's (SOI) Guidelines for Archeology and Historic Preservation (48 FR 44716) in archeology, history, architectural history, and/or historic architecture with extensive experience in completing the type of work being required. All work must be completed by person meeting the SOI guidelines in the field of practice being examined. For example, archeological probability assessments need to be completed by professionally qualified archeologists with the education, experience and ability to complete the requested task. The Contractor shall utilize qualified persons from other disciplines as deemed necessary.

B. Background Research: The Contractor shall complete a search of records on file at the District Offices in Huntington, WV, the MUR project offices at Dover Dam and local and regional repositories, including, but not limited to, the Zoar Community Association, Tuscarawas County Historical Society, Ohio & Erie Canalway Association, Massillon Museum, Western Reserve, Ohio Historic Preservation Office, and Ohio Historical Society to collect information concerning historic properties and historic property potentials specifically within or relevant to the study area (Figure 7).

   Background research shall also be conducted to establish a strong and regionally based pre-contact and historic-period contexts. While this context shall aide in the development of models required under Tasks I.C-D, it must be broad enough to be applicable beyond the boundaries of study area, in case the study area needs to be expanded in the future as formulation of alternatives proceeds.

   In addition, the Contractor will conduct the research necessary to identify and chart the location of Zoarite land-holdings, facilities, infrastructure, buildings, structures, quarries/mines, and agricultural land in the region, not just those within the study area. The District understands that the Zoarites once owned approximately 5000-7000 acres around the village, which was the residential and commercial hub of the Zoarite holdings and where most if not all of the Zoarites lived. Surrounding the village, the Zoarites maintained agricultural fields,

industrial facilities, mining and extraction facilities, and load-outs along the Tuscarawas River. Zoarville was also apparently a satellite Zoarite community. The Zoar Community Association maintains maps charting the know extent of Zoarite holdings in region.

This information is required to help assess if the current NRHP boundary for the Zoar State Memorial Site is adequate or requires revision. Be advised, the District understands that some records pertaining to the Zoarites may be written in 19th Century German. If any of these documents are deemed likely to have information pertinent to the purposes discussed herein this Scope of Work, the Contractor must have these documents translated.

The Contractor shall identify all other utopian communities listed on the NRHP and gather sufficient information on these communities to compare them to the Zoar State Memorial Site, as required by Task I.C.

The Contractor shall also research how Zoar Village has interacted with and influenced the arts. For example, it is known that Zoar Village was a favorite subject to August Biehle and perhaps some of his contemporaries. The Contractor shall identify those artists, not limited to painters, who visited, documented and were influenced or otherwise motivated to capture Zoar in their work.

Collected data shall include, but not be limited to: (1) relevant period-photographs, sketches, maps, accounts, notes, journals, descriptions, newspaper articles, documents, ledgers, correspondence, and as-built drawings; (2) previously generated relevant historical analyses, articles, books, magazine/journal articles, and or scholarly documents; and (4) previously completed cultural resource studies, including previously inventoried resources, that have been completed within or relevant to the study area and region (Figure 7).

The Contractor shall develop an annotated bibliography for all sources of information pertinent to the completion of Task I.

All data obtained during Background Research shall be digitized and utilized in the development of Tasks I.C-D, throughout the technical report required by Task I.E and its appendices, and incorporated into the GIS required by Task I.F.

C. Above-Ground Resources: Within the study area provided (Figure 7), the Contractor shall take a reconnaissance level-effort to identify and document all above-ground resources eligible for listing, or already listed, in the National Register of Historic Places (NRHP). This effort should rely on the results of Task B, but also requires that the Contractor conduct a physical inspection of the study area.

The nature and extent of these resources shall be described in writing, photo-documented, and cartographically located on project maps. The written narrative will include a physical description of the resource and its NRHP boundary, as well as demonstrate why the resource is eligible for inclusion in the NRHP. Those resources that do not meet the threshold for inclusion in the NRHP must be photo-documented and cartographically located on project maps. A brief summary of why the resource fails to meet the criteria for NRHP listing must also be included.

In respect to the Zoar State Memorial Site, and resources that contribute to it, the contractor shall re-evaluate the current boundary of the historic district and if necessary propose a new one. For this task, the Contractor must expand its analysis beyond the study area to account for the information gathered under Task I.B. In the course of this study, the Contractor will have to evaluate the period of

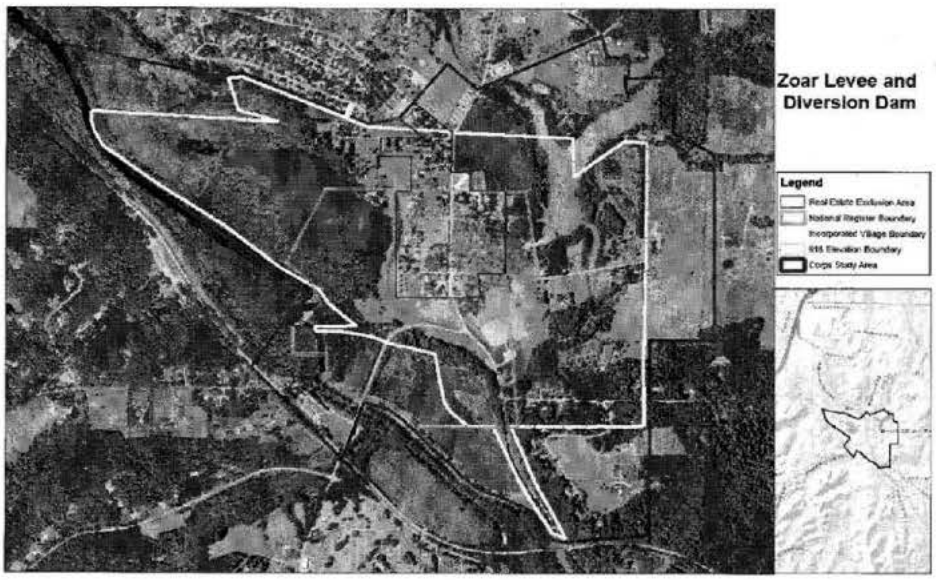

Figure 7. Study Area.

significance to determine if requires revision.

Individual resources that contribute to the Zoar State Memorial Site do not need to be documented to the level requested above. However, the Contractor shall make clear why or why not resources contribute or not-contribute to the NRHP district.

All resources, including known archeological sites, within the NRHP boundary should be clearly identified in writing and on maps as contributing or not contributing to the historic district.

The contractor shall provide a written defensible narrative of why or why not the boundary and/or period of significance was changed. This narrative should include a well-researched statement of significance that accounts for the integrity of the resource. Street-scape level photo-documentation of the Zoar State Memorial Site shall be achieved to support the written narratives.

As a part of the statement of significance, the contractor shall compare and contrast the significance and integrity of the Zoar State Memorial Site to other surviving utopian communities that are listed in the NRHP. The Contractor is not expected to visit other communities in person.

In addition to the documentation required above, the Contractor shall summarize the results of Task I.C in tabular format that reference project maps. The required documentation and resulting analysis will be presented in technical report required by Task I.E and its appendices, and incorporated into the GIS required by Task I.F

The contractor is encouraged to conduct any field work required for this reconnaissance from publically accessible locations. However, if the Contractor determines that rights-of-entry to private property is desired, it will provide the Government with map of locations access is desired and a description of the planned activities. The government shall then attempt to achieve rights-of-entry. Requests for rights-of-entry shall be submitted to the Government no later than ten (10) days following notice of award.

D. Archeological Probability Assessment: The Contractor shall also complete research required to develop a probability assessment for archeological sites within the study area and for archeological sites qualifying as historic properties within the study area (Figure 7). Known resources and/or previously un-inventoried resource potentials documented in Tasks I.B and Tasks I.C must be included in this analysis. The Contractor shall provide well researched probability model that exceeds a simple high, medium or low designation, and systematically acknowledges any existing constraints and/or assumptions made.

For *historic period sites*, this probability model will draw upon dated collected during Task I.B and Task I.C to assess potential locations of historic period archeology and the likelihood sites may contain deposits with the integrity and significance required to qualify them for inclusion in the NRHP.

The Contractor shall focus and organize this discussion on known themes of historic (50 years or older) development (e.g. commerce, manufacturing, levee

construction, etc…) and then assess the potential for ruins and/or archeological sites to survive from these known historical themes.

The research potential of these site types should also be discussed in terms of what types of data needs to survive from suspected sites to make them significant in terms of NRHP eligibility. The Contractor shall not only document their findings with a well researched and cited narrative, but cartographically mark the locations of known and/or suspected historic period archeological sites, as well as differentiate between different probabilities areas within the study area, by theme.

It is suspected that most, but not all, historic-period site potentials will be associated with Zoarite occupation and/or use of the study area. In these cases, the Contractor shall incorporate data achieved under Tasks I.B and I.C. to divide the study area into Zoarite functional themes (e.g. residential, commercial, agricultural, industrial, transportation, etc..) and assess for archeological potential as required above.

For *sites that pre-date written records*, the Contractor shall develop a probability model that draws upon previous research in the region by archeological period. The scope of this research shall exceed the provided study area (Figure 7) and be designed to take in a large enough geographic region to provide defensible results. However, the results are to be applied to the study area only.

The goal of this model is to draw conclusions about the types of sites likely to occur in different geographic locations and the likelihood of site types (e.g. camp, quarry, village etc…) by archeological period (e.g. Early Archaic, Late Prehistoric, etc….) to contain information that would qualify them for inclusion in the NRHP. In doing so, the Contractor must defensibly define each site type and archeological period discussed.

The research potential of site types should also be discussed in terms of what types of data needs to survive to make them significant. The Contractor shall not only document their model findings with a well researched and cited narrative, but cartographically mark the locations of known and/or suspected pre-contact period archeological sites, as well as differentiate between different probabilities areas within the study area by archeological period and/or site type

This probability model should heavily rely upon information contained in the Ohio Archeological Inventory and previous research in the region. Environmental factors, including but not limited to topographic, geomorphologic, and soils data shall also be utilized.

In addition to the documentation required above, the Contractor shall summarize the results of Task I.C in tabular format that reference project maps. The required documentation and resulting analysis will be presented in technical report required by Task I.E and its appendices, and incorporated into the GIS required

by Task I.

Subsurface testing or systematic ground-truthing is not required in the performance of this task. However, the Contractor is required to visit the Study Area to visually assess any factors pertinent to the task above. The Contractor is encouraged to make these visual assessments from publically accessible locations. However, if the Contractor determines that rights-of-entry to private property is desired, it will provide the Government with map of locations access is desired and a description of the planned activities. The government shall then attempt to achieve rights-of-entry. Requests for rights-of-entry shall be submitted to the Government no later than ten (10) days following notice of award.

E. Technical Report: The final results of the baseline historic property study shall be incorporated into a technical report meeting the Secretary of the Interior's Standards for Historical Documentation (http://www.nps.gov/history/local-law/arch stnds 5.htm).

The Contractor shall incorporate tables, charts, and maps that simply summarize all results as much as possible. Being able to quickly find the geographic extent of discussed resources and/or probability areas and digest their significance is very important. All resource and probability maps must use the latest available aerial photography for base maps. Other (e.g. USGS/ Soil / Street / Parcel) maps can be used to provide more pertinent data focused toward specific discussions.

Minimally, the report shall include sections with the following data.

1. Management Summary / Abstract.
2. Title Page minimally containing:
   a. A tile of the report;
   b. The contract and task order numbers;
   c. All authors and contributors;
   d. Full contact information for the Contractor
   e. The Huntington District as the Sponsor
3. Comprehensive Table of Contents.
4. Introduction and Description of the study, its background and purpose.
5. A clear and concise section on the methods employed for all tasks.
6. A summary of the results of Task I.B.
7. A summary of the results of Task I.C.

8. A summary of the results of Task I.D.

9. Maps, photographs, and tables supporting the summaries provided

10. A comprehensive references cited section

The report shall also have appendices containing the following documentation:

a. Resume's for the Contractor's principal project personnel.

b. A copy of this scope of work.

c. Annotated bibliography as required by Task B.

d. Digital copies of all the data achieved under Task B, organized by and cross-referenced to the annotated bibliography.

The Contractor shall incorporate other appendices as deemed necessary to support the completion of Task I.

The report shall be printed on 8 ½-x-11-inch paper with 1-inch top and bottom margins and a 1 ¼-inch binding margin. Photographs and illustrations shall be included when appropriate. Oversized figures shall be formatted to an 11-x-17-inch page size with adequate margins and folded to fit within the bound report. If larger figures formats are required, the District shall be consulted prior to production. The report shall be reviewed and signed by the Contractor's principal investigator(s).

F. GIS: The contractor shall incorporate geographic data obtained under Tasks I.B-I.D (e.g. locations of resources and historic properties, Zoarite landholdings and facilities, archeological probability zones, historic district boundaries) into appropriate GIS layers.

Specifically, the Contractor will develop, maintain and manage geospatial data through the contract period. The Contractor shall use industry standard Geographic Information Systems software (GIS), ArcView 9.2. The Contractor shall create, and geo-process, specific data, detailed in Task I in the development of GIS. Database shall be an ESRI personal geodatabase structure; based on Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE). Tools for this are located at http://www.sdsfie.org. Fields and tables created that are not reflected in the standards should be identified and documented. Data collection and analysis shall be completed using, but not limited to, such methods as Global Positioning System (GPS) data collection, digitizing and geo-referencing of base maps, and accessing previously created data through clearinghouses. Contractor shall utilize GIS data to create maps and exhibits as required for completion of tasks. In addition to hard copy maps and exhibits for

use in the master plan report, the contractor shall provide all geo-spatial data, maps and exhibits in an electronic format. All data shall be appropriately cataloged and organized per USACE metafile guidelines to allow for easy identification and location of information/data for future master plan revisions.

G. Schedule for Production, Review, and Distribution of Technical Report & GIS Data: A detailed schedule is included below. The production, review, and distribution of the Technical Report required by Task I.E and GIS data required by Task I.F shall occur as follows:

1. The Contractor shall proceed with all tasks immediately following the receipt of the executed work order.

2. The Contractor shall submit one (1) digital color draft copy of a Management Summary to the District within five (5) days of completion of Tasks I.A-D. The Management Summary shall provide evidence that Tasks I.A-D have been completed and make clear that this document is only a planning milepost and shall not substitute for the full technical report required in Task I.E. The Management Summary shall be no longer than 10 pages. Digital copies will be provided on CD-Rs.

   The Contractor shall supply twenty (20) digital color final copies of a Management Summary to the District within five (5) days of receipt of comments. Final copies must include all required revisions.

3. The Contractor shall submit one (1) color hard copy and one (1) color digital copy of the first draft of technical report required under Task I.E to the District and for review and comment no later than thirty (30) days following the acceptance of the Management Summary.

4. After making all revisions to the first draft of the technical report that takes into account all comments provided by the District, the Contractor shall submit ten (10) second draft color digital copies of the technical report to the District for distribution to consulting parties. These second draft color copies must be submitted to the District no later than fifteen (15) days following receipt of the District's comments on the first draft.

5. After making revisions to the second draft technical report that take into account all District and consulting part comments, as directed by the District, the Contractor shall submit twenty (20) digital color copies of the final technical report and four (4) color hard copies of the final technical report to the District no later than fifteen (15) days following receipt of District and consulting party comments. Two (2) digital

final copies of GIS data required under Task I.F shall also be provided at this time.

II. COMMUNITY IMPACTS BASELINE STUDY AND WORKSHOP DELIVERY PLAN

A. Qualifications: All work must be completed by persons with the education, experience and ability to complete the requested work.

B. Background: USACE evaluates other intangible benefits, costs and impacts within a fourth account known as the "Other Social Effects" (OSE) account. These "Other Social Effects" are generally hard to quantify and cannot be monetized as easily as are the benefits and costs associated with the other accounts. For this reason, USACE must use other data/information collection methods to collect, analyze and evaluate these intangible community qualities. This scope of work outlines a series of tasks that will help USACE define the baseline socio-economic conditions of the community and ascertain through a series of workshops what other social effects may be generated by the various alternatives to be formulated for the project.

The USACE "Handbook on Applying "Other Social Effects" Factors in Corps of Engineers Water Resources Planning" produced by the Institute of Water Resources (09-R-4) will be used as the basic guideline for preparation of the Community Social Profile and associated report. A map showing the location and extent of the study area (outlined in red) is included Figure 7.

C. Community Social Profile: Identify and collect information that describes a complete social profile of the current Village of Zoar, Ohio. A list of basic information items for the social profile is provided in Appendix A to this work order. This information should be gleaned from existing published sources including the US Census, state and county records, the Zoar Comprehensive Plan and other resources. Other sources of community data may be determined through discussions with the Mayor of Zoar and the President of the Zoar Community Association. Appendix A of the USACE Handbook on Other Social Effects and other sections of that document give guidance on what data needs would fulfill these requirements. All data collected for the study area requires like data collected from a comparison community or region selected cooperatively by the Contracting Officer and the Contractor. The collected data and information will be captured in a draft report with data tables and preliminary analysis of the data (characterization of the community's social, cultural and economic health) by the Contractor. This draft report will be submitted to the Contracting Officer as described below. A final report will be transmitted following review of the draft.

D. Small Group Workshop Delivery Plan: Develop in coordination with the USACE Zoar Project Delivery team (PDT) a Small-Group Workshop Delivery Plan that

addresses a strategic process for gathering other social effects information from the Village residents during the development of the project alternatives through selection of the recommended plan. Components of the workshop delivery plan will include the specific purposes for holding the workshops, specific information to be gleaned from the meetings, a proposed schedule of small-group workshops (12-15 people) and proposed workshop groupings (groupings by age, by land-ownership type, by risk level, by neighborhood, etc.) if considered necessary and advisable. Also part of this task will be development of any specific questions regarding other social effects that would be asked during the workshop sessions and that will have to be submitted to the Office of Management and Budget (OMB) by the Contracting Officer for approval prior to their use. Both draft and final workshop delivery plans will be submitted.

E. Submission of Work: A proposed schedule of work is included below. Should the Contractor wish to proceed on a schedule different from that provided by the Contracting Officer, the Contractor shall provide a revised schedule to the Contracting Officer's Representative (COR) within 14 days of the notice to proceed at the required District Kick-Off Meeting described below.

The required schedule items are listed below.

1. The Contractor shall commence work on Work Task II.C (community social profile) immediately following receipt of the executed work order.

2. The Contractor shall proceed with Work Task II.D (Small Group Workshop Delivery Plan) immediately following receipt of the executed work order.

3. The Contractor shall transmit five (5) copies of the draft Community Social Profile report to the Contracting Officer's Representative for review by the Contracting Officer, the Zoar Levee PDT, and the Village of Zoar.

4. The Contractor shall submit three (3) copies of the final Community Social Profile report to the Contracting Officer's Representative.

5. The Contractor shall submit five (5) copies of the draft Small Group Workshop Meeting Delivery Plan to the Contracting Officer's Representative.

6. The Contractor shall submit (3) copies of the final Small Group Workshop Meeting Delivery Plan to the Contracting Office's Representative.

F. Submissions Format:

All work required under this scope of services shall be prepared and submitted in the following formats:

1. All draft and final report text shall be prepared using the latest version of "Microsoft Office Word" in Times New Roman 12 pitch font. Text submittal shall be on 8.5 by 11.0 - inch white bond paper with an accompanying electronic version on a compact disk.

2. All tabular data shall be prepared using the latest version of "Microsoft Office Excel" with Times New Roman 12 pitch font. Copies of tabular data shall be submitted on 8.5 by 11.0 - inch white bond paper with an accompanying electronic version on a compact disk.

3. Any photographs used to support the text descriptions of the social character of the Village or surrounding region shall be taken with a digital camera in a commonly used graphic format (BMP, JPEG, or TIF) and provided in an electronic file on an accompanying compact disk.

G. Administration, Meetings & Coordination: The Contractor will be required to function with the Zoar Levee (PDT). That team will include the Contracting Officer's Representative, various staff from the Huntington District working as part of the Zoar Levee PDT, additional consultants and representatives of the Village of Zoar, Ohio. Members of this PDT will produce the other social effects information and portion of the report and be responsible for the quality and timeliness of the work.

DISTRICT POINTS OF CONTACT:

Mailing Address for Points of Contact:
Planning Branch
Huntington District
U.S. Army Corps of Engineers
502 Eight Street,
Huntington, WV 25701

Contracting Officer's Representative / Chief of Planning:
Amy K. Frantz
(304) 399-5845
Amy.K.Frantz@usace.army.mil

Project Manager:
Rodney G. Cremeans
(304) 399-5170
Rodney.G.Cremeans@usace.army.mil

Lead Planner (Task I Technical POC):
Aaron O. Smith
(304) 399-5720
Aaron.Smith@usace.army.mil

Community Planner (Task II Technical POC):
Gus Drum
(304) 399-5851
Richard.G.Drum@usace.army.mil

ADMINISTATION, COORDINATION, QUALITY CONTROL REVIEW AND DOCUMENTATION

Contractor Project Management: Direct responsibility for the routine administration and coordination necessary for all tasks shall be assigned to a "Project Manager" to be identified by the Contractor prior to the start of work. The Contractor's Project Manager will be the District's primary Point of Contact on all matters and will be responsible for seeing that all tasks are completed on time and with quality and detail of attention required by this scope of services.

District Kick-Off Meeting: The Contractor's shall prepare and then present a plan-of-action to District personnel at an in-person all day kick-off meeting to be held in Huntington, West Virginia. The plan-of-action shall outline the Contractor's general research agenda and approach but shall be designed to allow for the flexibility required to adjust as deemed necessary. The Contractor's Project Manager, as well as pertinent technical staff, will attend this meeting.

Zoar Village Meeting: The Contractor's shall revise the plan-of-action per District comments and prepare a revised presentation for District personnel to present to Zoar Village Leadership an in-person all day kick-off meeting to be held in Zoar, Ohio. The plan-of-action shall outline the Contractor's general research agenda and approach but shall be designed to allow for the flexibility required to adjust as deemed necessary. The Contractor's Project Manager, as well as pertinent technical staff, will attend this meeting

Quality Control Plan: The Contractor shall perform (in-house) independent quality control reviews for all of the Contractor generated products described in the above work tasks. The Contractor shall document this quality control procedure for each product and provide copies of the quality control certifications to the Contracting Officer's Representative at the conclusion of the study process. This summary plan will include information on the Contractor's independent technical review process, qualifications of the technical review members, a summary schedule of the reviews and a proposed certification sheet for those in review positions.

The Contractor shall provide a summary quality control plan to the District at the kick-off meeting.

Project Status Reports: The Contractor is expected to maintain close coordination with the Government during the work. At a minimum, this will include bi-weekly email updates, and monthly written progress reports to support invoiced amounts. The Government may require the Contractor to attend in-person or teleconference meetings following award of the contract, when they may be necessary to review progress periodically during the contract period and/or to address any issues perceived as crucial to the Contractor's satisfactory performance or relevant to the ongoing work.

PRODUCT OWNERSHIP

All reports, drawings, maps, photographs, notes, and other materials developed in the performance of this contract are and remain the property of the Government and may be used on any other work without additional compensation to the Contractor. The Contractor agrees not to assert any rights and may not establish any claim with respect to ownership.

PUBLISHING RESTRICTIONS

Neither the Contractor nor its representatives shall release or publish any sketch, photograph, report or other material of any nature obtained or prepared under this contract without express written approval of the Contracting Officer or his/her authorized representative.

MATERIALS PROVIDED BY THE GOVERNMENT

The Huntington District will provide the Contractor the following:

A. Access to the pertinent information on file at Huntington District or its field offices, as available; to include but not limited to:

   i. Project specific information that describes the dam safety issues at the Zoar Levee project, history of the community and historic significance of the Zoar Village.
   ii. A site map of the Zoar Study Area.
   iii. The most recent copy of the Zoar Levee & Diversion Dam, Dam Safety Modification Study schedule.
   iv. Data on existing structures within Zoar Village

B. List of approved questions from the Office of Management and Budget for use in the small-group workshops;

C. A letter of introduction from the Corps explaining the Contractor's involvement in the other social effects study;

D. Copy of the Corps of Engineers "Handbook on Applying "Other Social Effects" Factors in Corps of Engineers Water Resources Planning" (IWR 09-R-4);

E. Information for appropriate Points of Contact (POCs) in the Huntington District.

SCHEDULE OF WORK

The Contractor shall begin Tasks I and II immediately following receipt of the executed work order.

The Contractor shall submit any requests for rights-of-entry within ten (10) days of notice of award of this Scope of Services.

The District Kick-off meeting will be held within fourteen (14) days of notice of award of this Scope of Services. It is up to the Contractor to work with District personnel to schedule this meeting.

The Zoar Village Meeting will be held within twenty-one (21) days of notice of award of the Scope of Services. It is up to the Contractor to work with District personnel to schedule this meeting.

The Contractor shall follow this schedule each specific task:

Task I. Schedule		
Final Delivery Dates	**Work Tasks**	**Study Component**
25 May 2012	I.B	Background Research
29 June 2012	I.C	Above-Ground Resources
29 June 2012	I.D	Archeological Probability Assessment
06 July 2012	I.E	Draft Management Summary
13 July 2012	I.E	District Comments on Draft Management Summary
20 July 2012	I.E	Final Management Summary
20 August 2012	I.E	1st Draft Technical Report
27 August 2012	I.E	District Comments on First Draft Technical Report
11 September 2012	I.E	2nd Draft Technical Report
11 October 2012	I.E	District & Consulting Party Comments on 2nd Draft Technical Report
26 October 2012	I.E	Final Technical Report
26 October 2012	I.F	GIS

Task II. Schedule		
Final Delivery Dates	**Work Tasks**	**Study Component**
07 July 2012	II.C	Draft Compilation of Community Social Profile Information
21 August 2012	II.C	Final Compilation of Community Social Profile Information
20 December 2012	II.D	Draft Small-Group Workshop Delivery Plan
04 March 2013	II.D	Final Small-Group Workshop Delivery Plan

APPENDIX A
BASIC SOCIAL PROFILE DATA REQUIREMENTS

Each category of information listed below should include matching data from a comparison community or region cooperatively agreed to by the Contracting Officer and the Contractor.

1. Study area population
    a. Zoar Village population (2010 Census)
    b. Zoar Village population trends
    c. Zoar Village population density
    d. Study area and regional population projections
2. Population characteristics
    a. Population ages
        i. Median age
        ii. Percentage above age 65
        iii. Percentage below age 13
        iv. Percentages of male and female
    b. Racial Distribution
        i. Percentage White
        ii. Percentage Black
        iii. Percentage Asian
        iv. Percentage Hispanic
        v. Percentage Other
    c. Education levels
        i. Percentage high school graduates
        ii. Percentage college graduates
    d. Disabilities/Disadvantaged
        i. Percentage of population indicating a disability
        ii. Percentage of population collecting disability payments
        iii. Percentage of population in regular physical therapy
3. Household characteristics
    a. Mean household size
    b. Median total household income
    c. Percentage with female head of household
    d. Percentage of single occupant households
    e. Head of household median income
    f. Head of household education status
    g. Head of household employment status
    h. Percentage of households without a personal vehicle
4. Employment characteristics
    a. Percentage employed
    b. Percentage retired
    c. Employer type
        i. Private company
        ii. Public institution (Federal, state, county, municipal)

iii. Self-employed
iv. Non-Profit

d. Employment type
i. Manufacturing
ii. Retail trade
iii. Wholesale trade
iv. Agricultural (farm employment)
v. Forestry, mining
vi. Transportation
vii. Education and health services
viii. Information services
ix. Financial services
x. Real estate
xi. Professional services
xii. Leisure and hospitality

e. Number of commercial businesses in study area
i. Number of employees living in Zoar

5. Local/Regional employers (top 10 largest by number of employees)
6. Wealth and Poverty
   a. Unemployment rate
   b. Per capita personal income
   c. Percentage of persons living below poverty rate
   d. Percentage of population receiving public assistance
7. Housing characteristics
   a. Total housing units
   b. Percentage owner occupied
   c. Percentage renter occupied
   d. Percentage vacant
   e. Percentage lacking indoor plumbing facilities
   f. Median value of owner-occupied housing
   g. Percentage of owner-occupants with flood insurance
   h. Number of residential structures with commercial usage