

# **Danville Small Urban Area Study Danville, Kentucky**



## **ENVIRONMENTAL JUSTICE REVIEW**

**Updated August, 2014**

**Prepared for  
Kentucky Transportation Cabinet  
(KYTC) - Division of Planning**

**Prepared by**



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APPENDIX A: Methodology for Assessing Potential Environmental Justice Concerns for KYTC  
Planning Studies

## 1.0 Introduction

This report presents a review of the socioeconomic characteristics in the study area (indicated in map on next page) for the City of Danville, Kentucky located in Boyle County, which is also located within the Bluegrass Area Development District. Data from the U.S. Census Bureau 2012 American Community Survey (ACS) 5 year estimates has been utilized for the analysis of the study area. Please see the ACS website for more information, data limitations, and an explanation of the methodology used to obtain the data (<https://www.census.gov/acs/www/>).

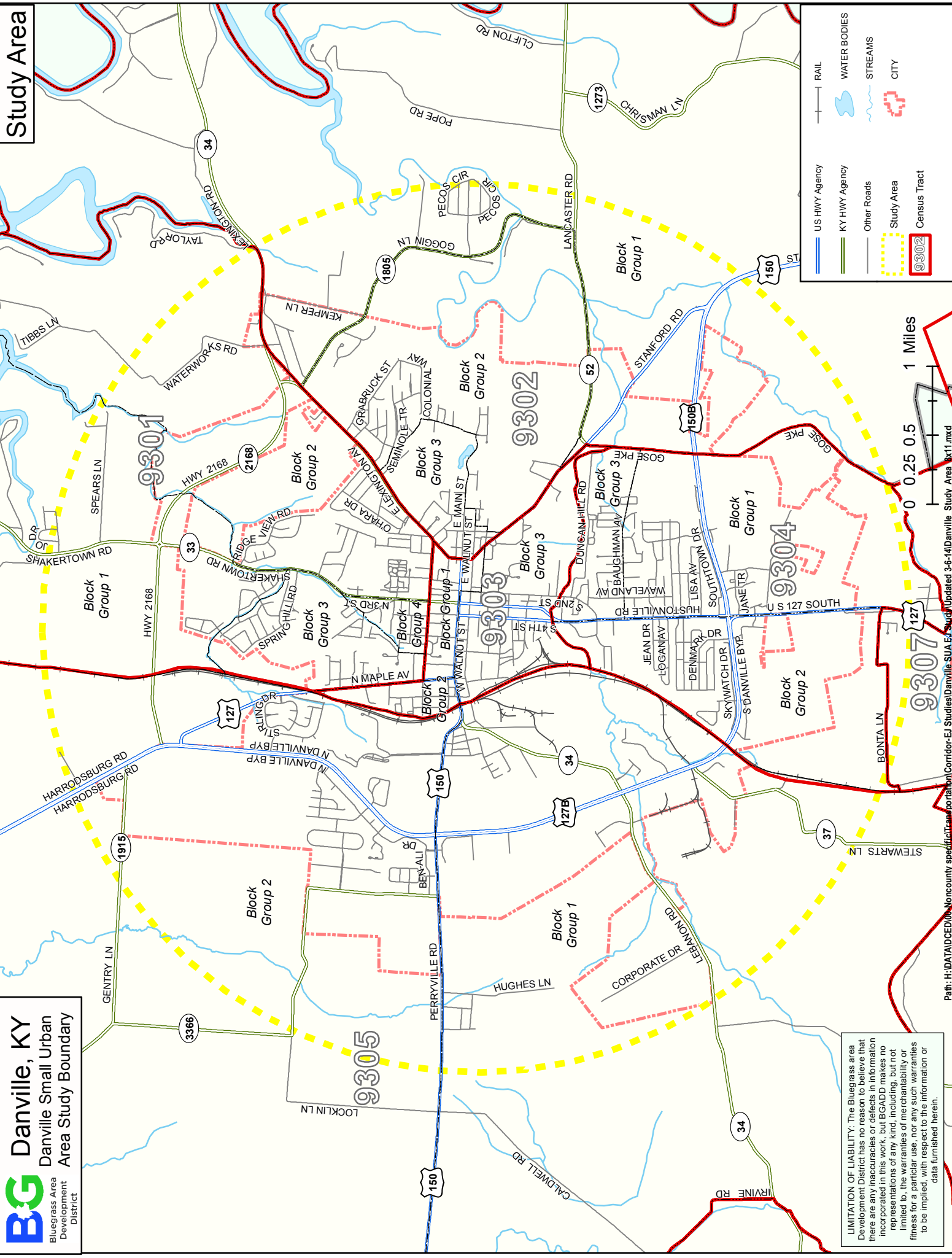
This report is intended to be used as a first look study into the socioeconomic characteristics that exist within the study area. If, at a later time specific projects and project locations are identified, a more in-depth analysis of the socioeconomic characteristics may be warranted.

The information and results are intended to assist the Kentucky Transportation Cabinet in making informed and prudent transportation decisions in the study area, especially with regard to the requirements of *Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (signed February 11, 1994). Executive Order 12898 states:

“...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...”

This report outlines 2012 ACS 5-year estimates (ACS) for the study area using tables and maps. Statistics are provided on minority, low-income, elderly, and disabled populations for the census tracts and block groups within the study area, Boyle County, Kentucky and the United States.

# Study Area



**BG** Danville, KY  
 Bluegrass Area Development District  
 Danville Small Urban Area Study Boundary

**LIMITATION OF LIABILITY:** The Bluegrass Area Development District has no reason to believe that there are any inaccuracies or defects in information incorporated in this work, but BGAD makes no representations of any kind, including, but not limited to, the warranties of merchantability or fitness for a particular use, nor any such warranties to be implied, with respect to the information or data furnished herein.

## 2.0 What is Environmental Justice?

The U.S. EPA Office of Environmental Justice (EJ) defines EJ as:

“The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies.”

While exact thresholds or benchmarks have not been established, and there is no further guidance on what “elevated” percentages of disadvantaged populations means, for the purpose of this study “disproportionately high and adverse effect on a minority or low-income population” means an adverse effect that:

1. Is predominately borne by a minority population and/or low-income population, or
2. Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

### 2.1 Definitions

In response to Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) USDOT Order 5610.2 on EJ was issued in the April 15, 1997 Federal Register, defines what constitutes low-income and minority population.

• **Low-Income** is defined as a person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines.

- **Minority** is defined as a person who is: (1) Black (a person having origins in any black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

- **Low-Income Population** is defined as any readily identifiable group of low income persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed DOT program, policy or activity.

- **Minority Population** is defined as any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed DOT program, policy or activity.

**Elderly and disabled populations** (also used in this analysis) are not specifically recognized under the definition of an Environmental Justice community. However, the U.S. DOT specifically encourages the early examination of potential populations of the elderly, children, disabled, and other populations protected by Title VI of the Civil Rights Act of 1964 and related nondiscrimination statutes.

### **3.0 Methodology**

Data for this study was collected by using the method outlined by the KYTC document “Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies,” located in Appendix A. If applicable under the National Environmental Policy Act (NEPA), a more detailed analysis will be required when assessing the potential for adverse and disproportionate impacts to low-income and minority populations.

The primary source of data for this report was assembled from the American Community Survey 2012 Five Year Estimate tables B03002 (minorities), B17021 (poverty status), C23023 (disabled status) and S0101 (over 60 status) via the Fact Finder 2 website ([factfinder2.census.gov](http://factfinder2.census.gov)) and GIS data provided by KYTC.

This report uses the population percentages for Boyle County as the reference threshold for identifying target populations. The county numbers were selected for the reference threshold because the study overlaps eight Census tracts. The county level data most likely provides a better picture of the overall population characteristics of the eight Census tracts in the study area as opposed to the national or state percentages.

In reviewing each census block group for target populations, an analysis range was determined based on the reference threshold in each of the four census categories reviewed in this report. This range was set at 25% above the threshold to 25% below the threshold and the thresholds are shown in each category with a table that indicates the block groups that exceed 25% above the threshold.

## 4.0 Census Data Analysis

The U.S. Census Bureau defines geographical units as:

- **Census Tract (CT)** – A small, relatively permanent statistical subdivision of a county or statistically equivalent entity delineated for data presentation purposes by a local group of census data users or the geographic staff of a regional census center in accordance with Census Bureau guidelines. CTs generally contain between 1,000 and 8,000 people. CT boundaries are delineated with the intention of being stable over many decades, so they generally follow relatively permanent visible features. They may also follow governmental unit boundaries and other invisible features in some instances; the boundary of a state or county is always a census tract boundary.

- **Block Group (BG)** – A statistical subdivision of a CT. A BG consists of all tabulation blocks whose numbers begin with the same digit in a CT. BGs generally contain between 300 and 3,000 people, with an optimum size of 1,500 people.

The census data tables include percentages for minority, elderly, and low-income populations in the United States, Kentucky, Boyle County, census block groups located in and around the study area.

## 5.0 Study Findings

This Environmental Justice and Community Impact Report is to be used as a component of a programming study currently being conducted by the Kentucky Transportation Cabinet Division of Planning for the identification of short and long-term improvement strategies for the Danville Small Urban Area Study. This report is intended to identify areas of concern that may be affected by potential projects proposed by the Danville Small Urban Area Study and to meet federal requirements regarding consideration of environmental issues as defined in the National Environmental Policy Act (NEPA). The purpose of the Danville Small Urban Area Study is to identify and examine transportation issues related to safety and congestion in the City and its surrounding area.

According to the ACS, there are eighteen (18) block groups (BG) that encompass the population of the defined study area.

There are four block groups that have significantly high percentages of three disadvantaged populations: CT 9301 – BG 3, CT 9302 – BG 3, CT 9304 – BG 3, and CT 9305 – BG 1.

Of the remaining fourteen block groups that intersect the identified study area all but two (CT 9304 – BG 1 and CT 9305 – BG 2) have at least one disadvantaged population that appears to be significantly above the established threshold for Boyle County.

If applicable under the National Environmental Policy Act (NEPA), a more detailed analysis will be required when assessing the potential for adverse and disproportionate impacts to low-income and minority populations.



In sections 6.0 through 9.0 each category of disadvantaged populations is summarized for the study area and compared to national, state, and county levels. A table is included in each section which lists every block group within the study area that is significantly above the threshold for that category.

In the table below you will see all block groups that intersect the study area listed. There is also a column for each category of disadvantaged populations. This allows a comparison of each block group across the four categories.

An “X” that indicates a particular block group is significantly above the threshold established for Boyle County for the specific category:

<b>Census Tract / Block Group</b>	<b>Minorities</b>	<b>Poverty</b>	<b>Over 60</b>	<b>Disabilities</b>
9301 / 1			X	
9301 / 2			X	
9301 / 3	X	X		X
9301 / 4	X	X		
9302 / 1			X	
9302 / 2	X		X	
9302 / 3	X	X		X
9303 / 1	X	X		
9303 / 2		X		X
9303 / 3	X	X		
9304 / 1				
9304 / 2		X		
9304 / 3	X		X	X
9305 / 1	X	X		X
9305 / 2				
9307 / 2				X
9307 / 3		X		X
9307 / 4			X	X

## 6.0 Population by Persons of Minority Origin

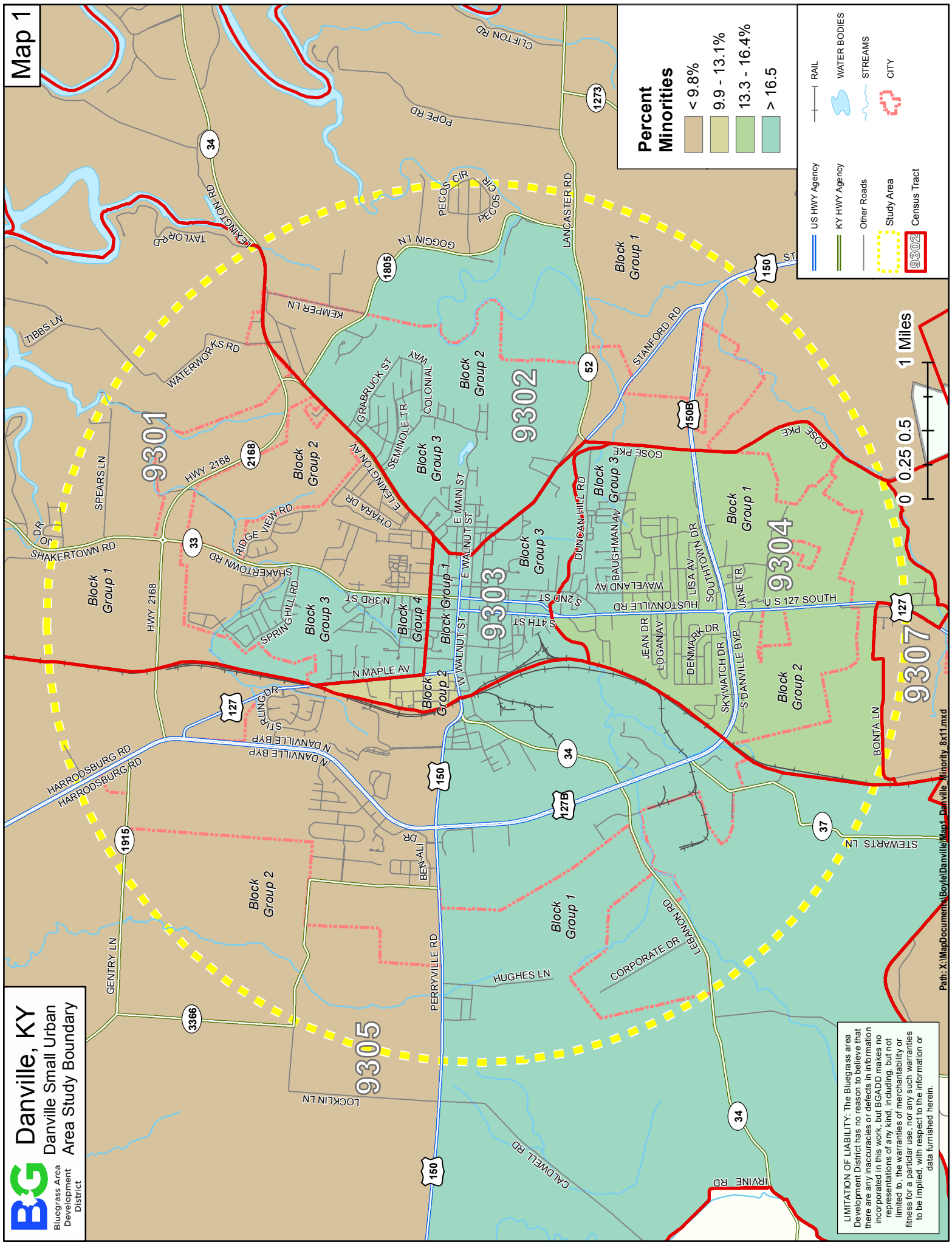
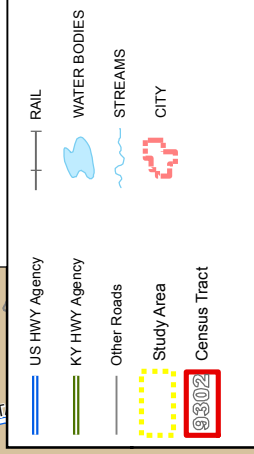
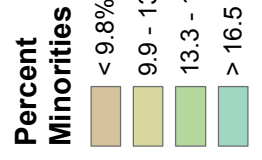
*See Map 1 for reference*

The total minority population for the county is 13.2%. This is the established reference threshold for this category (see below). This percentage is just under the state percent (13.7%) and significantly below the U.S. (36.3%). For the study area eight block groups were identified as having populations significantly above the threshold established for minority status which should be considered for further analysis prior to commencement of any future projects:

### Reference Thresholds and Analysis Range

<u>Analysis range</u>	<u>Percent Minority</u>
Significantly Above Threshold	> 16.5%
Just Above Threshold	13.3 – 16.4%
<b>Reference Threshold</b> (County Percentage)	<b>13.2%</b>
Just Below Threshold	9.9 – 13.1%
Significantly Below Threshold	< 9.8%

<b>Census Tract / Block Group</b>	<b>Minorities</b>
9301 / 3	19.1%
9301 / 4	48.2%
9302 / 2	21.6%
9302 / 3	19.4%
9303 / 1	25.3%
9303 / 3	19.4%
9304 / 3	20.4%
9305 / 1	27.8%



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## 7.0 Population by Poverty Level

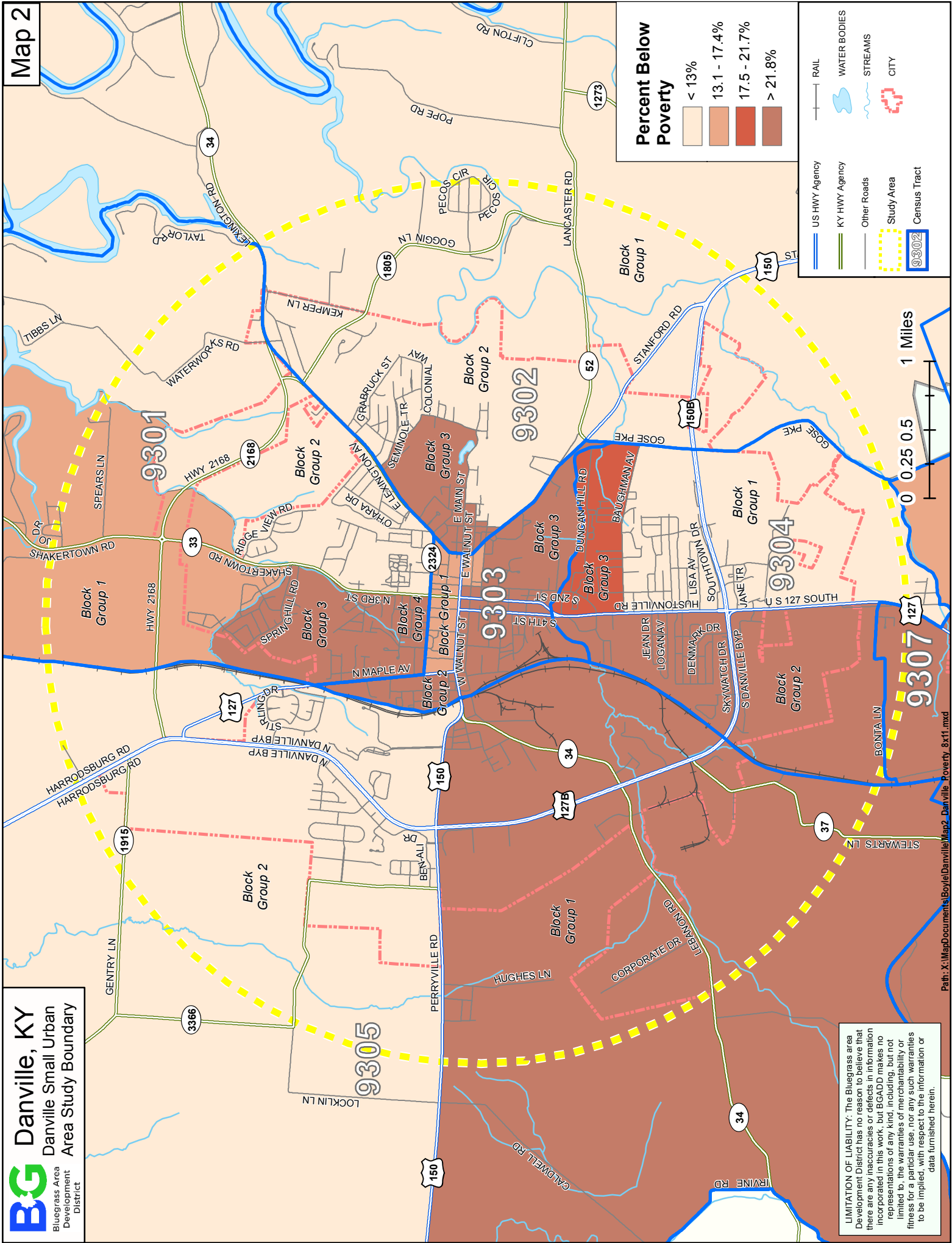
*See Map 2 for reference*

The total percent of the population below poverty for Boyle County is 17.5%. This is the established reference threshold (see below) for this category. This percentage is just under the state percent (18.6%) and above the U.S. (14.9%). For the study area nine block groups were identified as having populations significantly above the threshold established for below poverty status which should be considered for further analysis prior to commencement of any future projects:

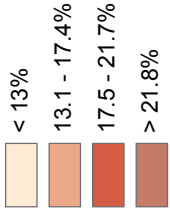
### Reference Thresholds and Analysis Range

<u>Analysis range</u>	<u>Percent BelowPoverty</u>
Significantly Above Threshold	> 21.8%
Just Above Threshold	17.6 – 21.7%
<b>Reference Threshold</b> (County Percentage)	<b>17.5%</b>
Just Below Threshold	13.1 – 17.4%
Significantly Below Threshold	< 13%

Census Tract / Block Group	Poverty
9301 / 3	30.9%
9301 / 4	56.7%
9302 / 3	29.9%
9303 / 1	25.3%
9303 / 2	28.0%
9303 / 3	25.7%
9304 / 2	33.0%
9305 / 1	24.6%
9307 / 3	26.8%



**Percent Below Poverty**



US HWY Agency	RAIL
KY HWY Agency	WATER BODIES
Other Roads	STREAMS
Study Area	CITY
9302	Census Tract

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## 8.0 Population by Person 60 and Over

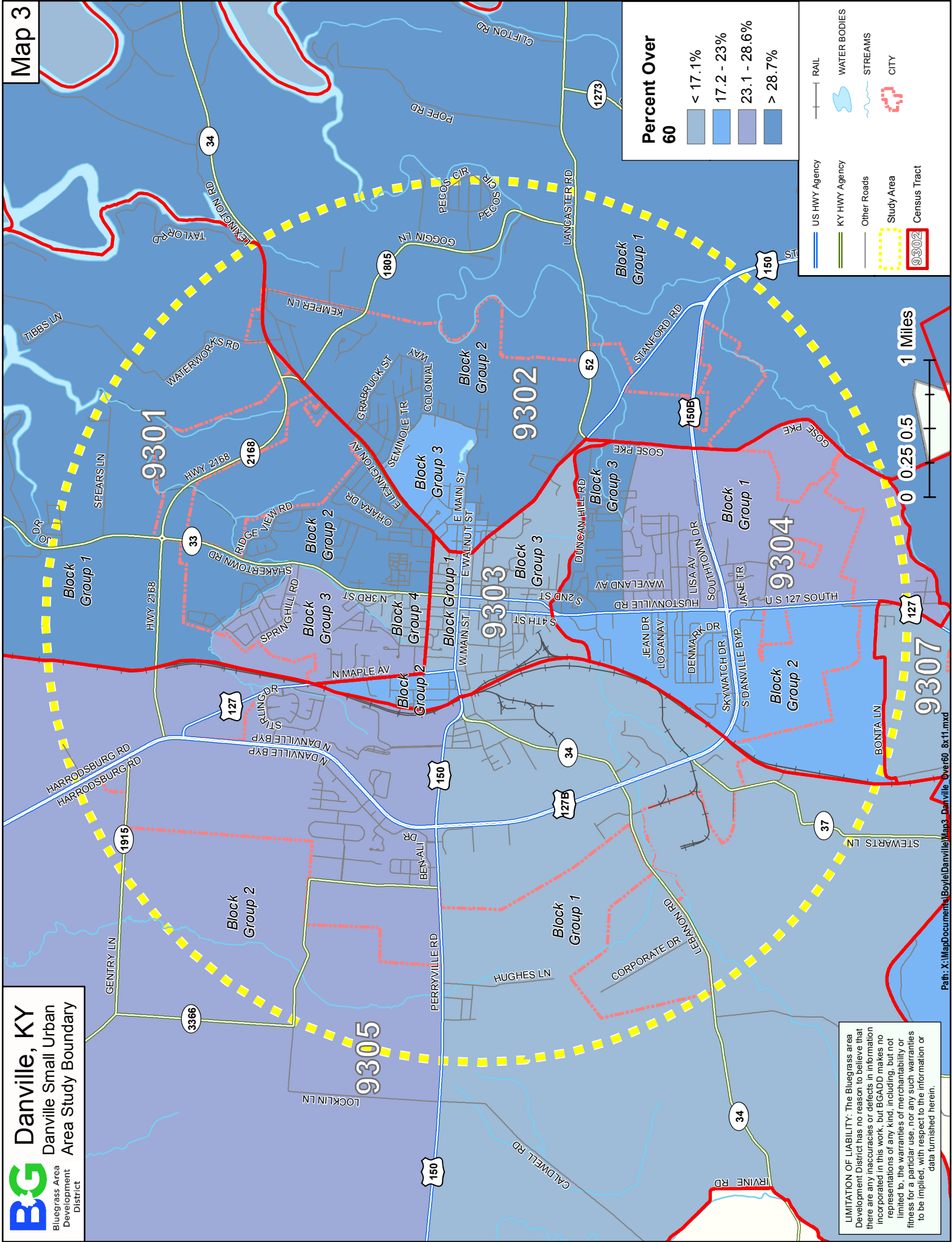
*See Map 3 for reference*

The total population of those over 60 years of age for Boyle County is 23%. This is the established reference threshold (see below) for this category. This percentage is above the state percent (19.2%) and the U.S. (18.6%). For the study area six block groups were identified as having populations significantly above the threshold established for below poverty status which should be considered for further analysis prior to commencement of any future projects:

### Reference Thresholds and Analysis Range

<u>Analysis range</u>	<u>Percent 60 and Over</u>
Significantly Above Threshold	> 28.7%
Just Above Threshold	23.1 – 28.6%
<b>Reference Threshold</b> (County Percentage)	<b>23%</b>
Just Below Threshold	17.2 – 22.9%
Significantly Below Threshold	< 17.1%

Census Tract / Block Group	Over 60
9301 / 1	28.8%
9301 / 2	28.9%
9302 / 1	29.0%
9302 / 2	36.0%
9304 / 3	30.8%
9307 / 4	34.3%



**Percent Over 60**

- < 17.1%
- 17.2 - 23%
- 23.1 - 28.6%
- > 28.7%

- US HWY Agency
- KY HWY Agency
- Other Roads
- Study Area
- Census Tract
- RAIL
- WATER BODIES
- STREAMS
- CITY

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## 9.0 Population by Disability Status

*See Map 4 for reference*

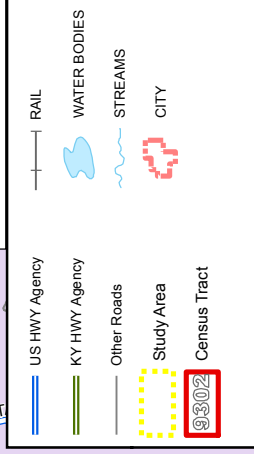
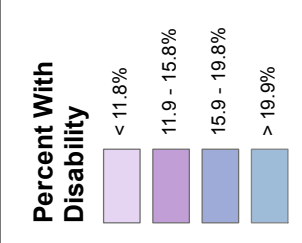
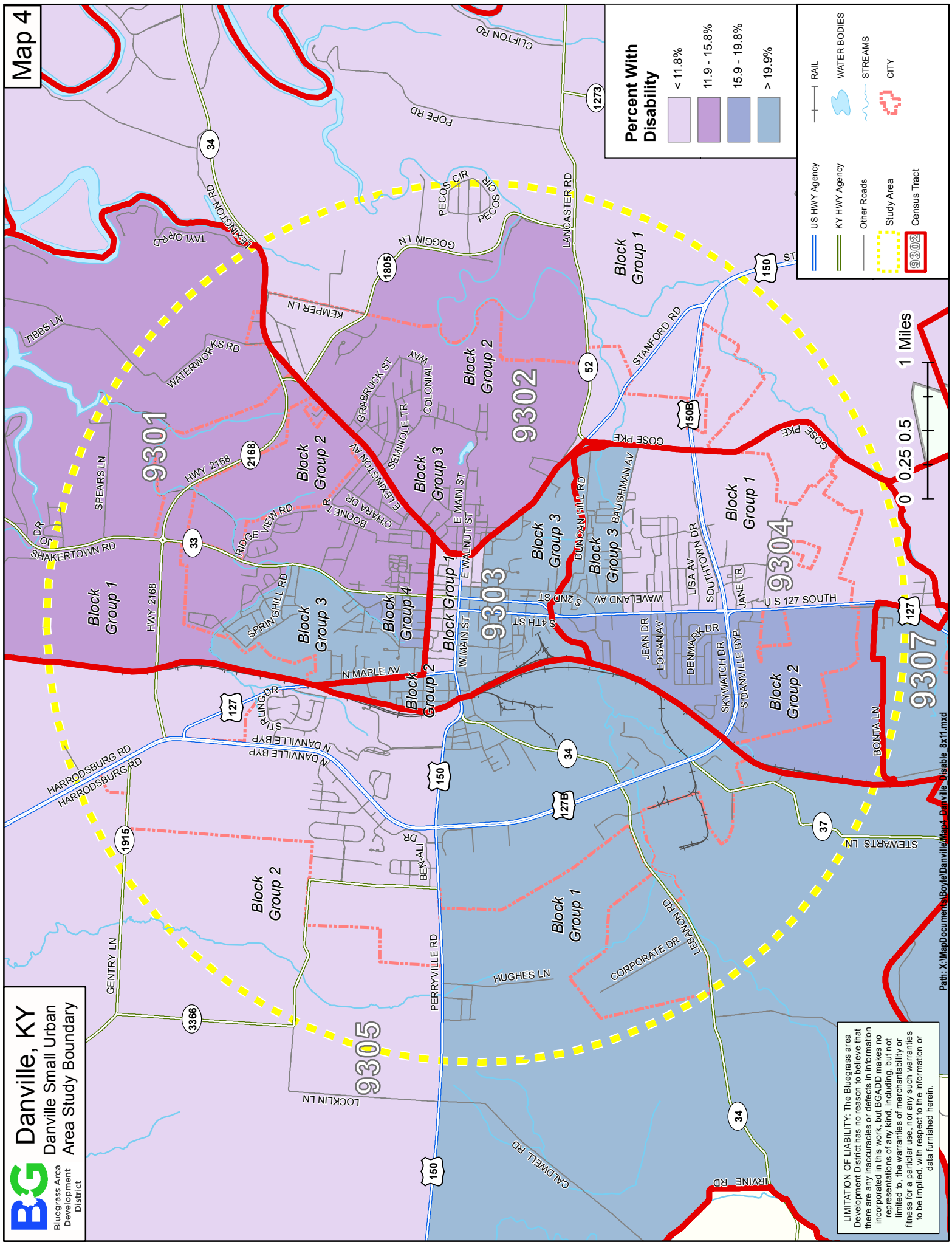
The total population claiming disability status in Boyle County is 15.9%. This is the established reference threshold (see below) for this category. This percentage is just above the state percent (15.4%) and above the U.S. (10.1%). For the study area eight block groups were identified as having populations significantly above the threshold established for below poverty status which should be considered for further analysis prior to commencement of any future projects:

### Reference Thresholds and Analysis Range

<u>Analysis range</u>	<u>Percent Disabilities</u>
Significantly Above Threshold	> 19.9%
Just Above Threshold	16 – 19.8%
<b>Reference Threshold</b> (County Percentage)	<b>15.9%</b>
Just Below Threshold	11.9 – 15.8%
Significantly Below Threshold	< 11.8%

<b>Census Tract / Block Group</b>	<b>Disabilities</b>
9301 / 3	27.1%
9302 / 3	20.4%
9303 / 2	20.4%
9304 / 3	30.8%
9305 / 1	20.4%
9307 / 2	20.4%
9307 / 3	20.8%
9307 / 4	34.3%





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## **Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies**

Updated: March 2014

### **Analysis**

Environmental Justice (EJ) analysis is required for any study that may result in disproportionately high adverse impact on a minority, low income, elderly or disabled population in or near the Affected Community.

Examples of these studies include, but are not limited to:

- Corridor Studies
- Traffic Studies
- Small Urban Area Studies
- Feasibility Studies
- Interchange Justification Studies
- Interchange Modification Reports

Affected Communities (AC) with potential EJ impacts are determined by locating target populations of minority, low-income, disabled or elderly and calculating their percentage in the area relative to a reference community of comparison (COC). A determination may then be made if there are potential adverse impacts to the AC.

Potential communities of comparison:

- The county percentage
- Nearby block groups
- Kentucky percentage
- The United States percentage

The demographics of the study area should be defined using Block Group data accessed via the American Community Survey 5 year data. KYTC will work in conjunction with the State Data Center to provide pertinent spatial data for minorities, low-income, elderly, and disabled populations on a yearly basis as the update schedule allows.

Target Population concentrations are considered elevated when:

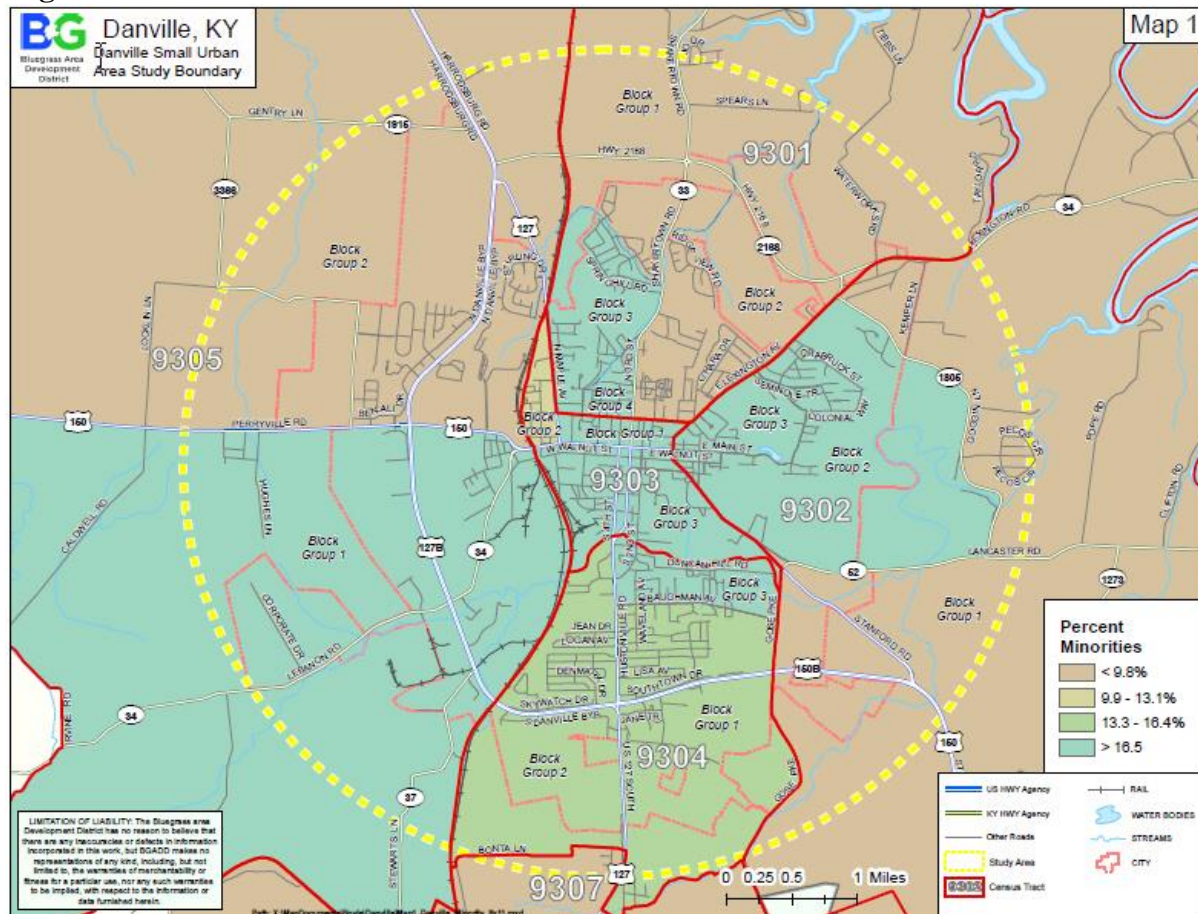
- Percentages of a population reach 25% greater than the county threshold
- Percentages of a population reach 50% or more of the affected community
- More than one EJ group is present

Thresholds or Census level of analysis from above, may be required pending size, sensitivity or other factors specific to given study. The selection of the appropriate unit of analysis may be a governing body's jurisdiction, a neighborhood, Census tract, or other similar unit that is to be chosen so as not to artificially dilute or inflate the affected population. If a level of analysis other than block group is needed, it should be agreed upon at the outset.

A map or shapefile of the alternatives will be provided by the consultant or KYTC to the applicable Area Development District (ADD). KYTC, in conjunction with the consultant, will review the ADD data for quality and completeness, and the consultant will summarize the information provided by the ADD in the final report. The full EJ should be placed in an Appendix.

Maps should be included in the EJ that depict the project area in relation to the Census tracts and block groups included in the analysis. Maps similar to **Figure 1** should be symbolized utilizing study and locality specific thresholds previously noted.

**Figure 1**



Information and data from PVA offices, social service agencies, local health organizations, local public agencies, and community action agencies may be used to supplement the Census data where necessary or applicable.

### **Additional Information**

In the event a study and accompanying EJ identify potentially adversely affected populations, the following information may be collected either through ADD, KYTC or consultant efforts as needed and under agreed upon terms.

- Community leaders or other contacts who may be able to represent these population groups and through which coordination efforts can be made.
- Locations of specific or identified minority, low-income, elderly, or disabled population groups within or near the project area. This may require some field review and/or discussions with knowledgeable persons to identify locations of public housing, minority communities, ethnic communities, etc., to verify Census data or identify changes that may have occurred since the last Census. Examples would be changes due to new residential developments in the area or increases in Asian and/or Hispanic populations.
- Concentrations or communities that share a common religious, cultural, ethnic, or other background, e.g., Amish communities.
- Communities or neighborhoods that exhibit a high degree of community cohesion or interaction and the ability to mobilize community actions at the start of community involvement.
- Concentrations of common employment, religious centers, and/or educational institutions with members within walking distance of facilities.
- Potential effects, both positive and negative, of the project on the affected groups as compared to the non-target groups. This may include, but not be limited to:
  - Access to services, employment or transportation.
  - Displacement of persons, businesses, farms, or non-profit organizations.
  - Disruption of community cohesion or vitality.
  - Effects to human health and/or safety.

### **Tips:**

- Only include data that is being analyzed. For instance there is no need to define Block Groups if they are not used. Similarly, Census Tracts should only be referenced as they relate to location of Block Groups discussed.
- Choropleth maps (shaded, color gradation) should be developed based on population percentage and threshold
- 1 page summary facing the adjacent related map is a functional, readily relatable format.

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This document was prepared in cooperation with the  
Kentucky Transportation Cabinet, 2014