SECTION 6

POPULATION

6.1 Population Projections

Population projections are necessary planning tools to prepare for future growth and development. Preparing for future growth can prevent overburdening current infrastructure and help identify systems and resources that are necessary to successfully handle an increase in population.

The science of predicting future population is at best, an estimate. Projections use existing data estimate available for births, deaths, migration, age/sex, and ethnicity to develop rates and run population scenarios that are plausible for future growth patterns. The US Census Bureau and the Texas State Data Center (TSDC) are two agencies that provide these estimates to be used or further analyzed by local communities for planning purposes.

The US Census Bureau and TSDC estimates vary due to accessible, updated, and available information. For example, the US Census Bureau uses the income tax data that is not available to other agencies to do the estimates. The TSDC uses current birth and death data not readily accessible to the US Census Bureau. The US Census Bureau also performs analysis at a national level with no regard to annexation and boundary changes that the TSDC considers.

6.2 Texas State Data Center

Population projection estimates developed by the TSDC incorporate migration patterns of ethnic groups by sex, age, standard birth and death rates to produce four scenarios of expected growth. The four common migration scenarios considered for Caldwell County are as follows:

1. Zero Net Migration (0) – Assumes immigration and migration rates are equal

2. Net Migration Equals One-Half 1990-2000 (0.5) – Average of Zero and 1990-2000 Net Migration rates. Assumes rates of one-half of the 1990's.

3. Net Migration Equal to 1990-2000 (1.0) – High growth alternative based on high growth rates on 1990's.

4. Net Migration Equal to 2000-2007 (200-2007) – Post 2000 population trends with reduced levels of migration.

According to the State Demographer, who develops the projections at the TSDC, the recommendation for most cases is the 0.5 scenario, where Net Migration is equal to one-half 1990-2000. The 0.5 scenario predicts the most practical growth scenario. However, after further review and consideration of SH 130, the State Demographer suggested that Caldwell County consider Scenario 1.0 for planning purposes.

Population projections for scenario 1.0 may be more practical with the change SH 130 will bring in connecting two of fastest growing cities. A population projection estimate at a micro-level can reveal that factors such as transportation, land use, development planning, density in adjacent counties and other local level data would cause a wave of growth for Caldwell County. The limitation of forecasting for projected population estimates at a micro-level is acknowledged by the TWDB.

6.3 Texas Water Development Board

The population projections that were developed by the TWDB and adopted into the State Water Plan on September 13, 2003 are presented in *Graph 6-1.* The projection for Caldwell County assumes that the population growth rate will be the same in the future as it was in 1990 and 2000. The growth rate estimates were

GRAPH 6-1
**TWDB Population Projections for Caldwell County**
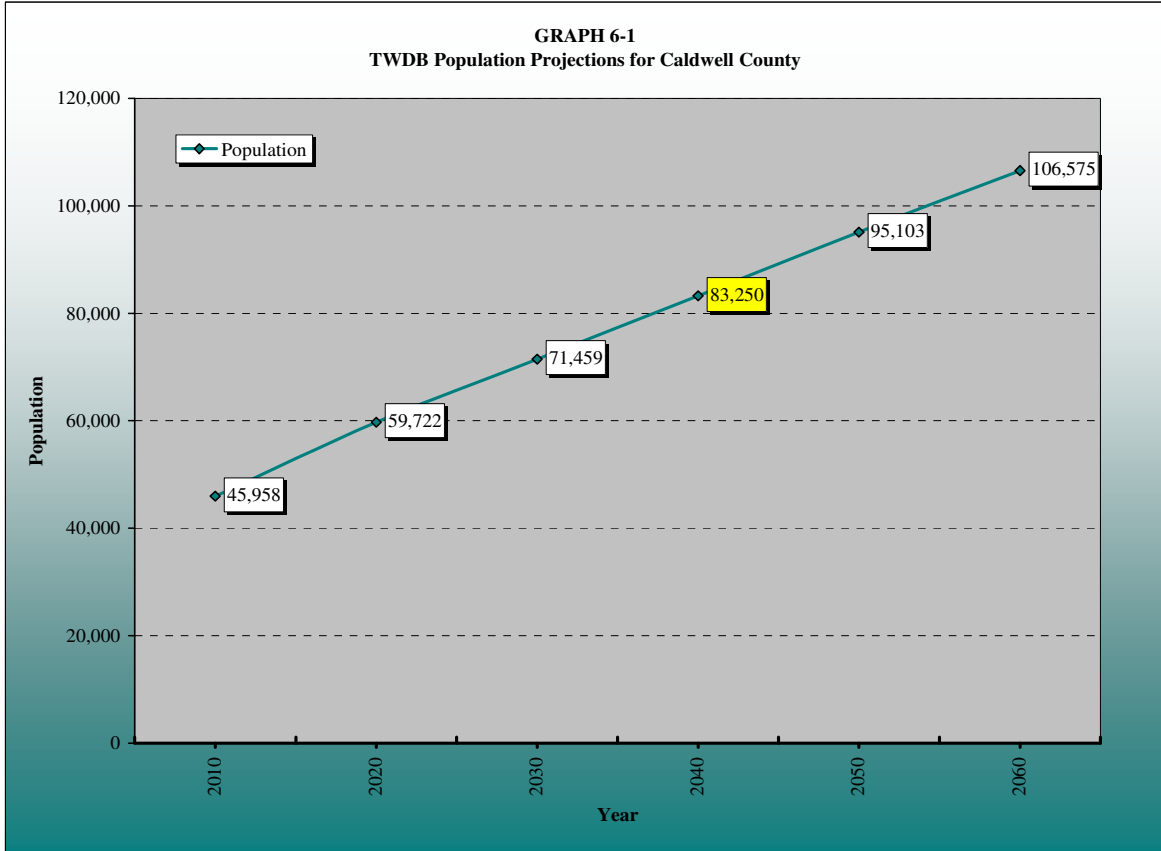
calculated using the most probable scenario from the Texas State Data Center (Scenario 0.5) for migration. The information from the Texas State Data Center was used as a baseline in establishing population projections.

The projections established by the TWDB are limited at forecasting the micro-level growth. The estimates do not account for events and moments that alter the demographics of a county. An event such as the completion of SH 130 can not be measured. The result in population change due to this event is considered to be underestimated. Historic patterns have not described the implications of new routes to population growth waves.

The population projections are presented in Volume II, Appendix 4.1, of Water for Texas dated January 2007.

6.4 Population History and Growth Estimates

Historically, a change in population due to events is noticeable in the acquisition of data. For example, in 1922 a man by the name of Edgar B. Davis discovered oil in what is now Luling, Texas. The "oil boom" was an event that impacted and changed Caldwell County. Only historic data, shown in *Graph 6-2*, can accurately illustrate the change.

GRAPH 6-2
Caldwell County Population by Decade
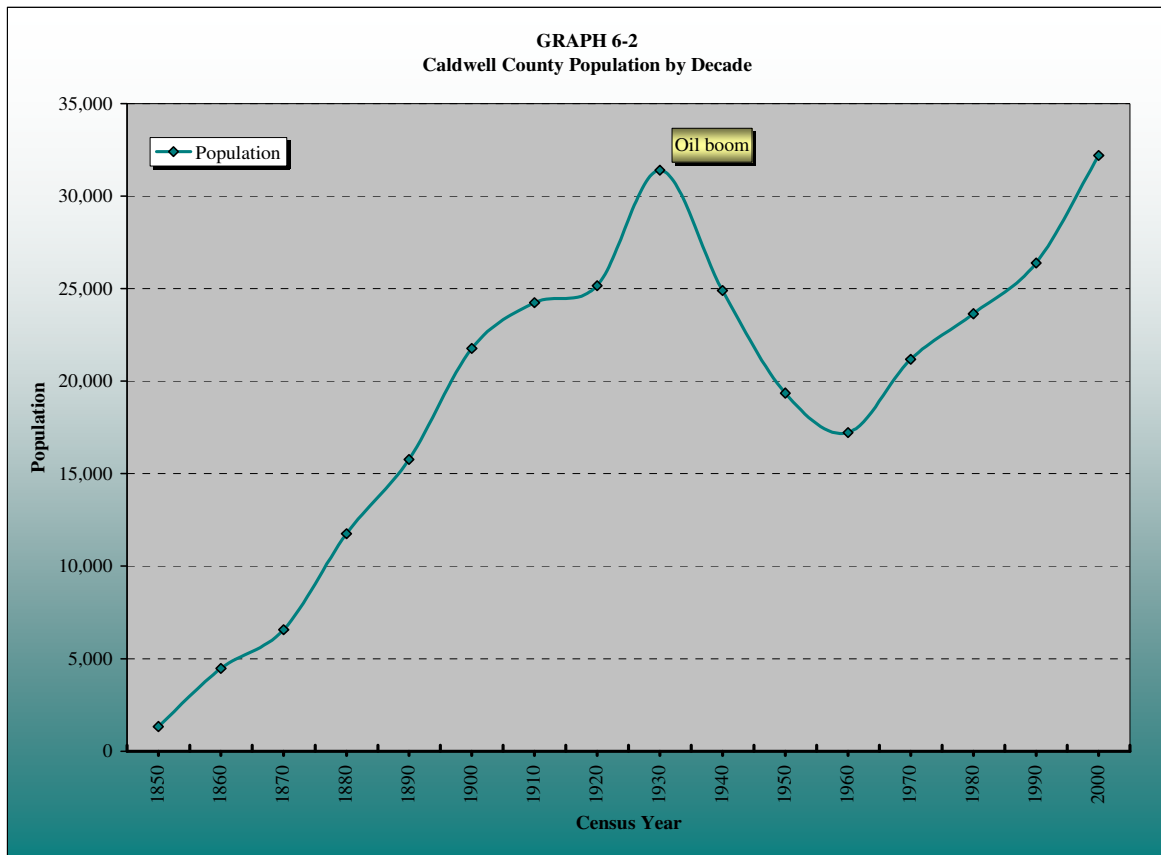
As the future of Caldwell County is being planned, it is recommended to plan for the most conservative scenario as stated by the State Demographer. As shown in *Graph 6-3*, the fastest growth case scenario from the data available is provided by the Texas State Data Center, scenario 1.0.

6-4

GRAPH 6-3
Texas State Data Center Population Scenarios for Caldwell County
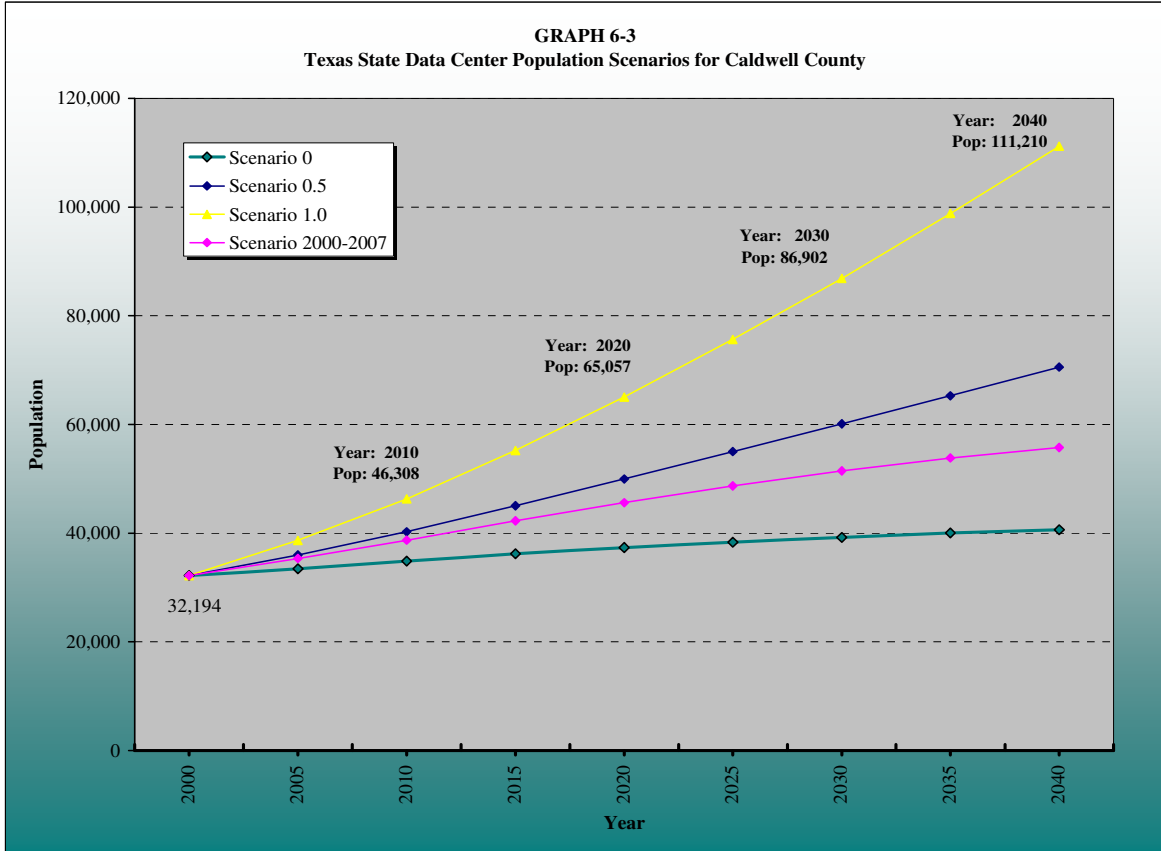
The TWDB estimates the population to be at 83,250 by the year 2040 and the Texas State Data Center estimates the population at 111,210 by the year 2040, as shown *Graph 6-4.* The individuals that will populate Caldwell County vary in opinion by as much as 25%. The TWDB does project population estimates in the hundred thousandths but it is not until the year 2060.

6.5   Population Consensus

The population projections were presented to the Caldwell County Technical Advisory Committee and Stakeholders in meetings. Although Caldwell County did not dispute the population projections developed by the TWDB in the SCTRWP, there was disagreement about the estimate. Through a consensus it was agreed to proceed with the estimates from the TSDC (Scenario 1.0) with a revision. The revision was to decrease the population projection in the year 2040

to a value that was within the values of the TSDC and the TWDB. *Table 6-1* has been prepared to list the estimated population values developed by the TSDC and the TWDB. It was agreed to proceed with an estimate of 100,000 in 2040 for the purpose of this study. Accordingly, population projections used for this study are listed in *Table 6-2*.
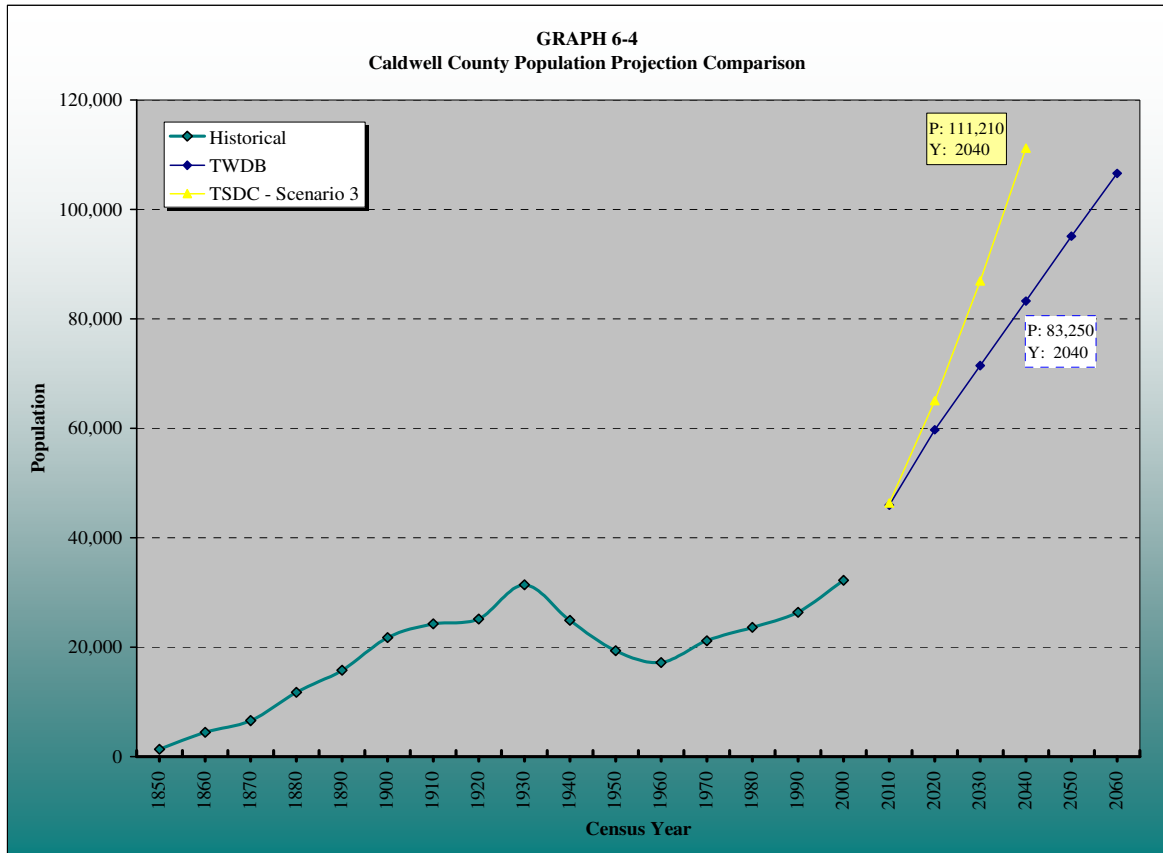
GRAPH 6-4
Caldwell County Population Projection Comparison

TABLE 6-1					
Population Projection Estimates					
Year	**Texas State Data Center Population Scenarios**				**TWDB**
	0.0	**0.5**	**1**	**2000-2007**	
2010	34,844	40,289	46,308	38,724	45,958
2020	37,355	49,975	65,057	45,622	59,722
2030	39,258	60,127	86,902	51,469	71,459
2040	40,677	70,593	111,210	55,752	83,250

6-6

TABLE 6-2	
Planning Study Population Projections	
Year	**Population**
2010	46,308
2020	65,057
2030	86,902
2040	100,000