

SECTION 2: REGIONAL SETTING, BACKGROUND INFORMATION, & DEMOGRAPHIC SUMMARY

PHYSIOGRAPHIC BACKGROUND

Tooele County is the second largest county in Utah, with 6,923 square miles of area. Salt Lake and Utah Counties bound it to the east. The southern border is Juab County, the northern border is Davis and Box Elder Counties and the western border is the State of Nevada. Most of the County's population lives in the eastern valleys where most of the irrigated and dry farmland is also located. Several hundred square miles in the western part of the county are arid desert, are largely owned by the federal government, and are sparsely populated. The County includes a portion

Climate

Utah's climate is variable, wet in some areas of the state and dry in others. This variability is a function of latitude, elevation, topography, and distance from moisture sources. The Wasatch Front region's climate borders a semi-arid, mid-latitude steppe climate that occurs along the perimeter of the Great Basin Desert, and a humid continental climate found at slightly higher elevations in the Rocky Mountain foothills (Critchfield, 1974).

Northern Utah has four seasons, low annual precipitation, convective and frontal storms, dry



of the Great Salt Lake desert, salt flats and is generally uncultivated. Altitudes range from 4,200 at the Great Salt Lake to 11,031 feet above sea level at the top of Deseret Peak in the Stansbury Mountains (Tooele County 2001).

Shared geographic, geological, natural, and social-cultural connections are important when considering natural hazards, pre-disaster mitigation, and emergency response and communications planning. Efforts should be coordinated between counties as much as possible to protect the public from natural hazard risks.

summers, low humidity, and large annual and diurnal temperature extremes. The Wasatch, Oquirrh and Stansbury Mountain Ranges bring most of the precipitation to the valley floor. The winter months bring heavy snow accumulation over the mountains that are favorable for winter sport activities. Spring runoff is at its peak from April through June and can cause flooding along the lower streams. Flash flooding from summer thunderstorms affects smaller more localized areas in this region from summer thunderstorms. Utah is the second driest state in the nation. The average annual precipitation in the Great Salt Lake desert

averages less than 5 inches annually.

During winter months, valley's experience fog and colder temperatures in low elevations and regular winds and increasing snow pack at higher elevations. During the summer months, temperatures can remain above 100° F for weeks, and drought can be problematic for farmers and ranchers.

The surrounding mountain ranges act as a barrier to the cold continental arctic masses. This also insulates the area during the day and cools the area rapidly at night. On clear nights, the colder air accumulates on the valley floor, while the foothills and benches remain relatively warm.

During the fall and winter months, smoke, haze, and fog can accumulate in the lower levels of stagnant air over the valley floor and can last for several weeks at a time. This is caused by areas of sinking air or high-pressure anticyclones settling over the Great Basin. Average wind speeds are usually light to moderate, usually below 20 miles per hour. Strong winds can occur in localized areas, mainly in canyon mouths along the western slopes of the Wasatch Mountains. Dust storms can occur in the western portions of the region. Tornadoes have occurred in this region but are uncommon. Severe hailstorms have also occurred in the region during the spring and summer months (some physiographic text and data taken from Tooele County's 2008 Pre-disaster Mitigation Plan).

Geology

The Oquirrh Mountain Range, running north-south, forms the border between Salt Lake, Tooele County, and the Stansbury Mountains. The western side of the Tooele valley forms the main physiographic features of the area.

The Salt Flats in the western portion of Tooele County are a remnant of Lake Bonneville's fine compressed sediment, comprised of salt that includes gypsum, potash, and calcium carbonate.

The region is characterized by numerous north-south oriented, fault tilted mountain ranges that are separated by intervening, broad, sediment-filled basins. Two additional landforms are typical of the Basin and Range region, including playas and

alluvial fans. Playas are undrained mud or salt flats that are composed of layers of sediments. Alluvial fans are erosional deposits of sand and gravel that typically occur at canyon mouths (Peterson, 1994). Many of the basins within the region were also modified by shorelines and sediments of inland lakes that intermittently covered the valley floors. The most notable of these was Lake Bonneville (Milligan, 2000).

The region is most commonly defined as an endorheic, or internally-drained, basin. As with the Basin and Range region, mountain ranges within the Great Basin were formed by faulting and subsequent erosion. In some areas, the mountain ranges have been so extensively reduced by erosion, and buried by the deposition of material, that only small remnants are visible above coalescing alluvial fans (Murphy, 1989).

The Bonneville Basin and associated Bonneville Salt Flats were formed through the recession and evaporation of the Pleistocene-era Lake Bonneville (Hallaran, 1994). The lowest elevation within the Great Basin occurs within the Bonneville Basin and is covered by the Great Salt Lake. The surface of the Great Salt Lake is approximately 4,200 feet (Fisher, 1994).

Environmental and Recreational Amenities

Tooele County has much to offer as far as environmental and recreational amenities. Some main attractions include numerous Pony Express stops, the Bonneville Salt Flats, Skull Valley and west desert area for motorsports, and numerous historical monuments.

In the county, there are many public and state parks that offer a variety of environmental and recreational amenities. There are various opportunities for recreation that are found in this region: reservoirs, fishing, hiking trails, camping and picnic areas, atv riding, wildlife watching, etc.

Modern society places increasing emphasis on the availability of good quality recreational amenities, which are seen as beneficial to the physical and mental health and quality of life of the population. The provision of recreational facilities has also been shown to reduce crime and vandalism, positively effect community economics,

and contribute to the development of stable communities.

Open Space is a large influence to residential and commercial development. The Wasatch Front Region is surrounded by relatively large amounts of open space. Currently, in Tooele County, large amounts of land are owned by the federal government. The urbanized area is fortunate to have exceptional access to the open space in the mountains to the east and to the west of the valleys. The Bureau of Land Management primarily administers the open space in the west desert area of Tooele County. Numerous nationally recognized winter and summer recreation areas for skiers, hikers and rock climbers are in close proximity. As a consequence, hundreds of thousands of people visit the public lands in the foothills and mountains of the Wasatch annually. Less notable and frequented, are the mountains to the west of the urbanized areas, such as the Oquirrh Mountains that divide Salt Lake and Tooele Counties. There are several natural streams emanating from these mountains as well as canyons that are mostly frequented by people living nearby. The majority of the Oquirrh Mountains is owned by Kennecott Copper Corporation, and is not generally available to the public for open space use.

Not only can open space resources be found in the mountains of the Wasatch, but private and public open space is also found in the valleys in the form of farms, developed and natural parks, golf courses, water features and vacant land. In many instances, these resources may receive more intensive use than those found in the adjacent mountains. Recently, because of the rapid growth in the area, citizens as well as state and local political leaders have become concerned about the relatively rapid loss of private open space resources, such as farmland and vacant land. Urban growth has put considerable pressure on the farmlands that can still be found in, or adjacent to, the urbanized areas.

REGIONAL DEMOGRAPHIC SUMMARY

Population Growth and Community Development

The total population for Tooele County is

approximately 61,598. The area population grew by 5.8% between 2010 to 2014, and 1.4% in the last year. (US Census Bureau, 2016). Grantsville had 10.5% increase in population growth adding 922 residents. Stansbury Park grew at a rate of 9.7% adding 316 new residents to the county.

Many of the jurisdictions in Tooele County may continue to experience high future growth rates, due to their proximity to Salt Lake County. As development from along the Wasatch Front continues to grow, Tooele County communities will most likely be utilized as an affordable bedroom community to Salt Lake to provide housing for those who work there.

Community and Economic Development Profile

In Tooele County, large amounts of land are owned by the federal government. Percent of land ownership is 78.5% Federal, 5.9% State, 0.3% Native American, 11.2% Private and Local Government and 4.1% water.

Employment in Tooele County is based on three main types of industry: government (23.8%), trade/transportation/utilities (14.9%), and professional and business services (14.0%). Other important sources of employment in the county are manufacturing (8.6%), education and health services (8.0%), leisure and hospitality (7.4%), and construction (6.3%). Some of the largest employers include Tooele County School District, Dugway Proving Grounds, EG&G Defense Materials, Detroit Diesel, U.S. Magnesium, Wal-Mart, Tooele County, and the Tooele Valley Regional Medical Center (UDWS 2007b).\

The employment rate in 2014 was approximately 62.6% with 31.3% of the population not in the labor force. The unemployment rate for the county in 2014 was 5.1% (Census, 2014).

Tooele County's per capita personal income in 2014 was \$22,423 and a median household income of approximately \$63,077. In 2014, 8.1% of the population was below the poverty line. The unemployment rate averaged only 5.1% for the year 2014 (Census, 2014). Tooele County School District is one of the largest employers.

Table 2: Major Employers in Tooele County**MAJOR EMPLOYERS – TOOELE COUNTY**

Company Name	Number of Employees
Department of Defense	1,000 to 1,999
Tooele County School District	1,000 to 1,999
Wal-Mart Distribution Center	1,000 to 1,999
EG&G Defense Materials, Inc.	500 to 999
Envirocare of Utah	250 to 499
Detroit Diesel Remanufacturing West	250 to 499
Tooele County	250 to 499
Tooele Valley Regional Medical Center	250 to 499
U.S. Magnesium	250 to 499

Source: Utah Department of Workforce Services

an opportunity to purchase flood insurance for their home. In order for individuals to be eligible to purchase flood insurance, their community needs to be a member of the National Flood Insurance Program (NFIP). It is fairly simple to join the NFIP with help from the State Floodplain Manager. There is also limited funding for flood mitigation projects for communities that are members of the NFIP. Currently 5 jurisdictions out of 14 in Tooele County participate in the NFIP (See Table 6 below).

Table 3: NFIP Participation

National Flood Insurance Program (NFIP) Participation and Flood Data/Status						
	Community Name	CID	Initial FIRM Identified	Current Effective Map Date	Online FIRM?	GIS Data Available**
TOOELE COUNTY	<i>Confederate Tribe of the Goshute Reservation</i>	NO INFORMATION AVAILABLE				
	<i>Erda</i>				Y	Limited
	Grantsville	490141#	11/18/2009	(NSFHA)	N	N
	<i>Lake Point</i>				N	N
	<i>Ophir</i>				N	N
	<i>Pine Canyon</i>				Y	N
	<i>Rush Valley</i>	NOT PARTICIPATING			Y	Y
	<i>Skull Valley</i>				N	N
	<i>Stansbury Park</i>				N	N
	Stockton	490144#	8/5/1980	11/18/09(M)	Y	Y
	Tooele	490145#	9/29/1989	11/18/2009	Y	Y
	Tooele County	490140#	11/16/1990	11/18/09(M)	Y	Y
	<i>Vernon</i>	NOT PARTICIPATING			Y	Y
	Wendover	490222#	8/19/1980	11/18/09(M)	Y	Y

Source: Federal Emergency Management Agency (FEMA) National Flood Insurance Program, 2015

* Unincorporated areas only

**(GIS) Geographic Information Systems (Mapping and geographic analysis software)

(E) Emergency Program or (R) Regular Program

(NSFHA) No Special Flood Hazard Area

NFIP PARTICIPATION & BUILDING CODE REPORTSNational Flood Insurance Program Participation

The National Flood Insurance Program was created in 1968 by the Federal Emergency Management Agency (FEMA) to provide homeowners living in the 100-year floodplain

Building Code Effectiveness Grading Reports (BCEGS)

The Building Code Effectiveness Grading Report was implemented in 1995 to evaluate current building codes in a particular community and to determine how well the community enforces its building codes. This program assigns each municipality a grade of one to ten, with one

showing excellent commitment to building code enforcement. The concept of the Building Code Effectiveness Grading Reports is that communities with effective, well-enforced building codes should sustain less damage in the event of a natural disaster, and insurance rates can be adjusted accordingly. More information on what determines a community's score can be found at: <http://www.isomitigation.com/bcegs/0000/bcegs0003.html>.

Table 4: Building Code Effectiveness Grading Report

Building Code Effectiveness Grading Report (BCEGS) Scores for the Tooele County Region (2008)			
Community	County	BCEGS Classification	Date
Grantsville City	Tooele County	BCEGS: RES 99 COM 06	1999
Stockton	Tooele County	BCEGS: RES 99 COM 99	1999
Tooele City	Tooele County	BCEGS: RES 03 COM 03	2003
Tooele County	Tooele County	BCEGS: RES 02 COM 02	2003
Wendover	Tooele County	BCEGS: RES 03 COM 03	1997

Source: ISO. 99 is used for jurisdictions which are either unclassified or do not meet the minimum criteria of the BCEGS program. This would include departments which do not do plan review, inspections, have legally adopted codes or have declined to participate in the ISO program.