

CHAPTER TWO: PLAN PROCESS & DATA ANALYSIS



GENERAL PLAN PROCESS

Plan Strategy

In the early 1990s, Tooele County officials determined that their 20-year-old county general plan was outdated and issues of growth and its impacts were becoming increasingly critical, especially in Tooele Valley. Tooele County officials hired a consultant team made up of planners and engineers from Gillies Stransky Brems Smith Architects, Wikstrom Economic & Planning Consultants, CH2M Hill Engineering, John Becker Public Relations, and Williams & Hunt Attorneys at Law. This team worked with the public and the county planners, engineers, planning commission, and other government officials. A Steering Committee of interested and actively-involved citizens was formed to work with the consultant team.

The process involved three phases. Phase One described existing conditions in the county and determined “what we have.” Officials and the public discussed conditions and important issues with the consultants and research and analysis of existing conditions was implemented. With this information, a status report was produced which provided data on land administration and uses, zoning, transportation, economics and demographics, environmental conditions, and infrastructure.

Phase Two of the general plan process determined the desired conditions and patterns in the county and described “what we need.” Surveys were sent to county residents to determine desires for the future of the county.

Public meetings provided additional information. The basic goals for the future of the county were determined.

The Third Phase developed implementation strategies, or answered the question “how do we get there?” Recommendations in response to specific issues of

land use, transportation, the environment, infrastructure, economics and demographics were determined for the county.

The plan document is organized with the first three chapters addressing the background (Chapter One), plan process (Chapter Two) and goals and policies (Chapter Three). Chapters Four through Nine address plan issues for each of six regions within the county. Chapter Ten summarizes the plan recommendations.

Planning Assumptions and Forecasts

Planning for Tooele County assumes current growth trends will continue. Growth is taking place throughout the State, particularly along the Wasatch Front.

The most recent (1994) Office of Planning and Budget projections are used as a basis to plan for future growth in Tooele County. These forecasts are summarized as follows:

Year	Population	School-Aged Population	Non-Ag Employment	Households
1995	27,230	6,995	9,558	9,124
2000	26,739	5,817	8,725	9,394
2005	31,134	6,153	9,995	11,254
2010	36,523	7,358	11,439	13,307
2015	42,657	8,998	12,912	15,559

Most of the recent county growth has occurred in the unincorporated areas. Because this master plan goals include directing the bulk of development into existing cities and towns, much of the forecasted growth should not impact county land development. Therefore, the following estimates of population growth in the unincorporated areas are provided to establish future land-use policy.



Planning Forecasts for Unincorporated Areas			
Year	Population Without Rural Area Growth Management	With Rural Area Growth Management	
		Population	
1995	6,355	6,121	2,000
2000	6,168	6,117	1,999
2005	7,839	6,155	2,011
2010	9,886	6,200	2,026
2015	12,217	6,252	2,043

Much growth in Tooele County is part of a Statewide growth trend, while some of the county’s growth is from interest in rural residences within commuting distance to urban work places. Travel to work and shopping is necessary and the need for transportation systems from rural residences to urban centers will continue. Concentration of work and shopping opportunities in urban centers helps preserve the rural amenity.

Growth in Tooele County will make demands upon natural and environmental resources and can impact resource quantity and quality. Industrial interests will continue in the County. Commercial and residential interests will make demands for developable land and resources to support them.

Tooele County benefits from several military reservations as a major employment base. This benefit will likely continue for some time with modifications as the bases are either closed or converted to other purposes.

Plan Vision

Tooele County is honored by its history and is inspired by its potential for the future. The planning processes attempt to encompass the variety of community ideals into a vision which promotes the best possible, yet most realistic, future.

In Tooele County a balance of good economic health and little or no growth is desired. The open and rural appearance of the county is a shared asset which members of the community would like to preserve for the future.

Tooele County’s vision includes the following:

- C Amenity of open space preserved.
- C Diverse employment and business opportunities for economic health.
- C Safe, accessible transportation.
- C Environmental quality protected.
- C Resources wisely developed.
- C Reliable, quality services.

The General Plan serves as a framework for decision making to help realize this vision.

Tooele County Planning Districts

To help understand and organize the planning issues and recommendations, the plan divides Tooele County into six planning districts. These geographic regions are described below:

Tooele Valley: Located in the northeast portion of the county, Tooele Valley is the major population and economic center of the county and is experiencing the most growth pressure.

Rush Valley: Located south of Tooele Valley, Rush Valley is the second most populated area. It has good agricultural and water resources. Ranching is the primary economic occupation.

Skull Valley: Located between the Stansbury and Cedar Mountains, Skull Valley is sparsely populated, and has limited agricultural activity. Access to Dugway Proving Ground is through Skull Valley.

West Desert: Located west of Skull Valley, the West Desert consists primarily of federally-owned land (Utah Test and Training Range and Dugway Proving Grounds). Outside of the military areas there is no private economic activity or population.

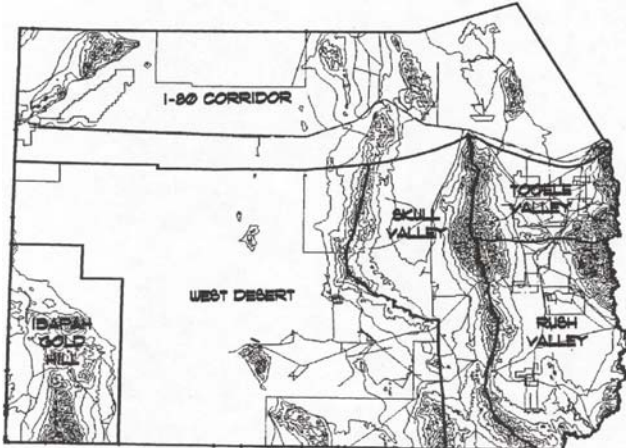
I-80 Corridor: Located in the northern edge of the county, I-80 is the major east-west transportation corridor across the county and provides access to waste disposal sites and the city of Wendover.

Ibapah/Gold Hill: Located in the southwest corner of the county, federal lands isolate this district from



the rest of the county. This district includes the Deep Creek Mountains and the small communities of Ibapah and Gold Hill.

Each district chapter addresses land use, economic and demographic, infrastructure, transportation, environmental, and cultural and scenic resource issues.



PUBLIC PARTICIPATION PROCESS



Citizens want their desires for the community represented and good planning seeks and obtains public input. The actual documentation of these desires and goals as a General Plan provides a legal basis for zoning and also serves in an ongoing process of gathering information and decision-making toward achieving community plan goals.

The public has had, and will continue to have, a variety of prescribed occasions in which to participate in the Tooele County general plan process. Opportunities for the public to be heard have included: community workshops in Tooele, Grantsville and Stansbury; surveys mailed to other areas of the county; and a Steering Committee of citizens and officials of Tooele County.

Workshops and Surveys

Community workshops held in Tooele, Grantsville and Stansbury Park provided an opportunity for residents to present to the consultants the issues, concerns, and ideas they want the plan to address.

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The importance of the rural residential lifestyle and maintenance of the rural character of Tooele County was emphasized. Protecting farm lands, recreation, open space, and wildlife is very important to many residents who spoke at the meetings. The need for expansion in commercial areas, industrial areas, and the growth in the residential population is also a concern for residents.

Economic concerns regarding jobs, affordable housing, and the Tooele Army Depot conversion were expressed in the workshops. The coordination of infrastructure is desired for better service, especially regarding water resource infrastructure and transportation systems in the county.

The county has a high quality residential potential, good wildlife resources, mountain, wilderness, and tourism opportunities, yet suffers in image because of the hazardous waste disposal facilities in the west desert and the Army's storage and test facilities.

An opinion survey was mailed to the unincorporated areas of the county using solid waste utility billing addresses obtained from the Sanitation Department for the Ibapah-Gold Hill, Rush Valley, and Skull Valley areas of Tooele County. The survey asked for comments on desired growth, employment, retail/commercial services, housing, transportation, public facilities and utilities, delivery of services, military and federal presence, and natural and cultural resources. Areas of the county which had little or no population (West



Desert and the I-80 corridor) did not participate in the mailed survey. Tooele Valley did not participate in the mailed survey due to public meeting opportunities and community representation on the Steering Committee. Survey responses grouped by response area follows.

Rush Valley residents indicated they'd like very little or no growth occurring in their valley. Their reasons were: to maintain the rural lifestyle, lessen crime and lower housing costs; and that there isn't enough water, economy activity or employment to support growth. Yet some expressed the notion that growth is inevitable and also responded they would like new buildings to replace old and more retail and job opportunities.

The type of shopping they desired most was convenience stores, followed by hardware stores. Water is believed to be used to capacity with some debate over appropriateness of some uses. Public services are considered to be basically adequate, but some concerns were expressed over the need for 24-hour emergency service and ambulance with decreased response times, and increased service for telephone, police, schools.

Important military and federal presence issues are the benefits of job security and the concerns over safety of population due to proximity to military operations. Natural and cultural resources of the area are thought by respondents to be facing a variety of threats including: growth and development, the large amount of federal land, waste industry, off-road vehicles, and grazing. Solutions suggested include: preservation of open spaces and wildlife habitat, less recreation or recreation coordinated with federal agencies, deter vandalism and littering, and leave things as they are (reflecting no growth sentiment).

Skull Valley residents desire a slow-growth or no-growth scenario. Respondents work on ranches and at Dugway Proving Ground and want Dugway kept open. Respondents shop in Tooele and Salt Lake City, and would like clothing, hardware and agriculture machinery supplies and repair to be more readily available.

Housing in the valley is viewed as adequate, as is

transportation (with some need seen for greater level of maintenance). Public facilities needed include: more campgrounds, country stores, a central sewer system, and increased power. Military and federal operations are relied upon for employment and grazing arrangements.

Respondents promote the preservation of open space, wildlife habitat, parks, trails, archeological sites, and historic resources. Respondents desire public services including: daily mail service, animal control services and increased police protection.

Ibapah respondents current lifestyles can be maintained with little growth. Restaurant or fast food, and Indian craft store are suggested commercial developments. Respondents travel to Tooele Valley and the Salt Lake City for their major purchases, and see little need for a greater level of retail available in their area. Housing for respondents is adequate, but there is a need for more available houses and rental units.

Transportation systems are rated as good, as are public facilities and natural and cultural resources. The desire for TV booster and historical markers was expressed. Respondents desire public services including: Radio Emergency Preparedness program, greater fire protection, and a high school.

Please refer to Appendix A for written comments from community workshops and Appendix B mail survey results.

Steering Committee Meetings On District Issues

One Steering Committee meeting addressed issues of Ibapah-Gold Hill, West Desert, I-80 Corridor, Skull Valley and Rush Valley Planning Districts. Interviews with county officials, previous public meetings, and surveys mailed to three of these districts were used to determine the most important issues to discuss with attendees of the meeting. Resultant issues of each planning district were discussed and are summarized below.

Ibapah-Gold Hill planning district issues include access to BLM lands; development of historic, recreation, and environmental resources; protection of rural lifestyle; and balanced water uses and resources. Growth is not a



a pressing issue in this district and residents are basically satisfied with services.

In the West Desert planning district most of the land is under Federal control (Dugway Proving Ground), so little of this area requires county services. There is little growth, but there is interest in opening recreation opportunities in the Simpson Mountains. Planning for the West Desert area should preserve the character of this area and continue current density designations and land uses.

The I-80 Corridor planning district issues include recreational uses and development of historic, recreation, and environmental resources. Some commercial and industrial development opportunities are possible. Developmental impacts upon the character and appearance of the district could be significant.

Skull Valley planning district issues include zoning of Terra and private ranches in the valley, access to Wasatch National Forest and Dugway Proving Ground, development of historic resources, the fluctuating levels of growth associated with the changing employment demands of Dugway, and desires of residents to protect the rural lifestyle in the valley.

Rush Valley planning district is experiencing the greatest growth pressure outside of Tooele Valley. Issues associated with this growth pressure include the debate over whether to locate development in incorporated towns or in the county; increasing interest in recreation and recreation-related development; access to BLM lands and Wasatch National Forests; development of historic resources; efforts to balance water resources with water consumption; and protection of the rural environment and lifestyle.

Another Steering Committee meeting addressed issues specific to Tooele Valley. Maps were presented showing open and developed areas in the valley, Tooele City, Grantsville, Tooele Army Depot North Area and development concentrations at Erda, Pine Canyon/Lincoln, Lake Point, and Stansbury Park, and the possible level of development in the valley if dense development/buildout were to occur throughout

the valley in areas currently enjoyed as open space-- between Lake Point and Tooele City along SR 36 in open spaces east and west of the state road, on northern foothills of Oquirrh Mountains, and in area between Grantsville and TAD. These maps are included in Chapter Four.

The Steering Committee recognized that once development takes place in an inappropriate or undesirable place, the previous open or rural use is lost forever. Among those natural resources and community assets which could be disturbed or destroyed by inappropriate development are views, slopes, ridgelines, access to recreation, and wildlife. The consensus was that such impacts are undesirable.

Service delivery in Tooele Valley was another important issue discussed by the Steering Committee. The limited water should not necessarily be relied upon as a constraint to development. Rather, development should be directed by the community through planning and policy. Regulations and policies that promote the interests of the community in preserving open space and finding appropriate locations for new development and their design are necessary for the general plan of Tooele County.

Commercial and industrial development in the Valley presents special concerns regarding appropriate densities and locations for preserving open spaces in the district. Traffic and access are also issues in the valley.

Public Meetings

The planning response to county issues were presented for comment at two public meetings. Goals, plan component policies, and district recommendations were presented. Questions about transportation systems, zoning, proposed changes, and other issues were answered by county officials and the consultant team.

Meeting attendees responded to presentation materials and discussions with written comments on forms provided at the meetings. Their comments are in the Appendix. Generally, the public supported the Plan,



its Goals and Recommendations. Most questions and comments pertained to respondents' personal situations. (Please refer to Appendix C for public comments taken at public meetings from questionnaires.)

Other Comment/Data Resources

In addition to the public meetings, surveys and steering committee meetings, the consultants met with representatives from various public and private agencies in the county. These include representatives of the Forest Service, Tooele Army Depot, Division of Wildlife Resources, economic development, local real estate agents, engineers, city officials, law enforcement, emergency services, and others. In addition, the consultants toured the county by van, visited the USPCI, Aptus and Envirocare facilities and have conducted visual observation of much of the county.

Public Review and Adoption

The general plan is a document written to address pertinent issues and specify appropriate goals for meeting the vision of the county's future. These issues and goals address both long and short range planning. Issues should include natural and culture resources, strategic and growth management of economic development, housing, funding and fiscal management, transportation, public utilities and services, and military and federal interface. Also, the plan addresses issues particular to the six planning districts of the county. Finally, the plan recommends policies and implementation programs for achieving the goals of the community for its future.

Before the plan can be used in official capacities it must be presented in a draft form for review by the public. At the public hearing, comments and ideas are accepted for analysis and inclusion in the final goals, policies, implementation programs, format, and overall vision of the final plan. This draft is also available to other agencies for comment, particularly to avoid conflicts with agencies that share interests, such as jurisdiction, borders, or general area goals with the agency making the general plan. The public hearing draft is next reviewed and revised by the members of the planning commission and steering committee in a joint effort.

Following the public review, results of the review are included in the plan, misconceptions are discussed, potential legal implications and procedural requirements are satisfied. In conjunction with the legislative body which takes public comment and the advice of the planning commission another public hearing is held. The legislative body may adopt the plan, amend and then adopt or reject the plan, or reject the proposed plan. After adoption of the plan, revisions are made for printing of the final document.

PLAN FORMAT

The Tooele County General Plan document consists of ten chapters. The first chapter provides background information with discussion of the county's role in the region. The second chapter describes the planning process, strategies used in the process, and information regarding the following plan elements: land uses, open spaces, economics, demographics, transportation, the environment, public facilities and utilities, local governments, and cultural and scenic resources. The third chapter describes the four primary General Goals, and then groups policies for the plan elements under the General Goals. The fourth through ninth chapters address planning issues of the six planning districts. The tenth chapter summarizes the recommendations of the Tooele County General Plan.

Growth and The Plan

Growth should be directed by planning policies which express community preferences and ideals. It is within the power of a county's general plan to adopt policies which represent both general and specific goals for the future of the county. The policies of the general plan can then be implemented by zoning and other ordinances of law. The policies of the general plan can be specific and strong enough to accomplish the goals of the county

Updating The Plan

A General Plan must respond to change. Changing and updating the general plan requires a process similar to the one used to research, prepare, and adopt a General Plan. The updating and amendment process should relate these steps to the potential changes in the plan



and the impacts of those changes upon policies and programs.

SUMMARY OF EXISTING CONDITIONS

Following is an overview of “what we have” regarding land uses, open spaces, economy and demographics, transportation systems, environmental conditions, recreation resources, public facilities and utilities, public services, cultural and scenic resources in Tooele County.

LAND USE ANALYSIS

Residential

The greatest concentrations of residential development in the county are in the Tooele and Rush Valleys. The character of residential development in the county is rural. Even in Tooele Valley a rural character is present upon five and ten acre properties. Traditional residential development patterns account for the “blocky” nature of residential development in Tooele Valley. Spatial separation of homes (by means of these blocks of privately owned land) seemingly promotes privacy, so traditional development has been popular. Movement away from using traditional residential land use patterns to guide development to new patterns and combinations of development methods should protect the environment and amenities of Tooele Valley and county as growth pressures increase.

Communities of the other areas of the county are remote and residences are grouped loosely in the more hospitable environs of the county. While quiet and natural surroundings are enjoyable, they must be traded-off with longer travel to school, work, and shopping and receiving a lower level of county services. The county can facilitate this kind of residential living while preserving the resources and character of rural areas.

Agriculture

Agricultural land uses occur throughout the county. Small, isolated farms are located in the Ibapah-Gold Hill and I-80 planning districts. Greater concentrations of

agricultural land uses occur in Skull, Rush, and Tooele Valleys. Agricultural land use is vital to citizens of Tooele County. This continues to be true in the county even in the face of declining traditional agricultural support for businesses such as farm machinery sales and supplies.

Water availability is good in agriculturally denser areas. In more remote areas such as Ibapah, the smaller water resources are generally available to agriculture. In the future, however, as new growth and different land uses compete for available water and lands, Tooele County should also support agricultural land uses.

Commercial/Industrial

There are few commercial land uses in the unincorporated county. Concentrations of commercial land use are located at Lake Point (attracting travelers off I-80) and a few convenience and specialty stores associated with Stansbury Park. The county’s industrial business park is located north of Tooele. Recreation-related commercial development is at a low level, but could take advantage of increasing interest in mountain and desert recreations available in Tooele County. Larger, denser commercial development is best suited to locate in the incorporated cities of the county. There, businesses can take advantage of the concentration of businesses, services, population, and infrastructure.

Industrial activities in Tooele County include mineral and gravel extraction operations, auto salvage in Tooele Valley, lake-based industries near the Great Salt Lake, hazardous waste incineration and storage in the Hazardous Waste Zone located near I-80, and federal military operations.

Open Space Preservation

Open space and ranching uses combine in the Ibapah-Gold Hill planning district; in Skull Valley ranches and wildlife benefit from the wide open character of the valley; and the West Desert is used as the location for military proving grounds due its open and desolate character. These three districts face little or no adverse impacts of growth. However, the I-80 Corridor,



Rush Valley, and especially Tooele Valley districts are experiencing growth at a pace which threatens open space assets. Protecting the rural character of these districts against sprawled development could be achieved through open space preservation.

Open space in and around towns often gets taken for granted, but people are strongly affected when such land begins to sprout buildings and parking lots. Few things change the character of rural communities more than the conversion of these natural areas to development. Whether appreciated for their aesthetic, recreational, or sporting benefits, such areas should be preserved.

Both farmland and open space preservation are important to Tooele County for many reasons.

Preservation of Rural Life-Styles:

Tooele County has a rich agricultural heritage. The entire agricultural scene describes a culture and a way of life. Preservation encourages and fosters a rural lifestyle important to Tooele County.

Maintenance of Open Space:

The open space qualities of farmland preservation are significant. It provides productive, privately maintained agricultural open space with environmental benefits that include rural aesthetics and an increase in air and water quality. Similarly, the significance of open space, as a result of large lot residential clustered development, cannot be undervalued. These open space areas are vital to buffer the agricultural preservation areas.

Protection of the Environment:

Farmland preservation protects the rural environment- especially sensitive headwater areas, conservation areas, wildlife habitats, and flood plains from the impact of development. It also serves as a “clean air shed” to clean the atmosphere, as well as a mechanism to protect the quantity and quality of water resources.

Public Costs and Preventing Urban Sprawl:

Sprawl costs money and with limited economic resources it is important that non-renewable land resources be preserved, thus encouraging orderly

development and growth. The following chart shows the cost of community services in residential, commercial/industrial, and farmland/open space.

The prevention of urban sprawl helps to conserve the region’s air, water, land, and energy resources. Development should be encouraged in specified growth centers.

Economic and Demographic

The economy of Tooele County is in fact several “mini-economies.” The more remote, rural areas are resource-based economies that rely on mineral extraction and ranching while the developed and populous Tooele Valley is more multi-dimensional with active roles played by the manufacturing, retail and wholesale trade and government sectors. The East Wendover area is dependent on gaming and its associated tourism.

The overall economic strategies for each of these areas vary from the promotion of a full-service economy in the northeastern portion of the county to less intensive development in the west desert area. The sensitive, desert environment of much of the county cannot support increased population or development. Natural resources, in particular water resources, will always serve as a limitation to potential growth in the county. The economic development needs must be balanced with the availability of resources and potential impacts not only on the environment, but to the traditional way of life and values of the community.

The economic analysis and strategies are based on a review of the trends in demographics, income, employment and sales and an analysis of the primary influences for future growth in the county.

Population

The two decades following the completion of the 1970 master plan contrasts rapid population growth in the 1970s with the essentially stagnant 1980s. Over the twenty-year period, Tooele County population increased from 21,545 to 26,601 or by 24 percent; but the growth in the 1970s was roughly nine times the rate experienced in the following decade. The 1980s were characterized by declining birth rates and



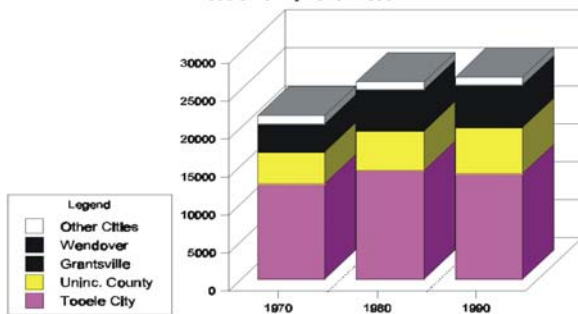
and the outmigration of young adults -- obviously related trends as the young adult population accounts for a large proportion of the birth rate. Also, the male proportion of the county's population dropped from 60 percent to 51 percent. This reflects the contracting role of the defense department in area employment over this same period. Since 1970, the average household size has steadily declined.

	1970	1980	1990
Total Persons	21,545	26,033	26,601
Total Families	5,212	6,578	6,783
Total Households	6,078	7,982	8,581
Persons Per Household	3.49	3.23	3.06

During both decades, county growth has trailed the statewide average growth by a fairly substantial margin. During the 1980s, the state grew more than seven times faster than the county -- a fact that illustrates that while the county's population center lies within close proximity to the state's fast-growing Wasatch Front, it has remained somewhat isolated from the more intense growth pressures of the urban area or the entire state.

Growth over the past decade has generally occurred in the unincorporated area of the county while population has been decreasing in the cities of Tooele, Stockton, Rush Valley and Ophir. Grantsville and Wendover grew dramatically from 1970 to 1980 and continued to grow at a more moderate pace between 1980 and 1990. Even with the shift of population from towns to rural areas, the city of Tooele remains the county's population center with 13,887 residents in 1990.

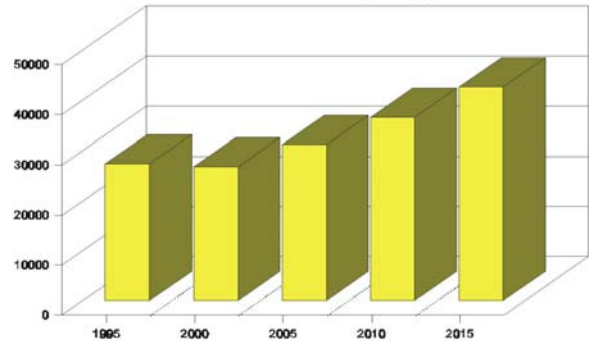
Population By Area
Tooele County 1970 - 1990



The Utah Office of Planning & Budget (OPB) projects population in Tooele County to increase through the year 2015 at an average annual rate of 1.9 percent, resulting in a population of 42,657. The population is anticipated to remain fairly flat through the year 2000 with most of the growth occurring between 2005 and 2015. Recent figures suggest that the growth rate may be higher than originally estimated, with fairly high levels of growth during the first half of the 1990's

Population Projections

Utah State Office of Planning & Budget



The school-age population increased from 6,838 in 1970 to 7,310 in 1990. The state projects school-age population to decline over the 1990s to 5,817 in the year 2000, then anticipates a steady increase through 2015 to 8,998.

Household Income and Poverty

In 1979 Tooele County had a slightly higher average household income than household incomes statewide (\$20,840 compared with the state average of \$20,312), but by 1989 the average income level in the county was \$2,771 less than the state average. However, in 1989, the median household income in Tooele County was \$3,178 higher than the statewide median. This is because the income distribution for the state includes a higher percentage of households in the highest income levels.



Summary of Ratios from Cost of Community Services Studies (In Dollars)

	Residential	Commer./ Industrial	Farm & Open space
Connecticut:			
Hebron	1 : 1.06	1 : .42	1 : .36
Massachusetts:			
Agawam	1 : 1.05	1 : .41	1 : .30
Deerfield	1 : 1.16	1 : .37	1 : .29
Gill	1 : 1.15	1 : .34	1 : .29
New York:			
Beekman	1 : 1.12	1 : .18	1 : .48
North East	1 : 1.36	1 : .29	1 : .21
Median Ratios	1 : 1.14	1 : .36	1 : .30

Source: American Farmland Trust

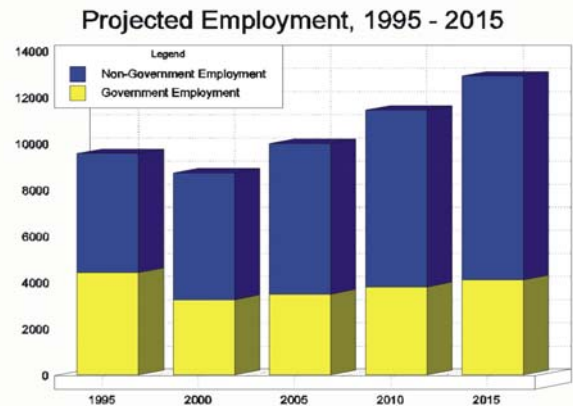


**Distribution of Household Income
Tooele County and State of Utah
1989**

	Tooele County Households	State
Households	8,481	537,196
Mean Income	\$32,300	\$35,071
Median Income	\$30,178	\$27,000
	% of Tooele County Households	% of State
Under 5,000	4.3%	4.5%
5,000 to 9,999	8.2%	8.2%
10,000 to 12,499	4.6%	4.8%
12,500 to 14,999	4.9%	4.4%
15,000 to 17,499	4.4%	5.0%
17,500 to 19,999	4.1%	4.6%
20,000 to 22,499	5.1%	5.3%
22,500 to 24,999	4.2%	4.6%
25,000 to 27,499	6.2%	5.3%
27,500 to 29,999	3.7%	4.3%
30,000 to 34,999	9.8%	9.2%
35,000 to 39,999	9.6%	7.9%
40,000 to 49,999	12.8%	12.1%
50,000 to 74,999	15.0%	13.8%
75,000 or more	3.3%	6.0%

Sources: Utah Office of Planning & Budget and Wikstrom Economic & Planning Consultants, Inc.

Average incomes for the various parts of the county are illustrated below. For the most part, the average incomes in the towns is near or above the county average income levels. The notable exceptions are Wendover with a mean household income of \$23,968 and Ophir with an average income of \$26,945. The highest average incomes are found in Stansbury Park (\$46,674) and Rush Valley (\$41,077).



Employment

As of 1991, there are 10,219 jobs in Tooele County. Between 1970 and 1980, total non-agricultural employment in the county increased by 6.5 percent while real personal income for the same time period increased by 40.4 percent. Many of the job increases were in high-paying industries (mining, finance, insurance and real estate). It is also possible that some of the increase in personal income was earned out of the county.

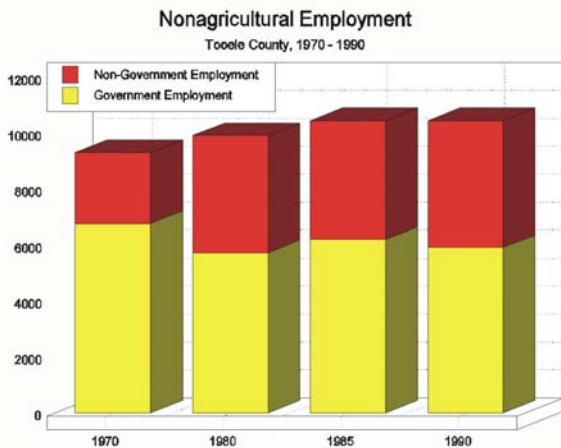
Between 1980 and 1990, total civilian employment in Tooele County decreased by 1.1 percent. The unemployment rate in 1990 was 5.3 percent. While this figure is relatively low, it is still higher than the statewide rate of 4.7 percent.

Government employment has played an extremely important role in Tooele County. Even excluding military employment, roughly 88 percent of all jobs in the county in 1970 were provided by the government. This reflects the significant civilian government employment related to the military installations in the county. Government’s share dropped to roughly 55

Over this same period, there was a rise of poverty in the county. From 1979 to 1989, the number of families in poverty increased from 443 to 619, or by 39.7 percent (or at an average annual rate of 3.4 percent). The number of persons living below the poverty level increased by 54.1 percent or by roughly 4.4 percent per year. Note that this was occurring at a time when population growth was relatively flat. A large proportion of the families with below-poverty-level incomes have female heads of the household. There has been a dramatic increase in the number of female-householder families with children under age 18 which live below the poverty level (up 257.4 percent between ‘79 to ‘89).



percent in 1991.



The next largest employment sector is wholesale and retail trade which was almost fourteen percent of the county’s employment in 1991. Employment in both the trade and services sectors have been steadily increasing since 1980.

It is not unusual to see the large influence of the government and trade sectors in a fairly rural county. However, Tooele County has historically had a high reliance on federal government installations such as the Tooele Army Depot and Dugway Proving Grounds which subjects the county to extreme shifts in employment related to the often mercurial political climate surrounding defense funding. The recent realignment of the industrial facility at the Tooele Army Depot should lessen this dependence.

Future employment is expected to decline through 2000, with modest growth through the year 2015. The Office of Planning and Budget estimates that there will be roughly 12,912 non-agricultural jobs in 2015, an increase of 2,693. Most of the projected employment gains are in the trade and services sectors. Government employment is projected to decrease slightly, but will still represent 32 percent of the total nonagricultural employment.

Wages and Salaries

The sources of personal income and earnings in the county mirror the industry-breakdown for employment.

Not surprisingly, government employment makes up the largest single source of earnings. Government industry earnings as a percentage of total nonfarm income is generally higher than its proportionate share of employment indicating that government wages are generally higher than nongovernment.

Employment and wage information for three cities in the county -- Tooele City, Grantsville and Wendover -- is summarized below. As can be seen, the highest average monthly wages are paid in Tooele City which is primarily due to the higher-paying government jobs. As could be expected, the services sector plays a large role in the Wendover economy with the highest average employment figures, but relatively low wages. Grantsville relies most heavily on manufacturing and government employment.

	Tooele	Wendover	Grantsville
Mining	NA	NA	0%
Const.	6%	0%	NA
Manuf.	NA	NA	45%
T.C.P.U.	12%	14%	3%
Trade	6%	11%	10%
Finance, Insurance, Real Estate	1%	2%	NA
Services	6%	18%	5%
Govt..	68%	16%	33%
% "NA"	1%	40%	4%

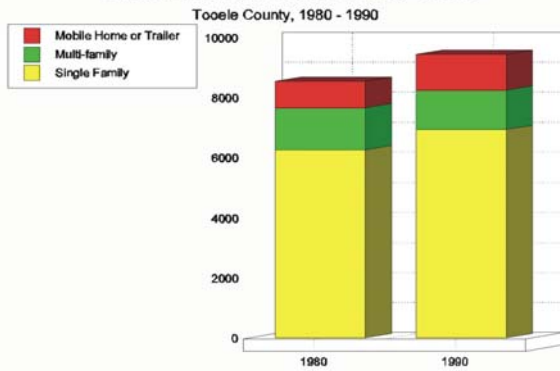
Housing

In 1990, Tooele County had a total of 9,510 housing units. Single-family units have consistently represented 73 percent of the total housing stock. The number of multi-family housing units (including duplexes) declined throughout the 1980s and in 1990 was equal to roughly 14 percent of the total, down from 16 percent in 1980. At the same time, there has been an increase in the number of mobile homes and trailers which comprise 13 percent of the total units in the county (up from 10 percent in 1980).

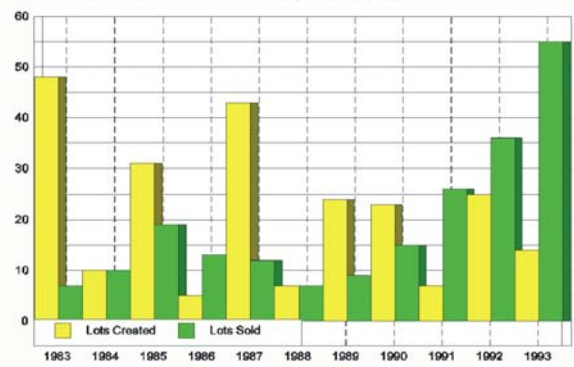
Tooele County has a very high rate of home ownership although during the 1980s it declined slightly from 73 percent to 70 percent.



Characteristics of Housing Units



Tooele Lot Absorption, 1983-1993



Between 1989 and 1992, 395 residential units were permitted in the county, the majority of which (57 percent) occurred in the cities of Tooele, Grantsville, Stockton and Wendover. With the exception of 1991, the bulk of the activity was in nonresidential construction. This was likely heavily influenced by the construction of the CMF facility at the Tooele Army Depot.

According to the subdivision records of the Tooele County Recorder, since 1980 a total of 261 lots have been platted in 42 subdivisions. The average size of subdivisions platted since 1980 is 6.2 lots. Lot absorption during this period averaged 15 lots per year. Of the total lots platted in the fourteen year period, 51 remain unsold in January 1994 (as evidenced by a warranty deed or real estate contract). This represents a nearly three and one-half years supply based on recent absorption.

Average housing unit values in Tooele County tend to be somewhat lower than for the state as a whole, although median rental costs are fairly comparable to the state median. In both Tooele County and the state, the highest concentration of house values is in the range of \$50,000 to \$74,999.

The median value for houses in the county is \$60,400 compared with \$69,000 for the state. The median rent in the county in 1990 was \$292 compared with \$300 for the state.

Affordable Housing

While the 1990 housing value information suggests that housing is fairly affordable in the county, there currently appears to be a shortage of low-cost housing, particularly in the rental market. The Tooele County Housing Authority is currently assisting 223 families. An estimated 24 percent of the families in the county could qualify for federal housing assistance. There have been roughly 500 applications for assistance from January to July in 1993; of those applicants, about 400 are on a waiting list. The waiting list for applicants for a one and two-bedroom apartments is about six to twelve months, for a three-bedroom apartment it is a year to a year-and-a-half. Visiting construction workers and contractors have been willing to pay \$500 a month for a hotel room for several months at a time because there are very few available rental units.

Gross Taxable Sales

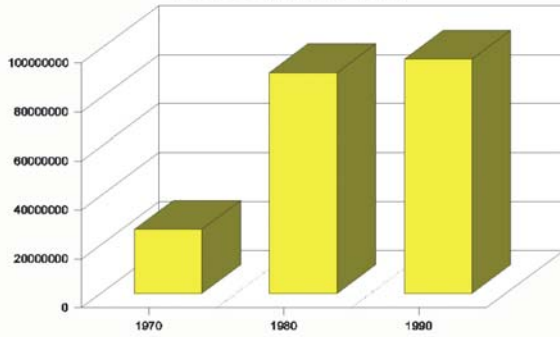
Total gross taxable sales increased dramatically from \$26,378,000 in 1970 to \$90,201,000 in 1980, a whopping annual average increase of 13.1 percent. This suggests a fair amount of expansion in the county's economy during that decade. However, this was not repeated in the 1980s. Between 1980 and 1990, growth in total sales dropped to 2.5 percent per year.

Using the CPI to adjust for inflation, the real growth in taxable sales during the 1970s was equal to 61 percent or 4.9 percent per year. The average annual percentage increase in real sales in the 1980s was only 0.8 percent.



Total Gross Taxable Sales

Tooele County, 1970 - 1990



The detailed sales tax information for years prior to 1986 is not available, therefore it is difficult to determine the industrial sectors that grew in the 1970s and the reason growth subsequently ground to a halt. However, a comparison of the sales in the county to statewide sales allows a determination of whether the county was outperforming or under-performing the state economy for these two decades.

Comparison of Past Growth in Total Real Gross Taxable Sales Tooele County and Utah State, 1970, 1980 and 1990

	Tooele County (Thou1984\$)	Utah (Mill1984\$)
1970	\$67,985	\$6,584,722
1980	\$109,467	\$9,907,767
1990	\$118,607	\$10,958,817
% Change, 1970-1980	61.02%	50.47%
% Change, 1980-1990	8.35%	10.61%
Ave. Ann. % Change, 1970-1980	4.88%	4.17%
Ave. Ann. % Change, 1980-1990	0.81%	1.01%

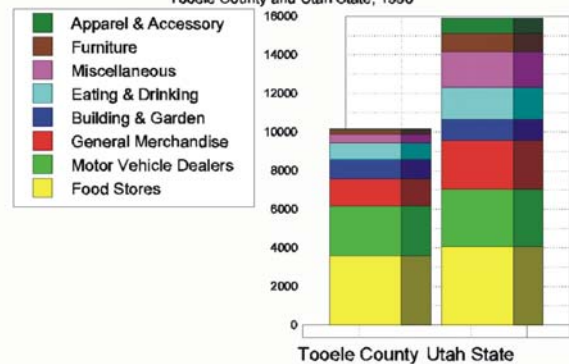
Adjusting for inflation, statewide growth in taxable sales in the 1970s equaled 50.5 percent or 4.2 percent per year. In the 1980s, statewide real growth in taxable sales dropped to 10.6 percent or 1.0 percent per year. Tooele County, then, was experiencing above-average growth in the 1970s and below-average growth in real taxable sales in the 1980s.

In more recent years between 1986 and 1990, gross taxable sales have increased by an average annual rate of 8.1 percent from \$113 million to roughly \$155 million.

The estimated per capita and household expenditures are calculated by dividing total sales by the population and number of households. Total per capita expenditures in 1990 were \$5,806 and household spending averaged \$18,066 in Tooele County. These figures are not necessarily what a person or household in Tooele County spent in 1990 because not all expenditures by Tooele County residents occur within the County boundaries. It also likely includes some nonresident expenditures. Therefore, the County figures are compared to the average statewide sales per person and per household which are more likely representative of average household expenditure patterns.

Per Household Retail Sales

Tooele County and Utah State, 1990



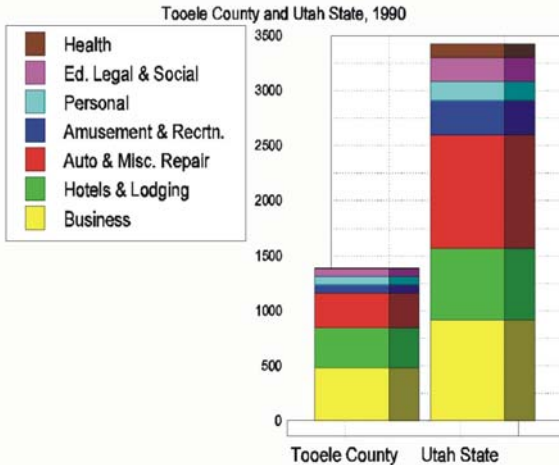
By comparing the expenditure patterns within Tooele County to a larger region, in this case the state of Utah, one can determine if there are major differences that identify areas in which the county are possibly “under-served” by its existing commercial infrastructure. The statewide figures are useful because, as noted above, these figures should (at least in theory) reflect average household expenditure patterns, regardless of the location of residence or proximity to commercial outlets.

Average sales per household statewide total \$27,477, as compared with Tooele County at \$18,066. This figure alone suggests that a fair portion (nearly 35 percent) of Tooele County residents’ expenditures is occurring outside of the county because one would assume that the households in Tooele are spending, on average, comparable amounts to other households in the state.

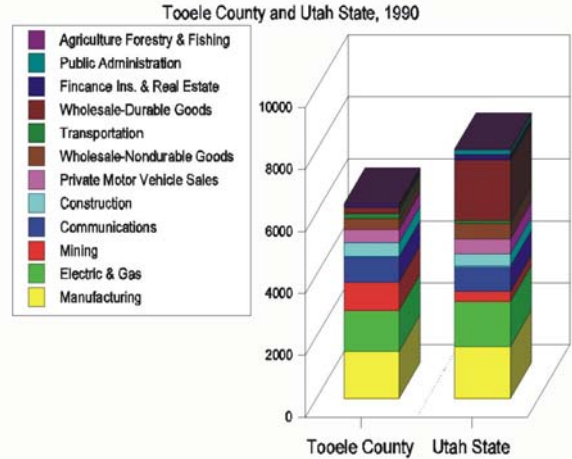
There are three sectors in which county sales were far



Services Sales Per Household



"Other" Sales Per Household



lower than statewide averages: wholesale durable goods, general merchandise (department stores, etc.) and miscellaneous retail (specialty shops). The lack of wholesale durable goods sales is most likely a direct result of the comparatively small size of the manufacturing sector (relative to the state). Other areas that are experiencing a possible “leakage” of Tooele County dollars are apparel and accessories, furniture and eating & drinking establishments. The county has done well in the area of motor vehicle sales (most likely capturing some sales from out of the county), building and garden and the electric and gas sectors.

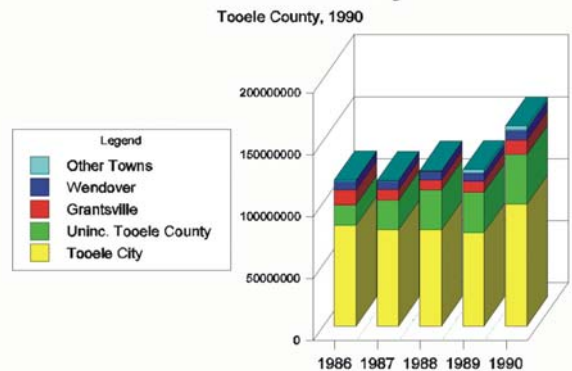
-year period. The bulk of the increase actually occurred between 1989 and 1990 when sales in this sector increased by nearly fifteen-fold. General merchandise sales also nearly tripled seemingly overnight between 1989 and 1990 and manufacturing nearly doubled in the five years from 1986 to 1990.

Tooele City is the major retail center for Tooele County, capturing more than sixty percent of all retail sales from 1986 to 1990. The city’s share of county sales has decreased over the five-year period, from 69 percent in 1986 to 61 percent in 1990.

It is useful to look at taxable sales broken down by industrial sector because it allows an evaluation of expenditure patterns within the county and trends for specific industries. Not surprisingly, given the size of the Tooele County economy, the largest proportion of total sales occurred in the food store retail trade in each of the five years, ranging from 26 percent in 1987 when total sales were lowest, to roughly 20 percent in 1990 when total sales were highest. The amount of sales in the retail food sector held fairly steady at between \$29 and \$30 million over this time period. The other sector which captured a larger percentage of total retail sales was retail motor vehicle sales.

While reflecting less than one percent of total sales between 1986 and 1989, sales of business services experienced the largest percentage increase in sales by industry at over 123 percent per year over the five-

Total Gross Sales By Area



Unincorporated Tooele County has the next largest share of the county’s retail sales. From 1986 to 1988 its sales increased dramatically from roughly \$16 million to \$40 million. In 1986, 14 percent of total county retail sales occurred in the unincorporated area,



and by 1988 it captured 26 percent. During the same period the amount of sales activity decreased in both Grantsville and Wendover.

Economic Analysis

Economic base and location coefficient analysis techniques were used to evaluate the relationship of the local economy to the broader, regional economy. By assigning local economic activity into the part of the economy that serves or provides goods for export to nonlocal areas (the “basic” sector), and the part that serves local needs (the “nonbasic” sector), the sectors of the Tooele County economy that service the nonlocal demand and that will most likely be the prime stimulants of local economic growth and development can be identified. The analysis also identifies a possible over-dependence on a single industry or group of industries.

Not surprisingly, the primary basic industry in the county is the federal government. Of the total 1990 employment in the county of 10,293, roughly 44 percent of it (or approximately 4,500 jobs) is characterized as “basic” employment -- and the lion share of this employment is federal government. The other industries identified as providing basic sector employment are related to livestock production, mining, construction, chemicals, petroleum/coal, automotive dealers/stations and transit.

TRANSPORTATION ANALYSIS



Road Designations

A road is designated as an arterial road when it:

- C Permits corridor movement suitable for statewide or interstate travel;
- C Accommodates movements between virtually all urban areas with populations of 50,000 or more, and a large majority of those urban areas with populations of 25,000 or greater; and
- C Permits integrated movement without stub connections, except where unusual geographic or traffic flow conditions dictate otherwise.

Two roads within Tooele County (county) are

designated as arterial: the primary arterial road is Interstate 80 (I-80). The portion of State Route 36 (SR-36) extending from I-80 to Tooele City is also designated as a principal arterial under this definition.

A second arterial designation is minor arterial, which is characterized by the following conditions:

- C Links cities and towns and other traffic generators that are capable of attracting travel over similar distances;
- C Provides integrated interstate or intercounty service;
- C Provides internal spacing consistent with population density, so that all developed areas of the state are within a reasonable distance of arterial highways; and
- C Provides corridor movement consistent with all of the above, with trip lengths and travel distances greater than those predominantly served by rural collector and local roads.

Tooele County roads currently designated as minor arterial are the portions of SR-36 not designated as primary arterial, and SR-73.

Collector roads are designated as either major or minor, and generally serve intercounty routes. A major collector meets the following criteria:

- C Serves cities not served by arterial roads, larger towns not directly serviced by higher level systems, or other traffic generators of comparable importance such as consolidated schools, shipping points, county parks, and important mining and agricultural areas;
- C Links these places with larger towns or cities; and
- C Links the locally important traffic generators with their rural hinterland.

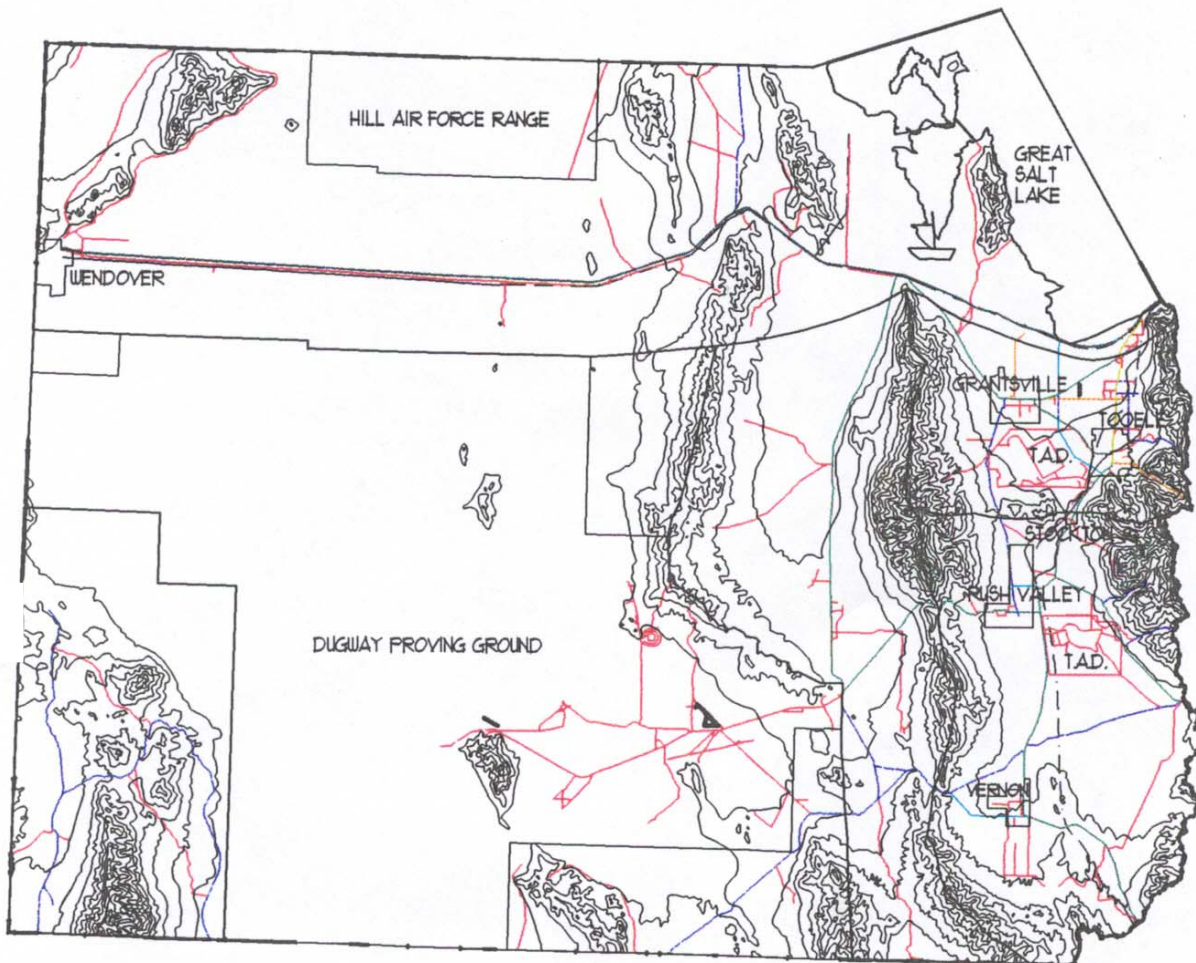
Major collectors designated in Tooele County include SR-112, SR-138, and SR-199, in addition to Sheep Lane, Skull Valley Road, the road extending from I-80 to the magnesium plant located on the west shore of the Great Salt Lake, and the road from Grantsville to Burmeister.

Minor collector roads are designated based upon the following criteria:

- C Spaced at intervals consistent with population density



TOOELE COUNTY TRANSPORTATION SYSTEM



LEGEND

UDOT



INTERSTATE



PRIMARY

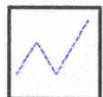


SECONDARY

COUNTY



STP ARTERIALS



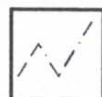
COLLECTOR



PROPOSED
COLLECTOR



LOCAL ROADS



RAILROAD



AIRPORT

AS OF: DECEMBER 1995



to accumulate traffic from local roads and bring all developed areas within a reasonable distance of a collector road;

C Provides service to the remaining smaller communities; and

C Links the locally important traffic generators with their rural hinterlands.

There are approximately 200 miles of minor collector roads within Tooele County.

The final road designation is local roads. These are the roads that provide access to lands adjacent to the collector network and generally serve travel over relatively short distances. All road miles not designated as any higher functional classification fall under this designation.

Regional and Local Roads

There are two primary modes of surface transportation which serve Tooele County: highways and railroads. Both forms have historically been very important to the county and have played key roles in the formation of the existing land uses in the county.

The highway system that serves the county is a mixture of state-operated and maintained roads and those maintained by local authorities, primarily the county. Generally, all roads located within incorporated city boundaries are maintained by that city unless they are designated state highways or an agreement has been made between the city and county to have the county maintain them.

The key to the state highway system is I-80, which runs east and west and crosses the entire county. It serves as a vital corridor for the surrounding region as well as the county, indicating its regional importance. I-80 serves as a primary link between the western coastal areas of California and the Midwestern section of the United States, so it is a vital route for trucking as well as passenger cars and other users. Historically, it has experienced heavy use, and when it was jeopardized during the period of flooding of the Great Salt Lake during the mid-1980s, considerable resources were expended to maintain it in operation.

This is also the principal connection between the county and the Wasatch Front area and is heavily used for access to and from the Salt Lake area. The eastern section, from Lake Point Junction to the Salt Lake County line, is the most heavily used, with some portions experiencing traffic volumes in excess of 22,000 trips per day. West of Tooele Valley

the level of use drops off to about 6,800 trips per day on average.

The balance of the state-operated highways are located in the eastern portions of the county, in the Tooele Valley and Rush Valley areas. The primary north-south route is SR-36, which connects I-80 with Tooele City and then continues south into Juab County, at the extreme southeast corner of the county. It provides access between Tooele City and the more rural areas located in Rush Valley, including Stockton, Rush Valley, Vernon, and the Tooele Army Depot South Area.

Other state operated routes include SR-73, SR-112, SR-138, and SR-199. SR-73 provides connections between SR-36 and Utah County to the east. It also provides access to the mining areas of Mercur and Ophir, as well as the Tooele Army Depot South Area. SR-112 provides access between Tooele City and Grantsville City in the Tooele Valley. SR-138 connects Grantsville with SR-36 and then the I-80 interchange located at Lake Point. The final state operated route, SR-199, provides access between SR-36 near Rush Valley and the Dugway Proving Grounds, operated by the U. S. Army.

Other Tooele County Transportation Features

An additional transportation facility located within the county is the Bonneville Salt Flats raceway, located east of Wendover. This is a race course and test track located on the remnant salt flats from ancient Lake Bonneville and the former Great Salt Lake, when it extended this far west. The natural salt flats are used primarily by racing enthusiasts who seek to set land speed records for a variety of motorized vehicles. Several world land speed records for two- and four-wheeled vehicles have been set at this site. The track is used generally during a short season each year when salt



conditions are suitable for use. Actual use is dependant upon weather conditions and long term weather cycles that permit new salt to form and replenish the track area. In recent history there have been concerns that the salt flats are beginning to disappear. A current study is being conducted by state and federal agencies to develop strategies to protect and enhance the salt flats for this and other purposes. It is not clear what the outcome of these studies will be or how successful they will be.

Road Funding

The State of Utah operates and maintains state roads using state and federal funds allocated for transportation. The state allocates funds based on need and availability for new construction. Any new construction must be included on the State Transportation Improvement Program (STIP), which schedules and prioritizes all projects for the next 5 years. The state receives funds from the federal government in the form of grants to the state made through the recently enacted Intermodal Surface Transportation Enhancement Act (ISTEA) of 1991. This act establishes federal funding procedures for the next 6 years by Congress, and is used to allocate the federal fuel taxes collected for transportation. The new act emphasizes intermodal transportation systems and permits funding of projects not previously considered for federal funds. It also provides more funds to urban areas for non-state controlled projects. These funds are allocated locally by the Metropolitan Planning Organization (MPO), which for Tooele County is the Wasatch Front Regional Council. Some examples of projects that can now be funded include bike and hiking path systems, “rails-to-trails” projects, and others that Tooele County may wish to use for future projects.

The county maintains all of the other public roads located within the unincorporated county. Two classifications of roads are eligible for state funding using what are termed Class “B” and “C” funds, derived from the state sales tax on fuels: arterial and collector roads. Currently there are no arterial designations for any county-maintained roads in the county. All of the county-maintained roads are either designated as major collector, minor collector, or local roads. The two collector road designations are eligible for state

gas tax funding for improvements. Local roads must be maintained at the county’s sole expense.

Design and Construction

Development fronting existing roads must recognize the designation of the road and provide for ultimate development. This may include set backs to permit future widening, provisions for curb and gutter and other drainage control features at some future date and access for pedestrians and equestrian traffic in addition to vehicles. The county must establish firm standards for the varying designations of the roads. Arterial roads should have at least a 100-foot-wide right-of-way to permit future widening and turning lanes. Collector roads should have a minimum width of 80 feet. Local roads should be 66 feet in width except in an urban-type development, where a 50-foot-wide right-of-way may be acceptable.

Arterial, collector, and urban type roads should be surfaced with asphalt or concrete surfacing. In the rural areas, collector and local roads may continue to be gravel surfaced. The type of surfacing is dictated by the level of use expected and the difficulty in maintaining the roads.

New road construction should be sensitive to the county’s goals and objectives. Plans for new roads should include protective treatment of environmentally sensitive areas and resources. This should occur in all districts of the county to protect not only sensitive wetland environments, but also the fragile desert environment.

Interparcel connections should be encouraged, where appropriate, to provide a local road network that can supplement the collector and arterial system. However, the goal of maintaining open space should serve as a guide for new road development. Existing unpaved roads should not be paved until warranted. Leaving roads unpaved can serve as an incentive to maintain open space and a more rural context.

Roads should be planned and coordinated with the County Engineer and standards for development should be maintained. Provisions should be established to permit phased development of the roads. A rural



type road section should be encouraged wherever possible. Use of lien agreements should be considered for improvements that could be warranted at a future date. Use of such agreements would permit road development without curb, gutter, and walkway and permit postponement of such improvements until a later date. Such an agreement assures that the county can require improvements at a later date without having to condemn or otherwise force improvements.

Walkways and paths in rural areas should be planned for equestrian as well as pedestrian use. Softer materials such as gravel or sand should be considered. In more densely populated areas where development approaches urban standards, sidewalks and other pedestrian walks as well as bicycle paths should be considered.

Railroad Systems

Railroads have served the county since the end of the 1800s. Presently there are two primary routes that serve the county. The east-west route parallels I-80 and is known as the Western Pacific route. It extends the full east-west length of the county and serves interstate transportation needs. It is a primary link between Denver and the west coast. A second route extends from the Lake Point area to the Juab County line and continues on to Los Angeles. This line is operated by Union Pacific Railroad. It provides rail access to both the Tooele Army Depot North and South Areas.

There are also spur lines that serve the magnesium plant located north of I-80 along the Great Salt Lake. In addition, there are spur lines that previously served the mineral industries located northwest of Grantsville, which are not abandoned, but are not in use due to the closure of those industries. A route that used to connect Burmeister and Tooele has recently been discontinued. Additionally, a section of railroad that previously extended from Tooele City eastward through Pine Canyon has also been discontinued and the tracks have been removed. This line used to be operated by the Tooele Valley Railway, but has been discontinued due to the closure of the International Smelter and Refining Company.

The railroad also serves as a link to several of the waste

industries located in the Clive area. Spur lines connect to both the USPCI landfill and incineration plant as well as the Envirocare facility. In some cases a terminal area is used to transfer waste loads to trucks for eventual shipment to the disposal sites. Much of the wastes shipped to the disposal sites from out of state are carried by rail cars at least to the transfer sites.

Airport

There are two publicly owned and operated air fields located within the county. The Tooele Valley Airport is located in the north end of the Tooele Valley between Erda-Grantsville Road and SR-138. This airport is owned and operated by the Salt Lake City Airport Authority (SLCAA). The other publicly owned airport is located in Wendover and is a former military base. This field is owned by the City of Wendover, Utah.

In addition, there are several other air fields, both private and military, that are located in the county. The military air field is Michaels Field located on the Dugway Proving Grounds. Private air fields are located in Rush Valley, Vernon, and northwest of Knolls. These three fields are unpaved and are used primarily by the owners.

The Tooele Valley Airport is operated as a training and practice field and as a place to base private aircraft. SLCAA purchased and developed the airport to provide relief for the Salt Lake City International Airport. Their intention was to develop a facility where private planes could be based and operated without control from the Salt Lake City tower. Another objective was to provide a training area for student pilots that would not conflict with passenger services at the Salt Lake City International Airport.

SLCAA has recently completed a master plan update of the airport facility and has proposed to extend the runway on each end and to make other improvements to the existing facilities. The existing runway is 5,500 feet long and 75 feet wide. Expansion plans call for an extension of the runway to 6,100 feet with a width of 100 feet. Current plans are to purchase additional lands for clear zone protection, ground facility relocation, and runway extensions. Some of the acquisition will



be in the form of aviation easements, but some will be fee title. Once the property is acquired, other improvements would be made as demand for improved service increased. It is expected that expansion will be gradual and continual over the 20-year planning period of the master plan.

The Wendover City Airport has also recently completed a master plan update. The airport is a former military base and has three paved runways with a maximum length of 8,000 feet. Michaels Field located on Dugway Proving Grounds has the longest runway facilities in the county, the runway being 13,100 feet long. It is operated by the military and is not available for public use.

Another significant aircraft-related impact to the county is the presence of several large military test ranges. Hill Air Force Base operates a test range located west of the Great Salt Lake and north of I-80, which extends west to the Bonneville Salt Flats race track located east of Wendover. The other ranges are located in the area of the Dugway Proving Grounds and occupy much of the southwest portion of the county. They are called Wendover North, Wendover South, Dugway, and Dugway West and are contiguous. These ranges are used by military aircraft and are heavily used at present. Their presence restricts use of these areas by private aircraft during most time periods.

ENVIRONMENT



Environmental Analysis

An analysis of air quality and water resources can be found in the chapters for each of the county’s planning districts. Analysis of Hazardous Waste Industry in the county is found in Chapter Eight, I-80 Corridor Planning District.

Mountainsides, Vegetation, and Wildlife

One of the larger counties in Utah, Tooele County encompasses many mountain and desert environments. These environments support a variety of wildlife and vegetation. The mountain ranges of Tooele County

are essential to watersheds contributing to water resources. They play a part in a healthy ecology for vegetation and wildlife. The Oquirrh, Stansbury, Tintic, Onaqui, Sheeprock, Simpson, Dugway, Deep Creek, Cedar, Silver Island, Grassy and Lakeside mountain ranges provide dramatic backdrops for the county’s communities. Two Wasatch National Forest areas in the Stansbury and Sheeprock mountains are maintained for public enjoyment.

The foothills and mountain slopes of Tooele Valley and the salt desert of the I-80 Corridor planning district are areas suited to the protection afforded by a Sensitive Lands Overlay Zone designation. The communities of Erda, Lake Point, and Pine Canyon/ Lincoln are experiencing pressure to develop into the foothills and up the canyons. Several foothill and mountain land elements can be adversely impacted by development including watersheds, slopes, ridge lines, views, floodways, wildlife and endangered species, and unique features of the area. The treatment of these elements in development situations can be addressed by Sensitive Lands Overlay Zones. Parameters for protecting watersheds, for example, could include slope, vegetation, and area of pavement (or other artificial, non-porous ground covering) requirements.

Sensitive land elements include:

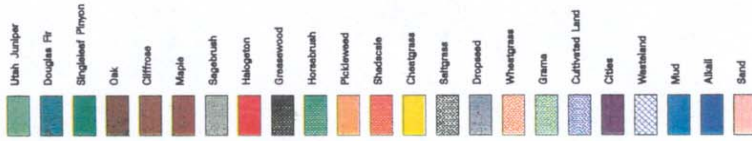
- CStandards for watersheds, floodways, and other hydrologic elements.
- CSlope standards for development.
- CViews Standards-- development on foothills and slopes could ruin valley views.
- CRidge Line Standards for development and view considerations.
- CWildlife Preservation Criteria for wildlife and habitats.
- C Features Standards for views, open character, land features, and historical and archeological features.
- C Naturalness Standards for protecting character of open, rural communities.
- C Development Standards for kinds, sizes, densities, and site(s).



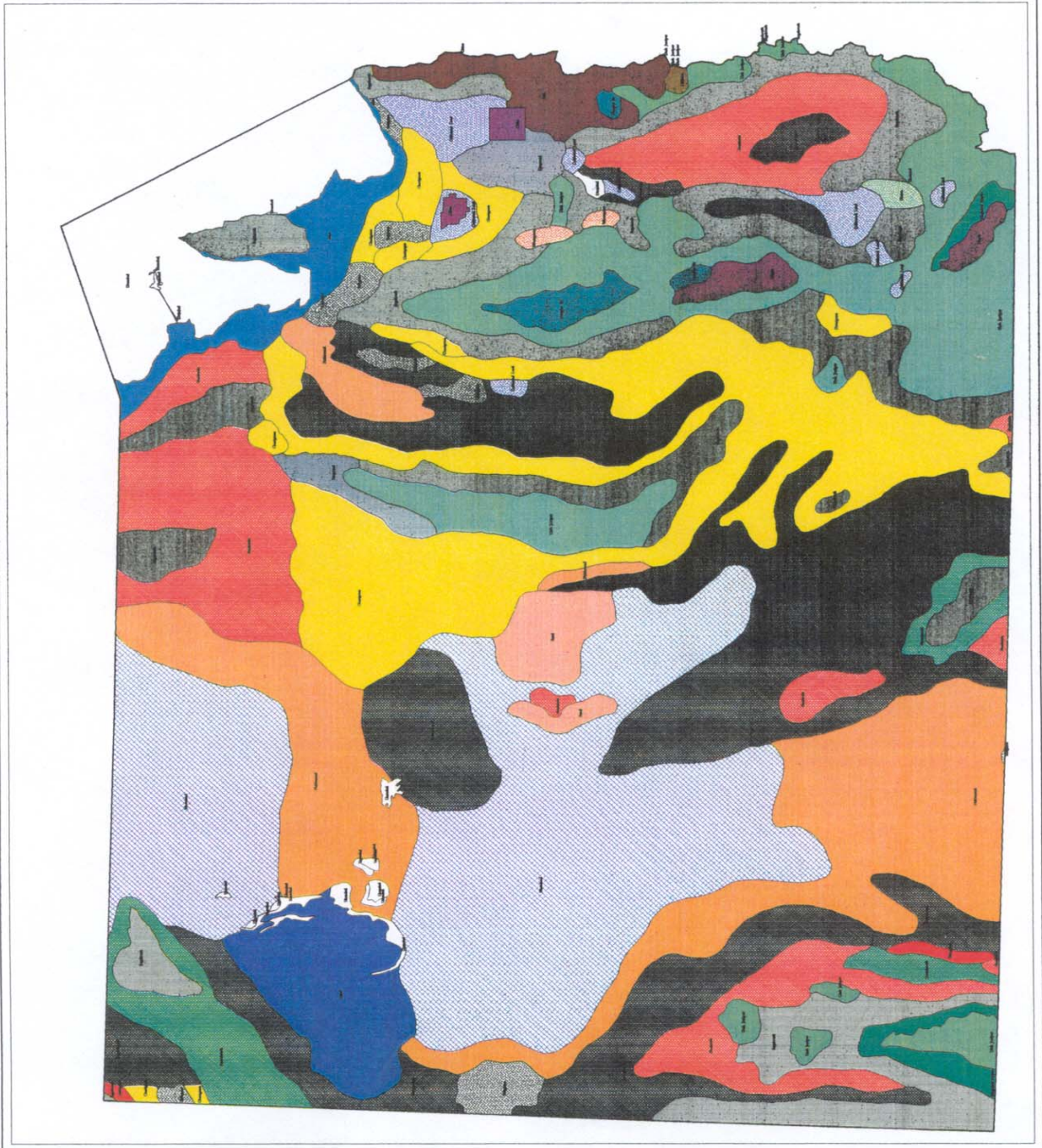


Tooele County

Vegetation



Map prepared by Utah AGRC using data from the Utah SOD. Automated Geographic Reference Center Room 4100 State Office Building Salt Lake City, Utah 84114 801-538-5103



system in order to safely and adequately dispose of sanitary wastes. Likewise, if there is limited supply of good quality groundwater, then a central system can provide suitable water to a wider region than is possible with individual wells.

Water and Wastewater

Even though the largest inland lake in the western United States borders the county on the north side, there are a limited amount of water resources available to the county. The Great Salt Lake provides a valuable resource, but is limited in its application for traditional water resource uses. Its primary benefit is the high concentration of minerals available in the lake. These minerals provide the basis for a number of chemical companies who recover these minerals and sell them for commercial use. Several of these industries are located within Tooele County and provide a valuable economic base for the county. These consist primarily of salt and magnesium based industries. Outside of these economic benefits, the lake provides recreational opportunities and a beautiful view.

The balance of the county's limited water resources are considered to be precious. The county lies within a desert region where precipitation is limited and where there are no major rivers or fresh bodies of water. What surface water is available has been applied to beneficial use through either irrigation or potable water uses. The second largest body of water located in the county is Rush Lake, a small body of shallow water located west of Stockton. This lake has no outlet but remains fresh because of its relatively small size, the fact that it dries up completely when precipitation cycles are on the dry side, and its ability to fill quickly when the rainy cycle occurs.

There are a number of streams which are used for water resources. Settlement Canyon is dammed and water is stored for irrigation. Willow Creek is also stored in a reservoir located south of Grantsville and used for irrigation. There are several other small streams that are dammed and stored by private individuals, primarily for irrigation purposes. Almost all of the water has been appropriated through the water right process administered by the Division of Water Rights.

Because of the limited amount of surface water available, much of the county is dependent upon groundwater for water supply. Almost all of the drinking water available in the county originates from well or spring sources. Most of the incorporated cities provide central water systems and operate well systems. These systems provide water for potable uses as well as fire protection. In the rural areas, individual wells provide potable water for homes and farm operations. The federal facilities also rely on groundwater resources as the principal source of industrial and potable water. The entire system is regulated by the Division of Water Rights, who allocates use through water rights processes. There is currently a moratorium on additional groundwater permits in the Tooele Valley area, and this is expected to continue.

The quality of the groundwater throughout the county varies considerably. Generally, in the eastern portion of the county, between the Oquirrh and Stansbury Mountain Ranges, the quality of the groundwater is good and suitable for potable and industrial uses. The further west one goes in the county, the poorer the groundwater quality becomes. This is due primarily to the types of soils located in these areas, and the fact that this area is a remnant of the Great Salt Lake. The water tends to be saline; the nearer the lake the higher the saline content. There are pockets of higher quality ground water located in the western sections of the county; however, they are generally found near the mountain ranges and originate within the mountains. As one moves further away from the mountains, water quality tends to decrease.

There has been some recent concern over the potential contamination of groundwater located along the eastern side of Tooele Valley. The USGS is conducting a study to determine if the heavy metals found in the mountains are contaminating groundwater originating in the mountain range. It will be at least a year before the results of these investigations are known.

Surface water drainage has become a major concern as more and more development occurs within the county. The county has developed drainage ways within the valleys to provide for surface drainage. These need to be maintained and capacities preserved or enlarged.



Water and Wastewater Systems

Centralized water systems are only available in the Tooele Valley and in Stockton, Vernon, Wendover, and at Tooele Army Depot and Dugway Proving Grounds military installations. Most of the systems are associated with an incorporated city, but are also found in Stansbury Park and Pine Canyon. Many of these systems have been developed to provide for higher density developed areas, fire protection systems or to provide adequate high quality water in areas where it is limited.

The only centralized wastewater systems serving the county are located in Tooele and Grantsville, Lake Point, Stansbury Park and at the military facilities located at Tooele Army Depot, North Area, and Dugway Proving Grounds. The rest of the county is served by individual septic tank systems. The septic tank systems have functioned relatively well in most areas of the county, but in areas of shallow groundwater some failures are becoming more common. As density increases, the feasibility of using septic tanks as a disposal means decreases due to concerns about adequate disposal and separation from potable water supplies.

Energy and Communication Facilities

Electrical power is provided to virtually the entire county. Service is limited in the more rural areas and is generally located along public roads. Power lines also cross through the county to serve other areas.

Telephone service is also available to most of the county. US West provides service to the eastern portion of the county, while smaller systems serve the more rural areas. Natural gas service is provided to the eastern portion of the county where population densities are highest. In other areas, service is not provided due to the economics required to extend service lines to customers.

In Tooele Valley and Rush Valley, the military has recently established a warning system to alert residents and businesses should an emergency which could endanger the population occur at the weapons disposal facilities located at Tooele Depot South Area. The

system consists of loud speakers and warning signals that sound in the event of an emergency. This system is tested every Monday throughout Rush and Tooele Valleys.

Solid Waste Management

The management and disposal of solid waste has traditionally been a service provided by the county to all county residents. Historically, the county has operated a solid waste landfill where all collected wastes were deposited. With the recent changes in the laws governing such facilities, the county has closed their old facilities and has considered several alternatives for disposal of waste. Options available include development of a new landfill that complies with all current regulations, disposal of waste at commercially operated landfill such as the one located near East Carbon, Utah which accepts non-hazardous wastes, or recycling. The county has recently entered into a contract to have waste recycled by a private firm. The county would contract with them to collect and dispose of wastes. There are problems with the private operator and it is not clear whether this option will be successful.

The long term objective of the county is to continue to provide for solid waste collection and disposal in an appropriate fashion. This is viewed as a public service that is best provided by the county for the general welfare of the public.

LOCAL GOVERNMENTS



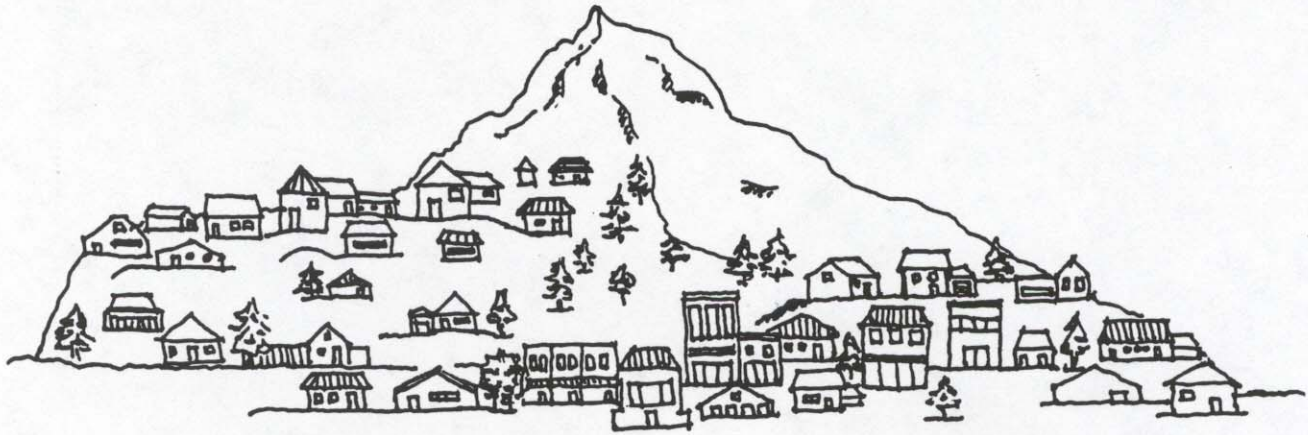
Land Ownership and Administration

Most land in Tooele County is under federal administration. The Bureau of Land Management manages the public lands and the variety of uses allowed on them. The United States Forest Service manages the two areas of the Wasatch National Forest in the county. And the nation's military operates several reservations in the county.

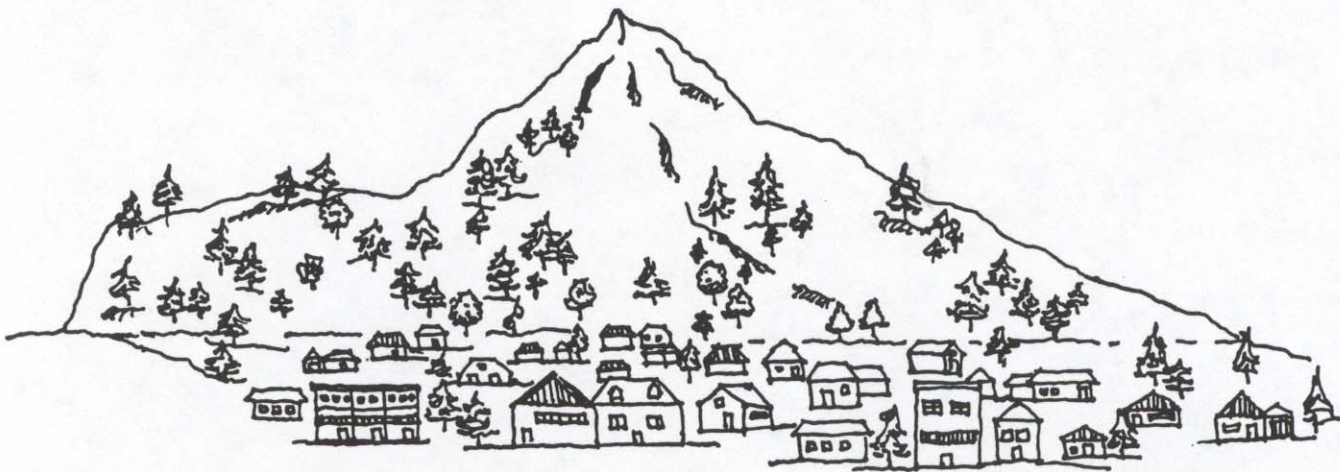
The State of Utah also manages a great deal of land in Tooele County. Much of their land are parcels which are available for sale or trade with the federal government



The illustrations below compare graphically the appearance, and imply the potential environmental impacts, of extensive foothill development versus foothill preservation.



DEVELOPED FOOTHILLS

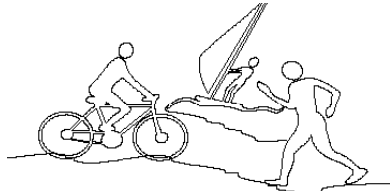


PRESERVED FOOTHILLS

Foothill Sensitive Lands

The following graphic compares two community development scenarios. The first shows foothill development and how it clutters the natural look and ecology of foothills and creates a community which looks loose knit, even stratified. The second shows a community which shares and protects the foothills as a community resource and develops in a pattern which encourages economic concentration and a close-knit community.

RECREATION



Recreational Resources and Uses

Interest in the recreation resources in Tooele County has been increasing, for Tooele County provides a great variety of environments for many recreational pursuits. Bureau of Land Management (BLM) lands, National Forests, mountains, springs, deserts, lakes and islands allow opportunities for bicycling, camping, hiking, hunting, fishing, rock climbing, cross country skiing, horseback riding, picnicking, and sightseeing. Because of the county's proximity to the Wasatch Front, visits for recreational purposes could increase.

As demonstrated by the recent controversy about Stansbury Island, access to public lands by way of private lands is the thorniest recreation issue in Tooele County. The BLM lands of the island offer trails, beaches, ancient Native American art and nearby sailing. To reach these places users must utilize roads which recently have been closed by the county, and must cross private land. In Rush Valley the southern "block" of the Wasatch National Forest is bordered on north and east by private land. This situation leads to a strong possibility of trespassing. People should be encouraged to use official entrances to avoid trespassing, for better enforcement by rangers and better recording of visits.

A suitable arrangement could be one in which the county could maintain access roads and reach agreements with private and public land owners and agencies

determining specific access points. Then, the access points should be emphasized as appropriately useable, while persons using other accesses should be warned or prosecuted as trespassers, thereby discouraging access by means other than official accesses. Another option is to seek and make trades between public land agencies and private land owners that facilitate access to public lands.

Parks, Trails, Public Facilities

Recreational use is considered to be a high priority. This is especially true in the mountain areas surrounding Tooele Valley, along the Great Salt Lake, and in the more desert areas of Skull Valley, Ibapah, Gold Hill, Danger Cave, and Simpson Springs. The Bonneville Salt Flats have also provided an attraction for speed races of various types. In addition, the open spaces of the county are a recreational attraction for bicyclists, horsemen and off- road vehicles.

The county does not operate any parks or recreational sites. Those publicly owned are federal facilities or those associated with water development such as Settlement Canyon Dam and Rush Lake. Public interest surveys indicate that there is much demand for suitable parks and recreational facilities within the county.

PUBLIC FACILITIES AND UTILITIES

Infrastructure Analysis

In the more populated portions of the county there is an established infrastructure that provides potable water, sanitary sewer, fire protection and other facilities. The entire county is served by electrical power and telephone service. Natural gas and cable television are only available in the Tooele Valley area where the population density is higher.

The availability of centralized water and sewer systems is usually a function of population density in the area. The higher the density, the more likely that central systems are established. There are also other reasons for centralized systems. The presence of high groundwater can result in a need for a sanitary sewer



in exchange for public school funding. Two state parks and the Great Salt Lake are administered by the State.

Two Indian Reservations--Goshute and Skull Valley--are located in the county. These are not, however, heavily populated by Native Americans. Tribes are interested, though, in utilizing their lands for use by outside investors and developers.

Private land ownership is greatest in Tooele Valley, with other concentrations in Rush and Skull Valleys, on the shores of the Great Salt Lake, and southeast of Wendover. Smaller concentrations are located throughout the county.

Federal and Military Interface

Bureau of Land Management lands are in most areas of the county except for Tooele and Rush Valleys. These lands are used by county residents for grazing and recreation, and by industry for mineral extraction. Forest lands are preserved in the county for recreation and other uses by the public. Wilderness Study Areas are recognized by the BLM as valuable resources in the county.

Tooele Valley is home to the Tooele Army Depot North Area (TEAD-N), which stockpiles weapons and munitions. The Tooele Army Depot South Area (TEAD-S) in Rush Valley stockpiles, and will be destroying, chemical munitions. Dugway Proving Grounds and the Utah Test and Training Range take up much of the area of the West Desert planning district. Another section of the test and training range is located in the I-80 Corridor planning district. These military reservations interface with county in three ways: employment opportunities, federal monies returned to county, and the hazardous nature of the military operations being removed from the general population.

Both employment by and federal government support for military installations and reservations such as those found in Tooele County tend to fluctuate over time. The employment provided by these military installations is an integral element to the county's economy, while environs of the county provide

suitable locations for various and hazardous military operations. To compensate for the use of lands and resources the county receives payment in lieu of taxes from the federal government.

The military reservations in the county are located in largely unpopulated areas of the county. Air and water quality systems impacts have also been considered in locating reservations. Chemical emergencies are prepared for under the administration of the Chemical Stockpile Emergency Preparedness Program described in the Emergency Services section of this chapter.

Incorporated Cities

Tooele County contains the incorporated cities of Tooele, Grantsville, Rush Valley, Stockton, Ophir, Wendover and Vernon. Tooele City is the county's population center. The boundaries for these cities are larger than the more concentrated developed areas. As such these cities include large agricultural area. The Tooele County Council of Governments (COG) is made up of the mayors of these cities and county commissioners. The COG meets regularly to coordinate issues between the county and cities.

PUBLIC SERVICES

Emergency Services



The North Tooele County Fire District is a volunteer fire department whose response area extends from Stockton to the Great Salt Lake and from the eastern county line to I-80 mile marker 45. When necessary, the department does respond to emergencies throughout the rest of the county.

Department volunteers respond to a variety of fire and medical emergencies. During 1994 the department responded to 198 calls, evenly divided between fire and medical emergencies. Of the 36 volunteers in the department, 18 are state certified fire fighters (requiring 100 - 150 training hours per year). Seventeen volunteers are trained Emergency Medical Technicians (EMTs). Some volunteers are also trained in dealing with hazardous materials, and the department works with the Emergency Operations Center. All volunteers are trained to use extrication equipment.

The department maintains four stations, one substation, 10 brush trucks and three engines. Growth in the county has generated a need for another engine. The tax-funded department has an annual budget of \$230,000; a new engine costs \$180,000. Fortunately, this is a well-run and expert fire department, but county growth will require additional emergency service expenditures.

The Emergency Operations Center manages the Chemical Stockpile Emergency Preparedness Program which is associated with the incineration of stockpiled chemicals at the Tooele Army Depot South Area (TEAD-S) in Rush Valley. This center is a coordination and information resource in case of an emergency originating from the TEAD-S. The center is also prepared to respond to any other emergency of a community-wide scale and to such a degree that it can aid in coordinating its resources with those of several other agencies. Response to other than chemical emergencies includes all of Tooele County as well as extending to the Wasatch Front if necessary and possible for the center. The centers can offer its trained personnel, its communications equipment, including microwave and radio networks, and other equipment in place for an off-post chemical situation. Other equipment includes outdoor sirens, weather stations, mapped evacuation routes and mobile traffic control points. Information given by sirens/public announcement systems would direct people to their televisions and radios for Emergency Broadcast System guidance about in-place sheltering and/or evacuation procedures.

In most of Tooele County there are few, if any, health or emergency services available, so residents often turn to health care resources in Tooele Valley. The Tooele Valley health care system provides the most comprehensive health care available in the county. The system includes the Tooele Regional Medical Center, Home Health and Nursing Home operations, and the Tooele Valley Ambulance Service located in Grantsville, Tooele City, and Vernon. The medical center offers surgery, emergency, laboratory, and specialty medical care and testing. The ambulance service is staffed with paid-volunteer EMTs and Quick Responders.

Law Enforcement

The Tooele County Sheriff's Department responds to accidents and crimes throughout the county. Eighteen deputies and 62 other department personnel run the jail, dispatch and department offices. A residential deputy lives and works in Vernon, where he most often responds to animal control and livestock situations. Another residential deputy, who also responds to the Ibapah-Gold Hill area lives and works in Wendover. One deputy is also the Hazardous Material Officer, trained to respond in situations involving hazardous wastes. Another deputy is the Animal Control Officer.

The personnel and facilities of the department are stretched to capacity. The jail is at capacity and officers are currently unable to cover the patrol shift between two a.m. and eight a.m., when officers are on-call. This deficit in 24-hour patrol coverage is the department's priority problem. To resolve this and other department problems, more funds and personnel are needed.

City Police Departments serve the communities of Tooele, Grantsville, Stockton, and Wendover.

CULTURAL AND SCENIC RESOURCES

Historical and Archeological Resources



Tooele County is rich in historical and cultural resources. Explorers traveled through the county searching for travel routes to the Pacific Coast. Among these trail blazers were the ill-fated Donner-Reed Party, who passed through the county over the Salt Lake mud flats, losing most of their equipment in the mud. Many settlers were Mormon pioneers who came from the eastern states and Europe. Military men surveyed towns and built bridges and roads. Miners explored the county for sources of gold and other mineral, building boom towns there when they did "strike it rich." Some of these towns remain while others are just ghosts of their previous incarnations. The Pony Express Route passes through the southern areas of the county, and its stations are dotted along the way. This route was also the Overland Trail used by stages, and became the route for the Overland Telegraph.



Archeological resources in the county include Native American art found on Stansbury Island, and Danger Cave in the Silver Lake Mountains, which contains many strata of materials left from pre-historic people. The cave is the basis of the Danger Cave State Historical Park and is on the National Register of Historic Places.

C Tooele Valley contains the strongest settlements of the county. No towns became extinct, rather smaller settlements were combined to be the cities and towns of today. This attests to the historical and continued concentration of resources and development which has created this area.

Scenic and Historic Sites in Tooele County

C Pony Express Route and stations, sites of many exciting stories of the Pony Express. Several sites are marked by Daughters of Utah Pioneers (D.U.P.) monuments. The Pony Express Route in Tooele County offers scenery much like it must have been in 1860.

C Sites on the National Register of Historic Places include: Lincoln Highway Bridge (on Dugway Proving Grounds), GAPA Launch Site (Great Salt Lake Desert), the Bonneville Salt Flats International Race Track, Danger Cave (east of Wendover), Wendover Air Force Base (south of Wendover), E.T. Benson Grist Mill (at junction of SR 36 and SR 138), Iosepa Cemetery (in Skull Valley), Ophir Town Hall (in Ophir), John C. Sharp House (in Rush Valley planning district), Soldier Creek Kilns (in Soldier Creek Canyon), and Stockton Jail (in Stockton), and several Tooele City and Grantsville homes and buildings.

C Gold boom town of Gold Hill and several extinct towns from same era in the Ibapah- Gold Hill planning district.

C Rush Valley Mining District in eastern canyons and slopes of Rush Valley planning district, and associated extinct towns.

C Ranching communities in Ibapah and Skull Valley offer views of an occupation and a lifestyle very different from those found on the Wasatch Front.

C Goshute and Skull Valley Indian Reservations attest to history of Native Americans in the county.

C D.U.P. monuments mark important settlement, early military, railroad, lake recreation and early business sites throughout the county.

C The county and Tooele Valley are locations of much railroad history. The Tooele County Museum in Tooele City offers much for railroad history.

Community Events During the Year

Late March	Grantsville Old Folks Sociable
Early May	Tooele County Women's Conference
Late May	High School Graduation
Early June	Tooele County Arts Festival (4 days)
Early July Mid July	Rush Valley's Jack Pot Rodeo Tooele County Junior Livestock Show (4 days) Tooele County Summer Carnival (4 days) Bonneville Opener (4 days)
Late July	Ophir Days Miss Tooele County Scholarship Pageant
Early Aug. Mid Aug.	Tooele County Fair (4 days) Bonneville Speed Week (7 days)
Late Sept.	Bonneville World of Speed (7 days) Tooele Gem & Mineral Society Show (3 days)
Late Nov.	Christmas Parade



