COMPREHENSIVE DEVELOPMENT PLAN UPDATE 2005 to 2025





Prepared For

WASHINGTON COUNTY NEBRASKA



Prepared By



WASHINGTON COUNTY, NEBRASKA

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INTRODUCTION

INTRODUCTION

LOCATION

Washington County is located along the Missouri River on the Nebraska/Nebraska border. Washington County is bounded on the south by Douglas County, on the west by Dodge County, on the north by Burt County and on the east by the Missouri River. Across the Missouri River in Nebraska, both Harrison County and Pottawattamie County bound Washington County.

Several highways traverse Washington County. U.S. Highway 30 enters Washington County from the west and east and State Highway 91 enters from the west. State Highways 31 and 133 enter Washington County from the south and U.S Highway 75 enters from the North and South. All U.S. and state highways converge on Blair, in the east central part of the county with U.S. Highway 30 continuing into Nebraska.

TOPOGRAPHY AND CLIMATE

Washington County contains approximately 400 square miles, or 256,000 acres. The surface of the County is quite diversified. Approximately sixty percent of the County is upland, or rolling prairie. Creek and river bottoms, and valleys comprise about thirty percent of the landscape; while ten-percent of the County is broken and bluffy. The bottoms of the Missouri River, along the eastern edge of the County, are from three to seven miles wide, and those of the Elkhorn, on the southwestern border, are from three to six. Many smaller streams cover the County. The Papillion River and its tributaries drain a large portion of the County.

Washington County is located approximately 1,100 feet above sea level. The annual average temperature is 50.8 \(\bar{b} \) F. During the winter months, the average temperature is 28.0 \(\bar{b} \) F, but can dip below zero. During the summer months, the average temperature is 72.8 \(\bar{b} \) F; however, there will likely be a few days when the temperature surpasses 100 \(\bar{b} \) F. Not only is the temperature capable of very large annual changes, it can also change very quickly if conditions are right. Average annual moisture is 56.0 inches. Average rainfall is 3.4 inches in spring and summer and 1.2 inches in fall and winter. Average snowfall is 2.7 inches in early winter, and 6.6 inches in late winter. The annual growing season is 170 days.

HISTORY OF WASHINGTON COUNTY

Washington County has a rich and important history. Its history began in 1804, when Meriwether Lewis and William Clark held a council with six Indian chiefs from the Missouri and Otoe tribes. This council, held at present day Fort Calhoun, established friendly relations between the expedition of Lewis and Clark and the Indian tribes represented there.

In 1819, the Federal Government established Fort Atkinson, afterward called Fort Calhoun, on the same ground where the Lewis and Clark council had taken place. Fort Atkinson was the first American fort west of the Missouri River, and eventually included Nebraska's first school, farm, sawmill, hospital, and library. At its peak, Fort Atkinson was the largest military installation in America. However, by 1827, the frontier had moved further west, and Fort Atkinson was closed. In 1846, Brigham Young and the Mormons established a winter camp in Florence, just south of Washington County, and several of the party continued north, to an area just south of present day Blair, to set up a farm for food supplies. After conflicts with Indian tribes in the area, Brigham Young and the Mormons closed their encampment.

In 1854, Thomas B. Cuming, acting Governor of the Nebraska Territory, issued a proclamation that set the original boundaries of Washington County. The first Legislature of Nebraska convened in January of 1856, and in February,

reorganized the boundaries of Washington County. The same act that reorganized the boundaries set Fort Calhoun as the county seat. Where it remained until 1858 when it was moved to Desoto; in 1866 it was again located at Fort Calhoun by a popular vote and in 1869, by a public vote moved to Blair.

The Carter brothers were the original settlers of present-day Blair in May 1855. In 1864 the Northern Nebraska Air-Line Railroad Company was organized and in 1867 received a grant of seventy-five section of land, which was transferred to the Sioux City & Pacific Railroad Company composed of five gentlemen. In 1868 John I. Blair and associates became owners of the franchises of the road. In June the people of Washington County, at a special election, voted to the S.C. & P Company \$75,000 in county bonds and the company which had been awaiting the result of the election, immediately under the management of John I. Blair, pushed the road across the Missouri and built it centrally throughout the County from east to west to Fremont, to the exact location of the prospective railroad company from the Carter brothers and three other men and the offering to this land for sate in lots at public auction. The sale was conducted ostensibly by the Railroad Company, but really, John I. Blair purchased the whole tract from the original settlers' it was he who sold the lots and it was he in whose hone the town was named.

Washington County was named in honor of President George Washington, United States President from 1789 to 1797. According to <u>Perkey's Nebraska Place Names</u>, (Perkey, Elton A., Nebraska State Historical Society, 1995), there were as many as 50 different settlements in Washington County at various times. Many were merely railroad stations, and several were destroyed by floods. Washington County is now home to six communities; Arlington, Blair, Fort Calhoun, Herman, Kennard, and Washington.

THE PURPOSE OF COMPREHENSIVE PLANNING

The Washington County Comprehensive Development Plan is designed to promote orderly growth and development for the County and its communities. The Comprehensive Development Plan will provide policy guidelines to enable citizens and elected officials to make informed decisions about the future of the County.

The Plan acts as a tool to "Develop a road map that guides the community through change"

The Comprehensive Development Plan will provide a guideline for the location of future developments within the planning jurisdiction of Washington County. The Comprehensive Development Plan is intended to encourage a strong economic base for the County so the goals of the County are achieved.

The Plan will assist Washington County in evaluating the impacts of development (i.e. economic, social, fiscal, service and amenity provision, health, safety and general welfare) and encourage appropriate land uses throughout the jurisdictional area of the County. The objective of planning is to provide a framework for guiding the community—whether a village, city, county, toward orderly growth and development. The Plan assists the County in balancing the physical, social, economic, and aesthetic features as it responds to private sector interests.

Planned growth will make Washington County more effective in serving residents, more efficient in using resources, and able to meet the standard of living and quality of life every individual desires.

THE COMPREHENSIVE PLANNING PROCESS

Comprehensive planning begins with the data collection phase. Data are collected that provide a snapshot of the past and present County conditions. Analysis of data provides the basis for developing forecasts for future land-use demands in the County.

The second phase of the planning process is the development of general goals and policies, based upon the issues facing the County. These are practical guidelines for improving existing conditions and guiding future growth. The Comprehensive Development Plan is a vision presented in text, graphics and tables that represent the desires of the County for the future.

The Comprehensive Development Plan represents a blueprint designed to identify, assess, and develop actions and policies in the areas of population, land use, transportation, housing, economic development, community facilities, and utilities. The Comprehensive Development Plan contains recommendations that when implemented will be of value to the County and its residents.

Implementation is the final phase of the process. A broad range of development policies and programs are required to implement the Comprehensive Development Plan. The Comprehensive Development Plan identifies the tools, programs, and methods necessary to carry out the recommendations. Nevertheless, the implementation of the development policies contained within the Comprehensive Development Plan is dependent upon the adoption of the Plan by the governing body, and the leadership exercised by the present and future elected and appointed officials of the County.

The Plan was prepared under the direction of the Washington County Planning Commission with the assistance and participation of the Washington County Board of Supervisors, the Plan Review Committee and citizens of Washington County. The planning time period for achieving goals, programs, and developments identified in the Washington County Comprehensive Development Plan is 20 years. However, the County should review the Plan annually and update the document every ten to fifteen years, or when a pressing need is identified. Updating the Comprehensive Development Plan will allow the County to incorporate ideas and developments that were not known at the time of the present comprehensive planning process.

COMPREHENSIVE PLAN COMPONENTS

Nebraska State Statutes require the inclusion of certain elements in a Comprehensive Plan. A "Comprehensive Development Plan," as defined in Neb. Rev. Stat. § 23-114.02 (Reissue 1997), "shall consist of both graphic and textual material and shall be designed to accommodate anticipated long-range future growth." The Comprehensive Plan is comprised of the following components:

- Community Characteristics Profile,
- Community Facilities Profile,
- Community Goals and Policies,
- Land Use Analysis,
- Transportation Analysis, and
- Plan Implementation.

Analyzing past and existing demographic, housing, economic and social trends permit the projection of likely conditions in the future. Projections and forecasts are useful tools in planning for the future; however, these tools are not always accurate and may change due to unforeseen factors. Also, past trends may be skewed or the data may be inaccurate, creating a distorted picture of past conditions. Therefore, it is important for Washington County to closely monitor population, housing and economic conditions that may impact the County. Through periodic monitoring, the County can adapt and adjust to changes at the local level. Having the ability to adapt to socio-economic change allows the County to maintain an effective Comprehensive Development Plan for the future, to enhance the quality of life, and to raise the standard of living for all residents.

The Comprehensive Development Plan records where Washington County has been, where it is now, and where it likely will be in the future. Having this record in the Comprehensive Development Plan will serve to inform County officials as much as possible. The Comprehensive Development Plan is an information and management tool for County leaders to use in their decision-making process when considering future developments. The Comprehensive Development Plan is not a static document; it should evolve as changes in the land-use, population or local economy occur during the planning period. This information is the basis for Washington County's evolution as it achieves its physical, social, and economic goals.

GOVERNMENTAL AND JURISDICTIONAL ORGANIZATION

The Washington County Board of Supervisors, which is a board of elected officials, performs the governmental functions for the County. Each incorporated community in Washington County also has elected officials and officers that oversee how their community is governed.

The planning and zoning jurisdiction of Washington County, pursuant to Neb. Rev. Stat. § 23-114 (Reissue 1997), includes all of the unincorporated portions of the County, excluding the established extraterritorial jurisdiction of each incorporated city or village.

Pursuant to Neb. Rev. Stat. § 17-1002 (Reissue 1997), the planning and zoning jurisdiction for the incorporated communities in Washington County that have adopted Comprehensive Planning and Zoning Ordinances, except for Blair, includes the area within one mile of their corporate limits. The City of Blair has the authority to exercise planning and zoning jurisdiction throughout a two-mile extraterritorial jurisdiction. As these communities grow and annex land into their corporate limits, their extraterritorial jurisdictions will extend further into the County. There are five (5) communities in Washington County, besides Blair, that are incorporated, including Arlington, Fort Calhoun, Herman, Kennard, and Washington.

COUNTY ASSESSMENT: CONDITIONS AND TREND ANALYSIS

DEMOGRAPHIC PROFILE

Population statistics aid decision-makers by developing a broad picture of Washington County. It is important for Washington County to understand where it has been and where it appears to be going. Population is the driving force behind housing, local employment, economic, and fiscal stability of the County. Historic population conditions assist in developing demographic projections, which in turn assist in determining future housing, retail, medical, employment and educational needs within the County. Projections provide an estimate for the County a basis from which to base future land-use and development decisions. However, population projections are only estimates and unforeseen factors may effect projections significantly.

POPULATION TRENDS AND ANALYSIS

Table 1 indicates the population for the incorporated communities in Washington County, the unincorporated areas, and Washington County as a whole, between 1980 and 2003. This information provides the residents of Washington County with a better understanding of their past and present population trends and changes. Washington County's population in 2000 was 18,780 persons, which was an increase of 3,272 persons, or 21.1%, from 1990. The County's population in 2003 was estimated to be 19,690, an increase of 910 persons, 4.8%, over 2000.

The table indicates that Washington County had a net increase of 6,380 persons or 47.9% between 1980 and 2003. This was driven primarily by an increase in the populations of Washington County's unincorporated areas. The greatest population increases, with regard to percentages, for the incorporated areas, occurred in Fort Calhoun and Blair. Herman is the only community to have suffered an overall loss between 1980 and 2003, which happened in large part between 1980 and 1990.

Washington County exhibited its greatest population gain, both in terms of total number of persons and in percentage, within Table 1, between 1990 and 2000, when it recorded an increase of 3,272 persons, or 21.1%. During this period, the unincorporated areas of Washington County experienced a population gain of 2,338 persons, or 38.5%, and the incorporated areas increased by 934 persons, or 9.9%.

Since 2000, estimates for Washington County show the population has continued to increase in all areas of the county. The communities of Fort Calhoun and Washington exhibited the largest percentage increases, growing by 5.8% and 7.1% respectively. The largest increase in total numbers occurred in the City of Blair, which has grown by 266 persons, or 3.8%.

Table 2 indicates the population for the Omaha-Council Bluffs Metropolitan Statistical Area (MSA), of which Washington County is a part. This MSA includes the Nebraska Counties of Douglas, Sarpy, Washington, Saunders (added in 2000) and Cass County (added in 1998). The MSA also includes Pottawattamie County, Iowa. Since Washington County is part of a larger economic region, it is important for the County to have an understanding of the role they play within that area. The information shown in Table 2 allows Washington County to compare its growth to the growth of the surrounding area.

TABLE 1: POPULATION TRENDS, WASHINGTON COUNTY & COMMUNITIES, 1980 TO 2003

Community	1980	1990	% Change 1980 to 1990	2000	% Change 1990 to 2000	2003	% Change 2000 to 2003	% Change 1980 to 2003
Arlington	1,117	1,178	5.5%	1,197	1.6%	1,222	2.1%	9.4%
Blair	6,418	6,860	6.9%	7,512	9.5%	7,798	3.8%	21.5%
Fort Calhoun	641	648	1.1%	856	32.1%	906	5.8%	41.3%
Herman	340	256	-24.7%	310	21.1%	313	1.0%	-7.9%
Kennard	372	371	-0.3%	371	0.0%	389	4.9%	4.6%
Washington	113	125	10.6%	126	0.8%	135	7.1%	19.5%
Incorporated Areas	9,001	9,438	4.9%	10,372	9.9%	10,763	3.8%	19.6%
Unincorporated Areas	4,309	6,070	40.9%	8,408	38.5%	8,927	6.2%	107.2%
Washington County	13,310	15,508	16.5%	18,780	21.1%	19,690	4.8%	47.9%

Source: U.S. Census Bureau, Census of Population and Housing, 1980 - 1990, 2000, 2003

Washington County is the least populated county within the MSA. Washington County's growth rate between 1980 and 2003 was 27.0%, compared to the MSA's growth rate of 30.3%. In 1980, Washington County accounted for 2.65% of the population of the MSA. By 2000, Washington County had decreased its percentage to 2.55%. The population growth rate in Washington County has been much greater than any other county in the MSA except for Sarpy County.

TABLE 2: POPULATION TRENDS, OMAHA-COUNCIL BLUFFS METROPOLITAN STATISTICAL AREA, 1980 -2003

County	1980	1990	% Change 1980 to 1990	2000	% Change 1990 to 2000	2003	% Change 2000 to 2003	% Change 1980 to 2003
Cass County*	-	-	-	24,334	-	25,242	3.7%	-
Douglas County	397,038	416,444	4.9%	463,585	11.3%	476,703	2.8%	20.1%
Pottawattamie County, IA	86,561	82,628	-4.5%	87,704	6.1%	88,477	0.9%	2.2%
Sarpy County	86,015	102,583	19.3%	122,595	19.5%	132,476	8.1%	54.0%
Saunders County**	-	v		19,830	-	20,008	0.9%	
Washington County	15,508	16,607	7.1%	18,780	13.1%	19,690	4.8%	27.0%
Total MSA*	585,122	618,262	5.7%	736,828	19.2%	762,596	3.5%	30.3%
Washington County / MSA	2.65%	2.69%	1.3%	2.55%	-5.1%	2.58%	1.3%	-2.6%
State of Nebraska	1,572,296	1,580,622	0.5%	1,711,263	8.3%		-100.0%	-100.0%

^{*}Cass County, Nebraska, was added to the Omaha-Council Bluffs Metropolitan Statistical Area in 1998

Source: U.S. Census Bureau, Census of Population and Housing, 1980 - 1990, 2000, 2003

MIGRATION ANALYSIS

Migration Analysis allows a county to understand how specific dynamics are in influencing population change. Migration indicates the population size that has migrated in or out of the County. The migration number is determined by subtracting the natural change in population (i.e. births minus deaths) from the total change in population. Table 3 shows the total change in population for Washington County from 1960-1970, 1970-1980, 1980-1990, and 1990-1998. A negative number in the "Total Migration" column indicates the number of persons that have migrated out of the County, while a positive number indicates the number of persons that have migrated into the County. Unfortunately, this analysis is primarily available for the County as a whole. These data have limited availability for communities.

^{**} Saunders County was added to the Omaha-Council Bluffs Metropolitan Statistical Area in 2000

Migration Analysis is important for a County to understand since it offers an explanation of what affected the population changes. Through migration analysis, it can be determined how much of a population change was due to persons migrating in or out of an area, and how much was due to births or deaths in the area. For example, assume an area had a total change of 100 persons during any given time period, but there were 15 more births than deaths during that same time period. Looking at the natural change only, the area should have grown by 15 persons. However, when the total change of 100 is taken into account, we need to subtract out those births in order to determine what caused the remaining change. If the total change of 100 was an increase, then 85 people moved into the area (100 increase – 15 births that occurred in area = 85 additional people in area). If, however, the total change of 100 represented a loss, then 115 people moved out of the area (100 decrease + 15 births in the area that did not increase the population = 115 people moved out of the area).

TABLE 3: MIGRATION ANALYSIS, WASHINGTON COUNTY, 1960 TO 2000

Time Period	Total Change (persons)	Natural Change (persons)	Total Migration (persons)
1960-1970	1,207	724	483
1970-1980	2,198	736	1,462
1980-1990	1,099	725	374
1990-2000	2,173	509	1,664
Total	6,677	2,694	3,983

Source(s): U.S. Census Bureau, Census of Population and Housing, 1960 - 1990, 1998 Nebraska Department of Health and Human Services System, Vital Statistics Report(s), 1960 – 1998

Table 3 indicates births exceeded deaths in Washington County for each reporting period. Based upon this information and the migration analysis formula, the primary factor of Washington County's increasing population can be determined for any given period. During the reporting periods of 1960 to 1970, and 1980 to 1990, the largest contributor to Washington County's population change was the number of births in the County. There was an addition of 724 and 725 persons, due to births, in these reporting periods, respectively. Also, there was a total in-migration of 483 and 374 persons, respectively. During the 1970 to 1980 reporting period, total in-migration added 1,462 persons, while births exceeded deaths by 736, therefore, in-migration accounted for twice as many additions to the County's population as births. During the final reporting period, 1990 to 2000, in-migration added 1,664 persons, while the natural change accounted for the addition of 509 persons, which shows that in-migration accounted for nearly three times more of the increase than births.

AGE STRUCTURE ANALYSIS

Age structure is an important component of population analysis. By analyzing age structure, one can determine which age groups (cohorts) within Washington County are being affected by population shifts and changes. Each age cohort affects the population in a number of different ways. For example, the existence of larger young cohorts (20-44 years) means that there is a greater ability to sustain future population growth than does larger older cohorts. On the other hand, if the large, young cohorts maintain their relative size, but do not increase the population as expected, they will, as a group, tend to strain the resources of an area as they age. Understanding what is happening within the age groups of the County's population is necessary to effectively plan for the future.

TABLE 4: AGE-SEX CHARACTERISTICS, WASHINGTON COUNTY, 1990 TO 2000

	19	90	2000		1990-	2000	1990-20	00
Age	Male and Female	% of Total	Male and Female	% of Total	Net Change	% Change	Cohort Change	% Change
0-4	1,063	6.4%	1,207	6.4%	144	13.5%	1,207	-
5-9	1,329	8.0%	1,423	7.6%	94	7.1%	1,423	-
10-14	1,400	8.4%	1,479	7.9%	79	5.6%	416	39.1%
15-19	1,295	7.8%	1,581	8.4%	286	22.1%	252	19.0%
20-24	932	5.6%	1,139	6.1%	207	22.2%	-261	-18.6%
25-29	1,091	6.6%	926	4.9%	-165	-15.1%	-369	-28.5%
30-34 35-44	1,247 2,659	7.5% 16.0%	1,024 3,057	5.5% 16.3%	-223 398	-17.9% 15.0%	92 719	9.9% 30.8%
45-54	1,818	10.0%	2,849	15.2%	1,031	56.7%	190	7.1%
55-64	1,521	9.2%	1.670	8.9%	149	9.8%	-148	-8.1%
65-74	1.157	7.0%	1,263	6.7%	106	9.2%	-258	-17.0%
75 & older	1,095	6.6%	1,162	6.2%	67	6.1%	-1,090	-48.4%
Total	16,607	100.0%	18,780	100.0%	2,173	13.1%	2,173	13.1%
	1990			2000			Total Change	
	Total 18 yrs and	Under	4,829	Total 18 yrs and	Under	5,431	18 and under	602
	% of total popula	tion	29.1%	% of total popula	ulation 28.9%		% change	12.5%
stics	Total 65 yrs and	older	2,252	Total 65 yrs and	and older 2425		65 and older	173
aracteri	% of total popula	% of total population		% of total popula	% of total population		% change	7.7%
Selected Characteristics	Median Age		34.8	Median Age		37.1	Median Age	2.3
Š	Total Females		8,471	Total Females		9,451	Total Females	980
	Total Males		8,136	Total Males		9,329	Total Males	1,193
	Total Population	1	16,607	Total Population	n	18,780	Total Change	2,173

Source: U.S. Census Bureau, Census of Population and Housing, STF-1A, 1980, 1990

Table 4 exhibits the age cohort structure for Washington County in 1990 and 2000. Examining population age structure may indicate significant changes affecting the different population segments within the County. Realizing how many persons are in each age cohort, and at what rate the age cohorts are changing in size, will allow for informed decision-making in order to maximize the future use of resources. As shown in Table 4, changes between 1990 and 2000 occurred within a number of different age group cohorts.

One method of analyzing cohort movement in a population involves comparing the number of persons aged between 0 and 4 years in 1990 with the number of persons in the same age cohort 10 years later, or aged between 10 and 14 years in 2000. For example, in Washington County, there were 1,063 children between the ages of 0 and 4 in 1990, and in 2000 there were 1,479 children between the ages of 10 and 14, an increase of 416 children. A review of population by this method permits one to undertake a detailed analysis of which cohorts are moving in and out of the County. The positive change in this cohort indicates in-migration.

Washington County experienced growth in many of its age cohorts. The 0 to 4 and 5 to 9 cohorts always indicate an increase, since the persons, in that group, were not born when the previous census was completed. Increases in the cohorts occurred in five age groups between 1990 and 2000, these cohort shifts were:

1990 Age Cohort	Number	2000 Age Cohort	Number	Change
NA	NA	0-4 years	1,207 persons	+ 1,207 persons
NA	NA	5-9 years	1,423 persons	+ 1,423 persons
0-4 years	1,063 persons	10-14 years	1,479 persons	+ 416 persons
5-9 years	1,329 persons	15-19 years	1,581 persons	+ 252 persons
20-24 years	932 persons	30-34 years	1,024 persons	+ 92 persons
25-34 years	2,338 persons	35-44 years	3,057 persons	+ 719 persons
35-44 years	2,659 persons	45-54 years	2,849 persons	+ 190 persons
Total Change				+ 4,299 persons

Five of the age-cohorts that existed in 1990 and 2000 declined in number. Note that the cohorts represented in Table 4 differ from those listed below due to the consolidation of the 25-29 and 30-34 cohorts from 1990 into a 35-44 cohort in 2000. While the County population increased during this ten year span, an analysis of where the changes took place will lead to an understanding of what services will be needed in the future. Outside of the 2000age groups of 0-4 and 5-9 years, the greatest increases included the 35-44 and 10-14 year age groups. These specific age groups represent a solid in-migration of family populations between 1990 and 2000.

Decreases in the cohorts occurred in a number of age groups between 1990 and 2000, these cohort shifts were:

1990 Age Cohort	Number	2000 Age Cohort	Number	Change
10-14 years	1,400 persons	20-24 years	1,139 persons	- 261 persons
15-19 years	1,295 persons	25-29 years	928 persons	- 367 persons
45-54 years	1,818 persons	55-64 years	1,670 persons	- 148 persons
55-64 years	1,521 persons	65-74 years	798 persons	- 723 persons
65 years +	2,252 persons	75 years +	1,162 persons	-1,090 persons
Total Change				- 2,589 persons

The three age cohorts, from 2000, representing the most negative change, are the 75 years and older, 65-74, and 20-24 age cohorts. The changes in the 75 years and older age cohort were most likely due to either deaths or people moving into elderly care facilities located in other counties. The changes in the 20-24 and 25-29 age cohorts in 2000 are most likely related to persons completing high school or vocation training and moving onto either higher education opportunities or new careers outside of the County. The changes in the latter two are critical since they indicate that young people are moving away to pursue higher education opportunities. However, fewer of them are returning to Washington County when starting their career and family. However, the 2000 U. S. Census is indicating that a large number of families are moving to Washington County once they pass the higher age group. Some of this may be due to increased employment opportunities in the County, which can be attributed by the establishment of Cargill and Huntel.

The median age in Washington County increased from 34.8 years in 1990 to 37.1 years in 2000. The proportion of persons less than 18 years of age decreased slightly in total population between 1990 and 2000, while those aged 65 years and older increased by 7.7% overall. There is a segment of the population that works in Omaha and has chosen to live in Washington County and commute to Omaha. The 10-14 year old age group of 2000 showed an increase of 144 persons, which leads to

the assumption that people with young families may be drawn to Washington County because of its quality of life and close proximity to Omaha. The change in people ages 55-74 has increased by 255 persons.

In order to accommodate a growing number of elderly, whom tend to remain in place as they age, Washington County, in cooperation with the communities, should be involved in developing facilities that can house those that need assistance and allow them to feel safe and comfortable. To encourage the return of the younger and middle age groups, the County should be involved in economic development activities, including housing options and the continued maintenance and improvement of infrastructure to accommodate new growth, making Washington County an attractive place to live and work. Having Omaha commuters live in Washington County is fine for increasing the population base, but Washington County needs a plan to also develop its economic base. With a larger, secure economic base, Washington County would be better positioned to plan for and meet its future service needs.

POPULATION PROJECTIONS

Population Projections are estimates based upon past and present circumstances. Population projections allow Washington County to estimate what the population will be in future years by looking at past trends. By scrutinizing population changes in this manner, the County will be able to develop a baseline of change from which they can create different future scenarios. A number of factors (demographics, economics, social, etc.) may affect projections positively or negatively. At the present time, these projections are the best crystal ball Washington County has for predicting future population changes. There are many methods to project the future population trends; the six methods used below are intended to give Washington County a broad overview of the possible population changes that could occur in the future.

Trend Line Analysis

Trend Line Analysis is a process of projecting future populations based upon changes during a specified period of time. In the analysis of Washington County, three different trend lines were reviewed: 1960 to 2000, 1980 to 2000, and 1990 to 2000. A review of these trend lines indicates Washington County will continue to increase in population through 2030. The following projections summarize the decennial population for Washington County through 2030.

Washington County Trend Analysis

Year	Trend: 1960 to 2000	Trend: 1980 to 2000	Trend: 1990 to 2000
2010	21,370 persons	20,761 persons	21,237 persons
2020	24,318 persons	22,951 persons	24,016 persons
2030	27,671 persons	25,373 persons	27,159 persons

Cohort Survival Analysis

Cohort Survival Analysis reviews the population by different age groups and sex. The population age groups are then projected forward by decade using survival rates for the different age cohorts. This projection model accounts for average birth rates by sex and adds the new births into the future population.

The Cohort Survival Model projection indicates Washington County's population will increase each decade through 2030. The following projection for Washington County is based on applying survival rates to age cohorts, but does not consider the effects of either in-migration or out-migration.

Washington County Cohort Survival Analysis

Year	Cohort Survival Model
2010	18,939 persons
2020	20,162 persons
2030	21,359 persons

Summary of Population Projections

Using the modeling techniques discussed in the previous paragraphs, a summary of the six population projections for Washington County through the year 2030 is shown in Figure 1. Three population projection scenarios were selected and include (1) a Low Series; (2) a Medium Series; and, (3) a High Series. All of the projections forecast an increase in County population through the year 2030. The following population projections indicate the different scenarios that may be encountered by Washington County through the year 2030.

Year	Low Series = Cohort	Medium Series = 1980-2000	High Series = $1960-2000$
2010	18,939 persons	20,761 persons	21,370 persons
2020	20,162 persons	22,951 persons	24,318 persons
2030	21,359 persons	25,373 persons	27,671 persons

Figure 1 reviews the population history of Washington County between 1900 and 2000, and identifies three population projection scenarios into the years 2010, 2020, and 2030. Figure 1 indicates the peak population for Washington County occurred in 2000 with 18,780 people. Beginning in 1900, Washington County began to experience a gradual decline in its population. However, starting in 1950, Washington County began to increase in population much more rapidly than it had decreased over the previous fifty years. From 1900 through 1950, Washington County lost a total of 1,575 people. However, between 1950 and 2000, Washington County gained 7,269 people, an average increase of 12.12 people every month over the 50 year period. Between 1950 and 2000, Washington County's population increased by 63.0%, or 1.26% per year.

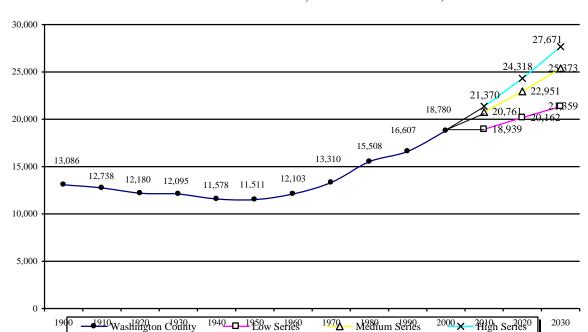


FIGURE 1: POPULATION TRENDS AND PROJECTIONS, WASHINGTON COUNTY, 1900 TO 2030

Source: U.S. Census Bureau, Census of Population and Housing, 1900-2000, 2003

As stated previously, these projections are based upon data from past trends and present conditions. A number of external and internal demographic, economic and social factors may affect these population forecasts. Washington County should monitor population trends, size and composition periodically in order to understand in what direction their community is heading. Washington County's greatest population threat continues to be out-migration, and strategies should be developed to further examine and prevent this phenomenon.

TABLE 5: POPULATION PROJECTION SERIES, WASHINGTON COUNTY AND COMMUNITIES, 2000 TO 2030

Community	2000 Census		Low Series		Medium Series			High Series		
Zooo Censu	2000 Census	2010	2020	2030	2010	2020	2030	2010	2020	2030
Arlington	1,197	1,231	1,311	1,388	1,349	1,492	1,649	1,389	1,581	1,799
Blair	7,512	7,670	8,166	8,650	8,408	9,295	10,276	8,655	9,849	11,207
Fort Calhoun	856	928	988	1,047	1,017	1,125	1,243	1,047	1,192	1,356
Herman	310	246	262	278	270	298	330	278	316	360
Kennard	371	398	423	449	436	482	533	449	511	581
Washington	126	152	161	171	166	184	203	171	195	221
Incorporated Areas	10,372	10,625	11,311	11,982	11,647	12,876	14,234	11,989	13,642	15,523
Unincorporated Areas	8,408	8,314	8,851	9,377	9,114	10,075	11,139	9,381	10,676	12,148
Washington County	18,780	18,939	20,162	21,359	20,761	22,951	25,373	21,370	24,318	27,671

Source: Population projections, JEO Consulting Group, 2000

Table 5 shows the population projection by series for each of the areas within Washington County. The population projections for the communities were found by determining the proportion of the total population that each community had and calculating that percentage for each series. This method of projection is helpful and gives an idea of where people are likely to live. This method does not consider the social issues that people use when choosing a place to live, which have the potential to alter population projections in any direction.

HOUSING PROFILE

The Housing Profile in this Plan identifies existing housing characteristics and projected housing needs for residents of Washington County. The primary goal of the housing profile is to allow the County to determine what needs to be done in order to provide safe, decent, sanitary and affordable housing for every family and individual residing within Washington County. The housing profile is an analysis that aids in determining the composition of owner-occupied and renter-occupied units, as well as the existence of vacant units. It is important to evaluate information on the value of owner-occupied housing units, and monthly rents for renter-occupied housing units, to determine if housing costs are a financial burden to Washington County residents.

To project future housing needs, several factors must be considered. These factors include population change, household income, employment rates, land use patterns, and residents' attitudes. The following tables and figures provide the information to aid in determining future housing needs and develop policies designed to accomplish the housing goals for Washington County.

AGE OF EXISTING HOUSING STOCK

An analysis of the age of Washington County's housing stock reveals a great deal about population and economic conditions of the past. The age of the housing stock may also indicate the need for rehabilitation efforts, or new construction within the County. Examining the housing stock is important in order to understand the overall quality of housing and the quality of life in Washington County.

2,500 2.042 2,000 1,475 1,500 1.130 882 841 839 1,000 500 199 1939 or earlier 1940-1959 1960-1969 1970-1979 1980-1989 1990-1998 1998-3/2000

FIGURE 2: AGE OF EXISTING HOUSING STOCK, WASHINGTON COUNTY, 2000

Source: U.S. Census Bureau, Census of Population and Housing, SF3, 2000

Figure 2 indicates 2,042, or 28.0% of Washington County's 7,408 total housing units, were constructed prior to 1940. There were 1,475 housing units, or 20.0% of the total, constructed between 1970 and 1979; this indicates there was a strong economy during this time. In addition, there were 1,130 housing units or 15.25% of the total units were built between 1990 and 1998. Washington County has a large percentage of housing units built prior to 1940, which may indicate a need for a housing rehabilitation program to improve the quality and energy efficiency of these older homes. Additionally, demolition

of units that are beyond rehabilitation may be necessary. Construction of new housing might be another program the County could support, as housing becomes an integral component of the County's ability to pursue economic development activities.

Housing Trends

An analysis of housing trends can reveal a great deal about the different sectors of the population in the County. Housing trends may also indicate the potential demand for additional owner- or renter-occupied housing. Examining housing trends is important in order to understand the overall diversity of the population and their quality of life within Washington County.

TABLE 6: COMMUNITY HOUSING TRENDS, WASHINGTON COUNTY, 1990 AND 2000

Selected Characteristics	1990	2000	% Change 1990-2000
Population	16,607	18,780	13.1%
Persons in Household	16,108	18,230	13.2%
Persons in Group Quarters	499	550	10.2%
Persons per Household	2.68	2.63	-1.9%
Total Housing Units	6,378	7,408	16.1%
Occupied Housing Units	6,017	6,940	15.3%
Owner-occupied units	4,506	5,360	19.0%
Renter-occupied units	1,511	1,580	4.6%
Vacant Housing Units	361	468	29.6%
Owner-Occupied vacancy rate	1.1%	1.0%	-9.1%
Renter-Occupied vacancy rate	3.3%	8.5%	157.6%
Single-family Units	5,074	5,907	16.4%
Duplex/Multiple-family units	772	1,018	31.9%
Mobile Homes, trailer, other	532	483	-9.2%
Median Contract Rent - 1990 and 2000			
Washington County	\$240	\$539	124.6%
Nebraska	\$348	\$491	41.1%
Median Value of Owner-Occupied Units -	1990 and 2000		
Washington County	\$58,200	\$114,300	96.4%
Nebraska	\$50,000	\$88,000	76.0%

Source: U.S. Census Bureau, Census of Population and Housing, STF-1A, 1990, DP-4 2000

Table 6 indicates the number of persons living in households increased between 1990 and 2000 by 2,122 persons, or 13.2%, and the number of persons in group quarters increased by 51 persons, or 10.2%. In addition, the number of persons per household decreased from 2.68 to 2.63 persons. Nationally, the trend has been towards a declining household size, and Washington County appears to be following that trend.

Table 6 also indicates the number of occupied housing units increased from 6,017 in 1990 to 6,940 in 2000, or 15.3%, while vacant housing units increased, from 361 in 1990 to 468 in 2000, or 29.6%. The increase in the number of housing units is due to new home construction, and potentially the rehabilitation and use of vacant housing in the County. Renter occupied units became less popular in 2000 compared to 1990 with vacancy rate for renter occupied units increasing from 3.3% to 8.5%.

Single-family housing units increased slightly from 5,074 in 1990 to 5,907 in 2000, or 16.4%. Duplex and multi-family housing had the smallest change, increasing from 772 units to 1,018 units in 2000, or 31.9%. Mobile homes and trailers decreased from 532 to 483, or -9.2%.

Median contract rent in Washington County increased from \$240 per month in 1990 to \$539 per month in 2000, or 124.6%. The State's median monthly contract rent increased by 41.1%. This indicates Washington County has seen contract rent increase at a greater rate than the state and has surpassed the state's average. This likely will continue to increase as more commuters make the choice to live in a rural setting, or small communities, near Omaha. Comparing changes in monthly rents between 1990 and 2000 with the Consumer Price Index (CPI) enables the local housing market to be compared to national economic conditions. Inflation between 1990 and 2000 increased at a rate of 32.1%, indicating Washington County rents increased at a rate nearly four times faster than the rate of inflation. Thus, Washington County tenants were paying considerably higher monthly rents in 2000, in terms of real dollars, than they were in 1990, on average.

The Median value of owner-occupied housing units in Washington County increased from \$58,200 in 1990 to \$114,300 in 2000 and represents an increase of 96.4%. The median value for owner-occupied housing units in the state showed an increased of 76.0%. Housing values in Washington County increased at a rate nearly three times more than the CPI. This indicates housing values Statewide and Countywide exceeded inflation and were valued considerably higher in 2000, in terms of real dollars, than in 1990, on average.

TABLE 7: TENURE OF HOUSEHOLD BY SELECTED CHARACTERISTICS, WASHINGTON COUNTY, 1990 TO 2000

		19	90			20		0.0.	R.O.	
Householder Characteristic	Owner- Occupied	% O.O	Renter- Occupied	% R.O	Owner- Occupied	% 0.0	Renter- Occupied	% R.O	Percent	Change
Tenure by Number of Persons in Housing Unit (Occupied Housing Units)										
1 person	739	16.4%	468	36.0%	978	18.2%	524	33.3%	32.3%	12.0%
2 persons	1,678	37.2%	366	28.2%	1,984	37.0%	476	30.3%	18.2%	30.1%
3 persons	728	16.2%	194	14.9%	884	16.5%	246	15.6%	21.4%	26.8%
4 persons	804	17.8%	166	12.8%	891	16.6%	215	13.7%	10.8%	29.5%
5 persons	394	8.7%	70	5.4%	455	8.5%	54	3.4%	15.5%	-22.9%
6 persons or more	163	3.6%	35	2.7%	175	3.3%	58	3.7%	7.4%	65.7%
TOTAL	4,506	100.0%	1,299	100.0%	5,367	100.0%	1,573	100.0%	19.1%	21.1%
Tenure by Age of Ho	ouseholder (Oc	cupied Hous	ing Units)							
15 to 24 years	36	0.8%	159	10.1%	63	1.2%	225	14.3%	75.0%	41.5%
25 to 34 years	649	14.4%	477	30.3%	564	10.5%	480	30.5%	-13.1%	0.6%
35 to 44 years	1,089	24.2%	322	20.5%	1,310	24.4%	319	20.3%	20.3%	-0.9%
45 to 54 years	851	18.9%	147	9.3%	1,310	24.4%	163	10.4%	53.9%	10.9%
55 to 64 years	747	16.6%	109	6.9%	854	15.9%	95	6.0%	14.3%	-12.8%
65 to 74 years	618	13.7%	115	7.3%	605	11.3%	70	4.5%	-2.1%	-39.1%
75 years and over	516	11.5%	182	11.6%	661	12.3%	221	14.0%	28.1%	21.4%
TOTAL	4,506	100.0%	1,511	96.1%	5,367	100.0%	1,573	100.0%	19.1%	4.1%

Source: U.S. Census Bureau, Census of Population and Housing, STF-1A, 1990 / SF4 2000

In terms of real dollars, tenants in Washington County were paying greater contract rent. In addition, the residents in the county saw a substantial increase in housing costs. This trend is consistent with the state, as data show housing costs across Nebraska have exceeded inflation. This trend has created a seller's market, it can also act as a incentive to property owners to update and rehabilitate housing units.

Table 7 shows tenure (owner-occupied and renter-occupied) of households by number and age of persons in each housing unit. Analyzing this data allows the County the ability to determine where there may be a need for additional housing. In addition, the County could target efforts for housing rehabilitation and construction at those segments of the population exhibiting the largest need.

The largest section of owner-occupied housing in Washington County in 2000, based upon number of tenants, was two person households, with 1,984 units, or 37.0% of the total owner-occupied units. By comparison, the single person households had 524 renter-occupied housing units, or 33.3% of the total renter-occupied units. Washington County was comprised of 3,962 1- or 2-person households, or 57.1% of all households. Households having 5- or more persons comprised only 11.83% of the owner-occupied segment, and 7.1% of the renter-occupied segment. Countywide, households of 5- or more persons accounted for only 742 units, or 10.7% of the total.

When compared to 1990, all six owner-occupied household groups grew in number. Owner-occupied household groups of one person grew by the greatest number, increasing by 239 units, or 32.3%. Five of the six renter-occupied housing unit groups increased, with six-person or more units increasing the most with 23 new units, or a 65.7% increase. Renter-occupied units with five persons were the only category to decrease with 16 fewer units, or -22.9%.

TABLE 8: COMPOSITION OF HOUSEHOLD BY FAMILY TYPE, WASHINGTON COUNTY, 1990 TO 2000

	19	90	20	00	1990 - 2000		
Household Type	Number	% of Total	Number	% of Total	Net Change	% Change	
One Person							
Male	495	8.2%	184	3.0%	86	-62.8%	
Female	784	13.0%	611	9.9%	163	-22.1%	
Two or More Persons							
Family:							
Married with Children	1,978	32.9%	2,118	34.4%	156	7.1%	
Married no Children	2,106	35.0%	1,683	27.3%	169	-20.1%	
Other Family:							
Male, no wife present	149	2.5%	161	2.6%	46	8.1%	
Female, no husband present	330	5.5%	471	7.6%	52	42.7%	
Non-Family	175	2.9%	930	15.1%	88	431.4%	
Total	6,017	100.0%	6,158	100.0%	760	2.3%	

Source: U.S. Census Bureau, Census of Population and Housing, STF-3A, 1990, SF4 2000

According to the 2000 data in Table 7, the largest groups of the owner-occupied units were the 35 to 44 years and 45 to 54 years. Each age group accounted for 24.4% of the total. The two groups combined totaled 48.8%. Tenure by age indicates 63.9% of owner-occupied housing units were comprised of persons aged 45 years and older, while 65.1% of renter-occupied units were comprised of persons aged 45 years and younger. These data are likely an indication of the student population

attending Dana College in Blair. The largest category of renter-occupied units was the 25 to 34 age group, with 30.5% of the renter-occupied total. Additionally, 24.5% of all renter-occupied housing units were comprised of those 55 years and older.

Table 8 indicates the fastest growing category of housing units, by family type, in Washington County, was the non-family category. Non-family households are those in which the occupants are not related. Table 8 shows that while the number increase of non-family households is relatively large and is equal to 755 or 431.4%. The only other significant increase occurred in the number of female families with no husband present. The data in Table 8 indicates that there were decreases in one person households for both male and female head of households. However, two of more person families with children saw an increase of 7.1% from 1990 to 2000.

TABLE 9: SELECTED HOUSING CONDITIONS, WASHINGTON COUNTY, 1990 AND 2000

Housing Profile	Washingto	on County	State of Nebraska		
Housing Frome	Total	% of Total	Total	% of Total	
1990 Housing Units	6,378		660,621		
1990 Occupied Housing Units	6,017	94.3%	602,363	91.2%	
2000 Housing Units	7,408		722,668		
2000 Occupied Housing Units	6,940	93.7%	666,184	92.2%	
Change in Number of Units 1990 to 2000					
Total Change	1,030	16.1%	62,047	9.4%	
Annual Change	103	1.6%	6,205	0.9%	
Total Change in Occupied Units	923	15.3%	63,821	10.6%	
Annual Change in Occupied Units	92	1.5%	6,382	1.1%	
Characteristics					
1990 Units Lacking Complete Plumbing Facilities	79	1.2%	5,242	0.8%	
1990 Units with More Than One Person per Room	84	1.3%	10,512	1.6%	
2000 Units Lacking Complete Plumbing Facilities	39	0.5%	6,398	0.9%	
2000 Units with More Than One Person per Room	133	1.8%	17,963	2.5%	
Substandard Units					
1990 Total	163	2.6%	15,754	2.4%	
2000 Total	172	2.3%	24,361	3.4%	

Source: U.S. Census Bureau, Census of Population and Housing, STF-3A, 1990, DP-4 2000

Table 9 indicates changes in housing conditions and includes an inventory of substandard housing for Washington County. The occupancy household rate in Washington County decreased from 94.3% of all housing in 1990 to 93.7% of all housing in 2000. Between 1990 and 2000, the number of housing units in Washington County increased by 1,030, or an average of 103 units per year. However, there were 562 new occupied housing units. This indicates the loss of vacant housing in the County was partly due to these units becoming inhabited.

According to the U.S. Department of Housing and Urban Development (HUD) guidelines, housing units lacking complete plumbing or are overcrowded are considered substandard housing units. HUD defines a complete plumbing facility as hot and cold piped water, a bathtub or shower, and a flush toilet. HUD defines overcrowding as more than one person per room. When these criteria are applied to Washington County, there were 172 housing units, or 2.3% of the total units, were considered substandard in 2000. It should be noted, however, that this figure was reached by adding together the number of housing meeting one criterion to the number of housing units meeting the other criterion. However, the largest amount of substandard units was based on overcrowding.

What these data fail to consider are housing units that have met both criterion and any such housing unit was counted twice, once under each criterion. Even so, the county should not assume that these data overestimate the number of substandard housing. Housing units containing major defects requiring rehabilitation or upgrading to meet building, electrical or plumbing codes should also be included in an analysis of substandard housing. A comprehensive survey of the entire housing stock should be completed every five years to determine and identify the housing units that would benefit from remodeling or rehabilitation work. This process will help ensure that a community maintains a high quality of life for its residents through protecting the quality and quantity of its housing stock.

ECONOMIC AND EMPLOYMENT PROFILE

Economic data are collected in order to understand area markets, changes in economic activity and employment needs and opportunities within Washington County. In this section, employment by industry, household income statistics, transfer payments, and basic/non-basic analyses were reviewed for Washington County, the Metropolitan Statistical Area (when possible), and Nebraska.

INCOME STATISTICS

Income statistics for households are important for determining the earning power of households in a community. The data presented here shows household income levels for Washington County in comparison to the state. These data were reviewed to determine whether households experienced income increases at a rate comparable to the state of Nebraska and the Consumer Price Index (CPI). Note that income statistics may exhibit different numbers than housing statistics; for example, Table 9 shows that there were 7,408 households in Washington County in 2000, but Table 10 shows that there were only 6,954. Discrepancies of this nature are to be expected, and can be accounted for by the fact that these data were derived from different census survey formats.

TABLE 10: HOUSEHOLD INCOME, WASHINGTON COUNTY, 1990 AND 2000

		199	0		2000				
Household Income Ranges	Washington County	% of Total	State of Nebraska	% of Total	Washington County	% of Total	State of Nebraska	% of Total	
Less than \$10,000	636	10.6%	95,602	15.9%	382	5.5%	55,340	8.3%	
\$10,000 to \$14,999	538	9.0%	64,661	10.7%	321	4.6%	43,915	6.6%	
\$15,000 to \$24,999	1,394	23.3%	128,454	21.3%	831	11.9%	98,663	14.8%	
\$25,000 to \$34,999	914	15.3%	108,560	18.0%	903	13.0%	97,932	14.7%	
\$35,000 to \$49,999	1,269	21.2%	107,111	17.8%	1,130	16.2%	122,654	18.4%	
\$50,000 and over	1,236	20.6%	98,470	16.3%	3,387	48.7%	248,491	37.3%	
Total	5,987	100.0%	602,858	100.0%	6,954	100.0%	666,995	100.0%	
Median Household Income	\$29,805		\$26,0	16	\$48,500		\$39,250		
Number of Households	5,987		602,8	,858 6.		6,954 66		95	

Source: U.S. Census Bureau, Census of Population and Housing, STF-3A, 1990 / DP-3 2000

Table 10 indicates the number of households in each income range for Washington County for 1990 and 2000. In 1990, the household income range most commonly reported was \$50,000 and over, which accounted for 48.7% of all households. This is a substantial increase considering that the \$35,000 to \$49,999 and \$50,000 and over accounted for a total of 41.8%. However, those households, earning less than \$15,000 per year accounted for 10.1% of the total households compared to 19.6% in 2000. In addition,.

The median household income for Washington County was \$29,805 in 1990, which was nearly \$4,000.00 higher than the State average. By 2000, the median household income increased to \$48,500 or an increase of 62.7% and was over \$9,000.00 higher than the state average. The CPI for this period was 32.1%, which indicates incomes in Washington County did exceed inflation. Washington County households were earning more, in real dollars, in 2000 than in 1990.

TABLE 11: HOUSEHOLD INCOME BY AGE (55 YEARS & OLDER) WASHINGTON COUNTY, 2000

Income Categories	55 to 64 years	65 to 74 years	75 years and over	Households age 55 and over	Households age 55 and over	Total Households	% of Total Households age 55 & over
Less than \$10,000	17	81	124	222	8.7%	382	58.1%
\$10,000 to \$14,999	27	24	144	195	7.7%	321	60.7%
\$15,000 to \$24,999	71	185	236	492	19.3%	831	59.2%
\$25,000 to \$34,999	119	179	69	367	14.4%	903	40.6%
\$35,000 to \$49,999	187	120	108	415	16.3%	1,130	36.7%
\$50,000 or more	503	231	118	852	33.5%	3,387	25.2%
Total	924	820	799	2,543	100.0%	6,954	36.6%

Source: U.S. Census Bureau, Census of Population and Housing, SF4 2000

Table 11 indicates household income for Washington County householders aged 55 years and over in 2000. The purpose for this information is to determine the income level of Washington County's senior households. The Table indicates a total of 2,543 senior households. Of the 2,543 senior households, 909 or 35.7% had incomes less than \$25,000 per year. Furthermore, 417 senior households, or 16.4% of the total senior households, had incomes less than \$15,000 per year; in addition, these 417 senior households accounted for 59.3% of all households in the County earning less than \$15,000. This information indicates many senior households could be eligible for housing assistance to ensure they continue to live at an appropriate standard of living. The number of senior households could easily continue to grow during the next twenty years. As the size of the 55 and over age cohort increases, these typically fixed income households may be required to provide their entire housing needs for a longer period of time. Also, the fixed incomes that seniors tend to live on generally decline at a faster rate than any other segment of the population, in terms of real dollars.

The last two columns of Table 11 indicate the total number of households in each income level and the proportion of those households that were age 55 years and older. Note that in the income level of less than \$10,000, 58.1% of all households were over the age of 55. By contrast, only 36.7% of all households in the \$35,000 to \$49,999 income range are over 55 years of age, and only 25.2% of all households in the \$50,000 or more income range was over 55 years of age. This indicates that those who are over 55 years of age in Washington County account for a strong part of these income groups and appear to be increasing in line with all ages in these income groups. As noted above, the over 55 age group may increase faster than any other cohort in the next twenty years.

TABLE 12: HOUSING COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME, WASHINGTON COUNTY, 2000

Income Categories	Owner-Occupied Households	% O.O. Households	Renter-Occupied Households	% R.O. Households	Total Households	% of Total Households
Less than \$10,000						
Less than 30% of income	17	0.5%	43	3.6%	60	1.2%
More than 30% of income	95	2.6%	121	10.1%	216	4.4%
\$10,000 to \$19,000						
Less than 30% of income	152	4.1%	68	5.7%	220	4.5%
More than 30% of income	140	3.8%	167	13.9%	307	6.2%
\$20,000 to \$34,000						
Less than 30% of income	378	10.2%	319	26.5%	697	14.2%
More than 30% of income	154	4.1%	54	4.5%	208	4.2%
\$35,000 to \$49,999						
Less than 30% of income	507	13.6%	199	16.5%	706	14.4%
More than 30% of income	133	3.6%	9	0.7%	142	2.9%
\$50,000 or more						
Less than 30% of income	1,983	53.4%	223	18.5%	2,207	44.9%
More than 30% of income	156	4.2%	0	0.0%	156	3.2%
TOTAL	3,715	100.0%	1,203	100.0%	4,918	100.0%
Housing Cost Analysis	·					
Less than 30% of income	3,037	81.7%	852	70.8%	3,889	79.1%
More than 30% of income	678	18.3%	351	29.2%	1,029	20.9%
TOTAL	3,715	100.0%	1,203	100.0%	4,918	100.0%

Source: U.S. Census Bureau, Census of Population and Housing, SF 3 Table H73 and H97, 2000

Table 12 shows owner-occupied and renter-occupied housing costs as a percentage of householder income in 2000. In addition, the Table identifies the number of households experiencing a housing cost burden. Note the total number of households is different, due to the use of a different survey form. A housing cost burden, as defined by the U.S. Department of Housing and Urban Development (HUD), occurs when gross housing costs, including utility costs, exceed 30% of gross household income, based on data published by the U.S. Census Bureau. Table 12 shows 3,889 households, or 79.1% of total households, paid less than 30% of their income towards housing costs. This means the remaining 1,029 households, or 20.9% of the total, were experiencing a housing cost burden.

There were 678 owner-occupied households and 351 renter-occupied households that experienced this housing cost burden. However, even though the total number of owner-occupied units was nearly double the renter-occupied, only 18.3% of owner-occupied households had a housing cost burden, while 29.2% of renter-occupied households had a housing cost burden. The median rent in Washington County, which was \$539 and was slightly higher than the state median of \$491.

Table 13 shows owner and renter costs for householders age 65 and over. Similar trends are shown in Table 13 as were shown in Table 12. A housing cost burden affects 290 households age 65 and over. In 2000, there were 172 owner-occupied households age 65 and over with a housing cost burden or 19.4% of the total households with this burden. However, there were 118 renter-occupied households age 65 and over that experienced a housing cost burden, or 54.9% of the total households with this burden. While only 20.9% of the County population as a whole experienced a housing cost burden,

26.3% of all households over age 65 experienced a housing cost burden. This finding is of particular importance because it shows that elderly households are being disproportionately impacted with a housing cost burden, all while they continue to face increasing housing costs and fixed or decreasing incomes.

TABLE 13: AGE 65 AND OLDER COSTS AS PERCENTAGE OF INCOME, WASHINGTON COUNTY, 2000

Income Categories	Owner-Occupied Households	% O.O. Households	Renter-Occupied Households	% R.O. Households	Total Households age 65 and Over	% of Total Households
Housing Cost Analysis						
Less than 30% of income	716	80.6%	97	45.1%	813	73.7%
More than 30% of income	172	19.4%	118	54.9%	290	26.3%
TOTAL	888	100.0%	215	100.0%	1,103	100.0%

Source: U.S. Census Bureau, Census of Population and Housing, SF 3 Table H71 and H96, 2000

The relationship between income and housing is the most crucial factor in the provision of safe, decent, sanitary and affordable housing for all households and individuals. Washington County should look at developing and implementing a set of housing goals when making decisions regarding future developments. Specifically, Washington County should develop a list of policies that are based on the following factors.

- Washington County should assist the elderly populations by ensuring policies are developed permitting and encouraging the continued support of services that aid in the quality of life for elderly residents.
- Washington County should continue to play an important role in the development of affordable housing options for all
 residents through appropriate land-use policies.

INCOME SOURCE AND PUBLIC ASSISTANCE

Table 14 shows personal income by source for Washington County, the MSA, and the State. Between 1970 and 2000, the CPI was 345.1%. Total income, non-farm income and per capita income showed tremendous growth. Non-farm income increased from \$50,248,000 in 1970 to \$544,349,000 in 2000, or an increase of 983.3%, which was nearly 3 times the CPI. In 2000, farm income had risen from \$7,246,000 to \$8,734,000, or 20.5%, which is considerably less than the CPI. Farm income increased the least of the three income factors. Per capita income increased from \$3,789 in 1970 to \$27,627 in 2000, or an increase of 629.1%, which was 1.5times the CPI. The rate at which non-farm income and farm income were increasing suggests that farm related employment activities are being replaced by non-farm related jobs. These data indicate Washington County may be going through an economic transformation.

TABLE 14: INCOME BY SOURCE, STATE, MSA, AND WASHINGTON COUNTY, 1970 TO 2000

Income Characteristics	1970	1980	1990	2000	% Change 1970 2000	% Annual Change	2000 Washington Co. vs. MSA
Washington County							
Total Personal Income	\$50,248,000	\$140,603,000	\$297,358,000	\$544,349,000	983.3%	36.4%	2.2%
Non-farm Income	\$43,002,000	\$141,839,000	\$278,035,000	\$287,075,000	567.6%	21.0%	1.5%
Farm Income	\$7,246,000	-\$1,236,000	\$19,323,000	\$8,734,000	20.5%	0.8%	12.2%
Per Capita Income	\$3,779	\$9,046	\$17,869	\$28,959	666.3%	24.7%	91.9%
Metropolitan Statistical Area							
Total Personal Income	\$2,384,193,000	\$6,193,855,000	\$12,000,870,000	\$24,230,391,000	916.3%	33.9%	
Non-farm Income	\$2,329,299,000	\$6,164,900,000	\$11,913,397,000	\$19,300,592,000	728.6%	27.0%	
Farm Income	\$54,894,000	\$28,955,000	\$87,473,000	\$71,310,000	29.9%	1.1%	
Metropolitan Statistical Area							
Per capita income	\$4,136	\$10,212	\$18,712	\$31,509	661.8%	24.5%	
State of Nebraska							
Total Personal Income	\$5,637,959,000	\$14,368,845,000	\$27,717,230,000	\$47,328,771,000	739.5%	27.4%	
Non-farm Income	\$5,100,114,000	\$14,273,446,000	\$25,569,663,000	\$35,156,704,000	589.3%	21.8%	
Farm Income	\$537,845,000	\$95,399,000	\$2,147,567,000	\$963,203,000	79.1%	2.9%	
State of Nebraska							
Per capita income	\$3,789	\$9,139	\$17,536	\$27,627	629.1%	23.3%	

Source: Bureau of Economic Analysis, Regional Economic Information System, 2000

It is important for Washington County to understand its position within the MSA. Between 1970 and 2000, Washington County maintained a similar annual change in non-farm income, farm income, and per capita income as the MSA. Non-farm income in 2000 in Washington County was only 1.5% of total farm income for the entire MSA; however, farm income was 12.2% of the entire MSA. Per capita income in Washington County had an annual increase of 24.7% between 1970 and 2000, compared to an increase of 24.5% for the MSA. The per capita income in Washington County in 2000 was 91.9 % of the entire MSA per capita income.

The per capita income in Washington County has historically increased at a rate higher than the state as a whole. Since 1980, Washington County's per capita income has been above that of Nebraska, and has also maintained a higher annual growth rate than the State. Washington County appears to have a strong economic base, however, the County still needs to monitor and manage its resources and continue to develop its economic base so that it can sustain its per capita income growth rate.

Table 15 indicates Transfer Payments to individuals in Washington County from 1970 to 2000. Note the total amount of Transfer Payments equals Government Payments to Individuals plus Payments to Non-Profit Institutions plus Business Payments. The remaining categories listed in Table 16 are sub-parts of the Government Payments to Individuals category.

TABLE 15: TRANSFER PAYMENTS, STATE, MSA, AND WASHINGTON COUNTY, 1970 TO 2000

Payment Type	1970	1980	1990	2000	% Change 1970 to 2000	% Change Per Year			
Washington County									
Government payments to individuals	\$3,467,000	\$14,631,000	\$27,618,000	\$53,446,000	1441.56%	48.1%			
Retirement, Disability & Insurance Benefits	\$2,551,000	\$9,352,000	\$17,388,000	\$27,502,000	978.09%	32.6%			
Medical Payments	\$323,000	\$2,875,000	\$7,474,000	\$20,960,000	6389.16%	213.0%			
Income Maintenance Benefits (SSI, AFDC, Food Stamps, etc)	\$88,000	\$570,000	\$812,000	\$2,236,000	2440.91%	81.4%			
Unemployment Insurance Benefits	\$82,000	\$620,000	\$372,000	\$486,000	492.68%	16.4%			
Veteran's Benefits	\$398,000	\$819,000	\$960,000	\$1,599,000	301.76%	10.1%			
Federal Education and Training Assistance	(L)	\$393,000	\$606,000	\$625,000	-	-			
Payment to Non-profit Institutions	\$249,000	\$680,000	\$1,040,000	\$2,064,000	728.92%	24.3%			
Business Payments	\$103,000	\$403,000	\$898,000	\$2,124,000	1962.14%	65.4%			
Total	\$3,819,000	\$15,714,000	\$29,556,000	\$57,634,000	1409.14%	47.0%			
Transfer Payments Per Capita	\$284	\$1,011	\$1,776	\$3,066	979.6%	36.3%			
Total Per Capita Income	\$3,736	\$9,046	\$17,869	\$28,959	675.1%	25.0%			
Per Capita Transfer Payments as									
% of Per Capita Income	7.6%	11.2%	9.9%	10.6%	39.3%	1.5%			
Metropolitan Statistical Area	Metropolitan Statistical Area								
Total	\$208,504,000	\$758,749,000	\$1,493,458,000	\$2,617,475,000	1155.36%	42.8%			
Transfer Payments Per Capita	\$362	\$1,251	\$2,329	\$3,404	840.3%	31.1%			
Total Per Capita Income	\$4,136	\$10,212	\$18,712	\$31,509	661.8%	24.5%			
Per Capita Transfer Payments as									
% of Per Capita Income	8.8%	12.3%	12.4%	10.8%	23.4%	0.9%			
State of Nebraska									
Total	\$536,625,000	\$1,866,193,000	\$3,719,752,000	\$6,074,618,000	1032.00%	38.2%			
Transfer Payments Per Capita	\$361	\$1,187	\$2,353	\$3,546	882%	33%			
Total Per Capita Income	\$3,789	\$9,139	\$17,536	\$27,627	629%	23%			
Per Capita Transfer Payments as									
% of Per Capita Income	9.5%	13.0%	13.4%	12.8%	34.7%	1.3%			

(D) - Less than \$50,000, estimates are included in totals.

Source: Bureau of Economic Analysis, Regional Economic Information System, 2004

Total transfer payments between 1970 and 2000 showed an increase in each reporting period. Government payments, retirement and disability insurance benefits, and medical payments comprised the majority of total transfer payments. The largest percentage increase occurred within Medical Payments, which increased by over \$20,637,000 or 6,389.2%. Income Maintenance Payments also increased dramatically; these payments, which include SSI, AFDC, and food stamps, increased by \$2,148,000, or 2,440.9%.

The trend for transfer payments per capita between 1970 and 2000 indicates payments increased significantly to individuals in Washington County, increasing by 980% in 30 years. However, transfer payments, as a proportion of per capita income, increased at a much lower rate between 1970 and 2000. In 1970, transfer payments comprised 7.6% of total per capita income, and in 2000, transfer payments were 10.6% of total per capita income.

In 1970, Total Transfer Payments for Washington County were \$3,819,000, and for the MSA were \$208,504,000. By 2000, Total Transfer Payments for Washington County were \$53,446,000, or an increase of 1,441.6%, and the MSA total was \$2,617,475,000, or an increase of 1,155.4%. In 2000, transfer payments per capita in Washington County were \$3,066.00, and in the whole MSA were \$3,404.00.

INDUSTRY EMPLOYMENT

Analyzing employment by industry assists a county in determining the key components of their labor force. This section indicates the type of industry comprising the local economy, as well as identifying particular occupations that employ residents. Table 16 indicates employment size by industry for Washington County, the MSA and the State of Nebraska between 1970 and 2000.

TABLE 16: EMPLOYMENT BY INDUSTRY, STATE, MSA, AND WASHINGTON COUNTY, 1970 - 2000

Washington County	1970	% of Total	1980	% of Total	1990	% of Total	2000	% of Total	% Change 1970 to 2000	Washington Co. vs. MSA
Farm Employment	1,198	20.0%	1,288	20.9%	987	13.6%	803	7.8%	-33.0%	11.3%
Non-farm Employment	4,784	80.0%	4,888	79.1%	6,245	86.4%	9,448	92.2%	97.5%	1.8%
Ag. Serv, forestry, fishing,										
mining and other	75	1.3%	71	1.1%	140	1.9%	242	2.4%	222.7%	-
Construction	872	14.6%	441	7.1%	445	6.2%	944	9.2%	8.3%	3.19
Manufacturing	751	12.6%	380	6.2%	487	6.7%	1,182	11.5%	57.4%	2.89
Transportation and Public							•	i i		
Utilities	239	4.0%	240	3.9%	227	3.1%	400	3.9%	67.4%	-
Wholesale Trade	83	1.4%	253	4.1%	191	2.6%	225	2.2%	171.1%	0.79
Retail Trade	898	15.0%	995	16.1%	1,074	14.9%	1,390	13.6%	54.8%	1.5%
Finance, Insurance & Real Estate	176	2.9%	286	4.6%	324	4.5%	452	4.4%	156.8%	0.9%
Services	940	15.7%	1,274	20.6%	1,878	26.0%	2,978	29.1%	216.8%	1.69
Government and Government							· · · · · · · · · · · · · · · · · · ·	i i		
Enterprises	750	12.5%	948	15.3%	1,479	20.5%	1,635	15.9%	118.0%	2.5%
Totals	5,982	100.0%	6,176	100.0%	7,232	100.0%	10,251	100.0%	71.4%	1.99
Metropolitan Statistical Area	-,		-,		, -		-, -			
Farm Employment	6,663	2.4%	6,394	1.9%	4,919	1.2%	7,112	1.3%	6.7%	
Non-farm Employment	272,953	97.6%	331,950	98.1%	416,627	98.8%	536,399	98.7%	96.5%	
Ag. Serv, forestry, fishing,										
mining and other	1,591	0.6%	1,918	0.6%	3,291	0.8%	D	-	-	
Construction	15,245	5.5%	14,568	4.3%	18,826	4.5%	30,726	5.7%	101.5%	
Manufacturing	41,869	15.0%	36,980	10.9%	36,967	8.8%	42,539	7.8%	1.6%	
Transportation and Public	,		,		,		,			
Utilities	22,726	8.1%	27,237	8.1%	26,673	6.3%	D	-	-	
Wholesale Trade	16,582	5.9%	22,960	6.8%	27,513	6.5%	30,294	5.6%	82.7%	
Retail Trade	46,233	16.5%	56,072	16.6%	67,530	16.0%	90,541	16.7%	95.8%	
Finance, Insurance & Real Estate	22,385	8.0%	33,947	10.0%	40,934	9.7%	48,908	9.0%	118.5%	
Services	54,454	19.5%	78,695	23.3%	129,329	30.7%	185,439	34.1%	240.5%	
Government and Government							· · · · · · · · · · · · · · · · · · ·	i i		
Enterprises	51,868	18.5%	59,573	17.6%	65,564	15.6%	65,130	12.0%	25.6%	
Totals	279,616	100.0%	338,344	100.0%	421,546	100.0%	543,511	100.0%	94.4%	
State of Nebraska	-,		,-		,					
Farm Employment	86,162	12.0%	90,094	10.3%	72,046	7.3%	65,596	5.5%	-23.9%	
Non-farm Employment	629,041	88.0%	788,848	89.7%	919,722	92.7%	1,117,724	94.5%	77.7%	
, ,	023,041	00.076	700,040	03.176	313,122	32.170	1,111,124	34.5 //	11.170	
Ag. Serv, forestry, fishing,	0.000	4.00/	0.504	4.40/	42.004	4 407	17.000	4.40/	140.00/	
mining and other	6,806	1.0%	9,504	1.1%	13,994	1.4%	17,008	1.4%	149.9%	
Construction	35,508	5.0%	42,764	4.9%	41,327	4.2%	63,756	5.4%	79.6% 40.7%	
Manufacturing	86,992	12.2%	98,442	11.2%	102,856	10.4%	122,392	10.3%	40.7%	
Transportation and Public	42 420	E 00/	E4 604	6 20/	E2 474	E 40/	67 074	E 70/	60.00/	
Utilities Wholesale Trade	42,428 29,561	5.9% 4.1%	54,604 51,512	6.2% 5.9%	53,471 55,704	5.4% 5.6%	67,871 58,044	5.7% 4.9%	60.0% 96.4%	
Retail Trade	124,048				162,811			4.9% 16.5%	96.4% 57.5%	
		17.3%	144,163 65,519	16.4%	74,292	16.4%	195,411			
Finance, Insurance & Real Estate	43,837	6.1%		7.5%		7.5%	89,325	7.5%	103.8%	
Services	126,366	17.7%	171,428	19.5%	252,681	25.5%	339,085	28.7%	168.3%	
Government and Government	133,495	18.7%	150,912	17.2%	162,586	16.4%	162,618	13.7%	21.8%	
Enterprises										

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, 2004

Between 1970 and 2000, Washington County experienced many changes within its industries. Overall, the workforce in Washington County increased by 4,269 jobs, or 71.4%. The MSA increased by 263,895 jobs, or 94.4%, while the State of Nebraska had an increase of 468,117 positions, or 65.5%.

Washington County industries with the greatest increases were Services, with an increase of 2,038 jobs, Government and Government Enterprises, with an increase of 885 jobs, and Retail Trade, with an increase of 492 jobs. The industry with the largest decrease was Farm Employment, which lost 395 jobs, and was the only industry to lose jobs over the 1970 to 2000 time period.

Increases in employment positions occurred in all other industry categories:

•	Services	+ 2,038 jobs
•	Government and Government Enterprises	+ 885 jobs
•	Retail Trade	+ 492 jobs
•	Manufacturing	+ 431 jobs
•	Finance, Insurance, and Real Estate	+ 276 jobs
•	Ag. Services, Forestry, Fishing, Mining, Other	+ 167 jobs
•	Transportation and Public Utilities	+ 161 jobs
•	Wholesale Trade	+ 142 jobs
•	Construction	+ 72 jobs

Changes within Washington County are reflective of the move nationally for more service-related industries. Washington County, together with its economic development partners, needs to identify community assets and market the County as an attractive location for businesses to relocate, establish new operations, or assist existing businesses in expanding their scope of activity. This may become easier as telecommuting and technology continue to improve and become accessible to rural communities. Another marketing tool that Washington County can use is its ability to provide quality, affordable housing in close proximity to the Omaha metro area.

Table 16 also demonstrates the importance of this MSA to the State as a whole. While the State had an increase of 468,117 jobs, this MSA had an increase of 263,895. That means that this MSA had nearly one-half of the State's total jobs. Note, however, the MSA data includes Pottawattamie County, Nebraska, which are not included in the Nebraska data. Therefore, the jobs created within the MSA are not an accurate reflection of its proportion of Nebraska jobs as a whole. However, the comparison is between Washington County, the MSA, and the State. It is important to understand Washington County's relationship to the MSA and to the State, and to understand the effect that development and growth may have on Washington County.

This information underscores the importance of Washington County's membership within the MSA. If this MSA is going to continue to expand as it has, and the trend suggests it will, people moving into the area will need a place to live. Washington County could use its rural atmosphere and proximity to Omaha to attract people who work in this MSA to live in the County. However, future land use policies and strategies will need to be specific and regulated in order to maintain this rural atmosphere.

COMMUTER TRENDS

Tables 17 and 18 show the commuter characteristics for Washington County. Table 17 indicates where the residents of Washington County work. A trend seen between 1970 and 2000 indicates the resident workforce employed in Washington County increased, as did the number of residents commuting out of the County.

TABLE 17: COMMUTER POPULATION TRENDS, RESIDENTS OF WASHINGTON COUNTY, 1970 TO 2000

County of Residence	Work County	1970	1980	1990	2000	Change 1970- 2000	% of 1970 Total	% of 2000 Total
	Pottawattamie County, IA	37	35	70	82	45	0.8%	0.8%
	Burt County	88	80	186	51	-37	1.9%	0.5%
	Dodge County	99	124	160	564	465	2.1%	5.7%
	Douglas County	380	389	1,053	4,174	3,794	8.2%	41.9%
	Lancaster County	0	28	16	82	82	0.0%	0.8%
	Sarpy County	34	10	63	132	98	0.7%	1.3%
w 11 . G .	Saunders County	24	10	27	37	13	0.5%	0.4%
Washington County	Seward County	0	0	0	43	43	0.0%	0.4%
	Washington County	3,834	4,237	4,443	4,760	926	82.2%	47.7%
	Harrison County, IA	157	96	198	45	-112	3.4%	0.5%
	Monona County, IA	9	26	0	0	-9	0.2%	0.0%
	Total	4,662	5,035	6,216	9,970	5,308	100.0%	100.0%
	Total Commuter	828	798	1,773	5,210	4,382		
	% Commuter	17.8%	15.8%	28.5%	52.3%	114.1%		

Source: Bureau of Economic Analysis, Regional Economic Information System, 2004

The number of Washington County residents employed in Washington County increased by 926, while the number of Washington County residents commuting out of Washington County increased by 4,382. The majority of the outgoing commuter increase was seen as employment in Douglas County (Omaha), which had 3,794 of the 4,382 total increases in the commuter workforce. The total workforce commuting to Douglas County for employment increased from 8.2% of the total in 1970, to 41.9% of the total in 2000. The percentage of Washington County residents working in Washington County decreased from 82.2% in 1970, to 47.7% in 2000. The remaining 10.4% of the 2000 workforce were scattered between at least seven other counties in the region.

The number of Washington County residents employed in Washington County increased by 1,027, while the number of workers commuting in to Washington County increased by 1,258. The majority of the incoming commuter population came from Douglas County (Omaha), which added 871, or 69.2%, of the total increase of 1,258 in the commuter workforce. The total workforce commuting from Douglas County for employment increased from 4.9% of the total in 1960, to 17.5% of the total in 1990. The percentage of Washington County workers living in Washington County decreased from 91.5% in 1960, to 73.8% in 1990. The remaining 8.7% of the 1990 workforce commute into Washington County from at least seven other counties in the region.

TABLE 18: COMMUTER POPULATION TRENDS; WORKERS IN WASHINGTON COUNTY, 1970 TO 2000

Work County	County of Residence	1970	1980	1990	2000	Change 1970- 2000	% of 1970 Total	% of 2000 Total
	Harrison County, IA	0	22	34	434	434	0.0%	6.2%
	Monona County, IA	0	0	0	8	8	0.0%	0.1%
	Pottawattamie County, IA	0	46	100	139	139	0.0%	2.0%
	Shelby County, IA	0	0	0	22	22	0.0%	0.3%
	Burt County	54	69	22	378	324	1.0%	5.4%
	Butler County	0	0	0	12	12	0.0%	0.2%
	Cass County	0	0	0	36	36	0.0%	0.5%
	Dodge County	163	371	453	314	151	3.1%	4.5%
	Douglas County	973	1,896	3,156	1,164	191	18.2%	16.5%
	Lancaster County	8	19	25	38	30	0.2%	0.5%
Washington County	Sarpy County	5	10	113	109	104	0.1%	1.5%
	Saunders County	7	0	0	44	37	0.1%	0.6%
	Thurston County	14	0	0	12	-2	0.3%	0.2%
	Wayne County	0	0	0	8	8	0.0%	0.1%
	Elsewhere	50	117	123	0	-50	0.9%	0.0%
	Not Reported	224	0	0	0	-224	4.2%	0.0%
	Lincoln County, SD	0	0	0	4	4	0.0%	0.1%
	Washington County	3,834	4,237	4,443	4,760	926	71.9%	67.5%
	Total	5,332	6,765	8,435	7,048	1716	100.0%	100.0%
	Total Commuters	1,210	2,411	3,869	2,264	790		
	% Commuters	22.7%	35.6%	45.9%	32.1%	87.1%		

Source: Bureau of Economic Analysis, Regional Economic Information System, 2004

During 1970, there were 828 workers living in Washington County that commuted elsewhere for employment. There were also 1,210 workers living elsewhere that commuted into Washington County for employment. By 2000, these numbers changed to 5,210 commuting out of Washington County, and 2,264 commuting into Washington County. These changes represent an increase of 529.2% in the number commuting out, and 87.1% in the number commuting into Washington County. The percentage of workers commuting out of Washington County grew by much more than the percentage commuting into the county. However, the number of workers leaving the County for employment is more than twice the number of workers coming into the County for employment.

The information in Tables 17 and 18 allows the County to identify how much money is leaving the County every day in the pockets of resident commuters. In addition, the County can get an idea of how much is coming into the County from non-resident commuters. By knowing how many residents are leaving the county for employment, Washington County can develop strategies to create jobs within the county that will attract and keep its own residents in the county, spending their money on goods and services provided by the county workforce.

Travel time to work is another factor that can be used to gauge where Washington County's workforce has been commuting. Table 19 shows how many residents of Washington County travel to work in each of several time categories.

TABLE 19: TRAVEL TIME TO WORK, WASHINGTON COUNTY, 1990 TO 2000

Travel Time Categories	1990	% of Total	2000	% of Total	% Change
Less than 5 minutes	763	9.0%	804	8.0%	5.4%
5 to 9 minutes	1,590	18.8%	1,560	15.5%	-1.9%
10 to 19 minutes	1,753	20.7%	2,017	20.1%	15.1%
20 to 29 minutes	1,248	14.7%	1,783	17.8%	42.9%
30 to 44 minutes	1,830	21.6%	2,448	24.4%	33.8%
45 to 59 minutes	552	6.5%	704	7.0%	27.5%
60 minutes or more	189	2.2%	281	2.8%	48.7%
Worked at home	544	6.4%	446	4.4%	-18.0%
Total	8,469	100.0%	10,043	100.0%	18.6%
Mean Travel Time (minutes)	19.9		22.8		14.6%

Source: U.S. Census Bureau, Census of Population and Housing, STF-3A, 1990 - SF 3 Table PCT56 and DP3, 2000

Table 19 indicates the workforce in 2000 spent nearly three minutes more traveling to work than in 1990. The average travel time increased from 19.9 minutes in 1990 to 22.8 minutes in 2000. The largest increase occurred in the 30 to 44 minute category, which increased by 485 persons, or 63.6 %. The next largest increase occurred in the 60minutes or more categories, which increased by 92 persons, or 48.7%. Increases in travel times are more likely due to the population commuting to the Omaha area than other places. The number of persons working at home decreased by the greatest amount; it decreased by 98 people, or -18.0%. This may be caused by the availability of more and better paying jobs in the area, but also may be a result of a population that has fewer children to take care of at home, and is therefore able to work farther from home.

REGIONAL BASIC/NON-BASIC ANALYSIS

The following data examine six occupational areas established by the U.S. Census Bureau to evaluate trends in employment and the area economy. Basic employment and non-basic employment are defined as follows:

- Basic employment is business activity providing services primarily outside the area through the sale of goods and services, the revenues of which are directed to the local area in the form of wages and payments to local suppliers.
- Non-Basic employment is business activity providing services primarily within the local area through the sale of goods and services, and the revenues of such sales re-circulate within the community in the form of wages and expenditures by local citizens.

This analysis is used to further understand which occupational areas are exporting goods and services outside the area, thus importing dollars into the local economy. The six occupational categories used in the analysis are listed below:

- Management, professional, and related occupations
- Service occupations
- Sales and office occupations
- Farming, fishing and forestry occupations
- Construction, extraction, and maintenance occupations
- Production, transportation, and material moving occupations

A related concept to the basic/non-basic distinction is that of a Basic Multiplier. The basic multiplier is a number, which represents how many non-basic jobs are supported by each basic job. A high basic multiplier means that the loss of one basic job will have a large potential impact on the local economy if changes in employment occur. The rationale behind this analysis is that if basic jobs bring new money into a local economy, that money becomes the wages for workers in that economy. Finally, the more money generated by basic jobs within a county; the more non-basic jobs that are supported.

TABLE 20: BASIC/NON-BASIC EMPLOYMENT BY OCCUPATION, WASHINGTON COUNTY, 2000

Occupation Category	Number of Washington Workforce	% of Washington Workforce	% of State workforce	Washington County minus State of Nebraska	Basic	Non-Basic
Management, professional, and related occupations	3.308	32.6%	33.0%	-0.4%	0.0%	32.6%
occupations	3,300	32.070	33.070	-0.470	0.076	32.070
Service occupations	1,316	13.0%	14.6%	-1.6%	0.0%	13.0%
Sales and office occupations Farming, fishing, and forestry	2,919	28.8%	26.4%	2.4%	2.4%	26.4%
occupations Construction, extraction, and	76	0.7%	1.6%	-0.9%	0.0%	0.7%
maintenance occupations Production, transportation, and material	1,313	12.9%	9.3%	3.6%	3.6%	9.3%
moving occupations	1,214	12.0%	15.1%	-3.1%	0.0%	12.0%
TOTAL	10,146	100.0%	100.0%		6.0%	94.0%
Economic base multiplier	15.64					

Source: U.S. Census Bureau, Census of Population and Housing, DP-3, 2000

Table 20 indicates the occupation category, the percent of Washington County residents employed in each category, the percent of State residents employed in each category, and the basic and non-basic employment for that category in Washington County. The formula for determining the basic or non-basic nature of an occupation entails subtracting the State's percentage of workforce in a particular occupation from the percentage of the workforce in that occupation in the County. If the County has a lower proportion of its workforce employed in an occupation than the State as a whole, then that occupation is non-basic.

In Washington County, there are two basic occupation industries: 1) Sales and office occupations, and 2) Construction, extraction, and maintenance occupations. Goods and services from these occupations are exported to outside markets, which in turn generate an infusion of dollars into the local economy. Table 20 shows that 94.0% of the jobs in Washington County are non-basic, while only 6.0% provide goods and services outside of the County. This is likely due to the rapid increase in the population of the County, which has consumed much of the County's production of goods and services. This could also be due to the number of people commuting outside of the County, which increases the overall County need due to fewer people producing goods and services for an increasing population.

The basic multiplier for Washington County is 15.64. This number indicates 15.64 non-basic jobs are supported by every one basic job in Washington County. Every time Washington County loses a job in 1) Sales and office occupations, and 2) Construction, extraction, and maintenance occupations. The County potentially could lose 15.64 non-basic jobs. In order to decrease this potential, Washington County needs to accentuate the basic jobs by diversifying the employment base even more. Counties want a balance of basic and non-basic employment in their economy to ensure future economic stability.

TABLE 21: REGIONAL AND STATE LABOR FORCE COMPARISONS, WASHINGTON COUNTY, 2000

Location	Occupation 1	Occupation 2	Occupation 3	Occupation 4	Occupation 5	Occupation 6	Base Multiplier
Nebraska	33.0%	14.6%	26.4%	1.6%	9.3%	15.1%	NA
Washington County	21.9%	31.7%	12.3%	8.5%	12.4%	13.2%	15.64
Dakota County	22.6%	12.9%	24.6%	1.3%	9.2%	29.5%	6.97
Dodge County	23.9%	15.9%	27.8%	1.1%	9.7%	21.5%	10.46
Douglas County	36.5%	13.5%	30.1%	0.2%	7.8%	11.9%	13.89
Sarpy County	36.8%	13.1%	31.3%	0.2%	8.6%	10.1%	11.55
Saunders County	28.5%	14.6%	24.9%	1.0%	12.5%	18.6%	14.98
Average of Counties	24.3%	14.5%	21.6%	1.8%	8.6%	15.0%	10.5

Occupation 1 = Management, professional, and related occupations

Occupation 2 = Service occupations

Occupation 3 = Sales and office occupations

Occupation 4 = Farming, fishing, and forestry occupations

Occupation 5 = Construction, extraction, and maintenance occupations

Occupation 6 = Production, transportation, and material moving occupations

Source: U.S. Census Bureau, Census of Population and Housing, DP-3, 2000

Table 21 indicates the 2000 percentage of employment by occupational categories for residents of the State of Nebraska, Washington County, and surrounding counties. The comparison with surrounding counties indicates the percentage of Washington County residents employed in each occupation category in comparable to the surrounding counties. Washington County employs the lowest percentage of workers in the Management, professional, and related occupations (21.9%), and Sales and office occupations (12.3%) but in all other industries, the County falls close to the middle of the range. Interestingly, Washington County's Basic Multiplier is much higher than the surrounding communities.

While the surrounding counties have a multiplier in the range of 6.97 to 14.98, Washington County's multiplier is 15.64. The impact of such a high multiplier is that Washington County is much more sensitive to the loss of one basic position than its neighboring counties. The reason for the higher multiplier is that the workforce is only 6.0% basic. This indicates a very small proportion of the workforce is responsible for generating the flow of new money into the County. The higher the basic percentage becomes the lower the Basic Multiplier will become. There is no perfect multiplier number; however, the multiplier must be balanced with a broad based basic sector.

One way for the County to increase the proportion of basic labor would be to increase the number of jobs in the existing basic categories, 1) Sales and office occupations, and 2) Construction, extraction, and maintenance occupations. Another strategy would be for Washington County to diversify its employment opportunities and increase the strength and security of its workforce. To do this, Washington County must bring some of its non-basic jobs into the basic category.

Table 20 shows that the three non-basic occupation categories are very close to the same percentage as the State, so it is possible that these categories could become basic, if additional jobs were created. If these occupational areas were to surpass the state percentage, they would start to contribute to the basic employment of the county, which in turn would lower the basic multiplier. However, as jobs are added to one Occupation Category, the percentages for all of the industries will change. This makes forecasting future basic and non-basic occupations complex and difficult.

Table 22 offers another basic/non-basic analysis. This approach is based upon Industry Categories instead of Occupation Categories. With the data presented in this Table, Washington County will have more detailed information to define where job growth needs to occur. Note the total percentage of basic and non-basic employment is not calculated in this Table. The

reason for this omission is those percentages are used to determine the Basic Multiplier, which is based upon Occupation Categories, and not Industry Categories. This is due to variations in data collection and tabulation techniques used by the U.S. Census Bureau. Table 22 has been provided solely as a means of determining which industries may be targeted for growth.

TABLE 22: BASIC/NON-BASIC EMPLOYMENT BY INDUSTRY, WASHINGTON COUNTY, 2000

	Washingto	on County	State of I	Nebraska			
Industry Categories	2000	% of Total	2000	% of Total	Washington County minus State of Nebraska	Basic	Non-Basic
Agriculture, forestry, hunting and mining	452	4.5%	48,942	5.6%	-1.1%	0.0%	4.5%
Construction	958	9.4%	56,794	6.5%	3.0%	3.0%	6.5%
Manufacturing	1,056	10.4%	107,439	12.2%	-1.8%	0.0%	10.4%
Wholesale Trade	238	2.3%	31,265	3.6%	-1.2%	0.0%	2.3%
Retail Trade	1,214	12.0%	106,303	12.1%	-0.2%	0.0%	12.0%
Transportation and warehousing and utilities	745	7.3%	53,922	6.1%	1.2%	1.2%	6.1%
Information	484	4.8%	21,732	2.5%	2.3%	2.3%	2.5%
Finance, Insurance, Real Estate and rental and leasing	730	7.2%	67,370	7.7%	-0.5%	0.0%	7.2%
Professional, scientific, management, administration, and waste management service	949	9.4%	63,663	7.3%	2.1%	2.1%	7.3%
Educational, health, and social services	1,862	18.4%	181,833	20.7%	-2.4%	0.0%	18.4%
Arts, entertainment, recreation, accommodation and food services	661	6.5%	63,635	7.3%	-0.7%	0.0%	6.5%
Other services (except public administration)	503	5.0%	40,406	4.6%	0.4%	0.4%	4.6%
Public Administration	294	2.9%	33,933	3.9%	-1.0%	0.0%	2.9%
Total	10,146	100.0%	877,237	100.0%			

Source: Bureau of Economic Analysis, Regional Economic Information System, 1999

According to Table 22, Construction, Transportation and warehousing and utilities and Communication and Other Public Utilities, Information, Professional, scientific, management, administration, and waste management services and Other Services are very strong industries in Washington County. These industries are providing many of the basic jobs that are supporting non-basic employment. The industries having the most room for growth are manufacturing, wholesale trade, educational, health, and social services. These industries are below the State average by 1.8%, 1.2%, and 2.4% respectively.

Tables 20 and 22 combine to give Washington County a picture of its employment situation and where it could go. In order to boost the economy of the County, there must be a flow of money into the County from other regions. To do that, the County needs to offer goods and services to those other areas. The County could also diversify its economic structure, which will add strength and stability.

AGRICULTURAL PROFILE

The agricultural profile enables a county to evaluate the influence of the agriculture industry on the area economy. Since most Nebraska counties were formed around county seats and agriculture, the agricultural economy, historically, has been the center of economic activity for counties. The U.S. Census Bureau, Census of Agriculture tracks agricultural statistics every five years. Since that frequency does not coincide with the decennial U.S. Census of Population and Housing, it is difficult to compare sets of census data.

Agriculture Trends

Table 23 identifies key components affecting Washington County's agricultural profile. This Table indicates the number of farms within Washington County decreased between 1987 and 2002, likely due to an agricultural sector that has operated with economic instability. The average size of farms increased from 280 acres in 1987 to 319 acres in 2002. The average value of land and buildings increased from \$290,634 per farm in 1987 to \$726,531 per farm in 2002 and from \$1,079 per acre in 1987 to \$2,252 per acre in 2002. The typical trend in Nebraska has been for the number of farms to decrease, but increase in size and value. The number of acres committed to crops, as well as the number of acres actually harvested, has also increased, albeit only slightly.

TABLE 23: AGRICULTURAL PROFILE, WASHINGTON COUNTY, 1987-2002

Agricultural Characteristics	1987	1992	1997	2002	% Change 1987- 2002
Number of Farms	826	726	692	760	-8.0%
Land in Farms (acres)	231,556	228,167	219,165	242,419	4.7%
Average size of farms (acres)	280	314	217	319	13.9%
Total land area for Washington County	256,000	256,000	256,000	256,000	0.0%
Percentage of land in farm production	90.5%	89.1%	85.6%	94.7%	4.7%
Total cropland (acres)	207,222	205,244	195,823	211,493	2.1%
Harvested cropland (acres)	166,195	182,881	176,832	194,705	17.2%
Estimated Market Value of Land & Bldg (avg./farm)	\$290,634	\$412,767	\$634,879	\$726,531	150.0%
Estimated Market Value of Land & Bldg (avg./acre)	\$1,079	\$1,361	\$2,083	\$2,252	108.7%

Source: U.S. Census of Agriculture, 1992, 1997, 2002

The average size of farms in Washington County has increased by 13.9%. The time period between 1987 and 2002 was one of great turmoil for the agriculture industry. Therefore, the value of farms decreased greatly. Looking only at the time period from 1987 to 2002, Table 22 shows the average value per farm increased by 150.0% and the average value per acre increased by 108.7%.

TABLE 24: NUMBER OF FARMS BY SIZE, WASHINGTON COUNTY, 1987-2002

Farm Size (acres)	1987	1992	1997	2002	% Change 1987- 2002
1 to 9	95	68	43	44	-53.7%
10 to 49	114	125	134	192	68.4%
50 to 179	193	167	190	185	-4.1%
180 to 499	281	215	181	168	-40.2%
500 to 999	114	114	96	115	0.9%
1,000 or more	29	37	48	56	93.1%
Total	826	726	692	760	-8.0%

Source: U.S. Census of Agriculture, 1992, 1997, 2002

The size of farms, in acres, is indicated in Table 24. Table 24 shows between 1987 and 2002 smaller farm sizes were declining in number. The increase in the number of farms with over 1,000 acres indicates farms were consolidating. These data support Table 23 in that the numbers of farms have been decreasing, but the size is increasing.

Table 25: Number of Farms & Livestock by Type, Washington County, 1987 to 2002

Type of Livestock	1987	1992	1997	2002	% Change 1987 to 2002
Cattle and Calves					
farms	327	297	262	237	-27.5%
animals	38,172	28,391	33,183	32,454	-15.0%
average per farm	117	96	127	137	17.3%
Beef Cows					
farms	212	212	187	177	-16.5%
animals	5,313	5,272	5,010	5,532	4.1%
average per farm	25	25	27	31	24.7%
Milk cows					
farms	31	34	22	12	-61.3%
animals	2,282	2,599	1,559	1,529	-33.0%
average per farm	74	76	71	127	73.1%
Hogs and Pigs					
farms	209	166	107	51	-75.6%
animals	63,619	63,904	56,935	42,299	-33.5%
average per farm	304	385	532	829	172.5%
Sheep and lambs					
farms	41	29	31	26	-36.6%
animals	2,042	3,484	1,889	2,048	0.3%
average per farm	50	120	61	79	58.2%
Chickens 13 weeks and older					
farms	56	21	27	23	-58.9%
animals	4,102	754	742	466	-88.6%
average per farm	73	36	27	20	-72.3%

Source: U.S. Census of Agriculture, 1992, 1997, 2002

Table 25 indicates the number of farms and livestock by type for Washington County between 1987 and 2002. The predominant livestock raised in Washington County are hogs and pigs. All livestock productions showed a decline in both the number of farms raising them and total animals raised, except beef cows and sheep and lambs, each had a slight increase in the number of head. Cattle and calf operations have declined in number, but the total number of animals raised increased

between 1992 and 1997. Average livestock numbers per farm were calculated for each type of operation and the results indicated that every livestock group except chickens increased despite the declining number of farms.

TABLE 26: NUMBER OF FARMS & CROPS BY TYPE, WASHINGTON COUNTY, 1987 TO 2002

Type of Crop	1987	1992	1997	2002	% Change 1987 to 2002
Corn for Grain					
farms	586	493	454	410	-30.0%
acres	71,749	87,413	81,311	87,038	21.3%
average per farm	122	177	179	212	73.4%
Corn for Silage					
farms	50	48	40	37	-26.0%
acres	1,984	2,700	1,575	1,736	-12.5%
average per farm	40	56	39	47	18.2%
Sorghum					
farms	17	19	5	1	-94.1%
acres	985	1,192	421	(D)	-
average per farm	58	63	84	(D)	-
Wheat					
farms	64	41	24	8	-87.5%
acres	1,592	913	461	379	-76.2%
average per farm	25	22	19	47	90.5%
Oats					
farms	143	112	35	17	-88.1%
acres	3,234	2,683	822	479	-85.2%
average per farm	23	24	23	28	24.6%
Soybeans					
farms	562	474	435	407	-27.6%
acres	72,628	73,030	78,599	87,154	20.0%
average per farm	129	154	181	214	65.7%
Alfalfa					
farms	384	344	319	270	-29.7%
acres	15,433	16,348	15,480	15,938	3.3%
average per farm	40	48	49	59	46.9%

Source: U.S. Census of Agriculture, 1992, 1997, 2002

Table 26 indicates the number of farms and crop by type for the period from 1987 to 2002. This Table shows the prominent crops grown in the county. In addition, the Table indicates the total number of farms producing the specific crop and finally an average per farm. Corn and soybeans have been the two most frequently raised crops in Washington County since 1987. In all cases, the number of farms growing a particular crop decreased between 1987 and 2002. All of the crops indicated saw an increase in the average number of acres per farm. The largest increases of acres per farm were in the production of Wheat (90.5%), Corn for Grain (73.4%), and Soybeans (65.7%). Between 1987 and 2002, Corn for grain, Soybeans and Alfalfa all indicated increases in the total number of acres planted; however, the number of farms growing these three crops decreased. This indicates the farms that are continuing to grow these crops are getting larger; this is a statewide as well as a nationwide trend.

COUNTY FACILITIES

COUNTY FACILITIES

State and local governments provide a number of goods and services for their citizens. The people, buildings, equipment and land utilized in the process of providing these goods and services are referred to as public facilities.

Public facilities represent a wide range of buildings, utilities, and services that are built and maintained by the different levels of government. Such facilities are provided to insure the safety, well being and enjoyment of the residents of a jurisdiction, in this case, Washington County. These facilities and services provide county residents with social, cultural, educational, and recreational opportunities, as well as law enforcement and fire protection services designed to meet area needs. It is important for all levels of government to anticipate the future demand for their goods and services if they are to remain strong and vital. The first step is to evaluate the ability of the county to meet that future demand and determine the level of services that will be provided. The analysis of existing facilities, and future goods and services are contained in the Facilities Plan. Alternatively, in some instances, there are a number of goods and services that are not provided by the local or state governmental body and thus are provided by non-governmental private or non-profit organizations for the county. These organizations are important providers of goods and services, especially in sparsely populated rural counties.

FACILITIES PLAN

The Facilities Plan component of a Comprehensive Development Plan reviews present capacities of all public and private facilities and services. This section evaluates the current demands and accepted standards to determine whether capacity is adequate, as well as determine what level of service is required to meet future demands within the planning period. Finally, recommended improvements for public goods and services that are not adequate for present or future needs are provided.

The Facilities Plan for Washington County is divided into the following categories:

- Recreational Facilities
- Educational Facilities
- Fire and Police Protection
- County Buildings
- Transportation Facilities
- Communication Facilities
- Public Utilities
- Health Facilities

RECREATIONAL FACILITIES

Washington County is located in Nebraska's Riverfront Country, a region within the Nebraska Department of Game and Parks system. Riverfront Country includes the counties of Washington, Douglas, and Sarpy. The Nebraska Game and Parks Department has this to say about Riverfront Country:

"The Riverfront offers tourists a myriad of historical, cultural and recreational opportunities. Where else can you view one of the finest collections of Western art, take a riverboat excursion, tour aquariums and nature centers, visit nationally prominent museums and zoos, hear arias or polkas, eat a world-famous steak, and take in the beauty of the great outdoors? Nowhere else but the Riverfront in Nebraska."

FEDERAL RECREATIONAL FACILITIES

Boyer Chute National Wildlife Refuge is located three miles east of Fort Calhoun, along the Missouri River. The refuge includes a restored three-mile long river channel surrounded by 2,000 acres (approved to expand up to 10,000 acres) of grassland, woodland, and wetlands. This area is an example of a multi-jurisdictional cooperation (In addition to the U.S. Fish and Wildlife Service, the Army Corp of Engineers, and other local agencies were involved.) that successfully benefited the area by restoring important habitat as well as creating a recreation area. There are two short nature trails and a four-mile long hiking trail. The refuge is open daily during daylight hours, admission is free, and it is handicapped accessible. Activities include fishing, canoeing, and bird watching. Picnic areas are provided.

De Soto Bend, a national wildlife refuge area located in the wide floodplain of the Missouri River, is widely known for its traditional waterfowl flyway every spring and fall. The refuge encompasses approximately 7,800 acres of which 2,000 are in agricultural production. Since 1965 1,500 acres of the refuge has been transformed back into grasslands. This area is expanding every few years to incorporate more land into the wildlife management area.

A major attraction within the park is the Bertrand Steamboat excavation site and the various artifacts found within the hull of the 1860's era sternwheeler. Along with this site there are various other recreation-related activities including the De Soto Bend Visitor's Center, fishing, hunting, boating, and mushroom gathering.

The following trails are also developed within this area:

- Betrand Trail
 - Runs along the old river channel through grassland and marsh habitats.
- Cottonwood Trail
 - Wood chip trail through the woods ¾ of a mile long.
- Wood Duck Pond Trail
 - Crosses trough Wood Duck Pond and lead through woods and along grasslands
- Missouri Meander Trail
 - A handicapped accessible trail adjacent to the De Soto Visitor's Center with year round access.

STATE RECREATIONAL FACILITIES

Although some of the parks listed below may be located outside Washington County these resources are still utilized by the residents of Washington County. A general distance of 30 miles was used when determining what sites to include in the following:

Fort Atkinson State Historical Park is located on Madison Street in Fort Calhoun, 10 miles southeast of Blair. Fort Atkinson enjoys a prominent position in the history of the area, of Nebraska, and of the United States. Fort Atkinson was established as the first U.S. military post west of the Missouri River in 1819, and was an active post from 1820 until 1827. Over 1,000 soldiers were garrisoned at Fort Atkinson. This fort was charged with the often-impossible task of regulating the fur trade and enforcing peaceful relations between traders and Indian tribes.

There is a visitor center at the Park that is open daily from late May until early September 4, and weekends only from early September until late October. The park also offers a living history. One weekend per month, from May until October, volunteers portray what life was like for persons living at Fort Atkinson in the 1820s. This portrayal lasts from 11 a.m. until 5 p.m.

Summit Lake State Recreation Area is located two miles west of Tekamah, in Burt County, which is approximately 22 miles north of Blair. There are 345 acres of pasture on which to hunt for pheasant, quail, rabbit, squirrel, and waterfowl. There is also 190 acres of water for boating, fishing, and swimming activities. The park also offers RV and tent camping, and picnic facilities.

Pelican Point State Recreation Area is located four miles north and 4 miles east of Tekamah, in Burt County, which is approximately 27 miles northeast of Blair. The area offers 36 acres of pasture for hunting quail, rabbit, squirrel, and waterfowl.

Middle Decatur Bend Wildlife Management Area is located four miles east of Decatur, in Burt County, which is approximately 40 miles north of Blair. This area is accessible only by boat from the Missouri River. It offers 25 acres of pasture, and 108 acres of timber. Hunting for deer and waterfowl is allowed.

Powder Horn Wildlife Management Area is located nine miles south of West Point, in Dodge County, which is approximately 38 miles northwest of Blair. The area includes 83 acres of crop, 183 acres of timber, and 18 acres of water. Hunting is allowed for deer, dove, squirrel, quail, rabbit, turkey, and waterfowl.

Fremont State Recreation Area is located three miles west of Fremont, in Dodge County, which is approximately 27 miles southwest of Blair. This area is a popular destination for vacationers. The area offers 400 acres of pasture, but hunting is prohibited. Some of the amenities offered by the park include power boating, swimming, fishing, non-power boating, camping, and picnicking. The park also includes 269 acres of water divided among 20 sandpit lakes, each of which offers different amenities. Fishing is popular here, and there are many species to catch, including crappie, bluegill, catfish, northern pike, largemouth bass, rock bass, redear sunfish, green sunfish, and carp. There are limitations on boating at different times of the day. The stock of the lakes may be rotated from time to time in order to manage the various species of fish.

Wilson Island, named after former Governor George Wilson, came into existence as an island sandbar around 1900. Today, Wilson Island State Recreation Area encompasses 577 acres of dense cottonwood stands. Located approximately 12 miles to the east of Blair. Seclusion is one of the area's greatest assets and spacious shady campsites, hiking trails and picnic spots provide a welcome retreat.

Wildlife is abundant in the park and a visitor may see deer grazing in the park's fields or be awakened by a huge flock of snow geese flying low overhead in the fall. Bald eagles are often perched in the tall cottonwoods during the winter and mushroom hunters will find no better place in the spring.

En route to Wilson Island, visitors will see the unique wave-like loess hills which overlook the great Missouri River flood plain. These rugged hills are found along the Missouri River Valley in Nebraska and Missouri. Early history tells us that Lewis and Clark traveled and camped on this reach of the Missouri River in 1804 - 1806 on their historic trip to and from the Pacific Coast.

LOCAL RECREATIONAL FACILITIES

Black Elk/Neihardt Park is located on College Drive in Blair. The park includes a pavilion and sculpture dedicated to Black Elk and John G. Neihardt. The park offers excellent views of eastern Nebraska's rolling hills. The park is open year round from dawn until 11 p.m.

OTHER RECREATIONAL ACTIVITIES

Nebraska Motorplex is located two miles south of Scribner, in Dodge County, which is approximately 40 miles northwest of Blair This is a NHRA Division 5 drag strip that was constructed on what used to be the airstrip for a WWII military base. The motorplex offers many classes of racing, from beginner racers in the high school class to professional racers in NHRA sanctioned points races, and it even offers motorcycle classes. The race schedule begins in early July and lasts until late October.

Golf Courses

Blair Golf Course is located on Highway 75, two miles North of Blair. This is an 18-hole, par 72, semi-private golf course. Non-members can play weekdays before 4 p.m. The course is generally flat and lush and well maintained. A clubhouse with bar and cooking facilities and cart space is available to members. The foothills located west of the course offer a scenic backdrop to the course, especially at dusk.

Other golf courses in the general vicinity of Washington County include the following:

	<u>Course</u>	Distance from Blair
•	Benson Golf Course (Public)	30 Miles
•	The Champions Club (Private)	28 Miles
•	Elkhorn Ridge Golf Course (Public)	21 Miles
•	Happy Hollow County Club (Private)	28 Miles
•	The Knolls Golf Course (Public)	26 Miles
•	Indian Creek Golf Course (Public)	20 Miles
•	Omaha County Club (Private)	20 Miles
•	Pacific Springs Golf Course (Public)	26 Miles
•	Shoreline Golf Course (Public)	26 Miles

Future Recreation development in Washington County

There is various future recreation developments planned for Washington County involving many different jurisdictions. The success of these **projects** hinges upon the level of cooperation between these entities. The following is a list of projects scheduled for this area:

Back to the River Project

One major initiative that has been started is the *Back to the River Project*. This project involves public and private groups working together for six main goals:

- Wildlife habitat restoration
- Recreation and river access
- Education
- Economic development
- Cultural resources
- Flood plain management

The Back to the River Project covers six counties in all, three Nebraska counties: Washington, Douglas, and Sarpy, and three Nebraska Counties; Harrison, Pottawattamie, and Mills. Specifically in Washington County initial projects include:

- In **Boyer Chute National Wildlife Refuge**, a revitalization of 2,000 acres of habitat for fish, mink, river otter, and migratory waterfowl. In addition to revitalization of this area of Boyer Chute, expansion is planned including Nathan's Lake, and the continuing purchase of privately owned property for the overall benefit of the area.
- Krimlofski Tract Addition to Neale Woods Nature Center is a planned acquisition by the Fontenelle Forest Association
 of 262 acres of floodplain forest with one mile of riverfront for educational and recreational uses.
- In addition to these listed projects efforts are underway to construct a Missouri River Trail along both sides the River with connects points across the river.
- These are just the beginnings of projects in Washington County not to mention other Counties in cooperation of this
 project.

EDUCATIONAL FACILITIES

PUBLIC SCHOOLS

The public schools in Nebraska are grouped into six classes, depending upon the type of educational services provided and the size of the school district. The six classes, as defined by the State of Nebraska, are:

- Class 1 Any school district that maintains only elementary grades under the direction of a single school board.
- Class 2 Any school district with territory having a population of 1,000 inhabitants or less that maintains both elementary and high school grades under the direction of a single school board.
- Class 3 Any school district with territory having a population of more than 1,000 and less than 100,000 that maintains both elementary and high school grades under the direction of a single school board.
- Class 4 Any school district with territory having a population of 100,000 or more and less than 200,000 inhabitants
 that maintains both elementary and high school grades under the direction of a single school board.
- Class 5 Any school district with territory having a population of 200,000 or more that maintains both elementary and high school grades under the direction of a single school board.
- Class 6 Any school district that maintains only a high school under the direction of a single school board. The territory of Class 6 district is made up entirely of Class 1 districts (or portions thereof) that have joined the Class 6.

The residents of Washington County are served by six Washington County-based public school districts. These districts can be seen on the school district map of Washington County, figure 3. The school districts, their class, and district number, are:

Arlington Public Schools	Class 3	No. 89-0024
Bennington Public Schools	Class 3	No. 28-0059
Blair Community Schools	Class 3	No. 89-0001
Fort Calhoun Community Schools	Class 3	No. 89-0003
Herman Public Schools	Class 3	No. 11-0001
Logan View	Class 3	No. 27-0594

Washington County is also served by two non-public schools. These schools are:

Immanuel Lutheran Elementary School	Class NP	No. 89-0701
St. Paul's Lutheran Elementary School	Class NP	No. 89-0702

Table 27 indicates student enrollment figures for school districts located within Washington County. In addition, enrollment figures are categorized by grade. According to the data, Blair Community Schools had the highest student enrollment.

TABLE 27: SCHOOL ENROLLMENTS, WASHINGTON COUNTY, 1999-2000

School District	K - 6	7 - 8	9 - 12	Total
Bennington	291	95	183	569
Blair	1,123	339	749	2,211
Fort Calhoun	311	100	194	605
Herman	385	105	227	717
Arlington	260	90	242	592
Logan View	298	102	106	506
Immanuel	29	6	0	35
St. Paul's	98	19	0	117

Source: Nebraska Education Directory, Nebraska Department of Education, 2000

Table 28 shows the valuations and cost per student for each school district serving Washington County. School officials should be looking at the population projections for the County and municipalities and developing future needs plans for each district. Facilities in each school district, at the time of the plan, were adequate and meeting the needs of faculty and students. Buildings and learning tools of each district are being updated continually.

TABLE 28: SCHOOL DISTRICT VALUATIONS & COST PER STUDENT- WASHINGTON COUNTY, 1998

School District	Student Enrollment	District Valuation	Cost Per Student (ADA*)
Bennington	569	\$ 2,403,872,300	\$ 6,033.78
Blair	2,211	\$ 538,678,440	\$ 5,582.95
Herman	717	\$ 266,634,542.00	\$ 5,442.53
Fort Calhoun	605	\$ 153,712,328	\$ 5,760.60
Logan View	680	\$ 247,288,850.00	\$ 6,373.23
Arlington	592	\$ 198,875,480	\$ 6,396.29

Source: 1998/1999 Annual Financial Report, Nebraska Department of Education

OTHER PUBLIC SCHOOL ENTITIES IN WASHINGTON COUNTY

Washington County is also served by Educational Service Unit number 3. This is a supplementary educational service that provides member school districts with assistance, and develops recommendations for services that will be provided to schools.

^{*} Average Daily Attendance



POST-SECONDARY EDUCATION

There is one post-secondary education school in Washington County. Dana College is a liberal arts school located in Blair. Danish settlers founded Dana College as a Lutheran school over 100 years ago. Today, Dana College is part of the Nebraska Synod of the Evangelical Lutheran Church in America. There are several other post-secondary level educational opportunities located near Washington County, which include:

•	University of Nebraska	Lincoln
•	Nebraska Wesleyan	Lincoln
•	Union College	Lincoln
•	Southeast Community College	Lincoln
•	Lincoln School of Commerce	Lincoln
•	University of Nebraska	Omaha
•	Creighton University	Omaha
•	University of Nebraska Medical Center	Omaha
•	Clarkson College	Omaha
•	College of St. Mary	Omaha
•	Grace College of the Bible	Omaha
•	Metropolitan Community College	Omaha
•	Nebraska Methodist College of Nursing and Allied Health	Omaha
•	Midland Lutheran College	Fremont

This is a short list of post-secondary institutions available to residents of Washington County. There are various other schools offering post-secondary education, such as vocational and business schools.

OTHER EDUCATIONAL OPPORTUNITIES WITHIN WASHINGTON COUNTY

In addition to these post secondary institutions the University of Nebraska has a cooperative extension office in Blair to serve the residents of Washington County. The extension office provides professional development, county based programs, adult education, publications and many other services.

FIRE AND POLICE PROTECTION

FIRE AND RESCUE

Fire Protection in Washington County is the responsibility of 10 fire districts located throughout the County. The major concerns of the fire departments are the many acres of open range, farmland, rural residential fires and hazardous materials storage. Fire protection is provided by volunteer firefighters. Historically, the volunteers have fulfilled that capacity exceptionally well. Each of the districts provides regular training for firefighters and is continuing to add certified Emergency Medical Technician personnel as needed. Fire Districts that serve Washington County include:

Arlington Fire District

The Arlington Fire District provides fire protection and emergency rescue for the Village of Arlington and the surrounding area. The department is located at 425 North 4th Street in Arlington. The total area in the district is 67 square miles. Because the Village of Nickerson does not have a rescue squad, this department also responds to rescue calls in the Nickerson district within Washington County. The rescue district, therefore, encompasses approximately 100 square miles. In 1984, the Village of Arlington Fire Department merged with the Arlington Rural Fire District to become the Arlington Fire District. The facility that houses the department was built in 1973 to replace an older building in the downtown area. In 1984, a 40° x 70° addition was built to the north of the fire hall which added four large truck bays. The fire department shares part of the building with the village auditorium.

The department has, at this time, 35 members. The roster allows for 35 firefighters and five active reserve members. Monthly drills are split between fire and rescue. The district sponsors classes put on by the Fire Marshal Training Division, Area Medical Association, NE Fire Chiefs Associations and others.

The Fire District is a member of the Washington County Mutual Aid Association, and also has interagency agreements with the Fremont Rural Fire Department and the Nickerson Fire Department for mutual aid assistance.

Year, Make and Type	Pump Size	Tank Size
1986 Ford/Danko 4x4 Grass Truck	300 GPM	325 gal
1986 GMC/Smeal Pumper	750GPM	1000 gal
1999 Navistar/Danko Tanker	300 GPM	1800 gal
1992 Ford/Smeal Tanker	300 GPM	1800 gal
1992 Ford/Road Rescue		

1992 Ford/Road Rescue

1999 Navistar/Amtech Heavy Rescue

1978 Chevrolet Utility Truck

All of the vehicles are in good to excellent condition. As with all emergency responders, the purchase of the new vehicles is always ongoing. In the near future, the district will be purchasing a new rescue squad and pumper. The district is fortunate to have a Fire Board that is aware of the importance of proper equipment.

Bennington Fire District

The Bennington Volunteer Fire and Rescue Squad, located at 15509 Warehouse Road in Bennington provides fire and rescue service not only for the City of Bennington but also the surrounding area. In addition to this station in Bennington there is a satellite station located in the Village of Washington, four miles to the northwest. The area which the Bennington fire district covers is roughly from Fort Street to two miles north of the Douglas County line, from 108th Street to 220th Street, approximately 45 square miles. The Department was established in 1892 and has been a volunteer service ever since. The facility that houses the department is 30 years old, with an addition that was constructed in 1993. The 48' x 84' addition which was added to the south of the original facility added three additional bays, a large meeting room, new kitchen, conference room, new bathrooms, and a new office. The facility is adequate at the present time but improvements are expected for the future.

Year, Make and Type	Pump Size	Tank Size
1990 Ford Central Mini-Pumper/Attack Unit	150 GPM	300 Gallon
1993 Spartan/Central Class A Pumper	1250 GPM	1000 Gallon
1985 Ford Chassis/1962 Smeal Body	750 GPM	1250 Gallon
1997 Chevrolet Suburban/Utility		
1979 Ford/Pierce Pumper		
1988 Ford/Collins Type III Ambulance		
1996 Ford/Lifeline Type III Ambulance		

Herman Fire District

Established in 1922, the Herman fire district is responsible for the Village of Herman as well as the northern rural area of Washington County, an area covering approximately 60 square miles.

Year, Make and Type	Pump Size	Tank Size
4x2 Pumper	750 GPM	1500 gal.
4x2 Pumper	500 GPM	1200 gal.
4x2 Tanker	300 GPM	1200 gal.
4x2 Tanker	300 GPM	1200 gal.
4x4 Grass Truck	75 GPM	250 gal.
6x6 Grass Truck	300 GPM	1200 gal.
4x2 Cube Van		

Uehling Fire District

The Uehling fire district covers a total of 76 square miles overall in Dodge, Cumming, Burt, and Washington Counties. The Uehling fire district covers a total of two square miles in the northwest portion of Washington County. The fire district was originally formed in 1947 in the Village of Uehling. There are a total of 24 volunteer firemen in the district of which three are a part of the rescue squad. In addition to the volunteers for the fire district there are a total of 16 volunteer rescue squad members (all EMT's) serving the district. Monthly training occurs for all volunteers by a training officer. The Uehling fire district is a member of Mutual Aid with Dodge County. The building, owned by the fire district, was constructed in 1970

with a major addition occurring in 1979. The fire hall contains two restrooms, a meeting room, a radio room, and six bays for vehicle storage. There are no plans for expansion or remodeling of the fire hall but the topic was being discussed, although the site did not leave any room for expansion.

Year, Make and Type	Pump Size	Tank Size
1991 Ford F350 Brush Truck	150 GPM	200 gal.
1988 Smeal/GMC Crossmount Pumper	750 GPM	900 gal.
1978 Pierce/Ford Midship Pumper	1000 GPM	1000 gal.
1991/1997 Danko/GMC Tanker	150 GPM	2000 gal.
1978 Ford Tanker	150 GPM	2200 gal.
1985 Ford Ambulance		
1976 Cadillac Ambulance		

OTHER FIRE DISTRICT INFORMATION

In addition to the fire districts and volunteer fire departments listed above, there several other fire districts that serve the planning area of the county. However, for a number of reasons, specific data for these departments/districts was not obtained. These districts include Blair, Craig, Fort Calhoun, Kennard, Nickerson, and Winslow.



LAW ENFORCEMENT

Law enforcement in Washington County is the responsibility of the Washington County Sheriff. The office of the Washington County Sheriff is located at 1535 Colfax Street in Blair, adjacent to the Washington County Courthouse. This facility also serves as the offices for the Blair police department. The communities of Herman and Washington do not have independent police departments; therefore, they rely solely on the Washington County Sheriff for protection.

Based upon data in the "Crimes in Nebraska- 1996-1998" published by the Nebraska Crime Commission, Washington County had 11 sworn officers in 1996, 13 in 1997, and 18 in 1998. With an average population of approximately 18,300 in those years, the numbers of sworn officers per 1,000 persons in the population were 1.0, 1.2, and 1.7 respectively. Table 30 shows the number of sworn officers per 1,000 persons in Washington County and the surrounding counties.

TABLE 30: SWORN OFFICERS, WASHINGTON AND SURROUNDING COUNTIES, 1996, 1997, AND 1998

	19	996	1997 1998		98	
County	Sworn Officers	Officers per 1,000	Sworn Officers	Officers per 1,000	Sworn Officers	Officers per 1,000
Burt	5	0.8	5	1.0	5	1.0
Cuming	4	0.6	4	0.6	4	0.6
Dodge	16	1.5	15	1.4	15	1.4
Douglas	114	1.5	116	1.5	112	1.8
Saunders	11	0.9	10	0.8	10	0.8
Washington	11	1.0	13	1.2	18	1.7

Source: "Crimes in Nebraska," 1996, 1997, 1998, Nebraska Commission on Law Enforcement and Criminal Justice

The ratio of law enforcement officers per 1,000 persons in the population for any given area is influenced by many factors. The determination of law enforcement strength for a certain area is based on such factors as population density, size and character of the community, geographic location and other conditions that exist in the area. In 1998, Washington County had more sworn officers and more officers per 1,000 persons in the population than the surrounding counties, except for Douglas County. Between 1996 and 1998, Washington County added seven sworn officers, and increased its number of officers per 1,000 persons in the population from 1.0 to 1.7. Washington County was the only county in Table 30 to increase its number of sworn officers. It is one of two that increased its ratio of officers to population.

COUNTY BUILDINGS

Washington County Courthouse is located at 1555 Colfax Street in Blair. This facility houses the Washington County Clerk, County District Court, Supervisors, Surveyor, Assessor's office, County Attorney, State Probation, County Treasurer, County Planning and Zoning Department including Building Inspections, Veteran's Service Office, and State Social Services.

Washington County Highway Department located 8845 Berry Hill Road in Blair. The department is responsible for maintaining 591 miles of roads in Washington County. In addition, the staff has over 108 bridges in the county to inspect and maintain.

Fairgrounds

The Washington County Fairgrounds are located in Arlington on the western edge of the county. The fairgrounds are host to the annual County Fair which is typically held during the middle part of August.

COUNTY HISTORICAL SITES AND BUILDINGS

Within Washington County there are various places of historical significance.

TABLE 31: NATIONAL REGISTER OF HISTORIC PLACES, WASHINGTON COUNTY

Registered Historic Site	Location	City	Date placed on register
Bertrand Site	DeSoto National Wildlife Refuge	x	March 24,1969
Blair High School	1653 Colfax Street	Blair	March 13,1991
Abraham Castetter House	1815 Grant St	Blair	June 25, 1982
Congregational Church of Blair	353 South 16th Street	Blair	February 1, 1979
C.C. Crowell, Jr., House	2138 Washington St	Blair	July 19,1982
Fontanelle Township Hall	10976 8th Street	Fontanelle	September 9, 1982
Fort Atkinson	1 mi. E of Fort Calhoun	Fort Calhoun	October 15, 1966
Long Creek School	Long Creek Lane, rural Blair	Blair	NA
Old MacDonald Farm	rural Blair	Blair	NA
Washington County Courthouse	1535 Colfax Street	Blair	January 10, 1990

Source: National Register of Historic Places, National Park Service, 2001

Washington County Museum located at 102 North 14th Street in Fort Calhoun opened in 1938 in the former Fort Calhoun Bank building. In 1968 the Edith L. Neale wing was added and then in 1989 the North gallery was added to the structure. The museum is open seasonally from March through mid December. In addition to regular exhibits the museum holds special exhibits throughout the year. The museum houses various records which include: biographies, histories, cemetery records, family and community photographs, federal census atlases, obituaries, old newspapers, school records, and vital statistics both on film and microfiche.

Bertrand Steamboat Site (description taken from the Nebraska State Historical Society Website)

Beginning in the early nineteenth century, steamboat traffic increased on the Missouri River. The *Bertrand*, owned by the Montana and Idaho Steamship Lines, was one of the largest steamboats to ply the Missouri north of the Platte River. The 160 by 30 foot sternwheeler hit a snag on the Missouri River north of Omaha and sank in April 1865. The boat was discovered

and excavated in the late 1960s. The artifacts recovered are displayed in the *Bertrand* museum at the DeSoto National Wildlife Refuge. The steamboat hull was reburied at the site of its discovery.

Blair High School (description taken from the Nebraska State Historical Society Website)

Located in Blair, the Blair High School was constructed in 1899. It is a two-story over raised basement brick structure designed in the Richardsonian Romanesque style. The original H-plan, sheltered by a series of hipped roofs, had two additions appended to the north. The first, a two-story gable roofed brick Colonial Revival annex was added in 1929. In 1967 a small, one-story, flat-roofed brick structure was appended to the west facade of the 1929 addition.

Abraham Castetter House (description taken from the Nebraska State Historical Society Website)

Located on what was known as "Silk Stocking Row" in Blair during the late nineteenth and early twentieth centuries, the Abraham Castetter house is a product of Eclecticism. The original house was built in the French Second Empire style in 1876, with later additions following various architectural styles that were popular during the 1880s and 1890s. Castetter, a native of Ohio, moved to Blair in 1869 and entered the banking business. In 1898 he established "The Banking House of A. Castetter." In 1887 Castetter deeded to the city land which formed the nucleus of the city park.

Congregational Church of Blair (description taken from the Nebraska State Historical Society Website)

The Congregational Church of Blair is a good example of the Carpenter Gothic style. The board and batten structure was constructed in 1874 by George Sutherland, a local builder, to the designs of Charles F. Driscoll, an Omaha architect. Several additions were made in later years. Eight charter members organized the church on February 10, 1870, eleven months after Blair was platted.

C. C. Crowell, Jr. House (description taken from the Nebraska State Historical Society Website)

The C. C. Crowell, Jr. House was built in 1901 by Christopher Columbus Crowell, Jr. and is transitional in style, exhibiting both Queen Anne and Neo-Classical Revival details. The Crowell family and their businesses, the Crowell Lumber and Grain Company and the Crowell Elevator Company, were associated with the development and commercial growth of the city of Blair for seventy years.

Fontanelle Town Hall

The Hall was constructed in 1860 by H.J. Carpenter for community use for voting and making local decisions. Founded six years earlier the town of Fontanelle is one of the oldest towns in the state. At one time it was considered for the state capitol and was the siting for the first university west of the Missouri, Nebraska University. It is the only town hall in Washington County preserved in its original location. The Fontanelle Town Hall is now owned and maintained by the County Historical Society.

Fort Atkinson State Historical Park (description taken from the Nebraska State Historical Society Website)

The Yellowstone Expedition, under the command of Colonel Henry Atkinson, traveled up the Missouri in 1819 with the intention of establishing military posts near Council Bluffs, the Mandan villages, and the Yellowstone River. Only the former was established and named Fort Atkinson. The post was constructed on a prominent Missouri River terrace near present Fort

Calhoun in 1820 and occupied until 1827. Fort Atkinson was the only American military post west of the Missouri at that time. The fort was critical in forging political links between the U.S. government and local Indian tribes, as well as protecting American fur trade and frontier interests. The fort consisted of a 450-foot-square barracks quadrangle with two bastions enclosing the parade ground, magazine, and possibly other structures. A wide assortment of structures was built on the exterior including a council house, stables, carpentry and blacksmith shops, laundresses' quarters, and slaughterhouses. Based on over ten seasons of archeological fieldwork, most of the fort has been reconstructed and an interpretive center established. It is operated as a state historical park by the Nebraska Game and Parks Commission.

Long Creek School District 8(description taken from the Nebraska State Historical Society Website)

The Long Creek School District 8, located near Blair, is a one-story, one-room, frame building constructed in 1889. It is an excellent example of a property type that illustrates a historically significant pattern of rural education. This particular pattern persisted through the twentieth century despite many changes in educational policy and reform.

Old McDonald Farm (description taken from the Nebraska State Historical Society Website)

Located in Washington County, the farmhouse was constructed in 1896 with other buildings added in subsequent years. The farmstead is significant for its association with the broad pattern of agricultural development in Washington County. The collection of late-nineteenth and early-twentieth-century farm buildings retains a high degree of integrity.

Washington County Courthouse (description taken from the Nebraska State Historical Society Website)

Washington County was among the earliest organized in Nebraska, having been established in 1854. After residing in De Soto and Fort Calhoun, the county seat was assigned to Blair in 1869. In 1889 voters passed a bond issue to help finance the construction of a courthouse. Work began the same year, but because of some delays the Romanesque Revival-style courthouse was not finished until 1891.

Frahm House located in Fort Calhoun, its original location, was constructed in 1905 by Fred Frahm. Today the house is basically the same except for modernization that have taken place throughout the years including adding electricity, running water, sewer system, and a furnace. The Frahm House is now owned and maintained by the County Historical Society.

TRANSPORTATION FACILITIES

Approximately 690 miles of roads are in Washington County. There are several hard-surfaced State and Federal highways in the county. U.S. Highway No. 30 crosses the Missouri River at Blair and runs west through the towns of Blair, Kennard, and Arlington. U.S. Highway No. 75 runs north from Omaha through Fort Calhoun, Blair, and Herman. State Highway No. 133 runs south of Blair to Omaha, and State Highway No. 91 runs west of Blair across the county and into Dodge County. Completed in 1991 was a \$7.9 million four-lane bridge on Highway 30 between Blair and Nebraska, spanning the Missouri River. Interstate 29, a major north/south route is 13 minutes to the east, while east/west Interstate 80 is only 22 minutes south.

RAILROAD SERVICE

The main line of the Union Pacific railroad (previously Chicago and Northwestern) serves Washington County. There are approximately 50 freight train trips per day through the county. The nearest piggyback service is in Omaha

BUS SERVICE

The nearest national bus service is in downtown Omaha through Greyhound Bus lines. Local bus service in the Omaha Metropolitan area is provided by MAT. A handicapped van service in the county is provided by the Carter House in Blair.

AIRPORTS

Public Airports

Blair Municipal Airport Blair recently acquired the **Eagle Field** Site, ten minutes south of Blair on Highway 133. The Eagle Field Runway 13-31 is 3450' x 50'. The field has lighted beacons and runway lights, and is open for aircraft operations 24 hours a day. The facility has hangers, tie downs, rest rooms, fuel, and telephone services are available.

Through state and federal grants an expansion of the airport is planned in the near future. The Blair airport with the expansion will then provide overflow for the north Omaha and Eppley airports.

Fremont Municipal Airport is owned and operated by the City of Fremont. There are two runways in use, the main runway is 5,500 feet long and 100 feet wide with a concrete/asphalt surface and the other runway is 2,444 feet long and 50 feet wide with an asphalt surface. There are 29 single engine aircraft and five multi-engine aircraft based at the airport. Annual operations (take offs and landings) amount to 17,600.

Tekamah Municipal Airport is owned and operated by the Tekamah Airport Authority. The airport includes one main runway with a total distance of 4,002 feet and is 75 feet wide having a concrete service. There are 18 total single engine aircraft based at the airport. The annual airport operations (take offs and landings) amount to a total of 27,020.

Eppley Airport located in Omaha is a regional airport for the region including Washington County. In 1999 the airport served a total of 3.77 million passengers, 77 million pounds of mail, and 172 million pounds of cargo. The airport itself is located four miles northwest of downtown Omaha on a site encompassing approximately 2,650 acres. The terminal area includes 368,000 square feet with 21 boarding gates. The airport includes three runways, 9,502 feet x 150 feet, 8,152 feet x 150 feet, 4,060 feet x 75 feet. Adjacent to the airport is long and short term parking in the garage, surface parking as well economy parking located a short distance from the airport. Airlines serving Eppley include the following:

- America West Airlines
- American Airlines
- Continental Airlines
- Delta Air Lines
- Frontier Airlines
- Midwest Express Airlines
- Northwest Airlines
- Southwest Airlines
- Trans World Airlines
- United Airlines
- US Airways Express

The **North Omaha Airport** is privately owned but is a public use airport. One main runway is utilized which is 2,480 feet in length and 40 feet in width. There are 50 single engine aircraft, seven helicopters, and one glider based at the airport. There are a total of 14,520 aircraft operations (take offs and landings) occur at the North Omaha Airport annually. The airport runs from dusk to dawn.

Private Airports

Within Washington County there are numerous private airstrips. Listed below are private airstrips registered with the Federal Aviation Administration and there associated community or general location (FAA):

- Orum Aerodrome, Blair
- Bil Lo, Fort Calhoun
- Heaton, Fort Calhoun
- Sibbernsen, Washington
- David Mooke, County Road 18/7

River Traffic

The Missouri River has been made navigable by the U.S. Corps of Army Engineers. Transportation by water is possible to all water ports of the world via the Missouri River barge lines. The channel depth is 9 feet, and the average season is from April to November. There are various businesses in Washington County that utilize the river for transport.

COMMUNICATION FACILITIES

TELEPHONE SERVICES

Great Plains Communications, Qwest, Hooper Telco, Northeast Nebraska Telephone, and Huntel Systems' provide local telephone service. Huntel serves 10,000 customers in Washington County as well as 13 other counties.

RADIO AND TELEVISION STATIONS Radio Stations

Listed below are radio stations serving Washington County:

Location	Station Frequency	Location	Station Frequency
Bennington	KTNP-FM 93.9	Blair	KISP-FM 101.5
Blair	KDCV-FM 91.1	Fremont	KFMT-FM 105.5
Fremont	KHUB-AM 1340	Omaha	KBBX-AM 1420
Omaha	KCRO-AM 660	Omaha	KEFM-FM 96.1
Omaha	KESY-FM 97.7	Omaha	KEZO-FM 92.3
Omaha	KFAB-AM 1110	Omaha	KGBI-FM 100.7
Omaha	KGOR-FM 99.9	Omaha	KIO5-FM 91.5
Omaha	KKAR-AM 1290	Omaha	KKCD-FM 105.9
Omaha	KOSR-AM 1490	Omaha	KQKQ-FM 98.5
Omaha	KSRZ-FM 104.5	Omaha	KTNP-FM 93.3
Omaha	KVNO-FM 90.7	Omaha	KXKT-FM 103.7
Omaha	KZFX-FM 107.7	Omaha	WOW-AM 590
Omaha	WOW-FM 94.1		

Television

Local Television Stations

Presently there are no local television stations located in Washington County but there are four located in Omaha serving the residents of Washington County. These stations are:

- WOWT 6 NBC Affiliate
- KETV 7 ABC Affiliate
- KMTV 3 CBS Affiliate
- KPTM 42 FOX Affiliate

Cable Television providers

There are various cable television providers in Washington County these include Huntel and Cablevision, both of which are based out of Blair.

INTERNET/WORLD WIDE WEB SERVICE PROVIDERS (ISP)

Internet service for the residents of Washington County is provided primarily through local telephone companies. The City of Blair is wired with a Digital subscriber line or DSL, all the other communities in the county use a dial up system. Local ISPs (Internet service providers) in Washington County will generally offer connection speeds of at least 56K at prices that are competitive with national ISPs. Many of these local providers offer one simple rate for unlimited usage, free e-mail accounts, and a limited amount of free space for personal web pages.

NEWSPAPERS

There are various newspapers serving the residents of Washington County. The official newspaper used by Washington County for legal notices is the Blair Enterprise. Listed below are Newspapers in circulation in or near Washington County:

- Arlington Citizen
- Blair Enterprise
- Blair Pilot-Tribune
- Burt County Plaindealer
- Douglas County Gazette
- Fremont Tribune
- Missouri Valley Weekender
- Missouri Valley Times-News
- Omaha World Herald

PUBLIC UTILITIES

ELECTRICITY

The majority of Washington County is served by Omaha Public Power District (OPPD) which is a publicly owned, non-profit utility. Their service area covers a 13-county region in southeastern Nebraska. They provide an abundant power supply by a balance of nuclear and coal-fired generation. OPPD's 476,000-kilowatt Fort Calhoun nuclear power station, located 10 miles south of Blair on Highway 75, went into commercial operation in September 1973. Some electricity is provided by Burt County REA.

NATURAL GAS

Natural Gas is distributed in the community by Peoples Natural Gas. The community is served by a 2" line at 10 lbs. of pressure for residential service. Northern Natural Gas is the pipeline supplier.

Natural gas with an average value of 1,000 BTU is available for residential, commercial, and industrial customers for base and peak use on a firm basis. Interruptible service is available for customers with alternate fuel capability. Annual curtailment of interruptible customers varies with the type of service selected by the customer.

In addition to traditional services, Peoples assists large volume users with customized services tailored to their specific needs including firm or interruptible gas transportation series, agency services such as gas procurement, firm and interruptible supply options, balancing, capacity management, cooperative financing on energy projects, billing metering, and winter peaking service.

WATER SUPPLY

The communities of Arlington, Blair, and Herman all have separate community water plants. In 2000 the City of Blair began to supply the Village of Kennard with water service via a water transmission main along Highway 30. In addition to community based water supplies, The Papio-Missouri Natural Resource District and Logan East Rural Water District supplies the community of Fort Calhoun and 340 rural users, and the unincorporated community of Nashville with treated water. This Papio-Missouri Natural Resource District purchases its supply of water from the Metropolitan Utilities District (MUD). Excluding the communities the majority of Washington County is served by individual private wells

SANITARY SEWERAGE SYSTEMS

Arlington, Blair, Fort Calhoun, Herman, and Kennard provide sanitary sewer service in their communities. In the rural areas of the County, private waste disposal facilities are utilized. Types of systems that may be used are lagoons, septic tanks, and leach fields.

SOLID WASTE DISPOSAL FACILITIES

There are various trash collectors that serve Washington County. The only place for disposal of non-toxic solid waste is in Douglas County just south of the Washington-Douglas County line. During this planning period the land fill received a thirty year extension to remain open.

HEALTH FACILITIES

HOSPITALS

Hospitals offer comprehensive care to the residents of Washington County. Although some hospitals specialize in certain medical treatments, any hospital will be able to offer treatment for any medical condition. There is one hospital located in Washington County, in the City of Blair. In addition to this one, there are several nationally recognized hospitals in nearby Douglas County.

Memorial Community Hospital is located at 810 N. 22nd Street in Blair. The facility has a total of 29 beds. The primary health services offered at the facility include Cardiopulmonary Rehab, Diabetes management, Emergency Room services, Food and Nutrition education, Immunization services, Labor and Delivery, Outpatient clinic, Primary Care clinic, and Physical Rehabilitation services. The hospital operates an after hours clinic located at the Blair Clinic. The hospital is served by MedFlight in extreme situations.

Methodist Hospital/Children's Hospital (MCH) is located at 8303 Dodge Street, in Omaha. Methodist is a not-for-profit, 430-bed acute care facility. Areas of practice include high-risk obstetrics, oncology, cardiology, orthopedics, and urology. Methodist also has an outstanding reputation in the areas of rehabilitation services, laparoscopic surgery, neurosurgery, and ophthalmology. Methodist Hospital obstetrical care unit averages approximately 3,000 births annually, more than any other hospital in the region.

St. Joseph Hospital is located at 601 N. 30th Street in Omaha. St. Joseph works in partnership with Creighton University Medical School to provide care to eastern Nebraska and Western Nebraska. St. Joseph is a 404-bed acute care facility. Areas of international recognition include cardiac care, osteoporosis research and treatment, angiography/vascular procedures, and hereditary cancer. The St. Joseph Trauma Center and LifeNet medical helicopter serve a 150-mile radius in Nebraska and Nebraska.

University of Nebraska Medical Center is located at 600 South 42nd Street in Omaha. UNMC is internationally recognized for excellence in the research that it does. It offers world-renowned care in many areas, and specializes in cancer treatment and organ transplantation. UNMC offers an international jet ambulance as well as local helicopter ambulances to transfer patients from anywhere in the world.

MEDICAL CLINICS

Medical clinics generally offer limited services, services that do not require the full availability of a hospital staff. Some clinics offer outpatient treatment, and even short-stay inpatient treatment. Clinics generally perform procedures that physicians cannot do in-office, but they do not perform complex or complicated procedures that require post-operative care. There are several medical clinics in Washington County, most of which are located in Blair. The clinics can be general in nature or more specialized, such as dental, chiropractic, or optometric. Listed here is information on three general practice clinics in the county:

Alegent Health Clinic is located at 718 South 9Th Street in Blair. The clinic is a part of the Alegent Health System. Since the clinic is part of a larger overall health system, the patients are able to receive care for a large number of health issues. Currently, the Blair location is staffed by three primary care providers.

Blair Clinic is located at 753 North 21st Street in Blair. The clinic is associated with Memorial Community Hospital in Blair. The clinic offers primary care and is also the location for the hospital's after hour's clinic. The clinic is associated with the MCH system in Omaha.

Fort Calhoun Clinic is located at 1420 Clark Street in Fort Calhoun. The clinic is affiliated with the MCH health system in Omaha.

NURSING HOME FACILITIES

Nursing home facilities can range from fully staffed assisted-living arrangements to an apartment-like setting staffed by few persons, who may have only basic medical knowledge. These facilities are designed to accommodate persons in various health conditions in a setting that provides as much independence as possible to the resident. There are several long-term care facilities in Washington County, most of which are located in Blair. There are many other long-term care facilities located in nearby Douglas and Lancaster Counties.

The facilities located within Washington County are:

- **Crowell Memorial Home** is located at 245 South 22nd Street in Blair.
- Shepard's Village is located at 2290 Wright Street in Blair.
- Good Shepard Lutheran Home located at 2242 Wright Street in Blair.
- **Johansen Manor Retirement Community** is located at 805 N. 22nd Street in Blair.
- Alc Carter House is located at 1028 Joann Drive in Blair.
- Clara-Ellen House is located at 501 North 13th Street in Fort Calhoun.

HOME HEALTH CARE SERVICES

Home health care services provide medical assistance to patients in the comfort and privacy of their own home. These services are generally staffed by nurses, but may also have a physician on-call. These services are offered mainly to elderly patients, and those whose conditions do not require hospitalization, but that also make travel to a physician's office difficult or uncomfortable.

The facilities/services located within Washington County include:

- Burt Washington Home Health is located at 810 North 22nd Street in Blair.
- **Home Health Care** is located at 127 South 17th Street in Blair.

GOALS & POLICIES

GOALS AND POLICIES

INTRODUCTION

Planning for the future land uses of the County is an ongoing process of goal setting and problem solving aimed at encouraging and enhancing better communities and higher quality of life. Planning focuses upon ways of solving existing problems within the County, and providing a management tool enabling Washington County citizens to achieve their vision for the future.

Visioning is a process of evaluating present conditions, identifying problem areas, and bringing about consensus on how to overcome existing problems and manage change. By determining Washington County's strengths and weaknesses, the community can decide what it wants to be, and then develop a "roadmap" guiding decisions and ultimately fulfilling the vision of the County.

Change is continuous, therefore Washington County must decide specific criteria that will be used to judge and manage change. Instead of reacting to development pressures after the fact, the County along with their strategic vision, can better reinforce the desired changes, and discourage negative impacts that may undermine the vision. A shared vision permits Washington County to focus its diverse energies and minimize conflicts in the present, and in the future.

A key component of a Comprehensive Plan, is the goals and policies. The issues and concerns of the citizens are developed into a vision. The vision statement can then be further delineated and translated into action statements, used to guide, direct, and base decisions for future growth, development and change within Washington County. Consensus on "what is good land use?" and "how to manage change in order to provide the greatest benefit to the County and its residents?" is formed. Washington County's goals and policies attempt to address various issues, regarding the questions of "how" to plan Washington County for the future.

Goals are desires, necessities and issues to be attained in the future. A goal should be established in a manner that allows it to be accomplished. Goals are the end-state of a desired outcome. Goals also play a factor in the establishment of policies within a county. In order to attain certain goals and/or policies within county government, they may need to be modified or changed from time to time.

Policies are concerned with defining and implementing the broad goals of the Comprehensive Plan.

Policies are a means to achieving the goals established by the County. They are specific statements of principle or actions that imply a clear commitment that is not mandatory. Policies are part of the value system linking goals with action. Policies have three different elements:

- 1. an end that needs to be achieved,
- 2. a means by which to achieve that end, and
- 3. an administrative mechanism by which the means are carried out

These policies will synthesize the information from the goals, as well as the responses from the participants of the Town Hall meetings in order to develop solutions that will achieve the goals of the Comprehensive Plan. Therefore, policies play an important role in the Comprehensive Plan because they are the actions that need to be taken to meet the goals.

The goals and policies assure that the Comprehensive Plan accomplishes the desires of the residents in Washington County. This section of the Comprehensive Plan is therefore, a compilation of local attitudes have generated through public meetings and workshops. When followed, development proposals in the County will be evaluated as to their relationship with the citizens' comments. Therefore, "goals and policies" should be referred to as diligently as the Future Land Use Map or any other part of the Comprehensive Plan, when reviewing and/or making recommendations on planning issues. Likewise, they should be current, in order to reflect the attitudes and desires of the County and its residents.

It is important for counties to establish their goals and policies in a manner that allows for both long-term and short-term accomplishments. The short-term goals and policies serve several functions:

- Allow for immediate feedback and success, which fuels the desire to achieve additional goals and better policies.
- Allow for the distribution of resources over time thus assuring a balanced use of public investment.
- Establish certain policies that need to be followed before the long-term goals can be accomplished.

WASHINGTON COUNTY TOWN HALL MEETINGS

During February and March of 2001 a total of five town hall meetings were held across the county in order to gather input on issues (both positive and negative) facing the residents of Washington County. At each meeting the group in attendance was asked to identify negative and positive aspects of the County. The residents were also asked to identify issues that were affecting the County and needed action. Finally, the citizens in attendance were asked to identify specific projects they desired to see completed in the next 5, 10, or 20 years. The attendees then ranked their three top priorities for each question. The following information summarizes the results of each question and the corresponding percentage (i.e. importance) residents of Washington County indicated for each question.

Note the number of points for each question may differ due to the fact that not all residents prioritized three concerns for each question or they used all of their points to indicate one major problem that needed action. In addition, not every resident of Washington County will agree with the order of these issues or that these were all the aspects of the County that should have been listed, but this was taken from the participants at the town hall meetings. Another detail of note, not all issues indicated have goals and policies identified since they do not have bearing on the land use of the County. The County, through the appropriate governing bodies, should attend to the issues not addressed by the goals and policies due to their specific nature.

As stated before, during the town hall meetings the participants where asked four separate questions which included the following:

Negatives

"What are the negative aspects or weaknesses facing Washington County during the planning period?"

The participants in the Town Hall Meetings were asked to respond to this question as honestly as possible. They were told this was a brainstorming exercise, and that there was no wrong or bad response. Through brainstorming and listing every response, the participants are more likely to engage in a discussion that can lead to more responses. The reasoning behind this question is to identify what topics in the County are negative so that through comprehensive planning these negatives can be turned into positives.

Positives

"What are the positives or strengths facing Washington County during the planning period?"

This question was presented to the participants just as the negative question was, as a brainstorming exercise. The reasoning behind this question is to identify topics in the County that are positives and through comprehensive planning these positives can remain as positives through the planning period.

Issues

"What are the issues relating to the future development of Washington County during the planning period?"

In order to respond to this question, participants were asked to think about past experiences, present concerns, and specific problems. This question attempts to raise issues that have been, may be, or will be topics that will affect the future of Washington County.

Projects

"WHAT ARE PROJECTS THAT SHOULD BE COMPLETED FOR WASHINGTON COUNTY DURING THE PLANNING PERIOD?"

This question asked participants to think of any potential project that they desired to see accomplished in Washington County. This gave the participants an opportunity to dream a little and express their desires for the county.

TOWN HALL MEETINGS

Fort Calhoun Town Hall Meeting, February 21, 2001 (Fort Calhoun High School)

The first Town Hall meeting held in the County took place in Fort Calhoun at the High School. The attendance included approximately 35 people. A few County Supervisors and Planning Commissioners made up this group with the majority consisting of the general public.

"What are the negative aspects or weaknesses facing Washington County during the planning period?"

In total there were 20 responses provided by the group that night. The most important negative aspect of the County was that of infrastructure problems due to growth. The concern that development was outpacing infrastructure that was serving it gathered 19.7% of the of the total votes. Following was the negative of the changes in minimum lot size over time, with 15.3% of the total votes. This negative pointed out that minimum lot size regulations in the County were not consistent over time. The third highest valued negative was the loss of farmland, with 9.7% of the total votes. This points out the loss of production farmland to development.

TABLE 32: NEGATIVE ASPECTS OF WASHINGTON COUNTY, FORT CALHOUN

	Negatives	Total Points	% of Total Points
1	Infrastructure Problems due to Growth	24	19.4%
2	Changes in Minimum Lot Size overtime	19	15.3%
3	Loss of Farm Land	12	9.7%
4	Valuation of Property Due to Growth from Omaha	11	8.9%
5	Complaints by New Residents	10	8.1%
6	Cargill Odors	9	7.3%
7	Tax Base (Schools) in Fort Calhoun is Residential Only	8	6.5%
8	Lack of Respect (Peoples Property)	7	5.6%
9	Animals (Dogs)	6	4.8%
10	Trash along Roadside	4	3.2%
11	Cultural Differences between South Washington County and the Rest of the County	3	2.4%
12	Cities Buying Property & Affecting Properties	3	2.4%
13	Location	2	1.6%
14	ETJ's & Residence Representation	2	1.6%
15	Courtesy of New Residents	2	1.6%
16	Lack of Review: Infrastructure	1	0.8%
17	Fish and Wildlife-Land Ownership	1	0.8%
18	Fort Calhoun-Storm Runoff Disposal	0	0.0%
19	Junk vs. Antiques vs. Farm Equipment	0	0.0%
20	Traffic Congestion at Cargill	0	0.0%
Γotal		124	100.0%

"What are the positives or strengths facing Washington County during the planning period?"

The group came up with 29 positive responses about the County. The group felt that the most important positive about the County was the volunteer fire and rescue departments, which received 12.3% of the total votes. Following this top response was that Washington County was a beautiful County, receiving 11.1% of the total votes. Rounding out the top three most important positive responses was that of the low crime rate, with 9.9% of the total votes.

TABLE 33: POSITIVE ASPECTS OF WASHINGTON COUNTY, FORT CALHOUN

	Positives	Total Points	% of Total Points
1	Fire and Rescue Departments	10	12.3%
2	Beautiful County	9	11.1%
3	Low Crime Rate	8	9.9%
4	Business Base is Committed to County	8	9.9%
5	Min. Taxes by County	6	7.4%
6	Basically Helpful People	6	7.4%
7	Strong Agricultural Base	6	7.4%
8	Fort Atkinson	5	6.2%
9	Test Road County Road 37	4	4.9%
10	School System	4	4.9%
11	Board Members (all serve for the right reasons)	4	4.9%
12	Neale Woods	3	3.7%
13	County Extension Office	2	2.5%
14	Community Hospital	2	2.5%
15	Boyer Chute	2	2.5%
16	Recycling System	1	1.2%
17	County Fair	1	1.2%
18	Not Douglas County	0	0.0%
19	Strong Population Base	0	0.0%
20	Reliable Power	0	0.0%
21	Cargill	0	0.0%
22	Blair	0	0.0%
23	All Industries	0	0.0%
24	Dana College	0	0.0%
25	Metropolitan Community College	0	0.0%
26	Location to Omaha	0	0.0%
27	De Soto Bend	0	0.0%
28	Fontenelle Forest	0	0.0%
29	Good Place to Raise Kids	0	0.0%
otal		81	100.0%

"What are the issues relating to the future development of Washington County during the planning period?"

There were 28 responses given by the group for this question. The highest ranked response was that of zoning, with 11.7% of the total votes. This response was representing urgency in updating the County's zoning regulations. The second highest ranked issue by the group was the Highway 133 corridor, with 10.8% of the total votes. The third highest ranked response to this question was that of minimum lot size in the agricultural areas of the County, with 9.9% of the total votes. A similar response was given to the negative question earlier in the night representing that this response will be one of the first items the County must deal with in the future.

TABLE 34: ISSUES OF WASHINGTON COUNTY, FORT CALHOUN

	Issues	Total Points	% of Total Points
1	Zoning	13	11.7%
2	Highway 133 Corridor	12	10.8%
3	Minimum Lot Size in Agricultural Areas	11	9.9%
4	Growth	10	9.0%
5	Open Space Development	10	9.0%
6	Where Do Subdivisions Go	8	7.2%
7	What Agricultural Areas are Protected	8	7.2%
8	Taxes	7	6.3%
9	Enforcement of Zoning	6	5.4%
10	Coordination Between County and Communities	5	4.5%
11	Water Availability	5	4.5%
12	Airport	3	2.7%
13	Management of ETJ's in Towns	3	2.7%
14	Traffic	2	1.8%
15	Water and Sewer Line Extensions	2	1.8%
16	Landfill	2	1.8%
17	Expand Economy and Maintain Positives	1	0.9%
18	Infrastructure of Lots	1	0.9%
19	Government Regulations	1	0.9%
20	Septic Systems	1	0.9%
21	Cost of Living	0	0.0%
22	Omaha Cultural Influence	0	0.0%
23	Multi-Family Dwellings in Agricultural Areas	0	0.0%
24	Coordination Between County and State	0	0.0%
25	Water Quality and Quantity	0	0.0%
26	Bicycles	0	0.0%
27	Garbage Collection	0	0.0%
28	Fair Market Value for Older Home Owners	0	0.0%
otal		111	100.0%

"What are projects that should be completed for Washington County during the planning period?"

The fourth and final question of the town hall meeting received 14 responses. Again the response of infrastructure improvements was given and received 19.4% of the total votes. This response to this question is in direct result of the negative response given earlier in the night. Following in the same area the second highest ranked response was that of road improvements, receiving 16.1% of the total votes. To round out the top three ranked responses was that of a rural water system, with 12.9% of the total votes. Again this follows along the lines of improving the infrastructure of the County to handle present and future development.

TABLE 35: FUTURE PROJECTS OF WASHINGTON COUNTY, FORT CALHOUN

	Future Projects	Total Points	% of Total Points
1	Infrastructure Improvements	18	19.4%
2	Road Improvements	15	16.1%
3	Rural Water System	12	12.9%
4	County Library System	10	10.8%
5	County Road Maintenance	10	10.8%
6	Comprehensive Plan	8	8.6%
7	Increase Industrial Tax Base	5	5.4%
8	County Animal Control	4	4.3%
9	Protect Local Businesses	4	4.3%
10	School Expansion	3	3.2%
11	Expand Fire and Rescue	2	2.2%
12	Expand Youth Activities	1	1.1%
13	Trails	1	1.1%
14	Improve Telecommunications and Other Communication System	0	0.0%
Total		93	100.0%

Blair Town Hall Meeting, March 1, 2001

Approximately 21 people attended the second town hall meeting, which was held at the Washington County Courthouse. The County Supervisors and the entire Planning Commission made up half the group with the remainder of the group consisted of the general public.

"What are the negative aspects or weaknesses facing Washington County during the planning period?"

The highest ranked negative from the group was a tie between road maintenance and protection of agricultural land, with 14.5% of the total votes for each. The second highest ranked response was that of lot splits, receiving 13.0% of the total votes. Ranking third among those responses, at 12.2% of the total votes, was that of Boyer Chute (Federal Lands).

TABLE 36: NEGATIVE ASPECTS OF WASHINGTON COUNTY, BLAIR

	Negatives	Total Points	% of Total Points
1	Road Maintenance	19	14.5%
2	Protection of Agricultural Land	19	14.5%
3	Lot Splits	17	13.0%
4	Boyer Chute (Federal Lands)	16	12.2%
5	Subdivisions in Prime Agricultural Land	12	9.2%
6	No Cooperation Between County and Communities	11	8.4%
7	Conflict between New Acreage Owner and Farmer	9	6.9%
8	Commercial Development	8	6.1%
9	Blair Airport Expansion	4	3.1%
10	Lack of Infrastructure	4	3.1%
11	Future Traffic Impacts	4	3.1%
12	Omaha Growth	3	2.3%
13	Lack of Future Plan	2	1.5%
14	Lack of Animal Control	2	1.5%
15	No Community Infrastructure in Rural Subdivisions	1	0.8%
16	Extraterritorial Jurisdictions	0	0.0%
17	Public Services	0	0.0%
18	Lot Sizes (10 acre sprawl)	0	0.0%
19	Lack of Notification	0	0.0%
Total		131	100.0%

Source: Town Hall Meeting, Courthouse - Blair

"What are the positives or strengths facing Washington County during the planning period?"

The top ranked positive the group gave was that of farming receiving a fifth of the votes or 19.4%. Following that response, with approximately the same amount of votes, was the rural atmosphere of the County, with 18.5% of the total votes. Rounding out the top three was the response of quality of life, receiving 12.0% of the total votes.

TABLE 37: POSITIVE ASPECTS OF WASHINGTON COUNTY, BLAIR

	Positives	Total Points	% of Total Points
1	Farming	21	19.4%
2	Rural Atmosphere	20	18.5%
3	Quality of Life	13	12.0%
4	Schools	9	8.3%
5	Omaha Health Facilities	9	8.3%
6	Lot Size	8	7.4%
7	Zoning Process	7	6.5%
8	Planning and Zoning	4	3.7%
9	Land Value	3	2.8%
10	Recreation	3	2.8%
11	Control of Commercial Strip Development	3	2.8%
12	Environmental Preservation	2	1.9%
13	Affordable Housing	2	1.9%
14	Economic Base	2	1.9%
15	Water District in the Northern Portion of the County	1	0.9%
16	Control of Subdivision	1	0.9%
17	Family Roots	0	0.0%
18	Close to Market Centers (Agricultural)	0	0.0%
19	Dana College	0	0.0%
20	Local Employment	0	0.0%
21	Pretty County	0	0.0%
22	Omaha Workforce	0	0.0%
otal		108	100.0%

Source: Town Hall Meeting, Courthouse - Blair

"What are the issues relating to the future development of Washington County during the planning period?"

Taxes became the highest ranked issue by receiving more than a fourth of the votes with 25%. A close second was road maintenance and improvement with 21.8% of the total votes. The third highest ranked response from the group was that of lot split and size, receiving 16.4% of the total votes. Again this response is following straight from the negative responses given earlier in the evening.

TABLE 38: ISSUES OF WASHINGTON COUNTY, BLAIR

	Issues	Total Points	% of Total Points
1	Taxes	28	25.5%
2	Road Maintenance and Improvement	24	21.8%
3	Lot Split and Size	18	16.4%
4	Acreage Owner/Farmer Conflict	8	7.3%
5	Location of Subdivisions	6	5.5%
6	Blair Airport	5	4.5%
7	Water Quality and Quantity	5	4.5%
8	Subdivision Requirements	4	3.6%
9	Location of Prime Agricultural Land	3	2.7%
10	Missouri River	3	2.7%
11	Future Growth Impacts on Schools	3	2.7%
12	Fire and Police Protection	3	2.7%
13	Access to County Roads	0	0.0%
14	133 Widening	0	0.0%
15	Air Quality	0	0.0%
Total		110	100.0%

Source: Town Hall Meeting, Courthouse - Blair

"What are projects that should be completed for Washington County during the planning period?"

Road improvements was a main point of discussion throughout the evening and was discussed again in the final question receiving 49.0% of the total votes. Prime agricultural land protection was giving the second highest ranked project by the group receiving 17.5% of the total votes. Again this was a constant topic of discussion of the group. The third highest ranked project by the group was that of rural water with 10.5% of the total votes.

TABLE 39: FUTURE PROJECTS OF WASHINGTON COUNTY, BLAIR

Issues		Total Points	% of Total Points
1	Road Improvements	70	49.0%
2	Prime Agricultural Land Protection	25	17.5%
3	Rural Water	15	10.5%
4	Recreation Improvements	9	6.3%
5	Rural Sewer	8	5.6%
6	Educational Improvements	6	4.2%
7	Law Enforcement Communication System	5	3.5%
8	County Animal Control	5	3.5%
Total		143	100.0%

Source: Town Hall Meeting, Courthouse - Blair

Immanuel Lutheran School Town Hall Meeting, March 5, 2001

There were approximately 15 people in attendance for the third town hall meeting. This meeting consisted mostly of the general public with a couple of County Supervisors. In difference to the first two meetings this location would be considered to be in the rural area of the County.

"What are the negative aspects or weaknesses facing Washington County during the planning period?"

The top two responses to this question received the majority of the votes, of these the first being the differences in real estate valuations with 34.7% of the votes. The second ranked response was the differences in the County are not reflected in the regulations, with 31.4% of the total votes. Rounding out the top three responses was real estate assessments, with 8.3% of the total votes.

TABLE 40: NEGATIVE ASPECTS OF WASHINGTON COUNTY, IMMANUEL LUTHERAN SCHOOL

	Negatives	Total Points	% of Total Points
1	Real Estate Valuation Differences	42	34.7%
2	Differences in County are not Reflected in Regulations	38	31.4%
3	Real Estate Assessments	10	8.3%
4	Lot Size (Minimum)	9	7.4%
5	Supervisor Districts	7	5.8%
6	Acreages	6	5.0%
7	Fire and Police Protection	5	4.1%
8	Community-County Cooperation	1	0.8%
9	Roads	1	0.8%
10	Loss of Prime Agricultural Land	1	0.8%
11	Location to Omaha	1	0.8%
12	Loss in Productivity of Educational System	0	0.0%
13	Drug Activity in Rural Areas	0	0.0%
Total		121	100.0%

Source: Town Hall Meeting, Immanuel Lutheran School

"What are the positives or strengths facing Washington County during the planning period?"

The top ranked response to this question was that of the family farm, taking almost a third of the votes at 28.0%. The second response was the location to livestock and grain markets, with 15.0% of the total votes. The third response, taking 8.4% of the votes, was that of prime farmland. All three of these responses reflect area of the County, being primarily rural in nature, having a strong agricultural base.

TABLE 41: POSITIVE ASPECTS OF WASHINGTON COUNTY, IMMANUEL LUTHERAN SCHOOL

	Positives	Total Points	% of Total Points
1	Family Farm	30	28.0%
2	Location to Livestock and Grain Markets	16	15.0%
3	Prime Farmland	9	8.4%
4	School System	9	8.4%
5	Water District	9	8.4%
6	Job Markets	9	8.4%
7	High Quality of People	7	6.5%
8	Christian Community	6	5.6%
9	Road Maintenance	4	3.7%
10	Small Livestock Operations	3	2.8%
11	Youth Activities	3	2.8%
12	Location of Omaha and Fremont	2	1.9%
13	Rural Atmosphere	0	0.0%
14	Recreational Opportunities	0	0.0%
Total		107	100.0%

Source: Town Hall Meeting, Immanuel Lutheran School

"What are the issues relating to the future development of Washington County during the planning period?"

The top three responses to this question were given approximately the same ranking at approximately 21 percent, these being taxes, protection of the family farm, and the roads. Again, the first and third responses have been consistent with the first two town hall meetings and the second relates to the area of which the town hall meeting was held.

TABLE 42: ISSUES OF WASHINGTON COUNTY, IMMANUEL LUTHERAN SCHOOL

	Issues	Total Points	% of Total Points
1	Taxes	26	23.9%
2	Protection of the Family Farm	26	23.9%
3	Roads	23	21.1%
4	Loss of Prime Agricultural Land	13	11.9%
5	Law Enforcement	8	7.3%
6	Commercial Development Controls	7	6.4%
7	911 Communication System	6	5.5%
Total		109	100.0%

Source: Town Hall Meeting, Immanuel Lutheran School

"What are projects that should be completed for Washington County during the planning period?"

The highest rank response to this question, roads, took almost half of the total votes at 45.5. The second project response relates with the first as well as the first two town hall meeting responses, that being more infrastructure improvements in the northwest portion of the County. The third response address the concerns in the rural areas and regulations set upon them, with 15.5% of the votes.

TABLE 43: FUTURE PROJECTS OF WASHINGTON COUNTY, IMMANUEL LUTHERAN SCHOOL

	Projects		% of Total Points
1	Roads	50	45.5%
2	More Infrastructure Improvements in the Northwest Portion of the County	19	17.3%
3	Regulations on Rural Properties	17	15.5%
4	911 Communication System	12	10.9%
5	Flood Controls	8	7.3%
6	Rural Animal Control	4	3.6%
Total		110	100.0%

Source: Town Hall Meeting, Immanuel Lutheran School

Herman Town Hall Meeting, March 21, 2001 (Herman Legion Hall)

The fourth town hall meeting was held at the Herman Legion Hall. The attendance was much like the first three meetings with approximately 25 in attendance with a couple County Supervisors.

"What are the negative aspects or weaknesses facing Washington County during the planning period?"

The top voted negative response by the group was phone service in the area, with 19.1% of the total votes. This was followed by property tax valuations, taking 13.8% of the total votes. Rounding out the top three was the permitting process as seen by the group, receiving 12.8% of the votes. The second voted negative response, property tax valuations, agreed with other town hall meetings and this may be trend throughout the County.

TABLE 44: NEGATIVE ASPECTS OF WASHINGTON COUNTY, HERMAN

	Negatives	Total Points	% of Total Points
1	Phone Service	18	19.1%
2	Property Tax Valuations	13	13.8%
3	Permitting Process	12	12.8%
4	Rural Water	10	10.6%
5	Minimum Lot Size (Acerages) Regulations	8	8.5%
6	Water Quality and Quantity	7	7.4%
7	Agricultural Land Valuations	7	7.4%
8	Agricultural/Acerage Conflict	7	7.4%
9	Outdated Comprehensive Plan	5	5.3%
10	County Engineering Services	4	4.3%
11	Rural Road Maintenance	2	2.1%
12	Internet Service	1	1.1%
13	No Natural Gas Service	0	0.0%
Total		94	100.0%

Source: Town Hall Meeting, Herman Legion Hall

"What are the positives or strengths facing Washington County during the planning period?"

The top ranked response to this question was electric utility service/cost, with approximately a third of the votes at 28.6%. The second highest ranked response, of the small farm (family farm), took 11.7% percent of the votes. Following the second highest response was tie between road maintenance and 911 services (fire and rescue) both with 10.4% of the total votes.

TABLE 45: POSITIVE ASPECTS OF WASHINGTON COUNTY, HERMAN

	Positives	Total Points	% of Total Points
1	Electric Utility Service/Cost	22	28.6%
2	Small Farm (Family Farm)	9	11.7%
3	Road Maintenance	8	10.4%
4	911 Services (Fire and Rescue)	8	10.4%
5	School System	7	9.1%
6	Volunteers in County	5	6.5%
7	Medical Facilities	5	6.5%
8	Local Industries	4	5.2%
9	Air Quality	2	2.6%
10	Small Town Atmosphere	2	2.6%
11	Beauty of Land	1	1.3%
12	Highway System	1	1.3%
13	Range of Local Businesses	1	1.3%
14	County Involvement in Community	1	1.3%
15	Crime is Kept Under Control	1	1.3%
16	Snow Removal	0	0.0%
17	Proximity to Omaha	0	0.0%
18	Good Soils	0	0.0%
19	Population Increases	0	0.0%
20	Location of County to Rest of Country	0	0.0%
21	Community Pride	0	0.0%
Total		77	100.0%

Source: Town Hall Meeting, Herman Legion Hall

"What are the issues relating to the future development of Washington County during the planning period?"

The number one issue discussed among the group was protecting agriculture with 25.6% of the total vote. This was followed by the second highest ranked issue of taxing structure at 22.0% of the vote. The third highest ranked issue was resolving the farm/acreage conflict taking 11.0% of the total votes.

TABLE 46: ISSUES OF WASHINGTON COUNTY, HERMAN

	Issues	Total Points	% of Total Points
1	Protecting Agriculture	21	25.6%
2	Taxing Structure	18	22.0%
3	Resolving Acreage/Farm Conflict	9	11.0%
4	Local Telephone Service (Long Distance)	8	9.8%
5	Increase Commercial Tax Base	6	7.3%
6	Flood Control	5	6.1%
7	Wireless Service (Phones/Radios)	4	4.9%
8	Traffic Calming (Traffic Signs)	3	3.7%
9	Future Transportation	2	2.4%
10	Rural Bridges	2	2.4%
11	Recreation (Trails Network)	2	2.4%
12	Internet Service	1	1.2%
13	Permits (For Repair Work)	1	1.2%
14	Minimum Lot Size	0	0.0%
Total		82	100.0%

Source: Town Hall Meeting, Herman Legion Hall

"What are projects that should be completed for Washington County during the planning period?"

The two top ranked projects with the group was not allowing de-regulation of utility companies in the County and increasing the commercial tax base, both with 21.4% of the total votes. The third highest ranked future project was expansion of the rural water service with 15.5% of the total votes. Flood control followed as the fourth highest ranked project at 14.3% percent of the total votes.

TABLE 47: FUTURE PROJECTS OF WASHINGTON COUNTY, HERMAN

	Projects	Total Points	% of Total Points
1	No De-Regulation of Utilities in County	18	21.4%
2	Increase Commercial Tax Base	18	21.4%
3	Expansion of Rural Water Service	13	15.5%
4	Flood Control	12	14.3%
5	Improve Highway System (Four Lane to Omaha)	10	11.9%
6	Garbage into Energy	6	7.1%
7	Internet Service	3	3.6%
8	Recreation (Trail System)	2	2.4%
9	Land Fill/Recycling	1	1.2%
10	Wind Power	1	1.2%
Total		84	100.0%

Source: Town Hall Meeting, Herman Legion Hall

Arlington Town Hall Meeting, March 22, 2001

The fifth and final town hall meeting for Washington County took place at the community room in Arlington. The attendance was much the same as the previous four meetings with about 20 in attendance and as well as a couple of County Supervisors.

"What are the negative aspects or weaknesses facing Washington County during the planning period?"

The top ranked response to this question was minimum lot size taking a little less than a third of the total votes at 30.4%. The second highest response was airport expansion with 20.3% of the total votes. This was followed by water quality and quantity, at 10.1% of the total votes.

TABLE 48: NEGATIVE ASPECTS OF WASHINGTON COUNTY, ARLINGTON

	Negatives	Total Points	% of Total Points
1	Minimum Lot Size	21	30.4%
2	Airport Expansion	14	20.3%
3	Water Quality and Quantity	7	10.1%
4	Bridges in Rural Areas of County	5	7.2%
5	Increased Traffic	5	7.2%
6	Airport in Rural Area	4	5.8%
7	Unsure of What Zoning is in Certain Areas of the County	3	4.3%
8	Lack of Rural Water System Throughout County	3	4.3%
9	Internet Service	3	4.3%
10	Lack of Development Review	2	2.9%
11	Cost of Living Relation to Services	1	1.4%
12	Agricultural Wages	1	1.4%
13	Phone Service	0	0.0%
Total		69	100.0%

Source: Town Hall Meeting, Arlington Community Room

"What are the positives or strengths facing Washington County during the planning period?"

The first and second ranked positives were a tie between the location of the County and prime agricultural land, both taking 14.8% of the total votes. The third and fourth highest-ranking responses were also a tie between the transportation network in the County and the agricultural base, both with 11.1% of the total votes.

TABLE 49: POSITIVE ASPECTS OF WASHINGTON COUNTY, ARLINGTON

•	Positives	Total Points	% of Total Points
1	Location of County	8	14.8%
2	Prime Agricultural Land	8	14.8%
3	Transportation Network	6	11.1%
4	Agricultural Based County	6	11.1%
5	Quality of Life	5	9.3%
6	Wage Increases in Blair	4	7.4%
7	Community Involvement (Meetings)	3	5.6%
8	Commercial Economic Base	3	5.6%
9	Lower Mill Levy than Omaha	3	5.6%
10	Schools	2	3.7%
11	Fire/Rescue/Police Protection	2	3.7%
12	Recreation	2	3.7%
13	Community Stability	1	1.9%
14	Historical Sites	1	1.9%
15	Board of Supervisors	0	0.0%
Total		54	100.0%

Source: Town Hall Meeting, Arlington Community Room

"What are the issues relating to the future development of Washington County during the planning period?"

The group felt the number one issue in the County was the airport expansion, which took 19.7% of the total votes. The next three issues - population growth in the County, maintaining livestock with increased growth, and replacement vs. productivity of agricultural land all tied with 14.8% of the total votes.

TABLE 50: ISSUES OF WASHINGTON COUNTY, ARLINGTON

	Issues	Total Points	% of Total Points
1	Airport Expansion	12	19.7%
2	Population Growth	9	14.8%
3	Maintaining Livestock with Increased Growth	9	14.8%
4	Replacement vs. Productivity of Agricultural Land	9	14.8%
5	Rural vs. Urban	8	13.1%
6	Transportation Network	6	9.8%
7	Valuation of Agricultural Land	6	9.8%
8	Maintaining Lifestyles	2	3.3%
Total		61	100.0%

Source: Town Hall Meeting, Arlington Community Room

"What are projects that should be completed for Washington County during the planning period?"

The group felt the number one future project for the County would be to reroute traffic around Blair, taking 23.8% of the total votes. The second highest ranking project was increasing the communication between urban and rural, with 19.0% of the total votes. Rounding out the top three was the fairgrounds with 15.9% of the total votes.

TABLE 51: FUTURE PROJECTS OF WASHINGTON COUNTY, ARLINGTON

	Projects	Total Points	% of Total Points
1	Rerouting Traffic Around Blair	15	23.8%
2	Increase the Communication Between Urban and Rural	12	19.0%
3	Fairgrounds	10	15.9%
4	Good Water for Everyone	8	12.7%
5	Fast Internet Service	6	9.5%
6	Trail System	6	9.5%
7	Put Rural in One Area and Urban in Another Area	6	9.5%
8	Pave all County Roads	0	0.0%
9	Better Phone Service	0	0.0%
10	Natural Scenic Improvements	0	0.0%
11	Public Use Recreation Sites Throughout County	0	0.0%
Total		63	100.0%

Source: Town Hall Meeting, Arlington Community Room

OVERALL TOWN HALL MEETINGS, WASHINGTON COUNTY

This last section grouped all five town hall meetings responses into each specified area to gain an understanding of what the overall thinking is in the County. Responses that were worded differently but were similar have been combined into one response and ranked accordingly.

Negatives

The number one negative response overall was that of valuations of properties in the county with differences depending upon locations or growth pressure from Omaha causing increases. This response took approximately 15.4% of the total votes. The second most popular response was minimum lot size, taking 7.0% of the total amount of votes. The third response was the differences in the County are not reflected in the zoning regulations also taking 7.0% of the total amount of votes.

TABLE 52: NEGATIVE ASPECTS OF WASHINGTON COUNTY, OVERALL

Identified Negative Aspects of Washington County	% of Total Point
Valuation of Property Due to Growth from Omaha/ Valuation Differences/ Real Estate Assessments	15.4%
Lot Sizes/ Minimum Lot Size	7.0%
Differences in County are not Reflected in Regulations	7.0%
Infrastructure Problems due to Growth	5.9%
Rural Water/ Water Quantity and Quality	4.4%
Road Maintenance/ Roads	4.1%
Acreage Owner/ Farmer Conflict	4.1%
Blair Airport Expansion/ Airport Location	4.1%
Protection of Agricultural Land	3.7%
Changes in Minimum Lot Size over time	3.5%
Phone Service	3.3%
Lot Splits	3.1%
Boyer Chute (Federal land in County)	3.0%
Loss of Farm Land	2.2%
Subdivisions in Prime Agricultural Land	2.2%
No Cooperation Between County and Communities	2.2%
Permitting Process	2.2%
Complaints by New Residents	1.9%
Cargill Odors	1.7%
Future Traffic Impacts/ Increase Traffic	1.7%
Tax Base (Schools) in Fort Calhoun is Residential Only	1.5%
Animals (Dogs)	1.5%
Commercial Development	1.5%
Lack of Respect (Peoples Property)	1.3%
Lack of Future Plan/ Outdated Plan	1.3%
Supervisor Districts	1.3%
Fire and Police Protection	0.9%
Internet Service	0.9%
Rural Bridges	0.9%
Trash along Roadside	0.7%
County Engineering Services	0.7%
Cultural Differences between South Washington County and the Rest of the County	0.6%
Cities Buying Property & Affecting Properties	0.6%
Omaha Growth	0.6%
Unsure of What Zoning is in Certain Areas of the County	0.6%
Location	0.4%
ETJ's & Residence Representation	0.4%
Courtesy of New Residents	0.4%
Lack of Development Review	0.4%
Lack of Review: Infrastructure	0.2%
Fish and Wildlife-Land Ownership	0.2%
Location to Omaha	0.2%
Cost of Living Relation to Services	0.2%
Agricultural Wages	0.2%
Fort Calhoun-Storm Runoff Disposal	0.0%
Junk vs. Antiques vs. Farm Equipment	0.0%
Traffic Congestion at Cargill	0.0%
Extraterritorial Jurisdictions	0.0%
Public Services	0.0%
Lack of Notification	0.0%
Loss in Productivity in School System	0.0%
Drug Activity in Rural Areas	0.0%
No Natural Gas Service	0.0%
Total	100.0%

Positives

The top positive responses overall for the County were the school system, rural atmosphere, and electric utility service/cost; all taking 5.8% of the total votes. The second rated response was the farming in Washington County. Rounding out the top three responses was the fire and rescue services at 5.2% of the total votes.

TABLE 53: POSITIVE ASPECTS OF WASHINGTON COUNTY, OVERALL

Identified Positive Aspects of Washington County	% of Total Points
School System	5.8%
Rural Atmosphere	5.8%
Electric Utility Service/ Cost	5.8%
Farming	5.5%
Fire and Rescue Departments	5.2%
Prime Farmland	4.5%
Close to Market Centers (Agricultural)	4.2%
Business Base is Committed to County/Economic Base	3.4%
Basically Helpful People/High Quality of People	3.4%
Quality of Life	3.4%
Beautiful County	2.6%
Rural Water Districts	2.6%
Low Crime Rate/ Under Control	2.4%
Omaha Health Facilities	2.4%
Family Farm	2.4%
Job Markets	2.4%
Lot Size	2.1%
Road Maintenance	2.1%
Location of County to the Rest of the Country	2.1%
Zoning Process	1.8%
Planning and Zoning	1.8%
Highway System	1.6%
Min. Taxes by County	1.6%
Strong Agricultural Base	1.6%
Christian Community	1.6%
Agricultural Based County	1.6%
Fort Atkinson	1.3%
Recreation	1.3%
Volunteers in County	1.3%
Medical Facilities	1.3%
Test Road County Road 37	1.0%
Board Members (all serve for the right reasons)	1.0%
All Industries	1.0%
Wage Increases in Blair	1.0%
County Involvement in Community	1.0%
Neale Woods	0.8%
Land Value	0.8%
Control of Commercial Strip Development	0.8%
Small Livestock Operations	0.8%
Youth Activities	0.8%
Lower Mill Levy than Omaha	0.8%
County Extension Office	0.5%
Community Hospital	0.5%
Boyer Chute	0.5%
Environmental Preservation	0.5%
Affordable Housing	0.5%
Proximity to Omaha and Fremont	0.5%
Air Quality	0.5%
Recycling System	0.3%
County Fair	0.3%
Control of Subdivisions	0.3%
Range of Local Businesses	0.3%
Community Stability	0.3%

Historical Sites	0.3%
Not Douglas County	0.0%
Strong Population Base	0.0%
Reliable Power	0.0%
Cargill	0.0%
Blair	0.0%
Dana College	0.0%
Metropolitan Community College	0.0%
Location Omaha Employment	0.0%
De Soto Bend	0.0%
Fontenelle Forest	0.0%
Good Place to Raise Kids	0.0%
Family Roots	0.0%
Pretty County	0.0%
Snow Removal	0.0%
Good Soils	0.0%
Population Increases	0.0%
Community Pride	0.0%
Board of Supervisors	0.0%
Total	100.0%

Issues

The number one response was the protection of agricultural land taking 17.1% of the total votes in the county. This is followed by taxes with 13.1% of the total votes. Rounding out the top three was road maintenance/ roads taking 10.1% of the total votes.

TABLE 54: ISSUES OF WASHINGTON COUNTY, OVERALL

Identified Issues of Washington County	% of Total Points
What Agricultural Areas are Protected/Location of Prime Agricultural	
Land/ Protection of Family Farm	17.1%
Taxes	13.1%
Road Maintenance/ Roads	10.1%
Minimum Lot Size in Agricultural Areas	6.2%
Acerage Owner/Farmer Conflict	5.4%
Airport	4.3%
Taxing Structure	3.9%
Zoning	2.8%
Highway 133 Corridor/ Widening	2.6%
Growth	2.0%
Open Space Development	2.0%
Traffic/ Future Transportation	2.0%
Population Growth	1.9%
Maintaining Livestock with Future Growth	1.9%
Where Do Subdivisions Go	1.7%
Fire and Police Protection	1.7%
Local Telephone Service	1.7%
Commercial Development Control	1.5%
Enforcement of Zoning	1.3%
Location of Subdivisions	1.3%
911 Communication System	1.3%
Increase Commercial Tax Base	1.3%
Valuation of Agricultural Land	1.3%
Coordination Between County and Communities	1.0%
Water Availability	.0%
Water Quality and Quantity	1.0%
Flood Control	1.0%
Subdivision Requirements	0.8%
Management of ETJ's in Towns	0.6%

Total	100.0%	
Air Quality	0.0%	
Access to County Roads	0.0%	
Fair Market Value for Older Home Owners	0.0%	
Garbage Collection	0.0%	
Bicycles	0.0%	
Coordination Between County and State	0.0%	
Multi-Family Dwellings in Agricultural Areas	0.0%	
Omaha Cultural Influence	0.0%	
Cost of Living	0.0%	
Permits	0.2%	
Internet Service	0.2%	
Septic Systems	0.2%	
Government Regulations	0.2%	
Infrastructure of Lots	0.2%	
Expand Economy and Maintain Positives	0.2%	
Maintaining Lifestyles	0.4%	
Recreation	0.4%	
Rural Bridges	0.4%	
Landfill	0.4%	
Water and Sewer Line Extensions	0.4%	
Traffic Calming	0.63%	
Future Impact of Growth on Schools	0.63%	
Missouri River	0.6%	

Future Projects

The highest-ranking response for future projects was road improvements/ roads with 29.4% of the total votes. The second highest response is development of a rural water system expansion with 9.7% of the votes. The third highest response was that of infrastructure improvements with 7.5% of the votes.

TABLE 55: FUTURE PROJECTS OF WASHINGTON COUNTY, OVERALL

Identified Future Projects of Washington County	% of Total Points
Road Improvements/ Roads	29.4%
Rural Water System/Rural Water	9.7%
Infrastructure Improvements	7.5%
Prime Agricultural Land Protection	5.0%
Flood Controls	4.0%
Trails/Recreational Improvements	3.7%
No De-Regulation of Utilities in County	3.7%
Increase Commercial Tax Base	3.7%
Law Enforcement Communication System	3.4%
Regulations on Rural Properties	3.4%
Rerouting Traffic Around Blair	3.0%
Comprehensive Plan/Zoning	2.8%
County Animal Control	2.8%
Increase Communication Between Urban and Rural	2.4%
County Library System	2.0%
County Road Maintenance	2.0%
Fairgrounds	2.0%
School Expansion/Educational Improvements	1.8%
Fast Internet Service	1.8%
Rural Sewer	1.6 %
Garbage Into Energy	1.2%
Increase Industrial Tax Base	1.0%
Protect Local Businesses	0.81%
Expand Fire and Rescue	0.40%
Expand Youth Activities	0.20%
Land Fill/Recycling	0.20%

Wind Power	0.20%
Improve Telecommunications and Other Communication Systems	0.0%
Better Phone Service	0.0%
Natural Scenic Improvements	0.0%
Total	100.0%

GOALS AND POLICIES FOR WASHINGTON COUNTY

The goals and policies that have been generated for Washington County are organized into general categories. The categories are broad enough to allow many issues to fall within them, but narrow enough to allow a fairly clear distinction and separation. These categories are used for a logical organization of goals and policies. The categories are:

- General Land Use
- Agricultural Land Use
- Commercial Land Use
- Industrial Land Use
- Residential Land Use
- Environment
- Water Resources
- Economic Development
- Public Facilities and Taxes
- Public Works
- Transportation
- Health and Safety
- Parks and Recreation
- Implementation, Evaluation, and Review

When considering the following goals and policies, it may become evident that they may conflict with one another. In such cases, these conflicts should be discussed and the relative importance of one policy be weighed against another to determine the best course of action.

Land Use

Goal 1

Washington County should manage the land in a cost-effective and efficient manner while protecting the environment and natural resources, as well as maintaining and increasing land values. Guiding future growth and development in Washington County towards a compact pattern of land uses based upon the efficient and economical expansion of public infrastructure, will continue to maintain and improve the quality of life for Washington County residents.

General Policies

- 1.1.1 A review and comment process will be required prior to planning commission and county board public hearings for any proposed activity that should occur within County zoning jurisdiction.
- 1.1.2 The cost of required improvements, both on-site and off-site, to a subdivision that are to exclusively serve the property owners of the subdivision shall be borne by the developer or those property owners within said subdivision.

- 1.1.3 Require the coordination and review of all planning and zoning activities as they relate to extraterritorial jurisdictions.
- 1.1.4 Designate areas in the Land Use Plan that address the anticipated future growth needs of the County.
- 1.1.5 Develop zoning and subdivision regulations that promote efficient land usage and long-term adequacy, while avoiding land use conflicts and inefficient provision of public infrastructure.
- 1.1.6 Encourage the development of vacant lands located near cities and villages by providing regulatory incentives that promote appropriate land uses.
- 1.1.7 Discourage and minimize leap-frog development outside of cities and villages.
- 1.1.8 Washington County should allow agricultural production in all areas in which agricultural uses are appropriate, and non-agricultural development in agricultural areas should be allowed in specifically designated areas which does not negatively impact the agricultural uses.
- 1.1.9 The County should not compete with cities and villages regarding subdivision development and lot size.

Agricultural Policies

- 1.2.1 Large confined livestock operations in Washington County should be regulated to ensure compliance with construction and operation regulations, as well as with environmental regulations. These operations should be located in areas of Washington County such that their presence and operational impacts on neighboring land uses are as minimal as possible.
- 1.2.2 Regulations should be established and implemented that create setback and buffer requirements, as well as regulatory controls over solid, liquid, and gas emissions from livestock operations.
- 1.2.3 Criteria should be developed to designate areas of Washington County identified as "Prime Farmland". Special consideration through the use of preservation land use practices should assist in the protection of these lands for traditional agricultural purposes.
- 1.2.4 Uses promoting the diversification of agricultural production by generating additional value to existing products should be encouraged to locate or expand within Washington County.
- 1.2.5 Encourage low to zero non-farm densities in prime farmland areas and other agricultural districts by providing residential lot size requirements and proper separation distances between residential and agricultural uses.
- 1.2.6 Protect prime agricultural land and maintain the quality of groundwater.
- 1.2.7 Support livestock production and related agricultural businesses designed, operated and located consistent with maintaining the health, safety, welfare and natural resources of the county and its residents.
- 1.2.8 Work with livestock producers on a continual basis in evaluating regulations.
- 1.2.9 Establish adequate separation distances between livestock and residential. Under this policy avoid locating new livestock operations next to communities and/or residential developments when possible. Plus, provide adequate separation distances between residences and livestock operations that allow for potential expansion of livestock operations.

Commercial Policies

- 1.3.1 Encourage the location of neighborhood commercial land uses at the intersections of major transportation networks that already have or can be efficiently supplied with public infrastructure.
- 1.3.2 Utilize frontage roads when locating along major roads/highways.
- 1.3.3 Minimize the impact of future commercial growth in the cities and villages by limiting commercial development to neighborhood commercial centers at predetermined major intersections.
- 1.3.4 Require landscaping and architectural standards for all new commercial construction and expansion to existing operations.
- 1.3.5 Prohibition of "strip" commercial development.

Industrial Development Policies

Industrial development is important to the economic vitality of Washington County. The provision of adequate urban services is a major concern in an industry's location and operation. Industrial parks serve to consolidate industrial activities into a designated area in order to reduce incompatibility with surrounding land uses.

- 1.4.1 Heavy industrial uses with seasonal or high nuisance characteristics are encouraged to locate or relocate only in or immediately adjacent to urban areas where all required services are available, well removed and shielded from existing or projected residential development; and conversely, that prime heavy industrial sites will be identified and protected from encroachment of other urban uses pending acquisition and development.
- 1.4.2 To the greatest extent possible, industrial areas are to be located within a community's extraterritorial jurisdiction. Those industrial areas located outside community's extraterritorial jurisdiction need to be compatible with the industrial development goal and will be located where they can be adequately served by necessary major utility lines, including electric power substations and transmission lines, trunk sewer lines, trunk water lines, and where appropriate, trunk gas lines.
- 1.4.3 Industrial uses which are incompatible with surrounding residential or commercial development and cannot bear the cost of abating their incompatible characteristics, whether related to performance or appearance, will be encouraged to locate or relocate to areas with similar industrial developments, and where all required services are immediately available.
- 1.4.4 Industrial uses which are compatible with surrounding residential development and are willing to bear the cost of maintaining high performance characteristics and attractive site and building layout and design, will be encouraged to locate or relocate in designated industrial parks.
- 1.4.5 Industrial uses will be located so that adequate buffer space is provided between incompatible land uses.
- 1.4.6 The County will develop appropriate performance, design and specification standards and requirements for all existing and possible future industrial uses to guide their location or relocation in the County and within existing industrial areas of the County.
- 1.4.7 Industrial development not utilizing rail transport will be discouraged from locating next to a railroad right-ofway.

- 1.4.8 The County will encourage industrial development that is energy efficient. Energy conservation measures that will be promoted include, but are not limited to, the following:
 - 1) Efficient building, manufacturing, and heating practices;
 - 2) Co-generation systems including the burning of wastes; and
 - 3) Utilization of new and alternative systems.
- 1.4.9 The County will encourage industrial development which bases its products on renewable and indigenous raw materials.
- 1.4.10 The County will recognize and encourage small scale industries as viable alternatives to larger, conventional enterprises.
- 1.4.11 Performance standards should be implemented as a means of regulating industrial activity so as to moderate or abate objectionable features in their operation

Residential Land Use Policies

- 1.5.1 Residential development should be separated from more intensive uses, such as agriculture, industrial, and commercial development, by the use of setbacks, buffer zones, or impact easements.
- 1.5.2 Work with community officials and developers on continual basis to monitor and evaluate the effectiveness of existing regulations, and to identify proper areas to locate new development.
- 1.5.3 Encourage low to zero non-farm densities in prime farmland areas and other agricultural districts by providing residential lot size requirements and proper separation distances between residential and agricultural uses.
- 1.5.4 Utilize information tools such as slopes, soil types, floodplain, road and bridge development and maintenance plans, when identifying areas for residential development.
- 1.5.5 Develop subdivision regulations that provide for a quality living environment while avoiding inefficient and expensive public infrastructure expansions.
- 1.5.6 The right of Washington County property and landowners to the exclusive, uninterrupted use of their land should be protected through regulations that are sensitive to the effects of activities that are nuisance in nature.
- 1.5.7 Support housing options for all incomes and physical capabilities of Washington County's residents.
- 1.5.8 New residential developments should be accompanied by a subdivision agreement, which provide for the maintenance of common areas, easements and drainage.
- 1.5.9 Encourage the establishment of a rehabilitation program to maintain and improve the existing housing stock.
- 1.5.10 Develop relationships and partnerships with housing professions in the public and private sector to establish a range of affordable housing options, ranging from a First Time Homebuyer program to rental assistance.
- 1.5.11 Encourage new residential development to locate near urban centers or areas identified to accommodate higher density growth, especially when direct access to existing, hard-surfaced roads or highways can be accomplished.
- 1.5.12 Establish zoning and subdivision design standards that require buffers, and screening standards and functional usable green space, for new developments.
- 1.5.13 Revise existing regulations to improve the review process for small-scale preliminary and final plats and site plans.
- 1.5.14 All proposed rural area developments shall be based on a reasonable expectation of supply and demand for said use or facilities and no large-scale development shall be approved without:

- 1) The submission and approval of a layout and design concept, with provision for the staging and servicing of all phases of the development;
- 2) The approval of all federal and state agencies relative in any applicable health, safety and environmental controls; and
- 3) An adequate demonstration of the financial capacity (escrows, performance bonds, etc.) and responsibility of the applicants to complete the development and provide for operation and maintenance services.
- 1.5.25 All proposed rural area development and facilities:
 - 1) Shall be appropriately, if not uniquely, suited to the area or site proposed for development;
 - 2) Shall not be located in any natural hazard area, such as a floodplain or area of geologic hazard, steep slope, severe drainage problems or soil limitations for building or sub-surface sewage disposal, if relevant;
 - 3) Shall be furnished with adequate access when possible a minimum of two entrances and exits.
 - 4) Shall be furnished with adequate individual or community water supply, if required;
 - 5) Shall not be justified solely or even primarily on the argument that the land is less costly than better alternative sites.
- 1.5.26 No proposed rural area development shall require or substantially influence the extension of costly services and facilities normally associated with urban centers, such as municipal water supply and sanitary sewer, power, and gas, nor shall it impose inordinate additional net costs on mobile, centralized public services, such as police and fire protection, school busing or refuse collection.
- 1.5.27 Accommodate demand for very low density rural residential development in areas which are not amenable to integrated neighborhood designs, provided such areas are suited to the uses intended and exhibit high amenity value, and such developments do not preempt farm or forest lands, or generate inordinate service demands of their own.
- 1.5.28 Washington County will recognize that the appropriate location of very low density residential development is in designated areas where commitments to such uses have already been made through existing subdivision, or development.
- 1.5.29 The planned unit development (PUD) concept provides a viable alternative to conventional urban development patterns, while providing a means to encourage creative yet responsible / sensitive developments.
- 1.5.30 Washington County will review and accommodate, wherever possible, any new or alternative development concepts or proposals, provided such concepts or proposals are consistent with and do not compromise in any way the established disposition of land uses on the Land Use Map or the goals and policies of the Plan.

EDUCATION Goal 2

Quality education is a vital component of positive growth. Although the County's role is limited, policies will be followed in locating development to insure cost effective use of existing facilities. Also, the County will coordinate with all school districts to insure adequate areas for future educational needs. Above all, the main goal is to encourage excellence in the public school curriculum and facilities.

Policies

- 2.1 Set development standards that coordinate reservation of land for future educational needs.
- 2.2 Cooperate with school systems in expanding public uses of educational facilities.

ENVIRONMENT

Goal 3

Washington County has retains a high-quality natural environment, yet the impact of human demand upon the environment impacts the natural ecological balances and the high aesthetic quality of the county in the past, and poses the threat of future deterioration. The natural resources (soils, groundwater, surface water and air) and environment of Washington County shall be protected and managed to insure long term quality, availability and sustainability for the current and future residents and industries of Washington County. The goal of Washington County is to guide development in a manner that conserves and protects the natural resources; minimizes potential conflicts between rural/urban residents; promotes compatible land uses; encourages compact development and an efficient provision of services.

- 3.1 Zoning regulations and design standards should be created to protect the environmental and natural resources of Washington County through the encouragement of preservation and conservation practices.
- 3.2 A Surface Water Protection Area should be established to protect the unique character and environmental quality of the area surrounding the Missouri and Elkhorn Rivers.
- 3.3 General land use regulations should require all development in the jurisdiction of Washington County to demonstrate a positive, or at least neutral, impact upon the soil, groundwater, surface water, and air.
- 3.4 Federal requirements and regulations shall be followed when land use regulations are being developed. Washington County regulations should, at a minimum, be as strict as federal standards, and where necessary, may be enforced in a manner stricter than federal guidelines.
- 3.5 Protect all water supplies and aquifers from development activities that may affect the quality and/or quantity of water. Development shall demonstrate a positive or, at least, a neutral impact on ground water supplies.
- 3.6 Identify with Nebraska Department of Natural Resources, Farm Service Agency, United States Department of Agriculture, Papio-Missouri Natural Resource District, and Nebraska Department of Environmental Quality possible sediment control regulations to minimize potential soil loss and/or contamination problems in specific areas of Washington County.
- 3.7 Establish zoning and subdivision standards that support conservation of natural resources,. This can be accomplished by the creation of Planned Unit Developments implementing the use of conservation easements and other tools.

- 3.8 Discourage conversion of designated prime agricultural land and soils to non-agricultural uses by targeting less productive agricultural soils (crops) for urban or non-farm uses. Establish a hierarchy of minimum lot sizes to encourage non-farm growth in the appropriate locations.
- 3.9 Encourage conservation of hillsides by establishing criteria and limiting development along specific slopes in the County.
- 3.10 Promote quality land management through the development of erosion control design standards for rural subdivisions and larger commercial and industrial developments.
- 3.11 Encourage the preservation of environmentally sensitive areas such as wetlands, wooded areas, waterways (streams, ponds, lakes, rivers, etc.), and other amenities. Preservation should occur through no development, incorporation of these areas into conservation areas, and/or erosion control measures when these amenities are downstream from a proposed development.
- 3.12 Washington County will continue to preserve those areas for farm use which exhibit Class I through IV soils as identified in the Capability Classification System of the U.S. Soil Conservation Service.
- 3.13 Washington County will establish an ordinance to control erosion and sedimentation in both public and private roadway construction.

WATER RESOURCES Goal 4

Efficient use of County water resources is a benefit to all citizens, as water is an essential part of the livability of an area. Conserve and manage water resources efficiently in order to sustain and enhance the quantity and quality for human consumptive and to abate flood, erosion and sedimentation problems.

- 4.1 Washington County will cooperate with federal and state agencies, the cities and villages of the County, and the local soil and water conservation district to identify, conserve and develop water resources on a long-range, multiple-use basis in response to need, with full consideration given to the benefits, costs, potential uses and the carrying capacity of the resource.
- 4.2 Washington County will continue participation in the FEMA National Flood Insurance Program to prevent flood-caused loss of life and property, by identifying and mapping the floodplains and floodways of the County, restricting land uses within the floodplains to those which are open and undeveloped, including forestry, agriculture, wildlife habitat and recreational areas and encouraging improved watershed management practices and the construction of watershed storage projects for flood control.
- 4.3 Washington County will support soil and water conservation efforts to aid in erosion, sediment, and run-off control.
- 4.4 Washington County will coordinate with and support city, regional, state and federal water-quality plans and programs so that high water quality will be achieved in the cities and villages of the County, that sound watershed management practices will take place, and that improved treatment of point and non-point sources of water pollution will be achieved.

- 4.5 Washington County will encourage the prudent use of all County resources and support the development of water conservation techniques and practices.
- 4.6 It is the policy of Washington County to protect riparian vegetation from damage that may result from land use applications for development that is otherwise permitted outright or conditionally under county zoning regulations. To achieve this goal, Washington County will review land use applications for development in riparian areas in an effort to mitigate or prevent damage to riparian vegetation that might result from the development.
- 4.7 Land use management practices and nonstructural solutions to problems of erosion and flooding are preferred to structural solutions. Water erosion control structures, including riprap and fill, should be reviewed by the appropriate authorities to insure they are necessary, are designed to incorporate vegetation where possible, and designed to minimize adverse impacts on water currents, erosion, and accretion patterns.
- 4.8 Washington County will cooperate with the U.S. Fish and Wildlife Department, the cities and villages in the County, and the U.S. Conservation Service to identify, conserve, and protect fish and wildlife habitat; determine areas of critical imbalance and threats to particular species; and formulate and implement measures for the improvement of existing habitat and the creation of new habitat where needed.
- 4.9 Washington County recognizes the need to conserve and protect fish and wildlife habitat in its plan implementation measures; and the following will be considered in any public or private land use determination subject to county review: the impact of filling or drainage of swamps or marshes; the damming of rivers and streams; the location and construction of highways and utility transmission lines; and any other land development activities which significantly interfere with the vegetation or soil cover or drainage patterns in critical habitat areas.
- 4.10 All identified sensitive wildlife areas will be classified as exclusively agricultural areas or open space. No major land use change, including, but not limited to road construction and recreational developments will, be permitted without approval of measures to limit undesirable impacts on sensitive wildlife areas.

ECONOMIC DEVELOPMENT Goal 5

Washington County should promote and encourage economic development necessary to support the needs of present and future Washington County residents such that the Washington County economy is stable and diverse. Washington County should also maintain a rate and pattern of economic growth sufficient to prevent recurring high levels of unemployment and under-employment in the County, balance the real property tax base of the various cities and villages, and strengthen local economic bases.

- 5.1 Agriculture and agricultural employment, including value-added agricultural businesses, should be promoted throughout Washington County.
- 5.2 The recreational assets of Washington County should be expanded and improved such that they may be promoted through tourism based endeavors, including hunting, fishing, and camping.

- 5.3 The youth of Washington County should be encouraged to remain in Washington County or return to Washington County after completion of their post-secondary education. Economic development projects should be established to provide such encouragement. The youth of Washington County should be involved in the identification and development of these projects.
- 5.4 Encourage, promote and develop economic development partnerships between local entities and private companies to assist existing and expanding business enterprises.
- 5.5 Support area historical, cultural and recreational activities. Washington County should continue to build upon the historical structures, cultural heritage and recreational assets located throughout the County and within the incorporated and unincorporated settlements to encourage a sense of community through tourism based endeavors.
- 5.6 Encourage and promote the development of home-based businesses and telecommuting based upon high technology communication infrastructure.
- 5.7 Washington County will encourage economic development projects which do not conflict with the agricultural character of the County.

PUBLIC FACILITIES AND TAXES Goal 6

The County sees a need to integrate public facilities and services in an effort to eliminate costs and conserve energy. Coordination with all jurisdictions and affected agencies is essential in the development and maintenance of adequate public facility systems. The expansion of public facilities is a major factor in directing development.

- 6.1 Public facilities should be strategically located within Washington County so as to provide cost-effective, efficient, and timely service to all residents.
- 6.2 Encourage the location of public and semi-public facilities in a manner consistent with the sector of the County they are intended to serve.
- 6.3 Public facilities such as schools or churches should be located near populated areas.
- 6.4 Public facilities such as County yards and maintenance buildings shall be located in key areas of the County, which efficiently serves the public.
- 6.5 Support area historical and cultural activities.
- 6.6 Continually evaluate the staffing needs of the Sheriff's Department. As the population continues to grow, the county needs to hire additional deputies and jailers in order to meet the level of protection desired by the public.
- 6.7 The County should work as the catalyst to expand rural water across the entire County, although the County Board or Supervisors shall not be the primary player in this activity.
- 6.8 Washington County will coordinate with the cities and villages within its jurisdiction to provide an orderly phasing of water, sanitary sewerage, storm drainage and other public services and facilities within the urban growth boundaries.
- 6.9 Public facilities and services for rural areas will be provided and maintained at levels appropriate for rural use only.
- 6.10 Washington County will coordinate with the cities, villages, and appropriate local, state, and federal agencies in providing for the health and service needs of the public, particularly the needs of the disadvantaged, including the young, the elderly and the handicapped.

- 6.11 Washington County will encourage the consolidation of city, county, and state administrative offices, public health, safety and welfare buildings, and community cultural facilities as opportunities that will promote energy conservation, provide convenient, centralized services and attractive building and open space groupings.
- 6.12 Washington County will, where practicable, encourage the consolidation of city, county, school district, utility and state works yards, shops, bus barns, and equipment and storage yards, in order to realize economies of scale in land acquisition, development, and operation and maintenance costs, and eliminate present facilities which are incompatible with sensitive residential and commercial areas throughout the County.
- 6.13 Close cooperation will be encouraged among the cities and villages, the school districts, and the County is respect to matters of school site selection, acquisition, planning, servicing, and joint use in keeping with the anticipated direction and pattern of County growth.
- 6.14 Washington County will cooperate with other interested agencies to identify, acquire and/or reserve in advance through appropriate open space zoning designations suitable watershed areas and reservoir sites to serve the domestic water needs of the emerging urban and rural development areas of the County.
- 6.15 Washington County will encourage the dedication of major drainage-ways such as wetlands, swales, intermittent creek basins and roadside depressions for the purpose of storm water collection.
- 6.16 The establishment of domestic water supply systems will be supported where such systems conform to all applicable water quality and engineering design criteria.
- 6.17 Groundwater supplies will be protected from critical draw-downs or disrupted flows where municipal watersheds exist; surface water supplies will be protected from unusual increases in turbidity and sedimentation caused by farming, excavation or grading; and both ground water and surface water supplies will be protected from contamination by subsurface sewage disposal systems, sewage lagoons, and other sources of pollution.
- 6.18 Washington County will assist in the organization of special purpose districts such as sanitary districts, sanitary authorities, and county service districts which would be able to utilize federal and state funds to build collection and treatment facilities and provide the necessary services to their respective communities or clientele.
- 6.19 The development of sanitary sewer systems will be supported where such systems conform to all applicable federal and state standards pertinent to the collection, treatment, and final disposal of effluent.
- 6.20 Washington County will support any consolidation of water and sewer facilities to secure the potential economies of scale and organization, providing their potential environmental impacts are consistent with existing land-use plans, related urban growth goals and policies, established water quality standards, and where separate local facilities are shown to be more expensive.

PUBLIC WORKS Goal 7

Washington County shall pursue programs and facilities to insure adequate utilities will be considered and will be compatible with the County's land use policies. Goals include protecting current and future water well fields and aquifers; promote development that utilizes existing facilities and capacities; and develop new utility system facilities and capacities that support development goals.

Policies

- 7.1 Implement development / design standards that protect the area around municipal well fields located in the county.
- 7.2 Utilize soil suitability data from this plan and the Washington County soils survey when evaluating development proposals proposing septic system or lagoons for sewage treatment. Ultimately, decisions should be made based upon actual soil data collected by a professional engineer and certifying laboratory.
- 7.3 Encourage future expansion and upgrading of the rural water system within Washington County. This would lower the potential for contamination of wells and well fields from poor management of waste.

TRANSPORTATION Goal 8

Washington County should provide a transportation system that improves access and circulation for vehicular traffic within Washington County. Development in Washington County shall be guided to safely utilize existing public investment in roads, and programs to reduce road development or maintenance. The transportation goal of Washington County is to develop and support an efficient road system to serve current and future circulation and access needs. Provide and encourage an efficient, safe, convenient transportation and communication system, including road, rail, waterways, public transit and air, to serve the needs of existing and projected urban and rural development within the county. The County will also accommodate the regional movement of people and goods, recognizing the economic, social and energy impacts of the various modes of transportation.

- 8.1 The interaction of existing transportation routes and drainage ways should be studied to determine the need for bridge and road improvements.
- 8.2 When new development is contemplated, due consideration must be given to the carrying capacity of the existing road system in the area, and development should be discouraged from occurring in areas where the road system is insufficient to handle any additional traffic load.
- 8.3 Improve, develop, and maintain well-traveled roads with hard surfacing.
- 8.4 Investigate the paving of several County roads to improve the connectivity of the County.
- 8.5 Right-of-way and pavements shall be sufficiently wide and of sufficient strength to accommodate anticipated future traffic loads.
- 8.6 Commercial signing should be limited to major arterials, shall be kept to a minimum and shall be low profile.
- 8.7 Encourage the on-going replacement of older, dilapidated bridges throughout the County
- 8.8 Develop a plan of education/action to prevent and cleanup roadside dumping in the rural areas of the County.
- 8.9 Continue working with Nebraska Department of Roads and public input to upgrade highways in and through the County by either resurfacing or widening of existing State and County Highways.
- 8.10 Develop land use policies that work strongly with existing and proposed transportation systems and upgrades, especially the completion of U.S. Highway 133's expansion to four lanes.
- 8.11 The regional transportation needs must be addressed primarily in respect to the utilization of the County's arterials as State thoroughfares.
- 8.12 Due primarily to the increasing traffic load and traffic hazards on all County roads, there is a need to control access points for future development.

- 8.13 All transportation-related decisions will be made in consideration of land use impacts including but not limited to adjacent land use patterns, both existing and planned, and their designated uses and densities.
- 8.14 Washington County will cooperate and establish close liaison with the State Department of Roads, the communities within the county, Metro Area Planning Association, the Union Pacific Railroad, the Federal Aviation Administration, Federal Highway Administration, and private utility companies operating in the County, in respect to matters relating to the location, design and programming of roads, railroads, public transit facilities, airports, transmission lines, pipelines, waterways, energy corridors and communications facilities to guide and accommodate the emerging development patterns of the county.
- 8.15 Washington County will encourage bicycle and pedestrian traffic as an element of the transportation system by coordinating with the cities and villages within the County to develop an integrated system of safe and convenient bicycle and pedestrian ways to complement other modes of transportation.
- 8.16 Washington County will require new development to:
 - 1) Limit access points on highways designated as arterials when alternative access points are feasible.
 - 2) Minimize direct access points onto arterial right-of-ways by encouraging the utilization of common driveways.
- 8.17 Transportation needs for the disadvantaged, such as the low income, the handicapped, and the elderly, will be considered in the development of a County transportation system.
- 8.18 All transportation-related decisions will be made in support of the efficient and economic movement of people, goods, and services throughout the region, and will be based on the location and adequacy of facilities for such goods and services.
- 8.19 The County will continue to recognize the need to address the Blair Municipal Airport as a vital county-wide transportation facility and efforts will be made to regulate land use in the environs of the airport to prevent the erection of further airport hazards and obstructions, at the same time preventing any residential encroachment upon the critical noise contours.

HEALTH AND SAFETY Goal 9

Washington County's goal is to continue to support health care, fire protection and law enforcement programs by exploring programs and alternative services to insure optimum service levels and public costs.

- 9.1 Regulation of land use developments affecting the health, safety and general welfare of the public.
- 9.2 Clean and regulate nuisances and poorly maintained properties. This includes the continued efforts to regulate junk cars, junkyards and dilapidated/deteriorated residences/farm yards throughout the County.
- 9.3 Establish regulations that protect County residents from the secondary effects of adult entertainment.

PARKS AND RECREATION Goal 10

Washington County should provide adequate, park and recreation opportunities for the residents of Washington County and the State of Nebraska. These facilities should be a combination of expanding of existing facilities and the establishment of newer facilities.

- Park and recreation facilities should be designed to accommodate the particular needs and interests of area residents while protecting, preserving, and conserving the environmental character and quality of the area.
- 10.2 Provide parks and recreational facilities that are reasonably accessible to residents of Washington County.
- 10.3 The parks and recreation section of the Comprehensive Development Plan shall be referred to when reviewing new, expansion, or redevelopment plans.
- 10.4 Promote recreation as a continuing means of economic development for Washington County.
- 10.5 Set standards that require or promote dedication of parks and open space.
- 10.6 Encourage recreational amenities offering year round enjoyment.
- 10.7 Work with developers of future rural subdivisions to create conservation areas through cluster subdivisions and conservation easements. These conservation areas should be connected from subdivision to subdivision when possible.
- 10.8 Washington County will cooperate with all governmental and recreation agencies within the region to identify open space and scenic resources, to determine resident and non-resident recreation needs, and to formulate and implement measures for open space preservation and use.
- Washington County will seek to offer greater opportunities for water-based recreation on the Missouri and Elkhorn Rivers and their tributaries.
- 10.10 Washington County will encourage an appropriate amount of park and recreation development designed to meet the needs of the transient and regional population.
- 10.11 Washington County will recognize the development of an integrated bicycle and pedestrian trail system to provide recreational opportunities and to link open space, Washington County communities and park areas.
- 10.12 Washington County will explore the possibilities of placing a greater share of the burden of park acquisition on new residents of the County who generate an increased demand for parks and open space.
- 10.13 For the purpose of implementing recreation programs and development, Washington County will investigate funding alternatives such as tax levies, bonding grants in aid, user fees and subdivision ordinance stipulation.

IMPLEMENTATION, EVALUATION, AND REVIEW Goal 11

Changing needs and conditions will necessitate future review, evaluation, and updating of the Comprehensive Development Plan and its supporting documents. Intergovernmental coordination of all planning activities affecting land uses within the county are necessary to assure an integrated comprehensive plan for Washington County.

- 11.1 Washington County will continue to implement an ongoing citizen involvement program that provides County residents opportunity to be involved in all phases of the planning process.
- 11.2 Washington County will review any development concepts or proposals which conflict with the Land Use Map, goals or policies in light of changing needs and conditions and in keeping with established procedures of Plan evaluation, amendment, and update.
- 11.3 Washington County will undertake a major update of the Comprehensive Development Plan and review of all supporting documents every five to ten years to ensure that an adequate factual basis for planning decisions is maintained.
- Washington County will encourage federal, state, and regional agencies and special districts to coordinate their planning efforts with those of the County.



INTRODUCTION

In order to formulate a truly valid and "comprehensive" plan for the future development of Washington County, it is first necessary to evaluate the environment and man-made conditions which currently exist to determine the impacts that these factors may have on limiting future land uses in the County. This component of the Washington County Comprehensive Development Plan provides a general summary of the environmental and man-made conditions, which are present in the County, and identifies and qualifies the characteristics of each which will directly or indirectly impact future land uses in the County. For clarity, the evaluations are presented in two separate analyses.

NATURAL ENVIRONMENTAL CONDITIONS

- Climate and Topography
- Wildlife and Recreation
- Watersheds(Water Quantity and Quality
- Wetlands
- Soil Formation and Classification
- Soil Parent Material
- Soil Association
- Capability Grouping
- Prime Farmland
- Soil Limitations

NATURAL CONDITIONS

CLIMATE

Washington County has a mid-continental sub-humid climate with moderate temperature. The soils in the county have probably developed under a climate similar to that of the present. Except for minor variations caused by slope or wind, the climate is uniform throughout the county. The steeper slopes and those facing south or west tend to be less leached because they are drier. The major differences in the soils of Washington County are caused by factors other than climate.

TOPOGRAPHY

Washington County is divided into two distinct, topographic areas: (1) The bottom lands long the Missouri and Elkhorn Rivers, and (2) the uplands between these two rivers. Some of these areas can be further subdivided. The Missouri River bottom lands consist of two levels – the low bottom lands, which are generally near the river, and the high bottom lands between the uplands and the low bottom lands.

The low bottom lands are imperfectly drained and were flooded frequently before the large mainstream dams were built on the river. The high bottom lands are well drained and were seldom flooded. Recent channel work has stabilized the course of the river in places so that the present stream may go through some formerly high bottom-land areas.

The uplands are part of a dissected plain that makes up eastern Nebraska. Bedrock of the upper Pennsylvanian the county. Sandstone and shale of the Dakota group (lower Cretaceous) underlie the rest of the county. Over the bedrock is glacial material of Nebraskan and Kansan age. The upper till is of Kansan age and is clay loam in texture. It is exposed along the most deeply entrenched streams. Loess mantles all of the uplands and stream Terraces and in place is as much as 100 feet

thick. The brown to reddish-brown silty to clayey material of Loveland age that covers the till surface is 1 to several feet thick. The gray, calcareous Peorian loess that covers all of the uplands and stream terraces averages 40 feet in thickness. A discontinuous covering of young, yellowish-brown, slightly calcareous loess, 20 feet or more thick, occurs on ridge tops and terraces along the Missouri River. This material becomes thinner westward. These recent loess deposits are thickest on the southern and eastern sides of the ridges and on the level terraces and uplands.

The uplands can be divided into three parts: (1) The level, loess-covered stream terraces along the Missouri River and Bell Creek and the level upland divides; (2) the gently sloping to rolling uplands in the central part of the county; and (3) the rolling to steeply rolling uplands and the bluff zone in the eastern part of the county.

The bottomlands of the county are from 100 to 300 feet below the uplands. The lowest elevation, approximately 1,000 feet above sea level, is along the Missouri River in the southeastern corner of the county. The uplands in the northwestern corner are about 1,320 feet above sea level. The county slopes to the southeast. Bell Creek is about 120 feet, and Papillion Creek 150 to 200 feet, below the uplands. The Missouri River is about 300 feet below the upland divide that lies between it and Papillion Creek. Blair, on the Missouri River terrace, is 1,122 feet above sea level.

All of the drainage in the county goes directly or indirectly into the Missouri River. The Missouri River bottom lands and the bluff zone drain directly into the Missouri River. The central part of the county is drained by Papillion Creek, which flows into the Missouri River south of Omaha. The western part of the county is drained by the Elkhorn River and Bell Creek, which flows into the Elkhorn River near the southwestern corner of the county. The Elkhorn River flows into the Platte River, which flows into the Missouri River.

RELIEF

Many soil differences in the county are caused by relief. Relief affects drainage, runoff, erosion, and deposition. Slopes differ in gradient, length, shape, and exposure. Some or all of these slope characteristics are responsible for the differences between soils derived from similar parent material, such as Burchard and Steinauer, Marshall and Crofton, and Belfore and Moody. Steep slopes cause rapid runoff; the result of runoff is that little water penetrates the soils and thin soils develop. On bottom lands the lack of relief and the need for drainage cause differences in soils. The differences between Salix and Leshara, Cass and Carr, and Onawa and Rauville are examples.

SLOPE

Slope has a scale connotation. It refers to the ground surface configuration for scales that exceed about 10 meters and range upward to the landscape as a whole. Slope has gradient, complexity, length, and aspect. The scale of reference commonly exceeds that of the pedon and should be indicated. The scale may embrace a map unit delineation, component of it, or an arbitrary area.

Slope gradient is the inclination of the surface of the soil from the horizontal. It is generally measured with a hand level. The difference in elevation between two points is expressed as a percentage of the distance between those points. If the difference in elevation is 1 meter over a horizontal distance of 100 meters, slope gradient is 1 percent. A slope of 45° is a slope of 100 percent, because the difference in elevation between two points 100 meters apart horizontally is 100 meters on a 45° slope.

Overland flow gradient is the slope of the soil surface in the direction of flow of surface water if it were present. The following examples show equivalencies between percentage gradient and degree of slope angle:

Slope Complexity refers to surface form on the scale of a mapping unit delineation. In many places internal soil properties are more closely related to the slope complexity than to the gradient. Slope complexity has an important influence on the amount and rate of runoff and on sedimentation associated with runoff.

Terms are provided for both simple and for complex slopes in some classes. Complex slopes are groups of slopes that have definite breaks in several different directions and in most cases markedly different slope gradients within the areas delineated.

Slope has considerable control over runoff and potential accelerated water erosion. Terms such as "long" or "short" can be used to describe slope lengths that are typical of certain kinds of soils. These terms are usually relative within a physio graphic region. A "long" slope in one place might be "short" in another. If such terms are used, they are defined locally. For observations at a particular point, it may be useful to record the length of the slope that contributes water to the point in addition to the total length of the slope. The former is called point runoff slope length. The sediment transport slope length is the distance from the expected or observed initiation up slope of runoff to the highest local elevation where deposition of sediment would be expected to occur. This distance need not be the same as the point runoff slope length.

Slope aspect is the direction toward which the surface of the soil faces. The direction is expressed as an angle between 0 degree and 360 degrees (measured clockwise from true north) or as a compass point such as east or north-northwest. Slope aspect may affect soil temperature, evapo-transpiration, and winds received.

Slope is the inclination of the soil surface from the horizontal position. Slope percent is the vertical distance divided by the horizontal distance, and then multiplied by 100.

WILDLIFE AND RECREATION

The kinds and amounts of wildlife that can be produced and maintained in this county are largely determined by the kinds and amounts of vegetation the soils can produce, and by the manner in which this vegetation is distributed.

Wildlife is influenced by topography and by such soil characteristics as fertility. Fertile soils are capable of greater wildlife production, and waters that drain from such soils generally will produce more fish than waters that drain from infertile soils. Topography affects wildlife through its influence on land use. Extremely rough, irregular areas may present hazards to livestock and be unsuited to crop production. In such areas the undisturbed vegetation is often valuable to wildlife. If suitable vegetation is lacking in such areas, it can often be developed to improve conditions for desirable kinds of wildlife.

Wetness and water-holding capacity of the soils are important in selecting sites for constructing ponds for fish and in developing and maintaining habitats for waterfowl. Swampy and marshy areas can be used for the development of aquatic and semiagnatic habitats of value to waterfowl and to some species of furbearers.

The soils of Washington County provide suitable habitats for a number of wildlife species. Important species of game in the area are quail, pheasant, deer, cottontail rabbit, and squirrel. Opossum, raccoon, weasel, mink, badger, fox, and skunk are found in various areas throughout the county. Beaver are found around farm ponds and on streams and waterways.

A variety of birds inhabit the county throughout the year. Migrations of water flow in spring and fall are a familiar site along the Missouri River, which forms the eastern boundary of the county. Mallard, teal, and some wood duck nest and reproduce in suitable areas. The DeSota Bend National Wildlife Refuge near Blair provides feeding and resting areas for migratory water fowl that follow the Missouri River flyway. This area also provides facilities for fishing and other recreation.

The Missouri River contains the most important fishing resource in Washington County. Fish are also in the Elkhorn River, in other permanent creeks, and in farm ponds that have been stocked with bass, bluegill, and channel catfish. Commercial fishing is carried on in the Missouri River. Its waters contain channel and flathead catfish, paddlefish, crappie, sauger, drum, carp, and buffalofish.

The wildlife resources of Washington County are important primarily for the opportunities for recreation they provide. Many species of wildlife, however, are also beneficial in the control of undesirable insects and rodents.

The combination of soils, topography, and vegetation in Washington County provides an opportunity for developing facilities for outdoor recreation. It is likely that fish and wildlife resources would be developed. Nevertheless, increased travel by the American public also provides other opportunities for using suitable soils for recreational purposes. Use of soils for overnight camping facilities or for picnic areas along main highways can provide a real convenience to travelers and an additional source of income to landowners.

PLANT AND ANIMAL LIFE

Postglacial vegetation in the area that is now Washington County was probably forest until about 6,000 years ago when grass began to take over. Since then, tall prairie grasses dominated the nearly level and rolling uplands. Deciduous trees covered the alluvial soils along the streams and the steep upland slopes adjacent to the bottom lands. Several centuries of root growth in the soil and the accumulation of vegetative remains on the surface have added considerable organic matter to the soil and have darkened the surface horizon. The soils developed under forest in this county apparently do not have any morphological features that set them apart. The upland soils developed under forest, however, usually have a thinner, darkened surface layer. Since many areas of these soils are on steeper slopes, the characteristics of this layer may not be due entirely to the type of vegetation.

All forms of plant and animal life contribute to soil formation. The addition of organic matter and the mixing that takes place in the soil depend on the kinds of plants and animals present and the environment, which includes soil climate.

The trees that once covered parts of the county have been cut for fuel or timber, and the land has been cleared for cultivation. Most of the land in prairie grass has been plowed and is now cultivated. As a result of the activities of man, most of the sloping fields have lost from one-third to two-thirds or more of the surface horizon. If allowed to continue, soil erosion would lower the productive capacity of the soils in the county.

WETLANDS

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance. Two general categories of wetlands are recognized: coastal or tidal wetlands and inland or non-tidal wetlands.

Inland wetlands found in Washington County are most common on floodplains along rivers and streams (riparian wetlands), in isolated depressions surrounded by dry land (for example, playas, basins, and "potholes"), along the margins of lakes and ponds, and in other low-lying areas where the groundwater intercepts the soil surface or where precipitation sufficiently saturates the soil (vernal pools and bogs). Inland wetlands include marshes and wet meadows dominated by herbaceous plants, swamps dominated by shrubs, and wooded swamps dominated by trees. Certain types of inland wetlands are common to particular regions of the country:

- wet meadows or wet prairies in the Midwest
- prairie potholes of Nebraska

Many of these wetlands are seasonal (they are dry one or more seasons every year), and, particularly in the arid and semiarid West, may be wet only periodically. The quantity of water present and the timing of its presence in part determine the functions of a wetland and its role in the environment. Even wetlands that appear dry at times for significant parts of the year -- such as vernal pools-- often provide critical habitat for wildlife adapted to breeding exclusively in these areas.

The federal government protects wetlands through regulations (like Section 404 of the Clean Water Act), economic incentives and disincentives (for example, tax deductions for selling or donating wetlands to a qualified organization and the "Swampbuster" provisions of the Food Security Act), cooperative programs, and acquisition (for example, establishing national wildlife refuges). Beyond the federal level, a number of states have enacted laws to regulate activities in wetlands, and some counties and towns have adopted local wetlands protection ordinances or have changed the way development is permitted. Most coastal states have significantly reduced losses of coastal wetlands through protective laws. Few states, however, have laws specifically regulating activities in inland wetlands, although some states and local governments have non-regulatory programs that help protect wetlands. Recently, partnerships to manage whole watersheds have developed among federal, state, tribal, and local governments; nonprofit organizations; and private landowners. The goal of these partnerships is to implement comprehensive, integrated watershed protection approaches. A watershed approach recognizes the inter-connection of water, land, and wetlands resources and results in more complete solutions that address more of the factors causing wetland degradation. The government achieves the restoration of former or degraded wetlands under the Clean Water Act Section 404 program as well as through watershed protection initiatives. Together, partners can share limited resources to find the best solutions to protect and restore America's natural resources. While regulation, economic incentives, and acquisition programs are important, they alone cannot protect the majority of our remaining wetlands. Education of the public and efforts in conjunction with states, local governments, and private citizens are helping to protect wetlands and to increase appreciation of the functions and values of wetlands. The rate of wetlands loss has been slowing, but we still have work to do. You can be a part. Approximately 75 percent of wetlands are privately owned, so individual landowners are critical in protecting these national treasures.

Wetlands play an important role in the ecology of Washington County. Wetlands are home to many species of wildlife, many of which live only in wetland areas. Wetlands also provide an important service to nearby areas by holding and retaining floodwaters. These waters are then slowly released as surface water, or are used to re-charge groundwater supplies. Wetlands also help regulate stream flows during dry periods.

The U.S. Fish and Wildlife Service (FWS) produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This information has been compiled and organized into the National Wetlands Inventory (NWI). At the time of this Plan, the FWS had mapped 89% of the lower 48 states, and the State of Nebraska had been entirely mapped. Maps produced by the NWI are available through their website or national office.

Wetlands are categorized in several classifications, each more detailed and specific than the previous. The NWI uses five systems; marine, estuarine, riverine, lacustrine, and palustrine. Within each system, there are subsystems, classes, subclasses, and dominance types to describe different wetland characteristics. The system classification refers to wetlands that share similar hydrologic, geomorphologic, chemical, or biological factors. Following are definitions and examples of three of the five systems used to describe wetlands. The Marine and Estuarine wetland systems are located in and near the open ocean, therefore, they do not occur in Nebraska. Further information on the more specific classifications can be obtained through NWI.

Washington County experiences each of these three other wetland systems. They tend to occur most often in east central Washington County along the Little Sioux River, and also in the flatland area near the Loess Hills south of Sioux City. However, wetlands of varying sizes and types are located throughout Washington County. The following figures depict common ways in which these three systems develop. These figures were produced by the United States Fish and Wildlife Service, and are taken from their 1979 publication entitled "Classification of Wetlands and Deepwater Habitats of the United States." Figures 5, 6, and 7 depict common examples of the riverine, lacustrine, and palustrine wetlands, respectively. Figure 8 shows the occurrence of wetlands in Washington County.

Figure 8: Wetlands Map

SOIL FORMATION AND CLASSIFICATION

SOIL PARENT MATERIAL

The soils of the county have developed in three kinds of parent material – loess, alluvium, and glacial till. The soils developed in loess are the most extensive. They are the Belfore, Crofton, Monona, Marshall, Moody, Nora and Sharpsburg soils. The major part of the loess is Peorian and is as much as 100 feet thick (3). The Peorian loess is calcareous silt loam to silty clay loam in texture and is grayish brown in color. A mantle of more recent, less calcareous loess is thought to cover the terraces and parts of the uplands (7,12).

Alluvium is the second most extensive soil parent material and ranges from clay to sand in texture. The largest area of soils developed from alluvium is in the valley of the Missouri River. These soils are the Albaton, Carr, Haynie, Leshare, Luton, McPaul, Onawa, Rauville, Salix, Volin, and Sarpy. The Cass, Judson, and Kennebec soils are the most extensive Alluvial soils along the upland drains of Bell Creek and the Elkhorn River.

silty material of the Loveland age occurs between the Peorian loess and Kansan till. Areas of the material exposed on the lower slopes are 5 to 10 feet in thickness and dark brown in color. A few of the exposed areas are large enough to be shown on the map, they are indicated by spot symbols.

Kansan till (3) is the parent material of Burchard and Steinauer soils. Little, if any, pre-Peorian weathering is evident in these soils. Kansan till is a calcareous clay loam that contains some glacial gravel and boulders.

NATIVE VEGETATION

On the bottom lands and bluffs near the Missouri and Elkhorn River and their major tributaries, the native vegetation was trees. On the level and rolling uplands, it was tall prairie grass. The principal native trees were bur oak, red oak, ash, American elm, hackberry, and walnut. On the wetter sites and on the lower slopes, cottonwood and willow trees were the most common.

The principal native grasses were big bluestem, switchgrass, and Indiangrass. Little bluestem, side-oats grama, and prairie dropseed grew on the drier, steeper slopes. Prairie cordgrass, switchgrass, and gamagrass were some of the most common grasses on wet bottom lands.

There is very little, if any, land in the county that still has an undisturbed cover of grass or trees. Use or management of native areas of grasses and woodlands has changed the composition of the original native cover to varying degrees.

SOIL ASSOCIATION

Moody-Belfore association: Clayey to silty soils of the rolling loess uplands west of Bell Creek

The soils in this association make up about 17 percent of the county. They are along the west side of the county, west of Bell Creek. They have developed in loess in the uplands and on the Bell Creek terrace. The soils along the lower slopes and upland drainageways have developed in the alluvial and colluvial material brought down from the uplands.

The major soils in this association are the Belfore, Moody, and Judson. The Luton, Nora, Crofton, and Sharpsburg are important soils in the area where they occur.

The Belfore soils are deep, dark moderately fin textured soils on the nearly level ridge tops. The surface layer is a dark, granular silty clay loam over a somewhat browner, finer textured, subanguler blocky subsoil. The Belfore soils are noncalcareous to a depth below 5 feet.

The Moody soils are on gently rolling to rolling slopes that are no more than moderately eroded. They are similar to the Belfore soils but have less clay in the subsoil and are calcareous higher in the profile.

The deep, dark silty Judson soils are around the heads of drainageways and on the lower slopes.

The Nora are the are the dominant soils on the rolling to steep slopes that are moderately to severely eroded. They are lighter colored and less clayey than the Moody soils, and lime is usually within 18 inches of the surface.

The silty, calcareous Crofton soils are in the areas that slope into the Elkhorn River bottom and on the severely eroded points and banks along drainage ways throughout the uplands. They have a thin, dark surface layer where they have remained in grass or trees. In cultivated areas the dark surface layer has usually been removed.

The deep, dark, moderately fine textured Lamoure and Colo soils are along the drainageways of the nearly level uplands. The Sharpsburg soils are on the terraces along Bell Creek. These soils, in color and structure, are similar to the Belfore but are less clayey throughout the profile. The deep, dark clayey soils of the Luton series are on the bottom lands along Bell Creek. In places they are calcareous and slowly permeable.

Most of this association is cultivated, and yields of all the crops commonly grown in the area are good. In years of subnormal rainfall, a small acreage of nursery crops on the Bell Creek terrace is irrigated.

Occasional flooding and slow permeability are problems on the Luton soils along Bell Creek. Runoff and erosion are the major problems on the rolling uplands where the Moody and Nora soils occur. Water conservation in dry periods and water disposal in periods of excess moisture are the major problems on the Belfore soils.

Sharpsburg-Marshall association: Silty to clayey soils of the nearly level to rolling loess uplands east of Bell Creek.

This association is in the center of the county east of Bell Creek; it includes the Papillion Creek drainage area, as well as a narrow band of sloping land that drains toward the Elkhorn River and Bell Creek. It makes up about 35 percent of the county.

The soils have developed in loess on the nearly level uplands and upland slopes. Along the lower slopes and along the drainageways from the uplands, the soils have developed in alluvial-colluvial deposits brought down from the slopes.

The main soils are the Sharpsburg of the nearly level uplands, the Sharpsburg and Marshall soils on the gently rolling to rolling slopes, and the Nora soils of the steep or eroded slopes of the uplands. These soils have developed in loess. Other soils included are the Crofton on the steep, severely eroded points and shoulders of slopes, the Judson on the lower slopes and along small upland drainageways, and the Lamoure and Colo along larger drainageways.

The Sharpsburg soils are deep, dark, moderately fine textured soils. They are well drained and noncalcareous. The Sharpsburg and Marshall soils have similar profiles. The Nora soils have lime within 2 feet of the surface and have lost much of the surface soil.

Small, scattered areas of Crofton soils occur on the steepest slopes. Their dark surface layer is thin or absent, and lime is usually at or near the surface. The nearly level to gently sloping Judson soils are deep, dark, and medium to moderately fine textured. They show little profile development and have little or no lime within the profile. The Lamoure and Colo are alluvial soils along the larger streams. They are deep, dark, and nearly level. They have a moderately fine textured subsoil that commonly is finer textured with depth. In some areas lime is present in the subsoils and substratum.

Most of this association is cultivated, and the areas on nearly level to moderate slopes are among the most productive in the county. Most farms are of the cash-grain type; some are of the livestock type. Good gravel roads are on most section lines.

Monona-Crofton association: Silty soils of the rolling hills and bluffs west of the Missouri River bottom lands.

This association consists of deep silty soils that have developed in loess on the eastern edge of the uplands. About 30 percent of the county is in this association. This association comprises a rolling to hilly area that is dissected by numerous streams that drain to the east into the Missouri River (fig. 3). The streams in this area have a grade that is much steeper than that of the streams in other areas of the uplands. All start at about the same elevation in the uplands; those in this part of the county empty in the Missouri River in 10 to 15 miles, and those in the rest of the county lose the same elevation in two to three times this distance. Because of the steep grade, the stream channels in this area are 20 to 50 feet deeper than they were before channels on the bottom lands were straightened.

Limestone and shale are exposed and quarried in the southeastern corner of the county at the base of the Missouri River bluffs. Soils developed in weathered products of these rocks are not in large enough areas to be mapped separately.

Moderately fine textured soils that have developed from glacial till of Kansan age occur in some places on the lower slopes along the larger streams. Some of the largest areas are along New York Creek. Soils that have developed in loess cover the ridge tops, high terraces, and most of the slopes. Along the streams and drainageways are soils that have developed in alluvial and colluvial materials.

The deep, medium-textured Monona and Crofton soils are the most extensive and important ones in this association. Both of these soils have developed in loess and are well drained and permeable. The surface layer is neutral to alkaline in reaction and becomes more alkaline with depth. These soils commonly are calcareous below 5 feet; in places on steep or eroded slopes, they are calcareous at the surface.

The Burchard and Steinauer are less extensive soils that have developed in glacial till. They are on the lower slopes that are rolling to steep. They are moderately fine textured, have moderate profile development, and are calcareious in the lower profile. The Judson and Kennebec soils occur on the colluvial slopes and along the upland drainageways. They are deep, dark, and medium textured and are usually neutral throughout the profile.

Most of this association is cultivated, but it has more land in grass and trees than any other soil association in the county. The more rolling areas have lower yields than other parts of the county and have more of the acreage in alfalfa, rotation hay, and pasture.

Luton-Volin association: Clayey to silty soils of the high bottom lands of the Missouri River.

The soils in this association are part of a band of alluvial soils that extend along the eastern edge of the county. These soils are nearly level and have developed in older clayey and silty alluvium next to the terrace. They are about 10 to 30 feet above the frequently flooded, low bottom lands that are along the river channel. This association makes up about 8 percent of the county.

Because of the nearly level slopes, all the soils in this association have slow surface drainage. The Luton soils have a fine-textured subsoil and substratum and a medium to fine textured surface layer. They are slowly permeable and neutral in reaction. The Volin soils are deep, dark, medium textured, and well drained to moderately well drained. They are more immature than the Salix soils, with which they are associated. The Salix soils occur where a natural levee of silty material was built up adjacent to the low bottom lands. These are deep, dark, well-drained silty soils; lime has been leached from their surface soil into the subsoil or below it. The Leshara and McPaul are less extensive soils in this area. They are deep, medium textured, and somewhat immature.

Almost all of the soils in this association are cultivated. Corn, soybeans, sorghum, and alfalfa produce well under good management. Cash-grain farming is the most common type. A few farmers irrigate some of the clay soils planted to seed corn or other special crops to offset the effects of midsummer drought. Gravel roads extend north and south on most section lines, but only a few roads near towns extend west out of the valley.

Albaton-Haynie association: Clayey to sandy soils of the low bottom lands of the Missouri River.

This association consists of a band of soils, ½ to 2 miles wide, that developed in recent alluvium along the eastern edge of the county. The soils are nearly level, except for those on the short slopes along old channels and drainageways and on a few ridges in the sandy areas. They make up 8 percent of the county. The Missouri River bottom lands have always been considered two separate areas by the people of the county. Areas of the Luton-Volin association were called the high bottom, and those of the Albaton-Haynie association were called the land below the high bank. The low-lying land has always been subject to seasonal flooding and rapid channel changes. Old pile dikes at a considerable distance from the channel show attempts to stabilize the channel in the 1930's. Then the land was used on a temporary basis. Small fields, 10 to 40 acres in size, were cleared and a farmed between floods. The farmsteads were small and frequently were makeshift. A boat for quick exit was a common sight.

From 1940 to 1952, floods caused losses of crops, equipment, and livestock so frequently that people stopped trying to keep the fields cleared, and trees and brush soon covered most of the low bottom lands. The flood of April 1952 was the most extensive in recent years. All of the low bottom lands and most of the high bottom lands were under water. Local deposits of sediment ranged from 1 to several feet thick. After the For Randall Dam and other dams in the Dakotas were completed, the probability of flooding was reduced, and the low bottom lands are again being cleared and conditioned for cropping. Large machines are being used to clear the land that a short time ago was covered by trees more than a foot in diameter.

This association is similar in size to the Luton-Volin association. The Albaton, Haynie, and Onawa are the most extensive soils; smaller areas of Rauville, Sarpy, and Carr soils occur. All of these soils are stratified, relatively light colored, immature, imperfectly drained, and calcareous. The Albaton and Onawa soils have developed in the fine-textured sediment. The Haynie, Carr, and Sarpy soils have developed in the coarse-textured sediment. The Rauville soils are in the low, poorly drained areas not suitable for cultivation.

Much of the land in this association is cultivated and produces satisfactory yields if fertilized and well managed. Wet and irregular areas along channels are in trees and brush. These areas are being developed for pasture.

There are fewer farmsteads here than in the rest of the county. Livestock and some cash-grain farming are the most common. Most roads are on section lines, but only those needed to reach the farmsteads and fields have been regraded.

FIGURE 9: SOIL ASSOCIATIONS MAI	p		

CAPABILITY GROUPS OF SOILS

The capability classification is a grouping that shows, in a general way, how suitable soils are for most kinds of farming. It is a practical grouping based on limitations of the soils, the risk of damage when they are used, and the way they respond to treatment.

In this system all the kinds of soil are grouped at three levels, the capability class, subclass, and unit. The eight capability classes in the broadest grouping are designated by Roman numerals I through VIII. In Class I are the soils that have few limitations, the widest range of use, and the least risk of damage when they are used. The soils in the other classes have progressively greater natural limitations. In class VIII are soils and landforms so rough, shallow, or otherwise limited that they do not produce worthwhile yields of crops, forage, or wood products. There are no class VII soils in this county.

The subclasses indicate major kinds of limitations within the classes. Within most of the classes there can be up to four subclasses. The subclass is indicated by adding a small letter, e, w, s, or c, to the class numeral, for example, lie. The letter e shows that the main limitation is risk of erosion unless close-growing plant cover is maintained; w means that water in or on the soil will interfere with plant growth or cultivation (in some soils that wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony, and c, used in only some parts of the country, indicates that the chief limitation is climate that is too cold or too dry.

In class I there are no subclasses, because the soils of this class have few or no limitations. Class V can contain, at the most, only subclasses w, s, and c, because the soils in it have little or no susceptibility to erosion but have other limitations that limit their use largely to pasture, range, woodland, or wildlife.

Within the subclasses are the capability units, groups of soils enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity and other responses to management. Thus, the capability unit is a convenient grouping for making many statements about management of soils. Capability units are generally identified by numbers assigned locally, for example, IIe-1 or IIIe-1.

Soils are classified in capability classes, subclasses, and units in accordance with the degree and kind of their permanent limitations; but without consideration of major and generally expensive land forming that would change the slope, depth, or other characteristics of the soil; and without consideration of possible but unlikely major reclamation projects.

The eight classes in the capability system and the subclasses and units in this county are described in the list that follows.

SOIL CAPABILITY SYSTEM, WASHINGTON COUNTY, NEBRASKA

I Soils that have a few limitations that restrict their use. These soils are suitable for intensive cultivation over long periods and do not require special practices other than those used for good farming. (No subclasses).

II Soils that have some limitations that reduce the choice of plants or require moderate conservation practices. They are suitable for tiled crops, pasture, or woodland.

III Soils that have severe limitations that reduce the choice of plants, or require special conservation practices, or both. These soils are suitable for tilled crops, pasture, woodland, or wildlife.

IV Soils that have very severe limitations that restrict the choice of plants, require very careful management, or both. They are suited to tilled crops, but need intensive management. They are also suited to pasture, woodland, or wildlife. These can be seen in figure 10.

FACTORS OF SOIL FORMATION

Soil in produced by the action of soil-forming processes on materials deposited or accumulated by geologic agencies. The characteristics of the soil at any given point are determined by (1) the physical and mineralogical composition of the parent material; (2) the climate under which the soil material has accumulated and existed since accumulation; (3) the plant and animal life on and in the soil; (4) the relief, or lay of the land; and (5) the length of time the forces of soil development have acted on the soil material.

Climate and vegetation are active factors of soil genesis. They act on the parent material that has accumulated through the weathering of rocks and slowly change it into a natural body with genetically related horizons. The effects of climate and vegetation are conditioned by relief. The parent material also affects the kind of profile that can be formed, and in extreme cases, determines it almost entirely. Finally, time is needed for the changing of the parent material into a soil profile. It may be much or little, but some time is always required for horizon differentiation. Generally, a long time is required for the development of distinct horizons.

The five factors of soil genesis are so closely interrelated in their effects on the soil that few generalizations can be made regarding the effect of any one factor unless conditions are specified for the other four. Many of the processes of soil development are unknown.

PRIME FARMLAND

Prime farmland: This is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Washington County has an abundance of prime farmland. This can be seen in figure 11, with most of the prime farmland occurring in the western portion of the county. Due to the importance of prime farmland the county may want to add special protection to these areas identified.

FLOODING FREQUENCY

The major flood hazards within Washington County occur in areas along the Missouri River, Elkhorn River, and the Big Papio, Blue, Little Blue, and New York Creeks. In addition, flooding commonly occurs in the lower elevations of the County in the creeks, which flow from the upland areas to the Major tributaries in the area. Additional areas subject to flooding are bottomland areas where high water tables exist that can become flooded during extended periods of rainfall. Due to the flooding hazard in these areas, development of these areas for building or structure development should be avoided. In

addition, development of sewage disposal systems, lagoons or confined livestock feeding operations in which sewage could possibly seep or drain into the ground or surface waters in these areas should be prohibited. In figure 12 these areas

SOIL LIMITATIONS

The interpretations are based on the estimated engineering properties of soils, on test data for soils in the survey area and others nearby or adjoining, and on the experience of engineers and soil scientists with the soils of Washington County. Ratings are used to summarize limitation or suitability of the soils for all listed purposes other than for drainage of cropland and pasture; irrigation; pond reservoir areas; embankments, dikes, and levees; and terraces and diversions.

Soil limitations are indicated by the ratings slight, moderate, and severe. Slight means that soil properties are generally favorable for the rated use, or in other words, that limitations are minor and easily overcome. Moderate means that some soil properties are unfavorable but can be overcome or modified by special planning and design. Severe means that soil properties are so unfavorable and so difficult to correct or overcome as to require major soil reclamation, special designs, or intensive maintenance. For some uses, the rating of severe is divided to obtain ratings of severe and very severe. Very severe means that one or more soil properties are so unfavorable for a particular use that overcoming the limitations is most difficult and costly and commonly is not practical for the rated use.

Conventionally, the septic tank-absorption field system has proven satisfactory for many areas when properly designed, installed, and maintained. However, conditions do exist where this system is not suitable. Areas of seasonal high groundwater tables, bedrock in close proximity to the soil surface, or soils having very fast or very slow percolation rates are not suited for the septic tank-absorption field system. Other limitations for this system include topography, small lot size and proximity to water supplies used for drinking or recreation.

SOIL ERODIBILITY

Figure 13Add information









Septic tank absorption fields

The typical septic tank-absorption field home sewage treatment system consists of two major components--the septic tank and the absorption field, figure 14. In the septic tank, solids are separated from the liquid, undergo anaerobic digestion and are stored as sludge at the bottom of the tank. The liquid (septic tank effluent) flows to the absorption field where it percolates into the soil. The soil acts as a final treatment by removing bacteria, pathogens, fine particles, and some chemicals.

Septic tank absorption fields are subsurface systems of tile or perforated pipe that distribute effluent from a septic tank into natural soil. The soil material between depths of 18 inches and 6 feet is evaluated. The soil properties considered are those that affect both absorption of effluent and construction and operation of the system. Properties that affect absorption are of the system. Properties that affect absorption are permeability, depth to water table or rock, and susceptibility to flooding. Slope affects difficulty of layout and construction and also the risk of erosion, lateral seepage, and downslope flow of effluent. Large rocks or boulders increase construction costs.

Sewage Lagoons

The lagoon system is an effective method of home sewage treatment and is well-suited for larger lot areas having very slow soil percolation rates. This system generally discharges home sewage directly into the lagoon. Properly designed and sized lagoons use evaporation for dewatering. Both aerobic and anaerobic decomposition occur in lagoon treatment of home sewage. Anaerobic treatment generally occurs at and near the bottom of lagoons where settled solids and sludges accumulate. This treatment is similar to the anaerobic treatment that occurs in septic tanks. Aerobic treatment occurs in the presence of oxygen and usually occurs near the lagoon surface. Aerobic treatment aids in reducing the odors released during anaerobic treatment and also provides additional treatment of home sewage. Wind movement aids in mixing oxygen into the lagoon surface and helps to increase evaporation.

Proper lagoon sizing and construction is essential for holding and treating home sewage. The surface area of a lagoon must be at least 900 square feet. When more than 5 people live in a house, an additional 175 square feet of lagoon surface area is required for each person. Lagoon length should not exceed three times its width and the liquid depth is about 3 feet. For ease of mowing, the lagoon should have side slopes of three units horizontal to one unit vertical. It may also be necessary to place a diversion terrace around part of the lagoon to keep surface water from entering into it.

Sewage lagoons are shallow ponds constructed to hold sewage within a depth of 2 to 5 feet long enough for bacteria to decompose the solids. A lagoon has a nearly level floor and sides, or embankments, of compacted to medium density and the pond is protected from flooding. Properties are considered that affect the pond floor and the embankment. Those that affect the pond floor are permeability, organic-matter content, and slope; and if the floor needs to be leveled, depth o bedrock becomes important. The soil properties that affect the embankment are the engineering properties of the embankment material as interrupted from the Unified soil classification and the amount of stones, if any, which influence the ease of excavation and compaction of the embankment material.

Dwellings and small commercial structures

These structures are built on shallow foundations on undisturbed soil. The load limit is the same as that for single –family dwellings no higher than three stories. Ratings are made for small commercial buildings without basements

Local roads and streets

Local roads and street have an all-weather surface expected to carry automobile traffic all year. They have a subgrade of underlying soil materials; a base consisting of gravel, crushed rock, or soil material stabilized with lime or cement; and a flexible or rigid surface, commonly asphalt or concrete. These roads are graded to shed water and have ordinary provisions for drainage. They are built mainly from soil at hand, and most cuts and fills are less than 6 feet deep. Soil properties that most affect design and construction of roads and streets are load supporting capacity and stability of the subgrade, and the workability and quantity of cut and fill material available. The AASHTO and Unified classifications of the soil material, and also the shrink-swell potential, indicate traffic supporting capacity. Wetness and flooding affect stability of the material. Slope, depth to hard rock, content of stones and rock, and wetness affect ease of excavation and amount of cut and fill needed to reach an even grade. Road fill is soil material used in embankments for roads. The suitability ratings reflect (1) the predicted performance of soil after it has been placed in an embankment that has been properly compacted and provided with adequate drainage and (2) the relative ease of excavating the material at borrow areas.



Figure 15: Soil Limitations for Sewag	ge Lagoons		

Figure 16: Soil Limitations for Residences without Basements						

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Figure 17: Soil Limitations fo	r Residences with Bas	ements		

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Figure 18: Soil Limitation	s for Small Commercia	al Structures		

DEVELOPMENT CHAPTER

INTRODUCTION

Within any planning jurisdiction, whether a large growing urban area or a small declining rural county, there will be changes in land uses throughout the planning period. The purpose of the Development Chapter is to provide a general guide to direct changes in land use and transportation over time. The resulting changes in land uses and transportation networks should be capable of coexisting with a minimum number of conflicts. This Chapter must reflect the existing conditions and be flexible in order to meet the needs of its citizens as well as there vision for the county's future.

The Development Chapter provides the basis for the formulation of land use (zoning) regulations and the application of zoning districts. For this reason, it is imperative to formulate a plan tailored to the needs, desires and environmental limitations of the planning area. The Development Chapter should promote improvements in all components of the local economy with particular emphasis on agricultural growth, as the predominant component of the local economy. The following common principles and land use concepts for agricultural areas have been formed to guide the development of Washington County's Development Chapter.

LAND USE ELEMENTS

The elements of the Washington County Development Chapter include Existing Land Use, Future Land Use, Transportation, and the County Land Use Management Plan (CLUMP). All of these elements are integrated in some form or another. To effectively evaluate development decision a substantial amount of information must be utilized.

- Existing Land Use
- Existing Transportation
- County Land Use Management Plan
- Future Land Use and Transportation

PRINCIPLES AND CONCEPTS OF THE WASHINGTON DEVELOPMENT CHAPTER

- Private ownership of land is essential to the freedom of individuals, families and communities and to the economic interest of the citizens of the County.
- Existing agricultural uses, methods of agricultural production, property values and the quality of life of the County residents should be protected and preserved.
- Allow for changes in farming practices and the scale of agricultural production should be encouraged when the use is compatible with existing land uses. Negative impacts on incompatible land uses, environmentally sensitive areas and issues impacting property values or the quality of life in the rural areas of the County should be kept to a minimum.
- Land use regulations, which are to be implemented in the Future Land Use Plan, should be minimized to preserve the freedoms and the property rights enjoyed by the County residents. This plan should effectively address the basic protection of the existing land uses, property values, the local environment and quality of life. Development of future land uses that are inconsistent with these basic protections should be discouraged.
- Decisions about land use affect transportation systems and vice versa

EXISTING LAND USE

INTRODUCTION

Evaluating the land uses that presently exist within Washington County is critical to the formulation of the Comprehensive Plan. The analysis of land including location, size and characteristics is important in understanding the pattern of development, past land use trends and other significant factors shaping the existing layout of Washington County. This analysis is essential to the preparation of the Future Land Use Plan. In order to realistically plan for future growth and development in Washington County, the starting point is the existing shape, form and amount of land presently used to provide for County functions. It also assists in the formulation of workable zoning regulations to protect existing uses.

LAND USE CATEGORIES

To evaluate these land uses in Washington County, a Land Use Survey was undertaken to determine, evaluate and map the various existing land uses located throughout the County. The location of each specific use of land is shown graphically on the Existing Land Use Map, Figure 19. The existing land uses of Washington County were classified under the following categories:

- Agriculture
- Industrial Agriculture
- Agriculture Storage
- Farmstead
- Rural Residential
- Commercial
- Industrial
- Public
- Ouasi-Public
- Transportation and Utilities
- Parks, Recreation, and Open Space

The above land use categories may be generally defined in the following manner:

Agriculture- Row crop, alfalfa, pasture land and all grain crops are considered agriculture land uses. Washington County is largely an agricultural based County and the existing land use map verifies this.

Industrial Agriculture- Feedlots, confinements of high production densities, and agricultural industries comprise the uses of industrial agricultural areas. These uses may be large or small, a family operation, or a standard operation. Also included in this category are commercial kennels and hog/cattle confinements or feedlots that are no longer in operation. These operations are scattered throughout the County.

Agriculture Storage- This category consists of abandoned farmsteads and uses related to agricultural storage, including grain, livestock or mechanical storage. Storage buildings can range from grain bins to abandoned buildings, with no human occupancy. These particular uses are scattered throughout the County.

Farmsteads- Uses in this category are residential dwellings that have adjacent operational agriculture buildings and/or family livestock operations. Residential units of this type are evenly distributed throughout the County.

Rural Residential- This use comprises residential dwellings that are not related to agriculture or feedlots and includes single residential dwellings located on county roads, highways, or private drives.

Rural Subdivision Residential- This use is similar to Rural Residential in that the density of development is the same however many single dwellings use common roads and possibly share other infrastructure.

Commercial- Uses in this category consist of convenient stores; entertainment facilities; feed, seed, automobile and machinery sales; petroleum sales; large home businesses such as mechanical and welding shops, etc. Commercial uses tend to be located near urban areas or in proximity to highways for accessibility.

Industrial- Land uses of this nature may include communication plants, commercial grain elevators, light manufacturing, commercial storage, industrial parks, large salvage yards, etc. These uses tend to be located near municipalities and major transportation routes for accessibility purposes.

Public- This category consists of all historical markers, nature preserves, rural school houses, etc. and are scattered throughout the County. Many rural school houses are abandoned or have other uses. Some of these current uses have been illustrated, while some have not been shown.

Quasi-Public- The quasi-public category includes rural churches and cemeteries. Cemeteries near churches or along roadsides range in size from an acre to a few graves.

Park, Recreation, and Open Space- This category includes State Recreational Areas and/or Wildlife Management Areas, camping areas, and private hunting/recreational areas or camps owned and operated by clubs or organizations.

Insert Figure 19: Existing Land Use

EXISTING LAND USE ANALYSIS

Physical Character of Washington County

One of the most critical factors, with regards to land use development in any area are the physical characteristics of the area. The physical character of Washington County is dominated at the eastern portion of the County with the convergence of the Missouri River and the Loess Hills. This area has seen the majority of the urbanization that has taken place in recent history. Most of the development has been low density residential or commonly known as acreage development. The main attribute is the scenic nature of the area commonly referred to as the Nebraska Loess Hills. In contrast to this area are the level plains of the western portion of the county, which for the most part has been untouched by urban development and remains in agricultural production.

Rural Unincorporated Land Uses

Agriculture Development

The vast majority of the 247,147 acres of land within the County is used for agricultural production. The most prominent agricultural activities are crop production.

Industrial Agriculture Development

Industrial agricultural operations of varying sizes, including confined livestock feeding operations, are minimal within the County. The existing operations, in most instances, are located a substantial distance from the urban areas of the County. These uses are indicated as Industrial Agriculture on the existing land use map, Figure 19. Generally, many of the industrial agricultural uses are located in areas where rural farmsteads are the predominant land use. The development of these uses in close proximity with farmsteads in the County has occurred for the same reasons original farmsteads were constructed; the availability of adequate water, supplies, higher crop production potentials and the desire to have the confined feeding facilities located near the producers' farming or ranching operations.

Agriculture Storage

Figure 19 indicates the amount of agriculture storage in Washington County. Aside from agricultural development, agriculture storage is the leading use of land in the rural portions of the County. As stated before, this land use could include vacant farmsteads, mechanical storage and agriculture storage such as grain or livestock. Usually this type of land use has a relatively low impact on the land. These storage facilities are evenly distributed throughout the County; usually close to a farmstead, but some do stand alone. Some of these uses could be seasonal, thus when locating future agriculture storage sites certain guidelines should be looked at.

Farmstead Development

As indicated in Figure 19, farmsteads are evenly scattered throughout the County. Examination of the land use pattern, with regard to farmstead development, reveals no specific pattern aside from the fact that the majority of farmsteads were developed in areas where the soils are the most conducive to crop production and near a major transportation route. Limited farmstead development has occurred in areas of the County where the soils are not conducive to crop production, which, in most instances, is in areas where there are steep slopes.

Rural Residential Development

Non-farm rural residential development is a growing trend throughout the State of Nebraska over the past two or three decades. This has been driven by market demand for larger parcels of land and larger homes. In most instances, larger parcels of land are not available within the corporate limits of smaller cities or villages; as a result the development has occurred in rural areas. This trend should continue to occur throughout the County in the future. It is important for the governing body of Washington County to acknowledge the potential increase in non-farm residents in the future, and design regulations that adequately manage their impact on the existing uses within the County.

Non-farm rural residential development has occurred in select areas within the County. The majority of non-farm residential development, as indicated in Figure 19, has occurred in the southeast portion of the county along U.S. Highway 75 and State Highway 133, south of Blair. This increase is due in part of Washington County's proximity to the Omaha and the scenic nature of this area.

Rural Subdivision Residential Development

This type of residential development as noted before is similar to rural residential but many dwellings may share infrastructure. The developments of this type in the County are clustered to the south of Blair on the east and west sides of State Highway 133 and other areas that follow Highway 75 south of Blair.

Commercial Development

As indicated in Figure 19, rural commercial development is limited in Washington County. The majority of most commercial operations and businesses are located within the corporate limits of the communities within the county.

Industrial Development

Figure 19 specifies different industrial sites located within Washington County. The major industrial uses in Washington County include OPPD's Fort Calhoun Nuclear Power Plant, Cargill Industries, and Fort Calhoun Stone Company, all of which are located on the southeastern portion of the county.

Public/Semi-Public Development

As shown in Figure 19, public/semi-public land uses are located throughout Washington County. These uses are generally located in close proximity to the major transportation routes of the County, including U.S. Highway 36, State Highway 133, and U.S. Highway 75 and/or near the urban areas of the County. There are also several rural cemeteries scattered throughout the County.

Park, Recreation, and Open Space

Washington County at the present time has a substantial amount of land designated as Federal Park land lying in DeSoto Bend and Boyer Chute. These areas are currently growing and future plans include buying private land and reserving it for public use or as wildlife protection areas. Other land federal park land the county does not designate specific areas in Washington County as park or Open Space areas although some private land has been developed in this fashion.

EXISTING RESIDENTIAL DENSITY

The Residential Density, Figure 20, was derived from the existing land use map depicting the density of residential development within Washington County. This map was developed in direct response to the growing concerns of rural residential growth, primarily in the southeast areas of Washington County. This map displays spatially of where and how much rural residential development has been allowed to occur in the county. This map can be utilized when making future land use decisions as well as future transportation decisions.

For example if a particular section of land as been deemed a higher density area with rural residential properties then this specific section should be given a due amount of care when future residential growth decisions are proposed. Additionally when future transportation project decisions are visited at a county level again this particular area of the county should given a higher priority when making these decisions to meet the needs of these county residents. In addition to land use and transportation decisions, services and facilities also must be weighed depending upon the density of development in that area of the county. This allows the planning commission and the governing body of Washington County to fully analyze ratio of development and the services that need to be provided to residents in a specific area of the county.

EXISTING LAND USE SUMMARY

The existing land use pattern in the rural portions of the County should have implications with the development of land use in the future. There should be a place for each type of development (i.e. farming, non-farm residents and confined feeding operations) within the rural portions of Washington County, but locating these uses should be extensively evaluated. If Washington County is to encourage development within the rural areas of the County, it will be imperative to formulate Future Land Use Plan and Zoning Regulations, which effectively balance development and minimize conflicting land uses.

Overall, the existing land use pattern in Washington County is one of heavier rural residential densities to the southeast and moderate density to the northwest. In addition to this type of residential development in the southeast other types of this development has occurred along the Elkhorn ridge in the western areas of the county. Industrial development has been allowed to occur between adjacent to the communities of Blair and Fort Calhoun. Limited commercial development contained around each of the community's entrances along major transportation routes. Finally the overall existing land use of Washington County still is strongly rooted in agricultural type uses.



EXISTING TRANSPORTATION SYSTEM

STREET AND ROAD CLASSIFICATION SYSTEM

All of the public highways, roads, and streets in Nebraska are divided into two broad categories, and each category is divided into multiple functional classifications. The two broad categories are Rural Highways and Municipal Streets. State statute defines Rural Highways as "all public highways and roads outside the limits of any incorporated municipality," and Municipal Streets as "all public streets within the limits of any incorporated municipality." Neb. Rev. Stat. § 39-2102 (RRS 1998)

The functional classifications are used to define typical traffic patterns and jurisdictional responsibility. The functional classifications for Rural Highways are defined by state statute as follows:

- (1) *Interstate*, which shall consist of the federally designated National System of Interstate and Defense Highways;
- (2) *Expressway*, which shall consist of a group of highways following major traffic desires in Nebraska which rank next in importance to the National System of Interstate and Defense Highways. The expressway system is one which ultimately should be developed to multilane divided highway standards;
- (3) *Major Arterial*, which shall consist of the balance of routes which serve major statewide interests for highway transportation. This system is characterized by high-speed, relatively long distance travel patterns;
- (4) *Scenic-Recreation*, which shall consist of highways or roads located within or which provide access to or through state parks, recreation or wilderness areas, other areas of geographical, historical, geological, recreational, biological, or archaeological significance, or areas of scenic beauty;
- (5) *Other Arterial*, which shall consist of a group of highways of less importance as through-travel routes which would serve places of smaller population and smaller recreation areas not served by the higher systems;
- (6) **Collector**, which shall consist of a group of highways which pick up traffic from many local or land-service roads and carry it to community centers or to the arterial systems. They are the main school bus routes, mail routes, and farm-to-market routes;
- (7) Local, which shall consist of all remaining rural roads, except minimum maintenance roads; and
- (8) Minimum Maintenance, which shall consist of (a) roads used occasionally by a limited number of people as alternative access roads for areas served primarily by local, collector, or arterial roads, or (b) roads which are the principal access roads to agricultural lands for farm machinery and which are not primarily used by passenger or commercial vehicles.

Neb. Rev. Stat. § 39-2103 (RRS 1998) (emphasis added).

The statute goes further by stating that certain rural highways classified under subdivisions (1) to (3) of section 39-2103 "should, combined, serve every incorporated municipality having a minimum population of one hundred inhabitants or sufficient commerce, a part of which will be served by stubs or spurs, and along with rural highways classified under subdivision (4) of this section, should serve the major recreational areas of the state." Sufficient commerce is defined in Neb. Rev. Stat. § 39-2103 as "a minimum of two hundred thousand dollars of gross receipts under the Nebraska Revenue Act of 1967." In other words, every incorporated municipality with a population of 100 or greater, or one that has sufficient commerce, should be served by either (1) an Interstate, (2) an Expressway, or (3) a Major Arterial. All major recreation areas of the state should be served by any of these three rural highways, or by a Scenic-Recreation highway. The 6 communities,

Arlington, Blair, Fort Calhoun, Herman, Kennard and Washington would fall under this program and would adopt a "One and Six Year Programs" to effectively plan for future street improvement projects.

The functional classifications for Municipal Streets are defined by state statute as follows:

- (1) *Interstate*, which shall consist of the federally designated national system of interstate and defense highways;
- (2) *Expressway*, which shall consist of two categories: *Extensions of Rural Expressways* and some *Additional Routes* which serve very high volumes of local traffic within urban areas;
- (3) *Major Arterial*, which shall generally consist of extensions of the rural major arterials which provide continuous service through municipalities for long-distance rural travel. They are the arterial streets used to transport products into and out of municipalities;
- (4) Other Arterial, which shall consist of two categories: Municipal Extensions of Rural Other Arterials, and Arterial Movements Peculiar to a Municipality's Own Complex, that is streets which interconnect major areas of activity within a municipality, such as shopping centers, the central business district, manufacturing centers, and industrial parks;
- (5) *Collector*, which shall consist of a group of streets which collect traffic from residential streets and move it to smaller commercial centers or to higher arterial systems; and
- (6) **Local**, which shall consist of the balance of streets in each municipality, principally residential access service streets and local business streets. They are characterized by very short trip lengths, almost exclusively limited to vehicles desiring to go to or from an adjacent property.

Neb. Rev. Stat. § 39-2104 (RRS 1998) (emphasis added).

The method by which streets and roads are classified depend upon their location and use. In the case of the incorporated communities, streets and roads are classified under the Municipal Streets functional category system.

The jurisdictional responsibility that municipalities have is defined in Neb. Rev. Stat. § 39-2105 as follows:

"(3) The various incorporated municipalities shall have the responsibility for the design, construction, reconstruction, maintenance, and operation of all streets classified as expressway which are of a purely local nature, that portion of municipal extensions of rural expressways and major arterials which exceeds the design of the rural portions of such systems, and responsibility for those streets classified as other arterial, collector, and local within their corporate limits."

The State of Nebraska has jurisdictional responsibility for all roads classified as interstate, expressway, and major arterial under the Rural Highway classification, and all roads classified as interstate under the Municipal Streets system. The jurisdiction over any municipal extensions of these classifications transfers to the municipality whenever the road exceeds the design standards of the road leading into the municipality. Neb. Rev. Stat. § 39-2105 (1) (RRS 1998). When the design of rural road differs at different points, the responsibility of the state is limited to the lesser of the two designs, and the municipality is responsible for the remainder of the design.

Scenic-Recreation roads remain under jurisdiction of the governmental subdivision that had jurisdiction prior to the time the road was designate as Scenic-Recreation. Neb. Rev. Stat. § 39-2105 (4) (RRS 1998).

COMPOSITION OF EXISTING TRANSPORTATION SYSTEM

The transportation network within Washington County is well developed with Major U.S. Highways, Nebraska State Highways, developed County arterials, and local roads.

The *National Scenic Byway* Designation is awarded to routes that show the regional characteristics of the nation's culture, history and landscape. Nebraska Highway 75 running north and south on the eastern edge of the Washington County received this designation as it is considered one of the most enjoyable and intriguing landscapes in Nebraska



FUTURE LAND USE

AGRICULTURAL USES

In order to abide by the principles and general land use concepts presented above, the future land use lying in the rural portions of Washington County should be left predominately in agricultural production, which is the primary existing land use. The use of land for crop production should be encouraged as a means of strengthening the local economy. Crop production is going to be greatly influenced by the County's topography. Where there are steep slopes, crop production will be minimized; except, where the topography has been terraced to accommodate said production activity.

The use of land for livestock production should also be encouraged as a means of enhancing the economy; however, such production activity should be limited to where soil types and the landscapes have a limited risk of environmental degradation, including surface and groundwater contamination. Other considerations needing to be reviewed with regard to livestock production is air quality. These uses should be carefully located in order to avoid the potential for incompatibilities between land uses due to the production of odor, dust, or other characteristics. These incompatibilities can negatively affect the value and marketability of neighboring properties. Avoiding the degradation of natural resources including groundwater, surface water, air quality and soil productivity should also take a priority when looking at the placement of these uses.

Residential uses associated with agricultural production should continue to be supported as necessary and subordinate to agricultural production. These residential uses shall require a means of access through the continuation of roadway systems, public facilities and services.

River and wetland protection and maintenance are critical to protecting and preserving the wildlife and water quality in the County. Confined livestock feeding and development of commercial or industrial uses in these environmentally sensitive areas should be closely monitored, if not prohibited, to decrease the risk of contaminating surface water and wetland areas.

NON-FARM RESIDENTIAL DEVELOPMENT

Development of non-farm residences should be encouraged as an approach to economic and population growth. In addition, these uses provide additional residential choices for existing and future citizens. However, such development should avoid encroachment upon prime agricultural lands. These uses should be located in areas where proper access is available and where waste disposal systems can function properly without environmental degradation. This type of development should also be in close proximity to existing communities to alleviate County costs on infrastructure and services.

Non-farm rural residential uses should be developed either as individual housing sites or as residential subdivisions. Such development should be evaluated in terms of environmental limitations of the land, impact on prime farmland, marketability, and land use compatibility, as well as the impact on county services. Such uses, whether they occur as individual housing sites or as residential subdivisions in the rural areas of the County, should generally be limited to locations on or near improved county roads and/or major highways within the County. Non-farm rural residential development should also be located along the County road corridors which are in close proximity to the urban areas within the County (development in such areas, in most cases, would not be under the jurisdiction of the County).

Policies regarding non-farm rural development will allow the County to avoid the need for unnecessary improvement and expansion of the County road system, as well as, certain services impacted by said development. An exception to this limitation would the development of non-agricultural housing around scenic areas in the County where major roadway access already exists.

COMMERCIAL AND INDUSTRIAL USES

Future commercial and industrial uses, not desiring to locate within or near the urban areas of the County, may locate in the rural portions of the County. However, the location of these uses should be reviewed carefully. Uses that generate or attract substantial amounts of vehicular traffic, particularly heavy truck traffic, should locate along the major highway corridors in the County.

In addition, uses producing potentially hazardous materials or otherwise undesirable materials should be monitored. It is critical to properly locate such uses in the County. When and if they are proposed, limits on the potential risks to the environment, as well as, adjoining or nearby property owners should be considered in order to minimize the impacts now and in the future.

RECREATIONAL DEVELOPMENT

Future recreational use throughout the County should be actively pursued. It is important to add to the existing inventory of recreational uses. Furthermore, the creation of additional recreational areas should increase the overall "image" of the County. These policies will aid in the enhancement of the quality of life for the citizens of Washington County. The policies will aid in developing tourism opportunities within the County.

Development of, as well as, improvements upon the recreational areas within the County should be an active land use goal throughout the planning period. It is important, however, to acknowledge the need to attract people, both local citizens and citizens from outside the County, to such recreational areas. Development of recreational uses should take into consideration the need for proper access to these areas, as well as, proper advertisement to ensure proper utilization.

THE FUTURE LAND USE PLAN

Based upon the land use concepts, the Future Land Use Plan for Washington County, Nebraska envisions primary land use categories to accommodate the expansion of existing and future development uses of the land. As described below, these land use areas are:

- Agricultural
- Transitional Agricultural
- Rural Acreage
- Public

- Industrial
- Industrial Commercial Center
- Business Park Retail
- Retail Neighborhood Commercial

The basic guiding principle for this Plan is the preservation and protection of existing land uses and the environment in the County. This includes the protection of the residentially developed areas, while encouraging economic expansion in both the agricultural and non-agricultural sectors of the local economy. This expansion would occur through development of new and/or expanded land uses compatible with the existing uses, environmentally acceptable, and respects and supports the quality of life desired by the residents of Washington County.

AGRICULTURAL USE AREAS

As shown in Figure 21, the majority of land, in the rural portions of the County, is designated with the continuation of agriculture represented by the existing farm activities in the area.

Agricultural covers less than half of the total land area in Washington County. This land use area provides for the continuation of land currently in agricultural production within the unincorporated areas of Washington County.

As stated in the Environmental Chapter of this Plan, there are areas within Washington County where the characteristics of the geology, hydrology, topography and soils are more sensitive to higher intensity uses. These uses include confined feeding operations of livestock. Some areas of the County may face contamination of the environment even with quality livestock management practices. The best way to avoid environmental degradation problems is to carefully monitor those uses that present any potential problems.

Transitional Agricultural areas typically designate a buffer between the Agricultural and Rural Acreage areas within Washington County. However, as areas are rezoned, both the TA-Transitional Agriculture and the Rural Acreage districts are considered appropriate designations for this land use category. It also recognizes an area that is next in line to be developed within the rural areas of the County.

RESIDENTIAL USE AREAS

The residential development areas are built around a three tier process. The tier system has a direct connection to the zoning that may be applied to a specific piece of land or an entire residential subdivision. The primary principle that guides the tier system is the availability of infrastructure including water and roads. The following sections are a description of the three land use categories found within this tier system.

Rural Acreage Developments

The following land use districts, as well as, the associated zoning districts are allowed within the Rural Acreage land use district:

Rural Subdivision -1 is a category that is centered on residential subdivisions of two acres to five acres per lot. The rural subdivision-1 district is designed to be more densely populated than other residential areas of the county, outside of the communities.

The Rural Subdivision-1 district, as policy, will require a number of key datum and/or design standards. These data and design standards include the following:

- A Traffic Study be completed by the County Highway Superintendent that will cover traffic control, turn lanes, and limited access points.
- A completed Drainage Study.
- Green Space equal to 10 percent of the land within the subdivision excluding roads and road rights-of-way. The green space will be owned by the residents and is to include views, trees, and preserve areas.
- Connections to a public water system may be required based upon the location of the development and its relationship to existing water services.
- All internal roads shall be easement roads with a perpetual easement granted to the general public.
- Adjacent maintained County Roads shall be dedicated to the general public.
- Future access to adjacent developable land should be considered into the layout.
- All County or Township Roads along and adjacent to the development shall be hard surfaced from boundary line to boundary line of the subdivision, and
- Other that can be found in either the Zoning Resolution or the Subdivision Regulations of Washington County.

Rural Subdivision -2 is a category that is centered on residential subdivisions of five acres to ten acres per lot. The rural subdivision-2 district is designed to be less densely populated than other residential areas of the county.

The Rural Subdivision-2 district, as policy, will require a number of key datum and/or design standards. These data and design standards include the following:

- A Traffic Study is to be completed by the County Highway Superintendent that will cover traffic control, turn lanes, and limited access points.
- A completed Drainage Study.
- Green Space is not required in this subdivision category.
- Connections to a public water system may be required based upon the location of the development and its relationship to existing water services.
- All internal roads shall be easement roads with a perpetual easement granted to the general public.
- Adjacent maintained County Roads shall be dedicated to the general public.
- Future access to adjacent developable land should be considered into the layout.
- Other that can be found in either the Zoning Resolution or the Subdivision Regulations of Washington County.

Rural Acreage is a category that is centered on residential development/parcels over ten acres per lot. The rural acreage district is designed to be the least densely populated area of the county.

The Rural Acreage district, as policy, will require a number of key datum and/or design standards. These data and design standards include the following:

- A Traffic Study be completed by the County Highway Superintendent that will cover traffic control, turn lanes, and limited access points
- A completed Drainage Study is not required.
- Green Space is not required in this subdivision category.
- Connections to a public water system, community and/or private wells are all allowable.

- All internal roads shall be easement roads with a perpetual easement granted to the general public.
- Adjacent maintained County Roads shall be dedicated to the general public
- Other that can be found in either the Zoning Resolution or the Subdivision Regulations of Washington County.

OTHER LAND USE DISTRICTS Public

The primary uses within the public land use areas are both active and passive recreation, which are largely owned and operated by federal or state government agencies.

Industrial

This area is intended to accommodate smaller less intensive manufacturing companies to large-scale heavy industrial outfits. The county will be selective of the type of operations that locate in these areas within the county. The county also must take into consideration the impacts of the industry on the area including both positive and negative aspects. Various impacts would include transportation, environmental, sewer, water, among others.

Industrial Commercial Center

The Industrial Commercial Center is currently proposed in one specific area of Washington County. This use district is near the area known as Nashville along U.S. Highway 75. Development in this area is intended to accomplish two goals. The first is to recognize and accommodate existing businesses in the area and allow them to continue. Secondly, encourage future development in an orderly and aesthetically pleasing manner. Specific types of uses to be allowed in this area include:

- Manufacturing
- Warehouses
- Light Industrial classified uses
- Some Heavy Industrial classified uses

The master plan concept for development in this area would require a number of special conditions to be met. The requirements include:

- Special landscaping provisions
- Architectural design standards for all buildings
- Special lighting design for the sites
- Completion of a traffic impact analysis
- Special sign guidelines
- Maximum coverage and density of development

In addition to the special provisions, development in this area will be encouraged to use the natural amenities of the site into account when the concept is laid out. Natural amenities include the existing terrain, existing trees, existing drainage areas, existing view sheds on the site, and more. The concepts will be encouraged through the use of Performance Zoning. The Performance Zoning criteria will be set up in order to entice the developer into preservation of these amenities while rewarding the efforts with certain design criteria loosened up as an award. Those design criteria being loosened will not include any criteria established for protecting the general health, safety and welfare of the public. The use of Performance Zoning and the Mixed Use District are to encourage creativity in the development process as opposed to creating obstacles.

Finally, the following circumstances will need to be observed in the design of a development in this land use area:

- Establishment of a scenic landscaping buffer when the development is adjacent to any residential or agricultural area
- Abide by all Wellhead Protection Regulations as established by any city/village or the county

The policies within this district have been established in order to guide future development in a manner that is unique, creative while meeting the needs of the county's economic development efforts.

Business Park Retail

The Business Park Retail is designated as a node encompassing the airport and the surrounding environs At this time, no specific area is defined. However, development shall be in an orderly, planned manner. This area is intended to be developed as a mixed use center. Future development under this designation would require the development of a long-range plan and master plan concept for the development. The master plan concept will require development in this area to be completed as directed in the Mixed Use Zoning District and planned in a complete concept as opposed to a piece meal approach. In addition, the overall development within this district would be limited to and have a maximum area of 40 acres. Specific types of uses to be allowed in this area include:

- Office buildings
- Warehouses
- Food catering services
- Airport restaurant but not including fast food drive-thru style businesses
- Direct mail deposits
- Aircraft production and maintenance

The master plan concept for development in this area would require a number of special conditions to be met. The requirements include:

- Special landscaping provisions
- Architectural design standards for all buildings
- Special lighting design for the sites
- Completion of a traffic impact analysis
- Incorporation of special elements such as ponds, trails, wetlands, and natural interpretive areas
- Special sign guidelines
- Maximum coverage and density of development

In addition to the special provisions development in this area will be encouraged to use the natural amenities of the site into account when the concept is laid out. Natural amenities include the existing terrain, existing trees, existing drainage areas, existing view sheds on the site, and more. The concepts will be encouraged through the use of Performance Zoning. The Performance Zoning criteria will be set up in order to entice the developer into preservation of these amenities while rewarding the efforts with certain design criteria will be loosened up as an award. Those design criteria being loosened will not include any criteria established for protecting the general health, safety and welfare of the public. The use of Performance Zoning and the Mixed Use District are to encourage creativity in the development process as opposed to creating obstacles.

Finally, the following circumstances will need to be observed in the design of a development in this land use area:

- Establishment of a scenic landscaping buffer when the development is adjacent to any residential or agricultural area
- All proposed development must be designed around the existing plans for expansion of Nebraska Highway 133 as established by the Nebraska Department of Roads
- All guidelines as established by the Blair Airport Authority and Airport Zoning as administered for the Airport
- Abide by all Wellhead Protection Regulations as established by any city/village or the county

The policies surrounding the Airport Commercial Center district have been established in order to guide future development in a manner that is unique, creative while meeting the needs of the county's economic development efforts.

Retail Neighborhood Commercial

The Retail Neighborhood Commercial district is designated as a node located along Nebraska Highway 133 encompassing the "The Lakeland Corner". The location is in close proximity to existing residential developments. This area is intended to be developed as a mixed use center that will provide for the commercial needs of the surrounding area as well as the southern portion of Washington County. Future development under this designation would require the development of a long-range plan and master plan concept for the development. The master plan concept will require development in this area to be completed as directed in the Mixed Use Zoning District and planned in a complete concept as opposed to a piece meal approach. In addition, the overall development within this district would be limited to and have a maximum area of 20 acres. Specific types of uses to be allowed in this area include:

- Convenience Stores
- Gas Stations
- Banking facilities
- Video Stores, and
- Other similar type of uses that are supported by residential development

The master plan concept for development in this area would require a number of special conditions to be met. The requirements include:

- Special landscaping provisions
- Architectural design standards for all buildings
- Special lighting design for the sites
- Completion of a traffic impact analysis
- Incorporation of special elements such as ponds, trails, wetlands, and natural interpretive areas
- Special sign guidelines
- Maximum coverage and density of development

In addition to the special provisions, development in this area will be encouraged to use the natural amenities of the site into account when the concept is laid out. Natural amenities include the existing terrain, existing trees, existing drainage areas, existing view sheds on the site, and more. The concepts will be encouraged through the use of Performance Zoning. The Performance Zoning criteria will be set up in order to entice the developer into preservation of these amenities while rewarding the efforts with certain design criteria will be loosened up as an award. Those design criteria being loosened will not include any criteria established for protecting the general health, safety and welfare of the public. The use of Performance Zoning and the Mixed Use District are to encourage creativity in the development process as opposed to creating obstacles.

Finally, the following circumstances will need to be observed in the design of a development in this land use area:

- Establishment of a scenic landscaping buffer when the development is adjacent to any residential or agricultural area
- All proposed development must be designed around the existing plans for expansion of Nebraska Highway 133 as established by the Nebraska Department of Roads
- Abide by all Wellhead Protection Regulations as established by any city/village or the county

The policies surrounding the Retail Neighborhood Commercial district have been established in order to guide future development in a manner that is unique, and creative while meeting the needs of the county's economic development efforts.



LAND USE SUMMARY

Utilization of the Future Land Use Plan as a guide for future land development within Washington County will result in the protection of existing land uses throughout the County's jurisdiction, as well as protection of the citizens residing in or near the communities of the County. Adherence to the land use policies outlined will assist the County in avoiding conflicts between incompatible land uses. The concept of lessening the future impact upon the public infrastructure (roads) and tax base in the County will assist in preserving vital tax dollars and allowing for fiscally responsible developments in the County for years to come.

The Future Land Use Plan represents a generalized "County-wide" view of where future development should be. It is important to utilize the graphic data provided in the Environmental Chapter of this Plan (Figure 8 through Figure 18) in conjunction with the Future Land Use Plan Map, in order to properly locate future land uses. Furthermore, the need for onsite investigation will be necessary, especially when larger land use developments are scheduled for the rural areas of the County.

The information provided within this Comprehensive Plan, including the Future Land Use Plan Map, is meant to be a guide for the future development of the County, not a static document that serves to hinder development within the County. It is important, however, that references be made to the information provided within this document prior to making decisions about future land uses in Washington County, Nebraska.

TRANSPORTATION SYSTEM PLAN

INTRODUCTION

Transportation networks tie communities together as well as providing a link to the outside world. Adequate circulation systems are essential for the safe and efficient flow of vehicles and pedestrians, and accessibility to all parts of the county. The Transportation Plan will identify future improvements planned and those necessary to provide safe and efficient circulation of vehicles within the Washington County, including major projects that ensure implementation of the Land Use Plan.

TRANSPORTATION PLANNING AND LAND USE

Land use and transportation create the pattern for future development. An improved or new transportation route generates a greater level of accessibility and determines how adjacent land may be utilized in the future. In the short term, land use shapes the demand for transportation. However, new or improved roads, as well as, county and state highways may change land values, thus altering the intensity of which land is utilized.

In general, the greater the transportation need of a particular land use, the greater its preference for a site near major transportation facilities. Commercial activities are most sensitive to accessibility since their survival often depends upon the ease potential buyers can travel to this location. Thus, commercial land uses are generally located near the center of their market area along highways or at the intersection of arterial streets.

Industrial uses are also highly dependent on transportation access, but in a different way. For example, visibility is not as critical for an industry as it is for a retail store. Industrial uses often need access to more specialized transportation facilities, which is why industrial sites tend to be located near railroad lines or highways to suit individual industrial uses.

TRANSPORTATION FINANCING ISSUES

The primary sources of information utilized in the maintenance and development of the transportation and circulation system are (1) County "One and Six Year Road Plan" and (2) the State of Nebraska "One and Five Year Highway Program." These state and local improvement plans should only be viewed as a planning tool, which are subject to change depending on financing capabilities of the governmental unit.

The County's "One and Six Year Road Plan" is reviewed and adopted by the local unit of government to address the issues of proposed road and street system improvements and development. Upon approval of these plans by the Board of Public Road Classifications and Standards, the governmental units are eligible to receive revenue from the Nebraska Department of Roads and the State Treasurers Office, which must be allocated to county road improvement projects.

The "One and Five Year Highway Program", developed by the Nebraska Department of Roads, establishes present and future programs for the development and improvement of state and federal highways. The One-Year Program includes highway projects scheduled for immediate implementation, while the Five-Year Program identifies highway projects to be implemented within five years or sooner if scheduled bids and work for one-year projects cannot be awarded and constructed.

WASHINGTON COUNTY'S ONE AND SIX YEAR PLAN

Washington County's One and Six Year Plan is a vital tool that must be used concurrently with the comprehensive development plan. The transportation needs identified in the plan must be listed within the One and Six-Year Plan making these needs reality. Every Year Washington County passes this document to distribute funds to various projects throughout the county. For specific details on these projects listed refer to the One and Six Year Plan filed with the county clerk and held by the highway superintendent. It is recommended that this element of the Comprehensive Plan is revisited every year as the One and Six Year Plan is revised. Changes to either document should occur concurrently.

NEBRASKA DEPARTMENT OF ROADS' IMPROVEMENTS

The Nebraska Department of Roads publishes an annual list of proposed projects for the current fiscal year, for fiscal years one to five years from the present, and six years and beyond. Washington County is in the Department of Road's District 2 in Omaha.

WASHINGTON COUNTY'S PROPOSED IMPROVEMENTS General Development

Proposed county improvements can be seen on the future transportation map, Figure 22. These general improvements include upgrading county gravel roads to a county 2-lane cross section paved with asphalt material. These would include the improvement of five county roads from gravel to asphalt.

Three of which are located in the southeastern portion of the county. One of these projects is part of the "Back to the River" project sponsored by the State of Nebraska, in which a county road will be upgraded to asphalt with a wider paved right of way which will incorporate a trail. This project is located near the Boyer Chute Recreation area. The other two projects in this area are needed to accommodate the level of increased traffic in this part of the county.

Another project is proposed in the northeast area of the county east and southeast of Herman. This project is needed to connect that part of the county to the community of Blair and thus the other major traffic routes in the county. The final proposed project is in the western portion of the county running north and south. The existing right of way is a gravel surface. The route will connect Nebraska State Highway 91 with a existing paved county road running one mile south of the county line.

Corridor Development

Future corridor development of the county will include the upgrade of Nebraska State Highway 133 from a two-lane highway to a four-lane expressway. The Nebraska Department of Roads sponsors this improvement. The upgrade of this roadway is needed to meet the ever-increasing demands from commuter traffic traveling on this highway. A specific location on Nebraska Highway 133 is the access point changes created by the expansion of the Blair Airport.

Trail Development

A limited amount of trail development has occurred in the past in Washington County. Future trail development is planned to continue due to the "Back to the River Project" along the Missouri River starting from the Southeast area of the county. This may continue throughout the county and including the communities if partnerships are created. Trail development can be used as an economic tool for the county as well as the communities within the county. If utilized the county could see a return on its investment.



PLAN IMPLEMENTATION

ACHIEVING WASHINGTON COUNTY'S FUTURE

Successful community plans have the same key ingredients: "2% inspiration and 98% perspiration." This section of the plan contains the inspiration of the many county officials and residents who have participated in the planning process. However, the ultimate success of this plan remains in the dedication offered by each and every resident.

There are numerous goals and objectives in this plan. We recommend reviewing the relevant goals during planning and budget setting sessions. However, we also recommend the County select three elements of the plan for immediate action; the goals of highest priority. This is the Action Plan.

ACTION AGENDA

The Action Agenda is a combination of the following:

- Goals and Objectives
- Growth Policies
- Land Use Policies
- Support programs for the above items

It will be critical to earmark the specific funds to be used and the individuals primarily responsible for implementing the goals and policies in Washington County.

Support Programs for the Action Agenda

Four programs will play a vital role in the success of Washington County's plan. These programs are:

- 1. Zoning Regulations--updated land use districts can allow the community to provide direction for future growth.
- **2. Subdivision Regulations**--establish criteria for dividing land into building areas, utility easements, and streets. Implementing the Transportation Plan is a primary function of subdivision regulations.
- **3. Plan Maintenance**—an annual and five-year review program will allow the community flexibility in responding to growth and a continuous program of maintaining the plan's viability.

PLAN FINANCING

The Implementation Plan is a reiteration of the Goals and Policies; however, the Goals and Policies have been prioritized by the importance to the community. This prioritization was undertaken during the comprehensive planning process with the Planning Commission and the Plan Review Committee. The information represents potential projects, which need to be addressed by the county and key participants (see Goals and Policies section).

COMPREHENSIVE PLAN MAINTENANCE

ANNUAL REVIEW OF THE PLAN

A relevant, up to date plan is critical to the on-going planning success. To maintain both public and private sector confidence; evaluate the effectiveness of planning activities; and, most importantly, make mid-plan corrections on the use of community resources, the plan must be current. The annual review should occur during the month of January.

After adoption of the comprehensive plan, opportunities should be provided to identify any changes in conditions that would impact elements or policies of the plan. At the beginning of each year a report should be prepared by the Planning Commission, which provides information and recommendations on:

- whether the plan is current in respect to population and economic changes; and
- the recommended policies are still valid for the County and its long-term growth.

The Planning Commission should hold a public hearing on this report in order to:

- 1. Provide citizens or developers with an opportunity to present possible changes to the plan,
- 2. Identify any changes in the status of projects called for in the plan, and
- 3. Bring forth any issues, or identify any changes in conditions, which may impact the validity of the plan.

If the Planning Commission finds major policy issues or major changes in basic assumptions or conditions have arisen which could necessitate revisions to the Comprehensive Plan, they should recommend changes or further study of those changes. This process may lead to identification of amendments to the Comprehensive Plan and would be processed as per the procedures in the next section.

PLAN AMENDMENT PROCEDURES

It is anticipated that each year individuals and groups may come forward with proposals to amend the Comprehensive Plan. We would recommend that those proposals be compiled and reviewed once a year at the Annual Review. By reviewing all proposed amendments at one time, the effects of each proposal can be evaluated for impacts on other proposals and all proposals can be reviewed for their net impact on the Comprehensive Plan.

UNANTICIPATED OPPORTUNITIES

If major new, innovative development opportunities arise which impact several elements of the plan and which are determined to be of importance, a plan amendment may by proposed and considered separate from the Annual Review and other proposed Comprehensive Plan amendments. The County Planner should compile a list of the proposed amendments received during the previous year; prepare a report providing applicable information for each proposal, and recommend action on the proposed amendments. The Comprehensive Plan amendment process should adhere to the adoption process specified by Nebraska law and provide for the organized participation and involvement of citizens.

METHODS FOR EVALUATING DEVELOPMENT PROPOSALS

The interpretation of the Comprehensive Plan should be composed of a continuous and related series of analyses, with references to the goals and policies, the land use plan, and specific land use policies. Moreover, when considering specific proposed developments, interpretation of the Comprehensive Plan should include a thorough review of all sections of the Comprehensive Plan.

If a development proposal is not in conformance or consistent with the policies developed in the Comprehensive Plan, serious consideration should be given to making modifications to the proposal or the following criteria should be used to determine if a Comprehensive Plan amendment would be justified:

- the character of the adjacent neighborhood
- the zoning and uses on nearby properties
- the suitability of the property for the uses allowed under the current zoning designation
- the type and extent of positive or detrimental impact that may affect adjacent
- properties, or the community at large, if the request is approved
- the impact of the proposal on public utilities and facilities
- the length of time that the subject and adjacent properties have been utilized for
- their current uses
- the benefits of the proposal to the public health, safety, and welfare compared to
- the hardship imposed on the applicant if the request is not approved
- comparison between the existing land use plan and the proposed change regarding the relative conformance to the goals
 and policies
- consideration of county staff recommendations