



The Keith County Plan



**A Comprehensive Plan for
Keith County, Nebraska
Prepared with the Citizens of Keith County
By RDG Crose Gardner Shukert
March, 2003**

THE KEITH COUNTY COMPREHENSIVE PLAN

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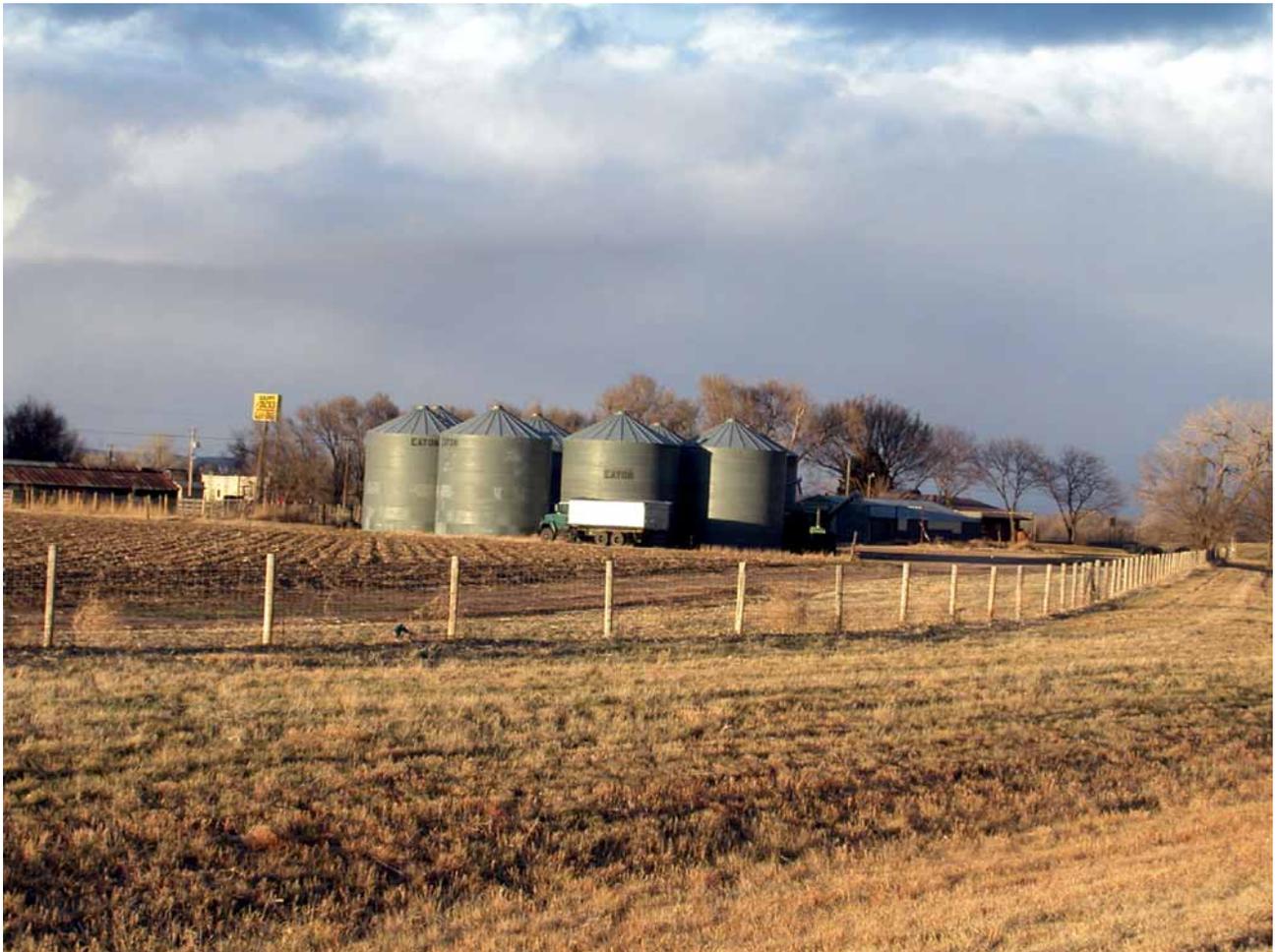


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INTRODUCTION



THE KEITH COUNTY COMPREHENSIVE PLAN

INTRODUCTION

Keith County, Nebraska includes approximately 1,110 square miles of a dramatic and diverse landscape, featuring rolling sand hills, rich farm land, and Lake McConaughy, Nebraska's "inland sea." Its three incorporated communities include Ogallala, the largest city and county seat, Paxton and Brule. The county's unincorporated communities include Keystone, Lemoyne, Roscoe, and Sarben. Lake McConaughy, the largest body of water in Nebraska, is an oasis in the plains that provides a haven to year-round and seasonal residents, as well as visitors to the county.

This comprehensive plan is designed to help define the character of county growth, recommend policies to preserve vital environmental resources and agricultural lands, and minimize conflicts caused by development in rural areas. The plan is designed to help the county and its policy makers manage economic and environmental change. For example, while agriculture continues as the dominant force in the county's economy, the growing lake area residential and recreation economy creates new retail and service business opportunities. Lake McConaughy's attraction has influenced population change during the 1990's, with substantial growth in areas surrounding the lake and losses in most of the county's communities. This lake-related growth in turn affects development demand on highway corridors serving the lake. As a result, this plan includes a specific section on land use and development policy for the lake corridors.

EARLY HISTORY OF KEITH COUNTY

Keith County, named for Morrill C. Keith of North Platte, was established in 1873. The county's early development depended on transportation and westward movement along the Platte River Road. Early settlers arrived to provide assistance to emigrants traveling along the Oregon and Mormon Trails, establishing facilities such as the Beauvais Trading Post, three miles west of present-day Brule at the Oregon Trail crossing of the South Platte River. After crossing the river, travelers made their way up California Hill where ruts from the wagons are still visible today. The county also was the location of Pony Express stations including Diamond Springs near Brule.

The county prospered with the extension of the railroad and expansion of the cattle pens and loading chutes by Union Pacific Railroad. This helped Ogallala, the county seat, become a boomtown as cattle were herded north from Texas. Despite the end the "long drive" in the 1880's, expanded agriculture, encouraged by excellent rainfalls, encouraged the continued growth of settlement in the county. As years went by, the Lincoln Highway (US Highway 30) and Interstate 80 maintained the Platte River corridor's historical role as a principal transcontinental transportation route.

Lake McConaughy is probably Keith County's most distinctive environmental feature and its most notable visitor attraction. C.W. McConaughy, Mayor of Holdrege, first proposed the idea of a giant irrigation and power reservoir in 1913. In 1933, the Central Nebraska Public Power and Irrigation District was formed to manage and harness the water supply of the region. Central's network of facilities includes Kinglsey Dam and Lake McConaughy, several diversion dams, the 75-mile Tri-County Supply Canal with more than 20 small lakes, three hydroelectric plants, and miles of irrigation canals and laterals in seven Nebraska counties.

BASIC PRINCIPLES

This comprehensive plan for Keith County is based on the following basic principles:

- *The planning jurisdiction of Keith County contains unique environmental resources and features that should be recognized and preserved.* These features include Lake McConaughy, the scenic Platte River valley, numerous creeks and streams, prime farming and grazing lands, and overall good air and water quality.

- *Planning efforts should recognize that agriculture and agricultural related industries will remain an important economic force within the community along with a growing retail environment.* Agriculture will continue to be the county's primary land use and economic activity; however, retail and recreational components are likely to assume an expanded role. Retail and consumer service development could expand beyond its traditional concentration in Ogallala to provide local service to the lake area. As such, planning policy should recognize the potential of these sectors and explore opportunities to strengthen it.

- *Land use planning in Keith County should integrate the needs of development and the need for resource and open space conservation.* Development pressures within the county have grown as more permanent and seasonal residents are attracted to lake-related homes. In the past this residential development has focused on the north side of the lake; but, more recently, the south side has also been opened to development. Management of this growth is necessary to prevent the erosion of the open character of the rural landscape. The county plan should promote development patterns that accommodate appropriate development while preserving the rural character of the land.

- *Development and land use in the planning jurisdiction should be related to the natural features and capacity of the land.* Factors such as topography, drainage, vegetation, soil



characteristics, the presence of wetlands, and crop suitability, influence the type of development that is most appropriate for a given area. A significant portion of the I-80 corridor is located in the 100-year floodplain, generally less suitable for conventional residential development and confined animal feeding operations. Lake McConaughy, makes up a significant amount of northern Keith County. Land use policies should be sympathetic to the areas landforms and scenic vistas.

GOALS FOR KEITH COUNTY

An important part of the planning process for Keith County was the definition of county goals and priorities through a strategic planning process. This process assessed county features and defined goals for the twenty-year planning period. A broadly representative steering committee, representing a variety of interests in the county, was the driving force behind this strategic planning process. The process included:

- An environmental scan survey, completed by committee members to help define specific development issues.
- Division of the steering committee into working groups, organized around specific issues.
- Development of policy goals and priorities through public meetings, conducted by the Keith County Planning Commission.

The specific area plans for the lake corridors were also completed through parallel processes, involving property owners, potential developers, and other stakeholders in the process of developing land use and regulatory concepts for these key areas.

The Environmental Scan

The Environmental Scan Survey asked steering committee members to rank key features and characteristics of the county, assess strengths and weaknesses, and define significant planning issues. The survey asked participants to rank various county features on a "5" to "1" scale, from highest to lowest rating. Figure 1-1 illustrates the results of this portion of the environmental scan. Generally, a rating above 3.5 indicates that many respondents ranked the system above average (giving it a rating of 4 or 5), while a rating below 3.0 suggests that a significant number of respondents considered the system to be below average (giving it a rating of 1 or 2).

In addition to these ratings, the survey included open-ended questions to assess county strengths, weaknesses, and issues. Based on survey responses, major county strengths include:

- Recreational trails and potential for future trail development
- Prospects for future growth
- Keith County's people
- Overall quality of life
- Park and recreation resources
- Family friendliness
- Public safety systems
- Highway and interstate access
- Lake McConaughy

Significant community weaknesses include:

- Retaining young people
- Growth management
- Highway 61 corridor development
- Tax levels
- Business climate
- Job creation and growth
- Highway 92 corridor development
- Economic development efforts



Figure 1.1: County Report Card

METHODOLOGY

Issues such as water management and a balance of environmental considerations and development demands are particularly important in Keith County. Because of these policy choices, some traditional planning methodologies (such as population projections and resulting calculation and allocation of urban land conversion needs) have limited application. Instead, this plan uses environmental analysis methods derived in part from the pioneering planning work of the landscape architect and environmental planner Ian McHarg. McHarg's methods overlay environmental constraints and opportunities to determine appropriate development policies for specific areas. These methods are reflected in the Keith County Land Use Plan.

The Keith County Plan is divided into the following sections:

- *Part 1: A Profile of Keith County.* This section presents information about Keith County, its people, and its pattern of development that will help develop the policies that are most appropriate for the county. It examines population changes and characteristics, economic factors, and development trends.

- *Part 2: Development Trends.* This section reviews land use and development patterns and trends in the county planning jurisdiction, including an analysis of population and development patterns.

- *Part 3: Environmental and Development Resources.* This section analyzes the environmental conditions that affect the course of future development.

- *Part 4: Keith County's Land Use Plan.* This section presents a land use concept, along with principles and recommendations guiding land use policy in the planning jurisdiction. The land use plan is based on the analysis of environmental resources in Part 3, and relates development policy districts

to environmental issues and ability to support growth.

- *Part 5: Lake McConaughy Corridor.* Lake McConaughy is a unique resource for Nebraska and its main access corridors present unique opportunities. This section discusses key development issues in the area, an overall planning philosophy for the area, and a specific development concept for the area.

- *Part 6: Transportation, Infrastructure, and Public Facilities Plan.* This section considers the county's support systems in light of the land use plan, and presents specific improvements designed to support the concepts of the land use plan. These infrastructure systems include utilities, transportation, public facilities, trails, and greenway corridors.

- *Part 7: Plan Implementation.* This section provides guidance and techniques for implementing key aspects of the county plan.

CHAPTER ONE



A PROFILE OF KEITH COUNTY

This section presents information about the population of Keith County that will help develop appropriate development policies. It examines population changes and characteristics, economic factors, and development patterns.

KEITH COUNTY'S POPULATION: PAST, PRESENT, AND FUTURE

Table 1.1 below describes the history of Keith County's population since 1960. Keith County achieved its peak population of 9,364 in 1980, and declined significantly during the 1980's, before rebounding during the 1990's. Many rural counties in the Great Plains experienced similar population declines during the 1980's, a period of distress in the agricultural economy. However, during the 1990's, Keith County as a whole gained population while Ogallala experienced a small decline, a trend counter to the experience of other rural areas. This is caused by housing construction related to Lake McConaughy, and the attraction of the lake to potential residents.

Population within Keith County's municipalities decreased by 126 people, or -2.1%, from 1990 to 2000.

Table 1.2 shows respective population changes between 1990 and 2000 for the communities in Keith County. Of Keith County towns, only Paxton experienced growth during the 1990's.

Ogallala's population declined by 165 people during the 1990's, a slower rate of decrease than that of the 1980's. Brule also lost population during the 1990's. The incorporated communities also accounted for a decreasing portion of the county's overall population.

During the 1990's, Keith County's population grew more in unincorporated areas than in municipalities.

Table 1.3 shows the population changes of Keith County, its communities, and rural areas between 1990 and 2000. Population growth in the rural areas of the county accounts for the entire population increase. Growth outside the incorporated communities was 16.4% while the communities lost 2.1% of their population.

During the 1990's, Keith County experienced significant new housing starts.

Table 1.4 reviews changes in Keith County's housing supply during the 1990's. From 1990 to 2000, the incorporated communities of Keith County added 44 housing units while the rural areas of the county gained 196 units or an increase of about 9%. Interestingly, this growth is completely in year-round housing units; the number of seasonal units declined by 2.74%, OR 30 units.

Table 1.1: Population Change in Keith County and Comparative Counties, 1960-2000

Counties	1960	1970	1980	1990	2000	Change 1960-70	Change 1970-80	Change 1980-90	Change 1990-00
Keith	7,958	8,487	9,364	8,584	8,875	6.6%	10.3%	-8.3%	3.3%
Lincoln	28,491	29,538	36,455	32,508	34,632	3.7%	23.4%	-10.8%	6.1%
Perkins	4,189	3,423	3,637	3,367	3,200	-18.3%	6.3%	-7.4%	-5.2%
Deuel	3,125	2,717	2,462	2,237	2,098	-13.1%	-9.4%	-9.1%	-6.6%
Arthur	680	606	513	462	444	-10.9%	-15.3%	-9.9%	-4.1%
Garden	3,472	2,929	2,802	2,460	2,292	-15.6%	-4.3%	-12.2%	-7.3%

Source: U.S. Census Bureau

Table 1.3: County, Community, and Rural Populations

	1990	2000	Change	% Change
County Population	8,584	8,875	291	3.4%
Total Community Population	6,042	5,916	-126	-2.1%
Total Rural Population	2,542	2,959	417	16.4%

Source: U.S. Census Bureau

TABLES 1.4: Keith County Housing Units

Total Units	1990	2000	Change	% Change
County	4,938	5,178	240	4.86%
Communities	2,708	2,752	44	1.62%
Rural Area	2,230	2,426	196	8.79%
Seasonal Units	1990	2000	Change	% Change
County	1,111	1,087	-24	-2.16%
Communities	16	22	6	37.50%
Rural Area	1,095	1,065	-30	-2.74%

Source: U.S. Census Bureau

Lonergan Precinct experienced the most significant population increase in the county.

Table 1.5 reviews Keith County's population change by precinct between 1990 and 2000. While precincts have no governmental status, they are useful as enumeration districts, helping to identify population change on a regional basis. During the 1990s, only two of these enumeration areas— the City of Ogallala and Logan in the south-central county – lost population. Lonergan Precinct, which includes most of the lake's north shore to the Arthur County line, saw the largest growth, increasing by 195 people or over 64%. Whitetail Precinct, including Martin Bay and the rest of the north shore, experienced the second largest increase of about 32%. The Rural Ogallala Precinct, which grew by about 7% during the 1990's, is divided into two noncontiguous sections, north and south of the City of Ogallala. These sub-precincts have experienced significant development demand during the last five years. Specific policies addressing their development are presented in Chapter 5, considering the Lake McConaughy Corridors.

Table 1.2: Population Change 1990-2000

Communities	1980	1990	2000	Change 1980-90	Change 1990-00
Ogallala	5,638	5,095	4,930	-543	-165
Paxton	568	536	614	-32	78
Brule	438	411	372	-27	-39
Total	6,644	6,042	5,916	-602	-126
Percent of the County	71.0%	70.4%	66.7%		

Source: U.S. Census Bureau

TABLE 1.5: Population Change in Keith County Precincts

	1990	2000	Change	% Change
Brule	812	898	86	10.59%
Logan	358	326	-32	-8.94%
Loneragan	303	498	195	64.36%
Ogallala	5,095	4,930	-165	-3.24%
Paxton	913	982	69	7.56%
Rural Ogallala	856	915	59	6.89%
Whitetail	247	326	79	31.98%

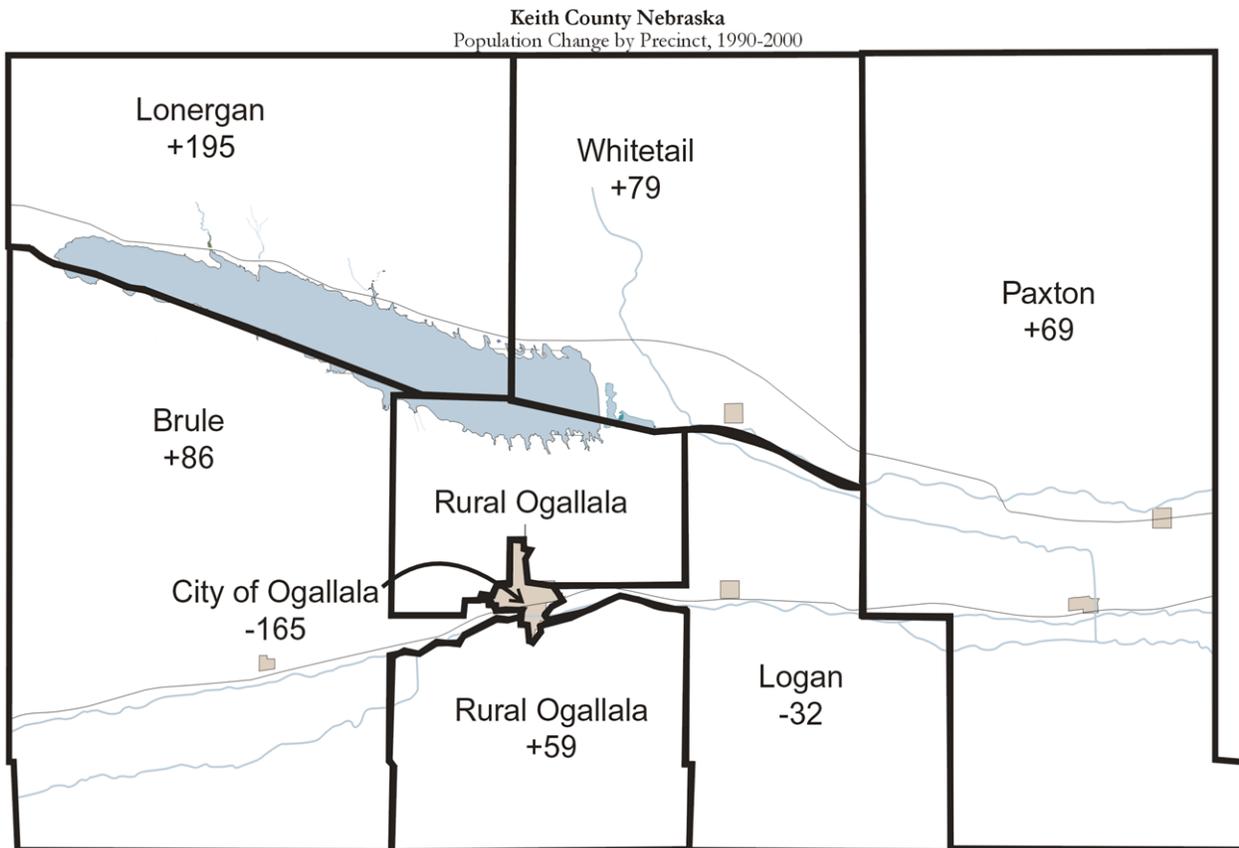
Source: U.S. Census Bureau

Substantially more people moved into rural Keith County than moved out. The County was especially attractive to young and middle-aged adults.

Understanding population change in an area goes deeper than simply recording population gain or loss. We can also analyze the dynamics of people moving in and out of the county. Defining which population age groups the county attracts can help inform future development and public investment decisions.

Population change in a county is explained by two basic factors:

- *Natural population change.* This is based on the balance of births and deaths in a study area. If



Keith County Precincts.

Loneragan Precinct, in the northwestern part of the County, increased in population by about 65% during the 1990's.

births exceed deaths, the population will tend to increase. Therefore, areas with younger populations tend to grow naturally, while those with older populations tend to decline.

- *Migration.* This factor is based on whether more people move into or out of an area. If more people move into the area than leave over a specific period, the population will tend to increase.

To determine what happened to Keith County's population during the 1990's, we calculate the county's expected population based entirely on natural population change. This assumes that no one moved into or out of the county during this period. The difference between this projection and the actual count in the 2000 Census is caused by migration. To calculate natural population change, we use:

- A "cohort-survival" method to develop predictions. This method "ages" a five-year age range of people by computing how many of them will survive into the next ten-year period. For example, Keith County had 691 people between ages 30 and 34. If all these people remained in Keith County between 1990 and 2000, about 98.7% (or 682) should have lived to be counted between ages 40 and 44 in 2000. U.S. Bureau of the Census developed the survival rates used in this analysis.

- The "low" series of birth rate projections for people of childbearing age, published by the Bureau of Business Research.

Table 1.6 summarizes this analysis. Natural population change alone predicted a year 2000 population of 8,519, a slight decline in

Table 1.6: Predicted Versus Actual Population Change

<u>Keith County</u>	1990	2000	Change	% Change
Predicted Population (based on survival and birth rates)	8,584	8,519	-65	-0.76%
Actual Population	8,584	8,875	291	3.39%
Predicted Female	4,411	4,387	-24	-0.54%
Actual Female	4,411	4,517	106	2.40%
Predicted Male	4,173	4,133	-40	-0.96%
Actual Male	4,173	4,358	185	4.43%
<u>Keith County Excluding Ogallala</u>	1990	2000	Change	% Change
Predicted Population (based on survival and birth rates)	3,489	3,427	-62	-1.78%
Actual Population	3,489	3,945	456	13.07%
Predicted Female	1,737	1,729	-8	-0.46%
Actual Female	1,737	1,908	171	9.84%
Predicted Male	1,752	1,698	-54	-3.08%
Actual Male	1,752	2,037	285	16.27%

Source: U.S. Census Bureau; RDG Crose Gardner Shukert, 2002

population. The actual population in 2000 was 8,875, or about 4.2% greater than the prediction. This variance is the migration rate for the decade. The City of Ogallala experienced both minor population loss and out-migration during the 1990's. The county's population outside of Ogallala increased by 13%. Furthermore, without Ogallala, the county's actual 2000 population of 3,945 was 15.12% higher than the 3,427 predicted by natural change (calculated as the difference between the actual and predicted population divided by the population predicted by natural

change). Table 1.6 analyzes the county's population both including and excluding the City of Ogallala. This trend is very different from the pattern of migration out of rural areas to urban centers, typically experienced in Midwest and Plains states.

We can analyze individual age groups to get a clearer picture of population change. Table 1.7 compares the number of people in each age group that would be predicted by survival of cohorts with the number of people actually

Table 1.7: Predicted and Actual Age Cohort: All Residents, 1990-2000

Age Group	1990 Actual	2000 Predicted	2000 Actual	(Actual - Predicted)	% variance: Actual/Pred
Under 5	603	411	508	97	23.6%
5-9	741	432	579	147	34.0%
10-14	664	602	698	96	15.9%
15-19	575	739	661	-78	-10.6%
20-24	299	660	306	-354	-53.6%
25-29	532	570	424	-146	-25.6%
30-34	691	296	453	157	53.0%
35-39	598	527	637	110	20.9%
40-44	534	682	727	45	6.6%
45-49	493	587	619	32	5.5%
50-54	458	519	603	84	16.2%
55-59	490	469	525	56	11.9%
60-64	456	423	505	82	19.4%
65-69	446	430	495	65	15.1%
70-74	364	372	387	15	4.0%
75-80	269	327	344	17	5.2%
80-84	214	229	230	1	0.4%
85+	157	244	174	-70	-28.7%
Total	8584	8519	8875	356	4.2%

These percent variances indicate that the county successfully attracted younger adults during the 1990's.

The county also experienced significant in-migration of these middle-aged groups, ranging in age from 40 to 60 in 1990.

Source: U.S. Census Bureau and RDG Crose Gardner Shukert, 2002

present in Keith County in 2000. To use our earlier example, natural survival rates predict that the county would have 682 people aged from 40 to 44 in 2000. The actual count in this age group was 727, or 6.6% over the forecast. This indicates that more people in their 30's moved into the county than moved out during the 1990's. The results summarized in Table 1.7 indicate that:

- Younger individuals (people between ages 10 and 20 in 1990) tended to move out of the county. This is

typical for counties without colleges. These age groups move away for school or to settle in urban areas to establish careers.

- Although it tends to lose its very young for a while, Keith County successfully attracts young adults back. The largest in-migration rates are displayed by people who were in their 20's in 1990. The growth in these households is echoed by greatly increasing numbers of children.

Table 1.8: Predicted and Actual Age Cohort: Keith County Excluding Ogallala 1990-2000

Age Group	1990 Actual	2000 Predicted	2000 Actual	(Actual - Predicted)	% variance: Actual/Pred
Under 5	229	149	217	68	45.6%
5-9	299	156	241	85	54.5%
10-14	275	228	290	62	27.2%
15-19	224	298	266	-32	-10.7%
20-24	101	273	102	-171	-62.6%
25-29	167	222	174	-48	-21.6%
30-34	304	100	170	70	70.0%
35-39	246	165	267	102	61.8%
40-44	233	300	322	22	7.3%
45-49	192	242	315	73	30.2%
50-54	204	226	334	108	47.8%
55-59	221	183	262	79	43.2%
60-64	205	189	263	74	39.2%
65-69	202	194	245	51	26.3%
70-74	164	167	185	18	10.8%
75-80	114	148	153	5	3.4%
80-84	77	101	93	-8	-7.9%
85+	32	86	46	-40	-46.5%
Total	3489	3427	3945	518	15.1%

The rural county was especially successful at attracting new residents in these groups, between the ages of 40 and 55 in the 1990s.

A lack of services for seniors accounts for the large movement of the elderly out of the rural county.



- The county is attractive to middle-aged adults, displaying high migration rates for people between ages 40 and 60 in 1990. This may indicate a special pull to empty-nesters, whose children have moved away and who are attracted by the quality of rural life and the amenities of lake living.

- Senior households tend to leave the county. This could indicate that seniors are not finding the special services that they need within the county.

Table 1.8 provides a similar comparison for the county excluding the City of Ogallala. The rural county exhibits the same patterns, but to a greater degree. Most notable are the very high migration rates for adults between ages 40 and 55 in 1990.

POPULATION PROJECTIONS

Projecting the future size and makeup of Keith County’s population helps the county plan for the future development needs of the county. Population forecasting for Keith County must take account of recent population growth in the rural county and the moderate losses experienced by Ogallala during the same period. The lake and rural life are powerful attractions to many people.

This section considers two alternative population models for the next twenty years:

Model One examines future population growth for the county as a whole.

Model Two determines the future population of the rural county excluding Ogallala, but including Paxton and Brule.

Model One:

Model One projects the 2020 population of Keith County by projecting continuing positive in-migration for the county as a whole through 2020.

Keith County’s recent steady growth and ability to attract residents in family formation cohorts suggests that its population will continue to increase. This method computes a projected population by applying the county’s positive migration of the 1990’s. The migration scenario

Table 1.9: Predicted Population

Keith County	2000	2010	2020
0% Migration	8,875	8,640	8,531
+4.2% Migration	8,875	9,002	9,261
Excluding Ogallala			
0% Migration	3,945	3,788	3,656
+15.1% Migration	3,945	4,359	4,842

Source: U.S. Census Bureau; RDG Crose Gardner Shukert, 2002

is determined by basing population forecasts on 2000 census statistics for age distribution. As before, the cohort survival method is used to project population, utilizing birth and death rates developed by the National Center for Health Statistics.

Keith County experienced a positive migration of 4.2% during the decade. The model adds this rate to the population predicted by natural change for each decade. This calculation forecasts a county population of 9,002 in 2010 and 9,261 in 2020.

Model Two

Model Two projects the 2020 population of Keith County by projecting continuing positive in-migration while excluding the City of Ogallala.

This scenario projects future growth, based on Keith County's experience from 1990 to 2000 excluding the City of Ogallala. During the 1990's, Keith County's population experienced a positive migration rate of 15.1% during the decade. This projects a rural county population (excluding Ogallala) of 4,359 in 2010 and 4,842 in 2020, a 20-year increase of 896 people.

Population forecasts are reasonable projections of past trends into the future. Major changes or projects that are not indicated by past experience can change these projections dramatically. For example, a developer could propose and implement a large-scale resort community that meets with tremendous success in the market. This type of project would dramatically change these projections. In addition, these projections assume that the county remains as attractive to new population groups as it was during the 1990's.

Housing and Land Needs

These projections are used to suggest housing and land needs for the next twenty years. Assuming an average household population of 2.0 during

the next twenty years (consistent with a continued increase in the "empty-nester" population), the projected 20-year increase of 896 people generates a new demand for 448 units. In addition, some substandard units will be replaced in the market. Assuming replacement of 5 units per year, the county will experience an additional replacement demand of 100 units. Thus, these forecasts suggest a potential 20-year demand for 548 units, or about 27 units annually.

Housing development in rural Keith County has historically taken many forms, including manufactured homes, detached houses at subdivision densities, and large lot rural residential development. Recent, upper-end development has tended toward larger lots. Assuming an average gross density of 1.5 acres per unit, rural Keith County will convert about 822 acres to residential use over the next twenty years. If the average gross density is decreased to 2.0 acres per unit, development demand will require about 1,100 acres, or just under two sections.



ECONOMIC FACTORS

This section examines key facts about Keith County’s people. It will examine such issues as employment, and income distribution.

Income Distribution

Table 1.10 describes the estimated income distribution of people who live in Keith County, compared to those of Ogallala, in the County outside of Ogallala and Nebraska. The income information is based on Census Bureau data from the 2000 Census.

Keith County has a median household income of \$32,325 in comparison \$38,126 for the State of Nebraska. This means that half of the county’s households earn more or less than \$32,325. About 26.8 % of the county’s households earn over \$50,000, compared to 35.9% for Nebraska as a whole. On the other hand, 37.5% of the county’s households earn less than \$25,000, compared to about 32.1% for the state. Thus, Keith County has fewer households in the highest income ranges and a slightly higher percentage in the lowest income ranges as compared to the state as a whole.

Outside the City of Ogallala the county’s median income was slightly higher, \$33,623. The county

and city were very similar although there were slightly more households earning more than \$50,000 in the county than in the city. There was also a slim difference between those earning less than \$15,000 a year.

In 1990 Keith County’s median income was \$22,909, therefore the county’s median income increased by 41.1% over the ten-year period between 1990 and 2000. This was slightly lower than the state as a whole, which increased from \$26,016 in 1990 to \$38,126 in 2000 or 46.5%. During the 1990’s there also appears to have been a shift in incomes between the City of Ogallala and Keith County. In 1990 the city median was \$23,165, slightly higher than that of the county. However, by 2000 the city’s median income had only increased by 38.7% and was slightly lower than the county’s median of \$32,325.

Employment

Table 1.11 examines employment by industry for the entire county and for the county excluding those living within Ogallala in 1990 and 2000. The largest percentage of residents residing in Keith County outside of Ogallala work in agriculture related industries. However, for the county as a whole the majority of residents work in retail trade industries. In 1990, 525 residents within the county were employed in agriculture/

TABLE 1.10: Household Income Distribution by Percentage

	Under \$10,000	\$10,000-14,999	\$15,000-24,999	\$25,000-34,999	\$35,000-49,999	\$50,000-74,999	Over \$75,000	Median HH Income
Keith County	9.1	7.9	20.5	15.5	20.1	17.1	9.7	\$32,325
Ogallala	9.6	6.7	20.7	16.8	19.3	16.9	9.8	\$32,141
Keith County Outside of Ogallala	8.5	9.4	20.2	13.8	21.2	17.3	9.6	\$33,623
Nebraska	9.8	7.4	14.9	19.9	18.1	19.4	16.5	\$38,126

Source: US Bureau of the Census

TABLE 1.11: Employment by Industry, 1990 and 2000

Industry	Keith County	Ogallala	Difference	%
Total Employed 1990	4,311	2,543	1,768	100.00%
Agriculture/Mining	632	107	525	29.69%
Construction	207	117	90	5.09%
Manufacturing	501	357	144	8.14%
Transportation/Communications	285	150	135	7.64%
Wholesale Trade	155	106	49	2.77%
Retail Trade	1,134	782	352	19.91%
FIRE (Finance, insurance, real estate)	211	130	81	4.58%
Information*	-	-	-	0.00%
Services	512	346	166	9.39%
Education	266	141	125	7.07%
Professional	261	210	51	2.88%
Public Administration	147	97	50	2.83%
Total Employed 2000	4,443	2,475	1,968	100%
Agriculture/Mining	472	108	364	18.50%
Construction	309	155	154	7.83%
Manufacturing	358	199	159	8.08%
Transportation/Communications	336	174	162	8.23%
Wholesale Trade	149	82	67	3.40%
Retail Trade	724	466	258	13.11%
FIRE (Finance, insurance, real estate)	241	158	83	4.22%
Information	67	40	27	1.37%
Services	693	402	291	14.79%
Education	655	405	250	12.70%
Professional	283	183	100	5.08%
Public Administration	156	103	53	2.69%

* Information was not a category in 1990 Census
Source: U.S. Bureau of the Census, 2000

mining related industries out of 1,768 total employed residents. This means that between 1990 and 2000 the number of residents employed in agricultural related industries decreased from almost 30% to 19%. It appears that the shift occurred in service related areas, which shifted from 9.4% in 1990 to 14.8% in 2000 for those living in Keith County outside of Ogallala. Unlike those living in the county the largest percentage of Ogallala residents were employed in retail trade industries.

Table 1.12 compares Keith County and Ogallala's employment by occupation in 2000. Employment by occupation describes the kind of work a person does on the job, as opposed to the type of industry an individual works in, which relates to the kind of business conducted by a person's employer. For example 472 persons worked in Agriculture and Mining industries in 2000 while only 159 individual's occupations involved farming, fishing or forestry. The remaining 313 persons were in other occupations within the Agriculture/mining industries. A comparison of employment by occupations from 1990 and 2000 is difficult because of a change in categories between the two censuses. Unlike employment by industry, the comparison between Keith County and those residents outside the City of

Ogallala were fairly similar. In 2000 the largest percentage of residents in the county were employed in management and professional occupations while the fewest residents were employed in farming, fishing and forestry related occupations. Employment within the city was fairly similar to that of the county, however the largest percentage of residents were employed in sales and office occupations first and management and professional occupations second.

TABLE 1.12: Employment by Occupation

Industry	Keith County	Ogallala	Difference	%
Total Employed	4,443	2,475	1,968	100.00%
Management and Professional	1,284	650	634	32.22%
Service	697	414	283	14.38%
Sales and Office	1,188	737	451	22.92%
Farming, fishing, forestry	159	30	129	6.55%
Construction, extraction and maintenance	488	277	211	10.72%
Production, transportation, and material moving	627	367	260	13.21%

Source: U.S. Bureau of the Census, 2000



CONCLUSIONS

This selected review of demographic and economic features in Keith County leads to the following conclusions:

- Keith County outside of Ogallala attracted significant population during the 1990's, with the largest amount of growth occurring around the north shore of the lake in Lonergan and Whitetail Precincts. The south shore also experienced significant population growth.
- The county was particularly attractive to adult households with members in their 30's and 50's. This would likely indicate a strong attraction of the lake area and rural atmosphere to these age groups.
- The county is likely to experience continuing population growth during the next 20 years if current trends continue. The county's 2020 population is projected at between 9,261 and 10,289, depending on the ability of Ogallala to reverse a pattern of population declines. The population of the rural county is expected to increase by about 900 people. Large-scale developments that have no precedent in recent development history could further increase this population.

- New and replacement demand will generate a demand for about 548 housing units during the next 20 years, an annual demand of about 27 units. Based on alternative population densities, this will require conversion of between 822 and 1,100 acres to residential uses.
- Agriculture remains Keith County's largest employment sector, accounting for about 19% of all employment in the county. However, its percentage of total employment has decreased from 30% to 19% in just ten years, a very dramatic trend. Which can be accounted for by the increase in farming/ranching operations and the increase in mechanization.
- Median household income is below that of the state as a whole. The 2000 census indicates that most residents fall in the middle-income ranges.

CHAPTER TWO



LAND USE & DEVELOPMENT TRENDS

This section examines existing land use characteristics in Keith County.

LAND USE

Map 2-1: Existing Land Use displays the distribution of existing land uses in the Keith County planning jurisdiction. Information was collected by field inspection in 2001.

Agricultural and Open Land

Agriculture remains the dominant land use in Keith County. Agricultural uses vary from the north to the south side of the North Platte River. The northern sections of the county are part of the sand hills region, and contain sandy soils that are relatively unsuitable for crop production. These rolling grassy hills are excellent for cattle grazing, the main use of the land in the area. Crop production is prevalent south of the river (the South Table), and includes cultivation of a variety of crops. The soil types and environmental issues related to these areas are discussed in detail in Chapter Three.

Lake McConaughy, Nebraska’s largest body of water, is the second largest land use in the county. The lake’s surface area is approximately 35,700 acres. The lake, owned by the Central Nebraska Public Power and Irrigation District, is the state’s largest irrigation reservoir, and provides water, hydropower and recreation to Keith County and the surrounding area. Central also owns recreational and leasehold lands around the lake. Its largest holdings are along the north shore, where most recreational lands are leased to and operated by the Nebraska Game and Parks Commission as a State Recreation Area.

Residential Uses

Residential development is the third largest land use in terms of area in the county planning jurisdiction. Before 1960, most residential development occurred within the county’s incorporated and unincorporated communities,



and in areas south of the North Platte River. At this time, rural residential development was most prevalent south of the river and along the Highway 61 corridor from Ogallala to Grant. When the Lake McConaughy’s impoundment flooded the original site of Lemoyne, the town was relocated to the north bank of the lake and became the initial population center for development on the north shore.

The popularity of water recreation at Lake McConaughy expanded the market for lake-related residential development. Development grew along the north side of the lake, served by Highway 92 and enjoying direct access to the lake and major recreation areas. This development included a number of linear subdivisions, extending west from the Martin Bay area, and currently extending to the Omaha Beach area. Most development has occurred in a relatively narrow corridor north of Highway 92 except for Lemoyne which is located south of Highway 92. Major development concentrations include:

- The Martin Bay and Arthur Bay areas. Some of these older residential areas include mobile home development on individual lots.
- Sandy Beach. Developments here include single-family homes on individual lots, with access road patterns running generally parallel to Highway 92.

- Lemoyne, an unincorporated town near the east/west midpoint of the north shore. Most of Lemoyne's residential development occurs south of Highway 92, and includes a variety of housing types.

- Otter Creek and Cedar Vue, near the western edge of development. Growth in the Cedar Vue area includes larger, more conventional single-family subdivision development on relatively large lots.

Central maintains much of the lakefront and land area between the highway and Union Pacific corridor and the lake for public and leasehold use. Lakefront recreation areas leased to the Nebraska Game and Parks Commission extend from the north end of Kingsley Dam to the North Shore area just east of Lemoyne. Central also leases the Lake Ogallala State Recreation Area to the NGPC.

While the majority of residential development occurred on the relatively accessible north shore, served by the Highway 92 corridor, some growth also developed on the lake's south side. The Mako Chi Mni and Lakeview subdivisions date from the 1970's. During the last decade, this less accessible but perhaps more scenic shoreline has experienced increasing popularity. More recent subdivisions include Bayside Estates, The Dunes, Hidden Canyon Estates, and the Yacht Club, along with the development of the Bayside Golf Course. Trails Crossing, a large, master-planned mixed-use community, was also proposed during the late 1990s, but has not been executed. Recent development on the south shore has tended to be in larger lot settings, with higher cost houses than older subdivisions along the north shore.

Some of Central's property has also been leased for both seasonal and permanent residential development. These developments include both cabins and mobile home/manufactured housing developments. The K-1 Cabin Area, on the south shore of the lake, and the K-2, K-3, and K-4 Cabin

Areas on the north shore, provide permanent, year-round housing on leasehold property.

Commercial Uses

Commercial land uses make up a relatively small part of the Keith County planning area. Most commercial development in the county occurs within the communities themselves, specifically within Ogallala and the Interstate 80 interchange. Outside of municipal jurisdictions, most commercial development is related to Lake McConaughy. The largest existing commercial concentration is located in the Martin Bay area, near the junction of Highways 61 and 92. This mixed-use area features a bank, restaurants, convenience services, and recreational commercial development, and serves as a major commercial cluster for the lake community. Other commercial development along the north shore occurs in convenience clusters, typically at the intersection of Highway 92 and a lake or beach access road. Commercial development, including hospitality and convenience services, is also located on Central land leased to individual businesses south of Kingsley Dam.

A more recent trend has been the development of lake-related commercial uses along the Highway 61 corridor between the dam and the edge of the Ogallala jurisdiction. As of 2002, these uses have focused on sales of major durable goods related to the lake life-style, including boat and manufactured home sales. These developments prompted Keith County to designate the Lake Corridor a special development area. The Lake Corridor is analyzed in more detail in Chapter Five of this County Comprehensive Plan.

Industrial Uses

Most industrial uses in Keith County are located within the communities or along the Interstate 80 corridor. Industrial development outside developed areas is usually agriculturally based. Some industrial



uses are located along the two Union Pacific corridors and along Highway 30.

Public and Semi-Public Uses

The primary public use in the county is Lake McConaughy, owned by the Central Nebraska Public Power and Irrigation District. The Nebraska Game and Parks Commission manages much of the shoreline, under a long-term leasehold agreement with Central. The most recent lake-related development is the completion of a new Visitors Center by the Game and Parks Commission, on the east side of Highway 61 south of Kingsley Dam. Other than the lake and associated recreational areas, most public and recreational uses within the county are located within the communities and outside the jurisdiction of the county, except for sites in Keystone and Roscoe.

Keith County has two major state recreation areas:

- *Lake McConaughy State Recreation Area*, a 5,492 acre park on Central property that is managed by the Nebraska Game and Parks Commission. It is located on the north side of Lake McConaughy approximately 10 miles north of Ogallala. The Lake McConaughy SRA accommodates a wide variety of recreational uses, including camping, superb beaches, boating and fishing, and other facilities. NGPC recently completed a continuous inner road, linking Martin Bay

with the Sandy Beach area. This road relieves recreational use pressure on Highway 92 and accommodates bicyclists within the SRA.

- *Lake Ogallala State Recreation Area* is located directly east of Kingsley Dam. The park covers 239 acres excluding the 320 acre lake and is also managed by the Nebraska Game and Parks Commission.



DEVELOPMENT TRENDS

The development of the highway corridors and areas around Lake McConaughy raise land use policy questions for Keith County. Major development trends that Keith County planning must address include:

- *Continuing development on the south shore of Lake McConaughy.* Until about 1985, south shore development was limited by the distance between the shoreline and Highway 26 (in contrast to the adjacency of Highway 92 on the north shore), relatively poor local access, and rugged landforms. Since then, however, the scenic quality of the shore, increased affluence, and the attraction of water access increased housing demand in this area. This led to the subsequent platting of several new subdivisions, including Bayside Estates and the Dunes, and the construction of the Bayside Golf Course. Even

more ambitious was the Trails Crossing proposal, a large mixed use development. While this project is in doubt as of 2002, it nevertheless demonstrates potential interest in large-scale development. Assuming the viability of the lake and a reasonably strong economy, residential development on the south shore will continue to be a significant land use trend.

- *The Lake Corridor.* Increasing demand has emerged for development, including commercial growth, along the Highway 61 corridor between Ogallala and Kingsley Dam. Significant commercial projects were developed at the Road 120 and Road 130 intersections during 2001 and 2002. The County has put an innovative performance zoning district in place to maintain the quality of development along this highly visible corridor, and to prevent the emergence of a small-lot commercial strip along the gateway to the lake.

- *The Highway 26 Bypass.* While largely a planning issue for the City of Ogallala, the relocation of Highway 26 to a bypass corridor 1.5 miles west of the former Spruce Street alignment also has county planning implications. The city plans call for construction of an interchange of the relocated highway with Interstate 80. This road system would continue south with an improved alignment for Road 80 West, providing a direct link from the west county to commercial, industrial, and residential development south of I-80.

- *Subdivision development standards.* As development continues in the lake environments of Keith County, the nature of water supply and wastewater service becomes a significant issue. In the rural county, water is typically provided by private wells and sewage disposal is furnished by private septic systems. Larger developments will increasingly require systems that provide water and arrange for community wastewater disposal systems.

LAND USE ISSUES

This analysis of land use and development patterns suggests the following major conclusions and issues:

- Subdivision activity within the planning jurisdiction has been primarily located around Lake McConaughy.
- The vast majority of the county's growth has occurred on the north side of the lake within the Lonergan Precinct. Much of this occurred within established developments.
- Industrial development is concentrated within the interstate and railroad corridors specifically within the Ogallala area.
- Keith County's recreational facilities provide important recreational opportunities and preserve unique ecology, including wetlands and wildlife.
- Unique environmental resources exist that should be protected from adverse effects, caused by inappropriate development. A primary example of such a resource is the Platte River Valley and Lake McConaughy and its shoreline.
- Rural residential development and expanding agricultural uses create potential conflicts. Operational issues, such as the application of pesticides, odors, and late operating hours frequently draw complaints from residential neighborhoods, some of whom are used to urban land use regulations. The Land Use Plan should seek methods to minimize land use conflicts.

CHAPTER THREE



ENVIRONMENTAL & DEVELOPMENT RESOURCES

A basic goal of this comprehensive plan for Keith County is to develop policies that balance environmental values and reasonable development demands. Relating development policy to environmental characteristics helps strike this balance by permitting appropriate development in a way that conserves the region's most important natural resources and assets. This section identifies and maps these vital assets. Overlaying these resource maps helps determine policies that will ultimately guide land use review, decisions and project design.

THE KEITH COUNTY PLANNING JURISDICTION: A GEOGRAPHIC OVERVIEW

Keith County is a dividing line between very different geographical landscapes. The northern half of the county is characterized by Nebraska's unique Sandhills, a formation that makes up about 18,000 square miles of the state's area. The Sandhills landscape consists primarily of sloping hills twenty-five to a hundred feet above the intervening valleys. Blowout areas where the underlying soil formations are exposed often characterize these hills. Lakes, rich valleys, and fertile table lands punctuate the Sandhills landscape. A heavy grass covers most of the area, making it ideal for range and grazing land.

The Platte River valleys with their fertile Alluvial soils dominate the central sections of the county. The area between the North and South Platte Rivers consists mostly of Rosebud-Bridgeport soil and has some of the steepest slopes in the county. The South Table, south of the South Platte River, has some of the most fertile soil in the county. This region of the county is relatively level and more suitable for crop production than other sections.

The following discussion reviews Keith County's major environmental attributes, and identifies policies for each condition. These policies help to define the development policy districts proposed by the Future Land Use Plan. They also



provide criteria to guide review of development applications within these districts.

ENVIRONMENTAL CONSIDERATIONS: DESCRIPTION OF OVERLAY MAPS

PRIME FARMLAND

Prime farmlands are best suited to producing food, feed, forage, and fiber crops. They have the soil quality, growing season, and moisture supply needed to produce a sustained high crop yield when treated and managed using acceptable farming methods. Prime farmland produces the highest yields with minimal inputs of energy and economic resources. It is not excessively erodible or saturated with water for long periods.

Map 3-1: Prime Farmland identifies these important agricultural resources, based on the Natural Resources Conservation Service's Soil Survey for Keith County. Appendix A lists the soil types that are considered particularly suitable for farming and are mapped in Map 3-1. The best areas for crop production are located in the southern sections of the county. The North Platte River valley provides a clear dividing line between soil types.

Policy:

Generally, prime farmlands in Keith County should be preserved. Development that takes them out of production should be avoided. Development of prime farmland is acceptable if potential sites are within significant growth corridors, generally within 1/4 mile from a state or federal highway, or within another area designated for development in the Future Land Use Plan. Project design that affects prime farmlands should utilize conservation development techniques, clustering smaller estate lots in no more than 50% of the overall project area and preserving remaining farmland as common space.

STEEP SLOPES

Maps 3-2: Steep Slopes indicates areas with slopes greater than 6%. These steeper grades are generally located between the North and South Platte Rivers. These slopes are considered susceptible to erosion. Land-altering activities should generally be avoided or developed with careful consideration to drainage and topographic concerns.

Policy:

Projects that involve development of slopes in excess of 6% should submit and execute erosion control plans as part of development applications. Erosion control measures should be implemented to prevent loss of soil and increases in stormwater volume or velocity normally created by development. These measures can mitigate potentially adverse effects on neighboring property. On-site retention or detention devices may be employed to prevent excessive flows. Project grading in general should minimize disturbance of the natural forms of land. Development should generally be avoided on steep slopes in excess of 14%. On sites with varying slopes, conservation development techniques should be employed to avoid disturbance of steeply sloped areas by preserving them as common open space. Such development may use smaller lots, in exchange for preservation of sloped areas.

HYDRIC SOILS

Map 3-3: Hydric Soils identifies the location of hydric soils throughout Keith County. These soils typically are saturated with water because of drainage during the growing season, creating anaerobic conditions. They are also subject to occasional inundation through ponding and flooding. These soils are typically coincident with stream bottoms, flood prone areas, wetlands, or other poorly drained areas. Hydric soils, along with vegetation attracted to wet environments and hydrology are used to define wetlands. Those soils identified as Hydric soils in Map 3-3 had a Hydrologic group rating of "C" or higher meaning that they were at least seasonally saturated. Hydric soils are most frequently located along the North and South Platte Rivers and along the county's drainageways. Hydric soils are also found in the county's wetlands areas.

Policy:

Hydric soils, including wetlands and drainageways constitute vital environmental resources and are generally unsuitable for development. These areas should be conserved as open space or as significant public or private environmental resources. Development plans for individual projects should preserve hydric soils by incorporating them into common areas or greenways.

FLOODPLAINS

Map 3-4: Floodplain displays the location of floodplains within Keith County. These are areas that will be inundated with water during a storm event that has a 1% probability of occurring within a given year (the so-called 100-year floodplain). Contemporary floodplain regulations require elevation of finished floor levels one foot above the 100-year flood level. The floodplain along the South Platte River is bounded by Highway 30 on the north and Interstate 80 on the south, creating a fairly tight corridor across the county. The North Platte River lacks these man-made boundaries and therefore its floodplain is less defined.



Policy:

Flood plains should be left as open land, in agricultural or recreational uses. In extremely unusual cases, development may take place within the 100-year floodplain. Any such development should comply with the Keith County Floodplain Resolution and should minimize impact or modification of floodplains.



DEVELOPMENT SUITABILITY

Maps 3-5 and 3-6: Development Suitability displays those areas that have severe limitations for dwellings with basements, and septic systems, based on soil properties. Development Suitability maps are based on information included in the Soil Survey of Keith County, prepared by the Natural Resources Conservation Service.

Dwellings with basements are structures built on shallow sub-grade foundations on undisturbed soil. Soils with a high water table, flooding, shrinking and swelling, and organic layers can cause the movement of footings. A high water table, depth to bedrock or to a cemented pan, large stones, slope, and flooding can also affect the ease of excavation and construction. Map 3-5 specifically identifies those soils with severe ratings for flooding, wetness, ponding, and depth of rock.

Septic Systems require soils that have a medium texture, neither too fine and silty nor coarse, containing some gravel. Soils that promote effective operation of septic systems should contain a water table or impervious layer at least four feet below the bottom of the proposed septic installation. Soils that are less suitable for septic installation may be clays that are relatively impermeable and prevent percolation; or soils that are so sandy or permeable that wastes drain rather than percolate. The areas in color on Map 3-6 are those soils that have severe ratings for flooding,

wetness, poor filter, ponding and slow percolation as based on the Natural Resources Conservation Service. Use of septic systems in these areas may require larger lots or special design standards.

The Urban Suitability Maps indicate severe limitations to construction in the northern sections of the county and adjacent to the rivers and lakes.

Policy:

In areas with high water tables or with soils subject to shrinking and swelling, construction may use slab-on-grade development. Basements should be carefully engineered to accommodate difficult soils conditions.

The use of septic systems creates complicated policy questions. While the sandy soils of much of the rural development area are conducive to septic systems, the high water table of many of these areas can create challenges. In addition, sandy soils may be too absorbent for standard tanks and lateral fields, requiring special treatments to produce on-site retention and percolation. Septic system installation should follow standards established by the Nebraska Department of Environmental Quality. Lots should be designed to promote the use of septic systems – typically, lots that are closer to square will be more effective than elongated parcels. Larger projects in vulnerable areas should use community wastewater systems. It should be noted that sewage lagoons have the same development suitability constraints with respect to soils as standard tank and absorption field systems.



ENVIRONMENTAL COMPOSITE

Map 3-7 presents a composite map, overlaying all of the environmental constraints presented in this chapter. In the composite, areas in the lightest color have the fewest constraints to development, while those in darker shades present greater developmental challenges. In addition to providing overall information on environmental vulnerability, the composite helps to guide the definition of land use policy zones identified in the next chapter. Two areas present relatively few development and environmental constraints:

- The area north of Ogallala, a prime location for future development with easy access to the Lake and to Interstate 80.
- The area is located north of the North Platte River, north and west of Keystone. This area is less likely to see short-term development because of a lack of commercial services and transportation access. Future development at Martin Bay and along the southeast Lake Corridor could generate additional residential activity in this area.

INFRASTRUCTURE CONSIDERATIONS

RURAL WATER AND SEWER SYSTEMS

Keith County currently does not have rural or community water systems. As a result, most county developments (including those developed at relatively high densities) are served by individual well and septic systems.

Policy:

Primary development infrastructure issues relate to the nature and quality of water and sewer service. Due to the increasing number of subdivisions around the north, and especially, south shores of the lake, the development of a rural water system becomes a distinct possibility. Community water is particularly important because of the relatively high density of development on the lake's north shore. The Natural Resources District may serve as an initiator in the process of investigating the feasibility of rural water development and lead the effort to organize a Rural Water District.

Community wastewater systems also have a place in infrastructure planning. In some north shore situations, septic systems serve lots and home sites that are too small for an ideal septic field. An overall priority must be to insulate Lake McConaughy from any contamination that can result from improperly developed or maintained wastewater systems. Central's open space holdings can help mitigate potential contamination.

Ultimately, the county will need to consider community wastewater systems to serve areas with small lots that may experience failing septic systems. Large subdivisions should be encouraged to provide community systems. All septic system design and installation should require careful review.

CHAPTER FOUR



FUTURE LAND USE PLAN

Keith County will experience continued growth during the next twenty years. Based on the projections included in Chapter One, the overall county population will grow by about 1,400 people between 2000 and 2020, and the county outside of Ogallala will increase by about 900 people. Most of this growth is likely to occur around Lake McConaughy and within the communities of Brule, Paxton, Keystone, Sarben, Roscoe, and Lemoyne. Trends from the 1990s indicate that future residents may be living in the area for a greater part of the year, reflected by declines in the percentage of seasonal residences. This level of population growth suggests a 20-year demand for about 550 housing units outside of Ogallala. Based on an average rural density of 1.5 to 2 acres per unit, the county can expect to see 880 to 1,100 acres of land converted to residential use during the next two decades.

However, the approach of this plan is not so limiting as to designate only this area for new residential growth. Rather, the plan proposes various development or conservation policies based on the environmental character and carrying capacity of the land, rather than attempting to direct growth to specific geographic areas. This concept is more consistent with community preferences and development trends, and provides the County with the flexibility to respond to a variety of development initiatives. The plan's chief value is to permit development in a way that is sensitive to and responds to environmental constraints.

This section establishes a Land Use Plan for Keith County based on the principles outlined in the introduction to this plan and designed to manage this projected growth. The Land Use Plan utilizes the analysis set forth in previous sections to define land use concepts and categories for the county jurisdiction.

THE KEITH COUNTY LAND USE PLAN: MAJOR CONCEPTS

Agriculture will remain the primary land use within Keith County throughout the life of this plan. However, growth and change in both the agricultural and development sectors can significantly change the character of rural Keith County. Without fundamental concepts, growth is likely to occur in an unmanaged way, adversely affecting the character of the rural landscape and compromising those values and features that are attractive to both present and future residents. The basic land use challenge posed for the county jurisdiction involves accommodation of current development pressures while maintaining and preserving the rural character of the land. The fundamental concepts presented in this section establish the guiding principles that provide this balance.

The basic principles and concepts designed to meet the challenge of growth and preservation of rural character in the county include:

- **MAINTENANCE OF RURAL CHARACTER**
- **VALUE OF RESOURCE CONSERVATION**
- **GRADIENT OF DEVELOPMENT CONSERVATION DEVELOPMENT**
- **MIXED USE NODES**
- **REGIONAL RECREATION AND NATIONAL HISTORY**



MAINTENANCE OF RURAL CHARACTER

The area of the County outside of community jurisdictions should maintain the rural character that is so much a part of life in the area. The big skies and spaciousness of the landscape are indispensable parts of the Keith County environment.

The open character of Keith County, with its panoramic vistas and sheer majesty, is important to residents. Development standards and land use planning for Keith County should maintain this fundamental character, locating development in areas where demand is emerging and developing in ways that do not compromise this quality. Urban growth will be primarily focused in and around the City of Ogallala; indeed, the city's comprehensive plan provides for residential development in areas that can be served by efficient extensions of transportation, infrastructure, and open space systems. Lower density residential development should be accommodated in specific areas of the county that respond to market demands and preserve major vistas from ridge tops and other areas with exposed views. The plan cannot open the entire county to potential subdivision or small acreage residential growth.

VALUE OF RESOURCE CONSERVATION

Development policies and review in Keith County's jurisdiction should be defined on the basis of their suitability for development and the presence or absence of major natural resources and features. Those areas that possess the greatest environmental sensitivity or most important assets should be preserved.

The county's jurisdiction includes important environmental assets, identified in Chapter Three of this plan. These include agricultural lands, streams and bodies of water, steep slopes, floodplains, wetlands, and other hydric soils. The conservation of these features makes the county's jurisdiction special and distinguishes it from conventional development. The concept of balancing environmental conservation and development calls for establishing policies that conserve environmental resources, while permitting owners and developers a reasonable yield on property.

Standards for development in the County should:

- Restrict the amount of fill taking place within the 100-year floodplain.
- Require conditional use permits for developments in areas identified as environmentally sensitive.
- Protect all unique geographic or geologic formations.
- Minimize impact on designated wetlands and other essential ecosystems.

GRADIENT OF DEVELOPMENT

Development categories should include a spectrum of development, generally avoiding placing uses with conflicting characteristics adjacent to one another.

Land use policy should minimize conflicts that can obstruct the ability of people to use their land in their preferred ways because of natural conflicts. To accomplish this:

- Residential development districts should be adopted that establish densities based on the ability of land, transportation systems, and other services to support development.

This gradation of development directs higher density growth to communities within the county's planning jurisdiction and to areas where community facilities and transportation access support this level of development. Higher density development is also supportable in areas that have fewer environmental constraints, or eventually may be served by community water and wastewater systems. Lower-density development should be directed to areas with topographic limits, environmental constraints, or difficult transportation access.

This gradation, or "tiering" of residential development may change over time. For example, the development of community systems in an area previously designated for more limited development may change its classification. For example, large-scale, mixed density developments in this area can incorporate a variety of housing settings, but generally require installation of community water and wastewater systems.

- High intensity agricultural uses, such as Confined Animal Feeding Operations (CAFO), should be avoided within the proximity of residential uses and either of the Platte River Channels.

Of agricultural operations, confined animal feeding operations (CAFO's) typically generate the most intense external environmental effects, in-



cluding odors that affect the quality of life of neighbors. Therefore, land use plan proposes that any new CAFO within the proximity of any residential uses or either Platte River channel be considered only by special review. This policy is designed to identify locations for CAFO's which are most free of major land use, operational, or environmental conflicts.

CONSERVATION DEVELOPMENT

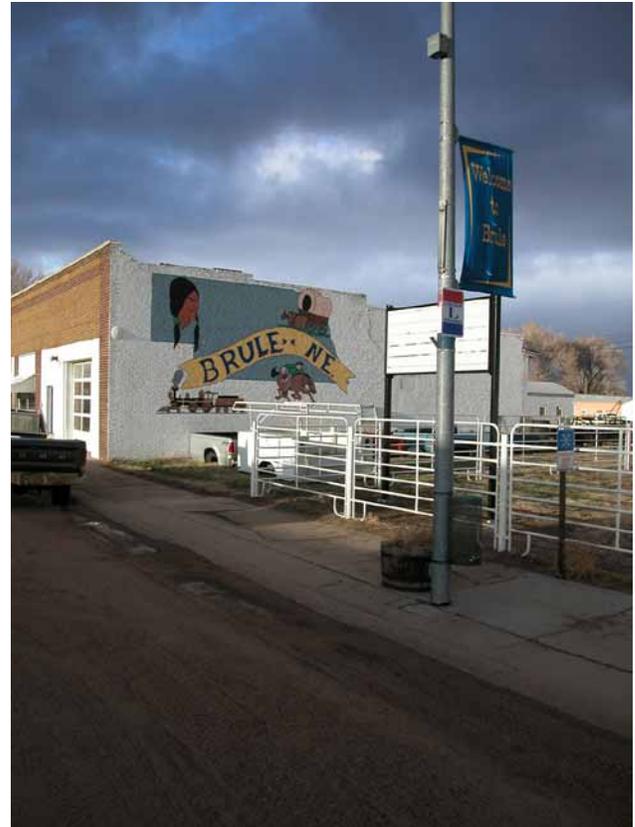
In environmentally sensitive areas, land use policy should require the development of conservation subdivisions, preserving major open space assets as common or open area while providing developers with the same density permitted under conventional development.

Large lot subdivisions often are designed in the same fashion as conventional urban subdivisions, only with larger lots. In many cases, these designs compromise or degrade the very sense of openness and character that makes living in rural Keith County attractive to many people. In areas where preservation of open character or natural resources is a major value, the concept of conservation subdivisions is more appropriate. This priority is especially important in environmentally sensitive settings such as Eagle Canyon.

The Conservation Development method is especially applicable to these valuable and vulnerable areas. In conservation subdivisions, the density permitted on a parcel of ground is the same as permitted for conventional development. However, environmental resources are preserved as common open spaces, permitting development on smaller lots, clustered in the built-up part of the development.

For example, an 80 acre site developed at 5 acres per unit permits construction of 16 houses. In a conservation subdivision, the same 16 homesites may be clustered on half the site area, or 40 acres, with the remaining land left in open, recreational, or agricultural uses. The open space may be owned in common by property owners, or may be maintained in private ownership.

Conservation designs, skillfully executed, can preserve such features as vistas, waterways, and agricultural lands more effectively than conventional subdivision. As a result, this technique preserves environmental features, thereby furthering the public interest, while at the same time creating more appealing development. Land



development regulations should prohibit the further platting of land designated as common open space within conservation subdivisions.

The concept of conservation development encourages developers to preserve areas of environmental or scenic significance in exchange for allowing greater development density in other parts of the project or by lessening the minimum lot size of the parcel if the overall percentage of open space or agricultural land stays constant. Minimum lot size standards should be observed for construction of private septic system and wells. Constructing community water and wastewater systems in place of private systems will allow an even greater development density.

MIXED-USE NODES

Commercial services in the county should occur within well-defined mixed-use nodes, rather than decentralized along linear highway strips.

Residential development in the lake area and the south part of the county related to the Highway 61 corridor, along with increasing visitor-related business provide opportunities for significant retail and service development. The linear nature of residential and recreational development along Highway 92 on the north shore of the lake, and the similarly linear nature of development along South Highway 61 in the Ogallala to Grant corridor, tends to encourage a linear commercial development pattern. This linear development pattern is often referred to as a commercial “strip.” A similar pattern could also occur along Highway 26 with increasing development along the south shore. Although topography and access control make linear commercial development along Highway 26 more difficult, its emergence would have significant impact on lake views and the quality of the environment.

County development policy should prevent the development of commercial strips and should be coordinated with similar policies by the City of Ogallala. Commercial development should instead be focused at mixed-use nodes, providing a clustering of services and punctuating residential development with activity centers.

The plan should include a variety of nodes, designed to fill the service needs and economic opportunities presented by the rural county. These include:

- *Local service nodes*, serving individual neighborhoods and lake residential areas. These nodes provide for convenience services, recreational supplies, restaurants and hospitality services, and related smaller scale commercial development. They are generally located at the intersections of major beach or neighborhood access roads and highway corridors; or, in the south part of the



county, at intersections of collector county routes and Highway 61.

- *Village commercial nodes*, including local commercial establishments within the county’s unincorporated villages, including Lemoyne, Keystone, Roscoe, and Sarben.

- *Town center nodes*, providing principal commercial services to a larger community. The junction of Highways 92 and 61 at Martin Bay is envisioned as such a major service node.

- *Special feature nodes*. These areas provide for multiple uses at locations of unique beauty and importance. The plan recommends such a node on Central property just south of Kingsley Dam.

- *The Lake Gateway Corridor*. This area will include development of multiple uses along the Highway 61 principal approach to Lake McConaughy. Mixed-use development here is permitted in a linear fashion, but subject to special requirements and design standards.

Commercial development at interchanges is generally located within the jurisdictions of the county’s incorporated municipalities. The Roscoe interchange is unsuitable for commercial development because of environmental limitations, and easy access to major development at the Ogallala interchange.

REGIONAL RECREATION AND NATIONAL HISTORY

Along with agriculture, recreation defines the economy of rural Keith County. County planning policy should continue to enhance recreational and historic resources, protect the integrity of these features, and capitalize on the economic opportunities that they create.

Lake McConaughy is one of the state's leading recreational and tourist attractions, drawing visitors and property owners from Nebraska, Wyoming, and Colorado. The Nebraska Game and Parks Commission has completed major improvements at the lake's recreation areas, including the Lake McConaughy Visitors Center just south of Kingsley Dam. While lake-related areas will continue to serve as the county's major recreational features, land use and planning policy should support complementary recreational and historical projects. These include:

- *Recreational trail development within the county.* The leading trail opportunities connect state beaches and recreation areas on the north shore of Lake McConaughy between Otter Creek and Martin Bay. The recent construction of the "inner road" through the Lake McConaughy State Recreation Area from Martin Bay to Sandy Beach opens adjacent trail opportunities. Other components include designated routes on highway shoulders. Such a shoulder has been developed along Highway 61 between Ogallala and Martin Bay, except across Kingsley Dam. Here, trail development below the dam through Lake Ogallala State Recreation Area has been started.

- *Designation and signing of the American Discovery Trail route through Keith County.* The American Discovery Trail is a Congressionally-designated cross-country trail, linking Point Reyes, California and Cape Henlopen, Delaware. The trail project was initiated by the American Hiking Society, but is now managed by a separate nonprofit foundation. Nebraska's Second District Congressman, Douglas Bereuter, led the



Congressional charter effort and was particularly instrumental in successful efforts to route a northern loop through Nebraska. The route is considered in more detail in Chapter 6.

- *Support and encourage the continued efforts of the Nebraska National Trails Museum Foundation to protect lands and trail routes along the Oregon Trail and around California Hill, and to develop a museum and interpretive facilities.*

- *Preserve major environmental and ecological corridors along the North and South Platte Rivers, with opportunities for nature study, environmental interpretation, and passive recreation.*

**KEITH COUNTY FUTURE LAND USE PLAN:
POLICY DISTRICTS**

Map 4.1, the Future Development and Land Use Plan Map illustrates the policy districts that will guide development within the planning jurisdiction of Keith County. The following descriptions identify the land use policy districts:

General Agriculture: Mixed Agricultural Uses

These areas encompass agricultural lands south of the North Platte River. They include soil types that permit a variety of agricultural uses, including both crop and animal production.

General Agriculture: Rangeland

These include grasslands characterized by sandy soils and are located north of the North Platte Valley. While all agricultural uses are found here, cattle raising and grazing will be the predominant uses.

Limited Agriculture

These areas include agricultural lands within one mile of municipal jurisdictions, areas designated for residential development, or the North and South Platte corridors. Here a variety of agricultural uses are encouraged. However, the establishment of new, high-impact uses, such as confined animal feeding, should be avoided.

Tier 1: Rural Residential

This policy district permits relatively low-density residential development, on lots that generally will have a minimum size of 1.5 acres. In certain settings, such as planned developments, higher densities are permitted. Major developments, including lots or residential densities of 1 unit per acre or less, will generally require use of community wastewater systems. For use of septic systems in Tier 1 areas, lots should be appropriately designed to create sustainable fields. Thus, lots that are more nearly square are prefer-

able to long, narrow lots that have a high ratio of depth to width. Tier 1 areas generally include:

- Most development areas designated along the south shore of the lake.
- Areas between higher-density development nodes on the north shore of the lake, to an approximate depth of 1/4 mile north of Highway 92.
- Development areas 1/4 mile on either side of the Highway 61 corridor south of Ogallala.

Tier 2: Community Residential

These areas include residential areas at community rather than acreage densities, generally at or under 1.5 acres per unit and in many cases with lots or homesites smaller than one acre. The use of septic systems or other individual wastewater systems is dependent on lot size, individual soil conditions, and lot design and configuration. The use of community wastewater systems in these areas should be encouraged. In addition, the county should investigate the development of rural water systems to serve these higher density development districts. This process will be initiated by the Natural Resources District, in coordination with the county and benefited property owners. Tier 2 areas will include:

- The county's unincorporated villages.
- Developed communities along the north shore of Lake McConaughy, according to the Lake Corridor Plan presented fully in Chapter Five.
- Other major mixed density projects. For large, comprehensively planned community projects, some Tier 1 areas may be redesignated as Tier 2 areas.

Conservation Districts

Conservation districts include areas where residential development is permitted that neverthe-

less include a number of environmental constraints. Development of these areas should utilize conservation development techniques, which maintain major on-site environmental resources as common or open space, while clustering lots in more developable or less vulnerable locations. Conservation districts include the Eagle Canyon region south of the lake in the western part of the county; and areas generally east of Highway 61 between the two rivers.

Local Service Mixed Use Nodes

These mixed use and commercial areas provide for local service needs and are typically located at the intersections of highways and major beach or development access roads. These areas include relatively small-scale commercial buildings, focused on convenience and recreation services, restaurants, small-scale retailing, and personal services. Local service node locations include:

- The intersection of Highway 61 and Road 30 (or an alternative intersection)
- Lakeview Road and Highway 26.
- Mako Chi Mni access road and Highway 26.
- Lakeside along Highway 92.
- Lemoyne Road and Highway 92.
- Otter Creek access and Highway 92.
- Lakeshore/Albee's access and Highway 92

Town Center Mixed Use Node

This includes areas that will provide a range of commercial, office, personal, and entertainment services to visitors and residents of the county. Although Ogallala should remain the principal urban business center for the county community, the town center node provides a major local activity and service center. As it develops, new commercial growth should include site designs that accommodate pedestrians and bicyclists. The plan designates the Martin Bay area as the major town center node, located at the junction of Highways 61 and 92.



Kingsley Center Mixed Use Special Feature Node

This district envisions emergence of a special mixed-use "resort," combining commercial, recreational, hospitality, and residential activities in a setting with unusual scenic value. The Special Feature Node is designated as a comprehensive development on Central land south of Kingsley Dam. This property now includes lodging, a restaurant, and convenience services.

Lake Corridor

The Lake Corridor is a special multiple-use development district that is governed by specific recommendations set forth in Chapter Five. The portion of the Lake Corridor district subject to special development regulations extends along Highway 61 from the edge of the Ogallala jurisdiction to the Central Irrigation District property at Kingsley Dam.

Industrial District

The Industrial District applies to areas that provide logical locations for major industry, based on transportation and locational assets. Most major industrial development will occur within the Ogallala two-mile jurisdiction, and the jurisdictions of Paxton and Brule. However, an industrial district is proposed east of Roscoe along Highway 30, with direct I-80 access.

Railroad District

This corridor follows the Union Pacific Railroad line generally paralleling the North Platte River, and permits agricultural, residential, commercial, and industrial uses within a 660-foot wide corridor on either side of the tracks. The South Platte main line is adjacent to Highway 30's right-of-way, providing few opportunities for industrial development. Any development along the railroad corridor must avoid impact on the Platte River channels, associated wetlands, and floodplains.

Recreation Commercial

These include uses that provide commercial services that have primarily recreational benefits. These include marinas, campgrounds, and related facilities.

Parks and Public Open Spaces

These uses include county parks and state recreation areas that are owned, leased, or managed through easements or by state/county/nonprofit acquisitions. They include:

- Property owned by the Central Irrigation District and managed for public use by the Nebraska Game and Parks Commission.
- Other state recreation areas and wildlife management areas.
- Golf courses.
- Other public recreational lands.

Other Conservation Open Spaces

These policy districts include areas of unique environmental importance that should be maintained as open space or kept open as part of the design of conservation developments. These features include:

- The North and South Platte channels and associated riparian areas.
- Canyons.
- Major drainageways.



CHAPTER FIVE



LAKE McCONAUGHY CORRIDOR SPECIFIC AREA PLAN

Chapter Four provided a general development vision and future land use concept for Keith County. This chapter provides a detailed, specific area plan for the part of the county that experiences the most substantial development pressure, the Lake McConaughy Highway corridor, encompassing State Highways 61, 92 and 26. Demands for residential and commercial development place significant pressure along points of principal access – the highway corridors and surrounding land. Specific pressures include commercial development taking advantage of visitor traffic and residents' demands; and residential growth along the highways.

As this development occurs, it must be successfully managed. Keith County residents value the openness and beauty of the land and see unmanaged commercial growth as compromising this quality. Indeed, development to date, largely concentrated on the more accessible north shore of the lake, has followed a relatively unplanned pattern of linear residential subdivisions, acreages, mobile home parks, and scattered commercial services. Lake McConaughy is a unique resource for Keith County and its main access corridors present unique opportunities. As a general rule, the quality of development should match this resource.



MAJOR LAKE CORRIDOR DEVELOPMENT ISSUES

Issues surrounding development along the corridor involve different visions of the county and the opportunities and threats that growth can bring to these visions. Major issues and trends affecting the corridor include:

New seasonal residents and visitors. Lake McConaughy is a large body of water available for recreational use in the middle of a large region that has very limited opportunities for water recreation. As a result, the lake has a natural attraction from a region that includes Nebraska and stretches well into Colorado and Wyoming. This demand for water recreation in turn generates demand for seasonal residences. To date, residential demand has been accommodated in linear subdivisions along the highway corridor, most notably on the north shore of the lake; and on leased sites within property owned on the north shore by the Central Nebraska Public Power and Irrigation District (Central). The region is now experiencing increasing large subdivision development on its less accessible south shore. Many of these developments include houses on relatively large lots. Housing demand for more modest homes has traditionally followed the highway corridor – a demand that also continues to grow.

- *Commercial development pressure.* With new people and increasing recreational popularity

comes pressure for commercial development. To date, this commercial development has included convenience services, restaurants, and lakeshore lodges (typically on land leased from Central). But greater recreational traffic and increased residential demand is creating pressure for other, more intensive types of lake-oriented commercial services, including display and sales of durable goods like boats and modular houses. This trend emerged with the development of two major projects in 2001-2002 – a display and sales facility for manufactured homes developed at the intersection of Highway 61 and Road 120; and a boat storage and sales facility on the southeast corner of Highway 61 and Road 130. These enterprises logically want to locate on visible parts of the corridor, especially between Ogallala and the lake. Yet, this development can affect the open character of this approach corridor and sets a precedent for other types of commercial growth. Management of commercial development is an important planning priority.

- *The character of the corridor.* The openness and scale of the landscape are important values to Keith County's residents. The largely developed north side corridor, particularly between Martin Bay and Lemoyne, illustrates a linear commercial form that could but should not extend along more pristine segments of the highway. Development that occurs should balance its economic needs with the need to preserve the rural character of the county's most visible environment.

- *Development quality and appearance.* Much of the corridor's previous development has been expedient and improvised. Thus, some older residential subdivisions are laid out parallel to the corridor to take advantage of the highway access and visibility but provide little in amenity to residents. Other residential development is in mobile homes or other manufactured units, sometimes on private property and occasionally on properties leased from Central. These patterns have resulted in a relatively unplanned environment at odds with the character of the surrounding land-



scape and the importance of Lake McConaughy as a resource.

- *Environmental impacts.* While the visual impact of development on the land and its character is important, development also brings environmental concerns. Some subdivisions are developed to urban density on well and septic systems. While the area's sandy soils are fairly conducive to septic service, these high densities can create significant long-term problems. As development occurs in the corridor (and around the lake in general), it must be carefully managed to protect an important and fragile environment.

- *Economic opportunity.* While this discussion suggests rampant commercial pressure, the Lake McConaughy corridor is relatively "under-retailed" for a major visitor attraction. While Ogallala is a significant commercial center for lake residents and visitors, commercial development nearer the lake could provide expanded opportunities for consumer spending. Creating attractive shopping and entertainment options in the lake area can provide significant economic returns to the county and its residents.

OVERALL PLAN PHILOSOPHY

Previous sections of the Keith County Plan have established overall guiding assumptions that relate to this specific area plan. However, some more specific development assumptions apply to the physical form and layout of growth in this corridor. These assumptions follow:

1. *Lake McConaughy is a unique resource in Nebraska.* While this principle is apparent, the uniqueness of the lake requires unique policies. Development in this special area should be guided and not left to chance. Nebraska has no other recreational water resources to match Keith County's inland sea.
2. *The quality of development in the lake corridor should match the quality of the resource.* Because the lake is a special resource, development should be held to special standards. The image of the lake area should be one of quality. However, insisting on good quality development is not and should not become an elitist value that denies recreational access to people. Rather, it means that care and thought should be given to development. Keith County should establish a regulatory context that requires such care.
3. *Maintaining the open character of Keith County's land is an important value.* Given the beauty of the landscape and the value that residents ascribe to it, letting the Lake Corridor take on the quality of an urban strip is unacceptable. Maintaining the rural and open character of the corridor is an important land management principle.
4. *Land use policy should balance development demand and the character of the land.* This corridor should and will experience development. Indeed, the region can benefit from the increased economic activity that growth can bring. Yet, a land use system appropriate to this corridor should provide opportunities for growth while preserving the character of the land and lake that attracted



the development in the first place. A key is balance – defining the amount of development that remains sustainable and assuring that it preserves the character of this special region.

5. *Commercial development should add new settings that complement rather than replace Ogallala.* The county and its largest city have common interests; and clearly the city's economic health is indispensable to the county. Retail and commercial development in the county should work to provide unique settings that complement the entire region, rather than seeking to replace Ogallala as the primary commercial service center.
6. *Development policies along the highway corridor should address potential transportation impact.* New growth and development can create traffic congestion, which in turn can seriously harm the lake experience. Most development to date has been completely dependent on the highway corridor. New development must supplement the highway, and provide opportunities for using alternative transportation methods, including bicycles in good weather.

EXISTING CONTEXTS AND ISSUES

In order to create a plan that applies these general principles, we must understand the contexts and land use issues that the corridor presents. The Corridor Existing Land Use Map illustrates the distribution of uses in the corridor. This analysis looks at development patterns and issues in the corridor by segments, which include:

Highway 61

- Ogallala "Y" to Kingsley Dam
- Kingsley Dam to Martin Bay

Highway 92

- Martin Bay to Lemoyne
- Lemoyne area
- Lemoyne to Omaha Beach
- Omaha Beach to the Garden County Line

US Highway 26

- Ogallala "Y" to Lakeview Access
- Lakeview Access to the Garden County Line

Highway 61: Ogallala "Y" to Kingsley Dam

This segment includes the area from the intersection of US 26 and Nebraska Highway 61 to the south edge of Kingsley Dam. Some of these areas are within the two-mile extraterritorial jurisdiction of the City of Ogallala. Most of this segment is currently in agricultural use. However, the high visibility of this segment of the corridor as a gateway to Lakes McConaughy and Ogallala create substantial pressures for commercial development. Major land use features here include:

- Acreage residential east of the "Y", concentrated on the north side of Highway 61. Areas east of developed residential sites are platted for large lots.
- The City of Ogallala's current wellfield, on the south side of Highway 61.

- New commercial development, featuring the sale and display major durable goods related to lake living and recreation, at the Road 120 and Road 130 intersections.
- Developing residential uses north of the County Road 130 intersection, north to the limit of Central's property.
- Major Central property holdings. Central's property extends about a mile south of the Kingsley Lodge area and incorporates the site of the new Nebraska Game and Parks Commission's Visitors Center.
- Kingsley Lodge mixed use area. This dramatic site includes commercial concessions on land owned by Central. These uses include a restaurant, motel/lodge, convenience store, and mobile homes. The dam superintendent also lives and offices from this area.

Development issues and trends in this segment of the corridor include:

- Continued commercial development encouraged by the visibility of the segment as the approach to the lake from Interstate 80. This demand resulted in the adoption of the Lake Corridor Planned Development Overlay District by the Keith County Board of Commissioners in 2001. This overlay district establishes special performance standards for setbacks, visible paved and parking areas, landscaping, signage, site access, impervious coverage, and location of displays of large items. It also establishes relatively large minimum frontages along the highway to prevent the emergence of commercial strips on small lots.
- Residential growth in the hills west of Highway 61 and south of the Central property.
- Potential high-end development on the south shore of the lake. After many years of slow development caused by a relative lack of visibility and access, the seclusion and privacy offered by these hilly areas has become an asset. While not specifically in the corri-

dor, this development contributes to traffic and commercial potentials and pressures along the highway.

- Kingsley Lodge Opportunity Area. The Central property at the south end of the dam includes Kingsley Lodge and associated development. This site, overlooking the dam and the sweep of the lake, is one of Nebraska’s most dramatic locations and creates opportunities for more substantial development. The “Kingsley Center” area is identified as a Special Feature Node in the overall land use plan.

Highway 61: Kingsley Dam to Martin Bay (Junction of Highways 61 and 92)

This segment includes the dramatic crossing of Highway 61 over Kingsley Dam, with Lake Ogallala State Recreation Area below the dam to the east. It passes the busy Martin Bay area, under long-term lease to the Nebraska Game and Parks Commission (NGPC) by Central. The highway junction is a significant business center for the lake community and the surrounding region. The Union Pacific Railroad joins the corridor near the highway junction and closely parallels the south side of Highway 92 along the lake’s north shore. Major land use features along this segment include:

- *Kingsley Dam and Lake Ogallala.* The Lake Ogallala shoreline is under long-term lease to the NGPC. A road running parallel to the highway and below the dam serves this recreation area and provides an alternative route to Highway 61. Keystone Lake Road, leading to the unincorporated village of Keystone three miles east, forms the north edge of the recreation area.
- *Scattered commercial development north of the dam to the highway junction.* Several commercial sites have developed opposite Martin Bay on this stretch of the highway. Some linear platting has also occurred, but has not developed.



- *Commercial development at the junction.* The highway junction includes a loose cluster of businesses, including a new bank, church, restaurants, boat display, and a convenience store. This location is a logical service center for the lake community. Several streets are platted, parallel to Highway 61 north of the junction, but have experienced relatively little development. A mobile home park is also located in this platted area.
- *Permanent recreation on lakefront.* The Martin Bay area has traditionally been Lake McConaughy’s most intensively used recreation area. It is under long-term lease to the NGPC, which has made significant capital investments. Access to Central’s K-4 cabin area also occurs along this segment.

Development issues and trends along this segment include:

- *Commercial development along Highway 61 between the dam and the Highway 92 junction.* Some commercial development has occurred south of Highway 92 and other proposals are pending. Due to the adjacent, heavily used Martin Bay area, this segment is particularly vulnerable to unmanaged, linear commercial development. While commercial uses are logical here, development standards should be carefully managed to ensure the desired results.

- *The Martin Bay Intersection.* This area is positioned geographically to be a significant activity center for the lake community. Yet, it has a relatively sparse development pattern and has not fulfilled its full potential as a strategic service center for the lake community. The Future Land Use Plan presented in Chapter Four identifies Martin Bay as a town center mixed use node for the lake district, potentially having some of the qualities of a resort community.

- *Traffic and services at Martin Bay.* Traffic congestion at Martin Bay can be an issue at peak times. This suggests a value in identifying other methods of transportation to serve lake- and vacation-oriented users, including bicycles and other non-motorized conveyances, trams or shuttles, and increased pedestrian movement.

Highway 92: Martin Bay to Lemoyne

This segment, including the Arthur Bay recreation area, includes some of the first areas to develop along Lake McConaughy. With the exception of leased concessions at North Shore Lodge, NGPC leases the entire north shoreline from Central, while the north side of the corridor is privately developed. Major land use features along this segment include:

- Linear residential development, including the Yucca Heights, Bay Meadows, and Sandy Beach subdivisions. These subdivisions hug the highway corridor and are at most only two to three blocks deep. Some areas have single deep lots platted along the highway, with unpaved frontage roads and easements providing access.
- Mobile homes scattered along the north side of the corridor, most notably between Martin Bay and North Shore.
- Scattered commercial use on the north side of the corridor, generally closer to the highway junction at Martin Bay.

- The North Shore Lodge concession and adjacent K-3 cabins. North Shore Lodge, leased by Central, includes a large mobile home park and the lodge with marina and visitor services.

Development issues along this segment include:

- Strip residential development along the highway corridor. These subdivisions were developed at minimal cost and focus on the highway for local access.
- Upland residential development. Additional residential and vacation home development could occur in upland areas north of the linear residential strip. In addition to providing more housing, subdivisions with greater depth can provide a local east-west road separate from the highway. As a result, the segment can accommodate more residents without increasing highway congestion by separating local and regional traffic streams.
- Opportunities at North Shore Lodge. North Shore Lodge provides excellent boat and beach access. This area, mostly occupied by mobile homes, may provide future upgrade opportunities.

Highway 92: Lemoyne

Lemoyne is the most identifiable cluster along the corridor. East of Lemoyne, Highway 92 swings north of the lakefront and diverges from the parallel Union Pacific tracks. Most of the village is located south of the highway. Major land use features at Lemoyne include:

- A small commercial and civic cluster at the Lemoyne Road intersection. A general store and church are the intersections most recognizable landmarks.
- A fairly consistent residential development pattern south of the highway toward the lake. Streets are laid out on a modified grid around the Lemoyne Road.

- Mini-storage use along the UP corridor, about one mile south of the highway.
- More residential uses in the Berry's and Carey's Subdivisions south of the tracks. Lots are laid out on single-ended streets that head east from Lemoyne Road to a hillside.
- Convenience commercial use in this area near the lake.
- Long-term NGPC leases and boat docks at Admiral's Cove, at the end of Lemoyne Road.

Development issues and trends at Lemoyne include:

- Mid-corridor convenience services. The Lemoyne junction already functions as a convenience and service node to some degree. This role could be reinforced by additional, "neighborhood" commercial development.
- Infill development. The existing Lemoyne plat includes vacant lots that could accommodate new housing construction.
- Definition as a village. Lemoyne, as the only identifiable community on the north shore, could benefit from a stronger image as a town – a distinctive destination along the highway corridor.
- Signage and directional information. Improved graphics could direct visitors to Admiral's Cove and lakefront visitor services.

Highway 92: Lemoyne to Omaha Beach

This segment west of Lemoyne is generally open to the Otter Creek area. However, the area from Otter Creek to Omaha Beach is one of the most heavily developed parts of the north shore corridor. The substantial Albee's and Lake Shore subdivisions extend south of the parallel UP tracks, cutting sharply into the normal pattern of Central's ownership of all property from the lake to the railroad. Land use features and patterns along this western most developed segment include:

- Continued strip residential development north of the corridor. The Erb's and Fischer's Subdivisions extend a grid street pattern farther up the hill; however, development is most dense to the south and dissipates to the north.
- Substantial subdivisions south of the corridor. The Albee's and Lake Shore subdivisions, while not fully developed, are the most substantial residential developments on the north shore.
- Convenience commercial at intersections. Scattered convenience commercial development occurs along the corridor, primarily at southbound access points.
- Recreational uses at Otter Creek and Albee's. These include Otter Creek Lodge and Marina Landing access at Albee's subdivision.

Development issues along this segment include:

- Full build-out of existing subdivisions.
- Additional potential for uplands residential development. However, these projects should develop with a high degree of amenity and service. Current uplands subdivision tends to "disappear" into the hillside.

Highway 92: Omaha Beach to the Garden County Line

West of Omaha Beach, the corridor enters wetlands and wildlife management areas that should be maintained as natural open space.

Highway 26: "Y" to Lakeview

This area is currently open, affording panoramic views of the Platte basin and the City of Ogalala. Major future issues include the nature of development at the "Y" and at the junction of the new Highway 26 bypass. Highway 26 is now routed 1.5 miles west of its former route along Spruce Street through the center of Ogalala. It is then routed back through the city to the UP viaduct and I-80 Exit 126 by way of



Highway 30. However, long-term plans will continue Highway 26 south to a new interchange. Detailed land use planning for these major intersections is a significant corridor issue, but will be considered in detail as part of the Ogallala comprehensive plan.

The Lakeview intersection, providing access to the Lakeview subdivision and recreation concessions, may provide an opportunity for very limited convenience commercial use.

Highway 26: Lakeview Access to County Line

This segment of the corridor should remain undeveloped for this planning period. Residential development may occur in areas closer to the lakefront.

THE CORRIDOR DEVELOPMENT PLAN

This section presents the specific land use plan for the Lake McConaughy Highway Corridor. The Future Land Use Plan/ Development Concept illustrates the concepts presented here. The subsequent section suggests an overlay district with specific performance standards that applies to planned commercial districts to guide their development.

COMMUNITY CLUSTERS

Development along the corridor should avoid a continuous strip character. It should include a rhythm of development and open space to preserve the open character of the land.

The best balance between the need to develop and the value of maintaining open space and rural character can be achieved by “clustering” – focusing higher-density development in certain areas while maintaining significant stretches of open space, agricultural land, and low-density residential development. Continuous “strip” development, most severely compromises rural character by preventing travelers from seeing the land. The land use plan proposes the following development clusters:

- The “Y” intersection at the junction of Highway 61 and Spruce Street (the former Highway 26 route). This is considered a major mixed-use development area in the City of Ogallala’s comprehensive plan and is within the city’s planning jurisdiction.
- The Lake Corridor planned development district between Roads 120 and 130.
- A residential cluster between Road 130 and the Central property.
- The Kingsley Lodge special feature node.
- The Martin Bay town center mixed-use node, including the Highway 61/92 junction and surrounding residential areas.
- Arthur Bay, including clusters around Bay Meadows and Lakeside.
- Lemoyne.
- The Otter Creek cluster.
- The Lakeshore/Albee’s cluster.

The residential clusters, which build from the foundation of existing subdivisions, should accommodate new housing by developing north into the uplands, rather than out along east-west corridor open spaces. These areas are designated as Tier 2 Community Residential Areas in the overall county land use plan and within Map 5-1 Lake McConaughy Corridor Development Concept. Areas between the clusters are designated in the Tier 1 Rural Residential policy district.

IDENTIFIABLE COMMUNITIES

Define specific communities along the corridor by using graphics, signs, gateways, and landscaping.

Traditional towns have a strong definition of the urban edge, clearly marking the boundary between town and country. More recent urban development has blurred this edge, as the development boundary tends to be ragged. Development along the Lake McConaughy corridor similarly lacks identity.

The concept of community clustering and maintenance of rural character can be strengthened by identifying clusters as distinct subareas of similar character. This can reinforce the sense of rhythm and orientation along the corridor, and can also help develop real community and identity among residents. To do this, boundaries are established which effectively limit and define linear development along the corridor. Entrance features such as gateways, landscape feature, and graphics mark these boundaries. Signs and mile markers along the way should reinforce this sense of identity, thus the need for signage, graphics and landscaping.

Examples of identifiable communities may include:

- The south Lake area
- Martin Bay
- Arthur Bay
- Lemoyne
- Otter Creek or Omaha Beach

COMMERCIAL FOCUSES

Commercial development should be focused at specific locations that include:

- *Major highway intersections*
- *Planned development districts with special performance and design standards*
- *Intersections with major county roads and lake access points*
- *Mixed use centers*

Chapter Four established a system of mixed-use nodes, concentrating commercial and service uses at specific locations rather than linearly along the highway corridors. When unmanaged, commercial development tends to locate based on opportunity. In the Lake McConaughy corridor, the surrounding highways have much heavier traffic than any intersecting road. As a result, any location is about as good as any other location, and commercial growth will tend to occur wherever land is available. This condition tends to create strip development, which will seriously affect the character of the countryside, the quality of the lake corridor, and the function of the highway itself, if allowed to occur.

Therefore, this plan focuses commercial development on specific, defined locations. These locations both meet commercial location requirements and reinforce the concept of identifiable communities. These settings include:

- *Major highway intersections:* Junctions of the Highway 26 Bypass and Highway 61, the Ogallala "Y", and the junction of Highways 61 and 92 at Martin Bay.
- *Planned development districts:* The mile between Road 120 and 130 and the Martin Bay stretch of Highway 61 between the railroad and Kingsley Dam. These relatively large districts will be subject to special performance and design standards of development proposals and specific conditional review by the County Planning Commission and Keith County Board of Commissioners.

- *Intersections with major county roads or lake access roads:* Accesses to Arthur Bay, Sandy Beach, North Shore Lodge, Lemoyne, Otter Creek, Marina Landing, and Lakeview. These locations are generally most appropriate for limited convenience commercial development.
- *Mixed-use centers:* Kingsley Lodge area and the Martin Bay area.

MAJOR CENTERS

Major mixed-use centers should develop at two strategic locations: the Kingsley Lodge area and the Martin Bay area. These centers should feature pedestrian oriented environments, becoming major activity centers and focuses for specialty retail, restaurants, lodging, and visitor services.

Shopping and commercial activity are vital to the experience of a resort community. In places such as Aspen, Vail, Park City, Key West, and other destination places, the experience of spending money almost equals the recreational experience. While Lake McConaughy may never have the “jet-set” character of these famous resorts, the region can broaden the recreational experience and create business opportunities as well by encouraging mixed-use centers with special character. The best candidates for this type of development are the Kingsley Lodge area, overlooking the south end of the dam; and the Martin Bay area, at the Highway 61/92 junction.

Kingsley Center

This dramatic site, owned by Central and leased to concessionaires, is identified as a Special Features Mixed Use Node and could be successfully packaged as a resort village. Potential uses include lodging, specialty retailing, restaurants, and other visitor services. The proposed Kingsley Center could also incorporate more permanent housing, such as leased or time-shared townhouses. The village should have a strong image and pedestrian orientation, linking its parts together internally. Trails

could connect the area to the new Visitors Center.

Implementation of this concept will occur in the long-term and will require the participation of Central, the owner of the land. At some future point, with the expiration of current leases, Central could offer a Request for Proposals, including a developed physical and economic concept of the village as an illustration of intent. The large capital investment required for a project of this magnitude will require a very long-term land lease. Yet, participation arrangements could make a resort village project attractive for Central, and a great economic and quality of life contribution to the region.

Martin Bay Town Center Mixed Use Node

The plan envisions Martin Bay Town Center, northeast of the Highway 61/92 junction, as the major commercial and service center for the lake community outside of the City of Ogallala. Potential uses here include office and banking, restaurants and entertainment, community commercial development, specialty retailing, and higher density housing. While different in character from Kingsley Center, Martin Town Center should have a pedestrian orientation and strong physical image (possibly consistent with a Main Street business district).

PLANNED DEVELOPMENT DISTRICTS

More linear commercial development along segments of the Lake Corridor should occur within planned development districts.

The Highway 61 corridor between the edge of the Ogallala jurisdiction and Martin Bay is the focus of substantial commercial development because of location and visibility. While commercial development is appropriate here, continuous strip growth can seriously affect the quality of the highway corridor. Therefore, the County has established a special overlay district to enact performance standards for development here. In 2002, these standards

apply to the South Lake district, between the Ogallala jurisdictional line and a point north of Road 130. The overlay district encompasses the Highway 61 corridor up to the Martin Bay area, including both north and south lake components. It may also be extended to the entire peripheral highway corridor, both north and south of the Lake.

This special overlay district carries requirements that may not be applicable to more conventional commercial development in the county. Features of the special overlay district include:

- Special design standards that apply to the corridor's context. These standards are based on issues that are important to Keith County and consistent with the objectives of this plan.
- An additional requirement is that projects earn a specific number of performance points in order to proceed. The overlay process provides a number of ways in which projects may achieve the requisite performance points.
- Staff and Planning Commission review and final approval by the Board of County Commissioners of specific project applications.

Criteria for Standards

The following issues are of importance and define the regulations and standards contained in the special overlay district:

- *Setbacks*, assuring a feeling of spaciousness and openness. Setbacks are also required to accommodate future needs for additional road rights-of-way.
- *Limit on paved surfaces viewed from the highway*. The principal views from the highway should be landscaped, rather than paved. To the maximum degree possible, large areas of pavement should be oriented away from or screened from the highway.
- *Landscaping*. The special overlay district should encourage appropriate, sustainable

landscaping. Appropriate landscaping should make extensive use of native materials, which should avoid major impact on the land and available water resources.

- *Openness along the highway*. Development regulations should govern the spacing of buildings and development, preventing the road from being lined continuously by development.
- *Unified signage*. The size, height, and impact of signs should be minimized. Signs should be designed to communicate, rather than "shout." Monument or ground signs are preferred to pole signs.
- *Prevention of parallel display*. Some major commercial users in the corridor are likely to display large items. Displays that line products up parallel to the highway are discouraged. Standards should encourage more interesting, carefully designed displays of these major items.
- *Access*. Direct access cuts to the highway are to be minimized. Developments should use parallel circulator roads, which connect with intersecting accesses far enough away from intersections to prevent traffic conflicts. "Rearage" roads are preferred to frontage roads. Rearage roads can be double loaded and encourage developers to orient landscaped areas to the highway.
- *Building character and materials*. Building design is an important visual characteristic. Standards should encourage the use of quality materials. In addition, offsets and window treatment should be used to reduce the scale of buildings.
- *Impervious coverage*. Developments are to minimize impervious surfaces, to reduce runoff and permit storm water to permeate the ground. On-site techniques for detention and controlled discharge of stormwater should be employed.

- *User amenities.* Projects should be encouraged to develop special amenities for the benefit of users, residents, and visitors to the corridor. Amenities may include bodies of water or other environmental features, trail access, building articulation, or use of quality building materials and designs.
- *Lighting.* Lighting should be directed to areas that specifically require illumination, such as signs, buildings, and parking areas. Extraneous lighting and lighting that creates glare should be avoided. Lighting fixtures and design should promote dark skies.

Many of these same standards will apply to other future commercial development outside of the planned development districts. Criteria for these standards are discussed below.

COMMERCIAL TYPES

Specific types of corridor commercial development should be defined and directed toward the most appropriate settings.

Different types of commercial development are appropriate in different settings. For example, boat display is not an appropriate use at a country crossroads designated for smaller-scale development. In the Lake McConaughy corridor, we can define four general types of commercial development: community commercial, display commercial, resort commercial, and convenience commercial.

Community commercial:

- Includes a variety of retail and service features, including specialty retailing.
- May be relatively large in scale.
- Does not include outside storage or display of items.
- Should incorporate good design standards, including pedestrian access from parking and attractive signage, along with criteria identified in the previous section.



Community commercial development is most appropriate in the Martin Bay Town Center Mixed Use Node.

Display commercial:

- Includes display and sale of large durable items, such as boats, other water equipment, manufactured housing, mobile homes, automobiles, and other similar items.
- Has relatively small building area and large display areas in proportion to the total site.
- Should have extensive setbacks, planned display areas, and adequate on-site maneuvering area along with criteria identified in the previous section.

Display commercial development is most appropriate in the Lake Corridor Planned Development District.

Resort commercial:

- Includes marinas and associated uses, as well as lodging.
- In many cases, is located off the corridor and on the lakeshore.
- Should provide a distinctive image to customers.
- Should meet criteria laid out for the special overlay district.

Resort commercial development is most appropriate in the Martin Bay Town Center Mixed

Use Node, the Kingsley Center special feature node, or in leasehold areas or commercial areas along the lake.

Convenience commercial:

- Includes small-scale buildings.
- Includes retail, convenience stores, gas stations, sale of incidental equipment, and small restaurants or food service establishments.
- Should provide good landscaping and well-designed signage.
- Should meet criteria laid out for the special overlay district.

Convenience commercial development is appropriate in any commercial area, but is most likely to develop at local service mixed use nodes.

GENERAL COMMERCIAL STANDARDS

Good design standards should also be applied to commercial development outside of special overlay district.

Since they incorporate lengths of highway frontage, the effects of unmanaged development in the special overlay districts can be especially harmful. However, good standards should apply to all new development in the Lake Corridor. Basic values to guide standards include:

- Limits on direct corridor access.
- Low-level signage, with an emphasis on ground or monument signs.
- Adequate setbacks.
- Landscape standards that minimize the impact of paved surfaces.
- Location of paved and parking areas away from highway frontage.
- Connections to regional trail systems, if developed.
- Lighting that is directed toward signs, buildings, and parking and does not create excessive glare.

NO INDUSTRIAL DEVELOPMENT IN THE LAKE CORRIDOR

Industrial development should be directed to other opportunity areas in Ogallala and Keith County, and away from the Lake Corridor.

While industrial projects have been proposed in the past near the corridor, this plan generally opposes their approval at this time. The corridor is relatively remote from Interstate 80 and clearly focuses on recreation and amenity. While industrial development is vital to the county and should be encouraged. Sites that enjoy better interstate access, or are less likely to create land and user conflicts should be favored over this corridor.

CORRIDOR RESIDENTIAL DEVELOPMENT

Residential development in the Lake Corridor should follow specific standards and practices to upgrade subdivision quality.

Unmanaged, linear residential growth may affect corridor quality as adversely as commercial development. However, a certain amount of new residential development is clearly appropriate. As development takes place, it should follow these guidelines to conserve the quality of the lake and county environment:

- Residential development should occur within the community clusters defined by the plan. This practice allows the concept of alternating development and rural space to emerge. Limiting the linear spread of development along Highways 26,61, and 92 causes new growth to extend northward.
- As residential growth occurs to the north, subdivisions should dedicate east-west road linkages, connecting developments to one another. Establishing this kind of street network provides an alternative to the highway for local travel, allowing the area to accommodate more people without greatly increasing congestion during peak periods.

- *When appropriate, conservation subdivision practices should be employed in project design.* This practice defines important environmental resources and features on the land, designates them as common space, and designs the development in clusters around these features. Overall density is the same as permitted by underlying zoning; but in conservation development, individual lot size requirements are reduced in exchange for conservation of resources. This practice is especially appropriate to areas in the corridor and to new development occurring on the lake's south shore.

- *Community water and wastewater systems should be employed when developments are built at higher subdivision densities.* The Future Land Use Plan identifies two categories of residential development – rural (Tier 1) and community (Tier 2) residential. In general, rural or acreage residential implies lots larger than 1.5 acres. When gross densities exceed one unit per 1.5 acres, community infrastructure systems are encouraged.

TRANSPORTATION ALTERNATIVES

In order to avoid overloading the highway corridor, the lake transportation and circulation system should provide alternatives to users.

While we think of the Lake Corridor as traveling through wide open spaces (and, at least on the south shore, it does for the most part), congestion can still be an issue, especially during the summer season. The inevitable absorption of more people can worsen this situation. In order to address emerging traffic issues, the County should implement the following:

- *Use the Land Use Plan to establish a framework of local streets, connecting new subdivisions and provide local routes that are parallel to and supplement Highway 92.*
- *Encourage the development of a comprehensive, off-road bicycle trail system within the Nebraska Game and Parks Commission recreation areas and*



along or parallel to the highway corridor. Bicycles are used extensively in other resort areas and can be an extremely effective means of travel around the lake. The Nebraska State Trails Plan proposes such a system. Projects should be encouraged to link into a regional trail system. In addition, a trail could be developed from the north end of Ogallala's City Trail to Lake Ogallala, Martin Bay, and Keystone, via Highway 61.

Trails planning and development must include operating and maintenance plans. The Nebraska Game and Parks should generally be responsible for trail administration in State Recreation Areas. Other trails, as they are developed may be maintained by the County, the Twin Rivers Natural Resource District or Central depending on their location and context.

- *Monitor traffic over Kingsley Dam, considering Lake Ogallala Road as an alternate route.* This would require improved directional signage and some intersection modifications. This should be done only if traffic over the dam reaches unmanageable levels.
- *Minimize access cuts onto the corridor, instead encouraging the use of rearage roads and existing intersections.* This can help maintain good functioning of the highway for regional traffic.



IMPLEMENTATION

The Lake McConaughy Corridor Land Use Plan presents a general guide for public policy and land use decisions, as well as private investments. The plan will be implemented by means of a variety of individual actions and decisions over a long period. However, it is important in strategic development areas to establish an immediate mechanism that allows development to proceed, but assures consistency with the goals and concepts of this plan.

The Lake Corridor Planned Development Overlay District, presented here, provides such a regulatory framework. This initial district will be applied to the two Planned Development Districts proposed by the plan. This special district has the following characteristics:

1. It is an overlay district, meaning that it is used in combination with one of Keith County's base zoning districts. For example, a project in the overlay district area may be zoned TS (Tourist Services District), in combination with the Corridor Overlay. This means that the base district describes how land can be used; but the overlay establishes special standards that may be more restrictive than those for the normal TS district.
2. The overlay district establishes the basic standards that all development must meet. These standards include such factors as setbacks, landscaping, parking location,



signage, access, stormwater management, and impervious coverage. These standards are consistent with the goals and issues identified in this Land Use Plan for these strategic areas.

3. Finally, the district requires that projects must attain a certain number of performance points, requiring development above base standards in this area. However, performance points can be attained in a number of different ways, from providing visitor amenities to increasing the amount of landscaping. Creative site design can also result in performance rewards.

CHAPTER SIX



TRANSPORTATION, INFRASTRUCTURE & PUBLIC FACILITIES

This section addresses community service systems necessary to support the concepts and directions of the Land Use Plan.

STREET CLASSIFICATION

Map 6-1: Road Classification illustrates the county's transportation resources, along with proposed changes in road classification. Principal roads are classified as follows:

Freeways and Expressways include Interstate 80. Interstate 80 has four interchanges within Keith County: Paxton (Exit 145), Roscoe (Exit 133), Ogallala (Exit 126, Highways 26 and 61), and Brule (Exit 117).

Major Arterials include State and Federal Highways:

- US Highway 26 extends north and west out of Ogallala. The highway links Ogallala with Ash Hollow State Historical Park and eventually runs to the Wyoming state line. A bypass has been developed for Highway 26 1.5 miles west of its former alignment along Spruce Street in Ogallala. Highway 26 is a two-lane section with surfaced shoulders from Ogallala to the Garden County line. It closely follows the routes of the Oregon and Mormon Trails and has been designated the Western Trails Scenic and Historic Byway under the state's scenic byway program.
- US Highway 30 extends east and west through Keith County and serves Paxton, Roscoe, Ogallala, and Brule. Highway 30, formerly the Lincoln Highway, parallels the Union Pacific main line and generally parallels Interstate 80 west of Grand Island. Highway 30 is a two-lane section with surfaced shoulders east of Ogallala, and without shoulders west of Ogallala.
- Nebraska Highway 61, providing north-south access through the county. Highway 61 extends from the Kansas state line near Benkelman, continues through Imperial and Grant, enters Keith

County and passes through Ogallala, crosses Kingsley Dam, and extends north through the Sandhills to Hyannis, Merriman, and the South Dakota state line. Highway 61 is a two-lane section with surfaced shoulders from Ogallala to Martin Bay (with the exception of the passage over Kingsley Dam, which lacks shoulders), and without shoulders north of Martin Bay. The highway provides a two-lane section with paved shoulders just south of Interstate 80, and converts to a two-lane roadway without paved shoulders for the balance of its route through Keith County.

- Nebraska Highway 92, crosses the state from the Scottsbluff/Gering area in the west to the Omaha metropolitan area. Highway 92 in Keith County is the principal road serving the north shore of Lake McConaughy, joining Highway 61 at Martin Bay. It continues as a joint route with Highway 61 north to Arthur in Arthur County, and then splits to continue eastward. Highway 92 in Keith County is a two-lane section without surfaced shoulders.

Other Arterials. These major roads connect with and complement the major arterial system by linking towns with principal highways and connecting various parts of the county and the county to the region. These arterials normally have two-lane paved or gravel sections.

Collectors. These county roads are generally found on section lines and are surfaced with gravel, although in some cases may be paved. These roads typically have low volumes and provide access to agricultural areas, beaches and lake recreational areas, or individual development areas. They may also provide access to rural farmsteads and the arterial system. The Keystone-Sarben Road is the most northern collector road in the county.

Other County Roads. These roads tend to be section line roads on the south side of the county. On the north side they tend to follow the geography of the area and have significant sections that are unimproved.



TRANSPORTATION PLAN

Map 6-2 displays the proposed County Transportation Improvements Plan. The plan includes changes in roadway classification, major pavement upgrade projects, interchange development, and trail development.

Changes in Classification

The Transportation Plan identifies the following major changes in road classification:

- Upgrade of the Keystone Lake Road and the Keystone-Roscoe Road to “other arterial” status. These road segments are currently paved and create a secondary loop joining the communities of Roscoe and Keystone with Interstate 80 and Highway 61 at the Lake Ogallala State Recreation Area.
- Upgrade of Road 120 to “other arterial” status between the Keystone- Roscoe Road and Highway 61. Additional development in the Highway 61 corridor will increase the importance of this farm-to-market link from the east.
- Designation of the Mako Chi Mni (Road West B North) access to collector status. Increased south shore development warrants this new collector designation.

- Designation of Road 130 as a collector between the Keystone-Roscoe Road and the Mako Chi Mni Road. Additional lake corridor and south shore development will increase traffic utilization of this corridor, one mile north of Highway 61 and 26.

- Designation of Lakeview West Road, extending from Lakeview to Eagle Canyon, as a collector. This road links south shore neighborhoods together.

Pavement Upgrades and Transportation System Development

Priorities for Keith County roads will largely depend on the development of the lake area. Accelerated development along the south shore of the lake will require more additional maintenance and probable upgrades to some of the existing access roads.

On the north shore of Lake McConaughy, well-maintained asphalt roads serve older, more established developments. However, the pattern of residential development and recreational resources divided from one another by Highway 92 and an increasingly busy Union Pacific Railroad line, create the potential for major grade crossing safety problems. Environmental impact, development patterns, and topography make grade separations impractical. However, several policies can reduce safety issues, including:

- *Enhanced warning signage and railroad crossing warning equipment at designated crossing points.* In some cases, signals or modified road alignments can increase safe stacking distance at crossings.

- *Creation of greater street interconnectedness among subdivisions north of Highway 92.* Currently, most subdivisions are individual development pods with single points of access of Highway 92. As developments continue north of the highway on the north shore corridor, they should provide lo-

cal roads that interconnect between developments. This provides residents with a low-traffic alternative to Highway 92, and can assist with the management of crossings across the highway and the railroad.

A grade separation is being proposed at the intersection of Highway 61 and the Union Pacific Railroad line on the east side of the lake and could be completed as soon as 2006.

Local road interconnectedness should also guide development design in other potential rural development areas, including conservation development zones, the south shore of the lake where feasible, and the south Highway 61 corridor.

A majority of the county's 860 miles of roads are located south of the North Platte. Sparse development on the north side means few roads and even fewer that are fully accessible. This puts an even greater importance for the county's state and federal road system. It will be very important for the county to continue to work closely with the state to maintain these important links and continue to provide access to all parts of the county. The county should continue its ongoing program of maintaining existing road and bridges and identifying priority improvements within its one- and six-year program.

Road Improvement Program

Short-term road improvements include paving or upgrading of

- K1 Cabin Road, connecting to Highway 61 on Road 130.
- Ogallala Beach Road from the "Y" to the lakefront.
- Mako Chi Mni access from Highway 26 to the lakefront.
- Lakeview West Road, west from Lakeview access to Eagle Canyon area.

- Road 80 from Road West B to Road East H. Part of Road 80 West passes through the Ogallala planning jurisdiction and is an integral part of the transportation element of the city's comprehensive plan. Road 80 would provide an east-west link to a proposed new Highway 26 interchange, providing a direct south access to commercial, truck-related transportation, industrial, and south county residential development from I-80.

Long-term road improvements include:

- Road 120 from the Highway 61 curve to Keystone-Roscoe Road.
- Road 130 from the Mako Chi Mni access to Keystone-Roscoe Road.
- The farm-to-market road system south of Interstate 80, generally composed of Roads West 40, West 60, West 70 and West 80 from the Deuel County line to Highway 61. Sections of this road are paved. Rehabilitation of deteriorating sections and hard-surfacing of unpaved sections should be in the county's long-term plans.
- Connections to Highway 30 at Interstate 80 crossings including Road West H (Brule exit), Road East H (Roscoe exit), and Road East T (Paxton exit).
- Extension of Road West 70 from Road A to Highway 61. This would be dependent on the amount of development in Ogallala's southern jurisdiction.
- Upgrade of Road 30, Road K and Road 40 in southern Ogallala as an improved collector within the county's southern tier.

Interchange Development

During the late 1990's, Highway 26, once routed along Spruce Street and the Spruce/A Street one-way pair in Ogallala was realigned on a new by-pass route 1.5 miles west of the old alignment.



This new route skirts the western edge of Ogallala and provides a direct route to the Ogallala airport and older industrial parks. The current Highway 26 alignment routes traffic back through the city on Highway 30, and south over the Union Pacific viaduct to Interchange 126. Highway 26 terminates at this interchange.

The plan recommends a new interchange for the Highway 26 bypass with Interstate 80. This project will require an overpass over Highway 30, the parallel Union Pacific mainline, and the South Platte River, with an interchange to Highway 30. South of the interchange, Highway 26 should be tied to an improved Road 80, providing direct access from the interstate to industrial and commercial development occurring or planned south of I-80. This relieves truck traffic through the center of Ogallala, increases the marketability of southern industrial areas, and provides a better separation between industrial and resident/visitor traffic in the center of the city.

Trail Development

Keith County is historically a crossroads for the western emigrant trails, and trail development should play a substantial role in the county's transportation and recreation future. Trail access, encouraging bicycle and pedestrian movement, can complement auto travel on the north shore of the lake, reducing environmental impact and traffic congestion. The Nebraska State Trails Plan

(1994) included a detailed analysis of trail development in the Lake McConaughy area. Kirkham Michael and Associates completed a subsequent trail concept for Keith County in 1999.

While Keith County does not currently have a trail system, the relatively recent upgrading of Highway 61 with paved shoulders provides an important bicycle link between Ogallala and Martin Bay.

In addition, the designated Nebraska route of the American Discovery Trail (ADT) crosses through Keith County. Entering the state from the west via Julesberg, Colorado, the ADT in the overall area:

- Extends north from Highway 138 and 30 through Big Springs and follows Big Springs Road to Highway 26.
- Continues along Highway 26 through Ash Hollow State Historical Park to the junction with Highway 92 near Lewellan.
- Continues east along Highway 92 and through state recreation areas on the north shore of Lake McConaughy to Martin Bay.
- Follows Highway 61 to the Keystone Lake Road intersection.
- Follows Keystone Lake Road to Keystone-Roscoe Road, then to the Sutherland Canal maintenance road east to the county line.

The City of Ogallala has also become involved in trail development. It completed an excellent short trail, linking the center of town with Williams Park through the Western Diamonds sports complex. In addition, the city developed a roadside trail, incorporating bicycle and pedestrian access along Highway 26/61 south of 1st Street (Highway 30) to commercial development on the south side of the I-80 interchange. The city's comprehensive plan proposes building on this foundation by providing a comprehensive looped

transportation and recreational trail system that extends as far west as the Highway 26 bypass.

This plan proposes a trail development program composed of the following segments:

- A linked trail network through the Lake McConaughy recreation areas between Martin Bay and Omaha Beach. This trail can connect the lake's beaches and variously passes between wooded and open areas. In addition to providing an excellent recreational enhancement for users of these facilities, it can help to relieve peak-season traffic congestion on Highway 92. In some areas, the trail route may parallel or utilize Highway 92; however, most access is available through recreation areas, and can parallel existing roads. This trail proposal, incorporated into the ADT route, will require participation by the Nebraska Game and Parks Commission (NGPC) and the Central Irrigation District.
- West of Omaha Beach, development of shoulders or a roadside trail along Highway 92 west to the county line. This is also a portion of the American Discovery Trail (ADT) route, linking the Lake McConaughy segment to Highway 26 near Lewellan.
- Continuation of trail development from Martin Bay below Kingsley Dam through Lake Ogallala State Recreation Area. Although road bicyclists can utilize Highway 61 at the top of Kingsley Dam, the Lake Ogallala route furnishes a somewhat safer and less stressful alternative.
- Utilization of paved shoulders and share-the-road signage along Highway 26 from the county line past the "Y" and along Highway 61 from the "Y" to Martin Bay. An ideal trail would provide separated access from the "Y" to the dam and Lake Ogallala along Highway 61.



- Share-the-road signage of Keystone Lake Road and Keystone-Roscoe Road to Sutherland Canal and south to Roscoe.
- Directional signage and trail accommodations along the Sutherland Canal maintenance road
- Directional signage along Road West L, Road West 90, Road West P, and other appropriate roads in the California Hill historical area.
- Consideration for an interconnected wilderness hiking trail on the south shore of the lake, incorporating such a greenway into development plans.
- Share-the-road signage along major highway corridors that experience bicycle travel, including Highway 92, Highway 61 from Martin Bay to Ogallala, Highway 26, Highway 30, Keystone Lake Road, and Keystone-Roscoe Road.
- Appropriate signage and trailblazers for the American Discovery Trail route through Keith County.

INFRASTRUCTURE

Maintaining the existing infrastructure and providing opportunities for growth, where appropriate, is an important concern for Keith County. By efficiently planning for maintenance and strategically locating maintenance equipment and personnel, the county can ensure that maintenance and construction occur in a timely and cost effective way. Infrastructure directions have been discussed in the context of the land use plan.

Storm drainage is handled by surface drainage throughout the county's jurisdiction. Storm drainage flows into the county's network of streams and gulches during heavier rains and eventually into the North and South Platte Rivers.

Most of the county's subdivisions currently utilize individual wells and septic systems.

The specific infrastructure recommendations follow:

Wastewater

The county should continue to monitor the operation of septic systems in rural subdivisions. Within substantial new subdivisions in the Tier 2 development areas, or in subdivisions with a gross density of more than one unit per two acres, community wastewater systems meeting wastewater treatment standards established by DEQ and other regulatory agencies should generally be installed. In addition, the county should encourage replacement of septic systems in subdivisions with community systems when feasible. This is particularly important where residential densities are too high to accommodate replacement septic systems. Candidates for replacement include those areas with higher densities around the Lake, particularly on its north side. Some characteristics of lake developments make wastewater policy relatively complex. While densities on the north side of the lake are higher than on the south shore, many housing units are occu-

pled only on a seasonal basis; as a result, wastewater systems receive minimal use during parts of the year. However, a decline in the number of seasonally occupied units during the 1990's could indicate a change in this pattern.

In new developments the county should encourage the use of environmentally sensitive methods of wastewater treatment and disposal. The conservation concept, maintaining common open space, provides greater opportunities for development of these systems. Techniques such as spray irrigation or land treatment should be incorporated into new projects, and may represent cooperative efforts among several developments. With these methods, wastewater is aerated in deep lagoons and applied to the land surface at rates consistent with the absorption capacity of the soil. This process will require a close working relationship with the Nebraska Department of Environmental Quality to ensure that all state and federal regulations are being met. The county will also encourage and facilitate grants for community wastewater systems.

Other techniques that should be incorporated into new development include:

- *Wastewater Reclamation and Reuse.* This represents a refinement of the land treatment option. Treatment is achieved in deep aerated cells with a residence time of 14 to 40 days. Wastes are macerated or pulped before introduction to the lowest level of the first cell. After further settlement and treatment, the water can then be applied to cropland and open space.
- *Constructed Wetlands.* Artificial wetlands are gaining growing acceptance for treatment of wastewater. Generally, this technique supplements rather than replaces septic treatment. The wetlands provide further treatment for septic effluent before that effluent is conducted to drainage fields.
- *Alternative Sewer Systems.* These systems include septic tank effluent drains, which are

small diameter lines that conduct liquid effluent from septic tanks, which settle out solids. This tandem system reduces the cost of sewer lines and, by reducing solids from the liquid effluent, permits smaller, less expensive treatment plants.

Developments using septic systems should design lots to provide efficient septic fields. Thus, lots that are more nearly square or have a smaller ratio of depth to width are more effective than deep, narrow lots that have a high ratio of width to depth.

Water Systems

New subdivisions developed at higher residential densities should utilize community water systems. The design of these systems should complement the conservation subdivision concept proposed in the Development Concept. They should also provide access for the local fire department to support fire suppression.

The County should also consider the potential development of a rural water system, primarily to serve lakeside residential development. This effort would need to be coordinated with the Twin Platte Natural Resource District which under State Statute is eligible to be the controlling entity for a rural water district. Community system development is most appropriate along the high-density north shore of the lake, including relatively densely settled areas such as Lemoyne. Should the county proceed with this concept, it should begin working with the NRD to form a detailed feasibility study identifying the overall costs and benefits of such a system and a system of assessing costs to beneficiaries.



PUBLIC FACILITIES

Public facilities include public buildings and community services that are necessary to support development in the jurisdiction. Table 6.1: Public Facilities Inventory provides a description, evaluation, and recommended modification for each county facility.

Parks and Recreation

Parks and recreation concepts have been discussed within the land use plan. In addition to municipal parks within constituent towns, the jurisdiction's main regional recreational facilities are Lake McConaughy and Lake Ogallala Recreation areas.

Major park, open space, and recreation recommendations include:

- *Incorporating parkland and open spaces by using the conservation subdivision concepts.* The preservation of a substantial part of a subdivided parcel in common or open space will provide adequate open space for recreational purposes. Central Public Power and Irrigation owns the lakeshore, but the county should still work to safe guard scenic corridors around the lake as development continues to occur. It will be important to preserve the wide-open feel of the natural landscape.



- *Developing a detailed implementation plan for the North and South Platte River corridors.* This concept envisions a system of public lands, held by nonprofit organizations and land trusts, and private lands, united in maintaining the integrity of this unusual environment. The implementation plan and its execution should be developed in cooperation with Ogallala, Paxton and Brule, whose jurisdictions incorporate parts of these corridors. It must also include adjacent property owners and the Department of Natural Resources to develop a cooperative concept for management and to define appropriate levels and locations for public use and access.
- *The completion of regional parks, trail linkages, and river and trail access sites, identified earlier in this plan.*

School Districts

The Keystone school district is located within the village of Keystone and consists of two buildings. The buildings are in good condition and meeting the area's needs. Since the 1997-98 school year the enrollment has dropped from 30 to 25 and is only projected to be at 23 during the 2002-03 and 2003-04 school years. The district will need to continue to closely monitor funding and funding sources. State aid cuts and increasing pressure from the Unicameral to close K-8 grade districts may make survival difficult.



The Lemoyne School District is located north of Highway 92. The building is in good condition and meets the area's needs. Lemoyne also faces decreasing enrollment, and is likely to have fewer than ten students during the 2002-2003 school year. The district's decreasing enrollment will make its continued existence difficult. The district should plan for decreases in state aid and pressure to consolidate.

Table 6.1: Public Facilities Inventory

<p>Courthouse 511 N. Spruce St. Ogallala, NE</p> <p>Description</p>	<p>The Keith County Courthouse is a brick structure that was constructed in 1962. The upper floor of the split level structure contains the judges offices, county clerk, treasurer, assessor, commissioners room, and county court room. The lower level contains planning and zoning, highway department, veterans affairs, surveyors, probation, extension office and district court.</p> <p>The building is handicap accessible from the east side with handicap parking on both the east and west sides of the building. The bathrooms on the upper level are also accessible. The building and elevator were all designed for the addition of a third floor if necessary.</p> <p>The social services building is located cross West A Street from the courthouse. The wood frame building was originally a residence that has been converted into offices and storages.</p>
<p>Evaluation</p>	<p>Overall the building is in good condition. During the mid 1990's the exterior of the building was refurbished and the HV/AC system was updated. However, the boiler was not updated. Windows in the building are also single-pane and leak a lot of air.</p> <p>The most significant issue facing the courthouse is the need for additional space. Specifically additional storage space. A technology committee has been formed to work on microfilming and archiving documents on to CD's.</p>
<p>Recommendations</p>	<p>Replace single pane windows with more energy efficient windows.</p> <p>Budget for replacement of the boiler system within the next 5 to 10 years.</p> <p>Complete space needs assessment to determine best use of the facility along with a document archiving program to provide additional space.</p>

Table 6.1: Public Facilities Inventory

<p>Sheriff Department Description</p> <p>West A Street south of the Keith County Courthouse</p>	<p>The Keith County Sheriff’s department is made up of two structures. The original building is a brick structure that originally housed the jail and a residence for the sheriff. The upper level of the building was the residence while the lower level had 4 jails cells. Today the building houses the department secretary, sheriff’s office, chief deputy, sergeant and 4 deputies. The lower level is used for the 911 communications center, a meeting room and the cells are used for storage. The building is not handicap accessible.</p> <p>The new building was completed in 1967 as the new jail. The brick building also provides offices for 6 correctional officers and 1 investigator. The county is currently down to only 4 correctional officers. The building is handicap accessible. An awning is also attached to the south side of the building for department parking and intake.</p> <p>The department has 1 marked van, 7 marked units, and 3 unmarked vehicles. Besides full-time deputies the department also has a reserve force of 5.</p>
<p>Evaluation</p>	<p>Overall the buildings are in good condition. Some remodeling was completed on the older section of the department but additional work is still needed on the exterior of the building. A ramp should also be installed at the front of the building.</p> <p>The newer building also needs some roof work due to periodic leaks. The jail has received outstanding ratings during periodic inspections. The most pressing need within the next 5 to 6 years will be replacement of the motors on the doors within the jail.</p>
<p>Recommendations</p>	<p>Install a ramp at the front door of the sheriff’s office to make the building handicap accessible. Additional internal accessibility issues could still exist even with the ramp, such as access to offices and restrooms. A facility analysis should be completed to determine the feasibility of retrofitting the older building and providing additional office and meeting space.</p> <p>The county should budget for replacement of the motors on the jail doors within the next five to six years. The county should also consider updating the intercom system within the jail.</p> <p>Establish a routine replacement program for department vehicles and equipment.</p> <p>Continue routine maintenance and as the buildings age prepare for larger projects.</p>

Table 6.1: Public Facilities Inventory

County Shops	
<p>Brule Shop District 3 Brule, NE</p> <p>Description</p>	<p>The Brule shop consists of two buildings. An older metal building has one bay and a lean-to with parking bays. The building is heated and contains the district's main maintenance shop and a restroom.</p> <p>A newer three bay metal building is located across the street and has an office and break room. The main use of the building is for storage of the road department's equipment. The restrooms is partially handicap accessible (its grab bars) and is heated.</p>
Evaluation	The shops are in good condition and seem to be meeting the County's needs.
Recommendations	Re-establish routine replacement program for all road equipment.
<p>Ogallala Shop District 2 Ogallala, NE</p> <p>Description</p>	<p>There are three buildings that are utilized by District 2 in Ogallala. The main metal building has 2 bays and the 2nd building has only one door but is large enough to store equipment. The third building is used for car impoundments.</p>
Evaluation	The buildings are in good condition and provide adequate space.
Recommendations	<p>Re-establish routine replacement program for all road equipment.</p> <p>Continue routine maintenance.</p>
<p>Paxton Shop 40693 Jamison Road</p> <p>Description</p>	<p>The Paxton Shop is the oldest of the three. The block building has 2 bay doors and a lean-to for storage.</p>
Evaluation	The Paxton facility is in need of addition space. Expansion at the current site is not possible and any additional buildings would need to be at a different location.
Recommendations	<p>Identify location for future expansion.</p> <p>Re-establish routine replacement program for all road equipment.</p> <p>Continue routine maintenance.</p>

Table 6.1: Public Facilities Inventory

School Districts	
<p>Keystone School District No. 12 Keystone, NE</p>	<p>The Keystone school district, a Class One district, includes two buildings both located within the Village of Keystone. The first building is the original brick, 1949 school. The building includes one room for K-2nd grade, one for 3rd-5th grade, a multipurpose room, furnace room and utility room. The library is located along the main hallway of the building.</p>
<p>Description</p>	<p>The second building is a wood framed building that was moved to Keystone in 1973. The building consists of one large room for 6-8th grades, a furnace room and restrooms. The buildings are served by septic and well systems.</p> <p>The district has three teachers and one aid.</p>
<p>Evaluation</p>	<p>Overall the building are in good condition with routine maintenance. Within the older brick building, the district has been updating the lighting systems in each room with only one room remaining to be updated. The roof is getting older and could need work during the planning period.</p> <p>The woodframe building was recently painted and is in good condition. The furnace duct work has recently been fixed and the septic system has been serviced.</p> <p>In approximately 1998 new playground equipment was purchased to add to the older equipment.</p>
<p>Recommendations</p>	<p>Continue routine maintenance.</p> <p>Continued state pressure for removal of Class One school districts will make the future of the district unpredictable. During the 1990's the county lost its superintendent and will likely continue to see decreases in enrollment. This will create funding issues that the district will need to closely monitor. For these reasons the district may need to consider consolidation.</p>

Table 6.1: Public Facilities Inventory

<p>Keith County School District #51 Lemoyne, NE</p> <p>Description</p>	<p>The Lemoyne school district is located along Highway 92 almost 6 miles from the Highways 92 and 61 intersection. The cinder block building was moved to its present location when the village of Lemoyne was moved in the late 1930's/early 1940's. During the 1980's one room was added to the building.</p> <p>The school is a Class One school with one room for grades k-3rd and a second room for grades 4-8. The building also includes a library, restrooms and coatroom. At the end of the 2001-2002 school year the district had two teachers and one aid.</p>
<p>Evaluation</p>	<p>Overall the building is in good condition. Only one of the bathrooms is handicap accessible. The classrooms have recently been carpeted.</p> <p>The district is facing severe budget cuts and will likely have to eliminate the teachers aid position. In addition the district has faced drastically fluctuating enrollments and is expected to drop from 12 students in 2001-2002 school year to 8 in 2002-2003.</p>
<p>Recommendations</p>	<p>Continue routine maintenance.</p> <p>Continued state pressure for removal of Class One school districts will make the future of the district unpredictable. During the 1990's the county lost its superintendent and will likely continue to see decreases in enrollment. Growth among school age children within the lake area will likely occur on the south side of the lake. These children would more likely be attracted to the Ogallala district. The school should prepare for the likely consolidation with the Ogallala school district.</p>

Table 6.1: Public Facilities Inventory

<p>Keith County School District #007 Road East 50</p> <p>Description</p>	<p>School District 007 is the only school located south of Interstate 80 and the South Platte River in Keith County. The one story framed building was opened in the mid 1960's. The building includes one class room, two restrooms, a stage that is also used for a computer room, an enclosed balcony area and a small basement for the furnace room. During the 2002-2003 school year the district had an enrollment of nine students all of which optioned into the district. The district employs one teacher.</p>
<p>Evaluation</p>	<p>Overall the building is in good to excellent condition. Routine maintenance is all this originally temporary building should need.</p>
<p>Recommendations</p>	<p>Continue routine maintenance.</p> <p>Continued state pressure for removal of Class One school districts will make the future of the district unpredictable. The District is currently working with District 1 on consolidation. Because of low attendance it would be more cost effective for District 1 to provide services to the students. The school is meeting state educational requirements, however, because of continued pressure from the state the school should prepare for the likely consolidation with the Ogallala school district.</p>

CHAPTER SEVEN



PLAN IMPLEMENTATION

IMPLEMENTATION SCHEDULE

A Timetable for Implementation of the Keith County Plan

The previous chapters, with their narratives and maps, are the core of the Keith County Plan. This section addresses the scheduling of plan implementation by both public agencies and private decision-makers. These key areas include:

Plan Maintenance. This section outlines a process for maintaining and evaluating Keith County's progress in meeting the goals set in this plan.

Development Policies and Actions. This section summarizes the policies and actions proposed in the Keith County Plan, and presents projected time frames for the implementation of these recommendations.

Plan Maintenance

The scope of the Keith County Plan is both ambitious and long-term. Each of the many actions and policies described in the plan can contribute to the betterment of the county. Yet, presenting a twenty-year development program at one time can appear daunting. Therefore, the county should implement an ongoing planning process that uses the plan to develop year-to-year improvement programs. In addition, this process should evaluate the plan on an annual basis in relation to the development events of the past year.

Such a process may include the following features:

- *Annual Action and Capital Improvement Program.* The Planning Commission and County Commissioners should use the plan to define annual strategic work programs of policies, actions, and capital investments. This program should be coordinated with Keith County's existing capital improvement planning and budgeting process, although most of the plan's recommendations are not capital items. This annual process should be



completed before the beginning of each budget year and should include:

- *A specific work program for the upcoming year.* This program should be specific and related to the county's projected financial resources. The work program will establish the specific plan recommendations that the county will accomplish during the coming year.
- *A three-year strategic program.* This component provides for a multi-year perspective, in forming the preparation of the annual work program. It provides a middle-term implementation plan for the county.
- *A six-year capital improvement program.* This is combined with Keith County's current capital improvement program.
- *Annual Plan Evaluation.* In addition, this process should include an annual evaluation of the comprehensive plan. This evaluation should occur at the end of each calendar year. Desirably, this evaluation should include a written report that:
 - Summarizes key land use developments and decisions during the past year and relates them to the comprehensive plan.
 - Reviews actions taken by the county to implement plan recommendations during the past year.
 - Defines any changes that should be made in the comprehensive plan.



The plan should be viewed as a dynamic changing document that is used actively by the county.

Development Policies and Actions

The following tables in this chapter present a concise summary of the recommendations of the Keith County Plan. These recommendations include various types of efforts:

- *Policies*, indicating continuing efforts over a long period to implement the plan. In some cases, policies include specific regulatory or administrative actions.

- *Action Items*, including specific efforts or accomplishments by the county.

- *Capital Investments*, including public capital projects that will implement features of the Keith County Plan.

Each recommendation is listed according to its section in the Keith County Plan. In addition, a time frame for implementing each recommendation is indicated. Some recommendations require ongoing implementation. Short-term indicates implementation within five years, medium-term within five to ten years, and long-term within ten to twenty years.

Development Trends

	Type	On-going	Short	Medium	Long
<p>MAINTENANCE OF RURAL CHARACTER <i>The area of the County outside of community jurisdictions should maintain the rural character that is so much a part of life in the area.</i></p>	Policy	●			
<p>VALUE OF RESOURCE CONSERVATION <i>Development policies and review in Keith County's jurisdiction should be defined on the basis of their suitability for development and the presence or absence of major natural resources and features.</i></p>	Policy	●			
<p>GRADIENT OF DEVELOPMENT <i>Development categories should include a spectrum of development, generally avoiding placing uses with conflicting characteristics adjacent to one another.</i></p>	Policy Action	●			
<p>CONSERVATION DEVELOPMENT <i>In environmentally sensitive areas, land use policy should require the development of conservation subdivisions, preserving major open space assets as common or open area while providing developers with the same density permitted under conventional development.</i></p>	Policy Action	●	●		
<p>MIXED USE NODES <i>Commercial services in the county should occur within well-defined mixed use nodes, rather than decentralized along linear highway strips.</i></p>	Policy	●			
<p>REGIONAL RECREATION AND NATIONAL HISTORY <i>County planning policy should continue to enhance recreational and historic resources, protect the integrity of these features, and capitalize on the economic opportunities that they create.</i></p>	Policy	●			

Lake McConaughy Specific Corridor Plan

	Type	On-going	Short	Medium	Long
<p>COMMUNITY CLUSTERS <i>Development along the corridor should avoid a continuous strip character.</i></p>	Policy	●			
<p>IDENTIFIABLE COMMUNITIES <i>Define specific communities along the corridor by using graphics, signs, gateways, and landscaping.</i></p>	Action Capital		●	●	
<p>COMMERCIAL FOCUSES <i>Commercial development should be focused at specific locations.</i></p>	Policy	●			
<p>MAJOR CENTERS <i>Major mixed use centers should develop at two strategic locations: the Kingsley Lodge area and the Martin Bay area.</i></p>	Policy	●			
<p>PLANNED DEVELOPMENT DISTRICTS <i>More linear commercial development along segments of the Lake Corridor should occur within planned development districts.</i></p>	Policy	●			
<p>COMMERCIAL TYPES <i>Specific types of corridor commercial development should be defined and directed toward the most appropriate settings.</i></p>	Policy	●			
<p>GENERAL COMMERCIAL STANDARDS <i>Good design standards should be applied to commercial development outside of special overlay district.</i></p>	Policy	●			
<p>NO INDUSTRIAL DEVELOPMENT IN THE LAKE CORRIDOR <i>Industrial development should be directed to other opportunity areas in Ogallala and Keith County, and away from the Lake Corridor.</i></p>	Policy	●			
<p>CORRIDOR RESIDENTIAL DEVELOPMENT <i>Residential development in the Lake Corridor should follow specific standards and practices to upgrade subdivision quality.</i></p>	Policy	●			

Lake McConaughy Specific Corridor Plan

TRANSPORTATION ALTERNATIVES
In order to avoid overloading the highway corridor, the lake transportation and circulation system should provide alternative routes to users.

Type	On-going	Short	Medium	Long
Policy Capital			●	●



Transportation, Infrastructure, and Public Facilities

	Type	On-going	Short	Medium	Long
TRANSPORTATION PLAN					
<i>The Transportation Plan identifies the following major changes in road classification:</i>					
- Upgrade of the Keystone Lake Road and the Keystone-Roscoe Road to "other arterial" status.	Capital			●	
- Upgrade of Road 120 to "other arterial" status between the Keystone- Roscoe Road and Highway 61.	Capital				●
- Designation of the Mako Chi Mni (Road West B North) access to collector status.	Action			●	
- Designation of Road 130 as a collector between the Keystone-Roscoe Road and the Mako Chi Mni Road.	Action				●
- Designation of Lakeview West Road, extending from Lakeview to Eagle Canyon, as a collector.	Action				●
<i>Transportation System Development</i>					
- Enhance warning signage and railroad crossing warning equipment at designated crossing points.	Capital			●	
- Create of greater street interconnectedness among subdivisions north of Highway 92.	Policy Capital	●			
<i>Short-term road improvements include paving or upgrading of :</i>					
- K1 Cabin Road, connecting to Highway 61 on Road 130.	Capital			●	
- Ogallala Beach Road from the "Y" to the lakefront.	Capital			●	
- Mako Chi Mni access from Highway 26 to the lakefront.	Capital			●	
- Lakeview West Road, west from Lakeview access.	Capital			●	

Transportation, Infrastructure, and Public Facilities

	Type	On-going	Short	Medium	Long
TRANSPORTATION PLAN					
<i>Short-term road improvements include paving or upgrading of:</i>					
- Road 80 from Road West B to Road East H.	Capital			●	
<i>Long-term road improvements include:</i>					
- Road 120 from the Highway 61 curve to Keystone-Roscoe Road.	Capital				●
- Road 130 from the Mako Chi Mni access to Keystone-Roscoe Road.	Capital				●
- The farm-to-market road system south of Interstate 80, generally composed of Roads West 40, West 60, West 70 and West 80 from the Deuel County line to Highway 61.	Capital				●
- Connections to Highway 30 at Interstate 80 crossings including Road West H (Brule exit), Road East H (Roscoe exit), and Road East T (Paxton exit).	Capital				●
- Additional interchange at the Highway 26 bypass and Interstate 80.	Capital				●
- Extension of Road West 70 from Road A to Highway 61.	Capital				●
- Upgrade of Road 30, Road K and Road 40 in southern Ogallala as an improved collector within the county's southern tier.	Capital				●
<i>Trail Development</i>					
- Development of an extensive trail system through a cooperative effort between the County, NGPC, and Central.	Capital	●			

Transportation, Infrastructure, and Public Facilities

	Type	On-going	Short	Medium	Long
INFRASTRUCTURE PLAN					
<i>Wastewater</i>					
- The county should monitor the operation of septic systems in rural subdivisions.	Policy	●			
<i>Water Systems</i>					
- Utilize community water systems in new subdivisions developed at higher densities.	Policy	●			
PUBLIC FACILITIES PLAN					
<i>Parks and Recreation</i>					
- Incorporating parkland and open spaces into new developments by using the conservation subdivision concepts.	Policy	●			
- Develop a detailed implementation plan for the North and South Platte River corridors.	Action			●	
- Complete of regional parks, trail linkages, and river and trail access sites as laid out in previous plan.	Capital	●			
<i>Keith County Courthouse</i>					
- Replace single pane windows with more energy efficient windows.	Capital		●		
- Budget for replacement of the boiler system within the next 5 to 10 years.	Capital			●	
- Complete space needs assessment to determine best use of the facility.	Action Capital		●		

Transportation, Infrastructure, and Public Facilities

	Type	On-going	Short	Medium	Long
PUBLIC FACILITIES PLAN					
<i>Keith County Sheriffs Department</i>					
- Install a ramp at the front door of the sheriff's office to make the building handicap accessible.	Capital		●		
- Updates to jail including motorized doors and intercom system.	Capital			●	
- Establish a routine replacement program for department vehicles and equipment.	Policy	●			
<i>Keith County Roads Shops</i>					
- Reestablish routine replacement program for all road equipment.	Policy		●		
- Budget for replacement of the maintainers at each of the Districts.	Capital		●		
- Identify location for future expansion of Paxton Shop.	Action			●	
<i>Keith County School Districts 12 and 51</i>					
- The school should prepare for the likely consolidation	Action			●	

APPENDIX A



THE KEITH COUNTY COMPREHENSIVE PLAN

Prime Farmland Soils

(If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

Bayard very fine sandy loam, 1 to 3 percent slopes
Bridget silt loam, 0 to 1 percent slopes (where irrigated)
Bridget loam, 1 to 3 percent slopes (where irrigated)
Chapell fine sandy loam, 0 to 3 percent slopes (where irrigated)
Duroc loam, terrace, 0 to 1 percent slopes (where irrigated)
Duroc loam, terrace, 1 to 3 percent slopes (where irrigated)
Duroc silt loam, 0 to 3 percent slopes (where irrigated)
Duroc silt loam, 1 to 3 percent slopes (where irrigated)
Keith loam, 1 to 3 percent slopes (where irrigated)
Keith loam, 3 to 6 percent slopes (where irrigated)
Kuma loam, 0 to 1 percent slopes (where irrigated)
Kuma loam, 1 to 3 percent slopes (where irrigated)
Lex loam, 0 to 2 percent slopes (where drained)
Merrick loam, 0 to 2 percent slopes (where irrigated)
Norwest loam, 0 to 2 percent slopes (where drained)
Rosebud loam, 1 to 3 percent slopes (where irrigated)
Satanta loam, 0 to 1 percent slopes (where irrigated)
Satanta loam, 1 to 3 percent slopes (where irrigated)
Satanta loam, 3 to 6 percent slopes (where irrigated)
Wann fine sandy loam, 0 to 2 percent slopes (where irrigated)

Source: Soil Survey of Keith County, Nebraska, Natural Resource Conservation Service, November 1995, Table 5 - Prime Farmland, page 135.

Sanitary Facilities

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfills	Area sanitary landfill	Daily cover for landfill
Ad----- Alda	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy.
AwF*----- Altvan	Severe: poor filter.	Severe: seepage, slope.	Severe: too sandy	Moderate: slope.	Poor: seepage, too sandy.
Dix	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
Bb, Bc----- Bankard	Severe: poor filter	Severe: seepage.	Severe: too sandy.	Moderate: flooding.	Poor: seepage, too sandy.
Bd----- Bankard	Severe: flooding poor filter	Severe: seepage, flooding.	Severe: flooding too sandy.	Severe: flooding.	Poor: seepage, too sandy.
BeB----- Bayard	Slight	Severe: seepage.	Severe: seepage.	Severe: seepage.	Good:
Bo----- Boel	Severe: wetness, poor filter	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Poor: seepage, too sandy
Bs----- Bridget	Moderate: percs slowly.	Moderate: seepage.	Slight	Slight	Good.
BtB----- Bridget	Moderate: percs slowly.	Moderate: seepage slope	Slight	Slight	Good.
ChB----- Chappell	Severe poor filter.	Severe: seepage	Severe: too sandy.	Slight	Poor: Seepage, too sandy small stones
Cu----- Cullison	Severe: wetness	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Cz----- Cullison	Severe: ponding	Severe: seepage, ponding	Severe: seepage, ponding	Severe: seepage, ponding.	Poor: ponding.
DfE----- Dix	Severe: poor filter, slope.	Severe; seepage, slope.	Severe: seepage, slope, too sandy	Severe: seepage, slope.	Poor: seepage, too sandy, small stones

Sanitary Facilities

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfills	Area sanitary landfill	Daily cover for landfill
DsG*: Dix-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
Sully-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Sarben-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: slope.
Dt----- Duroc	Moderate: percs slowly.	Moderate: seepage.	Slight	Slight	Good.
DtB----- Duroc	Moderate: percs slowly.	Moderate: seepage, slope.	Slight	Slight	Good.
Du----- Duroc	Moderate: percs slowly.	Moderate: seepage.	Slight	Slight	Good.
DuB----- Duroc	Moderate: percs slowly.	Moderate: seepage, slope.	Slight	Slight	Good.
Fu*----- Fluvaquents	Severe: flooding, ponding.	Severe: seepage, flooding, ponding.	Severe: flooding, ponding.	Severe: flooding, seepage, ponding.	Poor: ponding.
Go----- Gothenburg	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy, wetness.
IpB----- Ipage	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy.
Ja----- Janise	Severe: flooding wetness.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, wetness.	Poor: excess sodium.
Jd----- Janise	Moderate: flooding, percs slowly.	Moderate: seepage.	Severe: excess sodium, excess salt.	Moderate: flooding.	Poor: excess sodium.
KeB, KeC----- Keith	Moderate: percs slowly.	Moderate: seepage, slope.	Slight	Slight	Good.

Sanitary Facilities

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfills	Area sanitary landfill	Daily cover for landfill
Ku----- Kuma	Moderate: percs slowly.	Moderate: seepage.	Moderate: too clayey	Slight	Fair: too clayey.
KuB----- Kuma	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey	Slight	Fair: too clayey
La----- Lawet	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: wetness.	Poor: wetness.
Le----- Lex	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: seepage, wetness	Severe: seepage, wetness.	Poor; seepage, too sandy.
Lp----- Lodgepole	Severe: ponding, percs slowly.	Severe: seepage, ponding.	Severe: seepage, ponding, too clayey	Severe: ponding.	Poor: too clayey, hard to pack, ponding.
Ma----- Marlake	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
Me----- Merrick	Moderate: flooding, wetness, percs slowly	Moderate: seepage, wetness.	Severe: wetness.	Moderate: flooding, wetness.	Fair: too clayey.
No----- Norwest	Severe: wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Fair: too clayey, too sandy, wetness.
Pp*----- Pits & dumps	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
Pt----- Platte	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy, wetness.
RtB, RtD----- Rosebud	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock	Slight	Poor: depth to rock.
SaB, SaC----- Sarben	Slight	Severe: seepage.	Severe: seepage.	Severe: seepage.	Good.
SaD----- Sarben	Slight	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Good.

Sanitary Facilities

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfills	Area sanitary landfill	Daily cover for landfill
SaE----- Sarben	Moderate: slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Fair: slope.
Sb, SbB, SbC----- Satanta	Moderate: percs slowly.	Severe: seepage	Slight	Slight	Good.
ScD*----- Satanta	Moderate: percs slowly	Severe: seepage.	Slight	Slight	Good.
ScD*----- Dix	Severe: poor filter	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
SfD----- Sully	Moderate: percs slowly.	Severe: slope.	Slight	Slight	Good.
SfG----- Sully	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
SkE*----- Sully	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope.	Moderate: slope.	Fair: slope.
----- Dix	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
SmE2*----- Sully	Moderate: percs slowly, slope.	Severe: slope	Moderate: slope.	Moderate: slope.	Fair: slope.
----- McConaughy	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope.	Moderate: slope.	Fair: slope.
SmF*----- Sully	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
----- McConaughy	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope.	Moderate: slope.	Fair: slope.
TaG*----- Tassel	Severe: depth to rock, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, slope.
----- Otero	Severe: slope.	Severe: seepage, slope.	Severe: slope.	Severe: slope.	Poor: slope.
----- Rock outcrop	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Poor: area reclaim, slope.

Sanitary Facilities

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfills	Area sanitary landfill	Daily cover for landfill
VdB, VdD----- Valent	Severe: poor filter	Severe: seepage.	Severe: too sandy.	Slight	Poor: seepage, too sandy.
VdE----- Valent	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: slope. too sandy.	Severe: slope.	Poor: Seepage, too sandy, slope
VdF*: Valent-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: slope.	Poor: seepage, too sandy, slope.
Valent-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: slope.	Poor: seepage, too sandy, slope.
VgG----- Valent	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: slope.	Poor: seepage, too sandy, slope.
VtG*: Valent-----	Severe: poor filter.	Severe: seepage, slope.	Severe: too sandy.	Moderate: slope.	Poor: seepage, too sandy.
Tassel-----	Severe: depth to rock, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, slope.
Rock outcrop	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Poor: area reclaim, slope.
VwB----- Vital	Slight	Severe: seepage.	Severe: seepage.	Severe: seepage.	Fair: thin layer.
Wa----- Wann	Severe: wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Fair: wetness, thin layer.

Source: Soil Survey of Keith County, Nebraska; Natural Resources Conservation Service; Table 13--Sanitary Facilities pages 166-170.

Some terms that describe restrictive soil features are defined in the "Glossary" of the Soil Survey of Keith County, Nebraska. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation.

* See description of the map unit for composition and behavior characteristics of the map unit in the Soil Survey of Keith County.

Keith County Nebraska

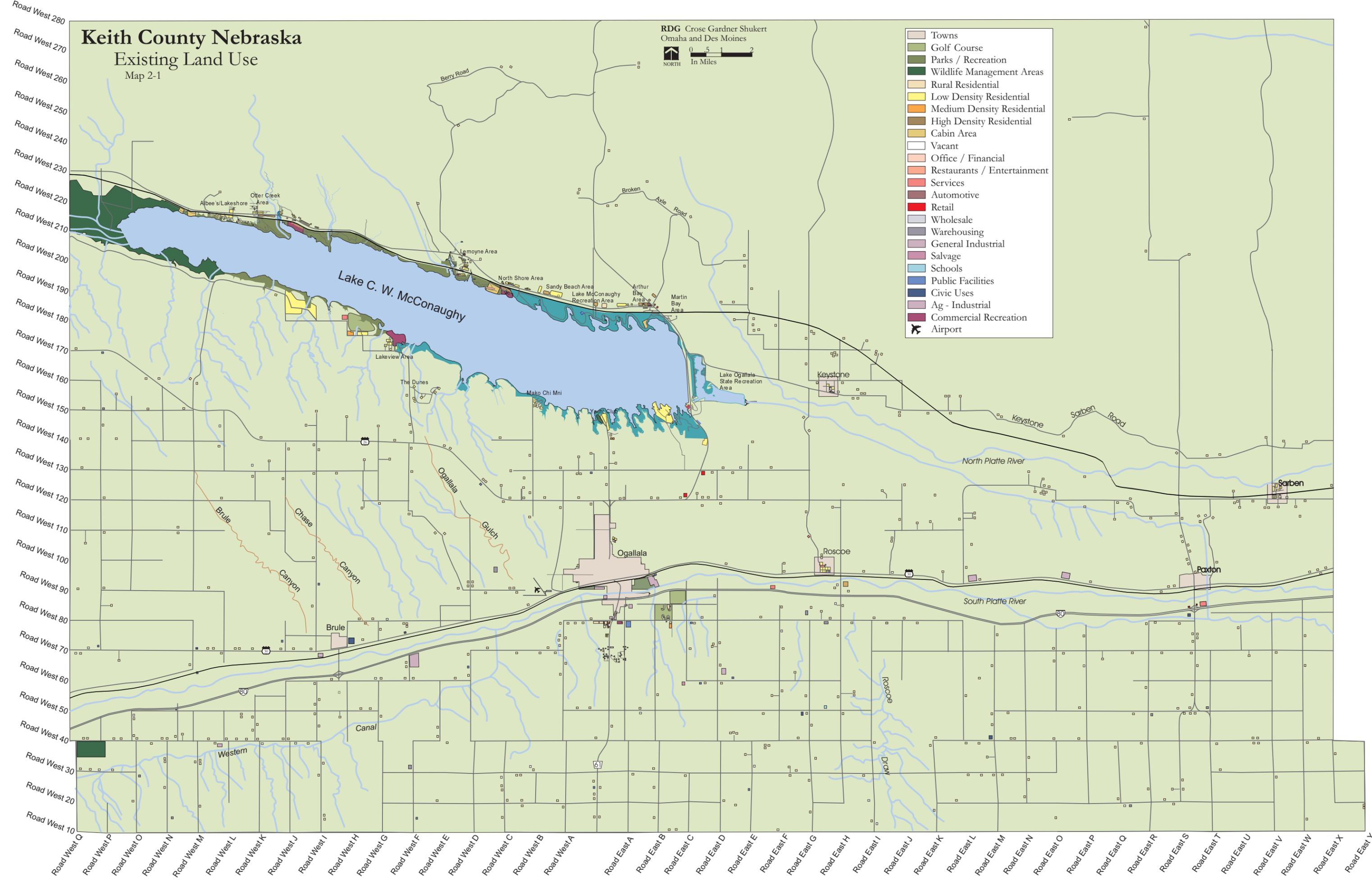
Existing Land Use

Map 2-1

RDG Crose Gardner Shukert
Omaha and Des Moines

0 .5 1 2
In Miles

- Towns
- Golf Course
- Parks / Recreation
- Wildlife Management Areas
- Rural Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Cabin Area
- Vacant
- Office / Financial
- Restaurants / Entertainment
- Services
- Automotive
- Retail
- Wholesale
- Warehousing
- General Industrial
- Salvage
- Schools
- Public Facilities
- Civic Uses
- Ag - Industrial
- Commercial Recreation
- Airport



Keith County Nebraska

RDG Crose Gardner Shukert
Omaha and Des Moines

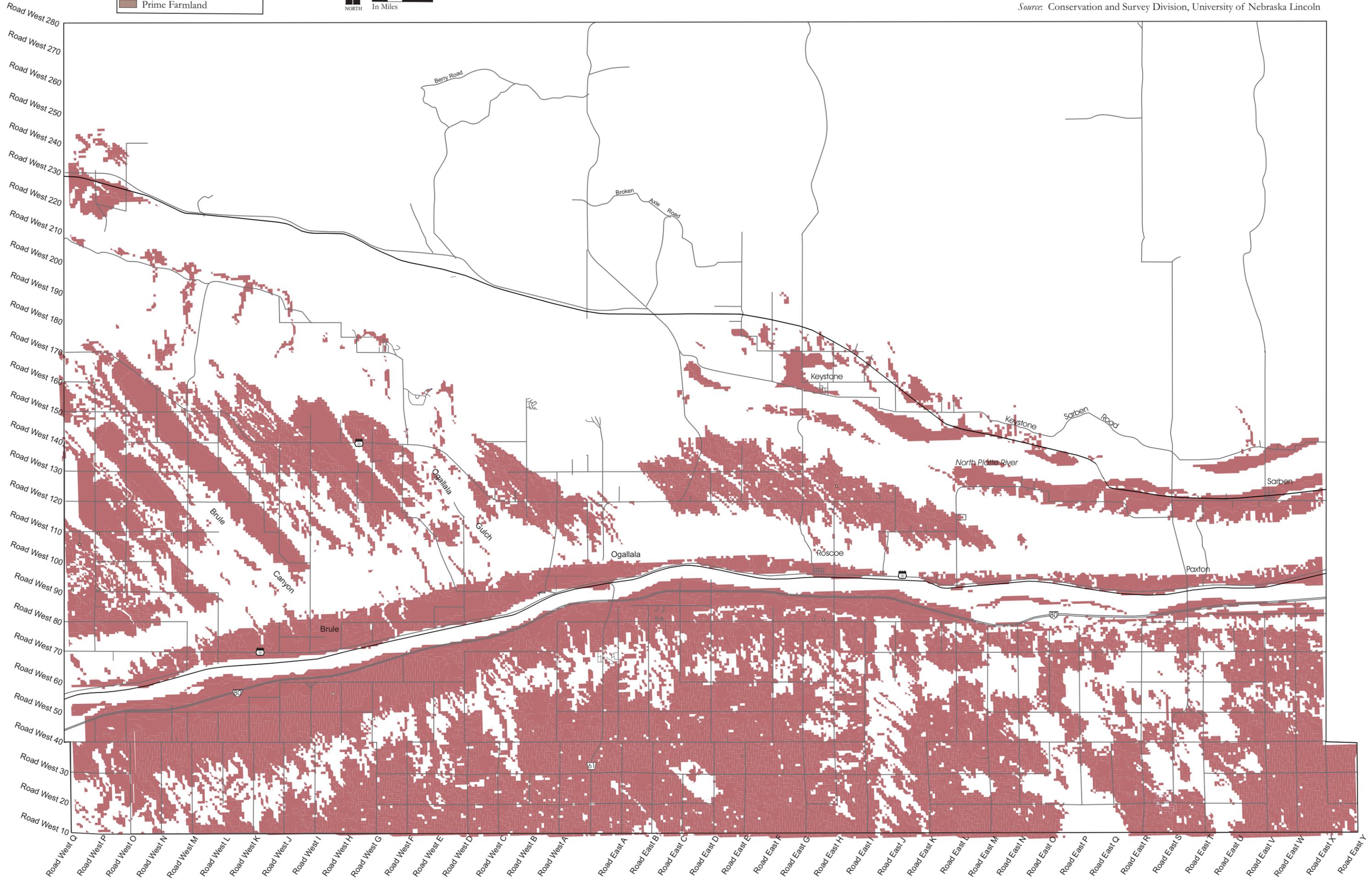
Map 3-1

Prime Farmland



0 5 1 2
In Miles

Source: Conservation and Survey Division, University of Nebraska Lincoln



Keith County Nebraska

RDG Crose Gardner Shukert
Omaha and Des Moines

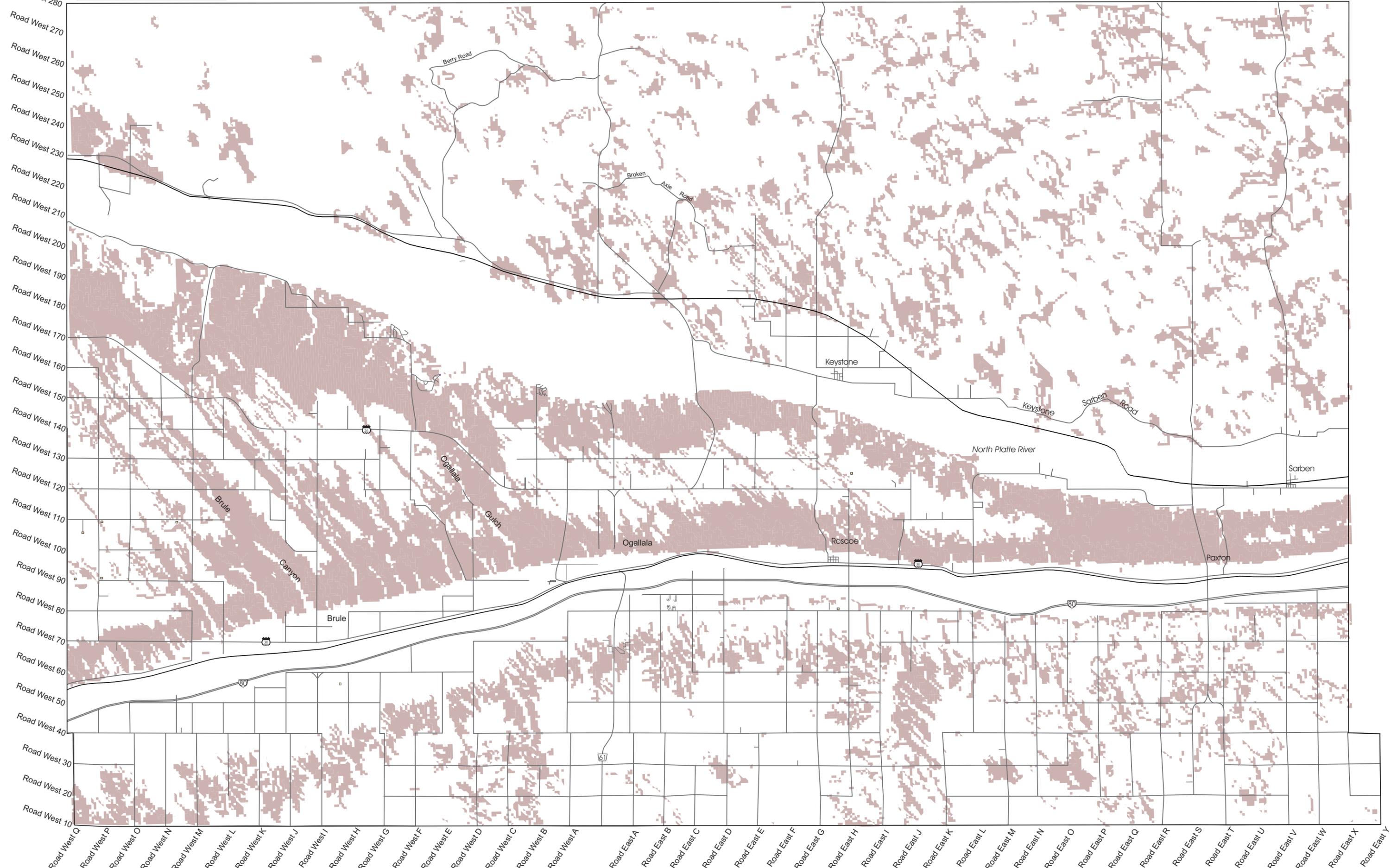
Map 3-2

Slopes > 6%



0 5 1 2
In Miles

Source: Conservation and Survey Division, University of Nebraska Lincoln



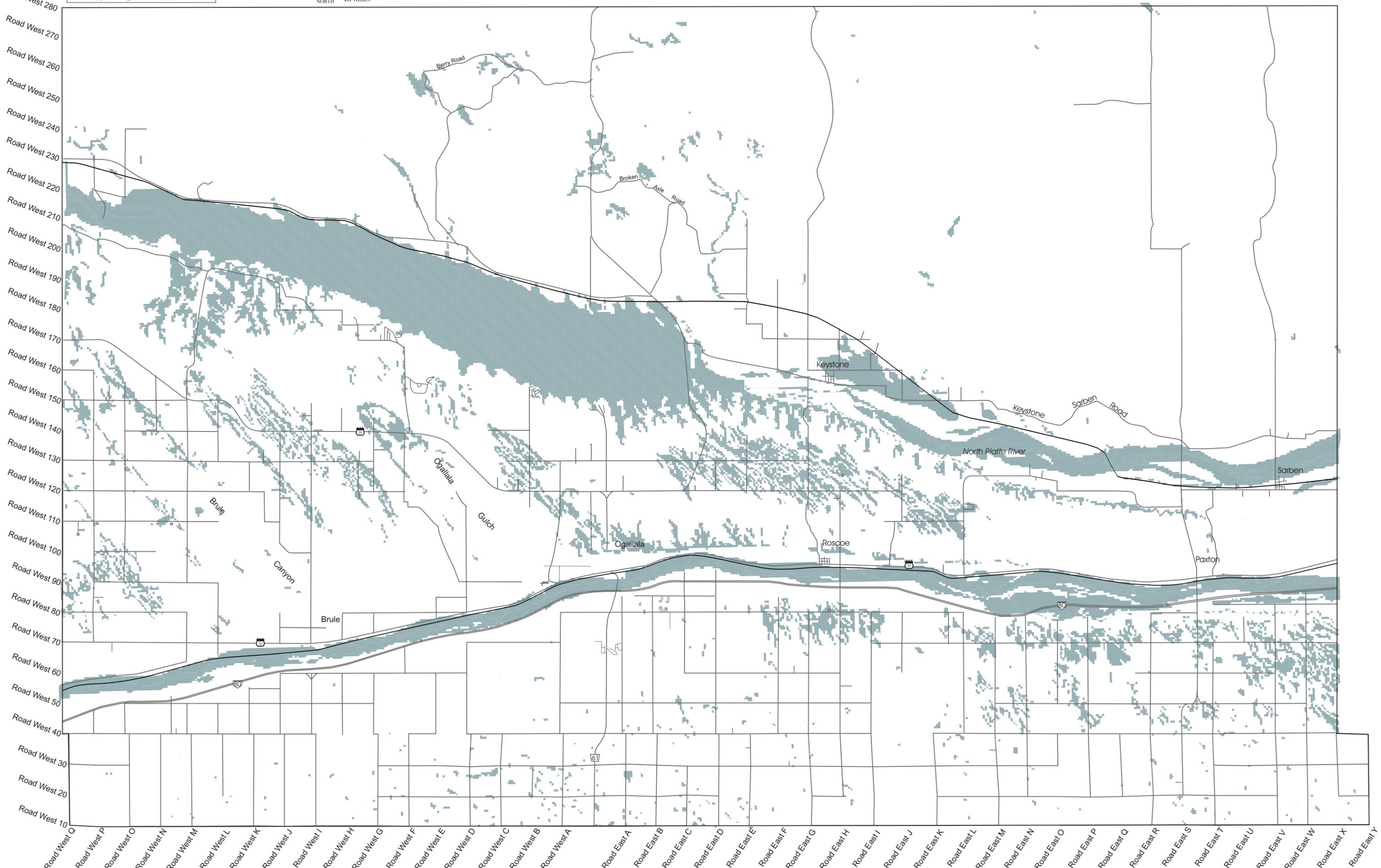
Keith County Nebraska

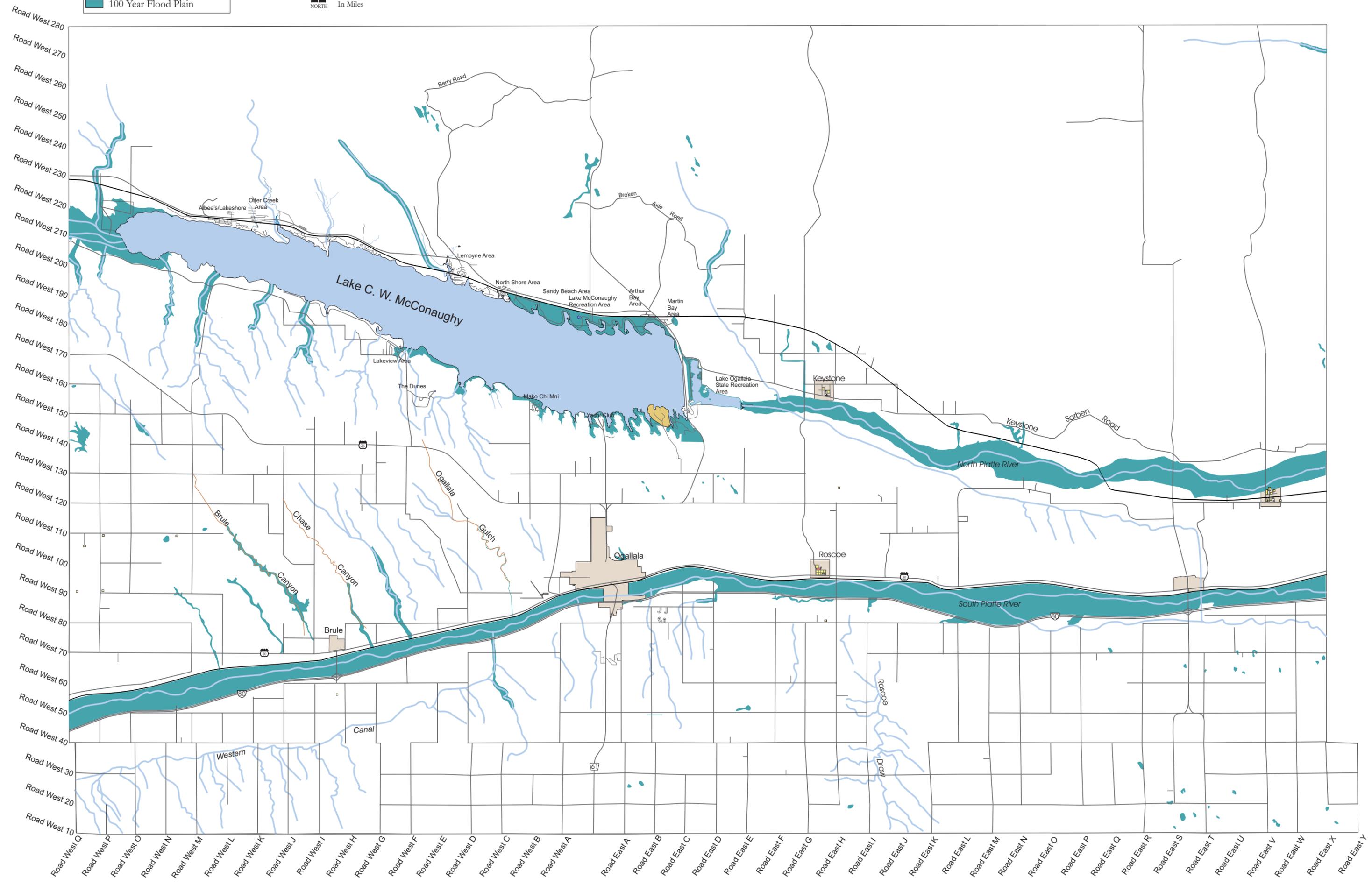
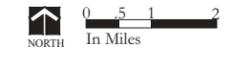
RDG Crose Gardner Shukert
Omaha and Des Moines

Map 3-3



Source: Conservation and Survey Division, University of Nebraska Lincoln





Keith County Nebraska

RDG Crose Gardner Shukert
Omaha and Des Moines

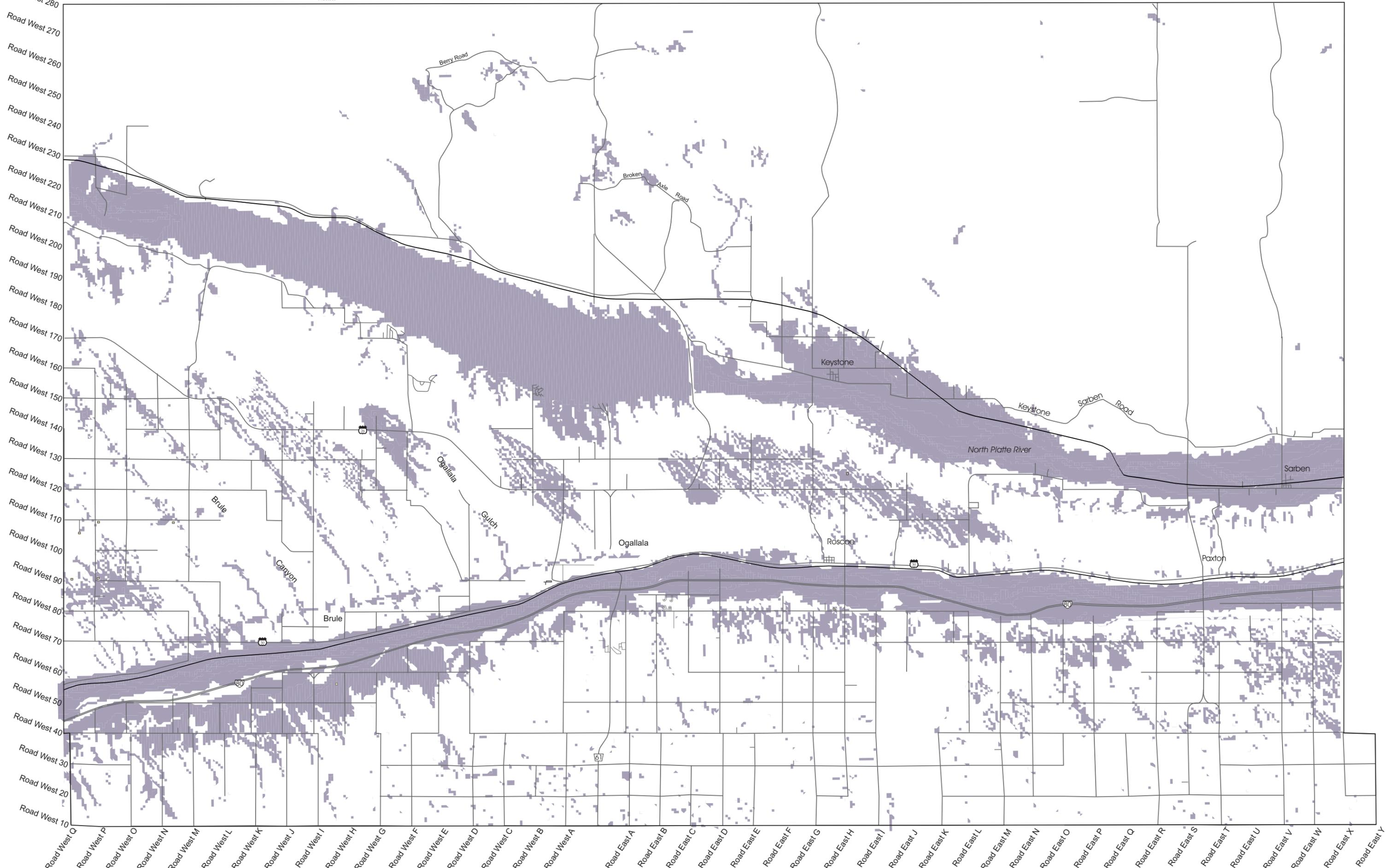
Map 3-5

Unsuitable for Basements



0 5 1 2
In Miles

Source: Conservation and Survey Division, University of Nebraska Lincoln



Keith County Nebraska

RDG Crose Gardner Shukert
Omaha and Des Moines

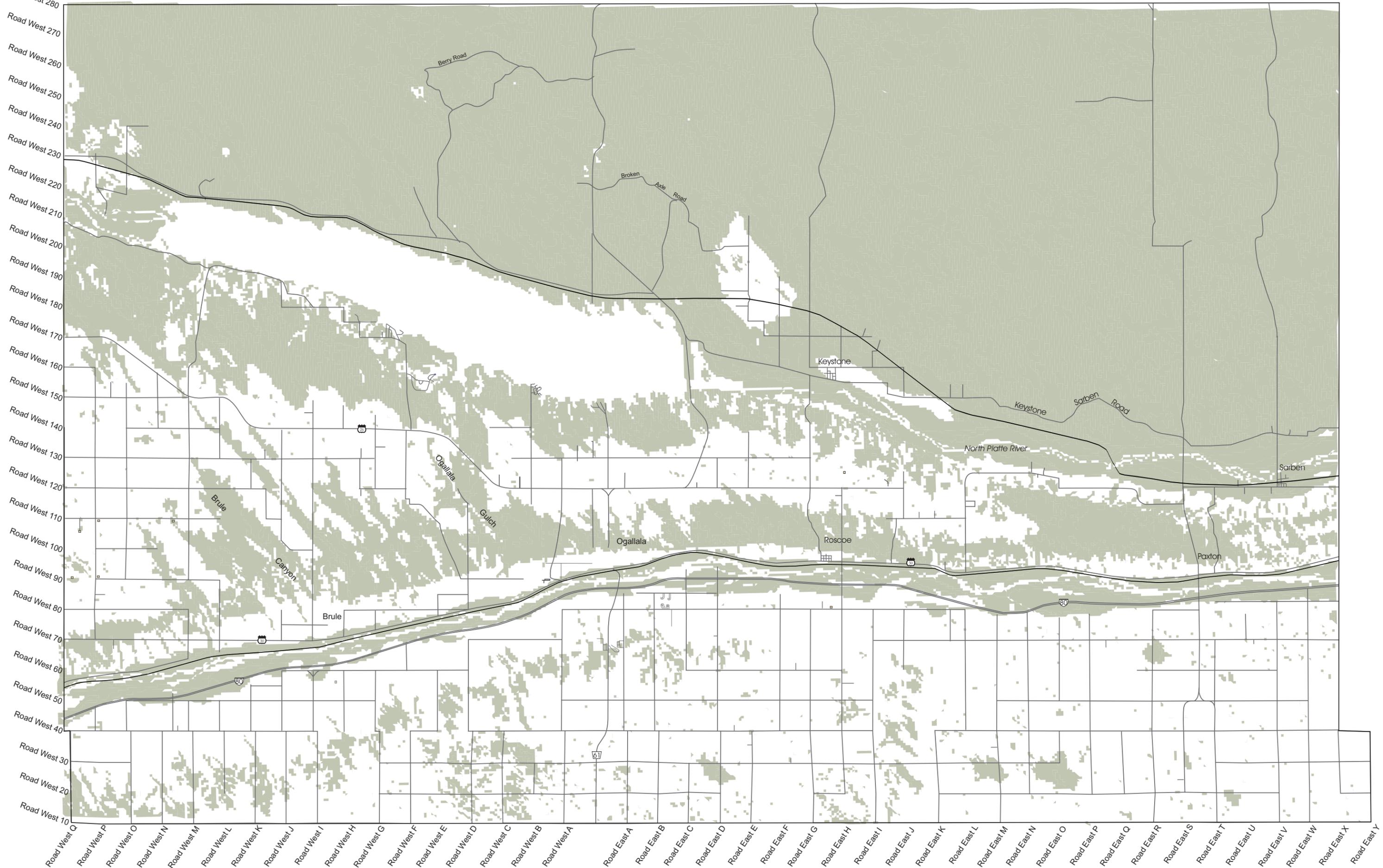
Map 3-6

Area of Wastewater Disposal Constraints



0 5 1 2
In Miles

Source: Conservation and Survey Division, University of Nebraska Lincoln

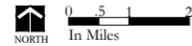


Keith County Nebraska Environmental Overlay

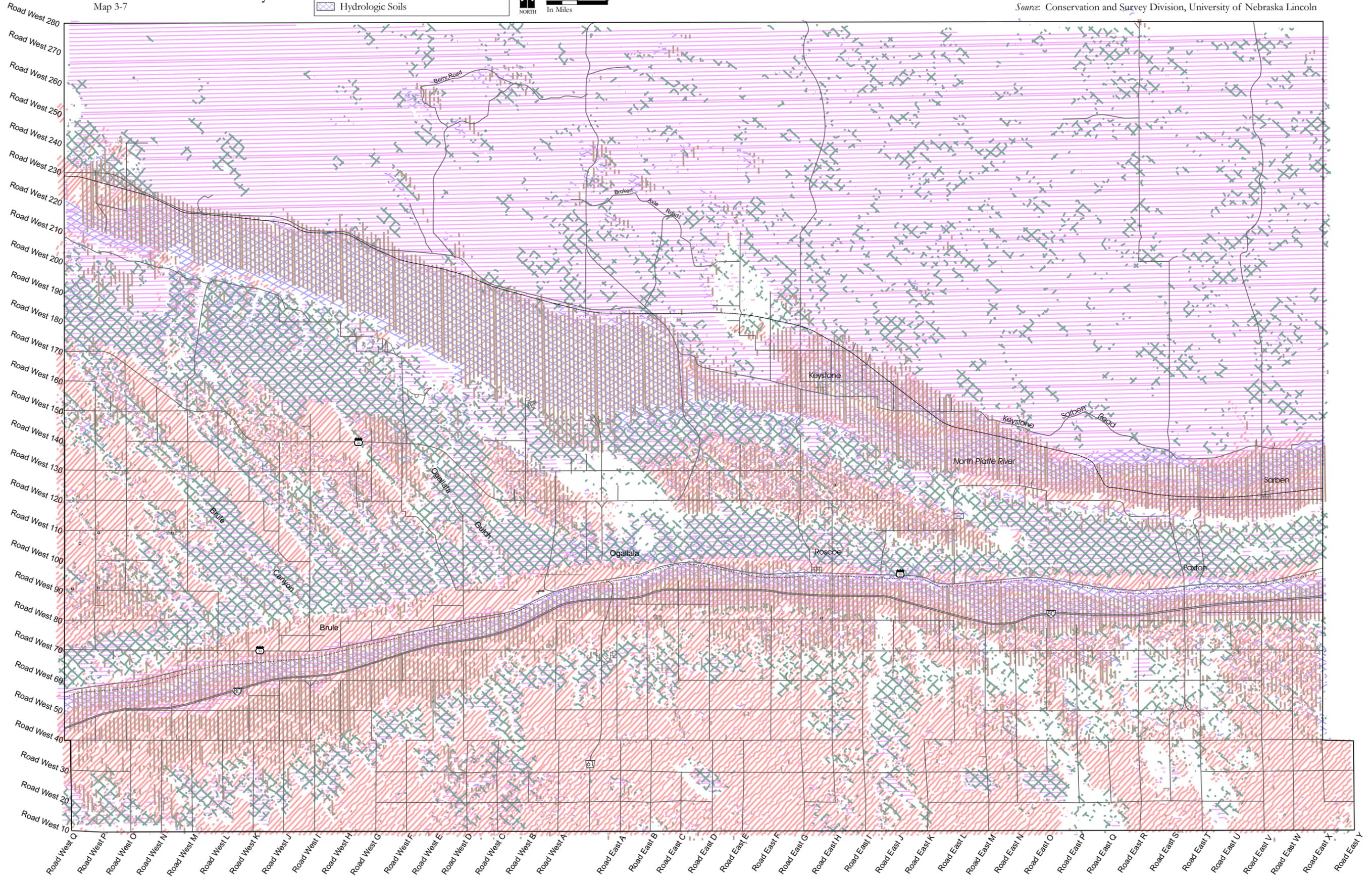
Map 3-7

-  Unsuitable for Basements
-  Slopes > 6%
-  Area of Wastewater Disposal Constraints
-  Prime Farmland
-  Hydrologic Soils

RDG Crose Gardner Shukert
Omaha and Des Moines



Source: Conservation and Survey Division, University of Nebraska Lincoln

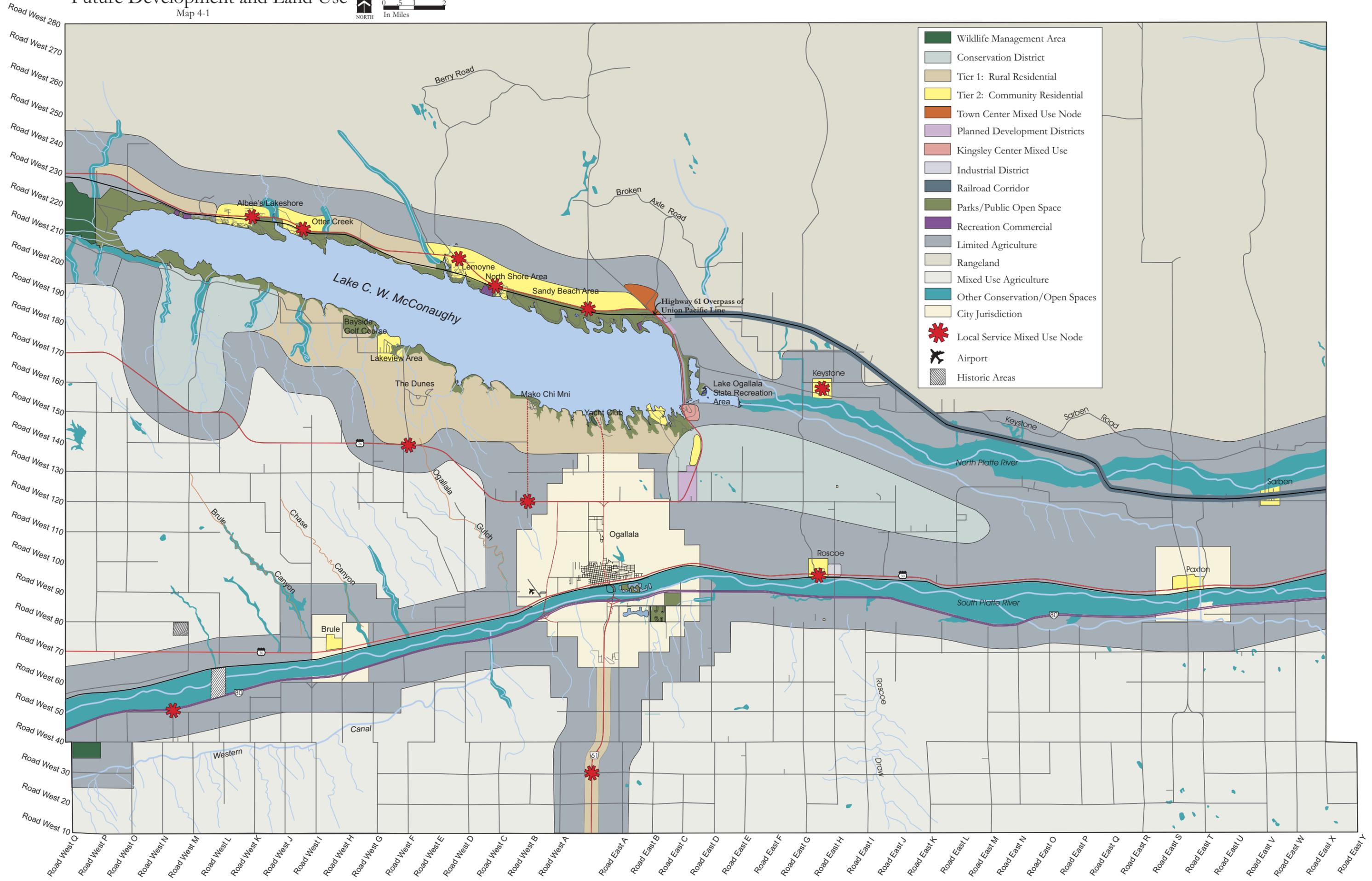


Keith County Nebraska

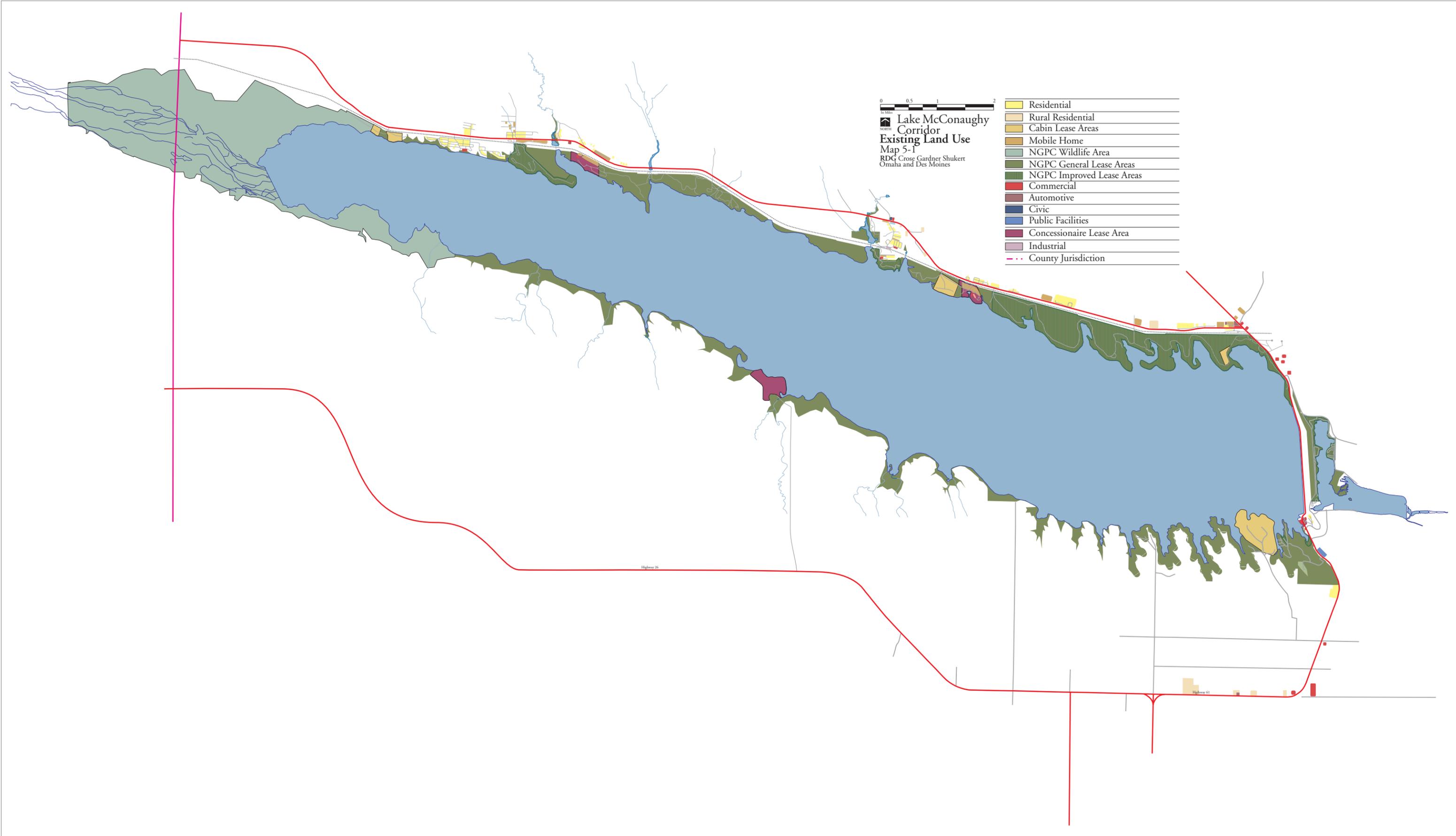
Future Development and Land Use

Map 4-1

RDG Crose Gardner Shukert
Omaha and Des Moines



- Wildlife Management Area
- Conservation District
- Tier 1: Rural Residential
- Tier 2: Community Residential
- Town Center Mixed Use Node
- Planned Development Districts
- Kingsley Center Mixed Use
- Industrial District
- Railroad Corridor
- Parks/Public Open Space
- Recreation Commercial
- Limited Agriculture
- Rangeland
- Mixed Use Agriculture
- Other Conservation/Open Spaces
- City Jurisdiction
- ✳ Local Service Mixed Use Node
- ✈ Airport
- Historic Areas



0 0.5 1 2
Miles
N
**Lake McConaughy
Corridor
Existing Land Use**
Map 5-1
RDG Crose Gardner Shukert
Omaha and Des Moines

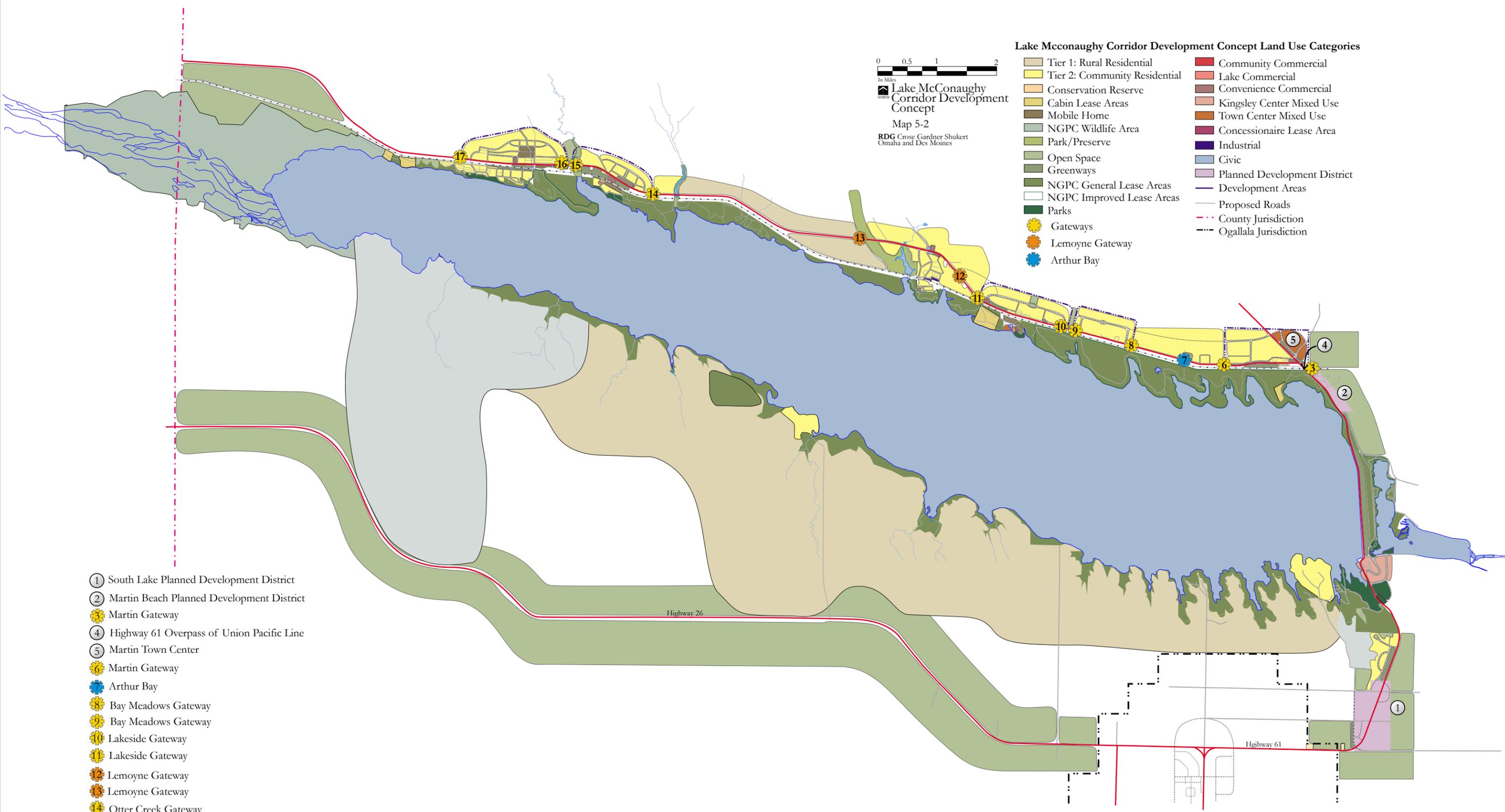
- Residential
- Rural Residential
- Cabin Lease Areas
- Mobile Home
- NGPC Wildlife Area
- NGPC General Lease Areas
- NGPC Improved Lease Areas
- Commercial
- Automotive
- Civic
- Public Facilities
- Concessionaire Lease Area
- Industrial
- County Jurisdiction



**Lake McConaughy
Corridor Development
Concept**
Map 5-2
RDG Crose Gardner Shukert
Omaha and Des Moines

Lake McConaughy Corridor Development Concept Land Use Categories

- | | |
|-------------------------------|------------------------------|
| Tier 1: Rural Residential | Community Commercial |
| Tier 2: Community Residential | Lake Commercial |
| Conservation Reserve | Convenience Commercial |
| Cabin Lease Areas | Kingsley Center Mixed Use |
| Mobile Home | Town Center Mixed Use |
| NGPC Wildlife Area | Concessionaire Lease Area |
| Park/Preserve | Industrial |
| Open Space | Civic |
| Greenways | Planned Development District |
| NGPC General Lease Areas | Development Areas |
| NGPC Improved Lease Areas | Proposed Roads |
| Parks | County Jurisdiction |
| Gateways | Ogallala Jurisdiction |
| Lemoyne Gateway | |
| Arthur Bay | |

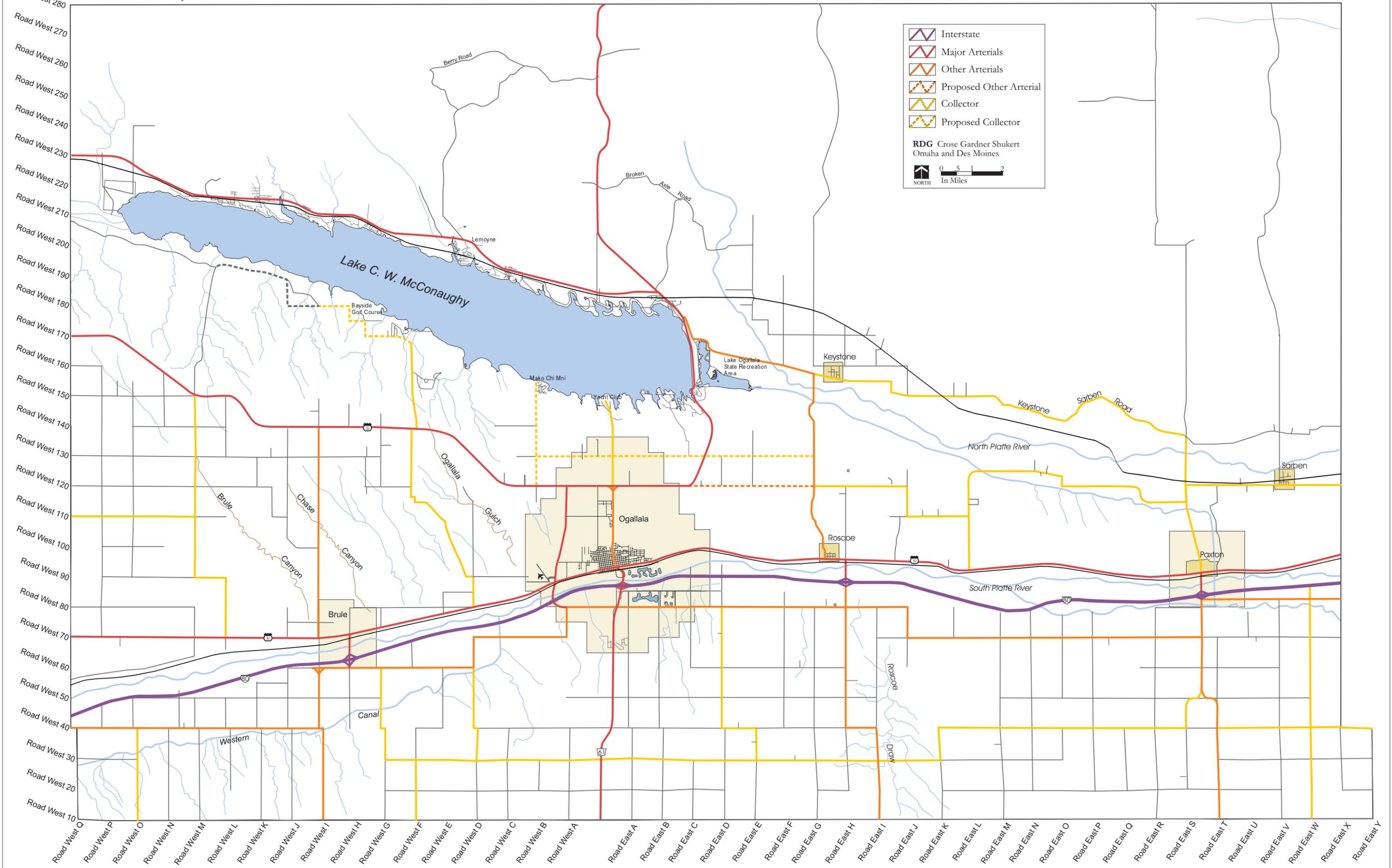


- ① South Lake Planned Development District
- ② Martin Beach Planned Development District
- ☀ Martin Gateway
- ④ Highway 61 Overpass of Union Pacific Line
- ⑤ Martin Town Center
- ☀ Martin Gateway
- ☀ Arthur Bay
- ☀ Bay Meadows Gateway
- ☀ Bay Meadows Gateway
- ☀ Lakeside Gateway
- ☀ Lakeside Gateway
- ☀ Lemoyne Gateway
- ☀ Lemoyne Gateway
- ☀ Otter Creek Gateway
- ☀ Otter Creek Gateway
- ☀ Albee's/Lakeshore Gateway
- ☀ Albee's/Lakeshore Gateway

Keith County Nebraska

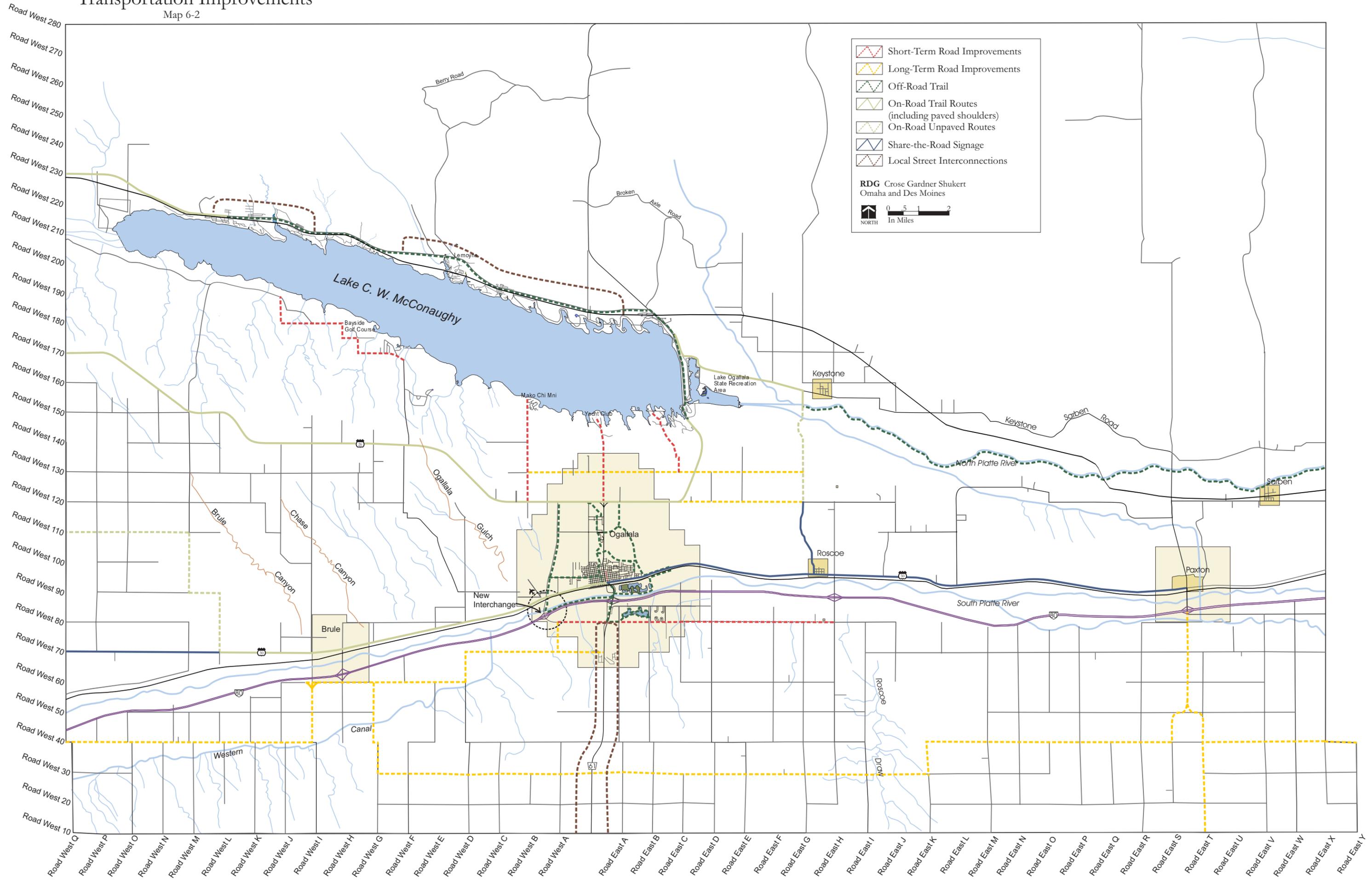
Road Classification

Map 6-1



Keith County Nebraska Transportation Improvements

Map 6-2



 Short-Term Road Improvements
 Long-Term Road Improvements
 Off-Road Trail
 On-Road Trail Routes
 (including paved shoulders)
 On-Road Unpaved Routes
 Share-the-Road Signage
 Local Street Interconnections

RDG Crose Gardner Shukert
 Omaha and Des Moines

NORTH
 0 5 1 2
 In Miles

SOIL LEGEND*

- 1 Valent association
- 2 Sarben-Vetal association
- 3 Satanta-Dix-Altvan association
- 4 Sully-Dix-Tassel association
- 5 Sully-McConaughy association
- 6 Kuma-Duroc-Keith association
- 7 Satanta-Kuma association
- 8 Bayard-Duroc-Bridget association
- 9 Janise-Boel-Lawet association
- 10 Lex-Norwest-Alda association
- 11 Gothenburg-Platte association

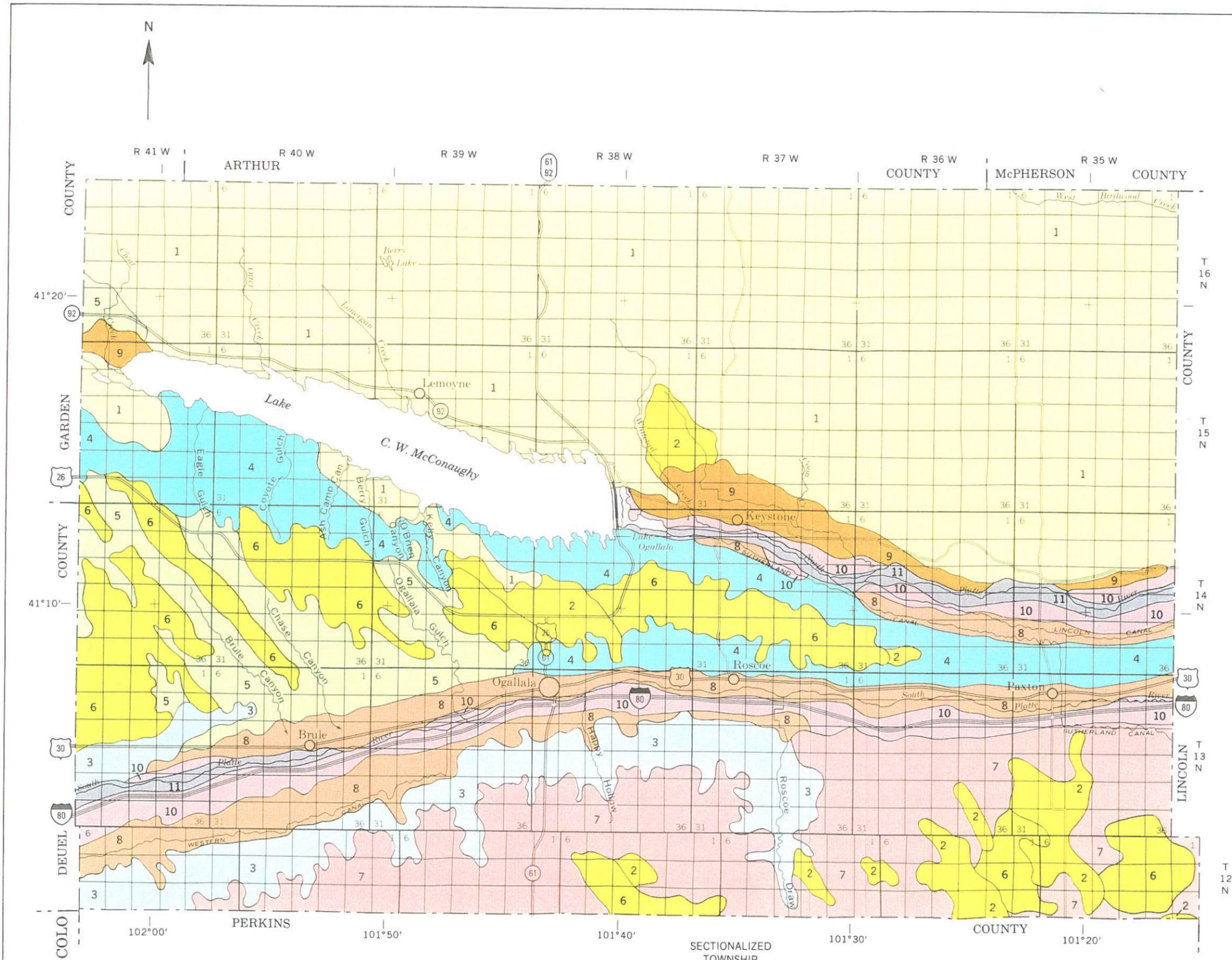
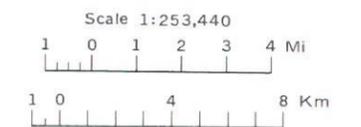
* The units on this legend are described in the text under the heading "General Soil Map Units."

Compiled 1994

UNITED STATES DEPARTMENT OF AGRICULTURE
 NATURAL RESOURCES CONSERVATION SERVICE
 UNIVERSITY OF NEBRASKA
 CONSERVATION AND SURVEY DIVISION

GENERAL SOIL MAP

KEITH COUNTY, NEBRASKA



SECTIONALIZED TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.