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The Flatwater Metroplex Region

60 mile radius of Omaha

60 mi radius of Lincoln
PREFACE TO THE FLATWATER METROPLEX REPORT

We are all members of the global ecosystem.

We must continue to respond to the desire of Americans to foster and protect the means of survival. The economy is a wholly owned subsidiary of the environment. That applies equally in all places. We can’t afford to pay the rent by selling the store.
—Philip H. Lewis, Jr., “Tomorrow by Design: A Regional Design Process for Sustainability”

Rapid growth in the metropolitan region that spans Southeast Nebraska and Southwest Iowa is leading to the development of a urban/rural metroplex that in less than 50 years will be home to more than 2 million people. Such rapid growth will present many complex challenges and opportunities that no single community can face alone.

The Flatwater Metroplex Conference is a proposal by the Joslyn Castle Institute for Sustainable Communities for a volunteer organization and a communication strategy that focuses on the future quality of life of urban and rural communities in the Metroplex region. The region is roughly defined by 60-mile radius zones surrounding metropolitan Omaha/Council Bluffs and Lincoln. Of particular concern is the area where these zones overlap, a region of intense growth potential that also contains some of our best farmland and our most threatened and fragile ecosystems. It is a region where existing and potential conflicts between rapid growth and environmental quality, and between communities and limited resources, can diminish our quality of life and seriously degrade our environmental, social and cultural resources. Ultimately, a region divided will also see its economic potential severely curtailed.

Growth does not have to come at the expense of community life or environmental quality. Rather, greater prosperity and environmental health can be provided for all communities in the region if they choose to work together to manage new growth. Through a regional dialogue facilitated by the Flatwater Metroplex Conference, communities can work together to enhance economic opportunities and manage shared resources while also preserving their unique qualities and heritage.

The Flatwater Metroplex region includes bluffs, tree-lined rivers and watersheds, and rolling hills that flatten into prairies and fertile, alluvial basin agricultural lands in almost every direction. It includes three major cities, 119 communities of more than 400 people, and is approximately 150 years young as a place of human settlement. By some opinions the region has grown in population and developed too slowly, and by other measures the region has prospered in a slow-but-steady, diversified, and healthy manner of growth.

For the most part, the region’s most important assets are still intact – environmental degradation has not reached the point of over-use and misuse to cause quality-of-life flight or disaffection from the region. What the region may lack in dramatic natural beauty, it more than makes up with the constant life-and-soul enhancements of broad horizons and green landscapes with clean air, good quantity and quality of water, a dependable four-season climate with an abundance of solar energy, and some of the most fertile soil in the world.

The natural environment, like the people who settled here, is unassuming, showing quiet distinctions and changes from place-to-place with both fragile and resilient qualities, and many, many inherent beauties...
for the eyes that take the time to see. Read the landscape through the eyes of Lewis and Clark, and read the landscape today, through your own critical sight. Have we done as well as we might have? Have we treated the ecosystem as poorly as some others? Is the despoiling sprawl of human habitation over natural systems inevitable – just the natural outcome of development? Is this a pivotal time in our future?

What does seem inevitable, and with an emerging set of critical consequences, is the matter of an accelerating growth pattern for the region. Conservative population estimates beyond the present 1 million in the region project the growth at more than 2 million residents by the year 2050. Omaha has recently reached a new “market distinction” of 400,000 people, while Lincoln/Lancaster County has eclipsed a 250,000 marketable distinction.

The dynamics of four counties—Douglas, Sarpy, Pottawattamie, and Lancaster—seem destined to insure a steady-to-dramatic growth potential for the region. The pace, the rate of growth and its sustainability will greatly depend upon the public policy and governance decisions yet to be made within and about these four keystone counties. The present development trends in these growth patterns, however, are not happy ones. Up to now the growth planning has been based primarily on auto transportation; transit options would be more efficient and less costly in the future, if the investigations could begin now. Fertile agricultural land and potential food production for urban markets is being absorbed by low-density development in every county in the region. Some counties’ future urban growth may be blocked by the sprawl of low-density acreage development.

Water supplies, and the assurances of water quality, are diminishing: strong competition for supplies is emerging between urban and rural and urban and urban/community interests in the region. Numerous habitats and the flora and fauna of the two river basins—the Missouri and the Platte—in the heart of the region are being threatened by auto-oriented development. The connected watersheds pose ever-increasing dangers of flood damage to the overlaid developments. Planning, to mitigate these consequences, is very disjointed, uncoordinated, and independent of any shared vision of the region as a whole.

On the other hand, there are healthy signs of a growing awareness of the importance of taking care of the heart of the urban communities – the core downtown areas – of the three principal cities. Omaha’s public and private commitment to the new arena, development of the riverfront, new public and private construction in the downtown, planning for aesthetic enhancements through the Omaha By Design studies, and the plan for revitalization of Midtown are all signs of belief in the future of a city with a strong, attractive central core.

Similarly, Lincoln’s commitment to a new Downtown Master Plan, the Antelope Valley Floodway project, coupled with plans for the intersecting malls and recent major restoration of the State Capitol, and continuing attention to the Haymarket area will give Lincoln one of the most compact and unique central districts in the nation. Future investors and residents will have confidence that the city likewise believes in a strong future through a strong and attractive central city.

Council Bluffs, likewise, has given recent attention to its center. The Iowa river city has no intentions of only living in the shadows of the Nebraska metro region. They have recently developed the Mid-America
Center that houses a new convention center/arena, and that is attracting other economic development around it. They have passed a new ordinance and preservation plan for the endangered Loess Hills, and they are working on plans for public art, historic restoration and reuse of parts of the original downtown, streetscape improvements, and a new Union Pacific museum in the former Carnegie Library building.

Communities of all types and sizes in the Metroplex share concerns about maintaining quality of life and building on their unique cultural and environmental heritage. The Flatwater Metroplex, as a region among other similar, multi-community regions, has the opportunity to be economically viable and competitive, to be environmentally sustainable, and to be a place noted for a high quality of life for families and communities – truly, “The Good Life”. There IS something intrinsically good about the Midwest and a central location; there IS something vitally effective about diversification of cultures, economies, and environments; there IS something valuable and lasting about solid, deliberate growth through a cooperative work ethic and shared visions; and, there IS something sustainable about the nurturing and maintenance of community that is connected and aware of itself as a part of a larger network of diverse communities. The issues outlined in the accompanying Flatwater Metroplex draft report should be discussed against a backdrop that suggests there are more positive features of the Metroplex than negative, and that there are more reasons for pride and optimism than for fear and desperation. Without regional coordinated action, our greatest enemies at the moment are apathy and time.

We commit these issues and aspirations to you in the hope that together we can achieve a sustainable Flatwater community.

W. Cecil Steward, FAIA
Founder and President
The Joslyn Castle Institute

THE FLATWATER METROPLEX CONFERENCE: RECOMMENDATIONS

1. Coordinate planning through a voluntary set of regional partners.

2. Conduct regular conferences, meetings, and workshops to provide a forum for exchange of information and ideas.

3. Establish an Annual Sustainability Indicators Report to announce progress on goals to regional stakeholders.

4. Identify and publicize examples of best practices to be used as models for creating healthy and sustainable communities.

5. Establish a consensus of the region’s most fragile natural, social and historic environments. Create strategies/mechanisms to protect these environments.

6. Define policies that clarify or limit acreage development, protect rural lands for food production and natural habitat.

7. Coordinate reviews of water-related policies to ensure equitable access to clean water for human, agricultural, industrial and wildlife uses.

8. Encourage energy conservation and alternative production through effective planning and green building techniques.

9. Encourage healthy lifestyles and rich living environments with compact, walkable communities.

10. Create food-based, rural/urban coalitions, and foster understanding of the interdependencies of all communities and natural systems.
Introduction

This report summarizes various issues and alternatives that will shape the quality of life in a fragile region where rapid growth and limited resources are on a collision course.

Despite its length, this report is but a glimpse of a region composed of complex interconnections. It should not be read as a comprehensive, research-based study, but rather as a vehicle for discussion, a starting point on a journey marked by myriad pitfalls and opportunities.

Neither is this report a planning document; rather, it is an exposure of issues, practices and opportunities. It is our hope that it will spark discussion and debate and lead to smart growth practices that are harmonious with the natural environment. A high quality of life is attained through an integrated approach to communities that recognizes the interrelation of all human and natural systems represented by Five Domains of Sustainability—Environment, Society/Culture, Technology, Economics, and Public Policy—that are explained by W. Cecil Steward in Chapter Five.

The various systems, activities and issues represented by these Five Domains are integrated in the Ecospheres Concept, which recognizes the common bonds of all living systems and advocates for a region-wide discussion based in ecological literacy as the first step toward building a sustainable future.

Greater awareness of our interdependencies will be critical to the future of the Flatwater Metroplex, which will be home to more than two million people by the year 2050. Such rapid growth is placing increasing pressure on a diverse and fragile ecosystem that includes two major rivers and related watersheds, critical wildlife habitat, and fertile agricultural lands.

These pressures will require Metroplex citizens to become more aware of the shared interests that will shape their future. It will also demand new governing mechanisms that provide for a coordinated regional plan that is tied to the health of the ecosystem and its most important resource—water.

This report represents more than three years of work by the Sixty-Mile Radius Study (SRS) committee, which originated from a grant funded by the Nebraska Environmental Trust Fund and began as a partnership between the Trust, the Joslyn Castle Institute for Sustainable Communities, the cities of Omaha, Lincoln and Council Bluffs, the Lower Platte South NRD and the Papio-Missouri River NRD.

The stated purpose of the SRS was to stimulate communication, establish a repository for pertinent planning documents, and develop a sustainability indicators system to help guide future growth in the Flatwater Metroplex.

The process included monthly committee meetings; three regional community conferences and related workshops; a comparative study of comprehensive planning documents; a review of a variety of reports and documents related to water quality, population trends, transportation and other research pertaining to growth in the region; and a telephone survey of residents in the Flatwater Metroplex region.

For purposes of this report, Metroplex counties include Burt, Cass, Otoe, Dodge, Douglas, Saunders,
Sarpy, Lancaster and Washington counties in Nebraska and Pottawattamie, Harrison, Fremont and Mills counties in Iowa, as well as sections of other outlying counties.

Major cities include Omaha (404,267) and Lincoln (235,594) in Nebraska, and Council Bluffs (58,268) in Iowa. Other communities in the study area with populations greater than 5,000 include Fremont (25,198), Bellevue (46,734), Papillion (17,829), Nebraska City (7,113), Plattsmouth (7,031), LaVista (13,895), Blair (7,798), Elkhorn (7,869), Ralston (6,314) and Seward (6,752), all in Nebraska. Glenwood, Iowa, has a population of 5,358. There are 122 communities in the Metroplex with populations of 400 or greater.

This report is organized in eight chapters. Chapters One and Two focus on the natural environment of the Metroplex region and the challenges posed to this environment by rapid population growth; Chapter Three contains an assessment of planning efforts by communities in the region; Chapter Four offers the results of a public opinion survey conducted in the SRS/Flatwater Metroplex; Chapter Five examines the Five Domains of Sustainability and how they apply to issues in the region; Chapter Six identifies sustainability indicators for smart growth, Chapter Seven provides examples of regional cooperation and best practices, and Chapter Eight features results of our Sept. 9, 2004 conference and recommendations.

This report is far from complete, and that is as it should be. It is our hope that these pages will spark discussions about the need for a regional identity and a desire for a sustainable future that respects the fragile interdependencies of communities and the natural systems upon which they depend.

David Ochsner
Senior Editor
Joslyn Castle Institute for Sustainable Communities
CHAPTER ONE: RESOURCES AND DEPENDENT POPULATIONS

An overview of some of the forces that shaped the land, a description of characteristic ecosystems, the importance of rivers and other water resources within those ecosystems, the introduction of human settlements and attendant population growth, and food production challenges.

1.1 The Natural Environment
If there is one constant that defines the history, culture, environment and future of the Flatwater Metroplex, it is water.

The geographic setting for the Metroplex is centered at the confluence of two great North American Rivers, the Platte and the Missouri. In prehistoric times the region was covered by an inland sea, and evidence is found in the variety of marine fossils embedded in limestone deposits—ancient sharks, jellyfish and shrimp.

Traveling on Interstate 80 across the Metroplex—from Omaha/Council Bluffs to Lincoln—an observant driver can spot the rust-colored Dakota Sandstone deposits in the road cuts. It is part of a formation that was deposited along the eastern edge of a shallow sea that extended from the Gulf of Mexico to the Canadian Arctic. (Voorhies 19)

Later glaciers covered the region, leaving their own evidence in the varied form of the landscape and in the polished rocks—some the size of cars—that still turn up in farm fields. But more significantly, the glaciers left behind a huge deposit of freshly milled, nutrient-rich sediment, some of the richest farmland in the world. Some of this soil blew beyond the glacier’s edges to form the rich loess hills that rise on both sides of the Missouri River. (61)

The land along the rivers sustained a variety of plants and animals. Mammoth fossil sites dot the curving outline of the Platte. It is a place of remarkable biodiversity; a many-layered, nuanced construction at once favored by adequate rainfall, a temperate climate, rich soils, and surface and ground water supplies.

These resources also reveal the many disconnections and misuses of the land by its human inhabitants, who have failed in their planning to fully appreciate its resources such as abundant water, fertile soils and a four-season solar climate. The area is among the windiest in the country, offering tremendous potential for wind power generation. A brief examination of these resources follows:

•Land and Water: Industry, agriculture and low-density development have all contributed to the degradation of these resources. For example, decades of lead smelting by Asarco on the Omaha riverfront (once the world’s largest lead refinery) has contaminated the yards of thousands of residences in Omaha. Representing the largest residential environmental cleanup in the country, the EPA has targeted about 20 square miles of east Omaha under the federal Superfund program, and costs are expected to exceed $100 million. So much lead is found in soil and homes in east Omaha that the EPA has recommended that children should be aggressively tested for lead poisoning. (Omaha World-Herald)

In the countryside, intensive, extractive farming practices that require excessive use of chemicals and
fertilizers have left soils depleted and degraded and also have polluted water supplies. Nitrate levels in some communities have rendered the water supplies undrinkable.

Low-density sprawl development has also degraded these resources, as formerly fertile lands are covered with scattered housing sites, roads and parking lots. As pavement and rooftops replace vegetation, flash flooding becomes a bigger problem, as does water pollution, as contaminants from motor vehicles, paved areas, construction sites and lawns wash down storm sewers and find their way into rivers and streams and, eventually, even into the groundwater supply. It is critical that populations are aware of these interconnections and how each community exists within and is dependent upon a watershed.

Finally, citizens must become aware of the growing dichotomy between populations and water supply in the Metroplex. In Nebraska, the greatest supply of groundwater (the Ogallala Aquifer) occurs in the sparsely populated counties in the western half of the state. As rapid urbanization continues in the Metroplex (and in neighboring Colorado), this vast supply of water may become a source of contention not only between rural and urban users but also between large municipalities.

- Wind and Sun: These resources are abundant in the Metroplex. In addition to providing a long growing season, the sun offers unlimited—yet mostly untapped—potential for both passive and active solar energy systems. Wind power, which like solar is a clean and unlimited source of energy, is also largely untapped. Two wind-powered generators (operated by the Lincoln Electric System) near Waverly are highly visible examples of the potential for wind energy in the region.

1.2 Ecosystem Diversity
The Metroplex region offers a unique mix of habitats or “ecotones,” areas where one habitat type meets another. Eastern deciduous forest and riparian woodlands mix with tallgrass prairie and rainwater basins to create a landscape once favored by William Clark as he journeyed up the Missouri with Meriwether Lewis and the Corps of Discovery. Clark described wooded hillsides of oak, walnut, hazelnut, and cottonwood, and further inland, wild cherries, plums, grapes, gooseberries, strawberries, and wildflowers in an explosion of color. Two hundred years ago, on July 12, 1804, Clark stood on top of an Indian mound south of present-day Nebraska City (40 miles south of Omaha) and described an extensive view of the surrounding plains that “afforded one of the most pleasing prospects I ever beheld.” When he later walked on the Nebraska shore near present-day Omaha, Clark noted that about a mile distant beyond the wooded bluffs was “one Continued Plain as far as Can be seen.” (Buckley 33, 38)

The upland deciduous forest reaches its western limit in the Metroplex, and is one of the last remnants of the great eastern forest as one travels west. This forest type is found along both the Missouri and Platte rivers and their tributaries. American elm, basswood (American linden), green ash, locust and oak (bur, red and pin among the varieties) are common. Hickories are found only in the Missouri valley, where the forests have a considerable understory of trees such as redbud, shrubs and perennial herbs. In the understory, “some of the most striking displays of spring flora occur under the sweeping canopies before their leaves develop. Orchid species, may-apples, jack-in-the pulpit and Dutchman’s breeches are just a few of more than 50 species found just in the understory of a bur oak tree.” (Wolfe, 12)
Already 2 percent of Nebraska is forested, and a good portion of that is contained in the wooded areas along the Missouri and Lower Platte within the Metroplex. On both the Nebraska and Iowa sides of the river one can still find bur oak trees that have stood for more than a century, and few that date back to the days of the Lewis and Clark expedition.

Examples of these forests are represented in area parks such as DeSoto Bend National Wildlife Refuge, north of Omaha/Council Bluffs; Fontenelle Forest and Lake Manawa State Park, both situated in the midst of the Omaha/Bellevue/Council Bluffs metro area; and the Rhoden Wildlife Management Area near Plattsmouth, Nebraska. Narrow bands of upland deciduous forests are also found in scattered areas in the Metroplex, such as in Wilderness Park, which extends in a thick band of trees and shrubs along Salt Creek in southwest Lincoln.

The deep organic soils of eastern Nebraska and Western Iowa support one of the most biodiverse areas in the Great Plains. The sheer number and variety of plant species these soils support also mean that wildlife occurs in greater variety and number than in many other parts of the region. For example, the southeast is the only part of Nebraska that supports the eastern chipmunk, southern flying squirrel and woodchuck, and these species are sometimes found within a few yards of an entirely different habitat, such as tallgrass prairie. Other dependent species in the Missouri and Platte valleys include sandhill crane and bald eagle, and at least three species listed as endangered—the piping plover, least tern, and pallid sturgeon.

“In Nebraska, the most common ecotone is the area between trees and agricultural land. Often this zone is broad, progressing from trees to shrubs to herbaceous cover before meeting cropland or grazing land. An ecotone usually exhibits much greater species richness than either of these bordering habitats, and such areas are very attractive to wildlife...The biological transition represents a cultural transition as well. Nebraska’s economy is keyed to the land and its cattle ranches, wheat fields, corn and soybeans. Agriculture is important to the southeast, as well, but its upland forest is also home to fruit orchards, limestone quarries, woodcarvers and an occasional sawmill.”(Rothenberger 15, 21)

Today, the land once inhabited by tribal cultures, the land that Lewis and Clark first explored, is largely unrecognizable and sadly diminished. Paul Johnsgard, professor emeritus of biology at the University of Nebraska-Lincoln, wrote that the explorers observed several ruffed grouse near present day Council Bluffs, a species that is long gone from the area. He notes that “most of the length of the middle and lower Missouri has been dredged and straightened, and otherwise manipulated to a point that it would probably have been nearly unrecognizable to these early explorers could they see it now.” Lewis and Clark, notes Johnsgard, calculated that the Nebraska stretch of the Missouri River consisted of 556 miles of meandering river length, or about 115 miles more than its present-day length. A few tiny remnants of original habitat remain in the Metroplex, remnants that are critical to sustaining whatever species diversity may be left in the area. Johnsgard writes: “In two small areas of Missouri Valley forest totaling about 1,600 acres (Neale Woods and Fontenelle Forest in Sarpy County) nearly 75 percent of the state’s 136 families of vascular plants are represented...There are an estimated 138 to 140 breeding species of birds in the southeastern corner of the state (from Douglas County south) which is also the largest total for any area in (the State of Nebraska).” (Johnsgard 142-144)

Beyond the woodlands, Johnsgard also notes the degradation of the tallgrass prairies of eastern
Nebraska that have been so exploited and fragmented that perhaps 1 percent of the tallgrass prairies can be found in their original form and diversity. (23) The places in between have suffered as well. Riparian forest—open woodlands and dense forests that grow on the valley floors near rivers and creeks and serve as transition places from water to land and from forest to field—is found along the Platte and Missouri rivers. It features species such as cottonwood, willow, American elm, green ash, box elder and mulberry.

At first glance these areas may appear to be thriving in the Metroplex, since the damming of the Platte and Missouri rivers has controlled flooding and therefore has actually increased the size of the riparian forests. But without natural flooding cycles, these areas have become overgrown with dominant species and are not likely to replace themselves in the future. Without floods to scrape and deposit sediment, existing stands have become overgrown, allowing the emergence of dominant species and more uniformity. Little diversity is found in habitat changed by uniform river flows, resulting in the decline of both plant and wildlife populations. “Some areas of the Missouri and Platte will see few, if any, new stands of cottonwood, willow or shrubs. In both the Missouri and Platte, the rivers now drop their sediment in reservoirs...as a result the river scours its bed for new materials, digging ever deeper channels, (causing) the adjacent water table to drop well below the major root zone of the shallow rooted cottonwoods and other riparian trees (and) eventually killing them...Along the Missouri, the death of towering cottonwoods in the backwater areas of the DeSoto National Wildlife Refuge appears directly linked with a decline in channel elevation and a corresponding drop in the water table.” (Currier 47)

The loss of diversity in the riparian forest is a loss for all life forms, including human, writes Johnsgard. He notes that although these forests account for only a small fraction of the state’s land area, they support almost half of the state’s overall breeding bird population—202 species. (Johnsgard 20). Damming and rechanneling of the Missouri and Platte rivers has led to the near-extinction of other species as well, including the piping plover, least tern, and pallid sturgeon.

1.3 Dependent Human Populations
In addition to the flora and fauna of the Flatwater Metroplex, there is yet another dependent population that is unique in that it is capable of systematically destroying the very habitat it needs for its survival.

Humans have inhabited the area for at least 10,000 years. The first inhabitants doubtless saw possibilities in the abundance of the Platte and Missouri valleys—prime areas for hunting, for collecting seeds and roots, for growing crops, and for transportation and trade.

Just as in the days of prehistoric seas and glacial movements, water was the critical element in defining place and location for early human populations. Indeed, the name “Nebraska” is born of water, derived from the Oto Indian word “nebrathka,” or flat water, in reference to the broad, flat Platte valley, which served as a primary route for a great network of trails in prehistoric times. Sites near the Platte River in Cass County (i.e. the Walker-Gilmore site) show successive periods of occupation by early farmers dating back at least 2,000 years. The Late Woodland culture (Early Potters) inhabited the area 1,500 years ago, leaving behind evidence of corn and squash cultivation. Late pre-European contact “Village Farmers” built sturdy houses overlooking streams and rivers in the area from 1000 to 1400. The Patterson archeological site in Sarpy County, which overlooks a tributary of the Platte, revealed excavated pots and evidence of shelled corn amid the ruin of five houses, the first use occurring around the year 1050.
The Omahas, Poncas and Oto-Missourias lived in villages of up to 2,000 people along the rivers of eastern Nebraska near present-day Omaha. An Oto-Missouri village of earth lodges was located near Yutan in 1775 and occupied until 1837—the first major Indian settlement seen by fur traders on their journey up the Platte (Ludwickson 137).

When Lewis and Clark visited the site near present-day Plattsmouth on July 21, 1804, Clark wrote: “This great river (the Platte) being much more rapid than the Missourie forces its (the Missouri’s) current against the opposit Shore...we found great difficulty in passing around the Sand at the mouth of this river.” That same day they camped a little further north at the mouth of the Papillion Creek in present-day Sarpy County. (Buckley 34)

Stephen Long led an expedition up the Platte in 1820, and Ft. Atkinson (1820-27) was established north of Omaha (near Ft. Calhoun, also believed to be the site of the famous Lewis and Clark Indian council at what were known as the Council Bluffs). Lucien Fontenelle’s Trading Post in Sarpy County was established in 1822, and in 1823 Bellevue was established as a fur trading post. In 1841 the first party of immigrants followed the Oregon Trail along the Platte, and in 1846 Ft. Kearny was established on the site of present-day Nebraska City, later relocated near present-day Kearney, Neb., as western settlement gained momentum. (Kolberg/Jones 1, 11-12))

After their expulsion from Nauvoo, Illinois, in 1846 the Mormons negotiated agreements with the federal government and a local tribe to use a site above Council Bluffs on the Nebraska side of the Missouri as a temporary Winter Quarters. By 1856 Winter Quarters, now called Florence, became an important Mormon center. (Larsen /Cottrell 6)

Omaha and Council Bluffs have been linked from the beginning. William Brown, a former county sheriff and brickyard operator in Southeast Iowa, was considered “the original Omaha pioneer.” He headed west for the Gold Rush but got only as far as Council Bluffs. In the spring of 1850, seeing the thousands of people waiting to leave for the west, he decided he could make more money by staying and operating his Council Bluffs and Nebraska Ferry Company. (Larsen/Cottrell 7)

In the 1850s, however, Nebraska City was the dominant port on the Missouri. It was home to the Russell, Majors and Waddell freighting company, and the starting point of the Overland Trail. That all began to change on a warm afternoon in August 1859, when Abraham Lincoln looked across the Missouri River from Council Bluffs and saw Omaha, a town of fewer than 2,000, on the opposite shore. Lincoln had come into some property in Council Bluffs, and some historians believe this may have helped his ultimate decision to steer the proposed transcontinental railroad through Omaha and across the flat terrain of the Platte Valley. (Larsen/Cottrell 33) The railroads brought to life hundreds of towns and thousands of farms across the Nebraska plains, while leading to the near extinction of the bison and other species. “The last Eskimo curlew to be shot in America, and one of the last to be seen alive, was killed in Nebraska. The gray wolf, elk, pronghorn, bighorn sheep and bison were also gone by then, as were the last free-living Native Americans.” (Johnsgard 8)

1.3.1 Railroads and Early Settlement
The rivers and their tributaries gave life to many of the early communities in the region, but the railroad was the lifeline that would feed its dramatic population growth.
Omaha also served as the capital of the Nebraska territory from 1854 to 1867, a designation bolstered by Council Bluffs’ political interests who favored Omaha over the older settlement to the south, Bellevue. When Nebraska became a state in 1867, the removal of the capital from Omaha to the tiny village of Lancaster (renamed Lincoln in honor of the slain President) rekindled territorial political tensions that divided “North Platters” (Omaha area) from South Platters (Lincoln area). There is much evidence to suggest that these tensions still divide Nebraska’s political and economic interests to this day (also see Chapter 2, Sec. 2.5).

The completion of the Union Pacific Railroad in 1869—with Omaha serving as its eastern terminus—helped that city get over its loss of the capital. The Burlington and Missouri Railroad entered the state the same year south of Omaha, at Plattsmouth. Tracks were laid from Plattsmouth to Lincoln in 1870 by the B& M, which conducted an extensive ad campaign in the east and overseas to settle this territory. The early immigrant population that poured into this new transportation hub was largely transatlantic—Germans, Czechs, Scandinavians, Irish, and Italians. Foreign-born residents comprised about 34 percent of the Omaha population in 1900. ((Larsen/Cottrell 122)

During the 1880’s, Omaha developed into the nation’s leading meat-processing center. The city’s location in a great cattle-raising area and at the heart of a rail network hastened this growth. Thousands of immigrants, especially from southern and central Europe, worked in Omaha’s meatpacking plants. The 1910 federal census gave the metro region’s population as 57.1 percent “foreign stock,” the majority listed as Germans, Austrians, Czechoslovakians and Swedes. (Kolberg/Jones 3)

Between 1870 and 1900 Omaha grew from a frontier railroad center into a regional metropolis, its population growing from 16,000 to more than 100,000 in that 30-year period. Then as now, growth was particularly rapid in Douglas and Sarpy counties, which had a combined population of nearly 375,000 by 1900 (rapidly growing towns such as South Omaha, where packing plants were located, were still counted separate from Omaha). So impressive was the area’s growth and wealth, that Omaha was able to stage an international world’s fair—The Trans-Mississippi and International Exposition—in 1898. The fair drew more than 2.5 million visitors. (Larsen/Cottrell 61)

Fifty miles to the southwest, the former village of Lancaster (its first settlers were attracted by its salt deposits) grew rapidly with its new name and capital status to become a hub of government and education (the University of Nebraska was founded there as a land-grant research institution in 1869). In 1860, what would become Lincoln was a village of less than 200 residents. By 1900, it would boast a population of 40,000.

Railroads boosted other area populations. In just 10 years, 1870 to 1880, Saunders County grew from 4,547 to 15,810 residents. Saunders and other counties outside of the Omaha metro area, such as Cass and Otoe counties, reached their population peaks around 1900. There were slow declines throughout the 20th century, but these declines are now being reversed by the dramatic growth of the area over the past decade.

1.3.2 Population Trends
As the old railroad towns empty out across the plains and most counties in Nebraska and Iowa continue
to lose population, Metroplex counties are experiencing rapid growth, fueled in part from the depopulation of these plains communities.

Today, the Omaha/Council Bluffs metro area alone covers 2,500 square miles in Cass, Douglas, Saunders, Sarpy, and Washington counties in Nebraska and Pottawattamie, Harrison and Mills counties in Iowa.

The latest U.S. Census estimates for the Metroplex region reveal a continuation of trends in which rural communities across Iowa and Nebraska lose population while the metro areas, particularly near Omaha and Council Bluffs, post dramatic gains.

As was the case more than a century ago, the heart of the Metroplex in Douglas and Sarpy counties is adding population at a rapid pace, growth built not only on railroads and food processing but also on health care, insurance, education, and information technology.

Recent U.S. Census estimates released in April of 2004 show dramatic growth in the core Nebraska counties of the Metroplex. Between 2000 and 2003 Sarpy County grew 8.1 percent—faster than any county in Nebraska or western Iowa. By comparison, Nebraska grew 1.6 percent in that period, while Iowa gained less than 1 percent. More than two-thirds of the counties in both states lost population.

The eight-county Omaha metro area grew by 3.4 percent since Census 2000 and now totals 793,172. Lincoln/Lancaster County grew 4.3 percent, while traditionally rural counties such as Cass and Washington grew by 3.7 and 4.8 percent respectively. Gains on the other side of the river were less dramatic, with Pottawattamie County gaining nearly 1 percent and Mills County posting a 2.5 percent increase.

For the first time in history, Nebraska’s three largest counties—Douglas, Sarpy and Lancaster, contain more than half of the state’s population (For comparison, in 1930 those three counties held just 25 percent of Nebraska’s population). Some of that growth came at the expense of rural counties: Central and western Nebraska posted equally dramatic losses, ranging from an 8.1 percent drop in Rock County and a 10.4 percent drop in Arthur County, which is now home to fewer than 400 residents.

According to Jerry Deichert, a census specialist at the University of Nebraska at Omaha, the aging population in rural Nebraska is gradually dying out, and people continue to migrate out of rural areas faster than they move in from elsewhere. Meanwhile, a net 1,500 people moved into Sarpy County from other places in 2003, including from nearby Douglas County, sparking a building boom marked by nearly 2,000 new building permits for single-family houses. Omaha is the “economic engine” driving the county’s growth, however. The 2000 Census showed that more Sarpy County residents work in Douglas County than in their own county. “It’s predominantly a bedroom community for Omaha,” Deichert said. (Omaha World-Herald)

1.3.3 Projections to 2050
The Flatwater Metroplex will be home to more than two million people in less than 50 years if current trends continue, creating enormous pressures for planners as they work within an ecosystem already taxed by just half that population.
Based on data from the U.S. census, the Metropolitan Area Planning Agency (MAPA) forecasts that the population of the core three-county area of the Metroplex (Douglas and Sarpy in Nebraska and western Pottawattamie County in Iowa) will increase 24.2 percent between 2000 and 2025. From a population of 662,900 in 2000, the three counties’ population is projected to increase to 823,300 in 2025. (MAPA)

The population in each of the three core counties will increase at a different rate over the next 25 years. Douglas County is projected to increase 18 percent (449,300 to 530,200); Pottawattamie County, 12.5 percent (87,300 to 98,200), and Sarpy County will experience the greatest population increase, 54.3 percent (126,200 to 194,800). The aging of the population during this forecast period will be significant, and will influence future planning. In 2025, the baby-boom population (those persons born between 1946 and 1964) will be between 61 and 79 years old, but the fastest growing segment of the elderly population will be those over 85. (MAPA)

In that same period, Lancaster County’s population is projected to be about 363,000 by the year 2025, about 113,000 greater than the county’s year 2000 population base of 250,291 persons. (Lincoln Comprehensive Plan)

Projections for the 12-county Omaha metro area (with a current population of about 850,000) prepared by the Bureau of Business Research (BBR) at University of Nebraska-Lincoln suggest a population of about 1.5 million by 2050. The projection area for the BBR study excludes Lincoln/Lancaster County, but includes much of the remainder of the Metroplex area: Fremont, Harrison, Mills and Pottawattamie counties in Iowa and Douglas, Sarpy, Cass, Dodge, Otoe, Burt, Saunders and Washington counties in Nebraska.

The BBR report noted that while the core metro counties (Douglas and Sarpy) will still contain the majority of the Omaha-area population, the surrounding counties will experience a faster rate of growth overall, increasing their share from 29.7 to 37.7 percent of the population. Over the 50-year period Douglas County is projected to grow 43.1 percent and Sarpy will grow by more than 100 percent. The ten surrounding counties are projected to grow as much as 122 percent.

The BBR report offered “alternate projections” for growth that indicate the possibility for even more rapid growth in the core counties, with Douglas growing by 66 percent and Sarpy by 114 percent. This assumes a smaller net migration to outlying counties, reducing the ability of suburban counties to produce a workforce for the core counties.

The effect of metro growth is even felt as far south as Nebraska City in Otoe County. That county is expected to grow 131.4 percent between 2000 and 2050. The most dramatic growth projected for a “non-core” county is in Washington County, Neb. (north of metro Omaha/Douglas County). Traditionally a rural county, its 50-year growth rate is nearly 223 percent. In Iowa, the fastest growing counties are projected to be Mills and Harrison, both projected to grow around 140 percent. With the exception of the core counties and Lancaster County, these growth rates are dramatic reversals of slow declines in population during the last century. (BBR)

While the 12-county Omaha metro is projected to reach 1.5 million in 45 years, on the other end of the I-80
pipeline Lancaster County is projected to be home to 527,000 people, or 277,000 more than reside in the county today (based on an assumed rate of 1.5 percent per year throughout the fifty-year period. During the 1990s, population in Lancaster County grew at a rate of 1.6 percent per year). The City of Lincoln’s population is projected to stay at about 90 percent of the county’s population. Lincoln’s population could exceed 327,000 persons by the year 2025, and to grow to 475,000 by the year 2050 (larger than present-day Omaha). The balance of the projected population is expected to reside in Lancaster County’s smaller cities and villages, on farms, and in the rural areas on acreages. For purposes of long term planning, the population of the incorporated cities and towns will stay a bit under 3 percent. Population in these jurisdictions will grow from the current level of 6,500 persons, to around 9,400 in the year 2025, and near 13,700 in the year 2050. The population living on acreages in Lancaster County (either free standing or as part of rural subdivisions) is now about 16,000, and is projected to grow to about 22,800 by 2025 and exceed 33,000 by the year 2050. In essence, a population similar to present-day Fremont and Blair combined may someday live exclusively on acreages in Lancaster County. (Lincoln Comp. Plan)

These growth projections are dramatic when they are printed on stylized maps containing familiar county outlines, but overlaid onto a physical map—a map of hills and rivers and streams—it also becomes clear that planners will face tremendous challenges in managing this growth and mitigating its effects on the natural environment, on agriculture, and on the quality of community life.

1.4 Water
As present and future populations bring greater pressures to bear on the resources of the Metroplex, no one resource is more important, more threatened, or more contested, than a quality water supply. An ecosystem isn’t healthy, or sustainable, unless it can supply all dependent populations with clean water.

Although Omaha obtains much of its current water supply from the Missouri River, as the city grows to the west and south it is increasingly relying on the Lower Platte Valley, where the City of Lincoln also obtains its water supply.

The Lower Platte River in the Metroplex is part of the Platte system that extends across the state, but is also fed additionally from the north by both the Loup and Elkhorn rivers.

Particularly in drought years, the Platte flows can vary greatly from one end of the state to the other. In 2004, while sections of the Platte went dry in drought-stricken western counties, abundant rainfall in eastern Nebraska kept up the flows through the Metroplex, which were further supplied by the Loup and Elkhorn systems.

What the future holds for the Lower Platte and its tributaries, however, is anyone’s guess, but it cannot be safely assumed that water will always be abundant. As we are now learning, extended droughts are common to the region, and when compared to the eons that preceded our settlement, a hundred year’s worth of weather records don’t tell us a whole lot except that perhaps it has been an abnormally wet century. It appears that extended droughts are more the norm.

John Janovy, a professor of biology at the University of Nebraska-Lincoln, wrote in 1993 that as we plan for the future we are at the same time "locked into the list of options dealt to North America long before
there was a political entity called ‘Nebraska.’” (Janovy 254, also see Endnote 1)

Even if water supplies remain constant, population and its demand for clean water will continue to grow. Since competing for a shrinking resource will only lead to negative consequences, cities, towns and farms will need to find new ways to cooperate. Like all natural resources, water—and especially clean water—is a finite resource that needs to be managed for the benefit of all living communities.

Expanding water uses in the Metroplex have already led to contention between various interests. In January 2004, the Omaha's Municipal Utility District (MUD) announced that construction would soon begin on the Platte West Water Treatment Plant, which it dubbed the “Economic growth engine for the metro area.” Similar to a plant already in operation (Platte South Water Treatment Plant), MUD said its new $300 million facility would cover an area equivalent to three football fields and add 104 million gallons-per-day to the pumping capacity of the MUD system, bringing the total pumping capacity to 338 million gallons per day. (MUD)

Area landowners had long been concerned that the proposed plant would lower water tables and possibly draw contaminants from a former ordnance plant into the aquifer. (Lincoln Journal Star, June 16, 2004), but in a close vote in June 2004 the Lower Platte North Natural Resources District’s Board approved 18 well permits for MUD. (Lincoln Journal-Star)

But rural landowners weren’t the only concerned parties. When the project was first announced in late 2002, the Omaha World-Herald wondered if the project could lead to a fight between the river’s major municipal users—Omaha and Lincoln (“Plan could put cities in a water bind,” Dec.16, 2002): “When drought struck the Midlands last summer, water levels along the Platte River aquifer dropped so low that Lincoln required its residents to restrict water. So what will happen when Omaha’s $300 million well field and water plant come online, upstream of Lincoln’s wells?...the capital city has senior water rights over MUD’s new wells, which means that if Lincoln wanted to, it could require Omaha to restrict pumping at its new plant in deference to Lincoln’s needs” (OWH. Also, note that Lincoln relies on the wellfields for about 90 percent of its drinking water).

The article quoted Jerry Obrist, chief engineer for Lincoln’s water system, who said he didn’t envision a competitive relationship between the state’s two largest cities. Tom Wurtz, general manager for the Metropolitan Utilities District, also said he saw a collaborative effort between the cities and with agriculture interests. Both noted that Omaha and Lincoln were “minor players” in the use of water in Nebraska, and that irrigation accounts for about 90 percent of the demand for water from the Platte River aquifer (according to the Army Corps of Engineers).

But in April the cities didn’t appear to be “minor players” in a ruling to determine just how much of the flow the capital city is entitled to.

The Lincoln Journal Star reported on April 24, 2004, that the Central Platte Natural Resources District and the City of Lincoln finally agreed on how much water should flow by Lincoln’s wellfields on the Platte River. The amount was much less than the city had hoped for.

In 1993, the Central Platte NRD was one of five groups that objected to Lincoln’s application for a water
right of 2,300 cubic feet per second (cfs) at the Ashland location. On April 22, the paper reported, the Central Platte NRD board approved an agreement that gives a lot less water for Lincoln. It supports a water right for 700 cfs flowing by the wellfield during the summer and 200 cfs the rest of the year. The issue had been to the Nebraska Supreme Court twice and also to the state Court of Appeals. (LJS)

Currently, the Lower Platte supplies 176,000 customers in the Omaha area (Omaha, Bellevue, Ralston, La Vista, Elkhorn, Bennington, Fort Calhoun and Waterloo), with the remainder (the majority) of the population supplied by Missouri River wellfields. That Platte-dependant number will increase, however, with the continued suburban growth that will be supplied by the new Platte West Water Treatment Plant. The plant will be allowed to pump 19 billion gallons a year from the aquifer (enough to fill about 15 square miles with water six feet deep). Yet, it would seem there is plenty to go around. In a statement regarding its new Platte West Water Treatment Plant, MUD noted that 42 trillion gallons flow past the site in an average year. (MUD)

But not all of this water is accessible in the aquifer, and much of the freshwater supply in the area is not fit for human consumption without extensive treatment.

With its location on the Missouri River, one would think there is plenty of water for the inhabitants of Council Bluffs and the surrounding region. Yet residents in southwest Iowa use shallow ground water sources because of unacceptable water quality in deeper aquifers. These shallow aquifers are of limited extent, since the water levels and thus the quantity of water in storage are affected by climatic variations. Shallow aquifers are also more susceptible to contamination. Wells in southwest Iowa are also shown to have larger nitrate concentrations than wells in other parts of the state. (Department of Public Works, Council Bluffs)

But water issues go well beyond the cities of the Metroplex. At the heart of the Metroplex lies the confluence of two major rivers that are both sources of ecological and political contention.

1.4.1 The Platte: A Vanishing River
Years of surface and groundwater overuse have substantially degraded the Platte River’s ability to support wildlife and human populations. A Draft Environmental Impact Statement (DEIS) issued by the U.S. Department of Interior in late January 2004, noted that peak flows near Grand Island, Neb., usually associated with spring runoff, and exceeded 17,000 cfs in 2 out of 3 years during the period between 1895 to 1909. During the period 1970 to 1999, peak flows exceeded 6,000 cfs in 2 out of 3 years, or about one-third the peak flow of the earlier period.

Those peak flows began dropping in 1909 following completion of a large reservoir on the North Platte River behind Pathfinder Dam. In 1940, after several more reservoirs were completed, the peak flow on the North Platte River was seldom more than 5,000 cfs. In a comparison of median mean daily flows over two periods of record at Duncan, Nebraska, and the median annual peak flow from 1895 to 1909 was more than 15,000 cfs.

In recent years as the drought settled into the western states, the median annual peak flow dropped below 3,000 cfs. At the beginning of April 2004, flows near Grand Island (which usually measure in the several thousands of cfs in the early spring) measured less than 300 cubic feet per second. Sections of
the Platte upriver eventually went dry.

What should concern any community dependent on the Platte is that the drought is probably not a temporary condition, but rather more the norm for the region. In other words, we have staked our water future (and its policies) based on what were possibly the state’s wettest years in centuries.

The DEIS reported that historically the Platte River in Nebraska (before the 1880s) “was a broad and braided river subject to high spring floods, great loads of sediment, and occasional summer droughts. These conditions caused continuous movement of the braided river channels and sandbars, resulting in a very broad, shallow, sandy, and generally unvegetated channel.” Platte-dependent species now listed as threatened or endangered depended on these conditions for their survival. Habitat is damaged when sediment that would naturally flow downstream, particularly during peak spring flows, is held back behind dams. According to the DEIS, it has been estimated that approximately 4.25 million tons of sediment are currently trapped per year by reservoirs on the North Platte and South Platte Rivers. North Platte River sediment export to the Central Platte is blocked almost completely by Kingsley Dam and Lake McConaughy. Overall, the sediment supply to the Central Platte River is estimated to have been reduced by more than 80 percent.

As river flow and sediment load decrease, the width of channel that is inundated, and where sand is regularly shifted by river flows, is also decreased. Vegetation is then able to colonize the area of the channel that is no longer regularly inundated (including the reaches of the Lower Platte in the Metroplex). This area is then excluded from the active river channel and no longer provides useful habitat for the target bird species...over the past 150 years, as much as 90 percent of the species’ habitat in the Platte River has been lost, primarily from the effect of the many water storage and diversion projects throughout the Basin, and associated land development. (DEIS)

Use of wells for irrigation in Nebraska grew substantially during the 1950s drought and more than tripled from 1970 to 1990. Currently, in the Platte River counties downstream from Lake McConaughy to Grand Island, more than 19,000 groundwater wells are used for irrigation. “Groundwater aquifers near the river are hydrologically connected to the river; thus, pumping of groundwater along the Platte can deplete river flows...between 1990 and 1999, annual diversions from the Colorado River into the South Platte River Basin averaged more than 350,000 acre-feet per year. After groundwater pumping increased substantially in the 1960s and 1970s, the State of Colorado developed laws and regulations that integrated the management of surface water and hydrologically connected aquifers. The State of Colorado now regulates groundwater pumping to avoid or offset any effect on the ability of senior water right holders to divert river flows.” (DEIS)

A key issue related to the Platte River that may have far-ranging effects on water use in the state and elsewhere involves a dispute over the interconnectedness of ground and surface water on Pumpkin Creek, which is a tributary of the North Platte River.

According to an August 8, 2001 article by J. David Aiken, a University of Nebraska Water & Agricultural Law Specialist, Pumpkin Creek was closed more than 20 years ago to the issuance of new surface water rights by the Nebraska Department of Water Resources (now the Department of Natural Resources or DNR), due to streamflow reductions. He wrote that “in March 2001 the North Platte Natural Resources
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District (NRD) established the Pumpkin Creek Groundwater Management Subarea and closed the subarea to new well drilling . . . to deal with declines in both ground water levels and streamflows. The 1996 Nebraska integrated water management statutes authorize NRDs to control groundwater uses in response to conflicts between surface and groundwater users, and authorizes the DNR to similarly control surface water uses. The statute does not establish, however, the legal basis for resolving disputes between competing surface and groundwater users, leaving the NRD and DNR discretion in the issue of whether surface or groundwater uses should be restricted and to what extent." (Aiken, see Endnote 2)

This gap in Nebraska water law is being addressed by lawsuits that have been filed by the surface water appropriators against groundwater users. A March 4, 2004 article in the Omaha World-Herald noted that one lawsuit, "brought by a Panhandle ranch situated on dried-up Pumpkin Creek, focuses on who has a higher priority to water – farmers who draw water from streams or those who pump groundwater – and how to resolve conflicts between the two forms of irrigation. It is a high-stakes case involving the state’s largest industry and about 9 million acres of irrigated cropland in Nebraska.”

1.4.2 The Missouri’s Murky Future
The Missouri River is also facing difficulties due to a century of habitat degradation, damming, and pollution. In April 2002, the environmental organization American Rivers (AR) crowned the Missouri with the dubious title, “America’s Most Endangered River.” That same year the National Research Council (or NRC, an independent institution that provides science and technology advice to the U.S. Congress) advised that the river required immediate action to restore its natural water flow or face continued degradation and irreversible damage.

The NRC, which is a division of the National Academy of Sciences, conducted the review at the request of the Army Corps of Engineers and the Environmental Protection Agency. The NRC stated that some losses, such as species now extinct, could never be restored, and that increased flow in the river would help the system recover somewhat. The report recommended an environmental management strategy—adaptive management—to build agreement among all interested parties by adapting to changes in the economy, ecology, and scientific evidence. The report also called on Congress to enact a comprehensive protection act for the Missouri River Valley.

The NRC report noted that like most of the nation’s rivers, “the Missouri was viewed as a river to be controlled for purposes of human settlement and a resource to support economic development. The Pick-Sloan Plan mandated the construction of a vast set of engineering projects aimed at controlling floods, facilitating navigation and commerce, and inducing agriculture and other forms of economic development in the Missouri Basin...Much of the agriculture and commercial development, including navigation, has not reached anticipated levels due to shifting economic conditions, climate, including decreasing enthusiasm for large scale water developments.”

The growth of agriculture, industry and urban centers, including the rapid growth in the Metroplex in and along the floodplain, has destroyed so much natural habitat and so many birds, fish and other animals that it faces, as the NRC report states, the prospect is “irreversible extinction of species.” Other report findings:
• Nearly 3 million acres of floodplain habitat have been altered;
• Sediment transport, critical to the river’s form and dynamics, has been dramatically reduced by 75
dams constructed on the Missouri and its tributaries and streams;
• The amplitude and frequency of the rivers natural peak flows have been sharply reduced;
• Cropland expansion and reservoir impoundment have caused reductions on natural vegetation;
• Reproduction of cottonwoods, historically the most abundant and ecologically important species on the river’s floodplain, has largely ceased along the Missouri river;
• Of the 67 native species living along the mainstream, 51 are now listed as rare, uncommon, or decreasing. In many places non-native fish species introduced for sport exist in greater abundance than native species.

In a 2003 executive summary by the U.S. Fish And Wildlife Service (offered as an appendix to its 2000 biological opinion), it was noted that since the construction of major dams the river had experienced a 50 percent reduction in original surface area, a 98 percent reduction in surface area of islands, an 89 percent reduction in number of islands, a 97 percent reduction in area of sandbars resulting in reduction in channel diversity through loss of side channels, backwaters, islands, and meandering.

The summary noted a “loss of nesting habitat for sandbar/sand island birds leading to drastic population declines, elimination of riparian forests and stream channels in areas flooded by reservoirs, totaling over one-third the entire length of Missouri River, near-elimination of the natural riparian community, including a 41 percent reduction in deciduous vegetation; 95 percent of protected floodplain is now in agricultural, urban, and industrial uses.

With the loss of habitat and species, one not only ponders the loss of plant and animal diversity in our local environment, but also the fate of a human population that depends on the natural environment for its own sustenance.

The signs of decline in the Platte and Missouri valleys are challenging us to answer the question: If these rivers can no longer sustain certain types of life forms that have previously adapted to changes over thousands of years, then what can be in store for a human population that has fouled its nest in just a hundred years?

In an article on the NRC report by Libby Quaid of the Associated Press (“Study says Missouri River needs natural flow, return to meandering,” January 10, 2002) reported that the ecosystem on the nation’s longest river would suffer irreversible damage without a return to a more natural ebb and flow. “Dams and channels have straightened the river over the years, providing flood control and better navigation but shortening the Missouri by roughly 200 miles and stopping all but 2 percent of the sediment flow that once earned the river the nickname ‘Big Muddy,’” Quaid reported.

According to Quaid, “those who live and work downriver, the area below South Dakota, generally oppose any flow change because it could leave parts of the river too shallow for barge traffic at certain times and lead to flooding of farmland and residential areas at other times,” and “debate over changing the flow has divided upriver and downriver lawmakers, including the two top Democrats in Congress: Senate Majority Leader Tom Daschle and House Minority Leader Dick Gephardt. Daschle’s home is South Dakota, where boaters, fishers, and the tourism industry want more water and would get it with a return to a more natural flow. Gephardt is from Missouri, where farmers and shipping interests would be hurt.” (According to Quaid, the recreation industry insists it contributes perhaps 10 times more to the economy than do
barges — an estimated $70 million versus about $7 million. The council concurred, citing even higher estimates for recreation and much lower numbers for navigation.)

In response the corps proposed six alternatives, including doing nothing. Wrote Quaid: “The most controversial option (was) a plan to mimic traditional seasonal flow changes: a surge in the spring when mountain snow melts and less water in the summer. The Fish and Wildlife Service has said the changes are the only way to comply with the federal Endangered Species Act.”

A new plan for the Missouri released by the Army Corps of Engineers in March 2004 was no less controversial than the plan criticized in 2002 by the NRC and others.

Multiple federal lawsuits were filed in March of 2004 when the plan was unveiled. Environmental groups saw the plan as a continuation of the same practices of the past, in which barge and agricultural interests were favored over wildlife habitat. But the Associated Press reported in late April that the Supreme Court “heeded pleas” from Nebraska and Missouri and refused to intervene in the dispute. The article noted, “the high court passed up a chance to clarify when the government can order water shifting on the river to preserve fishing and recreation.” The court had been asked to use the case to interpret a 1944 flood control law that created a system of dams on the Missouri, but justices declined without comment (an appeals court ruled in 2003 that reservoirs are to be used to control flooding and maintain downstream navigation, with a lower priority given to recreation, and fish and wildlife).

The article reported that the “losers” in that decision were Montana, North Dakota and South Dakota, which opposed the U.S. Corps of Engineers’ release of water from their reservoirs (used for recreation) to provide relief for down-river barge traffic from Sioux City, Iowa, to St. Louis. Missouri and Nebraska had urged the court not to take the case, while outlining their interest in water for farming, power production and other industries.

A June 2004 federal court decision upheld the Corp’s original March 2004 plan.

Future management of the Missouri will demand new approaches that view the river not as an on/off switch, but as a living entity upon which many lifeforms, including human, are dependent.

1.4.3 Watersheds and Groundwater

Virtually all fresh water for human use comes from watersheds, either as runoff from surface sources or through the recharge of groundwater. The quality and quantity depends on the type of land use within the watershed and the spatial arrangement of those uses. (Olson, 63) Watersheds are also critical to urbanization interests due to the nature of flooding characteristics and the engineering practice of placing sanitary sewer lines in the out-fall of watersheds.

Groundwater can be defined as water that occurs in the open spaces below the surface of the earth. In Nebraska and Iowa, useable groundwater occurs in voids or pore spaces in various layers of geologic material such as sand, gravel, silt, sandstone, and limestone. These layers are referred to as aquifers where such geologic units yield sufficient water for human use.

In parts of the Metroplex, groundwater may be encountered just a few feet below the surface, while
in other areas, it may be a few hundred feet underground. In general, groundwater flows very slowly, especially when compared to the flow of water in streams and rivers. Many factors determine the speed of groundwater and most of these factors cannot be measured or observed directly. However, it has been determined that groundwater generally flows faster through gravel sediments, such as those found along the Platte, than in clay sediments.

In areas with numerous high capacity wells, groundwater velocity and direction can be changed seasonally as water is pulled toward these wells. Ultimately, groundwater scientists have determined that groundwater in Nebraska can flow as fast as one to two feet per day in areas like the Platte River valley and as slow as one to two inches per year in areas like the Pine Ridge in northwest Nebraska or the glacially deposited sediments in southeast Nebraska. The depth to groundwater plays a very important role in the area’s water resource. Obviously, shallow wells, such as those found along rivers, are cheaper to drill, construct, and pump. But shallow groundwater is more at-risk from impacts from human activities. Surface spills, application of agricultural chemicals, effluent from septic tank leach fields, and other sources of contamination will impact shallow groundwater more quickly than groundwater found at depth. (NDEQ 2003)

1.4.4 Development Effects on Water Quality
Development degrades water quality. From 50 to 100 percent of soil eroded from construction sites reaches streams, as compared to 10 percent from agricultural fields. In completed developments, the greatest impact is caused by the increased volume and velocity of water running off impervious surfaces. As the proportion of landscape covered with impervious surfaces (rooftops, streets, parking lots) increases, the amount soaking into the ground decreases. (Olson 64)

Not only does this lead to significant flooding, but water quality is also reduced as the first flush of urban runoff in a rainstorm can be as polluted as raw sewage. (65)

In the Metroplex, watersheds range from largely rural areas in between Lincoln and Omaha or east of Council Bluffs that primarily drain agricultural land to areas that drain acreages, suburban developments, and dense collections of city streets and rooftops.

Watersheds and their effect on populations and habitat are the focus of the work of a locally led system of natural resources management districts, or NRDs, that are unique in the nation with boundaries based on natural watersheds rather than political or other distinctions.

Regional NRDs include the Papio-Missouri River, the Lower Platte South, and the Lower Platte North. These three NRDs are also part of a relatively new organization, Lower Platte River Corridor Alliance (formed in 1997 to encourage interjurisdictional cooperation and collaboration among counties and municipalities).

Impaired flows of major rivers and their tributaries have a direct and dramatic impact on human water supply, both in terms of quality and quantity. As population continues to rise dramatically in the Metroplex, large cities as well as small towns and rural residents will be challenged in their effort to maintain a reliable and clean supply of water. Drought conditions over the past four years further magnify this challenge.
On a map that shows concentrations of hazardous chemicals in water wells, you will find most of the contaminated wells concentrated along the familiar curving outline of the Platte Valley through the Metroplex. A combination of shallow well fields, sandy soils, and depleted flows have all contributed this connect-the-dots pattern of degraded water supplies.

Data collected from 1994 to 1997 by the US Geological Survey, NDEQ and others recorded the detection of 19 pesticides in the Lower Platte River. The herbicide atrazine was detected in all but one of 142 samples. The average concentration was just above the water quality standard for the protection of aquatic life, but below drinking water standards. Chemicals with reasonable amounts of data (such as atrazine, cyanazine, simazine, metribuzin, alachlor and metoachlor) showed high levels in May and June particularly, when larger amounts of rainfall lead to runoff into the river. These same trends were evident in the Elkhorn River and Salt Creek.

1.4.5 Groundwater Studies
A Public Policy Study for the Lower Platte River Corridor Region, prepared by the University of Nebraska-Lincoln for the Lower Platte River Corridor Alliance in April 2000, focused on 20 local jurisdictions in the Corridor region, including counties and municipalities. It was pursued due to increasing non-agricultural land development and an increasing concentration of population in the Corridor. The eight counties within the Lower Platte Corridor contain nearly 42 percent of Nebraska’s population, about 700,000, and roughly correspond to most of the Nebraska region in the Metroplex.

Situated between two large population centers, Lincoln and Omaha/Council Bluffs, the Lower Platte Corridor region is experiencing a population growth rate significantly higher than that of the state overall (see Population section earlier in this chapter).

The study included a survey of various stakeholders who identified a number of problems related to groundwater quality and quantity, including substandard septic systems and water wells; the close proximity of septic systems to water wells, esp. in some unincorporated residential communities; the inadequate enforcement of water well and septic system regulations; inadequate stream flows in the Platte River; water quality in private community wells; and stream and river dumping.

The Study offers contrasting examples of water systems located along the Platte. The Village of Cedar Creek in Cass County (pop. 330), is connected to the rural water system but each home is served by a private septic system. In Sarpy County, however, small communities adjacent to the Platte—Hanson’s Lakes, Chris Lake and Betty Lake (together comprising an unincorporated community of 250 houses)—is in the process of connecting to the Omaha water supply as well as installing sewer lines and a centralized sewerage treatment lagoon.

Two common problems in residential areas without a community water well and sewage treatment systems are that septic systems are installed that do not meet Nebraska Department of Environmental Quality requirements, and aging septic tanks that leak, contaminating ground water supplies.

Among problems identified in the survey:

• Old sand pit lake developments that have uninspected septic systems in sandy soils, some installed
neatly 40 years ago and consisting of little more than 55 gallon metal drums that have rusted and are leaking;
• Close proximity of water wells and septic systems, especially in older developments near the Platte that have wells and septic as close as forty feet from the river;
• Near South Bend it was reported that people often do not obtain permits to dig new wells. Douglas County uses its Heath Department for permit inspections, but most counties do not have health departments;
• In Butler County there was concern that the state doesn’t help enough in regulating septic and wells. Between Butler and Platte Counties, where the specific location for the county border is disputed, it is perceived that neither county is enforcing standards along the river in that area.
• In North Bend, the issue of enforcement and monitoring was discussed in light of the need for consistent enforcement. They questioned why the Nebraska Department of Environmental Quality is requiring North bend to purchase ultraviolet equipment for their sewage treatment facility, when Omaha “occasionally will get away with dumping raw sewage into the Missouri River.”

County-administered permit and inspections for septic systems are required in Cass, Douglas, Sarpy, and Saunders Counties. In Douglas County the Health Department administers the inspection. Only in Cass County is either a licensed engineer or testing lab required to administer percolation tests. State regulations require that septic systems be located at least 50 feet away from surface water, such as the Platte River. However, Saunders County has an unofficial 600-foot setback requirement for septic systems along the Platte River and has been successful in preventing new septic systems from being installed within that distance of the river. The performance zoning system used in Cass County includes a density bonus for subdivisions designed with central sewage systems.

Permits for private wells are not required by any of the eight counties studied, except Douglas. The Douglas County Health Department requires both a permit and an inspection for a private well. Even though state regulations do not stipulate minimum setbacks of wells from property lines, Cass County requires that wells be located no closer than 75 feet to any property line. State regulations require that private wells be no closer than 50 feet to septic tanks. Douglas County has a stringent requirement that private wells be no closer than 75 feet to a septic tank.

New structures built in the floodway not only are safety hazards, but they also increase flood heights for entire river reaches. Counties and municipalities have the zoning authority to restrict or prohibit floodplain development in order to maintain a green corridor along the waterway and maximizing the floodplain’s natural and beneficial function for storing floodwater and maintaining wildlife habitat.

Nearly all interviewed were concerned about flooding and keeping the River clear to prevent future floods. Some officials discussed the contradictions in the roles of FEMA. On the one hand FEMA discourages new structures in flood plains, but on the other hand residents are reimbursed for flood damages, effectively encouraging them to continue occupying their dwellings.

Zoning regulations in Cass, Dodge, Sarpy and Saunders counties as well the towns of Louisville and Ashland allow reconstruction of any nonconforming structure (both residential and nonresidential) in floodplains, even if the cost of reconstruction is more than 50 percent of the market value of the structure before the damage occurred, but only if the reconstructed structure meets current flood protection
requirements. Sarpy County bans all nonconforming structures in floodways if the cost of reconstruction is more than 50 percent of market value of the structure before the damage occurred.

A Lower Platte River Feasibility Study by Burns & McDonnell for the U.S. Army Corps of Engineers and the Lower Platte River Corridor Alliance in 1999 showed that the Platte River alluvial aquifer had typically provided a ready source of high quality water, which could even be consumed without treatment.

Housing developments occurring in the Metroplex, and especially those built around abandoned sand and gravel pits, pose a set of environmental problems. In many of these developments, individual residences were developed independently and, because of the rural location, public water and wastewater systems are not available. Each residence had to install its own potable water supply and sewage disposal system.

Typical water wells extend to the bottom of the aquifer and most of the lengths of the wells are cased. Water is drawn into only a portion of the well near the bottom of the aquifer. The shallow water table near the Platte, however, makes water easily accessible using a sandpoint well. A well of this type is installed by driving a sandpoint into the ground, which tends to limit penetration to the upper portion of the aquifer. Water in the upper portion has a greater risk of contamination compared to deeper portions of the aquifer because the sources of pollution are generally above the water table near ground level.

Few options exist for sewage disposal other than septic systems in these developments. Sandpit housing developments are not often suitable for this type of system. The combination of highly permeable soils and subsoils overlaying alluvial deposits containing a shallow water table increases the probability that waste will percolate into the aquifer. This is particularly hazardous if shallow sandpoint wells used for water supply are located nearby.

1.4.6 Contamination Issues
Previously noted, the Platte River and all of its major tributaries were declared impaired by the NDEQ in 1998 after failing to meet applicable water standards. Fecal bacteria from municipal sewage plants, septic systems, agricultural activity and overflows from sanitary and storm sewers impair the entire reach of the Platte River in the Metroplex (including the Elkhorn River and Salt Creek). The primary pollutants in these waterways were identified as nitrate, pesticides and fecal bacteria.

In wells, primary sources of groundwater contamination were agricultural activities and wastewater disposal. Excessive irrigation and fertilization, highly permeable soils, and shallow water table increase probability that chemicals and other pollutants will be found in aquifers.

The type and location of wells can influence infiltration levels of contaminants. In the Lower Platte Valley, two particularly large well fields supply the City of Lincoln and the Metropolitan Utilities District of Omaha. The Lincoln well field contains 38 vertical wells developed in the Platte River alluvial aquifer northwest of Ashland and two horizontal collector wells. MUD’s field contains 56 active vertical wells.

At each well field, the separation of the vertical wells creates a cone of depression, which lowers the local water table below that of the water level of the Platte. As a result, water is induced to infiltrate into the aquifer from the river. This induced infiltration accelerates the movement of contaminants, particularly
pesticides, from the river into the aquifer.

One of the horizontal wells in the Lincoln field (6.2 miles downriver at the confluence of the Elkhorn and Platte rivers) is located close enough to the bottom of the Platte River channel for the State to classify the water produced in that well as surface water under the influence of groundwater. When the horizontal wells are operating, changes in contaminant concentrations in the river are quickly reflected in the well water. Pesticide concentration have been documented that were 20 to 50 percent of the pesticide concentrations in water collected from the river at the same time. Concentrations are highest in spring and early summer with runoff, so water produced in the well field could be managed by selective use of wells during certain times of the year.

1.4.7 Resident Patterns and Opinions
Those living along the Platte River in the midst of the Flatwater Metroplex often find themselves caught between the interests of Nebraska’s two major cities, both of which draw significant amounts of water from Platte well fields, and from agricultural interests.

A Lower Platte River Corridor Alliance Opinion Survey conducted by Leslie and Associates in 1998 found that 40 percent of seasonal residents along the Platte lived in Omaha, while 24 percent lived in Lincoln.

At the time of the survey, knowledge of environmental or floodplain regulations was low among seasonal residents and all residents in the Corridor—only 20 percent of seasonal respondents and 15 percent of all residents were aware of any environmental or floodplain regulations that pertain to the Lower Platte River Corridor. A greater percentage of seasonal residents had private domestic wells and sandpoint wells as compared to all residents. Nearly 60 percent of seasonal residents had a private domestic well. Compared to 25 percent of all residents, of those with a well, 57 percent of seasonal had a sandpoint well, compared to 34 percent of all residents. A greater percentage of seasonal residents also had septic tanks, 86 percent as compared to 25 percent for all Corridor residents.

In focus groups, regarding water quality, pesticide contamination was the concern mentioned most often. Individual dumping in the river was also a concern, even a bigger concern than industrial pollution. Residents near Gretna and Plattsmouth were particularly concerned that the growth of population would increase litter and dumping. Agriculture, specifically irrigation, was mentioned as a conflict to natural habitat and wildlife in the corridor. Urbanization and loss of rural character concerned all groups, except Columbus. Participants suggested planning was needed to ensure a balance. Smaller communities in the Metroplex are also grappling with water issues as they relate to the increased urbanization of the area.

Recently, a county board meeting in Wahoo gave us a glimpse of what is to come as cities, small towns and agriculture all vie for a shrinking supply of water. The Metropolitan Utilities District was not able to persuade a skeptical Saunders County Board to let it build a well field covering more than 1,000 acres in the Yutan area. (OWH 3.24.04). County officials said too many questions remained to grant the utility’s request for a flood-plain permit in Saunders County, including concerns that the MUD well field would drain a huge aquifer near the Platte River. Some opponents also said Douglas County, not Saunders County, stands to benefit economically. Dan Crouchley, an attorney for MUD, said the well field, in the works since the 1990s, is essential to the development of western Douglas County.
The World-Herald reported “about a dozen area farmers said the well field would drain water needed for irrigation, decreasing the value of their farmland.” Most of the 40 wells were slated to go on 1,100 acres in Saunders County, with some wells also planned in Douglas County. The paper reported that Ashland Mayor Ronna Wigg and Ashland City Council President Dean Busing spoke against the plan, and noted that Ashland and Lincoln each have municipal well fields in Saunders County.

Busing said no study has examined the impact that MUD’s well field would have on Lincoln and Ashland’s pumping operations or water quality—MUD’s well-field permit allows it to pump up to 104 million gallons a day, with an average of 52 million gallons a day, according to the article. “There’s a lot at stake here,” Busing said. “They can do what they want in Sarpy and Douglas County, but this is my home, and I ask you to please consider that.” Others argued that the well field could bring polluted water into the aquifer from a closed ordnance plant near Mead that is a Superfund site.

In a close vote, the Lower Platte North Natural Resources District’s Board on June 14, 2004, approved 18 well permits for MUD’s water treatment plant project.

As population rapidly increases, more clashes over finite resources are likely. Many of these can be avoided, however, if all communities within the Metroplex begin to see themselves as part of a larger system that depends on the same air, water and land for its future survival.

1.5 Agriculture and Food Systems

Some of the best farmland in America can be found in the Metroplex, deep soils made rich through glacial deposits of minerals and through organic matter resulting from thousands of seasons of tallgrass prairies.

It was a land that sustained life that came before human settlement, and the lives of the earliest settlers—prairie grasses, for example, convert energy far more efficiently than introduced grain species, and were a nutritious source of food for bison and in turn for the early human populations that depended upon plentiful herds for food, clothing and shelter. And as Lewis and Clark saw, this land supported a tremendous diversity of plant and animal life.

So why, then, is this very same land being farmed intensively for just two crops—corn and soybeans—or even worse, being covered by acres of bluegrass lawns, tract housing, discount stores and vast stretches of mostly empty parking lots?

At the second Metroplex Conference on Growth held in Omaha on Sept. 11, 2003 (led by the Joslyn Castle Institute and sponsored by the Nebraska Environmental Trust), JCI President W. Cecil Steward noted that low-density development around Omaha will hinder the city’s potential for future growth, and in its planning the city has failed to take advantage of favorable attributes including a central location and natural resources such as water, wind, fertile soils, and four-season solar climate. “Agriculture is a vital part of the urban community,” Steward said. “Yet the average bite of food on your table travels 1,300 miles, even though we live in the middle of this country’s greatest food-producing region.”
At the conference, Omaha planners noted that Douglas County would run out of both farmland and land for housing in 20 to 25 years (based on current trends). Steve Jensen, assistant director of planning for the City of Omaha, said that every ten years Omaha growth consumes 16.3 square miles, and by 2025, there will be no land available to plat in Douglas County. He also noted that low-density development, and acreages in particular, return less revenue to the city than they receive in services. Jensen noted concerns about acreage development in Washington County, where widespread development in the southern half of that county threatened to cap Omaha’s growth to the north and effectively eliminate agricultural uses in the area. Once acreages are in place, said Jensen, it will be almost impossible to extend the city’s sewer district beyond the county line.

The Metroplex is no different than other urban areas in the U.S. in that prime farmland is being gobbled up by development. And like the rest of the country, the root causes are also the same: when an urban population becomes disconnected from the land, from its source of food, then the land ceases to be a living thing, and instead becomes just another commodity to be exploited for short-term profit.

Valuable agricultural land is being covered at an alarming rate by a sea of tract houses and attendant shopping centers, or it is taken out of production by acreages that trade crops for bluegrass. Even when it is farmed, the crop itself has nothing to do with feeding the local population. Excess corn is turned into ethanol, which is mixed with gasoline and pumped into the cars that make sprawl possible. There are social implications as well, as familiar landscapes become almost unrecognizable, and a way of life some families have known for generations is gone in a blink.

1.5.1 Farms Yield to Urban Growth

“Farmers Yielding to Sprawl” announced a headline in the front page of the Sunday Omaha World-Herald on November 22, 1998. Writer David Hendee described the dilemma facing Larry and Kathleen Peterson, farmers in the Elkhorn River Uplands northwest of Omaha. Hendee describes a view from their farmhouse: a vast, open vista of fall fields, shattered cornstalks and distant farmsteads sheltered by trees. “But the tranquil hilltop view is deceptive. Back by the grain bins behind the house, the Petersons look southeast over suburban Omaha development... sprawling in their direction. For farmers like the Petersons who operate on Omaha’s urban-rural fringe, their fate is sealed. Concrete will be their last crop...” Nationally, agricultural land disappears at a rate of more than a million acres in the year, a trend that shows no signs of abating. In metro Omaha, farmland disappears at the rate of about 3,400 football fields a year. (Omaha World-Herald)

And there are similar trends around Lincoln, where agriculture is being priced out by acreages in all directions. Lincoln/Lancaster County planners have projected that more than 30,000 county residents will live on acreages or scattered housing developments by 2050.

“No matter how much work you’ve put into the land, no matter how much you’ve done...when they wave $20,000 an acre at you, boom it’s gone,” Douglas County farmer Dale Logemann told the W-H of the sprawl that threatened the farm that had been in his family for more than 130 years. But when the developer of a golf course and housing development arrived, he wasn’t ready, “It wasn’t for sale when the offer came,” he said. “Omaha got here 15 years sooner than we thought it would.” In Lancaster County, a dryland farmer may pay $1,500 to $2,000 per acre for good farmland, while developers are paying as much as $25,000 to $50,000 on the edges of Lincoln and Omaha. (Libby, Stewart 145)
“The price of virtually all farmland in Lancaster County is now set by development potential rather than agricultural production potential. Basically the powers that be have made the decision that Lancaster County is getting out of agriculture.” He says the city and county are in effect offering up farmland as an incentive to attract executives and their families to Lincoln. “They say ‘we don’t have mountains or beaches but if you move to Lincoln you can afford to live on an acreage . . . you can own a starter castle on 10 acres.’ In 20 to 30 years we will see the end of any significant commercial agriculture in the county.”

Richard Olson, a University of Nebraska researcher with the Center for Sustainable Agricultural Systems, added that a long-term benefit (productive farmland) is lost to short-term gain: “Corporate people don’t stay in one place very long. They often don’t have a reason to become a part of the community. They are not building a nice place to live.” (Nebraska Magazine)

Nationwide, the land we are losing to urban sprawl is our most productive farmland. The U.S. is losing this land to development at a rate of more than 1 million acres a year, the equivalent of more than half the wheat fields in Nebraska. “People often say that food is cheap, so why do we need so much farmland?” according to Olson, who examined these issues with students in his class, Urbanization of Rural Landscapes. “As demand for food increases you are going to need more and more land. The U.S. population is now 272 million, but by 2050 it is projected to be as high as 400 or even 500 million. We are projected to be a net importer of food by 2020. Some say biotechnology will boost yields, but will these improvements balance out the land degradation?” It’s not just the net loss of farmland that has Olson concerned, however. It’s where we are losing it. “Even though nationwide there is still a lot of farmland, the thing that’s unique about Lincoln and Omaha farmland is that is near Lincoln and Omaha. If you want a local food source then you need the land to support it. Otherwise all of your food must be shipped in. Nebraska itself is already pretty dependent on other places for its food.” (22-23)

Eating responsibly acknowledges an unbreakable bond between people and the land. When farmland is replaced with urban development, we eliminate our most prevalent remaining connection with nature, writes Richard Sutton, associate professor of horticulture at UNL, in Under the Blade. “Most urban shoppers will tell you that food is produced on farms. But most of them do not know on what farms, or what kinds of farms, or where the farms are . . . such a profound ignorance of a relationship that is absolutely essential to our existence and well-being is truly irresponsible and unethical.” (Sutton 229)

“There are farmers between Lincoln and Omaha who don’t want to sell their land. But if the farmer next to you sells and drives up the price of land and the tax valuations, then you get to a point where you can’t resist selling,” says W. Cecil Steward, JCI president. “It is a cancerous kind of growth.”

But it isn’t purely price incentives that move agricultural concerns off the land. As land values are driven up around city fringes, farmers simply cannot remain competitive. It is estimated that taxes consume 30 percent of net farm income, and this number is significantly higher on the urban fringe. Farmers pay a larger portion of their income in property taxes than do non-farmers because land is the productive factor of farm operations (Libby, Stewart, 165)

Smaller communities are affected as well—nearly all farm-related businesses in Omaha metro area towns like Bennington and Elkhorn—feed, seed, and fuel dealers—have disappeared in the last 10 years as houses replace farms.
Some maintain that is merely a tradeoff, one use for another. Olson and Lyson, in their preface to *Under the Blade*, noted that landscape functions are rather the result of many interactions. Individual parcels are not isolated, and many of our environmental problems arise when a parcel of land is treated as if it has no connection to the larger area (a similar attitude arises over water issues, as seen in the previous section). The authors cite the Supreme Court decision Lucas v South—in which Justice Antonin Scalia outlined a philosophy of “transformative economy” in which parcels of land are separate and basically inert until transformed into a “higher use” as opposed to an “economy of nature.”

Viewing the land in this light is having devastating consequences on our countryside. The misconception of housing developments as a “higher use” is particularly troubling. Some may argue that the basis for this is purely economic, that housing and attendant retail development increases the tax base, but there is a growing body of evidence that shows that this type of development actually costs more in municipal services than it produces in tax revenues. (Libby and Stewart, 158)

“Farmland conversion is qualitatively different from other paths by which land is removed from agriculture. Development forecloses any options for agriculture on a particular piece of land; if you grew up on a vegetable farm in western Long Island (or any other of the many urban fringe areas) you literally can’t go home again...For the nation as a whole, the most productive soils are the most urbanized. “ (Olson and Olson, 19, 28)

People care more for a place if they feel they are part of it. Urban dwellers need to feel they are part of the larger landscape, to feel the connections that are basic to living in the natural world. This was something understood more than a century ago by the famous University of Nebraska botanists Frederick Clements and John Weaver, who developed a plant formation concept that explained over time how interactive plant and biotic communities evolve. Through ecological relationships these communities acquire interdependent characteristics that are greater and more complex than are represented by the sum of their individual species. (Johnsgard 16) The same can be said of the interdependencies of urban and rural environments.

1.5.2 Land and Local Culture

Rural landscapes provide many functions other than food production. Without landscape, the city is cut off from the surrounding countryside, and residents become trapped in a world that no longer enjoys other species or the enjoyment of open landscapes. We reap the benefits of scenic values. Tony Hiss wrote in 1990: “the danger, as we are now beginning to see, is that whenever we make changes in our surroundings, we can all too easily shortchange ourselves, by cutting ourselves off from some of the sights and sounds, the shapes or textures, or other information from a place that have helped mold our understanding and now are necessary for us to thrive. Overdevelopment and urban sprawl can damage our own lives as much as they damage our cities and countryside.” (R. Olson 55, 79)

“Any farmland bordering a major urban area is unique in terms of its proximity to that city. More than half the value of U.S. farm production is generated in counties in or near urban areas (which are built on prime ground in the first place). This land near the urban fringe is critical to the development of localized food systems.” (Olson and Olson 19)
Rainfall in the Metroplex is plentiful enough (30 to 35 inches a year) to sustain most operations without irrigation. Not only does this save on fuel costs (to pump water), but also it is one less strain on the overtaxed rivers (the Central Platte Valley has tens of thousands of irrigation wells; in contrast, Pottawattamie County has about 50).

According to the USDA, Saunders, Cass, Otoe, Burt and Dodge counties ranked in the top 10 in soybean production in 1997 (Saunders was ranked first and Cass second; the two combined produced about 12 million bushels.

What this demonstrates is the potential of this land. Imagine if part of the bean crop was replaced with other crops—tomatoes, squash, potatoes, sweet corn, apples, melons—crops that could be grown locally, within minutes of growing urban centers.

To achieve this, communities must find ways to stop sprawl at the city’s edge and instead encourage agricultural practices that connect the country to the city. When a monoculture of soybeans is produced, it creates little connection with the urban areas other than as transit points to ship the product elsewhere.

Aldo Leopold wrote in A Sand County Almanac that we must “Quit thinking about decent land-use as solely an economic problem, and examine each question in terms of what is ethically and esthetically right as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise.”

A monoculture of beans and field corn not only disconnects the land from the towns and cities; it also encourages ever-larger farms and more intensive practices that can deplete the soil and contaminate the water.

In 1997, Cass County, in the heart of the Metroplex, counted 694 farms, down from 913 just ten years earlier. At the same time the average size of a farm in that county increased from 371 to 433 acres. Total land in cultivation also dropped by nearly 40,000 acres, to about 300,000 acres (Douglas County has half as many farms, and about a third the number of acres available for agriculture).

1.5.3 Food and Cities
Omaha was once tied closer to the land. Traveling through the city you couldn’t miss the towering symbols of the bounty of the plains: massive canning factories, slaughterhouses and flourmills fed round the clock by a steady stream of trains. But there were also many small farms that ringed the towns and cities that provided eggs and milk and apples and specialty products such as jams or honey. Your watermelons weren’t grown in Mexico; they were raised right next to your city, or in your own backyard.

In a recent Farm & Countryside Commentary by Elbert van Donkersgoed (Corner Post #329) titled “Our Cities Are What We Eat,” van Donkersgoed discusses Canada’s debate about a new deal for its cities focused on infrastructure, “on the assumption that the billion dollar investment in Toronto’s subway system is representative of this new arrangement.” On the contrary, van Donkersgoed believes improved urban life is not about expensive infrastructure, but rather it is about better food solutions.

He writes that “food choices account for some 20 percent of retail sales and of service jobs, ten percent
Food determines character of communities

of industrial jobs, 20 percent of car trips and traffic, 20 percent of chronic diseases, 25 percent of fossil fuel energy and air pollution, 40 percent of garbage, 80 percent of sewage. Food is about economics: it influences our health and productivity, and our culture. More than with any other of our biological needs, the choices we make around food affect the shape, style, pulse, smell, look, feel, health, economy, street life and infrastructure of our cities.

He refers to the old saying: we are what we eat, and notes that it is equally obvious that a city is what it eats. Food habits, writes van Donkersgoed, determine the character of our cities:

- Whether our main streets are fast-food strips or lined with spots that breathe local flavor and character.
- Whether there’s a Little Italy, Little India or Asian Village anchored by restaurants and groceries that nourish entrepreneurs and cultural cooking traditions.
- Whether the poor, elderly and physically disabled can access nearby grocers that sell fresh nutritious produce.
- Whether backyards are splashed with the green hues of vines, squash and corn, or sport fence-to-fence grass.
- Whether people treat food scraps as garbage or as valuable compost.
- Whether highways are clogged with refrigerated 18-wheelers transferring produce across the continent or local farmers bringing in the day’s harvest on pick-up trucks.
- Whether our health systems are forced to deal with expensive diet-related crises such as heart disease, diabetes, obesity, or cancer.
- Whether low income families have a place at our bountiful table.
- Whether the money spent on food stays in and near the city to create more jobs here, or leaves town overnight to create jobs there.
- Whether shoppers drive to pick up convenience foods from box stores or walk to neighborhood outdoor markets for locally grown fresh and homemade products.

1.5.4 Divisive Policies
The Joslyn Castle Institute for Sustainable Communities (JCI) has been working in partnership with the Great Plains Environmental Law Center (GPELC) to identify obstacles and define strategies for reconnecting urban and rural communities.

Their initial research determined that public policy at the federal, state and local levels is promoting a model of food production that concentrates production on commodity crops and intensifies methods and disconnects the farmer from the consumer marketplace. As noted above in the example of Cass County, farms have increased in size and have intensified their production in only a few crops, such as feed corn or soy. Current public policy requires the farmer to operate on narrow margins with little to no choice to maintain profitability.

JCI/GPELC maintains that these policies have resulted in absurd consequences. For example, in order to qualify for crop insurance and loans from the USDA, a farmer must agree to follow the USDA’s policies that reflect an emphasis on commodity crops—soy, corn and wheat—that can be exchanged in international trade. However, by promoting monoculture feed grain production through crop insurance
and lending programs tailored to these crops, the USDA is also promoting policies that reward intensive production at narrower margins. In order to survive, farmers have adjusted their crops to a USDA model premised on excess feed crops made available for export.

The increased concentration of producers of these commodity crops, reinforced by USDA policies, has resulted in depressed prices for these commodities. Farmers produce more corn, soy and wheat each year, driving prices and profitability down, while sacrificing environmental quality through intensive practices. A bushel of corn today sells for less than it did in 1972. To increase profitability from an excess crop such as corn, USDA developed policies to convert excess product into the fuel additive ethanol. Rather than produce valuable food for people, farmers produce fuel for cars.

These same policies cause farmers to increase chemical use (fertilizer, pesticides and herbicides), energy use and water use to maximize yields. The drive for higher yields, coupled with the resultant production of non-food outputs such as ethanol, require high volumes of water, contributing to its diminishing supply, and quality, in both surface and underground sources. Nebraska is especially vulnerable to these misguided policies, as overuse and pollution threaten one of the world’s largest sources of ground water—the Ogallala Aquifer—the bulk of which exists within the state’s boundaries. As noted in the previous section, the Platte River, which serves farms and cities alike across the state, has nearly dried up in places, the result of overuse, alterations and years of catastrophic drought.

According to JCI/GPELC, government policies have radically replaced an efficient system of diversified food production based on local distribution with intensive commodity crop production that ignores human needs and local markets. The end result is a system in which American farmers produce food at a financial loss and that fails to directly feed people or communities. Policies that promote monoculture commodity food production destroy rural communities, degrade the environment, devalue farmland (thus encouraging sprawl development and conflicts between rural and urban land uses), and separate consumers from their food. The food that sustains us has become just another industrial commodity, disconnected from a public ever more concerned for its safety and nutritional value.

1.5.5 Disconnections
Current planning and development policies do not address or integrate all of the systems that are necessary for communities to operate in healthy, sustainable ways, but rather focus on promoting housing and commercial development and automobile-based transportation systems. According to JCI/GPELC, food production and farming is overlooked in local planning efforts. While current planning processes articulate a general direction for urban development within a community, these efforts do not attempt to integrate food production or distribution.

In most comprehensive planning, food production or distribution is viewed as a separate commercial activity—to be delivered along streets and rails just like any other urban commodity—and the agricultural land used in food production is considered a temporary zoning use, particularly when it occurs along the urban fringe. No provisions are made for incorporating local food production into the overall development plan, and in general food production is not valued in comparison to housing or commercial development. As a result, planning efforts encourage the transformation of valuable farmland into strip malls and low-density sprawl. Landowners often envision the value of their property not as a vital food production resource, but as a commodity waiting for a “higher and better use,” which results in inflated land values,
inequalities in taxation, and greater burdens on towns and cities as they attempt to stretch services to these areas.

Many of the problems with intensive food production are also market driven. Notwithstanding the costs to natural resources and community, industrial commodity farming and livestock production is the only way for most farmers to make a living. Although many industrial food products are low in quality, pricing (subsidized by public policies) drives consumers to buy them. Few alternatives exist that provide farmers with a fair profit and consumers with sustainable, quality food at acceptable prices. This project proposes to develop a market-based solution to the industrial model of food production. Negative effects can be avoided if producers have an adequate consumer market to sell naturally and sustainably produced food products.

Finally, another market—land speculation—is also causing problems in the countryside by misusing policies that were originally intended to help farmers. An Associated Press investigation released on April 4, 2004, revealed how millions of dollars in property tax breaks—intended to preserve farmland—were instead going to companies that bulldoze farms to build housing subdivisions, malls and industrial parks.

The AP describes the process this way: “A developer buys land with the intention of building on it. During the years when he readies the property for construction—preparing architectural plans, acquiring financing and permits, even building roads and laying water lines—he runs some cows or cuts some hay. Then he claims the tax break. Because of the loopholes, often even a pretense of farming can be enough to qualify. Usually, the tax break ends only after construction of buildings begins; sometimes, it doesn’t even stop then.”

The article offered an example in Iowa, where real estate developer Knapp Properties Inc. owns 239 acres near the Des Moines Airport. “The land, close by a Wingate Hotel and a Federal Reserve check-processing plant, is subdivided for commercial development and is for sale at a total price of $7 million. But because Knapp allows local farmers to plant corn and soybeans on it, the company paid $14,345 in property taxes last year instead of $320,514... In Polk County, Iowa, which includes Des Moines, about 10 percent of those claiming farmland tax breaks actually are identified on the tax rolls as developers. County Assessor Jim Maloney said most of the others also were developers and speculators.”

The AP notes that such cases are common: scores of them were found throughout the country, “some with ‘Soon To Be the Home Of’ signs heralding future malls, industrial parks or housing developments on property receiving tax breaks intended to encourage land preservation.”

1.5.6 Preserving Farmland
Back in the Metroplex, some counties with large urban areas are moving to regulate lot sizes in an effort to preserve farmland and curb acreage developments.

On March 23, 2004, Douglas and Washington counties took steps to curb acreage developments, responding to concerns about trends in the Omaha metro area for placing houses on large tracts of rural land. Douglas County created a plan that limits the size of lots in subdivisions to a maximum of two acres each on county land northwest of Omaha. The area would be considered a special “overlay
district” where the new rules are applied. The county would also be able to regulate lots between 10 and 20 acres.

Washington County officials approved a plan that allows homes to be built on lots as small as two acres in southeast Washington County. According to the Omaha World-Herald, the plan “deals a blow to some acreage owners in that area who had wanted officials to allow homes only on tracts of more than 10 acres.” The paper quoted Planning Commission Chairwoman Laura Linhart, who told the Washington County Board: “we want to preserve agriculture in Washington County, and you can’t do that if you’re allowing subdivisions in that particular area.”

Acreages pose a challenge across the Metroplex, as they take a lot of land out of production for a very few houses and once in place they exist in conflict with agricultural uses. Lincoln and Lancaster County appear headed to a future of a city surrounded by acreages, while across the Missouri River in Pottawattamie County permits for houses on acreages grow at double digit rates.

According to University of Nebraska research, Nebraska is urbanizing its rural landscape faster than the national average. Agronomist Charles Francis noted that “We put cities where the best farmland is...at this rate, our cushion of available land (to meet domestic food needs) will disappear by 2020.”

Olson argues that concerns about farmland loss are based on four premises, namely:
• An adequate supply of quality agricultural land is absolutely essential to the economy as well as to the social and environmental well being of communities and nations.
• Conversion of farmland contributes to a significant reduction in the functions of landscape and to the sustainability of natural systems.
• Rapid increase in population and corresponding increased demand for agriculture production will make it more difficult for technical advances in agriculture to keep pace with demands.
• The approach to development in the U.S. is inefficient, resulting in a diffuse pattern that leaves impoverished urban cores behind while replacing rural landscapes with suburban sprawl. This sprawl degrades many landscape functions and offers a diminished quality of life. A move toward compact, livable cities is essential to the preservation of agricultural landscapes. (Olson 2)

Olson concludes that farmland loss also signals a loss for humanity: “(There is) a serious reduction of people on the land who can pass on to future generations the skills, the traditions, the passions, and the values they will need to farm well on the smaller energy inputs inherent in the use of ‘contemporary’ energy (energy that arrives from the sun and is harvested over the landscape). When a landscape is converted, not only is the agricultural function lost, but so is the knowledge inherent in that place and its people.” (Olson 75)

Endnote 1

In his 1993 article, Janovy expressed uncertainty over the future of other water disputes. One of the most uncertain was water for use as interstate sale. “One can easily envision a protracted court battle over the right to exploit aquifers in the same way that oil, gas, and coal deposits have been mined,” he wrote, adding that there was a critical need for information and technical education and an awareness that global economic influences are the same here as elsewhere. “Many of the educational goals,
philosophies and techniques needed in the future are not part of the present educational system.”

Janovy wrote that we continue to see staggering increases in the number of humans on earth, and each requires a huge amount of water, especially those living in the developed world. He noted that population is one factor over which humans have control, but to date have shown “little ability or will” to control it, bring the attendant problems such as deforestation, species extinction, ozone depletion, and the buildup of greenhouse gases.

In 1993 Janovy offered a worst-case scenario for the populations that depend upon the Platte, and as we look back from 2004 his words seem prophetic: His worst-case scenario included “a 10 to 20 year drought, municipal water supplies and wells providing water for rural residents become more and more contaminated with nitrates and other chemicals; the water-based tourist industry lost because of reduced stream flow and drying lakes...larger municipalities fight over water supplies...(and) the Platte and other rivers go nearly dry...and hundreds of towns cannot use their wells because of nitrate contamination.”

Endnote 2

J. David Aiken, wrote in Comhusker Economics, August 8, 2001, about the legal framework for resolving water disputes in the West generally, and in Nebraska, and offered these examples:

**Subflow/Tributary Groundwater Rule.** Most western states apply the doctrine of prior appropriation to both surface and groundwater. This means that the *priority* rule of “first in time is first in right” would apply to both surface and groundwater uses when those uses came into conflict. If “junior” wells interfered with senior surface appropriations, the junior wells would be required to either quit pumping, or else provide makeup water to the stream. In Arizona, California, Texas and Nebraska, state law does not apply the prior appropriation doctrine to groundwater. However, in Arizona, California and Texas, if well pumping depletes streamflow, the well is treated as part of the stream and is subject to the priority rule of first in time, first in right. Nebraska is the only western state that has legally rejected the subflow or tributary groundwater rule.

**Nebraska Rule.** In 1966 the Nebraska Supreme Court ruled that water pumped by Omaha from wells on Platte River islands was groundwater and not surface water. This allowed the Court to avoid invalidating the movement of groundwater from the Platte River Basin to the Papio River Basin as an illegal transbasin diversion of surface water. The decision also set Nebraska water law at odds with the law of every other western state in saying that wells pumping water from a stream are not subject to surface water law in Nebraska. The 1936 prohibition against transbasin diversions of surface water, which probably was the primary reason for the court’s rejecting the subflow/tributary groundwater rule, was in turn overruled by the Nebraska Supreme Court in 1980. This provides the Nebraska Supreme Court with an opportunity to undo the legal mistake it made in rejecting the subflow/tributary groundwater rule in 1966.

**Kansas v. Colorado.** If the Pumpkin Creek lawsuit against groundwater users is filed, it is likely to follow a pattern established for so-called “conjunctive use” lawsuits in Kansas v. Colorado. In this case Kansas sued Colorado on the basis that junior wells in Colorado were depleting Arkansas River streamflows into Kansas, depriving senior Kansas surface appropriators of their water. In the first liability phase of the lawsuit, Kansas and Colorado respectively spent tens of millions of dollars establishing that the
Colorado wells were depleting streamflows into Kansas. When Kansas won that phase of the lawsuit, the states then litigated the second penalty phase to establish (1) what Colorado would be required to do to compensate Kansas for its past water shortages and (2) how Colorado would prevent future water shortages for Kansas. Colorado will be required to pay Kansas for economic losses associated with past streamflow depletions, and junior wells in Colorado will be required to either provide makeup water to the stream or else stop pumping. A successful Pumpkin Creek lawsuit against “junior” groundwater users would probably yield a similar result. The Pumpkin Creek case does present a somewhat different twist: for the surface water users to be successful (as they were in Kansas v Colorado), the plaintiff-surface water users must ultimately persuade the Nebraska Supreme Court that it made a mistake in rejecting the conjunctive use law of every other western state in 1966. The 1980 reversal of the 1936 transbasin diversion prohibition indicates that this is possible, however, and in some regards there is less law to overrule in the 1966 conjunctive use case than in the 1936 transbasin diversion case. In any event, surface water users must make a convincing case that junior wells are depleting Pumpkin Creek streamflows before their case can make its way to the Nebraska Supreme Court. While that showing may be possible, it will be an expensive and complicated undertaking.

In an influential 1973 law review article, UNL Law Professor Richard Harnsberger observed that if Nebraska groundwater were red, Nebraska streams would be various shades of pink. Nebraska water law is slowly beginning to recognize that inescapable hydrologic fact. Statutes enacted in 1993 and 1996 clearly recognize and acknowledge that surface water and groundwater may be physically connected, but stop short of establishing a comprehensive legal framework for resolving surface-groundwater disputes. The Pumpkin Creek lawsuit may provide a significant piece of that unsolved puzzle.
The above graphic dramatically demonstrates how the physical spread of American cities far outpaces population gains due to low-density growth patterns.

Omaha Planning Department

Low-density Growth
Omaha 1885-2002
CHAPTER TWO: REGIONAL GROWTH CONFLICTS

The Flatwater Metroplex can sustain a growing population only if its citizens take an active interest in their communities and seek smart growth policies from their leaders. Public policy alone, however, does not make a better community. Each of us must also begin to change the way we think about community, and about the way we behave in it.

Successful communities do not result from the enlightened leadership of a few. Rather, they are made up of citizens who take responsibility for their individual behavior, who are informed and active in issues important to their community, who are knowledgeable when electing officials who create and enforce zoning and other standards, and who are aware that all communities and interests are interconnected and completely dependent on natural systems that sustain life.

An awareness of the complex interactions and interconnections between communities and the natural environment, and how our behaviors and actions may jeopardize that environment, is the first critical step toward a sustainable future in the Metroplex.

We often look to large municipalities for solutions to complex regional growth challenges, because it is perceived that growth sprawls outward from the city and into the countryside. However, decisions made in rural communities also exert a collective gravitational pull on the urban fringe, and in some cases—where large urban areas are reaching jurisdictional limits—rural districts are gaining a disproportionate influence over the regional population and future growth decisions.

As was noted in Chapter One, the purpose of this report is to raise awareness of issues related to rapid growth in the Metroplex and how we might address these issues to promote healthy communities and a sustainable future. Moreover, we must consider not only how we behave in this environment, but also how we perceive that environment and the issues and forces that affect it. For example, the actions of city officials and planners often receive close scrutiny by the media and others (i.e. battles with big box retailers like Wal-Mart), while county boards—which usually govern much larger jurisdictions, and have more influence over natural systems—often receive little more than passing attention.

In the past, planning challenges were usually equated with the inner city, and in more recent times attention has been focused on suburban conflicts (i.e. zoning battles, infrastructure, schools, services, etc.). While planning efforts continue and must continue to focus on problems in these areas, significant attention must also be paid to rural communities, county jurisdictions, and overlapping jurisdictions.

County boards and other governing bodies associated with rural areas are often equated with mundane issues such as roadside mowing or maintenance of gravel roads. As the farm population continues to dwindle, counties (especially those containing or near urban areas) are exploiting new sources of revenue, including residential and retail development beyond the city limits.

In some cases, this development is opportunistic, with scattered houses or businesses that pop up near cities on the other side of jurisdictional or county lines. Other times the development is defensive: officials in a rural county that abuts a metropolitan area may attempt to draw a line on encroaching suburban growth by creating a “buffer” of low-density residential. But this type of development is worse
than the “sprawl” it attempts to counter, as it only accelerates the loss of open spaces and farmland and the degradation of habitat. These far-flung residences, established outside of urban sewer districts, also pose greater threats to the environment (each with its own septic system), impose disproportionate costs on other taxpayers, and often lead to conflicts with agricultural uses. Ultimately, a sense of community is lost.

Governing bodies outside of metropolitan areas, including county boards, school boards and town councils, will have much to say about the future quality of life in the region. Will that future benefit some communities at a cost to others? Will it favor public interest over political influence? Will it squander diminishing natural resources for short-term gain, and foreclose on the future for the next generation?

If low-density development is left unchecked, future growth in the Metroplex will be seriously compromised, with negative consequences for ecosystems, human health, and the economy. The greatest challenge for planners, officials and citizens in the Metroplex remains one of perception: to begin to see this place not in terms of individual communities and special interests, but rather as a regional community linked by roads and rails as well as by natural systems—water, land, climate—by history and economics, and by public policy made effective through broad-based participation and cooperation. It will require more compactness and shorter routes of infrastructure in towns and cities to accommodate growing populations while at the same time preserving the integrity of existing communities, the food production system, and natural ecosystems.

Finally, it will require a new way of looking at the Metroplex region as a collective whole rather than a collection of parts—one economy, one ecosystem, one future.

This chapter focuses on the many challenges that rapid growth poses for the natural systems and populations of the Metroplex. It examines the detrimental effects of acreage development and other types of low-density growth; the issue of sprawl and its potential affect on the Metroplex and along major transportation routes; and the importance of density in communities of all sizes for improving human health, for building economic prosperity, and for making places that inspire and enrich present and future populations.

2.1 Low Density Development

Acreage developments are among the most inefficient uses of land. Their scattered, low-density aspect consumes land far more rapidly than traditional suburban development and places a disproportionate burden on nearby municipalities.

Discouraging acreage development is key to achieving sustainable, smart growth in the Metroplex. The spread of acreages is a growing problem that will require more cooperation and coordination between cities and counties, and greater oversight and enforcement by state government.

Whether ten acres of land contain one house or 70 houses, it still requires that a road be built or maintained and utilities extended (phone, electricity, cable) to the site. Separate water and septic systems are usually required for each acreage development (which are difficult to regulate and inspect), creating greater potential for stream and groundwater pollution. Other services such as fire and police protection are also spread thin by acreages, with each new investment in services and infrastructure bringing an
increasingly smaller return to a tax base already stretched to the limits. Municipalities and farms in their respective counties in effect subsidize acreage owners.

A graphic example is provided by the Omaha Planning Department. In an urban density of seven units per acre (or 70 units per 10 acres), 12,000 persons require just 1.09 square miles of living space and the paving of just one mile of street. In a suburban context, that same 12,000 persons would require 2.25 square miles of living space and 2 miles of paved streets. That same population living on 1-acre lots would require 7.65 miles of living space and nearly 10 miles of paved streets. On ten-acre lots, that same population would inhabit nearly 77 square miles and require more than 135 miles of paved streets. So in terms of habitat loss and loss of farmland, acreage development is by far the biggest potential displacer of these resources, and a disproportionate burden to other taxpayers. (See illustration at right)

This has prompted city officials around the country, including Lincoln, to call for controversial impact fees and other adjustments to tax and zoning codes to provide for a more equitable distribution of the burden that results from infrastructure and service extensions that serve fewer and fewer numbers of taxpayers.

Low-density development also affects the quality of education, as schools, libraries and other institutions are challenged to extend resources to far-flung residences. Finally, a sense of community is lost, as scattered acreages are disconnected from other populations and cultures and often exist at odds with them, as is the case when acreage owners complain about the noise, smell and traffic associated with farming and other established rural land uses.

Acreage development is found throughout the Metroplex, with sites scattered around and between nearly every community. Drive any direction beyond the city limits of Lincoln and you will discover that real farms are becoming a rare sight. Acreages are popping up everywhere in Lancaster County, driving up land prices and driving out farmers. The same is true in areas just beyond the county line. Ten miles east of the Lincoln city limits, where Otoe, Cass and Lancaster counties meet, acreages and acreage sites dot this rural intersection. Clearly, these acreages are intended for Lincoln commuters, yet their property taxes go to Plattsmouth (Cass) and Nebraska City (Otoe), each town about 40 miles away.

The Lincoln Journal-Star reported on a “stalemate” that had developed at a May 26, 2004, meeting between planners and the Lancaster County Board over the Lincoln-Lancaster County Planning Commission’s rejection of two acreage development applications and the delay of a third. The planning commission cited “a lack of formal guidelines to grade acreage developments as properly planned for future inclusion in greater Lincoln or nearby towns.” According to the Journal Star, the reason no standards exist is that members of the County Board (three of whom live on acreages or farm plots), “disregarded three recent acreage studies as flawed.”

The newspaper reported that the studies found that city homeowners pay disproportionately for the costs of housing developments on the one- to three-acre plots that planners call acreages. Much of that cost hinged on street usage and the assumed costs of integrating acreages into eventual urban developments. Planning Commissioner Jon Carlson said he would not support “ad-hoc” acreage development without clearer standards or better explanation of costs. Planning Commissioner Eugene Carroll, who sided with Carlson, said he voted according to the Comprehensive Plan, which plots how the Lincoln area is
to grow (Acreage developments recommended for denial by the Planning Commission, however, can still be passed by the City Council or County Board, depending on location). Ironically, among the people protesting new acreage developments were two people who said they moved to acreages to avoid the congestion of city life. (LJS, May 27, 2004)

Omaha officials also face great challenges from low-density development. Located in Douglas County (which has half the land area of Lancaster County), land available for development is running out, and growth is no longer possible to the east (the state line and Missouri River) or to the south, which is already developed by Bellevue, Papillion and other exurban communities.

Lincoln, on the other hand, sits at the center of a large county, and has room to grow. It is even conceivable that Lincoln, in time, may be larger than Omaha. Its challenge in the future will be to continue its contiguous growth pattern and encourage greater density in order to keep down costs associated with the expansion of services.

One option is for Omaha to look north, to largely rural Washington County, where acreage development along the southern border threatens to cap Omaha’s growth. An article in the Omaha World-Herald (“Counties move to regulate sizes of residential lots”) noted concerns about “trends in the Omaha area for placing houses on large tracts of rural land,” and reported that officials in Douglas and Washington counties were setting limits on what can be built:

The limits come as residents look to buy homes on lots that are each several acres in size. Such lots are meant to give people a rural feel without having to live far from the city.

The problem is that larger lots can make it more difficult for cities to absorb subdivisions in the future, and big lots eat up rural land more quickly.

Both counties took steps Tuesday to curb such acreage developments.

Douglas County, which has seen homes pop up with yards of three to five acres, has created a special plan regulating future subdivisions.

The plan limits the size of lots in subdivisions to a maximum of two acres each.

The new regulations would govern a large area of county land northwest of Omaha. The area would be considered a special “overlay district” where the new rules are applied.

Officials say the area probably will see significant growth as Omaha, Elkhorn and Bennington expand.

“It just gives us more control for more orderly growth,” Barbara Hayes, chairwoman of the Douglas County Planning Commission, said of the plan.

In addition to the call for tighter development, the county will also have more oversight of larger lots. Under the proposed changes, the county would be able to regulate lots between 10 and 20 acres. Currently the county has no say on homes built on more than 10 acres.

Douglas County Board member Clare Duda, who represents the area, said the plan is a “great step” to organizing growth in the county.

After seeing an increase in the number of proposals for larger subdivisions in recent years, county planners asked the city how it handles such development.

City planners said county rules that allow homes to be built on larger pieces of land
could complicate Omaha’s efforts to absorb developments in the future. The denser a development, the easier it is to surround with streets and utilities... (OWH, March 24, 2004)

2.1.1 Sanitary Improvement Districts (SIDs)
Another form of fringe development is organized in a Sanitary Improvement District, or SID. Composed as a unit of government outside of a municipal jurisdiction, SIDs levy fees to their residents in order to develop their infrastructure.

For more than 50 years, the State of Nebraska has provided for this type of development. In Omaha, where SIDs have been the norm for about 30 years, the majority of all new single-family, multi-family and commercial development is created through SIDs. Public improvements consist of streets, sewers, water, gas and electrical systems, all built to city code. As the SID grows, taxes and special assessments are collected to retire the debt of the SID. The eventual goal is for the SID to be annexed by the nearby city after enough homes, businesses, etc. have been built to support the development’s outstanding debt (through the tax levy). Part of the challenge for Omaha, which has limited land supplies (and a limited capacity to assume SID debt), is to coordinate city planning with Douglas County, limit SIDs from directing growth on the fringes, and encourage greater densities outside of its municipal jurisdiction.

Lincoln has a well-established joint city-county planning committee, and for this and other reasons has done a better overall job of managing growth than Omaha. With 90 percent of its growth occurring within the city limits, Lincoln has the advantage of being located on relatively flat land in the middle of a large county. The city extends its jurisdiction through control of the water supply and sewer connections and is mostly governed by a “build-through” philosophy that does not permit SIDs. County land outside of Lincoln’s jurisdictional boundary is nevertheless dotted with acreages.

Fortunately for Lincoln and Omaha, more than 50 years ago the state also provided for progressive annexation laws that gave these municipalities better control over their fringe jurisdictions than cities in many other states. But beyond their three-mile jurisdictions, the challenge remains how to coordinate planning with counties and other communities beyond those legal limits.

2.1.2 Lincoln Schools and Sprawl
W. Cecil Steward’s 1998 study of Lincoln Public Schools offered an example of a public school system in an environment of moderate to intense population growth is the most influential planning entity and the chief promoter of the sprawl pattern (this situation has much improved in Lincoln, see Endnote 1).

Steward (who is a former member and chair of Lincoln’s city/county planning commission) in his published case study, “Public School Systems: The Advance Scouts for Urban Sprawl,” made the following observations about schools and sprawl:

The image of the public school as the center of America’s better future has given almost reverent power to school planners to control the form and future of our cities. Public school systems in environments of moderate to intense population growth are the most influential planning entities, promoting the typical sprawl pattern of American cities.
It has become standard practice for the school system planners to attempt to anticipate future growth directions of the city and to be the first to acquire developable property in key locations, in advance of other development interests. Their criteria are not dissimilar from private developers. The school systems want the best location at the cheapest prices, they want good topographic features, such as adequate drainage, buildable terrain, stable soil and good vehicular access, and assurance from the city of inexpensive access to public utilities and infrastructure. Immediately behind, and sometimes parallel to, the school’s planning are private developers with the same lowest cost highest value objectives on the undeveloped edges of the city.

It is not uncommon for these interests to become overlapping and interactive in the “win-win” trading between developers and school systems of property parcels, development costs and even the formation of “informal” coalitions to influence city planning.

The school system is in the position of always being able to predict the outcome of its own self-fulfilling prophecy—“we had to build here, because the new families will demand it.”

We now have what we wished for—wonderful new schools and neighborhoods—while the vitality of our city’s center (and its oft-neglected older schools and neighborhoods) is bled dry by the relentless blade at the edges. (Olson and Lyson, 370)

2.1.3 Influence of Major Highways
Low-density growth is made possible by an extensive roadway system in the Metroplex that is fed by east-west Interstate 80 and also includes major north-south routes such as I-29 in Iowa and its Nebraska parallel—Highway 75.

Along these and other routes one can see the beginnings of land giving way to low-density sprawl—sandpit lakes near rivers (and groundwater sources) are lined with new houses, and where rolling hills used to sprout pasture grasses and corn, scattered acreages sprout mini mansions, bluegrass and swing sets.

Many of these acreages contain families that commute to the nearest town or city for school, work or recreation. In some instances, however, the family may divide activities between two or more cities, the acreage serving as a refuge from a long day in which long distances are crossed to serve daily needs and life becomes little more than a series of exit signs. But families on acreages aren’t the only ones doing the driving. Services that a household in the city requires—i.e. police, fire, repairs, mail and package delivery—are also desired in the country, and costs increase as service areas are stretched over greater distances with fewer returns.

It is important for communities and counties outside of the metro areas to address acreage growth, particularly in light of projections that show commuter numbers into Sarpy and Douglas counties (Greater Omaha’s “core” counties) growing dramatically in the coming years. (See Endnote 2).

Commuter statistics from Council Bluffs, Bellevue, Lincoln and other towns and cities in the Metroplex...
suggest that many people who work in Omaha’s core counties do not and will not choose to live there. In the year 2000 there were more than 45,000 total daily commuters into Omaha’s core counties (16,500 from Council Bluffs alone, about 45 percent of that town’s working population). These total numbers are expected to rise to nearly 80,000 by 2025 and could reach more 230,000 in less than 50 years. This huge variance between Omaha’s projected resident and working populations suggests a frightening scenario when one considers that each commuter family will live somewhere outside Omaha—a suburb, acreage or another town, and what such numbers will require just in road infrastructure alone. There is also a great deal of movement between the two core counties. More than 36,000 Sarpy County residents commuted to work in Douglas County in 2000, while the reverse flow brought nearly 12,000 Douglas County workers into Sarpy County. (Bureau of Business Research)

Although many of these commuters will choose to live in a suburban area or in a nearby community, a significant number will also seek housing on an acreage or other low-density housing area. In a survey conducted for the Sixty Mile Radius Study (SRS) a significant number of respondents in the Metroplex region expressed a desire to relocate to an acreage (See Survey in Chapter Four).

Areas beyond city jurisdictions that are controlled by the counties are often developed without any regard to what is best for either the municipality or the countryside. This is evident in the picturesque rolling hills east of Council Bluffs, where farms are yielding at a rapid pace to acreage and scattered housing developments fueled by the city’s location at the crossroads of I-29 and I-80 (In July in 2001 the Council Bluffs City Council unanimously passed an ambitious Loess Hills Preservation Plan that called for rules that would permit Council Bluffs to grow without destroying the scenic hills.

Although cities like Omaha and Lincoln benefit from state zoning jurisdictions, beyond the boundaries the problems are still the same. The Interstate system and its feeder highways go well beyond the jurisdictions of cities, crossing miles of county land and connecting the smaller communities whose zoning futures will determine outcomes for all Metroplex populations.

Some area planners have recognized the potential of the problem. On April 7, 2004, Omaha Assistant Planning Director Steve Jensen met with the Greater Wahoo Development Corporation and offered some advice: Saunders County will be trampled by new housing and escalated government costs for public services unless community leaders prepare for Omaha’s expansion. The World-Herald reported that Jensen shared the region’s 2050 population projections with the group:

Jensen encouraged Saunders County to restrict future housing developments to subdivisions and smaller lot sizes. Saunders County, he said, would be wise to construct new subdivisions near cities such as Wahoo and Yutan and along state roads and U.S. highways - not in the middle of a dirt road miles from a town.

"We’re not saying you shouldn’t have acreages,” he said. “If a lot of acreages develop, that will consume a lot of ground. When you spread the population out, you are going to have to pave a lot of ground for new roads."

Saunders County’s 2000 population of 19,830 residents could reach about 51,500 by 2050, Jensen predicted.

The Saunders County seat of Wahoo, a city of about 4,000, is about 25 miles from both Omaha and Lincoln.
“We are going to need to draw workers from a pretty big surrounding area,” Jensen said.

Many of those newcomers will work in Douglas County because the city of Omaha will continue to attract new industry and manufacturing.

By 2025, Douglas County will run out of land to plat new subdivisions, Jensen said. About 2,000 new homes are built in Omaha each year.

“Could Saunders County keep up with 2,000 new homes? That day is coming,” Jensen said. “There has to be an action plan before that day comes.”

Saunders County Planning and Zoning Administrator George Borreson said he expects the county to adopt a new set of land-use restrictions within a few weeks.

Borreson’s proposed Comprehensive Plan for Saunders County calls for one house per 40 acres in agricultural areas instead of the current rules allowing one house per 20 acres.

“We’re not going to try to stop growth, but we’re going to control where it goes,” he said.

(OWH April 9, 2004)

What Borreson and others in Wahoo are seeking is preservation of a compact community that includes a mix of uses—residences, businesses and industry that can sustain community life and can be in turn sustained by that community’s own resources. Within that vision is a hope that cities and towns in the Metroplex won’t repeat the mistakes made by other urban areas in the country.

### 2.2 The I-80 Corridor Community

In the previous sections we examined the various forces leading to rapid growth in the Metroplex. But the greatest determinate of present and future growth is a widening strip of thick concrete—Interstate 80—that girds the region from east to west and links the principal metro areas of Council Bluffs, Omaha and Lincoln.

Before I-80 was completed in the 1960s, Highway 6 was the main connection between these cities—the highway was the northern boundary of Lincoln (known as “Cornhusker Highway,”), its two lanes ambling through small towns and hilly fields for better than an hour to Omaha. One had a sense of separation than between Lincoln and Omaha; even Boys Town, which one passed before entering Omaha at Dodge Street, seemed quite detached from the city to the east.

Halfway between Omaha and Lincoln, where the Platte divides north from south, there is a familiar landmark along the old highway, a Depression-era lighthouse with the name “Linoma” spelled in black letters down its side. The name is derived from a fusion of the names of Nebraska’s two largest cities, but when the structure was erected to mark the site of a small amusement park, restaurant, and sandpit beach, this country retreat seemed far from either place. Then as now, there were a few small towns nearby—Ashland, Greenwood, Louisville and South Bend, and a scattering of modest cabins along the Platte River, but most of the area between Lincoln and Omaha was rolling farm and pastureland, separated by rivers, streams and woodlands.

Near Linoma you will find the Dakota Sandstone described in Chapter One—that reddish earth that is becoming all the more visible these days as more (and wider) roads are cut to feed the rapid growth between Lincoln and Omaha and Council Bluffs that may one distant day make Linoma more than a
fanciful name, but rather the center of a budding megalopolis of more than 2 million.

The Interstate system follows the Platte Valley across much of Nebraska, and in the Metroplex I-80 crosses the river at South Bend, forming a crooked X that marks the region’s ecological ground zero. Every development decision made along this major transportation corridor will have long-term effects on existing communities and the environment. Consider a recent *Omaha World-Herald* headline announced that a new interchange was being promoted near the Platte I-80 crossing—“Sarpy County, developer study I-80 exit”:

Sarpy County is speeding up its consideration of a new Interstate 80 interchange with help from a real estate developer.

The county and Seldin Co. of Omaha are starting an environmental study of an interchange at Pflug Road near the Platte River in western Sarpy County.

Seldin owns property on both sides of I-80 at that location, raising the prospect of another bustling business center if an interchange someday were to be built.

Seldin says it has no firm plans. But the company is interested enough to fund half of the $15,000 environmental study, with Sarpy County paying the other half.

“If you look at the growth, it’s just good planning,” said Randy Lenhoff, president of Seldin Co.

Interstate 80 now has four interchanges in Sarpy County - at 126th Street, 144th Street, Nebraska Highway 370 and Nebraska Highway 31. The county also is studying a possible interchange at 180th Street.

A Pflug Road interchange, which would be the farthest west in Sarpy County, isn’t a done deal. Although Sarpy County is studying the idea, Nebraska Department of Roads officials have been skeptical that an interchange is needed.

Tim Weander, district engineer for the Roads Department, said the state would help with the project to some extent by rebuilding a bridge over Pflug Road so that it could be incorporated into an interchange. That amounts to a $1.5 million assist on a $5 million project.

But Sarpy County - not the state - would have to pay the rest because the state doesn’t consider the interchange a high priority. Funding from Congress has been considered but is up in the air.

“It’s not a need for the state, for the state highway system,” Weander said. “It’s a need for the county.”

Even if the project moves ahead, construction would be years away. Nonetheless, Sarpy County officials are eyeing the county’s future western development.

“I think growth is going to continue out that way, for our county at least,” Sarpy County Commissioner Tim Gay said.

The county has presented a feasibility study for Pflug Road to the state, and the full environmental study would follow once the state gives the go-ahead, County Administrator Mark Wayne said.

But the study funded by Sarpy County and Seldin would start the preliminary environmental work ahead of time.

If an interchange were built, Seldin would gain prime development ground. Lenhoff said Seldin hasn’t “thought very far ahead” on potential development, although
it could include both businesses and homes.
Gay and Wayne said Seldin has discussed with county officials concepts for what could be built.
The interchange discussions arose as I-80 is widened to six lanes through Sarpy County.
“When you’re doing a major reconstruction,” County Commissioner Tim Schram said, “that’s the time to look to the future.” (OWH, January 12, 2004)

It is the sense of urgency that is most troubling about such proposals. Those concerned with the ecological impact of the I-80 widening process (the work is part of the state’s effort to widen I-80 to six lanes between Omaha and Lincoln by 2012. The overall project is estimated to cost $410 million) have been critical of environmental studies that were put on a fast track to hasten widening of the interstate. Environmental groups expressed concern that the shortened process would further reduce habitat for threatened species along the Platte and other tributaries.

A 1998 study of a section of the I-80 corridor, Lower Platte River Corridor: The Bluffs Region, examined the 10-mile stretch of the corridor from Ashland to Louisville. Challenges noted in the report included political turf battles for competing uses and lack of compatibility, loss of natural habitat and terrain, flood control, floodplain building, protection of scenic bluffs, zoning, retaining rural character, wellhead protection, and wastewater containment.

A major alteration of transportation patterns along the Platte (such as construction of the proposed Sarpy County Pflug Road interchange) would have consequences for the populations and ecosystems within the immediate vicinity, and would also touch off a host of related developments that would not be attached to any municipal sewer system: motels, gas stations, and various roadside amusements and the housing for the people who maintain them, and other services—fire, police, medical—that such a population would require. How much is too much for a corridor of land from Ashland to Louisville that is already showing signs of stress?

The widening of the Platte bridge and a new interchange would have a dramatic effect on the growth of nearby small towns, the persistence of agriculture in the area, and the ability of towns and counties to control low-density sprawl or other types of development. Potentially, such a proposal could rapidly accelerate sprawl between Omaha and Lincoln and draw out low-density growth like a giant magnet, further damaging the fragile Platte ecosystem and creating even more water supply and quality challenges for nearby well fields that already supply drinking water to hundreds of thousands.

Put together all of the variables along I-80—rapid population growth, the mass replacement of agriculture with housing and other development, and the proliferation of ever widening roadways, and you have the makings of an ecological ground zero in the middle of this region’s most fragile ecosystem.

Cecil Steward warns of one possible outcome: “We get all this so-called roadside entertainment and then we get the eating places and motels and gas stations within one of the most fragile ecosystems in the state. Eventually someone will want to change the course of the river. It goes on without a vision, without considering that we live on a smaller and smaller footprint.”
CHAPTER 2: REGIONAL GROWTH CONFLICTS

Any new entry or exit point along I-80 is bound to stir things up, given that the corridor is heavily used by commuters between the largest cities—Council Bluffs, Lincoln and Omaha, as well as by commuters from smaller towns, acreages and detached housing developments. In the 2000 U.S. Census, towns along I-80 between Lincoln and Omaha showed dramatic growth: the Waverly area, for example, grew 31 percent, the Ashland area posted an 11 percent gain and Papillion a 17 percent gain over 1990.

As previously noted, the pattern is already developing between Lincoln and Omaha in which commuters choose to live in one community but work in another. It is not uncommon for some families to drive more than 100 miles a day in pursuit of their daily needs.

Ashland offers a good example of how I-80 is changing one of the smaller communities in the corridor. Old Highway 6, which passes through Ashland, was once the main highway between Lincoln and Omaha (the Linoma lighthouse is just up the road). It carries a fair amount of local traffic, but is considered a “scenic” and relatively leisurely alternative to the Interstate south of town, where each day more than 34,000 vehicles travel back and forth between Omaha and Lincoln and what will soon become a six-lane motor corridor (recall projections that by 2050 there may be more than 200,000 commuters into the Omaha metro).

Some of the traffic stops at Ashland for the nearby tourist attractions, including Mahoney State Park (which overlooks the South Bend of the Platte), the Strategic Aerospace Museum, and a wildlife “safari” tour park. But a number of drivers of those cars traveling to Omaha or Lincoln call Ashland home.

Near Lincoln’s water treatment plant at Ashland is an upscale housing development—Iron Horse—where about 300 upscale houses and a golf course are being built around a former rock quarry. About 60 percent of the homes sold in Iron Horse are to people from Omaha, and another 30 percent to people from Lincoln. (LJS 5.27.01)

Farmers around Ashland can no longer afford the land. The $100 million Iron Horse Project, for example, will boost Ashland’s current assessed value by three times. The project hasn’t been without controversy—within the development is an Italianate landmark (the Beetison House), and archeological sites including Oto and Pawnee burial grounds and remnants of the Ox-Bow Trail. The sites are listed on the National Register of historic places.

Closer to Lincoln, Waverly residents have responded to dramatic growth projections with an updated comprehensive plan that seeks to maintain a small town character while capitalizing on its proximity to the Interstate and Lincoln. This is particularly critical as Lincoln continues to expand to the north and east in nearby Stevens Creek. Only 30 miles separate the Waverly exit (near Stevens Creek) from the Highway 370 exit in Sarpy County.

Lincoln’s proposed East Beltway would hook into I-80 east of the current Waverly exit, setting up a strong potential for rapid growth in coming decades. Lincoln’s North 27th Street has already expanded to the Interstate (and into endangered Tiger Beetle habitat), lined with big stores, restaurants, motels, housing developments, and car dealerships.

In the past, small towns like Waverly and Ashland were well known to travelers between Lincoln
and Omaha, since Highway 6 slowed through each town and “mom and pop” gas stations, motels, campgrounds and restaurants enticed travelers to stop and rest for awhile.

Travelers on I-80 still mark their progress by these towns, but their identity has been reduced to a name on an exit sign. As is typical of most interstate development, the real towns remain hidden from view, represented to interstate traffic by the chain restaurants, motels and gas stations that collect at the exits and sometimes form a strip of development that connects back to the original town (in many cases a shell of its former self).

The towns along I-80 are well aware of this “representational” image they project on the Interstate. “For Ashland, the most practical direction for growth is toward the Greenwood and Mahoney park interchanges...the guiding philosophy has been to keep the Mahoney interchange pristine and develop the Greenwood interchange with light industry.” (LJS 5.27.01)

The result is that there is often no sense of real place. What was once a unique stop on a road has in the mind of the traveler been replaced by the sameness of plastic franchise signs. “Hometown” becomes just an exit number on the freeway, a nonplace.

But growth of the small communities also creates friction between them. The growth of Ashland, located in Saunders County, has raised eyebrows (and some voices) in Cass County. Flood plains around Ashland limit growth, so any future expansion is likely to take place to the south in Cass County. (LJS 5.27.01)

It is not difficult to see the attraction of the I-80 corridor to developers: some of the most picturesque terrain in the Metroplex is found midway between the two urban areas, and if a I-80 traveler risks a few moments to snatch a glimpse of the landscape he or she will still spot a few old barns amid the rolling, wooded hills. And when they pass from Cass to Sarpy County, they might not even notice the wide, shallow Platte River beneath them.

Cautionary tales regarding life along superhighways can be found in far more urbanized places. In 1988, columnist Russell Baker quoted the late Sen. Daniel Patrick Moynihan, who said that by 2020 I-95 in Florida would have to be 44 lanes wide to carry the traffic between Ft Lauderdale and Miami. “Pretty soon there won’t be anything left of Florida,” Moynihan said.

Baker was writing about Moynihan’s interest in developing new forms of transportation. “This is hard going,” wrote Baker,” because the government is committed to sticking with cars and airplanes to the bitter end…the American traffic solution is to widen the road…the result is always the same. Better roads lure more people to settle alongside them, bringing more cars, which jam the better roads. This angers the people in the traffic jams, who elect new politicians promising to solve the traffic problem by building better roads. This cycle of destruction has been continual since World War II. You'd think somebody would have realized by now that building a better road doesn't work. It just uses up the continent that much faster...growth and development raise your taxes, make a shameful mess on the countryside and disperse people from the civilizing influence of city living to barren new communities that bind their victims to lifetimes of driving and offer so few rewards that the breakdown of the TV set becomes a catastrophe.”
2.3 Sprawl of America

To avoid the problems associated with the low-density sprawl that affects many U.S. cities, Metroplex communities need to become aware of early warning signs related to low-density development and the dispersal of traditional community functions. There must be an awareness that sprawl is not an inevitable urban form, but rather the result of ongoing political decisions.

Sprawl is the antithesis of a sustainable community. Rather than making connections, sprawl divides and scatters, often without regard to landforms and to other populations and systems that subsidize its growth. It is sometimes described as a cancer, selfishly replicating without concern for the health or survival of its host.

Andres Duany, co-founder of the New Urbanism movement that seeks in part to return to traditional models of town planning, spoke to Omaha-area planners and citizens during a September 2001 lecture at the Joslyn Art Gallery. He said Nebraskans needed to become experts in New Urbanism "as soon as possible," noting that there were few geographic obstacles in the I-80 corridor between Lincoln and Omaha that can slow or stop sprawl. "Nebraska is lucky," he said. "You haven't blown it yet."

The Metroplex still contains examples of what New Urbanist architect Peter Calthorpe calls "real towns" that house a diverse population, provide a full mix of uses, maintain walkable streets and positive public space, integrate civic and community centers, are transit-oriented, offer accessible open space, and honor the unique qualities of a place.

Such environments can still be found in many Iowa and Nebraska towns, or even in former small towns that have blended into the urban fabric while retaining neighborhood qualities—Dundee in Omaha, or Havelock in Lincoln—places defined by mixed uses and pedestrian scale and accessibility. Planning for growth while preserving the unique and desirable qualities of these communities will require an awareness of sprawl and how it can degrade community life.

2.3.1 Sprawl Defined

Urban sprawl is often defined as dispersed, auto-dependent development outside of compact urban and village centers, along highways, and in the rural countryside. Excessive land consumption, low population densities, and a lack of transportation choices and public spaces characterize sprawl. In his book, "How Smart Growth Can Stop Sprawl," David Bollier outlines these four causes of sprawl:

• The subsidized auto culture. Federal road building programs open up inexpensive land on the urban fringe and beyond. Growth is deliberately drawn outside of urban areas. The construction of low-density housing linked by highways (which also divide housing from other uses) makes car usage a necessity while making walking impractical or even impossible (The auto culture can be a huge waster of land, leading to the destruction of historic buildings which are often replaced by parking lots. There are an estimated seven parking spaces for each of the 200 million cars in the nation).

• Urban disinvestment and sprawl. Deconcentration of development to areas outside of the city presents significant inequities in cost and benefits. The social costs and public subsidies to decentralized growth are often considered “off the books.” They are not part of the full accounting, and do not reflect the hidden subsidies to low-density development and the social inequities that inevitably result.

• A tax system that encourages sprawl. The property tax system perversely rewards land speculation by requiring higher taxes on buildings than the land upon which they sit (or as James Howard Kunstler...
states in his book, Geography of Nowhere: “Our system of property taxes punishes anyone who puts up a decent building made of durable materials. It rewards those who let existing buildings go to hell.”

- Environmental harm. Sprawl disperses functions of our daily lives across a vast landscape—the average suburban household in the U.S. takes 10-14 car trips a day, leading to greater pollution and consumption of non-renewable energy resources. (Bollier 8)

Auto-based, low-density development is taking some cities beyond the point of any hope for a sustainable future. As early as 1961, the social critic Lewis Mumford stated, “We have sold our urban birthright for a sorry mess of motor cars.” Rather than fulfilling their historic roles as physical and social sanctuaries, he said, American cities turned on their inhabitants and virtually eliminated effective pedestrian traffic. “By allowing mass transportation to deteriorate and by building expressways out of the city and parking garages within, in order to encourage maximum use of the private car, our highway engineers and city planners have helped destroy the living tissue of the city.” (Also see Endnote 3). Notes Duany in the book, Suburban Nation, “Sprawl is ecologically and economically unsustainable, creating physically and psychologically unhealthy environments in which children are completely dependent on parental transportation, the elderly are warehoused in institutions once they lose their driver’s licenses, commuters are stuck in traffic for two or more hours each day, and the urban poor are isolated in deteriorating cities without access to jobs or services.”

In his visit to Omaha, Duany observed that low-density development is often viewed as a lifestyle, when in fact it offers fewer choices: “There is no lifestyle choice in suburbia. To have a bigger bathroom or a bigger closet isn’t a lifestyle choice. If you can get to places, if your kid can get to places—that’s a lifestyle choice.”

Urban Sprawl has also been linked to sedentary lifestyles and attendant health problems related to inactivity and obesity—communities designed around cars and TV watching are taking a toll on the nation’s health. To address this problem, Omaha has joined a nationwide effort to encourage active living in part through smart growth and sustainable design strategies (See Chapter Seven).

Fortunately, residents in Metroplex cities still enjoy relatively short commutes—Omaha residents average about 18 minutes in their commute to work—this is a desirable characteristic that can only be maintained through community and regional planning that discourages sprawl-type growth.

2.3.2 Sprawl and Community Life
Even if commutes remain relatively short, Metroplex residents must also be aware of the landscape they are commuting through, a landscape of neighborhoods, of historic sites, of rivers and parks and other natural features that enrich our lives.

“Much of postwar development—particularly in the rapidly sprawling areas of the U.S.—has not been easy on the eyes or nourishing to the soul. When we drive around and look at all this cartoon architecture and other junk...this ugliness is the surface expression of deeper problems—problems that relate to our national character,” wrote sprawl critic James Howard Kunstler. “The highway strip is not just a sequence of eyesores. The pattern it represents is also economically catastrophic, an environmental calamity, socially devastating, and spiritually degrading. It is no small irony that during the period of America’s greatest prosperity, in the decades following the Second World War, we put up almost nothing but the
cheapest possible buildings, particularly civic buildings. Compare any richly embellished firehouse or post office built in 1904 with its dreary concrete-box counterpart today...when we were a far less wealthy nation, we built things with the expectation that they would endure. To throw away money (painfully acquired) and effort (painfully expended) on something certain to fall apart in thirty years would have seemed immoral, if not insane, in our great-grandparents’ day.” Not to mention the tremendous potential waste posed by all of these temporary buildings.

“Connection with the past and the future is a pathway that charms us in the direction of sanity and grace,” Kunstler wrote. “The antithesis to this can be seen in the way we have built things since 1945. We reject the past and the future, and this repudiation is manifest in our graceless constructions. Our residential, commercial and civic buildings are constructed with the fully conscious expectation that they will disintegrate in a few decades...Strip malls and elementary schools have short “design lives.” They are expected to fall apart in less than fifty years. Since these things are not expected to speak to any era but our own, we seem unwilling to put money or effort into their embellishment. Nor do we care about traditional solutions to the problems of weather and light, because we have technology to mitigate these problems, namely, central heating and electricity. Thus in many new office buildings the windows don’t open. On especially bad buildings, like the average Wal-Mart, windows are dispensed with nearly altogether. This process of disconnection from the past and the future, and from the organic patterns of weather and light, done for the sake of expediency, ends up diminishing us spiritually, impoverishing us socially, and degrading the aggregate set of cultural patterns that we call civilization.” (Kunstler, Atlantic, 1996)

Often new urbanists are accused of trying to stand in the way of development, or the American Dream of the homeowner, when in reality New Urbanism proposes another choice for that homeowner. Moreover, development done the traditional way—with a long-term view to the future—makes economic sense because it uses resources more affectingly while reducing infrastructure and service costs for cities and taxpayers. New Urbanism also offers a more socially viable environment that people obviously long for when they visit places like Disney World. Larry Bohlen, co-chairman of a Sierra Club campaign to fight sprawl, said, “We’re not trying to subvert the American dream, we’re trying to get back to it. It’s that “Leave it to Beaver” town where all the kids walk to school.” (Egan, The New York Times, 1998)

2.3.3 Urban Growth Options
Duany et. al. examined two different models of urban growth, the traditional neighborhood and suburban sprawl, in Suburban Nation. “They are polar opposites in appearance, function, and character...The traditional neighborhood was the fundamental form of European settlement on this continent through the Second World War, from St. Augustine to Seattle. It continues to be the dominant pattern of habitation outside the United States, as it has been throughout recorded history. The traditional neighborhood—represented by mixed-use, pedestrian-friendly communities of varied population, either standing free as villages or grouped into towns and cities—has proved to be a sustainable form of growth (and is a key element of New Urbanism). It allowed us to settle the continent without bankrupting the country or destroying the countryside in the process.” A true neighborhood, according to Duany, is simply a place that within walking distance provides for most of our ordinary daily needs. So when we examine a regional plan that is crisscrossed with many highways, it is often the ordinary footpath that will help make it work. “Unlike the traditional neighborhood, sprawl is not healthy growth; it is essentially self-destructive...(it) tends not to pay for itself financially and consumes land at an alarming rate, while
producing insurmountable traffic problems and exacerbating social inequity and isolation.

Duany cautioned his Omaha audience that other U.S. cities are struggling with the problems of existing sprawl, which can be nearly impossible to fix (and very costly) once it is in place. For example, he said people find multi-lane roads ugly, so they pass sign ordinances. Then they notice that no one is walking, so they put in sidewalks, but it is perceived that “only indigents” use them. Duany said people prefer avenues where they can stroll, but you can’t stroll in sprawling areas because they are essentially “traffic sewers” where only one thing happens—cars move fast. “We need to measure quality of life rather than standard of living,” Duany said, noting that people in older, compact cities have a better quality of life because they don’t have a huge investment in car infrastructure. “They don’t spend a lot of their time getting from one place to another... competing with (their) fellow citizens for asphalt.”

2.4 Compact, Efficient Communities
Although Omaha and Lincoln have done better than similar-sized cities in the U.S. (see Endnote 4), the continuing challenge for these cities will be to do much better, to encourage greater densities wherever possible. They need to further refine infrastructure and zoning to promote pedestrian-friendly environments, stronger and more cohesive neighborhoods, and linkages between various community interests.

Residents of smaller communities should also be aware that sprawl can affect their quality of life, and should realize that “small town living” can only exist if the community remains compact and walkable.

“Compact and walkable” describes the type of community many tend to idealize or want to visit. Sections of New York City or San Francisco (and many European cities) attract tourists because of their compact, walkable neighborhoods filled with a variety of sights, people, cultures, and mixed uses—those “civilizing influences” Russell Baker referred to above. Even amusement parks and historic theme parks offer an illusion of traditional, mixed-used town planning as a means of enticing people off the freeways. Disneyland’s Main Street, for example, is an ersatz traditional village that is free of cars: a pedestrian-friendly, human scale facade presented as an ideal American town.

But livable towns and cities are not just for those who can afford pricey getaways. Every community in the Metroplex has the potential to become a lively, culturally rich and pleasant destination if development resources are redirected from the countryside and urban fringes to the existing urban fabric. Omaha’s Old Market and Lincoln’s Haymarket are prime examples of investments in pedestrian scale and mixed uses that have proved not only to be aesthetically and culturally interesting, but also good business. And such opportunities exist in small towns as well, where main streets and courthouse squares can offer similar amenities and environments. Towns such as Ashland and Louisville, Neb., offer interesting and walkable main street environments, while other communities such as Nebraska City and Plattsmouth, Neb., and Atlantic and Oakland, Iowa, possess noteworthy stocks of historic and culturally significant architecture that rival anything found in larger cities.

Compact towns and cities are sustainable communities, requiring fewer miles of roads and fewer car trips. They are manageable in size and make more effective use of tax revenues and other community resources: the more compact the community, the more affordable its infrastructure and services. Compact towns and cities also create a greater sense of community because they are built upon connections—on
things that unite rather than divide (See Endnote 5).

2.4.1 Sixty-Mile Radius Conferences
The challenges posed by rapid growth in the Metroplex were put into sharper focus in 2001 with a $225,000, three-year grant awarded to JCI by the Nebraska Environmental Trust Fund. The funding supported a host of activities aimed at increasing public awareness of regional growth patterns, beginning with the initiation of an educational process to address growth-related issues in a 60-mile radius of Omaha.

JCI hosted the first of three Regional Flatwater Metroplex Conferences on Growth (funded by the Nebraska Environmental Trust) in Omaha in 2002, where Lincoln Mayor Don Wesely and Omaha Mayor Mike Fahey were joined by Council Bluffs Mayor Thomas Hanafan as well as by representatives from the Nebraska Governor’s Office and other city and state agencies.

Officials at the conference considered such factors as:
• The necessity of protecting the water supply, including ground water and the Missouri and Platte rivers;
• The cost of roads, infrastructure (such as sewer, power, telephone, cable) and public services (police, fire protection, libraries...)
• The possibility of developing a clean, efficient public transportation system;
• The need to revitalize existing, older neighborhoods and commercial districts;
• The need to construct nearly 170,000 new housing units plus another 35,000 affordable housing units (to make up the current deficit);
• The challenge of preserving open space and ecosystems, farmland and parks;
• The opportunity to enhance the economic vitality of the region;
• Lack of an agency or association that coordinates regional planning across multiple jurisdictions.

For the first time in the history of the region, the conference set in motion a comprehensive process for analysis of the 60-mile radius region that included a detailed examination of the rapid growth along the I-80 corridor.

A Sixty Mile Radius Survey (SRS) committee was also created to focus on issues affecting urban areas in the Metroplex including the relationship of outlying communities to a metro region, annexation challenges and costs, and revitalizing historic neighborhoods and the traditional urban core. The committee also devised and administered a survey of the region (see Chapter Four).

The committee considered the following needs of Metroplex communities:
• Revitalizing the central business districts (CBD’s) of the various towns and cities in the region, with special emphasis on the Omaha/Council Bluffs metro and Lincoln to develop high-density housing and one of a kind cultural/entertainment districts and sports facilities in and around the CBD.
• Continued emphasis on revitalization of housing and commercial centers in older neighborhoods.
• Continued emphasis on infill development, which builds on and utilizes existing public facilities and infrastructure. Expand the use of “conservation overlay districts” as a way to preserve unique older
neighborhoods. Such districts should allow for the creation of specialized regulations that maintain the character of older neighborhoods while encouraging their redevelopment.

- Increased emphasis on historic preservation and preservation of existing buildings.
- Promoting the construction of a full range of housing types, styles and price ranges in all areas of individual cities and the region at large.
- Discouraging acreage and other low-density land uses.

2.4.2 Flatwater Metroplex Conference 2003

At the Second Flatwater Metroplex Conference on Growth (Sept 11, 2003), JCI President W. Cecil Steward noted in his opening remarks that the development policies of the last century are not appropriate for today's sprawling cities: "We are still operating under policies set in the Industrial Revolution, many of which are no longer relevant for today's cities and metropolitan regions." He said there is a great need for vigorous policy analyses.

The conference, organized by JCI and supported by the Nebraska Environmental Trust, brought together sixty planners, government officials, and business and industry representatives to discuss the effects of low-density metropolitan growth on the quality of life and economic health of more than a million people who live and work in the 122 communities of more than 400 people within a 60-mile radius of Omaha.

Steward said that low-density development around Omaha would hinder the city's potential for future growth. Omaha planner Steve Jensen said that every ten years Omaha growth consumes 16.3 square miles, and by 2025 there will be no land available to plat in Douglas County. He also noted that low-density development, and acreages in particular, return less revenue to the city than they receive in services.

A third Metroplex Conference on Growth was held on Sept. 9, 2004, at the University of Nebraska at Omaha. For results of this conference, see Chapter Eight.

2.4.3 Sewer Districts and Growth

There was much discussion at the second conference regarding the planning of new sewer districts and how they can be used to guide growth. Sewer lines are expensive, and construction is on a large scale and disruptive, especially in established neighborhoods. That is why sewer planners look 50 and even 75 years into the future to anticipate future growth and where sewers need to be placed to serve and regulate that growth. Sewer districts keep growth contiguous to existing city development, and when compared to such low-density uses as acreages, they encourage greater densities.

According to Jensen, in suburban areas sewer districts support quarter acre housing lots and apartments with residential densities of 3.4 dwelling units per acre. Developments outside sewer districts, however, have an average density of 1 dwelling unit per five acres—17 times less dense than Omaha's current pattern of suburban growth.

In February 2004, city councils in Valley and Fremont approved an agreement for Valley to send its sewage to Fremont for the next 40 years. Valley will save $6 million over that period by not replacing its aging wastewater treatment facility, instead. Fremont spent $21 million to improving its plant, and will use the revenue from Valley to recover some of the expense. Valley will build three pumping stations and lay over 10 miles of underground pipe to Fremont at a cost of $5.2 million—$4 million less than the cost of
building a new plant. Over the 40 years Valley will save another $2 million paying Fremont to take its sewage rather than operating its own plant. Valley’s initial costs are being covered through the use of tax-exempt bonds (revolving loan program) through the Nebraska Department of Environmental Quality, which encouraged the pact.

Metroplex communities will need to continue to pursue these types of cooperative arrangements that encourage contiguous development and discourage sprawl (and septic systems).

Although Omaha will continue to plan for growth on its edges, Jensen said the city will also pursue redevelopment of existing neighborhoods as well as infill development on some of the city’s vacant lots, a three-year supply estimated to number nearly 6,000. He said infill takes advantage of existing city infrastructure, increases tax revenue, and improves the health of neighborhoods.

Dick Esseks, research associate with JCI, presented findings of the Sixty Mile Radius Survey (SRS) of residents in Nebraska and Iowa who live within this region surrounding metro Omaha. The survey indicates that many residents are aware of growth pressures, and are generally in favor of sustainable development as a collective goal, but tend to be less in favor of sustainability as an individual choice. For example, many respondents are concerned about sprawl, yet many also express an interest in living on an acreage. This discrepancy was also apparent in the survey in the support expressed for the preservation of agricultural land and the opposition to higher density infill housing.

Following the conference, the *Omaha World Herald* reported that the forecast offered by Omaha planners, once seen as “far out,” was coming to bear on development. The article noted that:
• Land open between Omaha and the Elkhorn River will be fully spoken for within two or three decades. Regardless of whether Elkhorn and Bennington are annexed, the Elkhorn River is seen as the City of Omaha’s western boundary because of the flood plain that lies beyond it and the lack of water and sewer infrastructure west of the river.
• County lines already restrict the City of Omaha’s expansion. But the natural growth area of southern Washington County is being blocked off by large acreages, which would limit other types of development in those areas.

According to the article, “Omaha always cherished its ability to grow, thanks mainly to powerful annexation laws. When towns such as Dundee and Millard stood in its way, Omaha annexed them...But once Omaha fills up, where does the metro area grow next?”

Residents in Fremont, about 40 miles northwest of downtown Omaha, have an idea. A growing number of commuters call Dodge County’s largest city home, and Fremont markets its businesses to west Omahans, noted a W-H article. Indeed, city officials and developers in that town of about 24,000 are busy considering how to present their town as a gateway to the metro area. (OWH, Feb. 11, 2004)

As previously noted, nearly all communities within the Metroplex serve as commuter bases for workers who travel to the larger cities of Omaha, Council Bluffs and Lincoln. The challenge in the future will be to plan for these transient commuter relationships to avoid sprawl development. As is demonstrated in sprawling U.S. cities, overdependence on the automobile can transform “place” and “community” into abstractions, a series of exit signs that mark the progress of one’s day. And at the end of the day, when
a couple leave their respective work places and the children are dismissed from school, it is entirely possible that they will all gather in a fourth place—not in one of the cities, but in one of the outlying towns, or on an acreage.

2.4.4 Other Metroplex Growth Challenges
In March 2003, Lincoln Journal Star reporter Dick Piersol noted that "some people believe Lincoln is risking inefficiencies, expense, ugliness and other long-term consequences of urban sprawl" on its eastern edge, where developers were eyeing the 55-square mile Stevens Creek Watershed for future growth ("Directions", March 2, 2003).

He quoted Kent Seacrest, a member of the Mayor’s Infrastructure Finance Committee and an attorney who represents developers, who said there are "strong forces driving the demand for housing in the Stevens Creek basin," especially for the number of families that have one income from a Lincoln job and one from Omaha. “Lincoln and Omaha are coming together from a commerce and trade point of view,” Seacrest said.

W. Cecil Steward, then vice chairman of the Lincoln/Lancaster Planning Commission, said it was clear that there are forces in the community that are so focused on that development corridor (from Interstate 80 and extending to the beltways), that they have little time ...for parallel or comparable development in any other part of the city. Steward said it was skewing the pressure for resources and not giving planning a chance to function for the benefit of shared interests.

“Lincoln has one chance, and one chance only, to have a connected system of park places and the Steven’s Creek watershed is as important to that potential ring as is Wilderness Park.... We are going to get the cart before the horse and destroy some critical future assets,” Steward said.

By March of the following year, the paper reported (March 7, 2004, “Directions”) that work to prepare for growth outside northeast Lincoln’s existing city limit was scheduled to start with the installation of a sewer line. “For decades the city shied away from developing the 55-mile square Stevens Creek watershed, an area roughly two-thirds the size of Lincoln,” the paper reported. Opponents included rural residents concerned that storm water runoff from streets and rooftops could cause flooding, pollute streams and lakes and degrade stream channels.

While rural residents in the Stevens Creek attempted to maintain their picturesque countryside and their historic farms, residents in Council Bluffs area were looking for ways to preserve the unique Loess Hills landscape that surrounds their city (See Chapter Seven for examples of Loess Hill restoration and preservation).

At the Metroplex Conference, Don Gross, community development director for Council Bluffs, said planning challenges are even greater in his city, which lost population in the 1970s and 80s. “There is a greater sense of urgency to cause development in Council Bluffs.”

He said planners have a greater challenge in Iowa than in Nebraska, since Iowa cities have no authority to regulate building outside of city limits, and it is extremely difficult to annex “leapfrog” developments beyond the city’s edge.
2.5 Economic Conditions and Forecasts
The I-80 Platte River crossing is a powerful symbol of the Metroplex’s economic past and future. For nearly 150 years the river has been regarded as a geographic, political and even cultural dividing line. Some say it all began when the state capital was moved from Omaha to Lincoln in 1867, while others maintain that the metro areas are different due to historic accident or vastly different economic forces—Omaha was born of the blood and sweat of packing houses, river traders, and railroads, while Lincoln grew as the seat of government and education. And neither city would be quite the same if Council Bluffs hadn’t first marked the spot where the railroad would cross into the Nebraska frontier, or influenced the location of Nebraska’s capital.

The old divisions and rivalries may still linger, but I-80, which supports the economic force behind every vehicle that travels its surface, knows no boundaries.

*What the region needs for the future is a plan that will serve the needs of all its residents. It is ultimately in the economic self-interest of each community to seek regional solutions rather than individual gains.* The evidence is everywhere in the U.S. where planning is often a response to rapid development rather than a guide to sustainable, long-term growth. Both Lincoln and Omaha consistently rank high in polls and surveys that gauge livability and business potential. There are no oceans or mountain views, but many job seekers also highly value cultural and social amenities (which thrive in compact urban environments) as well as the availability of clean air and water and open spaces in which to hike, bicycle or camp. These are aspects of a healthy community that are in ever-greater demand (See example of Activate Omaha in Chapter Six). If the Metroplex is allowed to sprawl like so many other cities, it will effectively undermine these amenities that are critical to attracting and keeping new talent.

To the contemporary viewer, it still appears that the three largest cities in the Metroplex work at odds, whether it involves quibbling over state resources in the Nebraska Legislature, or casting aspersions over casinos in Iowa, or failing to take advantage of combined economies of scale. But if you are one of the 40,000 commuters traveling between three cities each day, or one of the thousands of truck drivers (30 percent of I-80’s truck traffic in Nebraska is in this 35-mile segment) those divisions seem to fade away.

As the drought-stricken Platte is reduced to a trickle, we see its significance fade as a geographic boundary, but its importance grows as a sign of trouble in a thirsty world of urban growth. Facing unprecedented urban expansion along I-80, communities large and small need to plan not only to take advantage of combined economic opportunities the Interstate offers, but more importantly to address the continuing degradation it can bring to natural and human environments. Maintaining healthy economic growth and prosperous communities will be impossible unless Metroplex citizens plan for a sustainable future. Moreover, if wildlife habitat is further degraded or destroyed, what kind of quality of life does that leave for future generations?

*Planning initiatives will not succeed without the cooperation of the 1.2 million people who now live in the Metroplex. Over the years the relationship between Omaha and its smaller neighbors could be characterized as competitive at best and acrimonious at worst. The headlines over the past few years bear this out: Omaha officials criticize the casinos in Council Bluffs for draining...*
away Nebraska dollars and contributing to crime and other social problems; Lincoln laments Omaha’s successful wooing of its longtime corporate resident, Gallup. Political battles range from disputes between Nebraska and Iowa over land (Carter Lake) and police jurisdictions; and debate in the Nebraska Legislature (and the University’s Board of Regents) is often characterized by a split between urban (Omaha metro), and rural (including Lincoln) interests.

In recent years the cities have been doing more talking. In addition to their JCI and Trust-sponsored meeting in 2002, Lincoln Mayor Don Wesely and Omaha Mayor Mike Fahey also met in March 2002 at an “economic summit” at Mahoney State Park to explore ways to combine the resources and the talents of their two cities. It was noted at the conference that as a single economic metroplex connected by the I-80 corridor, Omaha-Lincoln-Council Bluffs would become the third largest metro area in the region (behind Minneapolis-St. Paul and Kansas City).

But can that growth be achieved in a sustainable fashion, without cost to the environment and to future generations that will depend on its resources. Al Wenstrand, then director of the Nebraska Department of Economic Development, told summit participants that the I-80 corridor offered many opportunities for cooperation, but added, “it’s time for planned, coordinated growth along the corridor.” He said opportunities for cooperation include the development of technology parks at each end of the corridor, but he did not want to see the corridor “screwed up” by detached, scattered housing sites. He said communities in the counties, many within the Metroplex, need to get together and get their comprehensive plans to match. Wenstrand stated bluntly, “I don’t like sprawl.”

Dick Pierson, reporter for the Lincoln Journal Star, summed up the conference in a March 17 column, noting that Wenstrand’s remarks about sprawl amounted to a “prescription for the future,” including many more summits, not just between mayors, “but among others sitting still and listening, hard political swallowing by a lot of people and special interests between the headwaters of Salt Creek (near Lincoln) and the Missouri River chutes above Omaha, even into Washington County (north of Omaha), which is tying its fortunes into the greater Omaha metropolitan area.” An agency or association that could coordinate regional planning across multiple jurisdictions is needed to keep the conversation moving forward.

As David Bollier notes in “Sprawl”: “Progressive-minded business leaders understand that a region’s long-term economic vitality requires healthy downtowns; that developed land must be used more efficiently; that quality of life affects a region’s competitiveness; and that a legal and procedural framework for smart growth is needed so that businesses can make predictable investment and development plans.” (Bollier 41)

2.5.1 The Job Market
In 1900, Douglas and Sarpy counties counted 1,043 manufacturing establishments in the two-county area, with most of the manufacturing being agriculturally based—packing houses and other food processors, grain elevators, mills, breweries—all serviced around the clock by the railroads.

Today, agriculture and the food industry remain major contributors to Metroplex job growth. Exports of merchandise from Omaha—much of it agriculture-related—climbed from about $300 million in 1993 to
nearly $1 billion in 1999, a 217 percent increase. The metro area seems poised to become a major Midwestern transshipment center, an idea based on predicted growth of imports, especially from Southeast Asia. The 2000 Census indicated that the largest employment sectors in Omaha were healthcare, insurance, business services, food processing, railroads, banks and communications. Construction and engineering also ranked high, as did trucking and warehousing. In 2000 Douglas County had 33,133 manufacturing jobs, 25,562 warehousing jobs, and 248,851 office jobs. By 2025 manufacturing jobs are projected to decrease to 30,896; and even by 2050 they are projected only at 31,329. Warehousing, on the other hand, shows a bigger increase by 2025, with 34,417 jobs projected, and by 2050, 43,242.

But the new economy is showing even greater growth in service, health, and information technology industries. Office jobs in Douglas County are projected to number 364,864 by 2025 and 533,452 by 2050.

According to a Metropolitan Area Planning Agency (MAPA) report on the 2000 census, the ability to attract enough workers to fill these jobs will continue to be a concern throughout the next decades, much as it is today (baby boomers will be retiring). Many of those workers will come from other communities, and suburb-to-suburb travel and commute times will continue to increase under current trends, according to MAPA.

MAPA predicts that the total number of jobs in Douglas and Sarpy counties (Neb.) and Pottawattamie (Iowa) will total more than 520,000 by the year 2025. According to the Bureau of Business Research’s Omaha Area Projections to 2050 (July 2003), the working age population for the 12 counties (excluding Lincoln) will grow from 593,380 in 2000 to 974,803 in 2050. Douglas and Sarpy counties will account for 609,000 of those jobs. The projected annual job growth rate exceeds projected growth in the working age population.

In order to adequately accommodate the expected job growth in the Omaha core, an additional workforce will come from outside of the 12-county area. In 2000 an estimated 13 percent of commuters to the Omaha core came from outside the study area, mostly from Lancaster County. By 2050, these outside commuters are expected to increase to 25 percent of all commuters.

Some economists speculate that I-80 could become a major economic corridor fueled by the information technology economy. A scenario outlined in a January 15, 2002, editorial in the Lincoln Journal Star suggested that Omaha and Lincoln together could create a “Silicon Prairie.” The editorial noted that Omaha has venture capital and the telecommunications infrastructure, while Lincoln has the land grant, statewide research university at the University of Nebraska-Lincoln (UNL). Omaha also has a wealth of research and educational facilities, including the University of Nebraska Medical Center, the University of Nebraska at Omaha (UNO), and the Peter Kiewit Institute, a joint venture between UNL and UNO.

Metroplex communities must maintain the qualities that make Iowa and Nebraska good places to live if they want to retain or attract new job talent. A recent Carnegie Mellon University study found that prospective workers ranked clean air and water, not mountains and beaches, as among the most desirable factors in places they wished to live and work (although the Metroplex can have the equivalent of mountains and beaches if it pursues a vigorous river restoration program). Studies indicate that people measure quality of life by the “livability” of their community. In a recent national survey by Belden Russell
& Stewart (September 2000), 76 percent of respondents wanted their states to do more managing and planning for new growth. \textit{The SRS region will benefit from new growth only if it is properly managed, and not allowed to sprawl into a place that no one will want to call home.}

\textit{Building a sustainable community—which is at the heart of economic and quality of life considerations—will be the key to keeping and attracting talent to the region.}

\subsection*{2.5.2 Changing Demographics}
Both rural and urban areas in the Flatwater Metroplex are experiencing and will continue to experience changing demographics as population increases continue to be fueled largely by immigrant populations. According to BBR’s Omaha Area Projections to 2050 (July 2003), racial and ethnic growth rates will vary in the core counties (Douglas and Sarpy), with the most rapid growth in Hispanic and Asian populations. African-Americans will remain the largest racial/ethnic minority group, however. Alternate scenarios offered by the BBR, however, project less out migration from core counties and show Hispanics increasing five-fold, becoming the largest minority group in Douglas County.

For the entire forecast period, most of the population growth in Douglas County is accounted for by growth in minority populations. Non-Hispanic whites account for 20 percent of this growth, while Hispanics alone account for 35 percent (during the 50 year period 2000-2050 the Hispanic population is projected to triple).

Other projections for 2050:
- Douglas County, out of a total population of 663,403, will include 101,506 Hispanics; 402,963 whites; and 112,114 African-Americans. Other ethnic groups, including Asians and Native Americans, account for 46,820 of the total population.

A recent United Way of the Midlands’ annual community profile focused on Hispanic youth and their impact in Douglas, Sarpy and Pottawattamie counties. Among the report’s findings:
- People of Hispanic origin represent the largest minority group in the state. During the 1990s, the population increased 155 percent. Nebraska had the seventh fastest-growing percentage of foreign-born residents in the country.
- Hispanics are a younger population. The 2000 Census showed that 37 percent of Hispanic children in Douglas County under 18 were under age 5, compared to 27 percent of non-Hispanics. The median age of Hispanics in Douglas County is 23, compared to the total population’s median age of 33.

\textit{Smaller communities in the Metroplex are also showing gains in populations from immigration. About half of the 5,000 residents of Schuyler, Nebraska (which is located on the western edge of the Sixty Mile Radius) are Hispanic, most arriving since 1990. Schuyler had 164 Hispanic residents in 1990, and about 2,500 in 2000.}

\subsection*{2.5.3 Omaha as an ‘Urban Pod’}
Rather than leading the development of a megalopolis, Omaha may instead be the driving force in the creation of Nebraska’s “urban pod.” Robert Kaplan, writing in the August 1998 issue of the \textit{Atlantic Monthly}, says these urban pods support alliances that are based on technology rather than on geography where classic definitions of city and suburb no longer apply. “Perhaps the county, writes Kaplan “will
replace the city as the civic center of the future." He says Omaha could become what Orange County, California, already is: a multiracial world trade center linked to overseas cities by direct flights—say between Omaha and Beijing.

He writes that these urban areas comprise a number of separate municipalities, many with their own centers. “The term suburb does not properly describe this advanced, polycentric urban pod,” says Kaplan. “Because these centers do not resemble traditional downtowns, they are overlooked by people whose eyes have yet to adjust to the post-industrial age.”

The concentration of population and economic power in the Metroplex may also lead to problems for populations outside of the Metroplex, and Greater Nebraska in particular. A 2001 Deloitte and Touche study carved the state into four regions—west, east, I-80 corridor, and Lincoln-Omaha—and suggested a separate path for each. The study stated that outsiders view the state as four Nebraskas, and the Lincoln-Omaha metro corridor is one of them. “Omaha-Lincoln builds on successes in insurance and finance, manufacturing and telecommunications. It competes with larger metro areas like Indianapolis, St. Louis, Kansas City, Denver and Minneapolis,” concludes the report.

_The pursuit of sustainable growth in the Metroplex must not only consider the interdependencies within the region, but also the interdependencies between the Metroplex and the states of Iowa and Nebraska. Both states are witnessing depopulation in rural areas, and the growing political imbalances—particularly in Nebraska—could lead to battles of resources, particularly water. One can speculate about possible outcomes in a future in which most of the population lives on one end of the state, but most of its water resources (namely, the Ogallala Aquifer) are on the other. The potential for the Metroplex to overwhelm the rest of the state, both politically and economically, should not be underestimated or ignored._

* * *

**Endnote 1:** According to the Lincoln/Lancaster County Planning Department, there was one occasion in the early 1990’s where Lincoln Public Schools (LPS) traded land and unfortunately ended up with property without sewer service. However, since that time, LPS has a remarkable record of cooperation, joint planning and investment in schools in older neighborhoods. In the past two decades LPS has not closed any schools in the older neighborhoods and instead has invested nearly $100 million in renovations and improvements to schools in Lincoln’s older neighborhoods. In an era where other cities see their older schools suffer from disinvestment and close due to dwindling attendance, it is encouraging to see so much activity at these schools in Lincoln.

In addition, for the past several years LPS and City staff meet monthly to review growth plans, potential site acquisitions and discuss joint projects. Each of last LPS ten site acquisitions for future schools in developing areas were carefully coordinated with the City. Each site was selected in areas where the City was planning on providing infrastructure in the future. In these areas, residential development was already planned or underway. In addition, the City Council, County Board and Lincoln Public Schools meet quarterly to discuss issues of common interest and concern.

Lincoln and LPS also have a somewhat unique provision in state law that states as the Lincoln city limits expands, so does the school district boundaries, which also assists in sustainable growth. In
many other communities, the boundaries of central city school districts do not change as the community expands, even when the central city limits expand. The result is often an accelerated out-migration from the central city by white middle-class and upper-class households who wish to send their children to suburban schools. That out-migration results in a concentration of students from disadvantaged households and a stagnant or declining tax base for the central school district. The situation in Lincoln results in a stronger tax base to provide school services and more confidence for households of all types to remain in established neighborhoods.

In many other communities, public schools are “super-sized” and collected together on large campuses for supposed efficiencies Lincoln has continued to pursue a more decentralized, neighborhood-oriented program, and many children in Lincoln continue to walk to their neighborhood schools -- another positive example of sustainability.

**Endnote 2.** Omaha is reaching its physical limits, as it contained by geographic, political and municipal boundaries. A study conducted by the Bureau of Business Research (University of Nebraska) projects that by 2050 the city center would grow somewhat in density (from 2.3 persons per unit to 2.5), while density in the suburban areas and outlying areas of Douglas county is expected to decrease. Single-family units make up 66.3 percent of the City of Omaha, while in the city’s planning jurisdiction and in the remainder of the Douglas County single-family units comprise 84.5 percent of total. By 2050, the total number of housing units for Douglas County is expected to rise to about 267,000. Of these, 182,000 will be single family, 81,000 will be multifamily.

Figures for three core counties of the Omaha metro (Douglas and Sarpy in Nebraska and Pottawattamie in Iowa) provided by the Metropolitan Area Planning Agency (MAPA) indicate 264,000 households in three-county area. This number is expected to increase to 344,600 in 2025. While the number of households will increase 30.5 percent during this time period, their average size will decrease from 2.46 in 2000 to 2.35 in 2025. Some of this decrease can be attributed to the fact that most baby boomers will no longer have children living at home. Change in both number and size of households will differ by county. Douglas County’s households will increase by 24.4 percent, (230,700) with the average size declining from 2.37 to 2.25. Pottawattamie County is projected to have 40,300 households in 2025, an increase of 17.1 percent, with a decrease in household size from 2.56 to 2.40. Sarpy County, where the most change has been projected to occur, will see an increase of 29,400 households. As in the other two counties, average household size will also decrease.

**Endnote 3.** Not that we haven’t been warned. More than four decades ago, John Burchard, the late dean of MIT’s School of Humanities and Social Studies and a foremost architecture critic, made these observations in a 1961 *Saturday Evening Post* essay: “Great (urban) centers are needed to enlarge our lives. But they must be great in many ways...The automobile gnaws at local loyalties. The next new and more novel (city) center siphons people from the old...Most urban peripheries may never become even orderly. The political, economic and social elements are too small, too discrete, too lightly rooted. Many people who live there act as transients, many of those who build the establishments are absentees. Among these nomads, public opinion rarely comes into focus. The average result reflects individual apathy in matters of taste. Most entrepreneurs of the periphery have no personal desire for beauty and no conviction that it will reap profits. The public in turn displays no resentment, applies no pressure against the ugly and the vulgar...on the periphery...design is swayed by each new, meretricious gimmick. No
conviction prevails that harmony may be more important than novelty...Our motormania is an enemy to urban beauty. The automobile is ugly when parked and disruptive when moving. It has seriously marred the beauty and serenity of most great cities all over the world...If anybody has to move through the city in tunnels, it should be the motorist and not the pedestrian. The river banks and the malls belong to people who sit and walk, and not to people who whiz by. They can be restored if we give up the notion that every citizen has the inalienable right to drive his car wherever he wants to go and leave it there until he is ready to depart."

**Endnote 4.** In 2003, SprawlWatch and *USA Today* reports ranked Omaha and Lincoln as top cities in controlling sprawl. *USA Today*’s sprawl study ranked Lincoln 2nd best in the country, while SmartGrowth USA ranked Omaha first in controlling sprawl.

**Endnote 5.** Stephen M. Buhler, a professor of English at the University of Nebraska-Lincoln, offered these remarks on *meaningful* public spaces in 1999 on Nebraska Public Radio’s *Nebraska Nightly*.

“Once upon a time, the citizens of a town might gather at the marketplace to exchange not only goods, or goods for money, but also to share news and gossip, and to discuss and even debate issues. In ancient Greece, this public space was known as the agora. People from different walks of life—from aristocrat to commoner to slave—would come into some form of contact, and their different experiences would directly or indirectly shape each other’s views of their community and world. (In our society) many urban centers declined over the course of this century and even their renewal in recent decades has focused on goods rather than people. In these commercial centers, ideas themselves have become commodities to buy or trade more than principles one chooses to accept or reject.

We have moved from intelligence, in all its meanings, to information increasingly disconnected from context and experience...the shopping malls that replaced civic agoras...have reconfigured themselves accordingly. No longer enclosed, they embrace open space. Instead of a vast roof, the actual sky serves as their canopy. Lincoln’s latest center, South Pointe, follows this model, which often incorporates the idea of entertainment. Universal City Walk in Hollywood may be the immediate prototype, with its integration of shops and trendy restaurants with movie theatres highlighting the studio’s own product. But the granddaddy of them all is Disneyland’s Main Street, USA: an aggressively sanitized version of small town mid-America designed to encourage visitors to buy Disney-themed merchandise while continuing to feel entertained, indeed amused. The new centers have learned well from the amusement parks. One development, the Block in Orange, California, includes restaurants featuring a range of themes: a grownup arcade offering a safe version of a casino; a painter’s garret allowing us to watch starving artists work while we eat; even a simulated Alcatraz Island letting us play at being prisoners. I’m not sure we’re only playing.

Rather, we’re prisoners of our agoraphobic need to play at such experiences and encounters, instead of having them. And we will pay well to enjoy the safety of simulation at these centers, especially when we get to learn what new products to buy and take home after we’ve visited the ersatz agora. It may be that the new civic centers and the suburban marketplaces can allow the kinds of exchanges that make for the political and psychological health of the community as well as for its economic well-being. But for that to happen, more of us would have to realize that an agora is more than an open space, that its richest benefits don’t appear on a sales slip.”
Placed side by side, planning maps from various counties illustrate the many disconnections in the region.
CHAPTER THREE: REGIONAL COMPREHENSIVE PLAN ASSESSMENT

The first two chapters examined the natural environment of the Flatwater Metroplex and how population growth and related development affect the quality and long-term sustainability of that environment. This chapter provides a snapshot of how various populations in the Metroplex come to terms with their environment through the development of (or lack of) a comprehensive plan for growth. What follows are brief summaries of the comprehensive plans of four Metroplex counties in Nebraska—Douglas, Lancaster (including the City of Lincoln), Burt and Cass counties; the City of Omaha and Omaha metro-area municipalities including Ralston, La Vista, Papillion and Elkhorn; other Metroplex municipalities in Nebraska including Blair, Fremont, Waverly, Wahoo and Nebraska City; and Metroplex municipalities in Iowa including Council Bluffs, Glenwood and Harlan.

This chapter also defines areas of conflict and offers examples of annexation policies in the region. The population data source for Chapter Three is the 2000 U.S. Census. The extra territorial jurisdiction for cities in Nebraska with a population over 100,000 is three miles—in the Metroplex this includes Omaha and Lincoln. The extra territorial jurisdiction for cities with a population from 5,000 to 100,000 is two miles and includes Fremont, Ralston, La Vista, Papillion, Elkhorn, Blair and Nebraska City. Council Bluffs, Iowa, has a jurisdiction of two miles. Wahoo and Waverly, Neb., with populations under 5,000, have jurisdictions of one mile outside the city limits. Populations below are based on the 2000 census unless otherwise noted.

3.1 County Plans-Nebraska

Douglas County
Plan by RDG

Douglas County has a population of 476,703 persons and a median age of 33.6, according to the latest census estimates. The density of the population is 1,400 persons per square mile. Much of the new housing development within the county is oriented around a water feature forming a small, rural community. Acreage development also continues to grow. Douglas County promotes Conservation Subdivisions and the clustering of housing with open green spaces. Primary conservation districts have been established with one unit per ten acres. Secondary districts allow one unit per two acres and regular districts require only one unit per one acre. The homes in the subdivision usually have their own well and septic tank.

The Two Rivers State Recreation Area is located in Douglas County with a current trails system and new trails planned in the future. The Douglas County comprehensive plan addresses the Elkhorn and Platte River floodplains, the wetlands, native prairies and wildlife habitats within the county. Primary conservation districts are established in the 100-year floodplains and secondary conservation districts encompass the 500-year floodplains.

OPPD provides electricity to the county and MUD provides gas and water to the communities. Douglas County encourages the phasing out of individual wells and septic tanks and the installation of community water/sewage systems. The County participates in environmental and transportation regional planning with Omaha and the State of Nebraska.
Lincoln/Lancaster County
Plan by the Lincoln/Lancaster County Planning Department

Lincoln/Lancaster County has a population of 250,291 with 90 percent of the population, 235,594, living in Lincoln, according to the 2000 census. The combined Lincoln/Lancaster County government is unique in the Sixty Mile Radius study area. The Lincoln/Lancaster Comprehensive Plan "voices the desire for a single community, acting together toward a common set of goals while respecting the needs for individuality and diversity." The median age in Lincoln is 31.3.

The average density countywide is 298 persons per square mile. Housing units average 3 units per acre in the suburbs and 5 to 20 units per acre in downtown. For planning purposes, the measure of three units per acre is used. The City of Lincoln continues to grow to the south and southeast. Significant growth is also taking place to the north along 27th Street. Lincoln has established urban growth tiers with priorities for expansion in Tier I. The extra territorial jurisdiction of Lincoln is three miles.

The comprehensive plan acknowledges the 'right to farm' and the importance of the agricultural industry. The plan has established a limit of one housing unit per twenty acres in the Agricultural district, and one unit per three acres in the Agriculture Residential district. Six percent of the total county population resides on acreages.

Lincoln and Lancaster County have an extensive trails system with 94 miles of trails currently in the Lincoln area. Outdoor recreational facilities are considered a priority.

The environmental resources of Lincoln/Lancaster County have been researched and documented in the Greenprint Challenge, which identifies the floodplains, watersheds, wetlands, native prairies and wildlife habitats of the area. An extensive conservation plan is included in the Lincoln/Lancaster comprehensive plan to assure the long-term health and integrity of the ecosystem.

The Lincoln Electric System (LES) and the Norris Public Power District serve Lancaster County. Lincoln is served by LES and Aquila. LES utilizes alternative energy sources and has installed two wind turbine generators in north Lincoln. The Lincoln water system has wells along the Platte River near Ashland. Four Sanitary Improvement Districts (SIDs) are located in Lancaster County: Emerald, Pine Lake, Holland and Walton.

Lincoln/Lancaster government has a siting process for educational buildings, city buildings and community centers. Lincoln/Lancaster County participates in regional planning: on a countywide basis concerning environmental issues; in Eastern Nebraska concerning transportation; in Southeast Nebraska, concerning commercial development and industrial development. There is a need in Lincoln for industrial sites not located in a floodplain.

Burt County
Plan by Johnson Erickson O’Brien (JEO).

Burt County, located in the northern sector of the Metroplex, has a population of 7,791 with a median age
of 42.2. A mostly rural county, the population density is 15.8 persons per square mile.

Burt County has two state recreational areas, Pelican Point and Summit Lake, managed by the Nebraska Game and Parks Commission. Acreage development is increasing in the County, particularly along the Missouri River. The Troll Stroll Trail by Oakland is the only current trail in the county, but more are planned.

The County recommends contiguous development to all municipalities. The comprehensive plan does discuss the budgets for utilities, roads, trails, parks and services in conjunction with planning for the future of the community. Burt County recognizes the need for protection of the floodplains and watersheds, as well as, two wetland sites along the Missouri River where a Land and Water Conservation Fund has been established.

Utility services are supplied by numerous providers in Burt County including: (electricity) NPPD, WAPA, Burt County, Tekama Power; and (gas) Aquila, NPGA, Enron, Minnegasco, KN Energy, NNG. The Papio-Missouri NRD and local municipal wells supply rural water.

Recycling of only paper and plastics is available in the County. No regional planning effort is discussed in the comprehensive plan.

**Cass County**

Plan by JEO

Cass County has a population of 25,242 (latest census estimates) persons and a median age of 36.9. Information on housing choices and housing development was not available in the comprehensive plan. Mahoney State Park is located in Cass County. Parks and recreation continue to expand around Mahoney State Park, including an extensive trail system with more planned in the future. Acreage development does continue to grow within the County.

Cass County has implemented performance zoning that requires developers to earn a certain amount of point to acquire a limited use permit. This encourages the protection of the natural resources, the floodplains and watersheds.

The Omaha Public Power District and Nebraska Public Power District provide electricity and Peoples Service supplies the gas to the County. Cass County has three rural water districts and implements water quality protection measures. Cass County participates in regional transportation planning regarding I-80 and other state highways.

**Saunders County**

Plan by JEO

In the latest census estimates, the population of Saunders County was counted as 20,096, with a median age of 38. The low population density of 26.3 persons per square mile reflects the abundance of agriculture, a major industry in the county. Nearly 50 percent of Saunders County is considered prime farmland. Non-farm housing developments continue to grow in rural areas resulting in conflicts between
owners of rural acreages and the agricultural producers, often due to odors from livestock confinement facilities. The County has therefore completed a new comprehensive planning document with the following goals for future land use: 1) agricultural preservation; 2) clustering or concentration of new developments; and 3) use of environmental data to manage growth. A transitional agricultural zone has been established as a buffer around the communities, where no livestock confinement operations are allowed. Environmental data will be considered when reviewing requests for new acreage developments along the Platte River. The County also recognizes the need to improve housing within their communities, especially to meet the needs of their aging population. Due to Saunders County location directly outside the two highest population centers, the population and density will likely continue to increase in future decades.

Saunders County has nearly seven square miles of public lands owned by the University of Nebraska for field research. The Nebraska National Guard and U.S. Military Reservation are also owners of public property in eastern Saunders County in close proximity to the UNL research fields.

OPPD and NPPD provide electricity to Saunders County. Three separate companies supply propane for the county and Wahoo Sanitation collects the solid wastes.

Saunders County participates in regional transportation planning. Their major north-south transportation corridor is Hwy 77, and the east-west route is Hwy 92.

3.2 Municipalities-Nebraska

Omaha
Plan by Omaha Planning Department

Omaha has a population of 404,267 and a median age of 33.5. Omaha’s comprehensive plan is divided into several components including: the Concept Element; the Land Use Element; the Urban Development Element; the Public Facilities Element; the Housing & Community Development Element; the Parks & Recreation Element; and the Transportation Element. Each of these planning components is updated at various times. The concept goals of Omaha are: to manage growth; develop a positive city image; implement quality urban design; create healthy & diverse neighborhoods; preserve the city’s heritage; protect natural systems & environmental quality; and provide efficient public services.

Omaha has three development zones. The central zone including east Omaha, the suburban zone is west of 102nd St, and the exurban zone is far west Omaha which extends around Elkhorn. The density of housing in central Omaha is 4.4 units per acre. In the suburbs, 1.6 units per acre is the average. The largest housing development continues on the edge of the city.

Contiguous planning and extension of infrastructure is the city’s policy, since low-density development results in a very high cost to the city to provide public services. Budgeting for utilities, roads, trails, parks and services is discussed in Omaha’s Master Plan Elements. The city is working to develop linkages between public parks via a trails system that currently covers more than 67 miles. Additional trails are planned in the future. The city of Omaha recognizes the need to protect the floodplains, wetlands, native prairies and wildlife habitat.
The Omaha Public Power District (OPPD) provides electricity and the Metropolitan Utilities District (MUD) supplies the water and gas for Omaha. OPPD is utilizing alternative energy sources including one methane plant, one wind power generator, and one photovoltaic generator.

The recycling opportunities in Omaha are not discussed in the comprehensive plans. Omaha does participate in regional planning with communities in the Omaha Metropolitan Area including Omaha, Ralston, La Vista, Bellevue, Gretna, Elkhorn, and Papillion. Omaha also participates in environmental planning, industrial development and transportation planning through the Metropolitan Area Planning Agency (MAPA) 2025 Long Range Transportation Plan.

**Ralston**

Plan by RDG

Ralston has a population of 6,314 persons with a median age of 36. There is a high density of 3,900 persons per square mile. About 45 percent of the developed land in Ralston is residential. Future development in Ralston is limited due to fixed boundaries on all sides of the community. There is no acreage development. The town currently has a sidewalk system with trails in the public parks.

OPPD and MUD provide the electric and gas services to Ralston. A curbside recycling program is strongly supported by the residents.

Ralston participates in regional transportation and industrial development planning. Ralston wishes to pursue regional efforts in recycling, solid waste management, parks and recreation.

**La Vista**

Plan by Hanna Keelan

La Vista's population is 11,699 and the median age is 30. This is the lowest median age among Metropolex communities. The density in La Vista averages 20 persons per acre, equating to a medium-high residential density. In La Vista, 53.5 percent of the developed land is residential. Housing growth continues both on the edge and as in-fill. Acreage development is not applicable due to boundary constraints. The City advocates contiguous planning and installation of infrastructure.

Budgeting for utilities, roads, trails, parks, and services is discussed in the plan. No trails system currently exists. The community plan expresses a strong concern for the environment. The City of La Vista has identified areas within the 100-year floodplain in the western portion of the town for recreational development, and encourages conservation easements for the protection of the floodplains, watersheds and wetlands.

OPPD, MUD and Aquila all serve the town with electricity, water and gas. MUD supplies the water from wells near the Platte River south of La Vista. Recycling was not addressed in the comprehensive plan.

La Vista does participate in regional planning regarding environmental issues, transportation (especially with the State of Nebraska and the I-80 entrance) and industrial development. La Vista has large
industrial and commercial areas within the city limits.

**Papillion**  
Plan by RDG

16,363 persons reside in Papillion. The median age is 34.1 years. The average density in Papillion is 14.7 persons per acre and 48 percent of the developed land within Papillion is residential. Both in-fill and edge development exist, however, there is no acreage development of housing. Most people commute and work outside the city limits.

The City proposes a new mixed-use City Center with pedestrian orientation. A trails system currently exists in the community. The comprehensive plan addresses the budgeting needs for utilities, roads, trails, parks, and services. Special attention is given to fund improvements for the parks. The city recognizes the need to protect the floodplains, wetlands and wildlife habitats.

OPPD provides the electricity to the town and MUD supplies gas. The source for water is a well field of five along the Platte River. Papillion utilizes the Sarpy County landfill west of Springfield. Papillion is proposing to start an aggressive recycling program. Papillion participates in regional planning regarding solid waste management and transportation, the Highway 370 corridor and trails systems.

**Elkhorn**  
Plan by Ciaccio Dennell

7,635 persons live in Elkhorn with a median age of 36.4. The maximum housing density within Elkhorn is 6-8 units per acre. Residential housing utilizes 57.8 percent of the developed land in Elkhorn. Housing plans call for future downtown in-fill housing in the form of a New Urbanism project.

Trails do not exist in Elkhorn. A new Agriculture/Conservation zone has been established in the Elkhorn future land use plan. This area is primarily a floodplain and is intended to preserve the floodplain landscape and discourage development for environmental, health and safety reasons. The Agriculture/Conservation zone is 31.6 acres.

OPPD and MUD provide electricity, water and gas to the community. The water is supplied to Elkhorn from wells along the Platte River in Sarpy County.

Elkhorn participates in regional planning regarding transportation, especially with Omaha. With Omaha’s growth to the west, there is rapid commercial development along Highway 31 and a need for local commercial development in Elkhorn’s Historic Downtown. The City of Elkhorn wishes to minimize industrial growth within their community.

**Blair**  
Plan by Hanna Keelan

Blair has a population of 7,512 with 35 as the median age. There is a housing shortage in Blair with a very low vacancy rate due to Dana College and industrial development by Cargill. A large amount of the
housing in the community is deteriorating and there are many vacant lots.

The Blair park system is comprised of nine primary park areas, totaling 185 acres. A sidewalk system exists and future trails are planned.

Budgeting links for utilities, roads, trails, parks and services are addressed in the comprehensive plan. The city has implemented land use limitations and the protection of the floodplains and watersheds.

The Omaha Public Power District and Aquila provide electricity and gas for Blair. One of the major concerns of the citizens of Blair is water quality. Water is pumped directly from the Missouri River to the treatment plant in Blair. Water capacity also needs to be increased to meet the needs of the town and local industry. There is no mention of a recycling program, and no regional planning efforts are identified in the plan.

**Fremont**  
*Plan by RDG*

25,174 persons reside in Fremont. The median age is 37. Housing densities are higher than average with 6-10 housing units per acre classified a moderate density and 1-6 units per acre designated as low-density housing. There is a balance of housing growth, both in-fill and edge development. Acreage development is expanding around the community.

There are 394 acres of parks in and around Fremont, with 207 acres of parks along the Platte River. A trails system does exist in Fremont and there are plans for significant additions to this system.

The comprehensive plan includes detailed budgeting information for utilities, roads, parks and services. There are two historic districts within Fremont and numerous individual structures that are listed on the National Historic Register. The city is considering establishment of a Conservation District and code requirements. Elevated housing is required in the north and northwest where development is proceeding in a shallow floodplain.

OPPD provides the services to meet the energy needs of Fremont. There exists a direct pump water system. A reservoir is under construction. There are concerns in the community about water quality and high levels of iron and bacteria.

A minimal recycling program with a drop-off site at the transfer station is available for local residents. Regional transportation planning takes place with the State of Nebraska regarding US Hwy 275.

**Waverly**  
*Plan by RDG*

Waverly has a population of 2,448 persons and a median age of 32. About 37 percent of the developed land in Waverly is dedicated to housing with an average density of 3 units per acre. In-fill housing has expanded in north central Waverly and edge development is moving to the north and east. Open green spaces and parks stand at 183 percent above the national standard of 1 acre/100 persons. Residential
housing consumes 7.6 acres per year. Rural residential housing averages only one unit per acre. Areas have been identified for annexation and prioritized in phases. Total agricultural land consumed for all purposes is 30.7 acres per year.

The community of Waverly has plans for a trails system but currently utilizes a good sidewalk network. The Waverly comprehensive plan does reference capital improvement projects, a park finance system and sewer and water projects. The City of Waverly has prepared a floodplain management program for the Salt Creek Floodplain located to the west of the town

LES and Aquila provide utility services to the community. The comprehensive plan references the need for improvements to Waverly’s aging water and sewer distribution system. Six wells supply the water for the city and are located either in or within one mile of the community.

All solid waste, construction and demolition waste are delivered to the Lincoln landfill. There is one recycling drop-off site in Waverly.

There is reference to regional transportation planning in regard to I-80 and the Lincoln east by-pass. The City is also concerned with local small business development and the need for available land for industrial development. No environmental regional planning is noted.

**Wahoo**
*Plan by Hanna Keelan*

Wahoo has a population of 3,942 with a density of 11.8 persons per acre. The median age in Wahoo is 38.8. There is little vacant land within the city that can be developed due to steep slopes or floodplain designation. In-fill and edge development of housing is planned for Wahoo. Acreage development is also proceeding around the community. Contiguous planning for infrastructure expansion is part of the city policy.

A sidewalk system is in place with plans for a future trail. Protection of the floodplains in and around the city is recognized in the comprehensive plan; however, the plan does not address wetlands, native prairies or wildlife habitats.

The City of Wahoo supplies the electricity for the community and Aquila provides the gas. The City has four wells to meet the water requirements. Sanitary sewer improvements are needed. No recycling program is mentioned in the plan and no regional planning is addressed.

**Nebraska City**
*Plan by JEO*

Nebraska City is home to 7,228 persons. The median age is 39.1 years. There are numerous vacant lots within the city limits. In-fill development of housing is promoted and the plan recognized that edge development should be limited. Acreage development is also proceeding around the community.

Currently trails exist at Arbor Lodge and on the grounds of the National Arbor Day Foundation and
conference center. The 21-mile Steamboat Trace Trail also begins at Nebraska City and extends south along the Missouri River. More pedestrian trails are planned in the future. The city, incorporated in 1854, contains more city blocks of designated historic districts than any other Nebraska community.

The protection of the floodplains is recognized by the city. Nebraska City supplies the energy needs of the community, both gas and electric. The city has seven wells by the Missouri River that provide water for the community.

No recycling program is mentioned in the plan. The City does participate in regional transportation planning with the State of Nebraska regarding US Hwy 75 and other state highways.

3.3 Municipalities-Iowa

Council Bluffs, Iowa
Plan by City of Council Bluffs and Hanna Keelan

Council Bluffs has a population of 58,268 and a median age of 34.6. The density is 7.5 persons per acre. 29 percent of the city's developed land is residential. Council Bluffs has established 10 sub-areas for development, mostly on the fringe. There are 3.2 acres of parks and open green spaces per 100 persons. The City has 20 miles of trails with plans for future additions.

Acreage development continues around Council Bluffs. A Two-Mile Area Policy Agreement exists between Pottawattamie County and Council Bluffs. The Loess Hills Conservation Plan has also been developed for the preservation of the Loess Hill, a natural resource. Floodplain and watershed protection is addressed in Council Bluffs comprehensive plan. About 45 percent of the land in the city limits is vacant due to the steep slopes or floodplain.

Midwest Power supplies the energy needs for the city. Waste management is contracted with Browning Ferris Industries and recycling is available in the city.

Council Bluffs participates in regional planning regarding environmental issues, transportation, and commercial development with Pottawattamie County and Southwest Iowa. A City/County Development Agreement is in place.

Glenwood
Plan by RDG

Glenwood is home to 5,358 persons. The median age is 36.1. Glenwood largely serves as a bedroom community for Omaha commuters. There is a range of housing choices and development continues within the community, on the edge and in the country with acreages. There is a high percentage of land used for civic purposes within the city limits.

Glenwood has a trails system with plans for additional future construction. The City has addressed the protection of floodplains, wetlands, native prairies and wildlife habitats in their comprehensive plan, which recommends the creation of conservation subdivisions in environmentally sensitive areas.
The City of Glenwood provides the water for the community from three wells. Minimal recycling opportunities exist in Glenwood. No regional planning efforts were discussed in the plan.

Harlan
Plan by Southwest Iowa Development Council

Harlan has a population of 5,282 persons and a median age of 41.4, which is quite high. Harlan has a range of housing, both in-fill and edge development. Acreage development continues to also grow around the community. A sidewalk system serves the neighborhoods and parks. No trails system exists at this time, however, there are plans to construct one.

The Harlan comprehensive plan was one of only two that discussed agricultural production for local human consumption. The plan also discussed the protection of the floodplains.

The City of Harlan now has a policy for contiguous planning and the extension of city services. The Cresthaven Subdivision is one past exception that would no longer be allowed. The City of Harlan provides all the electrical, water and gas services for the town. Both shallow and deep wells are the source of water for Harlan. Harlan does have a recycling program. No regional planning efforts were discussed in the comprehensive plan.

3.4 Areas of Conflict

The following are examples of areas of conflict in the Metroplex identified in the Public Policy Study for the Lower Platte River Corridor Region:

Large lot (acreage) zoning in agricultural areas
Residential acreages in agricultural areas can create land use conflicts between the farmer and the non-farm residents, contributes significantly to urban sprawl and loss of prime farmland. Setting a very low-density minimum lot size can discourage this. Cass County and Saunders County have a 40 acres minimum lot size in their AG zones. Other counties with a 20-acre minimum are Sarpy and Dodge. Generally, municipalities do not require the 20-acre minimum lot size for residential use and usually zone agricultural land within their extra territorial jurisdiction as transitional agricultural that permits single-family units on lots with a minimum of three to ten acres.

Independent community water and wastewater systems
Some of the county plans, including Douglas County, encourage installation of community water and wastewater systems for residential developments in the unincorporated areas of the counties to phase out individual wells. Often, this becomes difficult with nitrate contamination, inadequate potable water supplies and the need for higher densities to support the well system. In contrast, Dodge and Sarpy counties discourage residential development that includes long term independent water and wastewater systems. The concern involves residential developments sited in close proximity to a municipality and incompatibility of their infrastructure systems with future annexation.
Confined feeding operations
Ashland, Louisville and Plattsmouth do not permit confined feeding operations within their extra territorial jurisdiction. Fremont and Valley do allow confined feeding operations under a special or conditional use permit in agricultural zones. Fremont also allows commercial feeding of livestock as a permitted conditional use in I-2 industrial zones. Most of the counties in the study area do not allow confined feeding operations as a permitted or special use when adjacent to a municipality’s extra territorial jurisdiction, except Sarpy and Cass Counties. Both counties have zones adjacent to Louisville’s extra territorial jurisdiction that allow confined feeding operations.

3.5 Annexation Policy Examples

Omaha
Ensure the timely pay-off of Sanitary and Improvement District debt to allow for the annexation of SIDs within 15 years. No specific section on annexation located.

Lincoln
The annexation policies of the City of Lincoln include but are not limited to the following: The provision of municipal services shall coincide with the jurisdictional boundaries of the City. The City shall predicate the extension of water and sanitary sewer services upon annexation of the area. Land that is remote or otherwise removed from the limits of the City will not be annexed; land that is contiguous to the City and generally urban in character may be annexed; and land that is engulfed by the City should be annexed. Annexation generally implies the opportunity to access all City services. Voluntary annexation agreements may limit or otherwise outline the phasing, timing or installation of utility services. The character of existing residential areas should be respected as much as possible during the annexation process. Annexation to facilitate the installation of improvements and/or possible assessment districts is appropriate if it is consistent with the annexation policies of the Plan. Plans for the provision of services within the areas considered for annexation shall be carefully coordinated with the Capital Improvements Program of the City and the County.

Waverly
Waverly should implement an annexation program that will create opportunities for new development and facilitate the goals of the future land use plan. Areas considered for annexation are categorized into four phases based on the estimated urgency for incorporation into the city, with Phase 1 considered the most urgent:
Phase One: Location and associated issues warrant the immediate consideration of annexation.
Phase Two: Opportunities exist to warrant future consideration of annexation within the twenty-year life of the Waverly Plan.
Phase Three: These areas are situated beyond the expected growth areas of the city. Conditions exist that may bring about the need for annexation later beyond the life of the Waverly Plan.
Phase Four: These areas are situated beyond the expected growth areas of the city.

La Vista
The policy of the City of La Vista for voluntary and involuntary annexation shall be: non-agricultural land areas identified within the extraterritorial planning jurisdiction shall be annexed at a point-in-time that areas are in conformance with and meet the criteria of Nebraska’s State Statue regarding the practice
and requirements of annexation. Future annexation should take place in the non-agricultural land use districts identified in the Future Land Use Plan as the City grows to the west. Special consideration must be given to the annexation of existing SIDs. When the annexation of a SID occurs, the City becomes liable for the remaining debt load of the entity. Annexation of these areas should only occur when the debt load is eliminated or low enough that the costs vs. benefits are in favor of the City of La Vista.

**Papillion**

Papillion should implement an annexation policy that incorporates areas that are experiencing development, meet state statutory requirements as urban in nature, and meet one or more criteria for incorporation into the city. The city should work with Sarpy County to assure consistent development standards for areas that are currently outside of Papillion’s jurisdiction, but are likely to be incorporated into the planning area during the next twenty years. Papillion’s current annexation policy is directed mostly toward the annexation of SID developments. The city should incorporate into its annexation policy the following criteria: areas with significant pre-existing development, a positive cost benefit analysis, and public services.

**Wahoo**

The policy of the City of Wahoo for both voluntary and involuntary annexation shall be: non-agricultural land areas identified within the extraterritorial planning jurisdiction on the Future Land Use Plan, shall be annexed at a point-in-time that areas are in conformance with and meet the criteria of Nebraska’s State Statute regarding the practice and requirement of annexation.

**Elkhorn**

The corporate limits of the City may be extended so as to include any contiguous or adjacent lands, lots, tracts, streets or highways as are urban or suburban in character and in such direction as may be deemed proper. The qualifications to be met for an area to be included in the City’s corporate limits are the requirements imposed by state statues, the conditions of the infrastructure, the existing and available services, the maintenance of existing services, population, taxes and revenue, the area’s debts and assets, land uses and valuation, and the interests of the City.

**3.6 Summary**

Omaha, the center of the Metroplex/Sixty Mile Radius Survey, has growth potential to the north and west. As Omaha grows, Douglas County continues to shrink in physical acres while the population still continues to increase. A partnership in planning between Omaha and Douglas County would provide a much better plan for development than each governmental entity proceeding separately. Omaha also needs to coordinate its segregated comprehensive plans and update them in the same year. The overall community growth needs to be examined as each segment of a total comprehensive plan is finalized. The growth of Omaha to the west will also require a planning effort with Waterloo and Elkhorn.

The Washington County border to the north of Omaha poses an annexation barrier but not a growth barrier. Again, Omaha needs to initiate a planning effort with Washington County as soon as possible to reduce uncontrolled urban sprawl. Bennington officials should also be involved in planning for ‘smart growth’.
LaVista and Papillion have some issues to resolve as they grow to the west. Papillion should consider ‘smart growth’ strategies as it expands to the south and west with considerable room to grow but not always available services (sewer and water).

Bellevue’s comprehensive plan is out-of-date with no plans to update the document. This greatly limits Bellevue’s potential to participate in productive planning and sustainable development. A current comprehensive plan is absolutely needed.

Cass County does not have the urban densities and remains a rural county with concentrated areas of recreational development. Rural acreages will most likely continue until higher density approaches from the north. Cass County needs to preserve its Conservation Districts and prime agricultural land to the greatest extend possible. Clustered developments with constructed wetlands for treatment of wastes should be encouraged rather than acreage development and septic systems.

The planning in Lincoln/Lancaster County provides a good model of “how to do it right.” Their Greenprint Challenge composite map, which identifies stream corridors, wetlands, native prairies and threatened and endangered species, provides critical environmental information to planners. This type of information should be available to direct planning in every county and municipality in the Metroplex, and should be coordinated for regional use.

As policy makers, planners, designers and developers strive to preserve our natural environment and conserve resources, numerous sustainable design strategies need to be discussed including large minimum acreages, clustered developments, higher density housing projects and proper lot orientation. All projects must prioritize energy efficiency, water conservation, indoor environmental quality, waste management and utilization of green building materials.

3.7 Sustainable Development Strategies for the Metroplex

A number of sustainable development strategies for the Metroplex have been identified through the study of comprehensive plans and the interpretation of survey results and other research studies:

1. A comprehensive regional plan and County/City zoning is critical to sustainable development.

2. Encourage development of mixed-use neighborhoods with pedestrian friendly access.

3. For a rural residential (RR) zone, require a minimum lot size of 20 acres per one housing unit; or clustering of eight houses on the 20 acres @ one acre per housing unit.

4. For a transitional agriculture (TA) zone, require a minimum lot size of 20 acres per one housing unit; or clustering of four houses on the 20 acres @ two acres per housing unit.

5. For a general agriculture (AG-1) zone of prime farmland, require a minimum lot size of 40 acres per one housing unit.

6. Encourage cluster development for residential acreages (RR and TA) and require construction
of a community wastewater treatment system that is environmentally sensitive such as a constructed wetland. Discourage use of individual septic systems.

7. Residential acreages should meet design standards based upon a ‘build-through’ concept to permit urban infrastructure and higher densities to be built if and when annexed by a city.

8. Establish preservation of water quality and water quantity as a high priority.


10. Allow no major reconstruction of existing structures located in a floodway.

11. Coordinate with the Natural Resource Districts (NRD) to review development applications in the floodplains to assist in restricting new development.

12. Establish a minimum 600 ft setback requirement between houses and streams; establish bank protection zones along all waterways (see Endnote).

13. Allow no new sandpoint wells and request assistance from the NRDs to decommission existing sandpoint wells.

14. No animal feeding operations in the floodplains or within the municipal jurisdiction zones.

15. Establish conservation easements and conservation districts to preserve the natural environment of scenic, historic, or sensitive areas (stream corridors, wetlands, native prairies, and habitat for threatened/endangered species).

16. Establish “no build” protection zones along the corridors of major rivers, streams, flood plains, and transportation routes of at least 600 feet on each side of corridor (see Endnote).

Endnote: Comment from the Lincoln/Lancaster Planning Department: The 600-foot buffer from stream channels to buildings may be an appropriate standard for the Platte River or Salt Creek, but stream buffers can be narrower for smaller creeks in the watershed. Otherwise, sizable acreages outside of floodplains would need to be reserved for open space, which would be prohibitively expensive and encourage further sprawl. Lincoln has adopted stream buffer standards that vary with the size of the creek channel. Also, Lincoln/Lancaster County has only two rural zoning categories, and from a planning standpoint, would prefer only an agricultural district outside the urbanizing area. Even with “build-through” regulations for acreage additions, the more land that is developed for acreages in the path of future urban growth, the more difficult and expensive it will be to create efficient urban densities when city services reach that land. As our study on rural costs of growth showed, acreage developments are not fiscally sustainable, and city taxpayers provide significant subsidies to permit that kind of growth. Finally, Transfer of Development Rights helps preserve environmentally sensitive areas and focus suburban densities in more sustainable locations where paved roads and other services are available. TDR has been very successful in other communities. It transfers costs from the general public to developers and their customers, and it may aid planning in the Flatwater Metroplex.
CHAPTER FOUR: METROPLEX/SRS PUBLIC OPINION SURVEY

The Joslyn Castle Institute (JCI) commissioned a public opinion survey that reached a random sample of 801 area residents in February and March of 2004. This poll was part of the Institute’s three-year “60 Mile Radius Study” of communities in the Flatwater Metroplex. Funded by the Nebraska Environmental Trust Fund, the study is a partnership between JCI and the cities of Omaha, Lincoln, and Council Bluffs, as well as with the Nebraska Governor’s Office and the region’s Natural Resource Districts.

4.1 Survey Highlights
The Institute’s 2003 public opinion poll focused mainly on housing, transportation, and environmental issues. Among the questions asked in the approximately 15-minute telephone interviews of 801 area adult residents included (a) residential settings (downtown, suburban, acreage) in which the respondents currently lived, (2) where respondents would most like to live, and (3) the type of setting which their local governments “should be most supportive of as future plans are made for continued development of homes, businesses, and public services.”

The transportation questions addressed, among other issues, whether the respondents lived within walking distances of an elementary school, public park, grocery store, and bus stop and how important such walk-ability was to them. Also asked were their current use of, and future interest in, car-pooling. Other questions were about the extent they would support water-conservation measures and, additionally, policies to encourage fuel-efficient vehicles and the preservation of farmland in the region that produces fruits and vegetables for local consumers.

To increase the usefulness of the survey’s findings to local policymakers, the sample was designed to allow at least 150 interviews each in Lancaster, Cass, and Pottawattamie counties. Population-large Douglas County had 208 completed interviews. The survey sample was representative in that analyses of the respondents’ gender, age, household income, education, and other traits found adequate degrees of similarity to the findings of the 2000 federal census.

To help shape public discussion of policy issues, survey findings need to come from a sample that is representative of the area’s population. Comparisons between federal Census data for 2000 and information reported by the sample showed that the latter was representative in gender, race, age, education, and household income, among other characteristics.

Regarding housing, a question in the Joslyn Castle poll asked about the kind of residential setting that “local government should be most supportive of as future plans are made for continued development of homes, businesses, and public services.” Forty-two percent of the respondents chose the “traditional non-downtown neighborhood,” which was defined as “a mix of single-family homes, townhouses, and apartments . . . [whose] residents can walk to schools, parks, and some shopping,” among other defining traits. Twenty-four percent wanted their local government to favor “downtown living,” defined as “where residents live mostly in apartments or townhouses” and can walk to services and stores. Only 17 percent favored “newer-style non-downtown” neighborhoods, and just 5 percent nominated “acreage [i.e., large-lot rural] living” as the residential setting that local government planning should emphasize.

In a series of questions about commuting, 5 percent of the respondents working outside the home
reported that they car-pooled to their jobs. However, another 10 percent (or twice as many) said they would be “very likely” to do so if “a local agency identified someone in your neighborhood who worked near your place of employment and who was acceptable to you, such as by their gender and whether or not they smoked.” Sixteen percent were “moderately likely” to participate. Moreover, 58 percent of the whole sample endorsed the policy option, “The county or city government should encourage car-pooling by supporting, with public funds, a service that identifies riders who live and work close to one another.”

Another public policy for economizing on energy that gained majority support was “Your state government should encourage use of fuel-efficient cars and trucks by reducing the registration fees for them in comparison to less fuel-efficient vehicles.” Seventy-six percent of the sample “agreed” or “strongly agreed” to that statement.

An even more popular environmental policy purpose concerned farmland and locally grown food. Eighty-one percent of the respondents agreed to the statement, “Local government should encourage the preservation of some agricultural land in your region for the production of fruits, vegetables, and other foods that can be sold to local households in stores or farmers’ markets.” This purpose could be promoted through virtually no public expenditure, such as by encouraging private land trusts to purchase conservation easements on agricultural land that compensate owners for foregoing development. However, 60 percent of the participants in the SRS poll supported local governments using public funds to preserve farming operations that produce food for local consumption.

The poll also addressed the policy purpose of water conservation. Fifty-two percent of the sample approved the statement, “Local government should help households to collect rainwater coming off their roofs and use it for gardens and washing cars.” However, only 35 percent endorsed the use of public funds for that purpose. This much lower level of support for public spending, compared to those for car-pooling and preserving farms, is a welcome sign of respondents differentiating among policy options. If, instead, various environmental policies had received the same degree of approval, we might have a situation of respondents hurrying through questions that they believed unworthy of their careful thought.
4.2 A ‘Walkability’ Sample

Below is a sample responses that gauge community “walkability.”

Regional Sample:

Who has a “walkability” problem? Percent of respondents who believe it’s important to live within walking distance of an elementary school, public park, bus stop, or grocery store but who are not within such distance: by destination and by county.

<table>
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<th>Destination</th>
<th>Douglas</th>
<th>Lancaster</th>
<th>Sarpy</th>
<th>Pottawattamie</th>
<th>Other</th>
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</tr>
<tr>
<td>2. Public Park</td>
<td>7</td>
<td>7</td>
<td>18</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>3. Bus Stop</td>
<td>9</td>
<td>5</td>
<td>15</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>4. Grocery Store</td>
<td>16</td>
<td>12</td>
<td>20</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>5. % not within walking distance of at least one such amenity or service but wishing they were</td>
<td>29</td>
<td>28</td>
<td>40</td>
<td>30</td>
<td>31</td>
</tr>
</tbody>
</table>

Number of Respondents: 208, 154, 152, 155, 132

Comment: Across the five geographic areas, from 28 percent (of the Lancaster County sample) to 40 percent (of the Sarpy County respondents) had a “walkability” problem. That is, it was important to them to be within walking distance of an elementary school, public park, public bus stop, or grocery store; but they were not so located for at least one of those four amenities or services (see data line 5 of the table above).
Respondents in Two Omaha Subsamples

Residents in Neighborhoods East of 72nd St, North of the Douglas-Sarpy County Line and South of I-680, Compared to All Other Omaha Respondents

1. Composition of the “east Omaha” Subsample
   This subsample of 96 adults reflects lower socio-economic status compared to the 90 respondents in the remaining segments of the City of Omaha sample.

   Table 1: Education and household income of two Omaha subsamples

<table>
<thead>
<tr>
<th>Traits</th>
<th>East of 72nd St, North of Douglas-Sarpy line, and South of I-680</th>
<th>Remaining Segment of Omaha Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average years of formal education</td>
<td>14.8</td>
<td>16.2</td>
</tr>
<tr>
<td>Average household income</td>
<td>$44,390</td>
<td>$63,930</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>96</td>
<td>90</td>
</tr>
</tbody>
</table>

2. Satisfaction with Their Residential Setting

   Members of the “east Omaha” sample were somewhat less likely to be “very satisfied” with their neighborhood (54% compared to 67%), much less likely to find the closest public park to be “very safe” (25% versus 48%), and somewhat less likely to be happy with their current residential setting in the sense that it was where they’d most want to live (56% versus 66%).

   Table 2: Satisfaction with Residential Neighborhoods: % of respondents in each category, by subsample

<table>
<thead>
<tr>
<th>Categories</th>
<th>East of 72nd St, North of Douglas-Sarpy line, and South of I-680</th>
<th>Remaining Segment of Omaha Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall satisfaction with neighborhood: % who are “very satisfied” with it</td>
<td>54</td>
<td>67</td>
</tr>
<tr>
<td>% who find the closest public park “very safe”</td>
<td>25</td>
<td>48</td>
</tr>
<tr>
<td>% whose most desired residential setting is their current setting*</td>
<td>56</td>
<td>66</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>96</td>
<td>90</td>
</tr>
</tbody>
</table>

*Percent whose choice of residential setting that they would “most like to live in” matched the setting they reported as their current one (from a choice of “downtown living,” “traditional non-downtown neighborhood,” “newer-style non-downtown neighborhood,” and “large-lot or acreage housing”).
3. Walkability of Neighborhoods
Members of the “east Omaha” subsample were significantly more likely to be within walking distance of a public bus stop, somewhat more likely to have that kind of access to an elementary school and grocery store, but a little less likely for parks (Table 3). However, they indicated a greater need for walkable access to grocery stores. According to Table 4, twenty percent of the “east Omaha” respondents were not within walking distance of such stores but yet said it was important to them to be that close.

This subgroup of respondents (the 20 percent of the “east Omaha” subsample) reported household incomes that, on average, were low—$31,110, compared to $53,820 for the entire Omaha sample. The modest incomes suggest that walkable grocery stores would help them deal with lack of a family car to go shopping, an unreliable car, and/or dependence on neighbors.

| Table 3: Neighborhood’s “Walkability” - Percent of respondents who live within walking distance of an elementary school, public park, bus stop, and/or grocery store: by destination and by subsample |
|---------------------------------|---------------------------------|---------------------------------|
| Destination                    | East of 72nd St, North of Douglas-Sarpy line, and South of I-680 | Remaining Segment of Omaha Sample |
| Elementary School              | 78                              | 70                              |
| Public Park                    | 76                              | 78                              |
| Bus Stop                       | 93                              | 60                              |
| Grocery Store                  | 65                              | 61                              |
| Number of respondents          | 96                              | 90                              |

| Table 4: Who has a “walkability” problem? % of Respondents who believe it’s important to live within walking distance of an elementary school, public park, bus stop, or grocery store but who are not within such distance: by destination and subsample |
|---------------------------------|---------------------------------|---------------------------------|
| Destination                    | East of 72nd St, North of Douglas-Sarpy line, and South of I-680 | Remaining Segment of Omaha Sample |
| Elementary School              | 6                               | 13                              |
| Public Park                    | 8                               | 6                               |
| Bus Stop                       | 5                               | 11                              |
| Grocery Store                  | 20                              | 11                              |
| % not within walking distance of at least one such amenity or service | 29 | 29 |
| Number of respondents          | 96                              | 90                              |

Complete survey results are available in accompanying report: “Narrative Report of the Results of a Study of Housing and Development Issues in Nebraska and Iowa.” Prepared for the Joslyn Castle Institute in March 2003 by the Sigma Group, LLC, of Lincoln, Nebraska.
The *Five* Domains of Sustainable Development
CHAPTER FIVE: THE FIVE DOMAINS OF SUSTAINABILITY

The SRS survey offers a sample of some of the attitudes that will shape the future of the Flatwater Metroplex. These diverse voices and opinions are part of an integrated approach to building sustainable communities that recognizes the interrelation of all human and natural communities represented by the Five Domains of Sustainability: Environment, Social/Culture, Technology, Economics, and Public Policy.

The following chapter is adapted from a paper written and delivered by W. Cecil Steward, president and founder of JCI, for the Mayor of Shanghai, China’s International Business Advisory Council in September 2002. Steward proposes that Five Domains of Sustainability will be the new paradigm for urban management for any large city or metropolitan area in the world, and will be particularly relevant in building a sustainable future in the Metroplex:

Urban growth management and sustainability have become the major challenges of the 21st century for managers and civic officials. The quality of the environment and the quality of life for residents is at risk, in the midst of new science and technologies that may, or may not lead to positive changes.

As the communities get larger – both in population and land coverage -- the expenses of development and maintenance are inflated. The financial support of new growth, and its sources, becomes more and more difficult to manage – while the new growth at the edges drains resources for maintenance and rehabilitation from the older city sections. There are growing economic inequities, internal to the cities, amid dramatic influences from external migrations and informal, illegal settlements – especially in the developing nations. It seems that the greater the economic success of a city/region, the greater the pressures become for social equity – in all forms: health, human services, economics, education, environmental justice – in general, the quality of life.

5.1 The Five Domains: A Paradigm for Urban Management

If we are to have a reasonable chance of managing the growth of the urban habitat, and at the same time achieve a balance of economic development with the conservation of the earth’s natural systems, we must expand our definition of the principles of sustainability, and, we must see the problem in a systems context.

Since the beginning of the concepts and the language (i.e., the Bruntland Commission of the United Nations, 1987) sustainable development has consistently been represented as having three domains -- the environment, economics, and the socio-cultural context -- and, that they must be treated interdependently for a sustainable balance to occur. Many business and governmental leaders have been skeptical about placing any domain on a par with economics. Even those who, sooner or later, will adopt the values of living in balance with nature often find the tools within these three domains to be limited.

The limitations in achieving real sustainability exist whether the scale of the development is at the micro level (such as an individual building or neighborhood), or at the macro scale of habitat (such as a city or a region of urban habitats). The designer, the planner, the developer, the civic official, or the NGO leader who is genuinely interested in facilitating a sustainable solution in the urban context will not find all the
networks or ingredients, or all the information, or all the tools and alternatives for solutions within only these three domains.

Consider, for example, a proposed new development which has all the finance necessary, a good environmental plan which protects and restores critical natural ecosystems, and it enhances and improves scores of lives of prospective occupants; but, it provides no dependable means of affordable transportation to places of employment for the residents. The three domains of economics, environment and socio-cultural criteria have been provided, but a fourth domain – the technology of transportation – is missing. In another hypothetical scenario, consider the same development successfully constructed, with adequate transportation technology and successfully inhabited and operated for some years; suddenly, a polluting industrial development is authorized for construction on an adjacent site, resulting in health hazards to the residents of the development. In this case, the fifth missing domain is public policy, or, the regulatory context of the habitat that would have prohibited the conflicting land use.

Within these two additional domains – technologies and policy – there are numerous examples of human invention and/or intervention that can be noted to have either facilitated, or retarded community progress toward sustainability. Two extreme, and debatable, examples are the automobile (technology) and the consequences of its use resulting in threats to the natural systems, and, the principle of humans “owning” land (policy) and the consequential effect of economic speculation on the earth’s natural systems. Whether we individually value these conditions, or not, is not the key consideration. A fact of modern life is that technologies exist, that they are influential, and that they will continue to accelerate through human ingenuity. So, too, will the rules and regulations for relations among us, and our access to the bounties of the earth. Both domains are pervasive, affective, and the cause and effect relationships to the other three domains are inseparable from them.

Thus, the recommended Five Domains of Sustainability are Environment, Social/Culture, Technology, Economics, and Public Policy. Further, these domains should be the organizing principles for urban administration, urban design and planning, urban growth management, and regional and urban sustainable development.

These questions are relevant to every community on the globe – north, south, developed, or developing - small, large, mega, or intermediate in size. We are leaving the era when the international argument has been over “poverty”, or “rich” versus “poor”. This language is from the industrial revolution, “economics-above-all-else” thinking, which symbolizes only one measure among the five domains. The “rich” may have significant economic wealth, but may be “poor” in environmental resources, or socio-cultural attributes; the “poor” may have less economic stature, but may be “wealthy” in cultural history and basic quality of life. (This scenario, however, is not intended to deny the fact that there are extremes in the imbalances, nor that history has recorded numerous cultures and communities that could not sustain themselves due to the extreme imbalances.)

The desired balance can only come from a system of values which seeks to balance and represent each of the five domains in all endeavors – be they problem identification and assessment, problem solving, design, planning, management, or administrative. Bundling of the five domains together, in both language and principles of organization, will guide these endeavors into a consistent, and constant awareness of whole-systems strategies. In the past, our institutions, our organizational structures, and
our science and technologies have been approached largely through incremental, often independent, and task-centered descriptions. Frequently, such regimes of management have led to unintended, unanticipated consequences, inefficiencies, bureaucratic duplication, and very often to irreparable damages to the surrounding natural systems.

Most cities of the world have organized government around the separated increments of tasks, such as education, health, justice, taxation, housing, tourism, agriculture, etc., and coordination of any of the task-defined agencies is extremely difficult. The success in coordinated actions for sustainable development very much depends upon the skill, style, and values of individual leaders in the governmental offices. More often than not, the outcomes of planning and administration which have any similarity to truly sustainable, balanced conditions will be more accidental, and less permanent, than pre-planned and long-term. Continuity in coordination and sustainable conditions under these circumstances is extremely difficult to achieve.

Assume, for the sake of discussion, that city government could be organized, not around the idea of the performance of critical tasks, but around the outcomes expectation of balanced sustainability. This expectation would be pervasive, shared by all leaders, managers, civic officials, and most importantly of all, by the public and principle stakeholders of the city. Coordination and team engagement would replace independence, specialization, duplication, and competition. Long-range planning would replace expediency, trials and errors, and indecisiveness. Imagine a Sustainable Development governance model which defined a council of administrators of each of the five domains of sustainability – environment, socio-cultural, technologies, economics, public policies – plus, a division of administrative services to supply the professional and special human talents required to implement and maintain the development patterns.

The Sustainable Development Council leaders would have the knowledge, the values commitment, the political will, the human and fiscal resources, and the support of the local stakeholders. These attributes and resources will be necessary to implement and coordinate new visions for future development, maintenance of existing valued infrastructure, and growth management for a sustainable city, or, for a collection of sustainable neighborhoods and places. Perhaps most significant of all, it would give future generations a workable framework for development, rather than a wasted inheritance.

Obviously, the already identified tasks must be accomplished. Education, for instance, is essential, but within a sustainability paradigm should not education be framed through the coordinated, interdependent, framework of the five domains? If the outcome of the city efforts in education were expected to be a) life-long in duration, b) inclusive for all citizens, c) guided by the goal of public participation in the goals of a sustainable society (or, some other broad, coordinated goals established by a S-D Council), I suspect that not only the education experiences and administration would be different, so too would the city. It is conceivable that every task-oriented agency, or department, currently defined for a city’s administration could be defined for realignment to one of the six units (five domains, plus administrative services) of a sustainable development council.

Although not as drastic in its reorganization implications, there is another, sustainability-related principle projected by the U.S. urban designers/planners Peter Calthorpe and William Fulton in their recent book, The Regional City. In their studies the authors appeal for a vision of the city of the future from a regional
perspective, so that the planning for sustainable development can encompass a broad enough array of interdependent, systemic influences that will affect the choices for real sustainability. They believe that “any viable future (for the city) will be a weave of local, regional, and global characteristics, processes, and forms,” and that “it is the balance between these scales and forces that must be attended to.” Ultimately, Calthorpe and Fulton believe that, “…a stronger regional framework and a clarified local identity can civilize the forces that today seem out of control, dysfunctional, and downright dangerous.”

In very real and concrete terms, these authors are looking at the city from the perspective of designers and planners, rather than administration and management. All the characteristics of the five domains of sustainable development, however, are included in their study – with a heavy emphasis upon the importance of government policies for implementation and control. They describe in some detail three U.S. cities that have benefited from the regional vision, in their policy-making and their planning and urban design schemes: Portland, Oregon; Seattle, Washington; and, Salt Lake City, Utah.

Portland, Oregon benefited from a state enabling policy that allowed the city to establish an urban growth boundary, thus giving the city the authority to control sprawl at the edges. From this position, with broad public participation, they organized a transit oriented development plan, which increased densities and provided for good use of a new light rail transit system. Additionally, the city used neighborhood and district urban design images and visions to promote urban infill and redevelopment projects in the older areas of the city. The transit system connects the regional towns, new neighborhoods, and the heart of the center city. The region is now growing in a more compact manner without causing a housing shortage.

Salt Lake City, Utah is in an earlier stage of their planning. Again, similar to the Oregon policy, the State of Utah, in 1999, established a policy for a “Quality Growth Commission”, charged with providing assistance for planning to local governments. Subsequently, the communities in the region engaged government, businesses, citizen groups, and professionals in collaborative, coordinated regional, district, and neighborhood urban design exercises. Also similar to the Portland model, the planners have projected visions of a transit oriented development plan to connect the regional communities with the center of Salt Lake City. Their subsequent urban design images have given the local communities and their residents’ confidence that they can protect and preserve valuable open spaces and farmland, and at the same time, revitalize forgotten centers while coordinating new growth.

Similar to both Oregon and Utah, the State of Washington has a government policy that allows the city to establish Urban Growth Area boundaries. But, unlike the Salt Lake City model, the regional city concept has grown incrementally, rather than instantly through new plans and urban design schemes. The concepts of boundaries, centers, and regional transit have emerged over time – through much conversation, political engagements, professional studies, and public discussions. The consequence is that “the region has become more compact, livable, and manageable – a place where sprawl is receding – because both its people and its government agencies have been willing to shed the traditional metropolitan growth model and move in the direction of the Regional City.”

Another model worthy of note in the context of coordination and sustainability is the World Health Organization (WHO) “healthy cities” approach. Although the starting point for the Healthy Cities program is public health, the WHO has modeled their recommended strategies on criteria of political commitment,
leadership and institutional change, intersectoral partnerships, innovative actions addressing all aspects of health and living conditions, and extensive networking between cities. The WHO defines a healthy city as “one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential.” The WHO recommends four guidelines for formulating action strategies:
A. Make explicit political commitment at the highest level to the principles and strategies of the Healthy Cities project.
B. Establish new organizational structures to manage change.
C. Establish a commitment to developing a shared vision for the city, with a Health Plan and specific themes.
D. Invest in formal and informal networking and cooperation.

The city of Lodz, Poland has been identified by the WHO as a recent “best practice” example for its commitment to a Healthy Cities plan (Lodz is the administrative center of a regional population of approximately 2.6 million people, and it is the second largest city in Poland.) By embracing the four action strategies and by organizing their City Health Development Plan around the broad topics of (a) Sustainable Development, (b) Economy, Work and Science, and (c) Social Needs of the Citizens, the city has embarked upon planning which has the potential to reorient the governance of the city, to lay long-term plans for sustainability, and to attend to the social, physical and environmental needs of its citizens.

5.2 New Paradigms For Planning and Design of Cities
Whether the goal is good public health within a context of sustainable development, or sustainable development planned around an environment of a healthy city, it seems that the two are inseparable, and practically speaking, are interchangeable for governance purposes. In any event, whether we are planning for “regional cities”, “healthy cities”, or “sustainable cities”, there are new planning characteristics that emerge:
- Coordination and Cooperation
  Single sector, individual, and independent task definitions are no longer workable in a world of webs and networks and rapid changes. Digital electronics give us the tools to manage this extra degree of complexity.
- Planning for the Long-term, and Governing Strategically
  Evaluate measures of success. Studies of “best practices” and outlines and deliberations of alternatives will lead to better plans. Government must develop the will to support the shared plans, to commit to updating procedures, and to administer the plans through attention to fine-grain strategic plans.
- Commitment, Continuity, and Monitoring
  The governance structure needs to be organized to assure the citizens of government’s commitment to the shared plans of the public and private sectors, and that continuity in the plan, review, approval and implementation stages will be present. Additionally, one of the newest characteristics of planning for sustainability is the maintenance of a system of monitoring, measurements, or indicators – in other words, knowing when there is progress or regression from the plan.
- Urban Design as Image-making and Aid to Strategic Governance
  Planning and development communications are difficult to transmit among and between interested parties and stakeholders. Three-dimensional images of proposed urban environments become critical to good understanding of the impacts and the complexities of most proposals. Urban Design, which
clearly articulates images and representations of unbuilt urban environments, within the built context of the city, are enormous aids to understanding and education. Urban design studies should also be the regular palette of the communications for strategic thinking about districts and neighborhoods within the city governance.  

• Willingness to Look at Boundaries, Districts and Edges in New Ways. A majority of the social, environmental, and economic conflicts in the urban context occur at the edges between social and land uses. We must search for interdependent, shared values at these junctures, rather than the distinctions of differences.

5.3 Conclusion
The success of sustainability lies not in the isolation of single elements, but in the comprehension of the integrated systems and the larger linkages and external influences that comprise a community. We need to look at cities in terms of connections between individuals and neighborhoods and how they extend to regional, national and global levels.

It is important that citizens in our communities become more knowledgeable of these connections as the pace of change, the intensities of human expectations, and the restriction of natural, economic, and skilled human resources pose unprecedented challenges for our cities.

To this end, communities need to become “learning communities,” in which an enlightened, aware, and knowledgeable citizenry will be willing and able partners in the planning and governance of a healthy, sustainable community. Each and every citizen, neighborhood and city can make a difference, for in a sustainable environment, every local triumph is a triumph for the one world that we all share.
CHAPTER SIX: MEASURES OF PROGRESS TOWARD SUSTAINABILITY & SUSTAINABILITY INDICATORS

6.1 What is an Indicator of Sustainability?
An indicator is a measure of where a community stands in relation to a certain aspect or issue, such as water quality, and it also shows a community which way it is headed and how far it must go to arrive at where it desires or needs to be.

An indicator of sustainability can alert a community to a problem before it gets out of hand, and indicate what needs to be done to fix the problem. Indicators of a sustainable community point to areas where the links between the economy, environment, technologies, public policies, and society are weak. They allow you to see where the problem areas are and help show the way to fix those problems.

According to Maureen Hart, an indicators specialist, indicators of sustainability are different from traditional indicators of economic, social, and environmental progress. Traditional indicators — such as stockholder profits, asthma rates, and water quality — measure changes in one part of a community as if they were entirely independent of the other parts. Sustainability indicators reflect the reality that the three different segments (five segments according to JCI principles) are very tightly interconnected.” (Maureen Hart, Sustainable Measures, http://www.admin@sustainablemeasures.com)

James R. Bernard, of Environmental Management Consulting, offers another definition of indicators:

“Indicators are direct or indirect measures of some valued component or quality of a defined system, used to assess and communicate the status and trends of that system’s ‘health’.

He advocates using indicators to:
• Provide broad perspective on ecological and environmental issues;
• Encourage a comprehensive look at all environmental factors and associated social and economic issues;
• Track progress of policies as a whole;
• Highlight remaining problems;
• Help set priorities, particularly for research and monitoring, and among emerging issues needing new or improved policy prescriptions;
• Educate the public, media, and others; and,
• Feed information into economic and policy analyses.”

6.2 Indicators and What We Know About the Region
Most consultants and specialists would agree today that a first step in defining useful indicators would be to first define the “stressors”, or pressure points within a community system, and then define the means of collecting creditable and useful data on a continuing basis.
In view of what JCI has learned about the current characteristics and trends in the Flatwater Metroplex, we believe a cycle of reported Indicators (either annually or every two years) would be highly useful concerning the following issues:

• The projections for a doubling of population and the growth of the general economy, over the
next fifty years, should be assumed to be valid and useful for planning purposes. (Multiple data sets from independent sources should be used to define the ongoing Indicator of population and economic characteristics)

- The expansion of infrastructure that will be required to accommodate the projected growth of the Metroplex will continue to strain the economic and political capacities of not only the region, but also the entire State. (Data should be collected, on an annual basis on the installation rates and municipal budgeting rates for the improvements and repairs to the communities' infrastructure; these rates should be compared to the rate of applications for new plates of land for development.)

- Water, in both quantity and quality will be a major determinant of the future of the region. (The rates of usage, trends for demand, recycling volumes, types of consumers, i.e., domestic, industry, recreation, agriculture, etc., and regular quality measures should be collected on an annual basis, on a community by community basis.)

- The cities, counties, and communities in the region are more competitive than cooperative. (The numbers of independent and collaborative economic, infrastructure, technological, cultural, and/or environmental development proposals should be reported at least every two years.)

- There is no regular, focused forum, or mechanism, for the discussion of issues and interests by and between the stakeholders within the region. (Cooperative, regional events of educational, cultural, and/or social purpose should be regularly reported.)

- The current 1.0 million inhabitants living within a sixty-mile radius of downtown Omaha pose numerous conflicts with major portions of two of the State’s most valuable and fragile ecosystems – the Platte River and the Missouri River and the related watersheds. (Ecological indicators on the health of the flora, fauna and landscape systems within the Metroplex must be maintained and reported on a cyclical basis.)

- There are four key corridors in the region, each of which needs specific planning/policy protections from indiscriminant development:
  1. The I-80 Interstate Highway corridor from Avoca, Iowa to Aurora, Nebraska (with special emphasis on the corridor between Omaha and Lincoln);
  2. The State Highway 2 corridor between Nebraska City and Lincoln;
  3. The Platte River corridor and its connected watersheds between Columbus and Plattsmouth; and
  4. The Missouri River corridor and its connected watersheds between Sioux City on the north and Rulo on the south, including the I-80 corridor: (Each of the corridors should have distinct indicators of planning and development impacts within and between the connected communities.)

- A comparative assessment of all of the current comprehensive planning documents in the region shows that each jurisdiction has very independent and varied philosophies and policies for the conduct of planning and land use administration for future development. (The beginning assessment of planning documents and the comparisons for shared interests and "best practices" must
be maintained and reported on a cyclical basis.)

- **The economic development projections for the region will not be realized without careful attention to the quality of the region’s environmental attributes and also to the overall quality of life for all the region's inhabitants.** (This condition is the key, and the principal justification, to the need for a continuous system of comprehensive indicators.)

- **Projections of the growth of population, within a context of continuation of present growth patterns and policies will, in approximately 23-30 years, begin to constrain the economic growth potential of Omaha, and Douglas and Sarpy Counties.** (The system of sustainability indicators must annually report on the movement of land uses, especially from agricultural/native systems to residential, industrial and commercial inventories.)

- **Nebraska's attributes of water, fertile soil, solar energy, dependable four seasons climate, and healthy communities accrue to the Metroplex region, giving it some unique advantages among other urban regions in the Midwest. However, in a context of disconnected, or unplanned urbanization, all these qualities of distinction are at risk.** (The stressors and their trends on these natural attributes must be measured through a comprehensive system of sustainability indicators. The previously described Five Domains of Sustainability, re: Chapter Five, should serve as the organizing principle for the system of indicators.)

6.3 **Sustainable Indicators Strategy** (adapted from United Nations/OECD/DAC Resource Book on Sustainable Development Strategies):

- Establish a Coordinating Body
- Establish a Steering Committee
- Seek Political Commitment
- Secure Public Mandate
- Identify the Stakeholders
- Ensure Broad-based ownership
- Mobilize the Required Resources
- Map Out a Strategy Process
- Establish SIS Ground Rules
- Establish a Calendar/Schedule
- Promote the SIS as a Unified Project
- Establish Provisions for Regular Reviews/Forums
- Establish Communication, Information, Knowledge Mgmt. Systems
- Establish Benefits, Recommendations Reporting
- Establish Monitoring, Accountability Mechanisms

The conduct and annual/bi-annual reporting of indicators must be appropriate to the region, understandable, as accurate and dependable as possible, apolitical, and cost-effective. In the words of Don Willard of the Department of Environmental Protection in Mecklenberg County, North Carolina, “Regardless of the sophistication of the technical information, any indicator fails if it does not readily and transparently communicate its message to the intended audience. The ultimate goal is to educate
people and inform their decisions."

6.4 Five Domains of Indicators Recommended for the Flatwater Metroplex

The following list of Indicators under Environment, Social/Culture, Technology, Economics, and Public Policy headings should serve as the initial road map for a cyclical system of Sustainability Indicators for the Metroplex. The Joslyn Castle Institute proposes to set in motion the above SI strategies to create and maintain the system.

Sustainability Indicators:

Environment
- Water Quality and Quantity (Consumption, Wastewater Treatment, Pollution Levels)
- Air Quality
- Solid waste generated/volume of recycled materials/disposal and reuse methods
- Land uses/access to green space/walkable neighborhoods
- Noise, light and visual pollution

Society/Culture
- Educate people on impact of choices and options, take personal and civic responsibility to educate regarding serving our interests
- Celebrate uniqueness of your community
- Population/demographics/growth rates
- Average household size/lot density
- Affordable housing
- Healthy community factors (active living, health care availability)
- Mortality rates by age and ethnic group
- Welfare/unemployment rates
- Crime rates
- Ethnic populations/neighborhoods/distribution

Technology
- Energy sources/capacities/consumption rates
- Roadways/Patterns/Efficiencies of Use/Maintenance/Support $
- Public Transportation/Modes/Use/Support $
- Average Travel Time/Distance to Employment (public/private)
- Emphasize that all transportation is public transportation (all is subsidized)
- Auto registrations/annual sales
- Miles per ton of food and other goods
- Infrastructure connections, domestic, commercial, industrial (gas, water electricity)
- Recycling/Reuse
- Information Access
- Airline Service

Economics
- Income Distribution/household levels of poverty
- Regional Product per Person
- Local/absentee business ownership (GDP)
- Urban/Rural/Regional GDP
- Tax rates/distribution
- Public Expenditures, infrastructure and services
- Regional, National and International Trading Networks/Value
- Workforce Demographics/Undocumented and Guest Workers

**Public Policy**
- Economic development/incentives
- Distribution of public funds/subsidies
- Public debt/debt service
- Health and welfare expenditures
- Public education support
- Zoning/growth management
- Environmental protection
- Public access and participation
- Civic leadership development
- Public/private partnerships

As we work to define indicators in the Metroplex, we must be mindful that our actions, however large or small, never occur in isolation, but are part of a complex web of interdependencies between natural and human systems.
Lincoln’s new Fallbrook development incorporates principles of New Urbanism
CHAPTER SEVEN: REGIONAL COOPERATION & BEST PRACTICES

In Chapter Two we noted that some recent efforts have been made to create a climate of cooperation and dialogue between communities and various interests in the Flatwater Metroplex. The economic summit and the Joslyn Castle Institute’s (JCI) community conference in 2002 were good starts, and an ongoing dialogue has continued through the support of the Nebraska Environmental Trust, and the work of the Joslyn Castle Institute for Sustainable Communities and its partners. JCI has sponsored three major regional conferences on area growth as well as a number of workshops, surveys, lectures and other activities that address growth issues in the Metroplex and beyond. JCI also sponsored an international Ecospheres Conference in 2001, as a preamble to the SRS study that explored issues related to land use, water and population.

By its very nature, a sustainable community does not concern itself only with its own problems and solutions, but rather, how those problems and solutions are connected to other communities. A sustainable community models (shares and publicizes) its best practices with other communities knowing that all communities will ultimately benefit from their widespread adoption and coordination. In Chapter Two we saw examples of communities combining sewer districts to save money and, in the long term, benefit the environment. We also saw examples of planners and leaders from cities large and small discuss the future of land use, and how it will affect the quality of life in Metroplex communities in the 21st century.

Ultimately, each community and individual is a part of a natural ecosystem that recognizes no political boundary. Issues and solutions regarding our survival in this environment, then, should likewise be considered as affecting all of its constituent parts—farms, cities, and habitat.

The following are a few examples of new or on-going regional cooperative efforts and best practices in the Metroplex. It is by no means complete, but rather it is a list that we look forward to adding to in the years to come:

7.1 Urban Initiatives

ACTivate Omaha
Improving the built environment to support active living and physical fitness is the goal of this major community-wide campaign supported by a $200,000 grant from the Robert Wood Johnson Foundation. ACTivate Omaha brings together a diverse mix of Omaha/Douglas County metro organizations representing business and industry, health care, and neighborhood groups under the umbrella of Our Healthy Community Partnership. This advocacy group works with city planners and developers to encourage active lifestyles through smart growth, including the enhancement of parks and trails and the implementation of pedestrian-friendly improvements in both older and newer neighborhoods. Primary areas of focus include bicycle/pedestrian paths, worksite health promotion, and zoning/land use (public policy) to encourage active living. ACTivate Omaha is poised to serve as a national model for active living initiatives.

Drake Court Redevelopment
The redevelopment of the four-block Drake Court housing project in Omaha resulted from a comprehensive
pre-development study by JCI, which continues as a consulting partner with NuStyle Development, the Nebraska Investment Finance Authority, and the City of Omaha in a four-year commitment to transform the Drake district into a model sustainable central urban neighborhood.

**Lincoln’s Antelope Valley Project**

The $240 million Antelope Creek plan is an aggressive flood control project that also holds great promise for revitalizing Lincoln’s downtown and urban neighborhoods. The project will transform 1.5 miles of the Antelope Creek—which winds its way through the heart of Lincoln—reconnecting the city to this natural landmark. It is designed to spark new housing, businesses, community centers, recreational trails and other civic features with the potential to revitalize 90 city blocks of the historic downtown area. The Lower Platte South NRD, the University of Nebraska-Lincoln and the city are sponsoring the Antelope Valley Project, which is the result of a number of meetings and workshops involving a cross-section of area stakeholders—the university, area homeowners and renters, business and industry, parks and recreation, civic institutions and others. (Laukaitis LJS)

**Downtown Lincoln Master Plan**

In conjunction with the Downtown Lincoln Association (DLA), and the City’s Urban Development Department (UDD), the Planning Department has embarked upon the formulation of a “Downtown Master Plan” for Downtown Lincoln. The purpose of this Master Plan study effort is to identify major land use and development policies for Downtown Lincoln. This includes delineating a number of land use activity zones and the interrelationships between each zone. The policies derived from this study are intended to support the role of the Downtown as set forth in the adopted City-County Comprehensive Plan. This planning process will include consideration of a range of Downtown area transportation issues including options for localized transit shuttle services and the potential for bikeway corridors within the Downtown area. The study involves a four-phased analysis approach designed to engage the community in helping to define the future role and vision for Downtown Lincoln. The study process is underway with community workshops that collect essential base information regarding the physical characteristics of Lincoln’s Downtown and solicit key thoughts and issues from stakeholders. In the second phase, a series of alternative futures for Downtown Lincoln will be crafted and made available for public review. Two supplemental efforts will target specific Downtown transportation issues, including development of a Downtown Bicycle Facilities Plan and a Downtown Transit Shuttle Plan.

**Council Bluffs Loess Hills Preservation Plan**

In 2001 the Council Bluffs City Council unanimously enacted the ambitious Council Bluffs Loess Hills Preservation Plan to protect the city’s trademark Loess Hills from increasing development pressures. The Loess Hills are a chain of bluffs along the Missouri River valley that are particularly dramatic on the Iowa side, where they rise sharply from the floodplain. The *Des Moines Register* reported at the time that Council Bluffs, as part of the booming Omaha metropolitan area, “poses a serious threat to the hills.” The plan called for new planning, zoning, grading and dirt-removal rules that would allow the city to grow without destroying the hills, which are also home to a wide variety of plant and animal species (See Chapter One). Local preservationists are also restoring the prairie ecology of the Vincent Bluff, “a spectacular prow of a hill visible from Interstate 80-29 on the southeast side of Council Bluffs.” (Des Moines Register, also see item below). In February 2004, Pottawattamie County (which includes Council Bluffs) passed a land-use plan to encourage cluster housing development in the Loess Hills region near Council Bluffs. That plan also is designed to preserve open space. One month later, residents of Mills
County south of Council Bluffs also discussed their own plan to preserve the hills from encroaching development. (OWH)

Destination Midtown
A partnership of neighborhoods, businesses, educational institutions and city government that seeks to capitalize on the rich history of Midtown Omaha (an area bounded by Cuming Street, 24th Street, Center Street and Saddle Creek Road), return it to prominence, and make it the city’s destination of choice. The partnership, which includes JCI, initiated a yearlong study with input from residents, business owners, employees and other stakeholders. The project aims to transform historic Midtown, which includes Joslyn Castle, into a vibrant area for growth and development. A series of workshops were conducted to gather input from stakeholders, and a master plan was unveiled May 2004 at Joslyn Castle. Although many initiatives will take years to develop, a number of “mom-and-pop businesses” and other mixed-use projects envisioned in the plan are already popping up. The plan recommends the creation of a development corporation and a development fund of $1.5 million over the next three years to jump-start business activity and improve code enforcement and security. The plan also recommends reconfiguring streets and problem intersections. Destination Midtown’s 101 recommendations come in four categories: neighborhoods, transportation, central corridor and parks and open space. A sample of the high-priority items include transforming Dodge Street into an urban boulevard by expanding the right of way, developing a bike mobility plan, and encouraging entry-level and lower-wage workers to buy homes.

Omaha By Design
A privately funded initiative, Omaha By Design includes urban planners, developers and local officials. Its goal is to create standards and government regulations for future development “to make Omaha more beautiful.” It has these three, broad goals: Green space, including more trails and boulevards, streams, open space and landscaping; Civic life, including enforceable design standards for shopping centers, public buildings, landmarks and scenic views; Neighborhoods, including new guidelines for redevelopment in older neighborhoods and for new developments. A series of public forums on these and other issues were held during the spring of 2004. (OWH)

‘Plaza de la Raza’ Redevelopment
South Omaha’s Plaza de la Raza and adjacent parking lot at 24th and N Streets will be transformed into a new public area. A public plaza, possibly with a bandstand, fountains and decorative paving, will replace a parking lot at 24th and N Streets. The stretch of 24th Street between L and Q Streets will be narrowed from four lanes to two, creating space for diagonal parking. It’s all part of a proposal to make south Omaha’s reawakening 24th Street business district more inviting, pedestrian-friendly and safe. The City of Omaha has committed $800,000 in federal Community Development Block Grant money for 2004. Mayor Mike Fahey has said more grants would come in future years. The South Omaha Business Association is pursuing private money to fund the remaining cost of the project. The plan is to complete the first phase this year, then go block by block as money becomes available. The new Plaza de la Raza is aimed at creating a festive community space used for family events.

7.2 Habitat Protection and Restoration

The Nebraska Environmental Trust
The Nebraska Environmental Trust is a statewide program dedicated to the preservation of Nebraska’s
natural resources. The Nebraska Environmental Trust provides the seed money needed to preserve critical habitat areas, protect water supplies and establish recycling programs in Nebraska through a unique combination of lottery proceeds and private donations. The Trust especially seeks projects that bring public and private partners together collaboratively to implement high-quality, cost-effective projects. The Trust values projects that leverage private investment in conservation and emphasize long-lasting results.

Conservation Alliance of the Great Plains
Founded in 1999, the Conservation Alliance of the Great Plains assists in the creation of protected grassland natural areas and advance the cause of sustainable communities in the Northern Great Plains. The Alliance promotes the reestablishment of extensive, permanent grassland areas for the economic benefit of farms and rural communities as well as for the restoration of healthy ecosystems.

Lincoln/Lancaster County ‘Greenprint Challenge’
This is an integral part of an overall long-range planning effort designed to provide the City of Lincoln and Lancaster County with an approach for sound and sensitive urban and rural development. This approach weaves the community’s desire for maintaining and enhancing the long term ecological and economic benefits that derive from our natural and historic cultural environment into our community’s planning and implementation processes. The three ‘core resource imperatives’ identified in the greenprint challenge are preservation of the saline and freshwater wetlands, native prairies and stream corridors.

Saline Wetland Purchases
The City of Lincoln continues to purchase tracts of land near Interstate 80 in an effort to preserve saline wetland habitat north of the city. The wetlands occur both north and south of the interstate near 27th Street, an area that is experiencing tremendous growth pressure from developers. In February 2004 the city purchased a 61-acre tract east of 27th Street and Little Salt Creek, and south of Interstate 80, using federal dollars and a grant from the Nebraska Environmental Trust. Considered a possible habitat for the imperiled Salt Creek tiger beetle, the land is part of more than 4,000 acres that includes sensitive wetlands the city is trying to protect (At one time, there were about 20,000 acres of saline wetlands in Lancaster County). The land was purchased for $204,700. The majority of the money, $153,525, came from the U.S. Fish and Wildlife Service. The Nebraska Environmental Trust granted the rest. In 2003, the city purchased another 160 acres north of the 61 acres. Both are part of the large, 4,087-acre swath, roughly bordered by Little Salt Creek to the south and Rock Creek, which is to the north near the border of Lancaster and Saunders counties. (LJS) More land purchases are being considered.

Iowa Vincent Bluff Restoration
The Loess Hills Preservation Society is raising funds to complete work needed to open the hilltop urban prairie—the Vincent Bluff Preserve—to the public in 2005. The 31-acre preserve near Woodbury Avenue and Harry Langdon Boulevard overlooks U.S. Highway 275 and Interstate 80. The Iowa Natural Heritage Foundation bought the property, a remnant of the prairie that once covered much of Iowa, from the family of Mildred Vincent. The foundation held the land until the City of Council Bluffs could secure state and federal funds to buy it in 2002. About 250 volunteers have spent time restoring the preserve, which is home to a variety of prairie plants and animals. Groups from Iowa Western Community College, the University of Nebraska at Omaha and Creighton University have been doing research at the preserve.
Missouri River Wetland Easements
The U.S. Department of Agriculture came to Nebraska recently to recognize and encourage Nebraska landowners who have designated parts of their land for a special conservation reserve. The visit of Undersecretary Mark Rey attracted relatively little attention in the broader scheme of things. But it was important for what it symbolized and the good it promoted. Rey and other conservation officials visited the farm of Robert and Verneel Noerlinger on the Missouri River near Union, Neb. The purpose of the occasion was to highlight a new federal program in which $26 million will be spent to restore 18,200 acres of wetlands along the river from Ponca to Rulo...The special conservation reserve is set up when a landowner grants an easement to the government under which certain activities, such as farming or residential construction, are forbidden. The landowner keeps control of the land for other purposes, such as recreation. The easements are granted for 10 or 30 years. Ultimately, officials said, they envision a 1-mile-wide strip of wetlands along the Missouri. This would provide flood control, recreation, wildlife enhancement and better water quality. It also would go a long way toward preserving the natural beauty of the land - a benefit that too often is overlooked, even in cities, when developers rush to plant high-rise condominiums along the riverbank. The pursuit of such a goal should help to moderate the disappointment of people who believe the future of the Missouri has been jeopardized by a recent U.S. Supreme Court ruling reaffirming the authority of the U.S. Army Corps of Engineers to manage the river. (Omaha World-Herald, July 8, 2004)

The Nebraska Land Trust
The Nebraska Land Trust is currently focused on the Metroplex region and particularly on rural lands around the Omaha metro in the Lower Platte, Missouri and Elkhorn river basins. This three-year-old organization is uniquely suited for protecting land through conservation easements and is governed by a board that includes representation from conservation organizations and non-profits. The Trust works with a wide spectrum of landowners to protect wildlife habitat, agricultural lands, open spaces, and historical and cultural sites. The Trust seeks to preserve a sense of place and whatever defines a sense of place in the environment and in human history. The Nebraska Land Trust has already protected more than a thousand acres on the Lower Platte and Lower Elkhorn rivers through conservation easements with private landowners, including wetlands, ponds, grasslands and riparian woodlands.

7.3 Regional Partnerships

Back to the River Projects
A multi-dimensional project designed to create an ecological, recreational and historical corridor along the Missouri River in Nebraska and Iowa, Back to the River includes the combined efforts of government and private partners including the cities of Bellevue, Blair, Omaha and Council Bluffs as well as the Iowa Department of Natural Resources, the Nebraska Game and Parks Commission, the National Park Service, the U.S. Fish and Wildlife Service and many other organizations and individuals. Administered by the Papio-Missouri River NRD, the project will restore wildlife habitat and wetlands while providing avenues for new economic development and revitalization through tourism, recreation, and cultural and historic interpretation. Projects under the Back to the River Program include:
• Omaha/Council Bluffs Riverfront Core Area projects include the expansion of downtown riverfront development, combining economic initiatives with restoration of natural features. Included in the project are a number of large scale public and civic projects such as the new Qwest Center, the Gallup Campus, the National Park Service Midwest Headquarters. Recent projects on the Omaha riverfront and nearby
downtown total about $1.8 billion.
• Boyer Chute National Wildlife Refuge, Washington County. The revitalization of 2,000 acres of habitat for fish and wildlife. A related expansion project in the Nathan’s Lake area added an additional 8,000 acres to the riverfront property.
• Hidden Lake/Great Marsh Restoration in Sarpy County includes the restoration of wetlands within Fontenelle Forest. A Missouri River Ecology Lab visitor/classroom facility is being built on the floodplain of the forest. The Fontenelle Nature Association also acquired 262 acres of floodplain forest (Krimlowski Addition to Neale Woods Nature Center) and one mile of riverfront for educational and recreational uses. Also nearby Mandan Park is making recreational and aesthetic improvements,
• Miller’s Landing, a critical 20-acre link to downtown Omaha and the eventual link to the planned Missouri River pedestrian bridge.
• Pigeon Creek Chute Restoration in Pottawattamie County includes improvements to existing wetlands habitat.

**Lower Platte River Corridor Alliance**
The Lower Platte River Corridor Alliance is a consortium of three natural resources districts and seven state agencies in Nebraska joined together in an effort to address natural resources management issues in the Lower Platte River Corridor area. With the passage of an inter-local agreement, the Lower Platte River Corridor Alliance was established in 1996. Members contribute to an administrative fund totaling $65,000 annually, to support a coordinator’s position for the Alliance and agree to provide technical and other assistance within their authority to the coordinator. Quarterly meetings are convened to share progress reports on programs and projects of all involved. The Alliance seeks to assist counties and communities spanning 100-river miles to become fully informed about the natural resources impact of their decisions, and to promote consistent decision-making across jurisdictions so as to promote natural resources conservation in the river corridor area. The Alliance provides a forum for concerned and interested citizens, and local elected officials to bring their different perspectives to the table and seek common solutions.

**Metropolitan Area Planning Agency**
This voluntary association of local governments was created in 1967 under the terms of an interlocal agreement to provide a forum for coordinating local planning and development activities. Any governmental unit within MAPA’s five-county area can belong. Current membership consists of 5 counties, 39 towns, 19 special purpose governmental entities and 1 city council. MAPA brings local government officials of the region together to address mutual and overlapping concerns in the areas of transportation, solid and hazardous waste, community and economic growth and development, air quality, energy, and data. It also works to promote and preserve the public health, safety and welfare of the citizens in the MAPA region. MAPA receives its financial support from federal, state and local contributions and from contracts for services. Although MAPA has no regulatory powers. It can consider any matter which may or should involve interlocal governmental cooperation or coordination. It recommends, but does not implement, plans and programs that it prepares, reviews or adopts. It also provides review and comment on local applications for federal and state funds.

**Omaha, Lincoln BBB Offices Merger**
An example of intercity cooperation, the Omaha and Lincoln offices of the Better Business Bureau merged in March 2004 to form a new agency that will serve Nebraska, southwest Iowa and South Dakota. The
new bureau, based in Omaha, has more than 5,000 members. The boards in charge of the two Nebraska bureaus recognized the efficiencies to be gained by consolidating the offices and the opportunity to improve the public’s access to services and programs.

7.4 Trails

New Trail to Link Omaha, Fremont
Plans for a new trail system to connect western Douglas County—including Elkhorn, Waterloo and Valley—with Omaha and Fremont was the culmination of efforts by Douglas County, the Papio-Missouri River Natural Resources District, Elkhorn, Waterloo, Valley, the Metropolitan Area Planning Agency, the Nebraska Game and Parks Commission and the YMCA. Federal funds will provide 80 percent of the trail costs, with local support providing the rest. The entire project would cost more than $13 million over 20 years. Trails would be constructed along existing roadways in four phases to connect existing Omaha and Fremont trail systems to Elkhorn, Waterloo, Valley, Ginger Cove, King’s Lake, Elkhorn Crossing, Elk City, Elk Crossing, West Shores, Two Rivers State Recreation Area and the Platte and Elkhorn Rivers. The first phase, which could begin as early as next year, would involve the trail system’s 19-mile tri-community core, linking Elkhorn, Waterloo and Valley with trails in Omaha and Fremont. Valley Mayor Joe Roberts praised the combined recreational and economic benefits to the area: “The trails will not only bring people to our communities, but give them an opportunity to stop and do business with us.” (OWH)

Trail to Span Metroplex Region
The Lied Platte River Bridge and Platte River Connection Trail opened in the summer of 2002, the first bridge in eastern Nebraska solely dedicated for recreational use over the Platte River. Ultimately, it will link Omaha and Lincoln through a series of hiking/biking trails. A planned bridge across the Missouri River on the Omaha/Council Bluffs riverfront would further extend this network, linking both states and providing much needed bike/pedestrian connectivity across the river and the Metroplex region. Metroplex communities contain hundreds of miles of walking/biking trails through some of the most scenic areas in the region. Trail development is the result of grassroots efforts as well as a number of public and citizen-based partnerships. A number of towns and cities sponsor trails in partnership with Natural Resources Districts, state and federal park systems, the U.S. Forest Service, the Metropolitan Area Planning Agency, and the U.S. Army Corps of Engineers.

7.5 Transportation

Lincoln Multi-Modal Transportation Study
The “Multi-Modal Transportation Plan” study is looking for ways to expand alternative transportation mode opportunities that serve Lincoln’s long range travel needs. The study is considering alternative approaches for providing personal transportation services, the service level characteristics of various modes, and funding options for maintaining such options. The study is also investigating the mobility requirements of demographic groups whose travel needs are not currently being met. The study will result in a plan for enhancing mobility options throughout the community and will be integrated into the City-County Comprehensive Planning and Long Range Transportation Plan. This study is specifically called for in the Year 2025 Lincoln City- Lancaster County Comprehensive Plan.
MAT Initiatives Encourage Bus Riding
Omaha and Metro Area Transit officials announced in March 2004 their participation in a national program called Smart Commute. The program, coordinated by the Fannie Mae home mortgage service, is intended to revitalize older neighborhoods and encourage use of public transportation. The program is built on the idea that people who take the bus have lower commuting expenses and could put that potential savings toward the cost of a home. The lender would add a portion of that savings when figuring the borrower’s income, said Cynthia Swoopes, an official with Fannie Mae’s Nebraska office. With a higher income, the borrower would be able to qualify for a loan for a more expensive home. To be eligible, there generally would not be income limits for those buying older homes in older neighborhoods, she said. There could be income limits for people buying newer homes. Participants would have to sign a form stating the number of cars in the household. One-income households could have no more than one car. Two-income households could have two cars. The program is available to home buyers in communities served by MAT: Omaha, Bellevue, Council Bluffs, Papillion, La Vista and Ralston. In April 2004, MAT unveiled “retro buses” in downtown Omaha. The refurbished buses, built in the 1940s and 1950s, provide 25-cent rides between parking lots and office buildings. The retro buses are easier to maneuver downtown because they are lighter and in some cases shorter than the modern buses, said Curt Simon, a MAT administrator. Simon said MAT decided to use the vintage buses to add to the color and character of downtown. He also said the refurbished buses cost less than new ones. As he drove the 1948 bus, Doug Weaver said he noticed a difference among his passengers Monday morning. “People tend to smile more,” he said. (OWH)

7.6 Green Building Initiatives

New Chapter for U.S. Green Building Council: Flatwater Chapter, Omaha

Nebraska Center for Sustainable Construction
JCI’s new Nebraska Center for Sustainable Construction (NCSC) is creating deconstruction teams and salvaged materials sales venues in Nebraska as an alternative to the usual demolition and disposal of buildings as waste. The result of a $246,000 award from the Nebraska Department of Environmental Quality’s Waste Reduction and Recycling Incentive Grants Program, the NCSC will offer statewide services to building owners and the construction industry for the reduction of construction and demolition waste, and will stimulate and supply the re-use and recycling of construction materials back into the state economy. In partnership with the Nebraska State Building Division, the City of Lincoln, and the Lincoln Action Program, the NCSC will also conduct statewide job training and educational programs for sustainable, green construction methods. JCI/NCSC is also a member of the U.S. Green Building Council (USGBC).

New Omaha National Parks Service HQ Gets Environmental Praise
The Carl T. Curtis National Park Service Midwest Headquarters is one of the world’s “greenest” buildings. “Craig Kenkel, Midwest chief of the cultural resources division of the National Park Service, said the new building will “fit the urban environment of downtown Omaha and the back-to-the-river effort.” The building’s Omaha-based development team expects the $12.5 million, three-story building to become the world’s 28th building to achieve the environmental “gold” rating. It is the first building in Nebraska to be rated under the Leadership in Energy and Environmental Design system, or LEED. The care taken is exemplified by the native plants surrounding the building and the interior wood acquired from approved forests. Most materials, including the Kansas limestone, came from within 500 miles of Omaha. Sensors
adjust the lighting depending on available sunshine. The glass provides the greatest level of thermal protection, and the overhangs help block the hot sun of summer but let through the rays in winter. The efforts to preserve water extend to the native plants, which after two years won’t require any watering, to the bathrooms. For Noddle Development, Pacific Realty Development Services, Leo A. Daly and Kiewit Construction Co., the project was their first in the green construction movement. And it probably isn’t the last. “This is a business we want to be in,” said Harlan Noddle, whose company develops commercial space in 17 states.” (Omaha World-Herald, July 21, 2004)

Green Building Catching on in Lincoln
When Joyce Coppinger started the Lincoln Green Building Group in 1997, there were only two structures built with straw bales in Nebraska. Today there are 23 straw bale buildings - of all types - across the state and more are in the works, she said. That’s one indication that green building - using environmentally friendly materials and techniques to build sustainable structures - is catching on locally. Jen Carlson and Josh Shear opened Straw, Sticks & Bricks on April 23, 2004, the day after Earth Day. The store features standard building materials made out of recycled content. Carlson and Shear launched their business about two years ago on the Internet because they felt Lincoln was not ready for green building. “But in the last six to 12 months, we’ve noticed how green-savvy people are in Lincoln,” Carlson said. Coppinger’s group holds quarterly meetings and also has a mailing list that is sent to engineers, architects, consultants, builders and others in the housing industry. She is also trying to develop a student chapter. The Nebraska Energy Office is also a resource for would-be green builders. The agency has a Green Building Program to help contractors become certified green builders or people build green-built homes. There are eight certified green builders in the state, all in the Lincoln area. (LJS)

Partnerships Cut Energy Costs
First Data’s Omaha buildings are realizing huge energy savings—total energy bills dropped as much as 50 percent—thanks to a joint effort by the Omaha Public Power District and the University of Nebraska-Lincoln. Another pilot project, the Terrace Plaza office building, saw similar savings. First Data and Terrace Plaza were able to tap into the latest engineering research at UNL, available through collaboration between the university and OPPD. About 30 other buildings in the Omaha area have received similar energy audits. About 20 more are in the pipeline, and 50 are on a waiting list. The university and OPPD provide the audits, underwritten in part by a grant from the U.S. Department of Energy. The program looks for ways to reduce the need for heating and cooling, and once that’s done, it looks for ways to make systems run more efficiently. “What makes this partnership so great,” said Ken Hansen of OPPD, “is being able to utilize the research of UNL and get it into industry sooner than it might migrate through the marketplace.” (OWH)

Wind Power Has Popular Support
Although Nebraska has barely tapped its potential for windpower—the state ranks sixth in its potential to generate wind energy—the public supports greater investment in this alternative energy source. The Lincoln Electric System has erected two large wind generators near I-80, and the Nebraska Public Power District is looking into this technology on the heels of a customer survey conducted in the the fall of 2003 that showed that an astounding 96 percent of respondents believed that NPPD should develop 200 megawatts of wind power—enough to power 50,000 homes for a year. (LJS)
7.7 Small Town Revitalization

**Nebraska Environmental Trust Partnerships Program**

The Nebraska Environmental Partnerships program was formed to help Nebraska’s small communities address the challenges posed by complex environmental regulations, limited financial resources, and aging infrastructure. The program (formerly called Nebraska Mandates Initiative) is a unique state-coordinated effort aimed at helping small towns meet these challenges through a team process that helps local communities prioritize risks, and find technically and financially feasible solutions. In contrast to the typical governmental approach of establishing mandates and expecting citizens to comply, the Environmental Partnerships program establishes partnerships with communities with a goal of finding customized solutions that will benefit everyone. It is a consensus, teamwork approach. The Environmental Partnerships program typically works with communities of 1,000 or less. Community assessment grants are normally the starting point for assistance that consists of an analysis of current environmental health infrastructure, discussion of the analysis results, prioritizing issues and finding solutions.

To date, the program has implemented its community-based team process and provided some form of customized assistance to more than 230 small communities throughout Nebraska. More than 100 communities have received grants to perform community environmental assessments. Community assessment grant funds are limited, but Nebraska Environmental Partnerships staff is continuing to seek out additional funds.

**Nebraska Community Improvement Program (NCIP)**

Since 1963, the Nebraska Community Improvement Program (NCIP) has assisted communities in meeting challenges while building on the vitality of their strengths and resources. NCIP recognizes the leadership, community and economic development efforts of Nebraska’s communities and multi-communities. These communities organize to plan their future, set goals, determine priorities and implement project action plans. By participating in NCIP and involving citizens in planning projects, Nebraska communities develop technology centers, implement recycling programs, promote regional tourism, revitalize main streets, create new leadership, and build and assist local businesses.

**Urban Community Improvement Program**

The Urban Community Improvement Program (UCIP) was created 1991 to support and recognize the contributions of neighborhood associations in Nebraska. It is a partnership between Nebraska neighborhoods, the University of Nebraska, the Nebraska Department of Economic Development, and the following investor-owned natural gas and telecommunication companies: ALLTEL, Aquila, Clarks Telecommunications Co., Glenwood Telephone, Great Plains Communications, Inc., HunTel Systems, Kinder Morgan, Inc., Northern Natural Gas, Northwestern Energy.

**Nebraska Lied Main Street Program**

Since 1994, the Nebraska Lied Main Street program has made a difference in the lives of countless Nebraska residents by providing communities the opportunity to revitalize their downtown business districts through economic development and historic preservation. Main Street merchants, building owners, and local government officials have learned how to promote their downtown business districts, make their buildings look attractive and functional, how to market their wares, how to attract new
customers and better serve the ones they have. The future of Main Street will likely be determined by the community’s ability to find a sustainable economic purpose. Without economic vitality, the Main Street goals of design, organization, and promotion will not be achievable in most communities. Profound changes are occurring within America’s retail and service sectors that are directly affecting the historical economic underpinnings of rural downtown. The Nebraska Lied Main Street program helps communities address those challenges.

John Serves as Model Community
Johnson, Nebraska, located near the southern edge of the Metroplex region, was recently the focus of a national meeting of economic developers. While many small Nebraska towns see their schools shut for good and struggle to keep main-street businesses open, there’s plenty of signs of life in this German farm town of 328 people - a refurbished main street, new school facilities and a cluster of successful mom-and-pop businesses. On March 25, 2004, a group of 40 economic development specialists from as far away as Maine and Oregon came here to find out how entrepreneurs and community spirit can keep a town humming. From local business owners they heard some common answers: Work together, support each other, cater to your customers and stay positive. “People are really proud of their town,” said Cheryl Gerdes, whose Johnson Quiq Shop has expanded its hours and added several products, from fresh pizza to greeting cards, to keep shoppers in town. “You won’t see any run-down homes or abandoned vehicles around here.” The economic developers were part of a class called “Energizing Entrepreneurship in Rural America” offered this week by two Lincoln-based development groups at the Lied Conference Center in Nebraska City, 25 miles northeast of town. With more and more manufacturing jobs going overseas, building jobs through local entrepreneurs is becoming increasingly important for rural towns striving to head off population declines, said Don Macke, co-director of the Center for Rural Entrepreneurship in Lincoln. Johnson is a good example of what can be done, said Macke and Milan Wall of Lincoln’s Heartland Center for Leadership Development. The town is part of a countywide effort to encourage small business development through the Nemaha County Development Alliance. In addition, Johnson launched a strategic planning effort five years ago that led to improvements in town, including housing rehabilitation work and encouraging the local convenience store to expand its products. All the major businesses in town are family-owned, some for two or three generations. Such owners are more likely to invest in their town, said Wall, because they are looking out not only for their children, but also for the children of their children.

A Touch of New Urbanism in Wahoo
The Lincoln Action Program is building houses in north Wahoo with new urbanism features. The houses are sold through a program, to help people at or below the median income for Saunders County (15 houses and four duplexes). This high-density development emphasizes community, with front porches close to the street and garages relegated to the back alley. The project will also help address the growing need for housing in Wahoo, especially with the completion of the Highway 77 expressway between that town and the city of Lincoln.

7.8 Public Policy Initiatives

Cass County Performance Zoning
This requires developers to earn a specified number of points in order to have a conditional use permit issued for a development. The point system is used to evaluate four types of development: 1)
recreational 2) commercial 3) residential subdivisions and 4) any project in the conservation district. The scoring system discourages development on sites where it would be too expensive to receive the required number of points. The system encourages: preservation of natural vegetation, the use of centralized sewer/water systems and soil conservation. The point system discourages: site disturbance, use of individual septic systems, development on inadequate soils and failing to have private water/sewer systems certified by a registered engineer.

**Douglas County ‘Development Policy Districts’**
These assist in future growth management by defining specific land uses. The primary conservation zones include those areas which do not support substantial urban development due to major environmental constraints such as floodways, 100-year floodplains, wetlands, streams or steep slopes. These areas will be preserved for agriculture, open space, parks and low intensity uses. The secondary conservation zones can be developed but include environmental resources which require protection through land use policy and sensitive design such as cluster development. The secondary conservation zone includes prime farmland, forested areas, historic sites, 500-year floodplain, areas with scenic views and ridge lines. Conservation districts have also been created to preserve the natural environment along the Platte River by Cass, Dodge, Saunders and Sarpy Counties.

**Ruling Supports Lincoln Impact Fees**
A Lancaster County District Court judge’s ruled in May 2004 that Lincoln’s levying of impact fees upon new construction in the city ultimately will benefit the majority of the community. Impact fees are financial contributions (money, land, etc.) imposed by communities on developers or builders to pay for capital improvements that are necessary to accommodate the new development. A Lincoln Journal Star editorial noted a Brookings Institute 2003 study, “Paying For Prosperity,” that regarded impact fees as a “practical and valuable tool for financing local infrastructure needs.” Without them, the study said, growing communities may not be able to sustain growth. It said that, traditionally, property tax revenues have proven mostly inadequate to fund the roads, water and sewer infrastructure, and schools required by new residential and commercial development. The report concluded, “Growing regions that institute impact fees may become more prosperous in the long run than communities in such regions that do not have them.”
CHAPTER EIGHT: RECOMMENDATIONS

A feast to which many have contributed is better than one provided from a single purse
-- Aristotle

How will more than one million inhabitants of the Flatwater Metroplex address current conflicts associated with rapid growth in the region, and what mechanisms can best address the myriad interests of cities, counties, farms and other groups that will not compromise the quality of life of more than two million future inhabitants?

This final chapter is a rough outline of a destination. It examines possible models for regional cooperation as well as recommendations and potential scenarios for sustainable growth in the Metroplex.

8.1 Growth Premises/Challenges for the Flatwater Metroplex

Recommendations for that future are based on the premise that the region will experience unprecedented growth both of the economy and the population in the next fifty years. These predictions were made prior to the 2000 Census, which supported the growth premise, and are reinforced by recent Census updates that indicate growth rates even greater than those upon which the original premise is based. Following are eleven premises for growth in the Metroplex:

1. There are large and important ecological systems in the path of projected growth; land uses are a major concern.
2. There are serious economic consequences to the states of Nebraska and Iowa, and to those states' cities, towns, commerce, industry, and agriculture.
3. The projected growth will not occur without focused attention to the quality of the environment and people’s lives.
4. The region can compete with other regional metro areas (including size, strategic location, economic resources, human resources, and natural assets).
5. Water, wind, fertile soils, and a four-seasons solar climate are the region's most valuable natural resources.
6. There currently is no shared vision of the preferred patterns of growth, or of the policies related to land uses.
7. Municipal and county governments have very different, often conflicting approaches to planning and public policies.
8. Water resources are spotted and uneven in both quality and quantity.
9. The infrastructure necessary to support growth is lagging behind growth pressures.
10. Agricultural and urban/economic growth interests are in conflict.

11. The region does not see itself as a unit of common economic interests; competitive tensions exist between communities.

8.2 Public Policy Examples

At the 2001 International Ecospheres Conference sponsored by the Joslyn Castle Institute, Roger Kennedy, former director of the National Park Service, stated “We need to commit ourselves to government and believe in democracy. Disaffection from the political process will leave us all in peril. If we create the problem by government (i.e. car culture subsidies), we can solve it.”

In Chapter Three we examined various county and municipal planning initiatives in the Metroplex, from which are derived the following public policy considerations.

- **Overall density.** How do we make the most efficient use of the land? How do we encourage sustainable, compact growth that can enrich community life while at the same conserve resources and preserve open spaces, agricultural land and habitat?
- **Discouraging acreage development.** How do we formulate policies that preserve rural areas and encourage compact and contiguous urban growth patterns?
- **The Importance of Rural Communities.** Focus more on smaller, surrounding towns rather than on major metropolitan areas for future growth considerations. Smaller communities and county jurisdictions will have a tremendous impact on future regional growth and its effects on community life and natural systems.
- **Encouraging state involvement in regional zoning.** States should support the role of municipalities in developing housing, and discourage developments in rural areas. States could confine non-agricultural residential development to a 3-mile zone around communities. This development would be designed with build-through characteristics to accommodate future contiguous growth.
- **Compact communities as healthy communities.** Compact communities are healthier because they foster a pedestrian, human-scale environment that encourages walking or biking to work, school and other daily destinations. Compact communities also have shorter commuting routes and use fuel and other resources more efficiently. Compact communities foster a socially healthy and vibrant cultural life that is key to economic development and attractive to prospective companies and their employees.

8.2.1 Policy Suggestions for Area Municipalities and Rural Jurisdictions

There are a number of specific policy initiatives that can be used to address future growth considerations in large urban areas as well as in smaller cities and towns. Many of these initiatives already inform policy in Metroplex communities, but they should be adopted, implemented and coordinated on a regional basis for the greatest benefit:

1. Continued emphasis on revitalizing the central business districts (CBD’s) of the various towns and cities in the region. Special emphasis should be made in Omaha, Council Bluffs and Lincoln to develop high-density housing and one-of-a-kind cultural/entertainment districts and sports...
facilities in and around the Central Business District.

2. Continued emphasis on revitalization of housing and commercial centers in older neighborhoods; greater public assistance for infill development.

3. Continued emphasis on infill development, which builds on and utilizes existing public facilities and infrastructure. Expand the use of “conservation overlay districts” as a way to preserve unique older neighborhoods. Such districts should allow for the creation of specialized regulations that maintain the character of older neighborhoods while encouraging their redevelopment.

4. Increased emphasis on historic preservation and preservation of existing buildings.

5. Promoting the construction of a full range of housing types, styles and price ranges in all areas of individual cities and the region at large; public assistance for low-income, affordable housing development.

6. Creation of growth controls as a pre-requisite to receiving State authority for zoning and State financial aid, particularly transportation and environmental funding.

7. A change in State law to limit the subdivision of land to no less than 20 acre parcels without approval by a county or city.

8. Limitations on acreage developments in watersheds that can be served by centralized sewer and water systems. Require clustering of lots, open space set asides, adequate right-of-way and easements as a way to enable future “urban” development. This technique is also known as “lot clustering” and “build-through” regulations.

9. Increased State funding for the development of centralized, municipal sewage treatment, water systems, and recycling systems.

10. Increased state restrictions on floodplain development.

11. Expanded use of “environmental overlay districts” to preserve sensitive natural systems and features.

Again, many of these initiatives are being applied with varying success in communities in the Metroplex. A regional application will require new mechanisms for coordination. The next section briefly examines different levels for possible regional cooperation and coordination.

8.2.2 The Seven Levels of Regional Cooperation: The LPRCR Study

Seven levels of regional cooperation were identified in the “Public Policy Study for the Lower Platte River Corridor Region,” prepared by the University of Nebraska-Lincoln for the Lower Platte River Corridor Alliance in April 2000 and endorsed in this report.
These seven levels can be interpreted as a gradation of possible models for regional planning and governance. The Public Policy Study emphasized the importance of regional cooperation and coordination, and cited existing law as a means toward this end:

In Nebraska, the Interlocal Cooperation Act is an existing law that authorizes state agencies and political subdivisions (municipalities, counties, NRDs, school districts etc.) to enter into interlocal agreements to cooperate in areas where the governmental units have joint interests and responsibilities. This Act is a vehicle through which intergovernmental cooperation in the Lower Platte River Corridor region could be formalized.

The interest for intergovernmental cooperation is there: Local governments (NRDS, counties, municipalities) in the Lower Platte River Corridor Region have expressed—often through such policy documents as comprehensive plans—interest in working cooperatively with other governmental units in the region. This is sometimes stated in terms of such regional interests as tourism and trails development and area-wide water systems, but also may be stated in terms of a need to work out localized conflicts, such as incompatibilities between allowed uses for two adjacent land parcels located in the zoning jurisdictions of two different governmental entities.

The study authors state “in order to protect the natural resources of the Corridor (eight counties and more and thirty communities), some level of intergovernmental cooperation is desirable.

The study offered these seven levels of regional cooperation:

**Level One: Planning and zoning roundtable.** A voluntary discussion forum including city and county representatives.

**Level Two: Development of voluntary model zoning ordinance.** The next level of regional cooperation would create a working group of corridor area zoning administrators and officials to develop a model zoning ordinance that could be used as a guide for local counties and municipalities.

**Level Three: Model ordinance with voluntary review by regional zoning committee.** This would establish a review committee composed of elected and appointed officials and zoning administrators within the Corridor that would review proposed zoning regulation change, variance and special use requests etc. No county or municipality would be required to have zoning changes reviewed by the regional committee. The purpose of the review would be to get the committee’s advice on whether the proposed zoning action is consistent with the model ordinance.

**Level Four: Regional planning commission/organization.** This approach would involve establishing a regional planning commission for the Corridor through interlocal agreement. The planning commission could be made up of elected and appointed officials from the region and would develop a non-binding comprehensive plan for the region.
**Level Five:** Binding model ordinance with regional review. At this level of regional cooperation, Corridor counties and municipalities could submit zoning actions affecting the corridor to the regional planning commission for review to determine consistency with the regional comprehensive plan or model zoning regulation. The review could be of three types: optional; mandatory but advisory only; or mandatory and binding.

**Level Six:** State protected rivers designation. According to the Public Policy Study, if the Nebraska Protected Rivers Act had been adopted, the Legislature could designate protected river segments within the state. The authorities of the river managing agency would be designated by the legislature, and the agency’s management plan could be either advisory to local officials or could override inconsistent zoning actions. The review could be of three types: optional; mandatory but advisory only; or mandatory and binding.

**Level Seven:** Federal rivers designation. This level allows the least amount of local control. If a river segment were included within the federal Wild and Scenic River system, local zoning policies would be followed only insofar as they are consistent with the federal scenic river management plan. The Public Policy Study states “the best way to prevent federal scenic river designation is to aggressively pursue a cooperative regional approach to protecting Corridor resources.

The study noted that one of the biggest threats to the Lower Platte River Corridor is unrestricted or inadequately regulated land development, and suggested the following actions:

- **Minimum setback requirements for structures built along the Platte should be adopted by all local jurisdictions to protect the river environment.** In Saunders County, officials have already strongly suggested to developers that a 600-foot building setback from the Platte River is expected.

- **Use of open space to maintain existing natural vegetation.** To ensure preservation of natural areas, communities and counties could include in their land use regulations requirements or incentives for open space. Cass County, through performance zoning regulations, provides incentives for developers to maintain natural vegetation.

- **Erosion control.** Adopt and administer regulations that would require developers to submit erosion control plans before beginning project development. Buffer strips of riparian vegetation could also help control erosion, offer wildlife habitat, and provide visual screening along the Platte and its tributaries.

- **Wildlife habitat inventory.** A regional needs study for wildlife habitat would provide a basis for decision making about habitat protection in comprehensive planning and land use regulations of local jurisdictions. The study could highlight habitat locations and needs for threatened and endangered species.

- **Regulating wells.** Counties could reinforce the state ban on sandpoint wells by requiring, through the building permit process, a well drillers certificate for domestic well construction. As noted in Chapter One, sandpoint wells are highly prone to contamination and therefore hazardous to human health.
The study also offered the example of Cass County as a model of how to encourage or require developers to accommodate existing features and the capacity of the natural environment in their subdivisions and other residential developments.

The study noted that Cass County has a point system that requires developers to earn a specified number of points in order to have a conditional use permit issued for specified developments. "It is applied only to land uses in the county that are deemed to be special in nature and require review in terms of environmental or quality of life issues. The system requires the developer to obtain the maximum score for most of the criteria and discourages development on sites where it would be too expensive to receive the required number of points." The point system encourages:

- Preservation of natural vegetation.
- Use of centralized sewer and water systems.
- Soil conservation.

It discourages:
- Site disturbances caused by grading.
- Use of private septic systems.
- Failing to have private water and sewer certified.
- Development on inadequate soils.

The study dubbed the Cass County approach “innovative” because the cost factors of meeting the requirements naturally guide developers to select and develop sites for which they can earn the maximum number of points in the most economical manner.

### 8.2.3 Policy Recommendations from the Bluff’s Region Charette

Recommendations for regional policy action in the Platte Valley of the Metroplex were also outlined in a September 1998 report, “The Lower Platte River Corridor – The Bluffs Region Charette,” by the Lower Platte River Corridor Alliance (LPRCA).

Among its Implementations Strategies, the report states that “land uses shown on the concept plan will require close coordination and unified land use regulations and policies, or else serious conflicts will occur. The LPRCA should assist the corridor governmental entities to develop a common or compatible land use management approach...Without a common or coordinated approach, the community risks environmental degradation, lower property values and reduction in quality of life.”

In sum, the report recommended:

- **Development should be compact and provide maximum accessibility to jobs, recreation and other daily functions.** Pedestrian scale and accessibility to public transportation. Network for safe and attractive routes for cycling and walking should be expanded.
- **Mixed-use — combine living, working, recreation.** Impact of motor vehicles in these areas should be reduced/ balanced with needs of pedestrians. Long-distance commuting and growth in vehicular mileage
should be reduced.

- **New mixed-use projects should group buildings to form a distinctive space** (containing shared parking) and be placed closer to the street. Both interior and streetscape spaces should contain walks and landscaping. See attach

- **Buildings should be constructed as much as possible in regional styles** with materials suited to climate and geography. Buildings should be constructed with minimal waste and to the highest energy efficiency standards (including placement to the sun to increase solar gain and minimize heating and cooling.) Rehabilitation of older buildings should emphasize energy efficiency as well as preservation of historic features. Reduction in total waste stream from industry, residences and business,

- **Emphasis on urban connections to the natural world** including habitat and food systems. The capacity of local food producers to serve local markets for daily and seasonal goods and services should be enhanced,

- **Emphasis on water conservation and quality.** Permeable surfaces and systems for capturing rainwater.

- **Local economies should have increasing level of self-sufficiency** in terms of the capacity to provide a greater variety of job opportunities and the supply daily good ad services from local sources.

### 8.2.4 American Farmland Trust Policy Recommendations

The American Farmland Trust website ([www.farmland.org](http://www.farmland.org)) offers a number of policy recommendations designed to save the nation’s best farmland:

1. **Increase funding for agricultural conservation easements.** Currently, more than 5,000 farmers are awaiting funding to permanently protect their land. The federal Farmland Protection Program (FPP) must be fully funded and every state should develop or expand its own purchase of agricultural conservation easements (PACE) program. In addition, we should expand federal and state tax incentives for land conservation.

2. **Expand conservation programs that share the costs with farmers for providing environmental benefits.** Farms and ranches produce a wide range of ecological goods and services, from wildlife habitat to water recharge to scenic open space. But there is no compensation for them. Conservation programs, like the Wildlife Habitat Incentive Program and Conservation Security Program, help share the costs of “growing” these valuable benefits.

3. **Target conservation funds to the most valuable, most threatened areas.** FPP and other conservation programs should target their funds to the nation’s most valuable, most threatened farmland, as identified by states and their conservation partners. To help identify those areas, we must continue improving systems to track and inventory farmland loss, environmental attributes and development threats.

4. **Support effective planning and smart growth to steer development away from our best farmland.** Communities need to adopt land use plans that designate specific farmland protection areas where development is discouraged. We also must eliminate subsidies that promote sprawl—and expand policies that promote smart growth.
8.2.5 The Nebraska Land Trust Option

In addition, rural lands can also be protected by conservation easements, such as those administered by the Nebraska Land Trust.

The Nebraska Land Trust has a statewide mission, but is currently focused on the Metroplex region and particularly on rural lands around the Omaha metro in the Lower Platte, Missouri and Elkhorn river basins.

This three-year-old organization is uniquely suited for protecting land through conservation easements and is governed by a board that includes representation from conservation organizations and non-profits.

The Trust works with a wide spectrum of landowners to protect wildlife habitat, fertile agricultural lands, open spaces, and historical and cultural sites. The Trust seeks to preserve a sense of place and whatever defines a sense of place in the environment and in human history.

Conservation easements are especially attractive in metropolitan areas because owners of highly appreciated land can receive substantial tax breaks through the donation of easements.

The Nebraska Land Trust has already protected more than a thousand acres on the Lower Platte and Lower Elkhorn rivers through conservation easements with private landowners, including wetlands, ponds, grasslands and riparian woodlands.

A promising dynamic has emerged from the process in which the establishment of one easement will prompt neighboring landowners to also set aside easements, creating contiguous parcels that are more ecologically desirable and sustainable.

8.3 Results of the 2004 Metroplex Conference

More than 80 regional leaders gathered in Omaha on September 9, 2004, to discuss regional growth challenges at the Joslyn Castle Institute’s third Metroplex Conference on Growth. A draft of this report and a survey of the region were presented at the conference.

W. Cecil Steward, president and founder of the Joslyn Castle Institute for Sustainable Communities, proposed the creation of a “Flatwater Metroplex Conference,” a volunteer organization that focuses on the communication of regional planning issues and the establishment of a set of indicators to measure quality of life levels.

He suggested that such a conference could issue an annual Sustainability Indicators Report that would gauge the region’s progress on a variety of environmental, economic, technological, socio-cultural and policy-based factors that will shape the quality of life in the region.

Steward said intense growth pressures will be on communities, farms and environmental systems near the I-80 corridor between Omaha and Lincoln, as well as along other major transportation routes such as
Highway 2 between Nebraska City and Lincoln. Projections show that as many as 230,000 commuters will travel daily into Douglas and Sarpy counties by 2050, creating unprecedented infrastructure and environmental challenges.

He said communities both large and small need to grow in a compact fashion and encourage mixed uses and pedestrian environments in order to maintain and improve quality of life. He also noted that human health is directly related to the “walkability” of a community.

Steward noted the problems associated with low-density urban fringe developments and acreages, which take valuable farmland out of production and over-extend city and county services. He pointed to three acreage studies conducted for Lancaster County, all of which concluded that acreages consume more services than they pay back in taxes.

Conference guest speaker Jim Walker, executive director of the Central Texas Sustainability Indicators Project, said communities that want to maintain or improve their quality of life must work in partnership with other communities toward common regional goals. He said Flatwater Metroplex communities should seize the opportunity now before it is too late.

Walker said the Central Texas Sustainability Indicators Project functions as a “Dow Jones” quality of life index.

“We try to highlight important issues and get the public policy and business sectors to respond in a timely way,” he said. “It is important to get agreement on what you want the region to become and how to measure progress toward that goal.”

Walker said it is important to “turn indicators into stories” to build interest in and understanding of sustainable issues.

The conference included afternoon break-out sessions in which participants identified pertinent issues in the five domains of sustainability: technological, economic, environmental, public policy and socio-cultural.

**TECHNOLOGICAL**

1. Transportation
   - Alternatives automobile-dominated systems
   - Improved transportation system/choices
   - Encourage infill and compact growth
2. Communication
   - Examine information access, availability
   - Emphasize face to face meeting, enhance public places
3. Efficiencies
   - Smart growth, sustainable practices benefit economy
   - Examine methods of production, distribution
   - Doing more with fewer inputs, including fuel
4. Energy
• Develop alternatives: Wind, Solar, Geothermal
• Examine bio-fuels v. fossil fuels
• Promote energy-efficient building design

5. Health care
• Improve access to health care
• Encourage active lifestyles/walkable communities
• Pedestrian-friendly, compact communities (reduce car use, pollution etc.)

ECONOMIC

1. Rapid Population Growth
• How does this affect quality of life?
• Economic Impact of Natural Areas, Clean Environment
• The costs associated with farmland loss
• The costs of low-density/large lots cutting off organized development
• Is more growth necessarily good?
• Rural exodus to urban areas
  * What will metro look like? (more or less industrial?)
  * What makes us different?
  * Can we control how we grow? (pattern/economy)
  * Are people in the region willing to alter the current pattern?
  * Low density v. high density on quality of life.
  * What do we need to do to attract, retain and expand industries and businesses?
  * Define quality of life and benefit on economic development
  * Look at infrastructure, schools, etc. and effect on education
  * Rivalry between communities
  * Is growth always good?
  * Cars are the problem/not the problem
  * Impact fees (good or bad)
  * Make developers and drivers pay the costs (are they today?)

2. Actions & Opportunities
• Control the way we grow
• Measure impacts to establish a “true picture” of problems
• Focus on quality of life
• Focus on expansion of existing companies
• Produce projections we can all agree upon
• Produce indicators that measure “real” conditions in order to make more accurate decisions
• Communities need to look at what is beneficial for region rather than on individual communities
• Make development and drivers pay the cost

ENVIRONMENTAL

1. Collaborative group
• Add planning, neighborhood groups, NGOs, citizen groups, conservation groups, universities and schools.
• Voluntary with a (vague) hammer-example-Platte cooperative agreement—will carrot approach alone work?
* Current planning only regulates with communities, counties and state agencies.
* Have big table to operate by consensus water policy task force
* Have excellent facilitator
* How to choose those at the table (lot of governments on the list. How about citizens?
Consistency with reps
* Water Policy Task Force (49 members and affiliations)
* Public workshops, public advertising and notification
* Scenario development (scenario stories and not predictions)
* Environmental regulations provide for base point for starting and should be represented
2. Indicators
* Reason to stay-indicator of positives (e.g. faculty coming to Lincoln and benefits to community
* Long-range planning issues
* Good planning helps economies but appeals to things other than money. Keep young people
* Other communities’ perceptions of us/our self-perception
* Expansion of large municipal areas into small communities and rural areas.
* Density can be positive and bring benefits
* We have “open space” mindset In Europe farmers live in town and farm in rural areas
* We have time to make a difference. Not in a crisis mode.
* Gain new perspectives/ Learn from other cultures. (Social, walkable, safe environs, porches on houses, close community)
* Personal responsibility/trends
3. Growth
* Perception of rural/small communities on urban growth
* Need for planned growth (the growth is happening anyway so we need to be involved in planning
4. Involvement
* Media-keep public up to date consistently
* Subcommittee around specific issues
Finite goals-take break and move to next issue
* We are a transient society. Need empowerment, Goal of consensus. Chance to get involved a d then move on
5. New urbanism
* 75 percent of everything you need within walking distance
6. New ways of thinking
* Trails, mass transit
* No requirements to consider
* Different In US and Europe
7. Types of development
* Lot of knocks against acreages, but what about commercial sprawl?
* Accessibility-quality of life to get to destination one mile away get an array of roads and obstacles just to go a short distance
* Lack of independent biz (too much generic) need biz with unique local and regional qualities
* Do acreages create a barrier to growth? (Services to acreages)
* Incentives for commercial infill
* Urban flight
* Eating up Ag and rural land

Conference participants debate strategies for smart growth

D. Ochsner
* County comprehensive plans need to address sprawl ag/open space protection

**PUBLIC POLICY**

* Difference among/between local governments
* How to get from vision to development of public policy
* Market-driven (but anticipate resource-driven market failures)
* Embrace differences-sense of place-start from bottom up
* Infrastructure is key
* Common vision but individual entities have diff ways of getting there
* Build infrastructure to a set population, with additional development costs paid by developers
* Need to develop common policy to address infrastructure and subsequent development
* Follow the “big pipe”
* Find someone to sustain the conversation
* Converse with more than just policy makers
* How to get other to the table (how to frame questions and engage the citizens?)
* Multi-faceted approach to gathering “public input”
* New thinking about the uses of television
* Consistency in communication
* Continue in discussion mode and we can react appropriately
* Anticipate market failures due to resource issues
* Must be a combination of elected officials and private sector to provide the public policy leadership

**SOCIO-CULTURAL**

* Attract-why should I come (audience translations, sophistication and relationships
* Uniqueness-be proud, be a neighbor, interdependence
* Demographics-festivals, various family types. living wages
* Go to them to connect, money is important. Also don’t neglect educated and higher income
* Educate whole community-interdependence
* Smart growth-real estate/builders/developers
* Deconstruction, rehab and recycle
* Minimum quality standards for affordable housing
* Pride of place
* Increase affordable housing
  
  **Activate**
  * Health care/insurance
  * Preventative education
  * Pollution and related health effects
  * Infant mortality (Af Am mort. No 2 highest in US)
  
  Under employment
  * Minimize corporate welfare
  * Crime (perception vs. reality
8.4 Recommendations: Flatwater Metroplex Tools for Cooperation

In order to address these premises, mechanisms and tools for cooperation must be identified and adapted to the needs of Metroplex communities. There are already a number of positive signs in the region, many of them mentioned in Chapter Seven. It is also important to note that there are tools already in place: the State of Nebraska, for example, has a statute that enables municipalities to set up interlocal agreements, and it is encouraging to see Omaha and Lincoln planning departments, city councils, and chambers of commerce holding joint meetings.

What follows are ten recommendations for regional coordinated planning that have been identified through the Sixty Mile Radius study and the Metroplex Conference that could be implemented through the proposed Flatwater Metroplex Conference.

1. Coordinate planning through a voluntary set of regional partners.

How do we find a way to express our shared interests in a way that will assist us in coordinating a region plan for sustainable growth?

Just as ecological practices are based on the interconnections of all living things, so too sustainable practices emphasize the interconnections of all aspects of regional community life. Those connections are made by and through people, organizations and municipalities that step forward and become actively engaged in all issues affecting the regional community. It is their voluntary participation that makes healthy, vibrant, sustainable communities a reality.

If we are to be successful in addressing the challenges facing the Flatwater Metroplex region, we should first examine other voluntary approaches to regional planning that can serve as effective models for the Metroplex.

The State of the Lakes Ecosystem Conference (SOLEC) is an impressive model for coordinated planning of a large metropolitan region and its dependant communities. More importantly, this planning mechanism is tied to the health of the regional ecosystem and its most important resource—water.

The overall purpose of SOLEC is “to restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem.”

What is perhaps most remarkable about SOLEC is that it crosses not only county and state boundaries but even national ones, with both Canadian and American stakeholders participating.

SOLEC is not a governing body, but rather a voluntary body organized around a series of conferences that address issues of mutual concern to stakeholders in the Great Lakes Basin Ecosystem.

Another excellent example of voluntary regional coordination is the Greater Austin – San Antonio Corridor Council, which focuses on the Central/South Texas region’s determination to preserve its natural beauty and resources and high quality of life. It encourages member communities to work in concert to manage growth from a regional standpoint. The group’s establishment has made official the
region’s desire for a unified, well-thought-out approach to the future.

The Corridor Council is a private, non-profit corporation composed of contributing members from the region’s business and public sectors. Charter membership included 25 local governments and more than 100 private firms and individuals. The Council is not a political subdivision of the State of Texas, nor does it have any statutory authority. Rather, it derives its authority from the degree of consensus it can create around the regional issues it addresses.

2. Conduct regular conferences, meetings, and workshops to provide a forum for exchange of information and ideas.

The State of the Lakes Ecosystem Conferences (SOLEC) are hosted by the U.S. Environmental Protection Agency and Environment Canada on behalf of the two countries. These conferences are held every two years in response to a reporting requirement of the binational Great Lakes Water Quality Agreement (GLWQA). The conferences are intended to report on the state of the Great Lakes ecosystem and the major factors affecting it, and to provide a forum for exchange of this information amongst Great Lakes decision-makers.

The conferences are not intended to discuss the status of programs needed for protection and restoration of the Great Lakes basin, but rather to evaluate the effectiveness of these programs through analysis of the state of the ecosystem. Another goal of the conference is to provide information to people in all levels of government, corporate, and not-for-profit sectors that make decisions that affect the Lakes.

The first SOLEC conference, held in 1994, addressed the entire system with particular emphasis on aquatic community health, human health, aquatic habitat, toxic contaminants and nutrients in the water, and the changing Great Lakes economy. The 1996 conference focused on the nearshore lands and waters of the system where biological productivity is greatest and where humans have had maximum impact. Emphasis was placed on nearshore waters, coastal wetlands, land by the Lakes, and impacts of changing land use, and information availability and management. Following SOLEC 96, those involved identified a need to develop a comprehensive, basin-wide set of indicators that would allow the Parties to report on the progress under the Agreement in a predictable, compatible and standard format.

For SOLEC 98, the indicator development process became more formalized with the development of a suite of easily understood indicators that represent the condition of the Great Lakes ecosystem. This “suite” is used every two years to inform the public and report progress in achieving the purpose of the GLWQA, thus initiating a regular and comprehensive reporting system. This indicator suite draws upon and complements indicators used for more specific purposes such as Lakewide Management Plans (LaMPs) or Remedial Action Plans (RAPs) for Areas of Concern.

3. Establish an Annual Sustainability Indicators Report to announce progress on goals to regional stakeholders.

SOLEC 2000 saw the first emergence of a new group of indicators called Societal Indicators, following an introduction of the “stewardship” concept at SOLEC 1998. Societal Indicators seek to measure both human activities that impact the environment as well as the societal action(s) taken in response to such
environmental pressures. The effort began modestly with one report at SOLEC 2000 and has since benefited from further research in broader areas.

The focus of SOLEC 2002 was to continue to update and assess the state of the Great Lakes using the current suite of indicators with an emphasis on biological integrity, the theme for SOLEC 2002. This SOLEC presented the most comprehensive assessment yet of the state of the Great Lakes basin ecosystem, and featured 43 indicator assessments.

**SOLEC is an excellent example of how a large and diverse region can work toward a sustainable future not through new layers of government but rather through voluntary participation.** Through high public visibility (including fact sheets on various issues distributed to public administrators) SOLEC has made the Great Lakes ecosystem visible and understandable to its inhabitants and stakeholders. Through its conferences and ongoing information networks, SOLEC helps to coordinate sustainable regional planning by defining indicators for the entire region.

4. **Identify and publicize examples of best practices to be used as models for creating healthy and sustainable communities.**

Despite the list in Chapter Seven, we have far too few examples of best practices. Nebraska still awaits completion of its first “New Urbanism” community, and many new developments are still based on a car culture that divides uses and spreads out our daily needs—work, schools, entertainment, goods and services—over large areas. More examples of healthy, walkable communities are needed to educate the public about sustainability and future quality of life considerations.

5. **Establish a consensus of the region’s most fragile natural, social and historic environments. Create strategies/mechanisms to protect these environments.**

This includes the I-80 corridor, Platte Valley Corridor, Missouri Valley Corridor, I-29 Corridor (including the Loess Hills in Iowa), Highway 2 Corridor between Nebraska City/Lincoln, and the fertile farmland in the Todd Valley in Saunders County, among other areas whose ecological, social or historic fabric is endangered by regional growth.

6. **Define policies that clarify or limit acreage development, protect rural lands for food production and natural habitat.**

This will include better coordination of municipalities, agricultural interests, and agencies or groups. These strategies are discussed in Chapters 1-3 of this report.

7. **Coordinate reviews of water-related policies to ensure equitable access to clean water for human, agricultural, industrial and wildlife uses.**

Public policy at the federal, state and local levels promote a model of food production that concentrates on commodity crops and intensive methods and disconnects the farmer from the consumer marketplace (and further intensifies the rural-urban divide). (See Chapter One, section 1.5.4).
Food systems are also threatened by acreage developments. Research into the issue has already been conducted as part of the “2025 Lincoln/Lancaster County Comprehensive Plan,” adopted in May of 2002. Elected officials adopted language calling for the development of a performance “point system” to review the location of higher density rural acreages. They called for an independent study of the positive and negative economic impact of acreage development and they adopted language stating that urban acreage development should only be permitted in the city growth tiers if developed to “build-through” standards.

In response to this charge, the Lincoln/Lancaster County Planning Department initiated three independent studies to address these issues,

To assist with these three studies, the Planning Department formed a resource group representing agencies, the development community and land owners to comment on, review and provide feedback on the studies and various aspects of their development.

8. Encourage energy conservation and alternative production through effective planning and green building techniques.

A number of agencies, including the U.S. Army Corps of Engineers, The U.S. Department of Agriculture (The Natural Resources Conservation Service in Iowa and Nebraska), The Natural Resources Districts (NRDs) in Nebraska, The Lower Platte River Corridor Alliance in Nebraska, the Nebraska Department of Natural Resources, the Nebraska Department of Environmental Quality and other are all involved in policies related to water quality and quantity.

A new mechanism is needed, however, to coordinate the activities of these agencies between and with other stakeholder groups, with the end result that water is viewed not as a resource tied to a particular district, but rather as one shared by every stakeholder in a unified ecosystem.

We also must become more aware of the growing dichotomy between populations and water supply in the Metroplex. In Nebraska, the greatest supply of groundwater (the Ogallala Aquifer) occurs in the sparsely populated counties in the western half of the state. As rapid urbanization continues in the Metroplex (and in neighboring Colorado), this vast supply of water may become a source of contention not only between rural and urban users but also between large municipalities.

9. Encourage healthy lifestyles and rich living environments with compact, walkable communities.

Encouraging and modeling of buildings, communities and systems that conserve energy and minimize waste is critical to future sustainability in the Metroplex, as is coordinating regional energy supplies and use to attain maximum regional efficiencies.

Examples of energy conservation that can be promoted include Green Building Initiatives through the new Omaha Flatwater Chapter for U.S. Green Building Council in Omaha, the Nebraska Center for Sustainable Construction, and green building examples such as the LEED gold rated Omaha National Parks Service Headquarters. (See Chapter Seven for more examples).
Wind and Sun resources are abundant in the Metroplex. In addition to providing a long growing season, the sun offers unlimited—yet mostly untapped—potential for both passive and active solar energy systems. Wind power, which like solar is a clean and unlimited source of energy, is also largely untapped. Two wind-powered generators (operated by the Lincoln Electric System) near Waverly are highly visible examples of the potential for more wind energy in the region.

10. Create food-based, rural/urban coalitions, and foster understanding of the interdependencies of all communities and natural systems.

Sustainable communities are built upon an understanding of interdependencies. How can we find common ground?

The Metroplex’s greatest opportunity for common ground is found in food systems and in the water resources that underlie all food production.

Underlying all of these points is a sense of regionalism, or regional citizenship that unites populations by a commitment to diverse, livable cities that respect nature, rural life and fiscal responsibility. Celebrated examples of regional governance in addition to SOLEC include Portland, Oregon, and Toronto, Canada. Other areas where this political realignment is occurring include Minneapolis-St. Paul, Cleveland, Chicago and central Texas (Austin area).

Portland has shown that planned growth is not antigrowth. In fact, Portland has shown that intelligent planning can maximize growth over the long term and preserve the quality of life prized by many companies and corporations, as well as by tourists and other visitors. There is no question that approaching development on a regional basis can yield enormous financial efficiencies while creating more stable, long-term solutions for vexing regional problems.

State governments will also be decisive players in making regionalism work. At least twelve states have instituted some form of regional planning and growth management. Short of full regional governance, states can help communities grow in sustainable ways through:

• Annexation, which can help a metro region channel and control growth at the edges;
• Rural land use planning that limits or prohibits the development of housing by county jurisdictions.
• Enabling regional cooperative efforts.

The paramount factor in making a successful state growth management plan is sustained, aggressive and informed citizen pressure...without the grassroots political base to drive needed reforms, the best proposals (for smart growth) will be pared back or defeated.

Public education is also key. Astute politicians are starting to recognize that the everyday afflictions of traffic congestion, high property taxes, declining schools and social decline will not improve unless land use/development practices are addressed.
Conclusion

We end this report with the hope for a regional process that will benefit all Metroplex communities, citizens, and the ecosystem upon which they depend.

In the December 1999 issue of the Atlantic Monthly, Bruce Katz and Jennifer Bradley wrote in “Divided We Sprawl,” that “whereas markets and—more important—lives operate in a metropolitan context, our governmental structures do not.” The authors noted that government structures:

“...hew to boundaries more suited to an eighteenth century township than to a twenty-first century metropolis. Chicago’s metropolitan area, for example, encompasses 113 townships and 270 municipalities. This fragmentation works against sustainable metropolitan areas and facilitates segregation by race, class and ethnicity. Welfare-to-work programs are hindered when public transportation stops at the city-suburban border, for example. Issues that cross jurisdictional borders—transportation, air quality, affordable housing—need cross-jurisdictional solutions and entities that bring together representatives from all the places, small and large, within a metropolitan area to design and implement these solutions. Some such entities already exist: In every urban region in the country a metropolitan planning organization coordinates the local distribution of a chunk of federal transportation funds. Oregon and Minnesota have established metropolitan governments for their largest urban areas, Portland and the Twin Cities. But informal metropolitan governance, in which local governments coordinate their policies and actions, is possible and efficacious. Also it’s necessary.”
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