

INTRODUCTION

In discussing existing conditions for Lawrence County, one of the most difficult to describe is the quality of life. How does one quantify the character and feeling which exists in an area? Through a series of confidential interviews, public forums, and several meetings with the comprehensive plan task force and other residents in the County, a list of Lawrence County's most important quality of life attributes, were compiled. Although there were well over 100 residents who responded to this question, the answers were surprisingly similar and many were repeated several times.

The following pages summarize the most recurring responses related to quality of life, followed by an analysis of existing conditions as they relate to these elements. Then, a discussion some of the residents' primary issues and concerns is provided. This section is divided into the following three categories:

- Quality of Life Attributes
- Existing Conditions
- Quality of Life Issues

QUALITY OF LIFE ATTRIBUTES

There are many attributes which contribute to the quality of life in Lawrence County. As defined in the preliminary vision statement, "Lawrence County is a community where: the western heritage is preserved and promoted in historic buildings, historic sites, historic open spaces, historic towns and historic activities and events; the rural character is maintained in a relaxed, friendly atmosphere and a clean, safe environment throughout the County; and the natural environment is treasured and managed as a valued resource for its scenic beauty, wildlife habitat and multiple use opportunities." The following paragraphs summarize these and other quality of life issue which were frequently repeated during the comprehensive plan data gathering and community outreach process.

Scenic Beauty

The one quality of life attribute that everyone agreed on was the beauty of the County. Most people mentioned the Black Hills and the natural beauty associated with the canyons, the streams and forest land as a major asset to the County. However, there were also many people who talked about the agricultural lands and the wide open spaces and scenic vistas across them which contributed to their quality of life. People generally like being able to drive up one of the County's highways and see the beauty of the region without having to look past billboards and over the tops of large housing subdivisions. Areas like Spearfish Canyon should be preserved and protected for future generations.

Community Character

The overall character of Lawrence County is also very important to most residents. People talked about the small town, rural atmosphere with its slow pace and lack of congestion as being important to their quality of life. They like being able to drive down the street and know many of the people they pass. And when they get where they're going, they like feeling safe enough not to lock their car doors. Most people think size of the population in Lawrence County is fine the way it is, and are concerned as they see more and more people moving in and building new houses all around.

Heritage

Another important quality of life attribute is the western heritage and frontier character present in Lawrence County. The historic significance of the Black Hills, particularly Deadwood and Lead, as well as the rich cultural heritage of communities throughout the County are treasured assets worth preserving for future generations. The old mines, cabin remains, farm houses, and turn of the century architecture contribute a great deal to many residents' quality of life.

Recreation and Open Space

Another significant element which enhances residents' quality of life is the amount of open space and recreational amenities available for outdoor activities in the County. The Black Hills provide numerous opportunities for hiking, camping, biking, and horseback riding, as well as hunting, fishing and even skiing. The Mickelson and other county trails were also mentioned by several residents as tremendous amenities with potential for future expansion. In addition, there are also many neighborhood and city parks within urban areas which provide numerous facilities for organized recreational and cultural activities, including swimming pools, tennis and basketball courts, soccer and football fields, baseball/softball diamonds and several golf courses. There is always a need for more youth sports facilities, however, especially as the population grows.

Clean Air and Water

The cleanness of the environment, including the air and water quality, was also mentioned repeatedly as being important to quality of life. During one of the comprehensive plan task force meetings, the members were asked to individually prioritize the most important issues currently existing in the County. Water quality was the number one issue with nearly twice as many votes as the next highest issue. Although some of this concern had to do with environmental contamination resulting from mining activity, the greatest concern revolved around continued septic system development in the County. Air quality is not currently a problem, but measures should be taken to prevent pollution before it becomes an issue.

EXISTING CONDITIONS

The existing conditions section addresses specific conditions in Lawrence County which currently affect the most important quality of life attributes as discussed earlier in this segment. Specific areas of concern related to quality

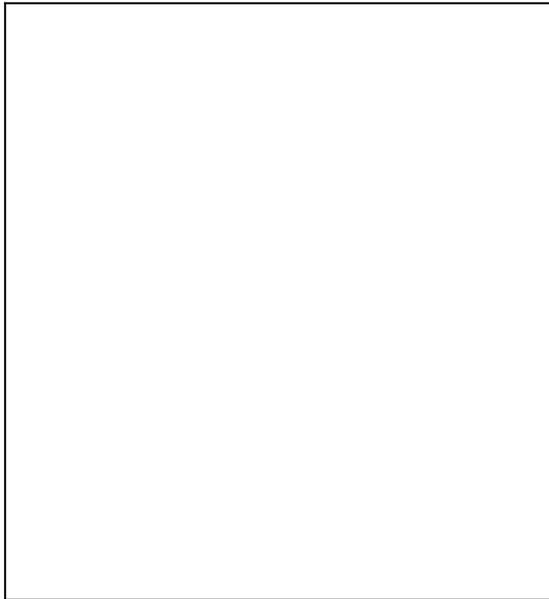
of life attributes are discussed first, followed by a list of general strengths and weaknesses currently existing in Lawrence County.

Areas of Concern

During the community outreach program, citizens were given the opportunity to voice their concerns about specific areas in the County. These concerns are discussed in the following segment.

View Corridors

The primary concern which relates to scenic beauty has to do with the preservation of view corridors along the County's highways and along prominent hilltops throughout the County. Many people mentioned Spearfish Canyon as an area which should be preserved by refusing any further residential development. The scenic views to agricultural and park forest land



from the I-90 and Highway 85 corridors were also noted as being important to preserve and protect due to the amount of traffic, both local and tourist related, through the region. These view corridors are not only important for their scenic beauty, but also the economic well-being of the County.

Community Entrances

Community entrances, which are more specific issues related to view corridors, can be either a definite point or an approach of various distances. Entrance development is important because it serves to introduce the identity

and character of a city or urban area, and gives visitors either a positive or negative image of the community. As the County continues to grow, it will be important to direct growth to appropriate areas, and work with the City to define urban area entrances with attractive monumentation and landscaping which promotes an appropriate image and character for the County.

Commercial Development

An important aspect of the County's character is the location of commercial development. The entrance to downtown Spearfish along I-90 currently has several retail businesses including hotels, a shopping center, restaurants, and some strip commercial. Although these are necessary services, they may not promote the type of character Spearfish or Lawrence County is striving to maintain. The same can be said for the entrances to Lead and Deadwood from both sides of Highway 85. Concurrently, one of the most development-susceptible areas is the intersection of I-90 and Highway 85. Although it isn't directly adjacent to a specific urban area, regional traffic going to either Spearfish or Deadwood/Lead along I-90 will use this interchange. This intersection would be a tremendous location for commercial development, but would also be detrimental to the beauty of the region if poorly designed.

Septic Systems/Water Quality

One of the main concerns raised throughout the comprehensive planning process is the ability to provide clean water within Lawrence County. Water quality is closely tied to both the public and private sector for collection and treatment of sewage along with water quality as it relates to storm water runoff and the influence of development in natural watersheds. However, there is also a concern for the economical balance point for installation of these utilities as it relates to urbanized, rural, and remote areas of development.

There are many factors that influence the development of adequate septic systems or sewage collection systems in the Black Hills and most specifically Lawrence County. Because of the geological structure of the Hills, the local effects on recharge zones can in some areas have a regional influence on the groundwater. This is evidenced by areas in Lawrence County which indicate major stream loss zones. Because of the importance of the recharge zones to water quality the United States Geological Survey is in the process of completing a aquifer sensitivity map which will show comparable hydrogeologic characteristics and their relative influence on the sensitivity of areas to pollution. The Aquifer Sensitivity Mapping will evaluate areas relating to (1) Depth to Groundwater (2) Recharge Rates (3) Aquifer Medium (4) Soil Medium (5) Topographic Slope (6) Impact of the Unsaturated Zone (7) Aquifer Hydraulic conductivity and (8) Stream Loss Zones and Drainage Areas. Preliminary maps indicating the stream loss zones and drainage areas and topographic slopes have been included in this report.

Many confidential interviews indicated concerns for areas within the county which have increased dramatically in density but are still on individual septic and water well systems. These developments lend themselves to implementation of centralized water and sewer systems. As a result, this study and map can be used as a tool to help determine how areas within the county should be evaluated for existing and future developments. The ability to protect the groundwater resources and water sheds from potential pollution is the responsibility of both the public and private sector and is major factor in promoting a high quality of life within the community.

Historic Preservation

Another important quality of life concern is the preservation of historic sites and buildings in the County. Over the past several years, the County has seen a dramatic increase in population and a corresponding change in land use. Many historic buildings and sites are in jeopardy of being lost to "progress." Historic sites and buildings provide a sense of place, a sense of orientation, a sense of history, and a sense of the past. Historic preservation provides benefits to communities in other tangible ways as well. Deadwood offers a local testament to the potential economic importance of historic preservation. Historic preservation can be important socially, since older communities are built around needs of pedestrians in contrast to new suburban patters, which isolate pedestrians and transit dependent populations. Rehabilitating old buildings instead of tearing them down has important environmental benefits as well, decreasing the use of raw materials

and landfills. Historic preservation can also provide educational opportunities, allowing new generations to see evidence of previous economies and social patterns. Some suggestions for preservation provided by County residents include: signage along County roads and trails to identify and/or interpret historic sites; cluster housing as a way to preserve historic landscapes; and providing tax incentives for historic preservation of buildings and sites.

Strengths and Weaknesses

The following are the strengths and weaknesses of the existing Lawrence County quality of life.

Strengths

- Densely vegetated and undeveloped hilltops;
- Scenic vistas along highway corridors with numerous viewing opportunities from and to the cities and outlying countrysides;
- The rural, small-town character; a setting created by the agricultural heritage, the presence of historic homes and buildings, well-maintained urban areas, and an evident commitment to cleanliness and order;
- The preservation of natural, vegetated environments, particularly along Spearfish Canyon and many of the waterways in Lawrence County;
- The historic preservation occurring in Deadwood;
- The variety of recreational opportunities;
- Lack of signage and quick-stop service facilities along major highways outside the primary urban areas.

Weaknesses

- Lack of identification and announcement at major urban area entrances along I-90 and Highway 85;
- Commercial dominated entrance to Spearfish community core;
- Development in Spearfish Canyon and at the mouth of Boulder Canyon;
- The appearance of the industrial district along I-90 near the proposed Exit 8;
- The appearance of open-cut mining near Lead;
- Lack of guidelines concerning hilltop development.

QUALITY OF LIFE ISSUES

Some of the quality of life issues facing Lawrence County are described below. They are based on comments recorded during confidential interviews, public forums, task force workshops, interviews of various public officials and analysis of conditions by the County's consultants. Although these do not address all the issues and concerns expressed by County residents, they provide information which can be utilized in formulating goals and policies. A list of additional issues is provided at the end of this section.

1) How should the County look when it is fully developed? To what degree should various scenic features be protected? Which features are worthy of

special protection through zoning? What types and densities of development would be most complementary to the woods, savannas, hills, and bluffs? Should a variety, of types and densities of development be sought? To what degree should the present landscape be used as a guide for land use planning?

Consideration of the original landscape character can be essential to the long-term quality of life, economy and fiscal health of the community. Housing parcels in the range of 2 to 5 acres are very popular in Lawrence County and can often protect scenic vistas, woods and hills. There is a cost for these benefits, however, including the price of the lot, loss of farmland and true rural character, excess driving, and higher property taxes. Alternatives include very large lots (20 to 40 acres or more), small lots with open space set-asides resulting in agricultural-scale densities, suburban-scale housing (2 to 10 units per gross acre) with major public or private open space, or some combination of these appropriate to the landscape.

2) How can or should open space, whether public or private, and very low density development be used to achieve land planning goals?

Rural character -- if not rural function -- could be retained to some degree in perpetuity through the designation of open space buffers and corridors, cluster development in certain areas, bands of very low density housing, and controls on setbacks, grading and tree cutting along scenic road corridors. The County is still in a position to take this approach.

3) How do the people of Lawrence County define "community" and what land use scenario best support that definition? Will the selected land use scenario allow for a range of incomes, ages, household types, races and mobility? What is the best mixture of community possibilities in Lawrence County.

The design of the land use plan should consider socialization, mutual support, inclusiveness and equity. Communities can exist through many different types of land development, from urban to agricultural. Higher residential densities may allow physical closeness, but do not by themselves guarantee greater social interaction nor stronger feelings of kinship with other residents.

The nature of the population and their ability to function as part of a community will be directed by the land use plan. The minimum allowable lot size will determine who can afford to live in each city or township and may also affect the ability of all people, especially children, the elderly and the handicapped, to reach friends, shops, employment, schools and recreation. This may, in turn, determine ability of grandparents, parents and children to live in the same community -- a feature which enriches the social and cultural environment.

Additional Issues

The following issues have been identified as additional matters which need resolution and will be addressed in the Lawrence County Comprehensive Plan.

Is the County currently satisfied with its physical appearance?

Is the County concerned with its appearance to visitors?

How can the County maintain its rural, small town atmosphere as it grows?

Does the current zoning and development guidelines allow for the protection of natural areas and physical features, including waterways, hilltop protection, and open farmland?

How can visual corridors be protected and preserved for future generations?

How can entrances to the County's urban areas be improved?

How can other historic sites in the County be preserved and protected?

INTRODUCTION

Lawrence County is a mostly rural county with a strong agricultural heritage and people with great reverence for the land. One of the most important issues to be addressed by the Comprehensive Plan will be the current and future use of the land. The intent of the future land use plan is to encourage the orderly development of Lawrence County and create an attractive and efficient environment for the benefit of its citizens. It should create a physical land use pattern that is supportive of the community's social, environmental, and economic aspirations.

The purpose of land use existing conditions section is to provide an overview of land use in the County and examine how current growth and development patterns are affecting and will affect the future of the County. The pattern of land use was historically affected by natural features such as topography, soils, water resources, and climate. Currently, however, man-made amenities including transportation and utility systems also have a great effect on how land is developed. In an attempt to clarify and define the most important factors influencing development in Lawrence County, this section is tailored to address the specific concerns of the County's citizens which came out during confidential interviews, public forums and task force meeting. The following inventory and analysis is broken into four separate sections to address these issues.

- Existing Land Ownership
- Existing Land Use
- Land Use Patterns
- Land Use Issues

EXISTING LAND OWNERSHIP

Lawrence County consists of approximately 512,000 acres of land, most of which is controlled by the federal government. The following graph illustrates the amount of land currently controlled by each of three primary ownership categories in the County:

Federal land consists of US Forest Service land with a few small parcels owned by the Bureau of Land Management (BLM). Privately owned land is the next largest ownership category, primarily consisting of agricultural ranches and farmland, residential development, and urban areas with the County. Public buildings, road corridors, designated open space and recreation areas, and other State and County lands make up the remaining acreage.

EXISTING LAND USE

When the County was zoned during the 1970's, it was divided into two general categories: park forest and agriculture. The park forest area, which consisted of approximately 2/3 of the County's land, started at the timberline near I-90 and proceeded south across the County. The agricultural area consisted of the remaining 1/3 of land in the northern "flatland" portion of the County. For the purpose of this document, these zoning districts generally represent County land use categories. A third category was added for existing urban and suburban development, including cities, towns, suburban residential subdivisions, and commercial/light industrial development in the County. Based on this division, park forest land takes up approximately 63% of the County's land area while approximately 32% is used for agriculture. The remaining 5% can be considered urban or suburban.

Although a number of residential areas exist in park forest and agricultural areas, the most dense areas of development are in urban/suburban areas. Since residential development in the County is of utmost concern to most residents, regulations related to residential subdivisions will be discussed in greater detail than other forms of development. Existing Land Use, Subdivisions and Zoning in Lawrence County are illustrated on the following pages.

Park Forest Areas

The County's park forest areas are located in the Black Hills primarily on US Forest Service land. The intent of the Park Forest District (PF), as defined by county zoning, is to provide the County with an area to be preserved for its natural beauty, resources and open character. Permitted uses include detached single-family dwellings, cabins and summer homes, public parks and/or playgrounds, historical monuments or structures, tree or crop growing areas and grazing lands. The intensity of residential use is limited to a maximum of eight (8) single-family dwelling units per forty (40) acres. Dry meadow areas shall have a maximum of six (6) units per forty (40) acres, while wet meadows will be limited to four (4) units per forty (40). The minimum allowed lot size is 2 acres. As stated in the zoning and subdivision regulations, "the above densities are to be taken as maximums. Protection of sensitive biological, geological, or historical resources is of great importance to the citizens of Lawrence County; therefore, larger lots or less dense development shall be required in areas that are sensitive ecosystems."

Based on current figures, there are approximately 1,230 platted single-family units in park forest land, of which only 404 units are developed. This leaves 826 undeveloped units on an estimated 4,130 acres (assuming the highest density of 8 units per 40 acres). If the dry meadow density of 6 units per 40 acres was used as an average, over 5,500 acres of park forest land would be platted and ready for development. Exact densities for each platted subdivision was not available at the time this document was written.

INSERT "EXISTING LAND USE " MAP

INSERT SUBDIVISIONS AND ZONING MAP

Agricultural Areas

The County's agricultural areas are primarily located in the northern "flatland" portions of the County. The intent of the General Agriculture District (A-1) is to allow suitable areas of the County to be retained in agricultural uses, to prevent scattered non-farm development, and secure economy in governmental expenditures for public services, utilities and schools. Agricultural areas in the County can be used for general farming, pasture grazing, horticulture, viticulture, truck farming, forestry, and wild crop harvesting, including roadside stands exclusively for the sale of produce and plant nurseries, but excluding commercial feed lots. Single-family dwellings, which include mobile homes and trailer houses, are allowed at a density no greater than one (1) residence per forty (40) acres.

Based on current figures, there are approximately 77 platted single-family units in agricultural land, of which 44 are developed. Assuming no new plats since this information was obtained, an additional 32 units on 1,280 acres (1 unit per 40 acres) are approved for residential development.

Urban Areas

Lawrence County is home to nearly 23,000 residents, increasing by over 7.6 percent in the 90's (20,655 in 1990; 22,371 in 1996). Major concentrations of development occur in the cities of Spearfish, Deadwood and Lead. Smaller development areas include Whitewood, St. Onge, and Central City. Each area has its own unique characteristics which influence land use development. Since specific land uses within each of the major urban areas is coordinated through their own specific planning entities, land uses and concentrations of specific industries will be discussed only in general terms. The purpose of these descriptions is to address each community's unique attributes and illustrate where future development may occur based on existing land use. Each of the primary urban areas is described below.

City of Spearfish

Spearfish is the largest of the three primary cities in Lawrence County with a population in excess of 8,000 people (nearly 12,000 including the 3-mile area). The location of Spearfish along Interstate 90 has allowed significant industrial and commercial development in the City's core which provide a wide range of jobs and services. Primary employers include the Black Hills Health Care Network, Black Hills State University, Pope and Talbot (timber), OEM, the school district, commercial/retail companies and agriculture. There is also an opportunity for tourism development resulting from Spearfish Canyon and the overall beauty of the region. A detailed zoning map of Spearfish is provided on the following page.

The unique topography in and around Spearfish provides areas for future physical growth, primarily residential development, in the upper and lower valley "flat" agricultural land as well as to the west in the hills above the City. Continued commercial and industrial development along the I-90 corridor is also likely, especially in the direction of and related to the Black Hills Airport. Additional industrial development is also likely north of town near the

proposed Exit 8 interchange. Looking to the future, Spearfish has the greatest potential for future economic and physical growth in Lawrence County. It will be important for the City and County to cooperate in deciding how and where development will occur as it grows.

INSERT 'SPEARFISH ZONING MAP'

City of Deadwood

Deadwood is a unique community of approximately 2,000 residents located in the Black Hills south of Spearfish. Its colorful history and mining heritage has made it an attractive tourist stop over the years. The expansion of Highway 85 from I-90 to Deadwood provided easier access and the opportunity for future development. Due to its canyon location, however, there is very little room for physical expansion and development. The only areas for future growth are along Highway 14-A down Boulder Canyon toward Sturgis, and up Highway 385 toward Pluma.

Historically, the main industries were gold mining and lumbering. Some areas of interest include an old gold mine where you can try "panning for gold", several historical museums, a cemetery containing the graves of Wild Bill Hickok (who was killed in Deadwood) and Calamity Jane, and many historic hotels and saloons. Since limited -wage gambling was legalized in Deadwood in 1989, the primary industry has become gaming. This has revitalized the economy, but forced other industries into other communities. Although retail services still exist, most have been lost to gambling establishments. Eating and drinking businesses, particularly those associated with gambling halls, have flourished in recent years.

City of Lead

The City of Lead, also located in the Black Hills just a few miles from Deadwood, has historically been a mining town. The Homestake mine has produced more than 39 million ounces of gold since 1876 and is the primary employer for the many of residents. As of December 31, 1996, proven and probable gold reserves were 4.7 million ounces, sufficient for another 10 years of mining at current rates of production. But many residents are concerned about as future block of recent layoffs. Other industries in Lead include some commercial/retail businesses, several eating and drinking establishments, and a burgeoning tourist industry related to Deadwood. Many of Lead's residents are retired Homestake employees and people who work elsewhere in the County. Future residential and commercial growth would most likely occur along the highway corridors to the south and west.

Other Urban Areas

The City of Whitewood is another likely area for future development due to its location along Interstate 90 and its relatively flat topography. It currently has a population of roughly 900 residents with the potential for significant future development. Many residents are employed in either the agriculture or timber industries, as well as some local service and commercial businesses. Many residents also commute to other cities for employment. Assuming the Dunbar Railroad is developed, the rail will begin in Whitewood and end in Deadwood, with the main station located in Whitewood near Interstate 90. This could provide a launching pad for the next primary City in Lawrence County.

St. Onge is a small town located along Highway 34 in the northern end of Lawrence County with of population of approximately 700 residents. It is primarily a bedroom community with a small commercial/service area which supports existing residents as well as the outlying agricultural community. One of the town's main attractions is its auction barn which is used to market

agricultural products and livestock. St. Onge has no physical limitations on growth associated with topography, but limitations resulting from a strict limit on water taps (only 102 permitted) will prevent growth in the foreseeable future.

Central City is another urban area located between Deadwood and Lead which has potential for growth. It currently has a small retail industry which supports the local residents. However, its physical and topographical constraints will prevent significant expansion.

Suburban Residential Development

Outside the County's urban areas, there are also several suburban residential developments. The County's suburban residential areas, classified as Suburban Residential Districts, are generally concentrated near existing urban areas and along primary transportation corridors. There are also a number of platted suburban residential districts located in close proximity to Terry Peak. This district is intended to be used for single-family residential development with low population densities. Additional permitted uses, by review of the County Board, include related non-commercial, recreational, religious and educational facilities normally required to provide the basic elements of a balanced and attractive residential area. The raising of farm animals or poultry is also permitted provided they do not constitute a public nuisance.

For each dwelling, and accessory thereto, not served by a sanitary sewer system or an approved holding tank, there shall be a lot area of not less the fifteen thousand (15,000) square feet, or approximately 3 units per acre, unless approved by the Planning Commission. Those lots served by a sanitary sewer system or approved holding tank shall be no less than seven thousand five hundred (7,500) square feet, or approximately 6 units per acre. Based on current figures, there are approximately 948 platted single-family units in park forest land, of which only 339 units are developed. This leaves 609 undeveloped units on an estimated 135 acres (assuming the an average density of 4.5 units per acre).

Commercial Areas

Another type of development permitted in the County are commercial areas, and commercial/light industrial property. The intent of these land uses is to allow compact and convenient highway-oriented businesses, provide development standards that will not impair the traffic carrying capabilities of abutting roads and highways, and permit retail, wholesale, businesses and related services. Current regulations permit all commercial uses except industrial use, feed lots, rendering plants, and scrap or salvage operations. Currently, there are a very limited number of these uses on County land. The only areas where commercial development currently exists are along I-90 near Spearfish and Whitewood, and along Highway 385.

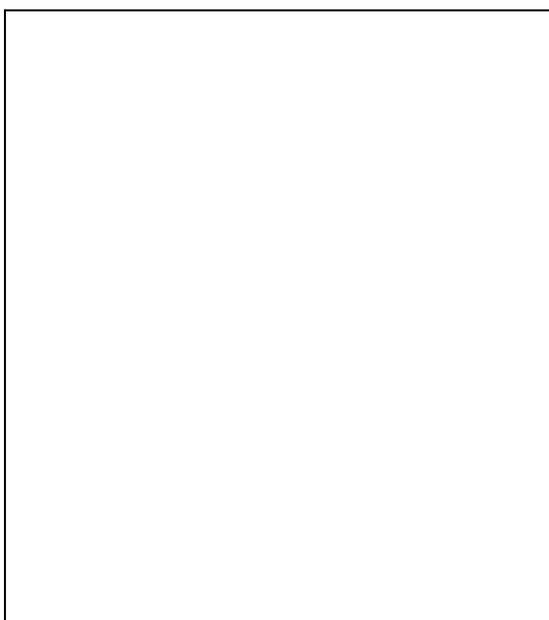
Commercial/Light Industrial and Industrial Areas

Commercial/light industrial and industrial areas are also permitted in the County under current zoning regulations. The intent of these districts is to provide areas for a mix of commercial and light industrial use, as well as strictly industrial development. Currently there are only a few existing commercial and industrial areas, which are illustrated on the previous subdivision and zoning map.

LAND USE PATTERNS

The current land use pattern in Lawrence County can be basically described as dispersed. Although there are higher concentrations of development in the three primary urban areas (Spearfish, Deadwood and Lead) and Whitewood, there are numerous pods of development scattered throughout the County. The urban areas have little or no relationship to these pods other than providing residents with a place for commerce and other recreational and social activities. The result is a series of disconnected developments with little or know relationship to one another.

As new residential areas have developed over the years, a specific plan of how development should occur in the County has never been formulated. Other County's which have been successful in planning for future growth typically follow one of four general patterns: dispersed, satellite, compact corridor, or a combination of several different patterns depending on the particular County. Each pattern is briefly described below and illustrated on a series of representative maps which show what the County might look like in the future. Urban areas are colored red, while existing platted subdivision are orange and possible future development patterns are yellow.



Dispersed Pattern

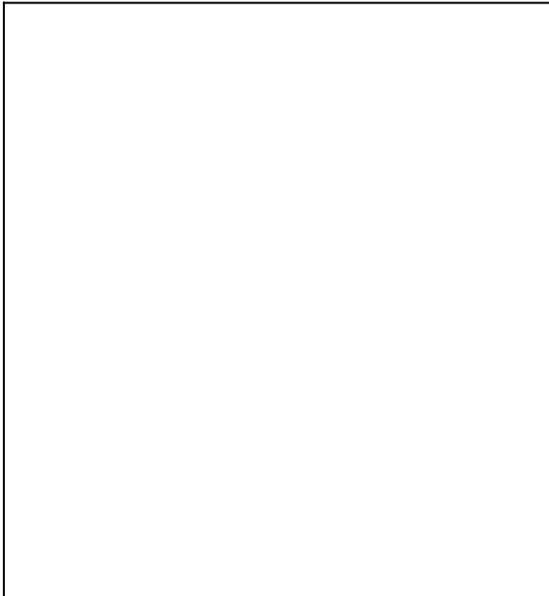
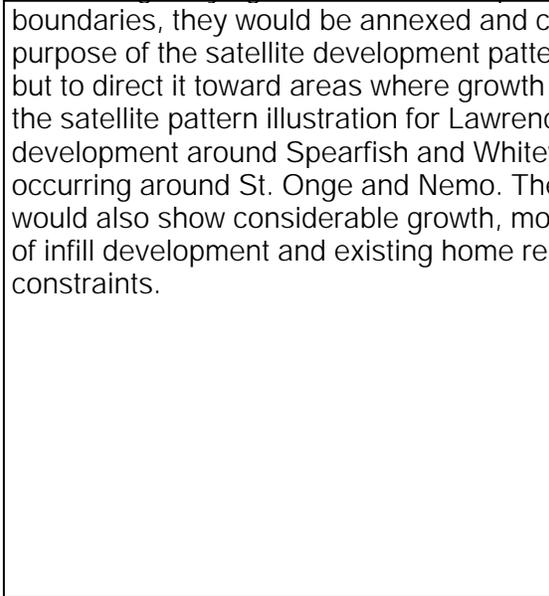
The dispersed pattern of development is basically an extension of current growth, transportation and development trends. It allows growth to continue in and around existing cities and towns, along highway corridors, adjacent to existing park forest and agricultural residential areas, and in new locations throughout the County with proper approval. In this type of scenario, development locations and patterns are ultimately determined by the developer, not the County. As shown in the dispersed pattern illustration for Lawrence County,

development would continue to be scattered throughout the County wherever it is approved, with little or no attempt to connect new subdivisions to existing development, preserve valuable agricultural land, or cluster development in such a way that important view corridors are preserved for future generations.

Satellite Pattern

The satellite development pattern directs future development to existing primary urban areas and other smaller existing outlying communities.

Development beyond current City boundaries occurs in a radial pattern from urban areas outward as population increases. This allows cities to efficiently annex property and construct infrastructure connections prior to development. As existing outlying residential developments are reached by expanding City boundaries, they would be annexed and connected to City services. The purpose of the satellite development pattern is not to constrain or stop growth, but to direct it toward areas where growth is already occurring. For instance, the satellite pattern illustration for Lawrence County shows heavy development around Spearfish and Whitewood, with smaller concentrations occurring around St. Onge and Nemo. The cities of Deadwood and Lead would also show considerable growth, most of which would occur in the form of infill development and existing home renovation due to physical constraints.



Compact Pattern

The compact development pattern seeks to restrict future development to specific existing urban areas, allowing only limited expansion beyond current city boundaries and selective annexation of outlying private land and residential communities as deemed necessary. This pattern relies primarily on infill development for physical and economic growth. The ultimate priority of the compact development scenario is to preserve the area's character through the preservation of agricultural land and open space while allowing only minimal new residential development. For Lawrence County, development might be restricted to the four primary urban areas, with the bulk of extraterritorial development occurring around Spearfish and Whitewood on select parcels between city boundaries and

existing outlying subdivisions. As shown in the compact pattern illustrative, only minimal extensions of existing city boundaries would occur, even in the primary urban areas of Spearfish, Whitewood, Deadwood and Lead. Development in and around other urban areas would be limited to infill and renovation.

Corridor Pattern

Another land use pattern is the corridor pattern which directs future growth and development along major highway and transit routes in the County. This pattern places most of its emphasis on development between existing urban areas as opposed to development within and around them. Since I-90 is the most important transportation corridor through Lawrence County, a great deal of development would most likely occur between Spearfish and Whitewood. The bulk of additional future growth would probably locate along Highway 85 between Deadwood and Spearfish, with the intersection of I-90 and Highway 85 becoming a major commercial retail and service center for the County. Additional development might also occur along Highway 34 near St. Onge, Highway 14-A east of Deadwood in Boulder Canyon, and along Highway 385 near Deadwood and Lead, as well as in the southeastern corner of the County near Nemo. Preservation of view corridors, especially along primary highways, is critical to maintaining the character and image of Lawrence County.

LAND USE ISSUES

The land use issues facing Lawrence County are described below. They are based on comments recorded during confidential interviews, public forums, task force workshops, interviews of various public officials and analysis of conditions by the County's consultants.

1) What should be the pattern of growth and preservation of open space and agriculture in the County?

Land Availability

The Existing Land Use map and the various development pattern alternatives illustrate the amount of property in Lawrence County that has not yet been built upon. Much of the remaining developable property is in the agricultural areas in the northern part of the County, and along highway corridors.

Constraints on Growth

In Lawrence County, there are a number of constraints to consider for future land use and development. Such physical factors as topography and geology severely limit the amount of developable land in the County. As illustrated in the Natural Environment section of this report, approximately 60 percent or more of the County's land has a slope greater than 18 percent. Although development is technically possible in these areas, the cost of doing so is often prohibitive. Geology is also an important element to consider when analyzing existing and current land use. Some soil types, have the potential for expansion and contraction which makes development unlikely. Also, the effectiveness of septic systems can be jeopardized when constructed on certain soil types, causing groundwater pollution and health hazards to residents of Lawrence County. There are also physical constraints related to floodplains throughout the County. These and other physical constraints are described in detail in the Natural Environment section of this report.

Another factor that has significant influence on how land is used are privately-owned large tracts of property throughout the County. Owners of large

parcels in and around future development areas can effectively stop land expansion by refusing development on their property. A city can “leap-frog” development by annexing past someone’s property along a narrow strip of land or transportation corridor, but costs of extending services become very expensive and often prohibitive.

Also, another constraint on growth has been the fairly strong social and political sentiment in favor of retaining the County’s rural or semi-rural environment. This feeling is shared by most residents of Lawrence County who want to preserve the agricultural heritage and the overall beauty of the land. Additional issues related to community image and character are addressed in the Quality of Life section.

2) Can agriculture in Lawrence County continue to be economically viable? If so, what form will it take? Can the County preserve its rural character? What mechanisms will be needed?

At the heart of the question about land use patterns and density is the debate about saving farmland. There are several aspects to this matter. There is some anguish that cropland, woodland, and pasture is being lost because of general decline in the economic viability of the industry (especially on marginal soils) and because of rising real estate taxes. Others lament that open space and rural atmosphere are being replaced by non-farm housing.

Part of the reason taxes are rising steeply on open land is its perceived value as residential lots. This assessment is based on local zoning and sales of comparable sites, which are results of many farmers’ desire to use their land for retirement security. Most owners of large tracts, be they be farmers or not, want to retain the freedom of choice over whether to subdivide their property or not. Thus, there is a struggle between property tax rates and sale prices.

Many of those who wish to retain open space do not own the land in questions, but perceive its visual and other benefits as a feature the community has a right to enjoy. Both urban and semi-rural residents hold this view. Additionally, there is a philosophy that the community has an obligation as temporary stewards of the land to judiciously conserve its natural features and opportunities for future generations.

Another consideration is the nature and definition of the rural environment. Do 5- or 10-acre lots preserve viable farming in a community? Do 2.5-acre lots (more than 200 per square mile) constitute a “rural environment?” Or will this type of housing ruin what many people sought, leaving the community neither urban nor rural.

Creatively meeting these related needs will be key to the success of the County comprehensive plan. What might be elements of the solution? Long-term commercial farmers need relief from excessive tax burdens, and individual property rights should be balanced against community land use planning. Some citizens are asking whether a way can be found for the community to recoup the financial benefits it grants through residential or commercial zoning - and then apply those benefits to preserve open space in

perpetuity. Other answers might include attracting sufficient commercial, industrial, and urban development to balance the cost of farmland preservation and semi-rural housing, and ensuring a diversity of housing costs.

3) How fast should the County and its local communities grow? Where will that growth be concentrated? How much control should be exercised over the rate of growth?

Lawrence County communities can, to a certain extent, control their rates of growth through their minimum lot size regulations in conjunction with road and sewer improvement policies. Slow growth and agricultural preservation can be ensured by keeping minimum lot sizes large (20 acres or more) rejecting local, county or state road improvements and not requesting major sewer line extensions. Community water service is another, although less influential, inducement to growth. The reverse policies would tend to have the opposite effect.

Regional forecasters predict significant housing growth for Lawrence County for the next several years. The major question is whether the community wants to spread them across the entire county landscape with large lots, using up much of the available land, or consolidate them to some degree, preserve commercial farming and have a greater ultimate population.

4) What type of development should be allowed and encouraged along the major highways? How should such development be designed and regulated?

I-90, Highway 85 and other major highway corridors enjoy the best access and visibility of any part of the county. As traffic increases and County population grows, their function could shift from arteries for movement across the County to destinations for County residents. What would be the effects of this on traffic flow, image and economic development? Are these the most suitable locations for non-residential development? Should commercial and industrial growth be in continuous linear patterns along these roads or in clusters separated by housing? Can housing adjacent to non-residential development be adequately protected? These and other questions must be addressed as goals and objectives are formulated over the next few months.

5) What might be the effects of the alternative land use scenarios on air and water quality, scenic resources, wetland preservation, wildlife and agriculture? How important is the concept of "sustainability" when it comes to large-scale land use decisions in Lawrence County? Which land use scenarios are more sustainable environmentally than others?

Nearly any land development will have some adverse environmental effects. The most important factors are probably the amount of land disturbed or covered, the amount of driving induced, and the degree of sensitivity used in site planning. Thus, housing at one unit per 3 acres may preserve trees and

hills but cause more air and water pollution (through extra driving and roads) and displace more cropland.

6) What should be the future role of the County in local land use planning and zoning administration How can local support for the County plan be bolstered? What changes might be needed in local plans and regulations to implement the County plan?

One of the most challenging aspects of this plan is that the County does not have land use and zoning jurisdiction in any of the cities and only shares it with most of the townships. Therefore, voluntary local support and cooperation will be essential. This support may include not only the general pattern and density of development but also, perhaps, special controls on sensitive areas such as scenic roads or "greenway" corridors.

7) Are the cities, townships, school districts and County willing to bear the higher property taxes and/or lower levels of service that accompany a semi-rural development pattern (as opposed to a rural or suburban pattern)? Is this impact understood? Are taxpayers willing to subsidize the semi-rural lifestyle? Can the idea of "least-cost" planning be adopted in Lawrence County?

Scholarly and practical studies have supported the belief that there is a predictable linkage between residential development density and local property tax rates. Generally, agricultural land and higher-density urban housing development tend to generate more revenue than they demand in public services. Suburban and semi-rural housing tend to create a shortfall. This rule of thumb does not apply in all cases and is affected by the value of the development, the services delivered and the remaining capacity in a particular system. Also, commercial or industrial development tends to generate a strong surplus for the city, county and school district.

Not only are local property taxes affected, state and regional costs are also higher for low-density sprawl as highway and sewer costs increase. Thus, the tax impact goes beyond the local community, raising the question of social fairness.

Private costs are likewise greater for low-density growth. A New Jersey study suggested that if 500,000 new residents arrive in that state in the next two decades, each house would cost \$12,000 to \$15,000 more because of sprawl development than it would if patterns were more compact.

Not all land use decisions can or should be based on their fiscal impact, but it may be wise to consider these implications and at least be willing to accept subsidizing certain patterns of settlement if the decision is so made.

INTRODUCTION

The natural environment of Lawrence County encompasses over 860 square miles of land and water surfaces. Because of the interface between the Black Hills and the “flat” prairie lands, there are a wide variety of conditions. The following section describes the most important natural conditions in Lawrence County related to the comprehensive planning effort. There is no attempt to address and describe every aspect of the natural environment. The US Forest Service, US Geological Survey, and several other government agencies have performed extensive studies which provide detailed analysis of environmental conditions in Lawrence County and the Black Hills as a whole. This report attempts only to describe environmental issues which affect future land use planning. These descriptions are divided into the following categories:

- Environmental Constraints and Hazards
- Natural Resources
- Planning Issues

ENVIRONMENTAL CONSTRAINTS AND HAZARDS

Environmental constraints and hazards relevant to land use planning in Lawrence County are described in this section. These include topography and slope, groundwater water quality, and the floodplain.

Topography and Slope

Topography in Lawrence County varies a great deal depending on where you are in the County. As part of an on-going Aquifer Vulnerability Study, which is being conducted by the US Geological Survey, the average land surface slope categories in Lawrence County were identified and mapped. This map, which is provided on the following page, rates the slope in five different categories: 0-2%; 2-6%; 6-12%; 12-18%; and, greater than 18%. According to this information, approximately 60 percent of the land area in Lawrence County has a slope greater than 18 percent. Although building is allowed in areas with slopes up to 30 percent, it is often cost prohibitive to develop in areas with slopes greater than 15 percent. The costs and visual impacts of constructing roads to houses built in steep areas are also significant.

The result of this information is that there is a very limited amount of land in the County which is truly developable. Some of this land is located in the southern portions of the County, particularly near Nemo and along Highway 385, as well as in the far southwestern section of the County. However, the most developable land is in the northern part of the County, north of I-90 in what is currently prime agricultural land. If County officials wish to limit growth to existing urban areas and easily developable land, agricultural

property might be in jeopardy unless appropriate regulations are adopted to preserve agricultural land use.

INSERT TOPOGRAPHY MAP

Geology

The geology of Lawrence County is a very important natural resource which should be considered in comprehensive planning. To prevent the loss of valuable soils, it is necessary to promote land use planning which conforms to current soil conservation practices. In the selection of sites for development, soil properties should be considered. Soils having natural hazards such as poor drainage, flooding, groundwater contamination and instability should be avoided, as should soils which present problems of bedrock excavation. Agricultural productivity, for instance, is dependent upon the most fertile soils to provide the greatest yield. Therefore, these soils should be preserved. The same is true of forests, especially since the demand for recreation and open space is growing.

There are many soil types in the County which are adequate for grazing and pasture land, consisting of mostly clay and loamy soils. These are located in flat and rolling topography, covering approximately 25 percent of the County. The most productive soil type, reserved primarily for agricultural use, is found on the low terraces and benches adjacent to the larger streams of the County. The topography is nearly level to gently sloping, located primarily in the northern portion of the County. The remaining soil types, which cover approximately 70 percent of the County, exist in the rough, forested mountain land in the Black Hills. These soils commonly consist of rock formations with limited loamy soil development, supporting timber growth and minimal grazing. Detailed soil types and mapping are not provided as part of this report due to the vast expanse of information available on the subject. However, it is important to know that soil constraints exist and should be researched in detail prior to development approval.

Hydrogeology

Since water quality was identified as a primary concern among those interviewed as part of the comprehensive plan, a brief discussion of recharge areas is provided. The unique geology of the Black Hills contain many regional recharge areas in Lawrence County which rely on local streams for water. Several of these streams provide all or part of their flow to bedrock aquifers. These streams include Bear Gulch, Beaver Creek, Spearfish Creek, False Bottom Creek, Bear Butte Creek, Elk Creek, and Boxelder Creek. Since surface water is highly regulated and closely monitored, flow from these streams into the aquifers is clean. However, groundwater which filters into the aquifers may be contaminated depending on the type of soil it is filtered through.

The Madison limestone outcrop, which is illustrated on the following page, exists under a large amount of land in Lawrence County. Once groundwater comes into contact with this outcrop, it is directed almost immediately into one of the regional aquifers. Since these aquifers provide many residents with their drinking water, it is extremely important to ensure that the quality of the aquifer recharge water is clean. Therefore, regulations to control land use

above this outcrop are necessary to ensure that septage, fertilizers, and other pollutants are properly filtered and/or contained prior to reaching the ground.

INSERT MADISON LIMESTONE OUTCROP MAP

Flood Plain

The flood plain is also an important factor in considering where future development should occur in Lawrence County. Existing floodplains in Lawrence County include Spearfish Creek, Whitewood Creek, Box Elder Creek, Elk Creek, Bear Butte Creek, False Bottom Creek, and portions of Beaver Creek and Bear Gulch. Since Spearfish Canyon and Whitewood Creek flow through the four major urban areas in the County, they have the greatest potential for flooding. As development increases along these waterways, more and more impermeable surfaces such as roofs and streets are created, causing more runoff and an increased probability of flash flooding downstream. A map of existing flood plains is provided on the following page.

NATURAL RESOURCES

Timber Management and Fire Prevention

Of the total amount of land in Lawrence County, approximately half is covered by forests or woodlands. Nearly all of the forest land is located in the southern two-thirds of the County. The overwhelming majority of timber in Lawrence County is Ponderosa Pine. Other types of timber include White Spruce and Rocky Mountain Juniper, but to a much lesser extent.

During the confidential interviews, many residents of Lawrence County recognized the importance of the timber industry to the local and regional economy. Many also voiced concerns about timber management practices and the potential for disastrous wildfires in park forest land. The US Forest Service has prescribed several methods of timber management to prevent wildfire, and to achieve or influence vegetative diversity in the Black Hills. Before human settlement occurred in the Black Hills, wildfire provide the primary means of thinning and achieving vegetative diversity. Now that development exists throughout the Hills, natural wildfires have been suppressed resulting in a denser forest with less variation. Prescribed fires, however, can be used as a tool for management to promote agricultural diversity and remove some of the ground fuels which normally add to natural wildfires. Prescribed fires are normally limited in size because of the inherent associated risks. In addition to fire management, silviculture techniques are used to influence vegetative diversity and prevent forest fires. Silviculture is the management of trees through timber harvest and other non-commercial tree management. These techniques do not produce the same biological conditions as fire, but can stimulate the vegetative structure resulting from fire. Fuels treatment (slash removal) is also used to reduce the likelihood of fire starting and limit the severity of fires, especially along highway corridors.

The Keep South Dakota Green Association and the South Dakota Department of Agriculture Resource Conservation and Forestry Division have also published a brochure for rural homeowners concerning wildfire safety guidelines. These guidelines describe steps that rural homeowners can take to reduce the potential for wildfires. Suggestions include limiting the

vegetation around homes, using appropriate building materials, having access to adequate water for fighting fires, and locating development in areas accessible to fire equipment.

INSERT FLOODPLAIN MAP

Wildlife

The South Dakota Department of Game, Fish and Parks provided some valuable information concerning important wildlife habitat and corridors that will be important to consider in planning future growth and land use patterns. In Lawrence County, this government agency manages approximately 3,000 acres of critical winter range habitat for deer, elk and turkey. The Crow Peak game production provides winter ranges to over 100 elk, 250 deer and 200-300 turkeys. The Bear Lodge game production area, located about 3 miles southeast of Spearfish, provides winter habitat for 250 deer and 200 or more turkeys. Within these two game production areas, there are also 25 bald eagles and 25 golden eagles accounted for.

The primary factors influencing these critical wildlife habitats is the density of residential development and the decreasing diversity of vegetation in the Black Hills. Developing one house on 40 acres does not significantly limit wildlife habitat. However, 8 units per 40 acres, as currently allowed in park forest, can have a significant effect on critical habitat depending on how it is designed. Also, the perimeter oak and aspen populations are decreasing, which effects numerous species including grouse and other native bird populations. Additional detailed information concerning wildlife habitat and corridors will be provided in the final Comprehensive Plan report.

PLANNING ISSUES

The following issues have been identified as matters which need resolution and will be addressed in the Lawrence County Comprehensive Plan.

How should the natural environment in Lawrence County be preserved and protected for future generations?

How can water quality be protected from groundwater contamination?

Does the current zoning and development guidelines allow for the protection of natural areas and physical features, including waterways, hilltop protection, and open farmland?

How can wildlife corridors be created and preserved?

How can forest diversity and wildfire prevention be accomplished?

INTRODUCTION

This section is the transportation component of the Lawrence County Comprehensive Plan. This plan examines changes in transportation facilities and infrastructure that will occur in the next 10 to 20 years.

Transportation is a key responsibility of Lawrence County. The County provides a roadway infrastructure system to support the traffic associated with cross-County movements, intercity movements within the County, intracounty movements, intrastate movements, and the demands of new growth and development at acceptable levels of congestion.

Since 1970, the date of the last County comprehensive plan, there have been significant levels of change within the county interrelation to mining activities, gaming influence, housing, business, recreation and other developments throughout the County. Much of this growth or reduction in growth has centered on the cities where the County has no land use jurisdiction. The County has limited control over the type, intensity and location of these land developments, even though such developments require transportation facility access, and in turn impact the intensity of roadway system use. In addition development which occurs in areas outside the cities and communities influence roadway usage, maintenance, and resulting system upgrades. These circumstances make it imperative that transportation and future land use be planned together.

This Transportation Plan functions as a guide to identify the County's existing and proposed transportation network, to rank its major transportation investment needs, and to support the County's land use goals and objectives.

Information in the plan is developed through data received from the County Highway Department, South Dakota Department of Transportation, local municipalities, task force meetings, and public forums. It is also drafted in the context of regional, state, and national transportation planning and guidelines.

EXISTING TRANSPORTATION SYSTEMS

The existing transportation system section address Functional and Jurisdictional Classifications, Adequacy of Existing Roadways, and Alternative Travel Modes within Lawrence County. Current data on the existing system has been compiled to provide a basis for decisions regarding the existing transportation system. Although not yet available for this report, the SDDOT will be providing existing and projected traffic volumes on the major roads within the county.

Functional Classification

The road system within the county is divided into the following functional classifications:

Interstate - A four-lane controlled access facility.

High Volume Arterial - High Volume Arterial (HVA) routes are those principal arterial highway on the Federal-Aid primary system having traffic volumes of 850 average daily traffic (ADT) or greater and truck traffic of 130 or greater.

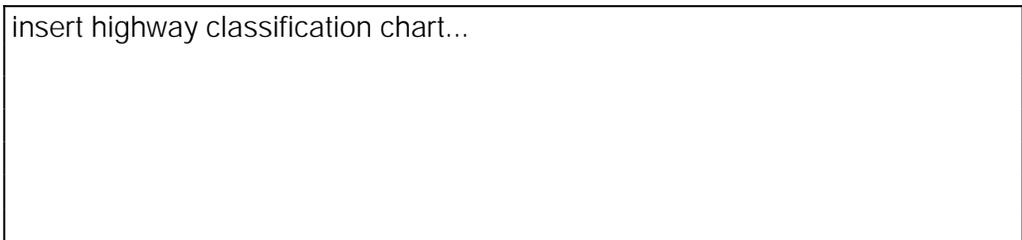
Low Volume Arterial - Low Volume Arterial (LVA) routes are the principal arterial highway on the Federal-Aid primary system having traffic volumes of less than 850 ADT.

Minor Arterial - Minor Arterial (MA) routes are the minor arterial highways on the Federal-Aid primary systems, These routes provide the major connections to the principal arterial highways in South Dakota.

State Secondary - State Secondary routes are the collector highways on the Federal -Aid secondary system that are located on the state trunk system. County routes are considered collector highways on this system.

Local - Local Systems include State and/or Federal assistance on county roads, urban roads and other locations for Enhancement Projects. Local officials determine projects for this system. Urban projects are on the Federal-Aid urban system (cities with a population of 5,000 or more) and are determined by that urban area. Game, Fish, and Parks projects improve access roads and recreation areas in the State. Transportation Enhancement Projects are identified and submitted by any unit of government and are approved and ranked by the SDDOT.

The current miles of road for each classification is identified in the chart below:



Jurisdictional Classification

The primary jurisdictional classifications include State, County, Municipal, and Township designations. Lawrence County does not have township secondary roads and therefore maintenance falls directly on the county.

The South Dakota Department of Transportation (SDDOT) also has a Memorandum of Understanding (MOU) between the SDDOT, the Federal Highway Administration (FHWA), and the U.S. Department of Agriculture-Forest Service which establishes procedures for coordinating transportation activities on National Forest System (NFS) lands within the State of South Dakota. The MOU describes the activities required by all parties including (1) roles and authorities, (2) long range planning, (3) project coordination, (4) preliminary field review and survey, (5) environmental coordination, (6) project design, (7) development of right-of-way, (8) construction/reconstruction, (9) maintenance, (10) signing, and (11) access control. Since the majority of Lawrence County is on Forest Service land this agreement provides the basis for the development, usage, and protection for a high percentage of roads necessary for industry and recreation activities.

The county also has approximately 12 road districts and 90 subdivisions. Several subdivisions use the same access roads which is a major problem when it comes to paying for road maintenance and snow removal.

Adequacy of Existing Roadways

The evaluation of the road system within Lawrence County is coordinated between the State, County, and Local jurisdictions on a yearly basis. The State planning process uses a 5 year projection of needs which is revised on a yearly basis depending on projected budgets and system priorities. A summary of current 5-year plan is shown on the following map of the county and summary tables. The plan identifies funding improvements for the following categories:

- Interstate 3-R
- High Volume Arterial Construction
- High Volume Arterial Resurfacing
- Low Volume Arterial Construction
- Minor Arterial Resurfacing
- Bridge Replacement
- State Trunk 3-R Structure Projects
- Maintenance Gravel Stockpile Projects
- Railroad Crossing Improvements
- Urban Systems Projects
- Hazard Elimination
- Contract Road Maintenance Projects
- Game, Fish and Parks Projects
- County Secondary and Off System Projects
- High Priority Corridor, Innovative and Projects Specific
- Transportation Enhancement Projects

The overall plan also looks at the 10 year plan for the road system, but these projects are for visionary purposes and will vary greatly.

Road construction standards for state funded projects primarily follow the AASHTO Guide to Roadway Design and the South Dakota Standard

Specifications for Road and Bridges with some allowances made for individual local jurisdictional variances in design standards.

The county roadway standard for a primary road is 28' wide subgrade and 24' wide driving surface. With the secondary road a 24' subgrade and 22' driving surface. Current county estimates indicate it costs approximately \$2,000/mile per year to maintain a gravel and \$100,000 / mile to provide 4" of asphalt for a 22' road surface. The 1990 State Needs Study indicated it would cost \$250,000 per year alone on asphalt projects within the county.

Alternative Travel Modes

One of the primary comments received during confidential interviews and public forums was in reference to alternative modes of travel within Lawrence County primarily provided by the Spearfish Airport. The relatively close proximity of this airport to Spearfish, Deadwood, Lead, and Whitewood provides an added advantage for the development of business within Lawrence County. Funding for improvements of the airport are generally provided through a 10 percent matching of state and local funds and 90 percent federal funds. The Black Hills Airport, Clyde Ice Field is scheduled the following upgrades over the next three years:



The Black Hills Airport is a Category A & B II greater than 12,500 lbs. but length is design aircraft specific.

The D,M, and E railroad also runs through the northeast corner of Lawrence County. This railroad would provide the primary route for the proposed Dunbar Railroad through Whitewood Creek canyon, however the completion of this line is unknown at this time. The DM&E has also been under recent controversy as a possible alternative route for the proposed route improvements into Wyoming. Lawrence County has taken an official stance of opposition to this route, because of the impacts to this part of the County.

TRANSPORTATION ISSUES

The following are a summary of some of the issues raised during the confidential interviews, public forums, research of existing conditions, and future transportation needs:

- Access to and through subdivision
- Ways of funding road improvement costs
- Construction of a new shop in Whitewood
- Expand Spearfish shop

Multiple use areas with the SDDOT such as common stockpiles and more efficiency
maintaining common routs
Future improvements on I-90 frontage road as a result of increase traffic due to easterly expansion from Spearfish
The proposed Exit 8 and resultant issues regarding this exit
Potential future shop site at Nemo
Platting of access along with Subdivision
Maintenance of roads on section lines to subdivision off the county system
The effects of Forest Service roads on the County and State systems
How to handle development costs

insert Kim's charts...



PUBLIC FACILITIES & SERVICES

INTRODUCTION

The Public Facilities and Services section addresses the existing community resources, which provide an integral part to the quality of life and functional existence within Lawrence County. The information provided in this section was developed from the confidential interviews, interviews with public entities, information provided from State, County, and other local documents.

EXISTING COMMUNITY RESOURCES**Existing Public Facilities**

The existing public facilities are shown on the following pages and are described in the categories of City Services, County Services, State Services, Federal Services, Quasi-Public & Private Services, and Public Services. The service, the location, phone number and general comment of specialty is listed for all categories. With the exception of the Extension Office the majority of County Offices are located in Deadwood. State services are located in Deadwood, Spearfish, and Lead with many Federal services reached only through 1-800 phone numbers.

The Lawrence County Offices are located in the Court House and the Lawrence County Annex. The Courthouse and Annex was refurbished and constructed, respectively in 1990. The Highway Superintendent offices and shop are located in the old Homestake Slime Plant located on Pine Street in Deadwood. A new highway shop is also being constructed in Whitewood. The Environmental Health Department, Extension Offices, Conservation District Office, Public Health, and Weed and Pest Control Offices are located in Spearfish.

The new public offices for the City of Spearfish were constructed in 1995 and houses the Public Works Department, Street and Water Superintendent, Recreation Department, Police Station, Finance Offices, Library, and Mayor and Council Chambers.

The City of Deadwood offices were located to the new city hall in 1992 during the period for the reconstruction and refurbishing of many of historic buildings within Deadwood. The Public Works office and shop is located near the Days of 76' Rodeo Ground. The Lead / Deadwood Sanitary District #1 offices and wastewater treatment plant is also located to the north of the Rodeo Grounds in Deadwood.

The City of Lead maintains its offices in the existing City Hall on Main Street which includes the Finance Offices, Mayor and Council Chambers, and Fire Station. The Water Treatment Plant for both Deadwood and Lead is located in Lead.

The Town of Whitewood's Finance Offices and Council Chambers are located in the City Hall with the water and street department located in a separate shop building. The Fire Department is also located in a separate building.

St. Onge public meetings are held in the St. Onge Community Hall.

Existing Public Parks and Recreation Facilities

Lawrence County has numerous parks and recreational facilities located throughout the county. These areas enhance the recreational aspects of Lawrence County and attract people from throughout the country and world. In the County alone there are 8 United State Forest Service (USFS) picnic grounds, 7 USFS campgrounds, 10 existing forest trail systems totaling over 95 miles, and 7 trails proposed for reconstruction or new construction totaling over 27 miles. The famous George S. Mickelson Trail also runs through much of Lawrence County and is constructed on the historic railroad grade alignment. This trail is used for hiking, mountain biking, horse riding, and cross country skiing. Trail heads average between 5 to 7 miles apart and run by many historic sites including railroad sidings, mining and logging camps and many other historic sites.

The following table indicates the trails systems within Lawrence County:

insert existing forest trail system

Insert trails proposed for reconstruction...
--

Other recreational areas include the Terry Peak and Deer Mountain Ski Area and the Eagle Cliff and Big Hill Cross-country ski area trail system. Lawrence County also has an extensive snowmobile trail system that provides access to all parts of the Black Hills.

The Cities of Spearfish, Lead, and Deadwood offer many soccer, football, and baseball fields. One of the major accomplishments and successes noted in the confidential interviews was the construction the Playland in the Spearfish Park. This was done totally by volunteer help and is a widely used recreational facility by both local and regional individuals. A new park was also constructed in Lead in 1996 at the south end of the Open Cut and includes a soccer field, rest rooms, playground, and picnic facilities.

Existing Public Services

Police Protection

Police offices are located Spearfish, Deadwood, Lead, and Whitewood with the County Sheriffs office located in Deadwood. The police force consists of the following manpower and units:

insert police table...

The city police take care of activities within the City limits, however the Sheriff can aid them upon request. The Sheriff Department is responsible for everything outside of the cities. City police may help with incidents outside the city limit in a life or death situation.

It was noted during the confidential interviews that gaming has had an influence on the number of officers hired in primarily Deadwood and Spearfish. It was also noted that increased police protection in all communities is desirable and law enforcement overall is considered good in the cities and county.

Of special note is the desirability of many residents for the completion of the enhanced 911 system in Lawrence County.

Fire Protection

Fire protection is provided throughout the county through 11 fire departments of districts. The majority of the departments are comprised of volunteers and provide mutual aid with the other departments or districts. A summary table showing the existing departments, special capabilities, and special concerns or issues is shown on the attached sheets. The fire districts and acreage's are shown in the following table:

insert fire district table...

Health Care

The quality of life within Lawrence County is enhanced through the close proximity of good health care facilities. The City of Spearfish while being a desirable retirement community also has a four-year college. The Lookout Memorial Hospital is located in Spearfish with Northern Hills Hospital located in Deadwood. There are several private medical clinics and one surgery center located in Spearfish. There is also physical therapy, speech therapy, home health service, and elderly care available to all the communities. The excellent health care was noted during the confidential interviews as an important service to the community and region.

Education

Education and educational opportunities is a prime concern raised during the confidential interviews, task force meetings, and public forums. Lead-Deadwood has a combined school district with grades from k-12. The enrollment in this district has decreased over the years with the biggest increases occurring in the Spearfish District, which offers the same grades. Whitewood offers an elementary school but is located in the Meade School District. The recent state law providing open school enrollment will have an effect on the school systems, but what that effect will be is too soon to tell. The Black Hills State University located in Spearfish was noted in the interviews as having a positive effect on the educational opportunities and adding to the quality of life within Lawrence County.

Social Services

The social services provided in Lawrence County add an important aspect to increasing the quality of life within the community. Some of the social service organizations include CASA, Meals on Wheels, Northern Hills Pregnancy Care Center, Sky Ranch for Boys, Spearfish Community Pantry, Whitewood Senior Citizens Center, and other public and private organizations which provide child and elderly care.

Waste Disposal

Solid waste disposal is picked up by private carriers and taken to the Belle Fourche Landfill. Since landfills require local, state, and/or federal approval the location of a new site within Lawrence County seems unlikely within the future. Recycling efforts are being done by both the public and private sector. The successes of these programs are dependent on the markets available for the materials and participation by the public. Spearfish noted that the 1995 cost to landfill was \$71.39 / ton and the 1995 cost to recycle \$97.79 / ton.

Sanitary Sewer Systems

The major sanitary sewer and collection systems are provided by the municipalities and towns. Lead - Deadwood has a combined Sanitary District #1 with the treatment facilities located in Deadwood. The Spearfish facility is located north of the city. Both St. Onge and Whitewood have lagoon systems located north of each town. The following table represents a summary of the capacities of each system:

--

sanitary sewer chart

The Lead - Deadwood Sanitary District receives all the septic from the Forest Service campgrounds and picnic areas in the Black Hills. This currently amounts to about 100,000 gals per year in a 120-day period. The waste is metered into the system in order to avoid overloading. The district does not accept septic from private systems and it is assumed the private haulers take the waste to Belle Fourche since Spearfish will not take waste from septic tanks. A 1992 study of the Lead/Deadwood system indicated for a \$1,000,000 upgrade(1992 numbers) an additional 40% of organic loading could be added on to the system. Of particular note is that the Lead system also collects storm water runoff which have sent the hydraulic loading during periods of wet weather to as high as 4.3 mgd. Lead is in the process of upgrading their system by separating the storm from the sanitary flows.

The majority of the 90 plus subdivisions outside the city limits are currently not tied into centralized system and are on individual septic systems. New individual systems are checked by the Lawrence County Public Health official and the design of public septic systems are also sent to the Department of Natural Resources to check compliance with state law. Once a septic system is put in and approved there is no formal program to check the adequacy of existing systems.

Water Systems

Centralized water systems have been developed for the major cities, towns, and larger subdivisions. A new water treatment plant for the Lead / Deadwood water system was completed in 1996 with a 4mgd capacity for treatment. Currently the peak flows have been 2.9 mgd with an average of 1.8 mgd. Deadwood receives approximately .64 mgd and Lead approximately 1.3 mgd of these flows. The following table summarizes the capacities of the existing water systems or water districts:

water quality chart...

Although the water quality and quantity of water provided to Lawrence County is good there are many subdivision which all sites have their own private wells. As a result these subdivisions have limited if any fire fighting capability and most individual residences do not have provisions to treat their water if contamination does occur.

COMMUNITY RESOURCE ISSUES

The following is a summary of the primary resource issues brought up during the confidential interviews, task force meeting, public forums, and interviews with public entities:

- Provide clean water and air
- Control pollution from industry and developments
- Enhance outdoor recreational opportunities
- Continue to develop the trail systems within Lawrence County
- Provide higher paying jobs within the area to maintain the ability to provide community services
- Use the educational opportunities available in Lawrence County to provide job opportunities
- Provide affordable single family housing
- Maintain good and high quality school systems
- Continue to provide excellent health care within Lawrence County
- Complete the development of the 911 Emergency system

chart.?????????????..

