

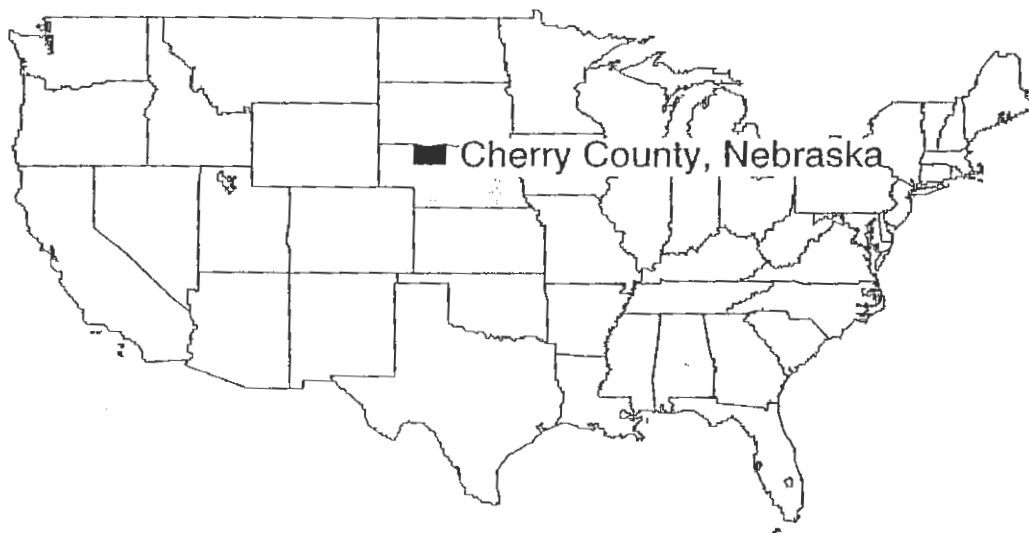
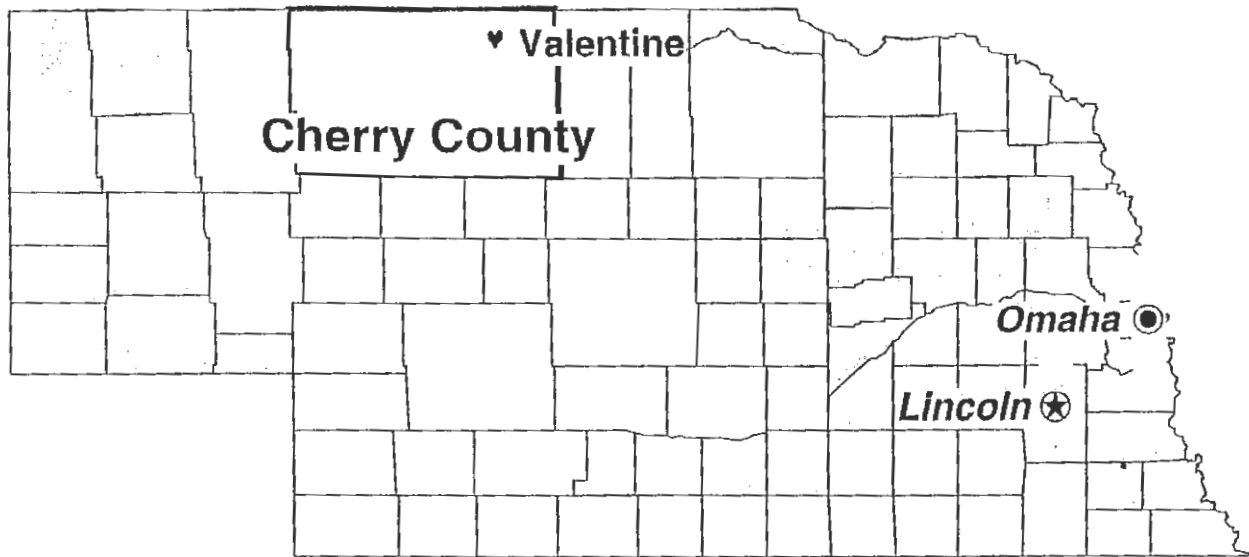
# **Cherry County Comprehensive Development Plan**

**ADOPTED 4/29/97**

**AMENDED BY BOCC 8/8/2000**

**Cherry County Planning Commission**

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## **A Vision for Cherry County's Future**

*This is what we, the people of Cherry County, want to be able to say about our community in the future ...*

Cherry County is a great place to live. The changes recent years have brought to our landscape have been well-managed by the community itself. There are still far more cattle than people, and everyone finds that balance acceptable.

The county's residents and communities are separated by many miles, but united by a shared history, the mutual respect of good neighbors, pride in being skilled stewards of the Sandhills landscape, and active participation in governing their communities, the county, the state, and the nation. 'Cattle Country' traditions are cherished, but the cultures of all residents are respected. People care about each other and the land and water resources on which everyone depends.

Cherry County residents enjoy healthy lifestyles, a safe environment, and a stable economy. Public facilities and services, health care, education and training, recreation and entertainment, and employment and business opportunities are adequate to meet the needs of people of all ages. Efficient transportation and communication systems link people with each other and the world, enhancing the sense of community and prosperity.

Private and public land and water resources are used wisely, sustaining for generations the ecological, economic, social, cultural, recreational, and aesthetic values that support the quality of life treasured by county residents. Maintaining these values also ensures that visitors have a memorable experience.

People could live other places. They choose to live in Cherry County.

*The purpose of the Cherry County Comprehensive Development Plan is to help citizens and decision makers guide change into the framework of this vision, which includes both a traditional respect for property rights and a strong sense of responsibility and stewardship.*

## **Table 1 - Excerpts from the Nebraska Statutes**

### **§23-114. Zoning regulations; when authorized; powers; manufactured homes; limitation of jurisdiction.**

(1) The county board shall have power: (a) To create a planning commission with the powers and duties set forth in sections 23-114 to 23-114.05, 23-168.01 to 23-168.04, 23-172 to 23-174, 23-174.02, 23-373, and 23-376; (b) to make, adopt, amend, extend, and implement a county comprehensive development plan; and (c) to adopt a zoning resolution, which shall have the force and effect of law.

(2) The zoning resolution may regulate and restrict: (a) The location, height, bulk, number of stories, and size of buildings and other structures, including tents, cabins, house trailers, and automobile trailers; (b) the percentage of lot areas which may be occupied; (c) building setback lines; (d) sizes of yards, courts, and other open spaces; (e) the density of population; (f) the uses of buildings; and (g) the uses of land for agriculture, forestry, recreation, residence, industry, and trade, after considering factors relating to soil conservation, water supply conservation, surface water drainage and removal, or other uses in the unincorporated area of the county.

(3) OMITTED

### **§23-114.02. Comprehensive development plan; purpose.** The general plan for the improvement and development of the county shall be known as the comprehensive development plan and shall, among other elements, include:

(1) A land-use element which designates the proposed general distribution, general location, and extent of the uses of land for agriculture, housing, commerce, industry, recreation, education, public buildings and lands, and other categories of public and private use of land;

Land-use issues are addressed throughout this plan, but see especially Policies 1, 6, 7, 8, and 9.

(2) The general location, character, and extent of existing and proposed major streets, roads, and highways, and air and other transportation routes and facilities; and

Low traffic volumes make transportation planning less of an issue in Cherry County than in an urban or suburban community. See Policy 5.

(3) The general location, type, capacity, and area served of present and projected or needed community facilities including recreation facilities, schools, libraries, other public buildings, and public utilities and services.

One of the reasons for the adoption of this plan is to help ensure that the costs of providing any new or improved facilities needed to serve development in rural Cherry County are borne by the developer. See Policy 5. This plan also attempts to limit development in remote rural areas to a level that is consistent with the minimal level of public facilities and services available in such areas. See Policies 7 and 9.

The comprehensive development plan shall consist of both graphic and textual material and shall be designed to accommodate anticipated future growth which shall be based upon documented population and economic projections.

## **Welcome to Cherry County's Comprehensive Development Plan**

The purpose of this plan is to help the people of Cherry County, and especially the county's planning commission and elected officials, manage land use change. It does this by setting policies with which future changes in land use should be consistent and establishing specific strategies for the implementation of those policies. Those strategies include education, local participation in the decision making processes of state and federal agencies, land use regulations, and public investments. The plan has four parts.

1. The vision for the future presented on page one provides a general direction for planning. It is based on the *Temporary Vision for Cherry County* written for the Cherry County Planning Commission by Rob Ravenscroft in 1994, a vision statement prepared by the local Visitor Promotion Committee, and comments received at public meetings conducted by the Cherry County Planning Commission.

2. Introductory materials include this preview, a brief recital of the legal authority for county planning in Nebraska, a review of previous planning efforts in Cherry County, and a description of the process by which this comprehensive development plan was created.

3. The policies are the heart of the plan. They address the concerns raised by the planning commission and the public as this plan was developed. Each policy consists of one or more general goals, and one or more specific strategies designed to implement those goals.

4. Factual background material is woven into this introduction and the policy statements, as appropriate.

### **Will Land Use Change?**

Before proceeding, it is important to respond to the question that was most often raised during the planning process: Why have a plan if Cherry County is not going to change? A discussion of the potential for land use change in Cherry County begins on page four.

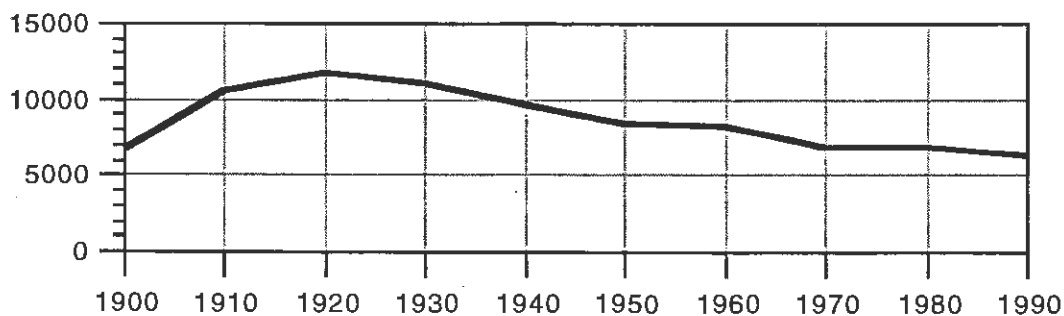
### **Authority for Planning**

Adoption of this plan is authorized by state law. Nebraska Revised Statutes (Neb. Rev. Stat.) §23-114(1)(b) allows counties to adopt a comprehensive development plan. Neb. Rev. Stat. §23.114.02 offers general guidance for the contents of such plans. These statutes are reproduced in Table 1, which also indicates where in this document Cherry County has included the contents required by law. It should also be noted that certain federal laws give official standing to county plans. Those laws are described in Policy 8.

## The Potential for Land Use Change in Cherry County

There were only two notable changes in the Cherry County landscape between the 1870s -- when ranching began in the Sandhills -- and the 1990s: the influx of homesteaders that followed passage of the Kinkaid Act in 1904 and the shift of 30,000 plus acres from grazing to irrigation during the 1970s. History shows that the dryland farming ventures of the Kinkaiders were unsuccessful and that the center-pivot boom did not abate the gradual decline of the local population that began during the 1920s.

### Cherry County Population History



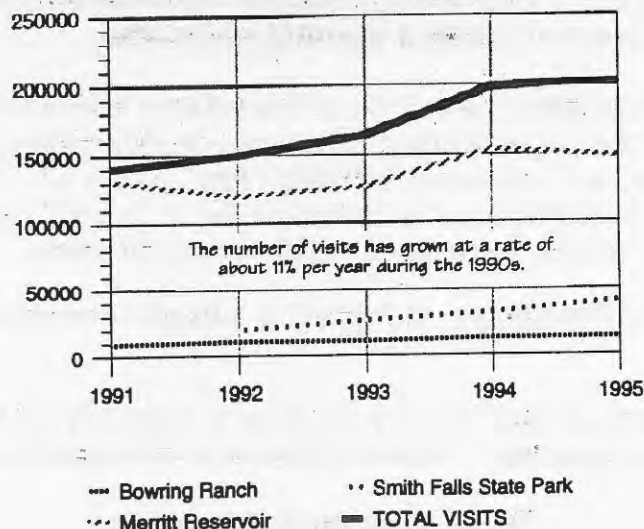
While Cherry County's past has featured only fleeting changes in land use, the 1991 designation of the Niobrara River as part of the National Wild and Scenic River System may mark a genuine transition. Attractive rural communities throughout the nation are being impacted by growing numbers of recreationists (many of them seeking second homes), retirees, and "lone eagle" entrepreneurs (some of whom are also early retirees) who can work in any community that has telephone service.

Between July 2008 and July 2009, 3.5 million people will celebrate their 62nd birthday as the first baby boomers pass this milestone. That's 37 percent more than the previous year and 63 percent more than in 1990 ... the boom will continue for several decades and peak around 2020.

*American Demographics*, December 1990

Cherry County has many of the attractions these people seek. The Niobrara has long been known as a great canoeing stream and the recreational opportunities offered by Merritt Reservoir, the McKelvie National Forest, several state wildlife management areas, and the Fort Niobrara and Valentine National Wildlife Refuges all add to the county's appeal. The outdoor recreation resources are complemented by a safe small town atmosphere where the crime rate has averaged 21.3% of the national and 30.6% of the state rate during the 1990s (see Appendix A for crime rates and other basic demographic data).

### Visits to Game and Parks Facilities



The chart above traces the rapid growth in visits to major Nebraska Games and Parks facilities in Cherry County during the 1990s. Bureau of Census estimates suggest that Cherry County's population is also growing (from 6,307 in 1990 to 6,374 in 1995). But the changes in land use that follow a place's "discovery" may take years to show up in estimates of the year round local population. The experience of some similar rural counties demonstrates that growing recreational use, second home development, and real estate speculation can cause major changes in a community where the number of year-round residents is still declining.

Color Plate I shows why Cherry County's natural assets have been slow to attract attention. There are only 10 counties that have populations over 100,000 within 300 miles of Valentine, and only five more that have populations between 50,000 and 100,000. Of these 15 counties, five are on the Front Range of Colorado, where people have traditionally sought recreation in the mountains to the west. Color Plate II helps illustrate the potential for change. It indicates that many counties along the Platte and Missouri Rivers, and in the Black Hills have begun to grow in the 1990s. It also shows the rapid growth of the Front Range, which visitor counts from Smith Falls State Park suggest is beginning to contribute more visitors to Cherry County.

Finally, the March 1996 release of the *Environmental Assessment for Implementing Allotment Strategies on the Bessey Ranger District, Nebraska National Forest* should remind Cherry County residents that changes in the management of public lands are independent of local population growth. Adjustments in the level of grazing permitted, efforts to promote recreation, and the responses state and federal agencies make to urban constituencies will affect the users of public lands and the use of associated private lands.

### **Past Planning Efforts**

This is Cherry County's first comprehensive development plan. The county's cities have been involved in some planning activities.

- The City of Valentine has a plan that dates back to the late 1970s. That plan and the city's zoning ordinance apply within one mile of the corporate limits, as provided by Neb. Rev. Stat. §17.1001. The city's extraterritorial jurisdiction is mapped in a Transitional Agricultural Zoning District, which permits a wide variety of uses.
- The Village of Crookston adopted a simple comprehensive plan in 1987.

It should also be noted that Cherry County is affected by the planning efforts of state and federal agencies. Those efforts are discussed in Policy 8.

### **How This Plan Was Made**

The Cherry County Planning Commission was formed on January 11, 1994. That eleven-member group spent several months learning about planning, and concluded that it would need professional assistance to prepare a comprehensive development plan. The planning commission also compiled facts about the county in a report titled *Cherry County: A Factual Background for Planning*. A copy of that document is packaged with this plan.

The planning commission obtained funding, then requested proposals from consultants in May 1995. Interviews were conducted in July and Lee Nellis, a consulting planner with extensive experience in large rural counties was retained. His work began with a September training session for the planning commission.

The planning commission had initiated public involvement in the planning process with community meetings and a newspaper survey. Involvement accelerated with the "Guiding Event", a series of three workshops designed to inform the public about the planning process and identify issues that should be addressed in the comprehensive development plan. The Guiding Event consisted of well-attended evening workshops in Cody (October 4) and Hyannis (October 5), and an all-day workshop in Valentine on Saturday, October 7, 1995.

The results of the Guiding Event were captured in a brief report, a copy of which accompanies this document. That report was made available to the public at the first of three policy development forums held in November and December 1995 and January 1996. Each forum addressed a different set of the issues identified at the Guiding Event.

- The first forum consisted of an afternoon meeting in Valentine on November 14 and a session in Merriman on the following evening. The topic was how agriculture would be treated in the plan.
- The second policy development forum took place in Valentine on the afternoon of December 12. It addressed land use changes.
- The final forum was also held in Valentine, on January 9. It dealt with recreation and public lands issues.

The Guiding Event and policy development forums were preceded by extensive newspaper and radio publicity, as well as the posting of handbills. A full record of the notice provided is available in the offices of the Cherry County Board of Commissioners.

The policy development forums were followed by planning commission work sessions in February, March, and April. The first draft of this plan, which did not address the Niobrara River corridor, was presented to the people of the county at meetings in Cody, Valentine, and Mullen on May 13-15, 1996. The policy for the river corridor was added after a June work session. Cherry County Planning Commission members conducted listening posts to take public comment in Brownlee, Cody, Hyannis, Merriman, Mullen, Valentine, and Wood Lake during the last week of June. The comments received resulted in several improvements in the second draft of this plan, which was delivered to the planning commission on July 16, 1996.

The Cherry County Planning Commission solicited informal comment on the second draft of the plan at the Cherry and Sheridan County fairs and the annual "barbecue sale" at the Valentine sale yards, then conducted a formal public hearing on September 17, 1996. The planning commission accepted written comments for 10 days following the hearing, then debated changes in the draft for several months before making a considerable number of revisions. The commission agreed to recommend a draft comprehensive development plan to the Board of Commissioners in December 1996.

## **The Policies**

The policies presented here are designed to guide the Cherry County Planning Commission and Cherry County Board of Commissioners in taking action on proposed changes in land use and in dealing with public land management agencies. These policies also call for educational and other activities that might best be undertaken by citizen groups rather than (but in cooperation with) county government.

These policies grew out of the process of public learning and discussion described on pages six and seven. And they reflect a difficult debate between two strong traits of the people of Cherry County: their fierce independence and their deep commitment to their present way of life.

Finding the proper balance between individual independence and the community actions that may be needed to maintain the way of life and landscape in which that independence is rooted was not easy. Yet it was clear that both the supporters and the critics of planning generally shared a common vision for the future of Cherry County.

The balance struck here attempts to reflect that vision, as it is stated on the first page of this plan and in the policies themselves. It is the vision of a people who understand that the sense of freedom they enjoy can be found only in a certain kind of landscape, and who realize (with some reluctance) that their active participation as citizens committed to maintaining that landscape is essential to maintaining their independence.

## **A Living Plan**

Times, and peoples' perceptions of the times, change. These policies must be reviewed on a regular basis, and revised as the people of Cherry County find necessary. Policy 11 calls for annual reviews, with citizen involvement.

## **This Plan and Zoning: What Is the Relationship?**

Adoption of this comprehensive development plan will not impose zoning or any other land use regulations in Cherry County. Enactment of a zoning resolution will require substantial additional work by the county planning commission, which must translate the general policy framework established by this plan into the more specific language of zoning. The adoption of a zoning resolution will also require a separate public hearing process.

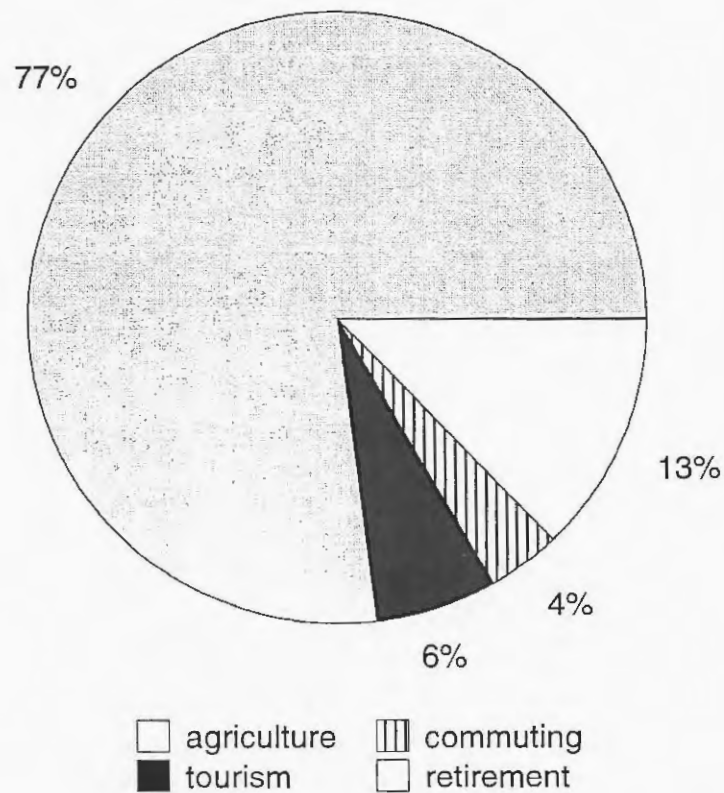
## **Policy Structure**

The policies are numbered to facilitate easy reference. Each consists of one or more goals, which are shown in UPPERCASE LETTERS, and one or more implementation strategies, which are lettered. This makes it possible to

refer to a particular strategy as, say, 99.ZZ. The factual material provided in support of the various materials is distinguished by double page borders and the use of the Helvetica type font. The policy portion of the plan is designed to be read continuously, so these factual "inserts" may be skipped and read at a later time.

## Structure of the Cherry County Economy - 1993

*analysis based on income directly and indirectly generated by the export sectors*



*Income data from Regional Economic Information System, US Department of Commerce, Bureau of Economic Analysis.*

## 1 - Let's Not Kill the Horse That Brought Us to the Party ...

The people of Cherry County have generally been good stewards of the sensitive Sand Hills ecosystem. Indeed, the events that led the county to begin planning — including the designation of the Niobrara as a National Scenic River — would never have happened if ranching was not compatible with the water quality, diverse fish and wildlife habitats, and quiet scenic beauty that are beginning to attract attention to Cherry County as one of the nation's special places.

The people of Cherry County wish simply to continue their present way of life. They fear additional regulations that could limit the viability of agriculture and their cherished sense of independence. At the same time, the people of the county recognize that major land use changes can have adverse impacts on neighboring ranch operations, and that large-scale development could irrevocably alter the character of their landscape and community.

**THIS PLAN IMPOSES NO ADDITIONAL REGULATIONS ON RANCHING OPERATIONS, INSTEAD ...**

**CHERRY COUNTY WILL WORK TO ENSURE THAT CHANGES IN THE USE OF LOCAL LAND AND WATER RESOURCES HAVE NO ADVERSE IMPACT ON THE PRESENT OR FUTURE VIABILITY OF AGRICULTURAL OPERATIONS ON NEIGHBORING LANDS.**

The central role of ranching in Cherry County's landscape and economy is documented on pages 13 and 14.

### Defining Agriculture

Given the goal of regulating land use change, not agriculture, the first issue facing the Cherry County Planning Commission was how to define the point at which the use of a parcel changes from ranching to something else. The commission asked the public for help on this issue at the November 1995 policy development forums and, again, at the June 1996 listening posts. The results are reflected in this definition.

During the past century, the Nebraska Sand Hills have developed into one of the best-managed large tracts of rangeland in the world.

James Stubbendieck,  
*An Atlas of the Sand Hills*, 1990

... this is the Sand Hills, and the land calls forth grazing ...

Richard Manning  
*Grasslands*, 1995

For the purposes of planning for Cherry County, 'agriculture' includes three activities:

1. the raising of fish, livestock, or crops, or in terms of land use: crop, pasture, and grazing lands;

2. the accessory uses and structures customarily associated with the raising of crops or livestock and commonly found on crop, pasture, or grazing lands in Cherry County, including corrals, barns, windmills, ranch homes, and similar uses and structures;

3. uses and structures that complement ranching operations, including the use of crop, pasture, and grazing lands for hunting or fishing for a fee where such activity does not involve development of lodges or other buildings devoted solely to the support of such hunting and fishing activities, outfitting hunting and fishing trips, temporary housing of hunters and fishermen in farm or ranch dwellings, bunkhouses or other farm related housing, up to (5) units and small home businesses, including bed and breakfast inns that have up to (5) units, the sale of art or crafts made by family members, the conduct of a profession (accounting, law, medicine, etc.); welding or auto repair; and similar activities that have 3 or fewer full-time equivalent employees in addition to family members.

Home Occupation: An occupation or business enterprise conducted in a dwelling unit or building accessory to a dwelling unit (barn, garage, shop, etc.) on the same premises with such dwelling, which occupies not more than one-thousand (1,000) square feet if a retail or personal service business, which occupies not more than three thousand (3,000) square feet if any other type of commercial business or industry, which has no more than five (5) rental units if a lodging use (bed and breakfast, campground, etc.) and in which no more than three (3) full-time equivalent persons are employed on the premises. Such persons may be in addition to any persons who reside in the dwelling unit to which the occupation or business enterprise is associated and such persons may reside off of the premises. Such persons may be in addition to any persons who reside in the dwelling unit to which the occupation or business enterprise is associated and such persons may reside off of the premises on which the occupation or business enterprise is located.

### Implementation Strategies for Policy 1

*These strategies are designed to protect existing ranch operations if the use of the surrounding land changes. The appropriate scale of development is addressed in Policies 7 and 9.*

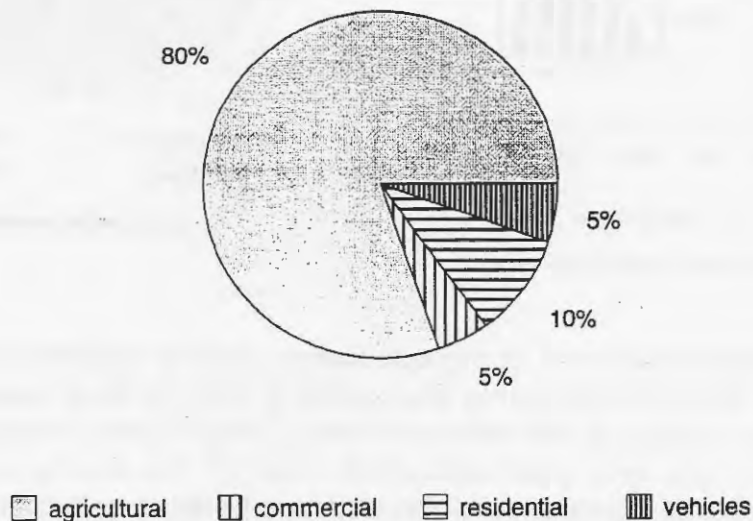
**A. Education for Rural Living.** Cherry County should work with University of Nebraska Extension, the Natural Resource Conservation Service, the Middle Niobrara and Upper Loup Natural Resource Districts, and other interested agencies and citizens to prepare and distribute educational materials that will help new rural residents understand the responsibilities that come with land ownership, including weed control, fence maintenance, and erosion control. These materials can also provide information on best management practices that protect water quality and wildlife habitat.

### The Importance of Agriculture in Cherry County

The pie chart on page 10 shows that agriculture directly and indirectly accounted for about 77% of all income received by Cherry County residents in 1993. Direct impacts of agriculture include returns to ranch owners and the earnings of ranch hands and those employed in agricultural services. Indirect impacts include the income generated when ranchers and their families and employees, and workers in agricultural services spend money in the county. Every dollar earned in agriculture in 1993 generated (roughly) an additional \$2.00 in local income. An analysis of local employment yielded a similar conclusion. Supporting income and employment data appear in Appendix B.

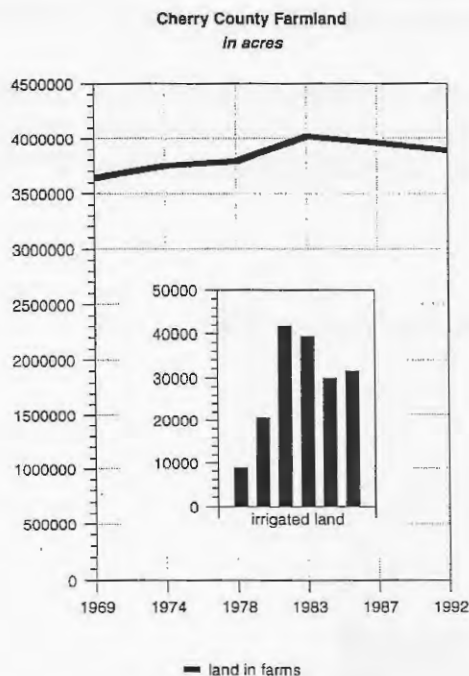
The chart below shows the relative contributions of different types of property (both real and personal) to Cherry County's property tax base. Property taxes account for over 60% of the county's revenues, and are even more important to the local schools.

The Cherry County Property Tax Base in 1995

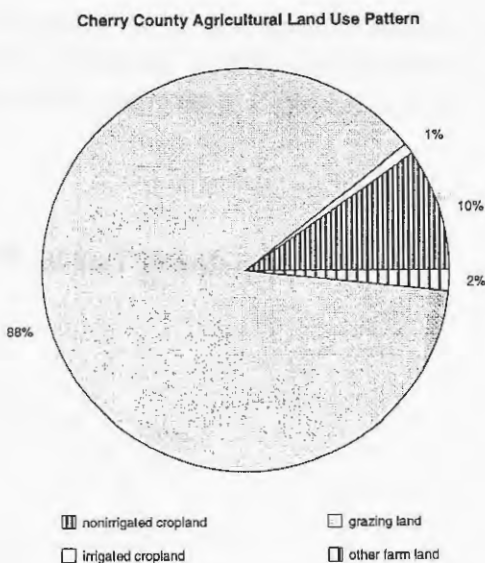


Around 80% of Cherry County's personal income, employment, and tax base are supported by agriculture. And agriculture in Cherry County means cattle ranching. Of the \$101,233,000 in sales reported by the county's 676 farms in the 1992 Census of Agriculture, \$95,426,000 (94%) were generated by the sale of cattle and calves. Most of the remaining sales were generated by grains, hogs and pigs, and milk.

The sales data are matched by the agricultural land use pattern graphed below. More than 88% of the county's farmland is used for grazing, and virtually all of its cropland is used to produce forage and feed crops, including wild hay, alfalfa and other tame hay, corn, and sorghum. The 1994 crop mix is shown in Appendix C, which also presents other statistics describing Cherry County agriculture. The only significant change in the local agricultural land use pattern during recent decades was the rapid increase in the acreage irrigated during the 1970s, which is also charted below.



Source: Census of Agriculture, various editions.



Source: 1992 Census of Agriculture

The statistics offered here and in the appendices clearly establish the central role of Cherry County's 300,000 plus cattle (the county's 169,536 beef cows are the most of any county in the nation) in the local economy. They do not constitute an adequate description of the land and water resources on which the county's ranchers depend, nor do they explain the importance of the ranching heritage and culture to the county's people. The land and water resources of Cherry County are briefly described in other sections of this plan (one purpose of which is to help protect those resources), but readers are also referred to *An Atlas of the Sand Hills*. That document, which is available from the Conservation and Survey Division of the University of Nebraska, offers a fine introduction to the Sandhills landscape. The importance of the ranching heritage and culture cannot be captured in numbers, but it is well reflected in this plan's care for the Cherry County landscape and the traditional way of life that landscape nurtures.

**B. Vegetative Cover.** Development sites shall maintain a vegetative cover sufficient to prevent wind and water erosion. Continuing erosion control shall be the responsibility of the owner or, for commonly held spaces, the owners' association. See Strategy 4.B. for runoff and erosion control requirements for certain developments.

For the purposes of this plan, the term **development** covers all land use changes, whether to residential, commercial, industrial, or other uses.

**C. Fences and Cattle Guards.** All developments shall be fenced to help prevent conflict with grazing on neighboring lands, unless there is a written agreement between the owner of the lot and the owner of such adjoining grazing land to the contrary.

1. **Fences: Boundary.** All non-farm or non-ranch development which abuts grazing land shall be fenced as defined by Neb. Rev. Stat. §34-115. Fencing, or ensuring that existing fences are sound, shall be the responsibility of the developer. Continuing maintenance of boundary fences shall be the responsibility of the non-farm or non-ranch owner or, for commonly held spaces, owners' association, unless there is a written agreement between the owner of the development and the owner of such adjoining grazing land to the contrary.

2. **Fences: Access Roads.** Where a development will generate or attract traffic on a county road that passes through open range, the developer may be required to fence that road and provide cattle guards or underpasses, as necessary to protect motorists and livestock. The planning commission will seek the advice of the affected landowners in determining the need for these improvements.

3. **Cattle Guards.** Cattle guards, with adjoining gates, shall be installed on all access roads and driveways entering developments that are in, or adjoin, range lands. The installation of cattle guards shall be the responsibility of the developer. Their continuing maintenance is the responsibility of the owner or, in subdivisions, owners' association, unless there is a written agreement between the owner of the development and the owner of such adjoining grazing land to the contrary.

**D. Cattle Country Easement.** Changes in land use should not adversely affect neighboring ranching operations, including activities that may be perceived as a nuisance by the inhabitants of nearby residences. The "Cattle Country" easement presented in Table 2 shall be recorded before a certificate of compliance is issued for any development adjoining range or crop lands.

**E. Nuisance Regulations.** Neb. Rev. Stat. §23-174.10 allows any county that has adopted zoning, "to provide rules for the prevention, abatement, and removal of nuisances ... ." Cherry County will not use this power to adopt regulations that define routine farm and ranch operations as nuisances.

## Table 2 - Cattle Country Easement

\_\_\_\_\_ are the owners of real property described as follows:

In accordance with the conditions set forth in the decision of Cherry County, dated \_\_\_\_\_, approving a permit for development on the above described property, and in consideration of such approval, Grantors grant to the owners of all property adjacent to the above described property, a perpetual nonexclusive easement as follows:

1. The Grantors, their heirs, successors, and assigns acknowledge by the granting of this easement that the above described property is situated in an agricultural area and may be subjected to conditions resulting from agricultural operations on adjacent lands. Such operations include:

- the cultivation, harvesting, and storage of crops,
- all aspects of the raising of livestock, and
- the application of chemicals, operation of machinery, application of irrigation water, and other accepted and customary agricultural activities conducted in accordance with federal and state laws.

These activities ordinarily and necessarily produce noise, dust, smoke, odors, and other conditions that may conflict with Grantors' use of Grantors' property. Grantors hereby waive all objections to normal and necessary agricultural activities legally conducted on adjacent lands regardless of their conflict with Grantors' use of Grantors' property, and hereby grant an easement to adjacent property owners for such activities.

2. Nothing in this easement shall grant a right to the adjacent property owners or any other person for ingress or egress upon or across the described property.

This easement is appurtenant to all property adjacent to the above described property and shall bind to the heirs, successors, and assigns of Grantors and shall endure for the benefit of the adjoining landowners, their heirs, successors, and assigns. The adjacent landowners, their heirs, successors, and assigns are hereby expressly granted the right of third party enforcement of this easement. This easement shall cease to have effect, however, on any adjacent lands that are developed for any nonagricultural use.

IN WITNESS WHEREOF, the Grantors have executed this easement on \_\_\_\_\_.

\_\_\_\_\_, Grantor

STATE OF NEBRASKA  
County of Cherry

This instrument was acknowledged before me on \_\_\_\_\_ by \_\_\_\_\_.

\_\_\_\_\_, Notary Public

My Commission Expires: \_\_\_\_\_.

#### **F. Livestock Feeding Operations.**

Feeding livestock in confined areas during the winter or at times of stress (calving, drought) is an integral part of ranching operations and should be protected by the Cattle Country Easement and the other "right-to-farm" strategies adopted here. When feeding is conducted on a commercial scale, however, it can have adverse impacts on the nearby properties.

**Agricultural use** is the business and science of cultivating the soil, producing crops and or breeding, feeding, pasturing of buffalo, elk or other animals, dairying, raising and management of poultry, fish, bees and other animals, truck farming, forestry or orchards and the non-commercial storage and processing of agricultural products produced on the premises, including accessory uses customarily associated with these activities in Cherry County, provided that such use shall not include any confined animal feeding operation. **A confined or intensive animal feeding use shall not be considered an agricultural use, but shall be considered a commercial use.** The confinement of an unrestricted number of ruminant animals in lots or pens normally used for growing crops or vegetation for birthing, weaning or backgrounding purposes for less than two hundred ten (210) days in any calendar year shall not be considered a confined or intensive animal feeding use.

1. **Confined Animal Feeding Operation** is the raising, feeding or management of more than three hundred (300) animal units at any one time in roofed buildings which may be open sided or totally enclosed and which may have hard surfaced, slatted or other type of surface floor, and/or on hard surfaced, non-earthen, outdoor pens or lots used for confinement of such animals which are not normally used for growing of crops or vegetation, where manure, bedding and other waste can be completely collected, controlled and processed. A confined animal feeding use shall include any land where untreated or partially treated manure is applied to the surface of the land, but not where such manure is spread on the surface of the land as a solid or injected into the soil as a liquid. The determination of the number of animal units set in any such use shall be based upon the number of animal units set forth in a permit issued by the Nebraska Department of Environmental Quality or its successor or, in the event such a use existed prior to regulation by the Department of Environmental Quality and a permit is not required, such determination shall be by written declaration, of the owner of such use of the one-time capacity of such use, to the County. In the event of any dispute over the number of animal units, such determination shall be by actual counting of the number of animal units by the Zoning Administrator or other duly appointed official at the time of such dispute. Confined animal feeding uses shall be classified and regulated with regard to design and capacities of the various types of facilities used in handling manure and other wastes and methods of operation of waste handling facilities as they relate to the potential for odor production, environmental degradation and other negative impacts on abutting properties as follows:

**Class A (aerobic):** A confined animal feeding use in which all manure is collected and digested utilizing aerobic digestion processes, including aerobic lagoons, and/or aerobic composting and/or surface application of solid manure or injection of liquid or slurry manure into the soil on crop or other land, and dust generated within any buildings or pens is controlled to prevent blowing of dust and odor onto adjoining and neighboring properties.

**Class ANC (covered anaerobic):** A confined animal feeding use in which all or part of the manure is collected and digested utilizing anaerobic digestion processes, including anaerobic lagoons and holding basins, pits or above ground tanks which are covered and the gases generated by the digestion of said manure are collected and treated to avoid explosion, fire hazards and the generation of odor, which apply any undigested waste to land by injecting said liquid or slurry waste into the soil on crop or other land, and dust generated within any buildings or pens is controlled to prevent blowing of dust and odor onto adjoining and neighboring properties.

**Class AN (anaerobic):** A confined animal use in which all or part of the manure produced is collected and digested utilizing anaerobic digestion processes, including uncovered anaerobic holding ponds or pits, anaerobic lagoons, anaerobic stockpiling of waste as a solid and/or application of raw or partially digested liquid or slurry manure on the surface of crop or other land, and there are no effective provisions made for the collection and elimination of dust and odor from any buildings associated with such use.

2. **Intensive Animal Feeding Operation** is the feeding of more than three hundred (300) animal units at any one time in partial or total earthen pens or lots which are designed or used for confinement of animals where manure is or may be in contact with the earth and which are not normally used for growing of crops or vegetation. An intensive animal feeding use shall include any land where untreated or partially treated manure is applied as a liquid to the surface of the land, but shall not include any land where the manure is applied to the surface of the land as a solid or injected into the soil as a liquid. The confinement of an unrestricted number of animals for birthing, weaning or backgrounding purposes for less than two hundred ten (210) days per calendar year shall not be considered an intensive animal feeding use. The determination of the number of animal units in any such use shall be based upon the number of animal units set forth in a permit issued by the Nebraska Department of Environmental Quality or its successor or, in the event such a use existed prior to regulation by the Department of Environmental Quality and a permit is not required, such determination shall be by written declaration of the one-time capacity of such use to the County. In the event of any dispute over the number of animal units, such determination shall be by actual counting of the number of animal units by the Zoning Administrator or other duly appointed official at the time of such dispute. Intensive animal feeding uses shall be classified and regulated with regard to the number of animal units as follows:

**Class I -** An intensive animal feeding use with a one-time capacity of more than three hundred (300), but less than one-thousand and one (1,001) animal units.

**Class II -** An intensive animal feeding use with a one-time capacity of more than one-thousand (1,000), but less than five thousand and one (5,001) animal units.

Class III - An intensive animal feeding use with a one-time capacity of more than five -thousand (5,000), but less than twenty-thousand and one (20,001) animal units.

Class IV - An intensive animal feeding use with a one-time capacity of more than twenty-thousand (20,000) animal units.

3. Confined livestock feeding operations are commercial uses, and the creation of a new confined livestock feeding operation is a land use change.

a. All new confined livestock feeding operations must comply with this plan, including Policy 6 - Maintain Land Use Compatibility.

b. All new confined livestock feeding operations must comply with the development standards as set forth in the regulations according to type and size.

*Strategies A-F are supplemented by Nebraska's Right To Farm Act: Neb. Rev. Stat. §2-4401, et seq. The difference is that these local strategies attempt to prevent conflict between agriculture and other uses, while the state statute applies only after conflict has resulted in litigation. The Right To Farm Act is reproduced in Appendix D.*

One farmer told me: "I had an offcomer banging on door t' other day complaining that my rooster was waking him up of a morning. I explained to him that that's what roosters do. You get 'em complaining about dogs barking, cows nibbling their shrubs, about almost anything that's different from city life, and you wonder, well, if you don't like the country, why on earth did you buy a place in it?"

English Lake Country farmer quoted  
in August '94 *National Geographic*

## **Nebraska's Greenbelt Law**

... agribusiness' total direct and indirect contribution to Nebraska's economy in 1990 was close to 250,000 jobs with an estimated payroll of nearly \$6 billion. Twenty-five percent of the state's total employment is directly and indirectly dependent on agribusiness. Over one-fourth of the value added in the state is directly and indirectly attributed to Nebraska's agribusiness industry.

Taylor and Lamphear, 1994

The economic importance of agriculture is not confined to Cherry County. Agriculture is among the leading sectors in the economy of the entire State of Nebraska. One of the ways the contribution of farms, ranches, and the industries they support has been recognized is through the state's greenbelt law (Neb. Rev. Stat. §77-1343, et seq.). This statute offers the owners of productive crop and range lands relief from rising property taxes, as this excerpt from the *1995 Nebraska Agricultural Land Valuation Manual* explains.

### **Special Valuation Law**

Agricultural use special assessment was enacted because urban development, rural industrial development, and development along major transportation arterials was having a marked economic impact on adjoining properties remaining in agricultural production. This special assessment is commonly referred to as the "Greenbelt Law."

Special tax treatment, in the form of assessment based solely on the value of land for agricultural use without respect to other uses, is provided to allow persons wishing to continue engaging in agriculture as a livelihood to do so without being forced to discontinue their agricultural endeavors as a result of excessive tax burdens.

It is recognized that these special assessments artificially reduce the tax base. Therefore, to limit this effect, a recapture of the tax benefit received during the last five years is imposed when the property ceases to be used agriculturally, or transferred to a different owner who does not qualify.

In order to be eligible for special assessment the land must meet four criteria. First, the land must be located outside the corporate boundaries of any sanitary and improvement district, city, or village. Second, the land must be wholly within an agricultural use zone. Third, the land must be devoted to agricultural use. Fourth, the land must not be sub-divided for residential use.

This excerpt from the state manual does not mention two important points. First, the statutory definition of "agricultural land" (Neb. Rev. Stat. §77-1359) generally requires that the parcel be at least 20 acres in size. Second, differential assessment is not automatic. It must be requested by the landowner.

Interviews with planners and assessors offices personnel in Lancaster and Sarpy Counties indicate that differential assessment can result in substantial property tax savings for farmers in urbanizing areas. Application of the greenbelt law should not be expected to produce immediate tax savings for Cherry County ranchers. It will protect them from the increase in property values (unzoned ranch land is assessed on the basis of comparable sales) that tends to accompany rural residential and recreational development.

## **2 - Protect Agricultural Operations From the Tax Impacts of Rising Property Values**

Cherry County and other local public service providers, including the school districts, are heavily dependent on property taxes as a source of revenue. Rural residential and recreational development will cause land values in the Niobrara River Corridor to rise, and may also boost tax levies (see the factual material that accompanies Policy 5), resulting in higher tax bills for ranch operators.

The State of Nebraska has anticipated this problem with Neb. Rev. Stat. §77-1343, et seq. and related language, which is commonly known as the "greenbelt law." This statute, which is used in most suburban areas of the state, protects farm and ranch families from rising property tax bills by allowing land zoned and used for farming or ranching to be assessed at its value for agriculture, rather than its value for development. This differential assessment is available only in a county that is zoned, and in a zoning district in which raising crops and livestock is the principal permitted use.

**CHERRY COUNTY WILL ADOPT AGRICULTURAL ZONING AS A BASIS FOR THE DIFFERENTIAL ASSESSMENT OF ITS AGRICULTURAL LANDS.**

Differential assessment of agricultural lands in Nebraska is further explained on page 20.

### **Implementation Strategies for Policy 2**

*The implementation of this goal requires no additional planning strategies. Agricultural zoning will be guided by the strategies adopted to implement Policy 1 and the other policies of this plan. Implementation will require some effort on the part of the County Assessor's office.*

**A. Fund Implementation of the Greenbelt Law.** The Cherry County Assessor will need increased interim funding to begin differential assessment.

### **3 - Protect the Groundwater Resource**

Cherry County has a remarkable groundwater resource. The High Plains Aquifer is more than 500 feet thick in the unconsolidated sands, gravels, and sandstones under the southern part of the county, and can yield large quantities of high quality water to relatively shallow wells. This abundance of groundwater underlies the present way of life in Cherry County. It serves domestic needs, irrigates crops, and feeds the hundreds of windmills that allow ranchers to distribute cattle across the range. The wetlands and lakes where the aquifer is exposed -- like those at Valentine National Wildlife Refuge -- provide habitat for migratory waterfowl, shorebirds, and other wildlife. The discharge of cool, clear groundwater makes the Niobrara and its spring-fed tributaries nearly unique among Great Plains streams. More information on groundwater is provided on pages 23 and 24.

**CHERRY COUNTY WILL WORK WITH THE LOCAL NATURAL RESOURCE DISTRICTS TO PROTECT GROUNDWATER RESOURCES.**

**CHERRY COUNTY WILL ALSO COOPERATE WITH CITIES AND OTHER PUBLIC WATER SUPPLIERS IN WELLHEAD PROTECTION PROGRAMS.**

**CHERRY COUNTY WILL ENSURE THAT LAND USE CHANGES HAVE NO ADVERSE IMPACT ON GROUNDWATER QUANTITY OR QUALITY.**

#### **Implementation Strategies for Policy 3**

**A. Cooperation With Natural Resource Districts.** Cherry County will cooperate in implementation of the groundwater management plans prepared by the Middle Niobrara and Upper Loup Natural Resource Management Districts (NRD). Proposed developments that could potentially impact groundwater quantity or quality will be referred to the appropriate NRD for review, as required by Strategy 3.C.

**B. Wellhead Protection.** Cherry County will not initiate wellhead protection programs, but the planning commission will meet with cities or other public water suppliers, and consider adding specific wellhead protection measures to this plan at their request.

**C. Development Review.** Developments that propose to use groundwater, or that could potentially contaminate groundwater, shall demonstrate that they:

- will not adversely affect water levels or water quality in existing wetlands or lakes; or
- adversely affect water levels or water quality in existing wells.

## Cherry County's Groundwater Resource

Aquifers do not neatly conform to county lines. In fact, the groundwater flowing under Cherry County is part of a vast underground hydrologic system that stretches from South Dakota to Texas. The extent of the High Plains Aquifer is illustrated on Color Plate III, which also shows its saturated thickness. The deepest parts of the aquifer are found in southern Cherry County and adjacent parts of the Sandhills.

The volume of the Sandhills portion of the High Plains Aquifer is complemented by its quality. Color Plate IV shows that the concentration of dissolved solids in the aquifer under the central Sandhills, including most of Cherry County, is less than 250 mg/l. Concentrations of less than 500 mg/l are suitable for most purposes, including drinking water.

Finally, the High Plains Aquifer has been least affected by pumping for irrigation and other uses in the Sandhills. The water table dropped more than 20 feet between 1980 and 1993 in many areas south of the Platte River and west of the Sandhills, while only localized changes in the depth to water have been recorded in Cherry County.

Abundant as it is, Cherry County's groundwater resource is vulnerable to both competition and contamination. The quantities available stimulated the center-pivot irrigation boom during the 1970s, when the acreage irrigated expanded more than four times. It still occupies only about one percent of the county (and has declined since 1978), but the diversion of groundwater for use in other areas, as was once proposed for a coal slurry pipeline, is a future possibility.

Cherry County's sandy soils and the stabilized dunes beneath them are rapidly permeable, which increases the risk of groundwater contamination from the surface. Feedlots, the use of fertilizers and other agricultural chemicals, subdivisions with on-site sewage disposal systems, and the industrial and commercial use of hazardous materials are all potential sources.

The large quantities and high transmissivities would allow the development of high capacity wells in the Sand Hills. However, in areas where the groundwater is close to the surface, massive pumping would lower local water tables and cause a loss of wetland ecosystems and would severely limit any human activities dependent on these ecosystems. Of more immediate concern is the high potential for groundwater contamination that occurs where highly permeable soils and subsurface deposits occur.

Ann Bleed,  
*An Atlas of the Sand Hills, 1990*

The risks of competition and contamination are heightened by the fact that the people and wildlife of Cherry County rely on the top few feet of the aquifer. A relatively small drop in the water table or pollution of the aquifer surface would leave an immense reservoir of groundwater beneath a landscape that could no longer sustain the way of life envisioned in this plan.

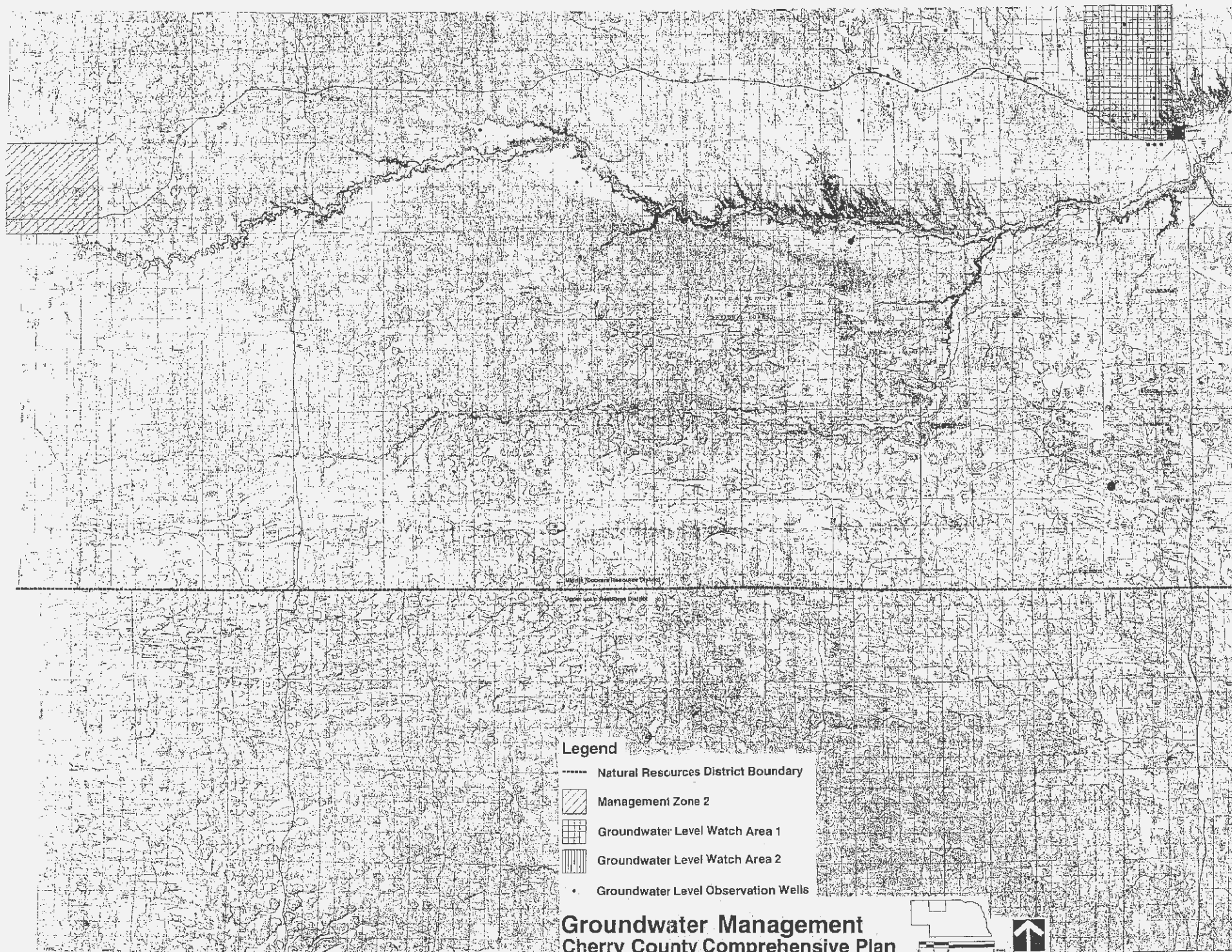
Groundwater belongs to the State of Nebraska (its appropriation is regulated by the Nebraska Department of Water Resources), but the Upper Loup and Middle Niobrara Natural Resources Districts (NRDs) play an important role in monitoring and protecting groundwater supply and quality. Both NRDs have groundwater management plans, the policy portions of which are summarized in Appendix E.

The map on page 23 shows the approximate locations of the monitoring wells, groundwater watch areas, and groundwater management areas that are part of the Middle Niobrara NRD's plan in Cherry County. The mapping of a groundwater watch or groundwater management area does not indicate that there is a serious supply or quality problem at this time. These are simply areas where the intensity of irrigation, as measured either by the percentage of the area in crops or by the balance between groundwater withdrawals and recharge, indicates that more monitoring is desirable, and where the NRD will work with local irrigators to prevent future degradation of the resource.

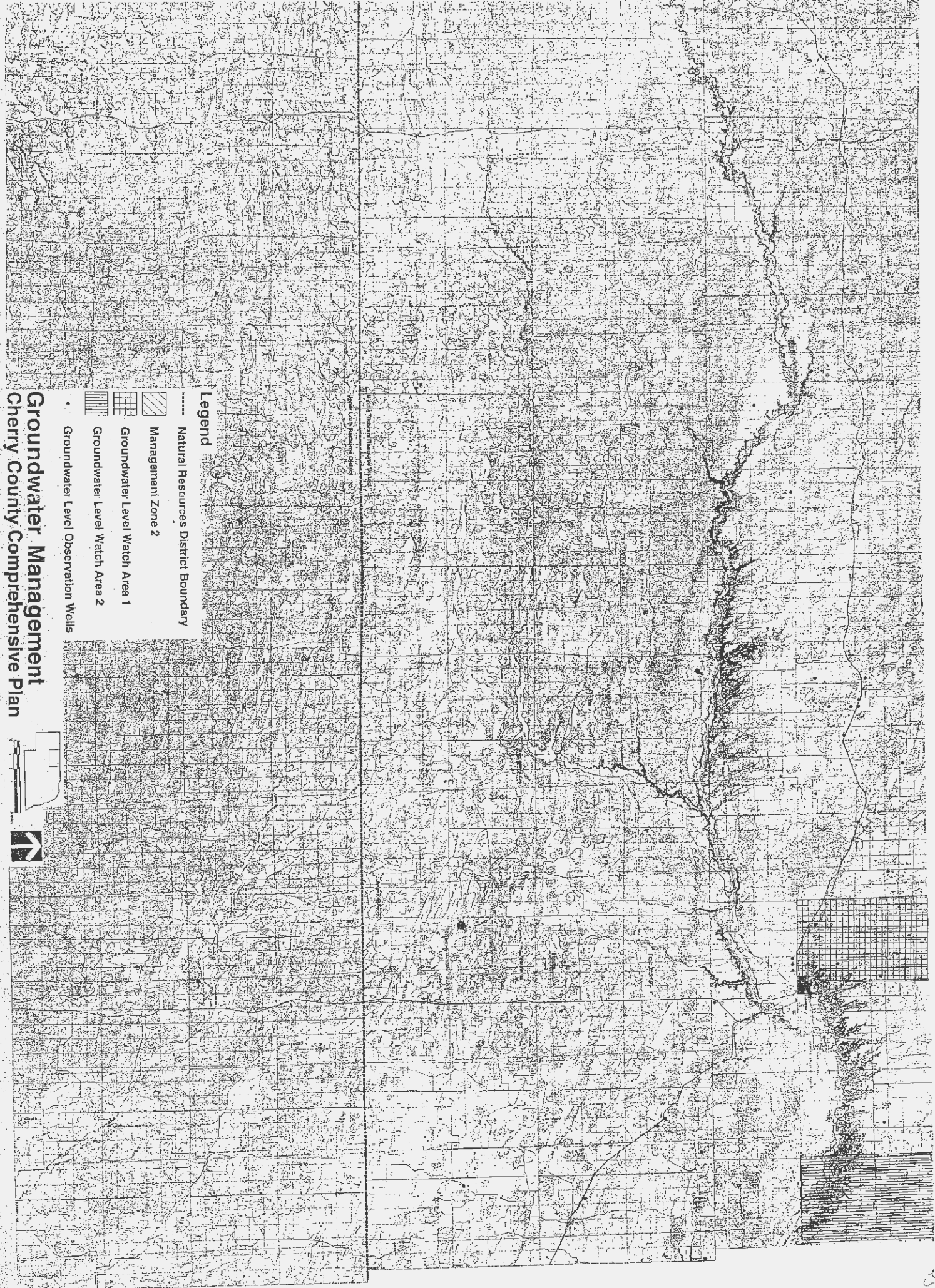
The Upper Loup NRD has established no groundwater watch or management areas. As the Upper Loup Groundwater Management Plan states:

There is no evidence to date that the groundwater supply has been reduced by withdrawals in the ULNRD nor is there evidence that the groundwater has been contaminated from non-point sources.

Readers seeking more information on Cherry County's groundwater resources are referred to the NRD groundwater management plans, the section on "Groundwater" in *An Atlas of the Sand Hills*, and the publications of the Regional Aquifer Systems Analysis (RASA) of the High Plains Aquifer conducted by the U. S. Geological Survey. The color plates presented here are taken from RASA documents.



24-25



**Legend**

- Natural Resources District Boundary
- Management Zone 2
- Groundwater Level Watch Area 1
- Groundwater Level Watch Area 2
- Groundwater Level Observation Wells

**Groundwater Management  
Cherry County Comprehensive Plan**



Developments may be required to submit geohydrologic studies and monitor water levels in nearby wetlands, lakes, or wells to demonstrate continuing compliance with this policy.

**D. Groundwater Diversions.** The diversion of groundwater to areas outside Cherry County could have major adverse impacts on the local people and landscape, including direct impacts on the shallow groundwater supplies used for stock and domestic water, direct impacts on wetlands wildlife habitats, and indirect impacts on the county's economy. Cherry County will require permits for groundwater diversion works (the construction of pipelines, etc. will be defined as a land use change), and review them for compliance with this plan. It will also represent its citizens in the state-level proceedings required for approval of any groundwater diversion. See Neb. Rev. Stat. §46-613.01.

## 4 - Protect Surface Water Resources

Most Cherry County wetlands, streams, and rivers are fed by the High Plains Aquifer. This gives them unusually stable flows and temperatures, and high water quality. These features make Cherry County wetlands and streams excellent habitat for many species of wildlife and fish. They also make them vulnerable to the adverse hydrologic changes that often accompany land development.

CHERRY COUNTY WILL PROMOTE SOUND MANAGEMENT OF SURFACE WATER RESOURCES AND WORK TO ENSURE THAT PROPOSED LAND USE CHANGES HAVE NO ADVERSE IMPACT ON SURFACE WATER QUANTITY OR QUALITY.

Background information on Cherry County's surface water resources and the impacts of land development on wetlands and streams may be found on pages 29-31.

### Implementation Strategies for Policy 4

#### A. Wetlands, including Wetland Buffers.

1. Cherry County encourages voluntary landowner participation in the 1993 *Sandhill Management Plan: A Partnership Initiative*.

*The Sandhill Management Plan is a partnership initiative between Sandhills ranchers and the U. S. Fish and Wildlife Service. Its goal is, "to enhance the sandhill wetland-grassland ecosystem in a way that sustains profitable private ranching, wildlife and vegetative diversity, and associated water supplies.*

2. All development (again, development does not include agriculture) potentially affecting wetlands must comply with state and federal wetlands protection programs.

*The federal Clean Water Act requires a permit for most activities that disturb wetlands. The "§404" permit program is administered by the Army Corps of Engineers.*

3. Development shall leave a naturally vegetated buffer surrounding all wetlands. Roads and utility lines may cross these buffers, but the project's site plan should minimize such crossings.

4. Developments must build at least one (1) foot above the highest water level in wetland areas.

## Cherry County's Surface Water Resources

Cherry County lies in two major watersheds. The northern part of the county is drained by the Niobrara River and its major tributary, the Snake River. The southern portion is in the Loup River watershed. These rivers, their tributaries, and other surface waters -- including more than 440,000 acres of wetlands and lakes -- are best understood as surface exposures of the High Plains Aquifer. Only the Niobrara originates outside the Sandhills, and its flow is estimated to be 90% groundwater by the time it reaches the Berry Bridge in eastern Cherry County.

Wetlands, lakes, and streams provide water for cattle, and wetlands range sites are used for hay production. The county's surface waters also provide valuable habitat for waterfowl, shorebirds, fish, and other creatures on both private and public lands. The 71,516-acre Valentine National Wildlife Refuge protects wetlands and lakes south of Valentine. And while its main purpose is protection of big game species, the Fort Niobrara National Wildlife Refuge includes nine miles of the Niobrara River and its associated riparian corridor. The Nebraska Game and Parks Commission manages more than 4,000 acres of wetlands and riparian habitats in several small wildlife management areas. More wetlands, lake, and stream habitats are provided by Cherry County ranchers, including those involved in the *Sandhills Management Plan* initiative organized by the U.S. Fish and Wildlife Service. National wildlife refuges and state wildlife management areas are shown on the current land use maps that accompany this plan.

A rare water resource found in Cherry County is the spring branch. These small streams originate as springs (groundwater discharge to the surface) in the bluffs above the Niobrara River and form the waterfalls found along the river's south shore. The cool, consistent flow of groundwater provides habitat for rare fish, including the shiner and dace listed above, while the humid microclimate associated with the spring branches supports paper birch and other plant species not normally found in a prairie environment.

Finally, surface water resources provide recreational opportunities for Cherry County residents and support the local recreation and tourism industry. The main attraction is the Niobrara National Scenic River, which attracts 20,000 to 40,000 canoeists and tubers each year. The river supports 11 outfitters and four commercial campgrounds in

### State and Federal Species Of Concern Associated with Cherry County's Water Resources

western prairie fringed orchid

blacknose shiner

northern redbelly dace

finescale dace

pearl dace

whooping crane

interior least tern

pipin plover

bald eagle

river otter

Cherry County. Smith Falls State Park, which straddles the Niobrara and features Nebraska's highest waterfall, recorded just over 40,000 visits in 1995. The county's other major water-based recreation site, Merritt Reservoir had 148,161 visits in that year. There is also water-based recreation -- waterfowl hunting, fishing, and wetlands wildlife observation -- at the Valentine National Wildlife Refuge (12,000 to 20,000 visits per year), state wildlife management areas, and on private lands.

The importance of surface water resources in Cherry County is matched by the vulnerability of these resources to the impacts of land use change. The graphic below shows how groundwater recharge typically shrinks and surface runoff increases when development adds impervious cover -- roads, rooftops, and similar hard surfaces -- to a landscape. Development usually alters the direction and speed of flow, as well as its volume. These impacts, which begin at about 10% impervious cover, increase the frequency of flooding and can cause a stream channel to widen (threatening adjacent property) or incise (threatening property upstream as it cuts headward). Land development also tends to degrade water quality, adding sediment during construction and other pollutants (lawn care chemicals are one example) during occupancy.

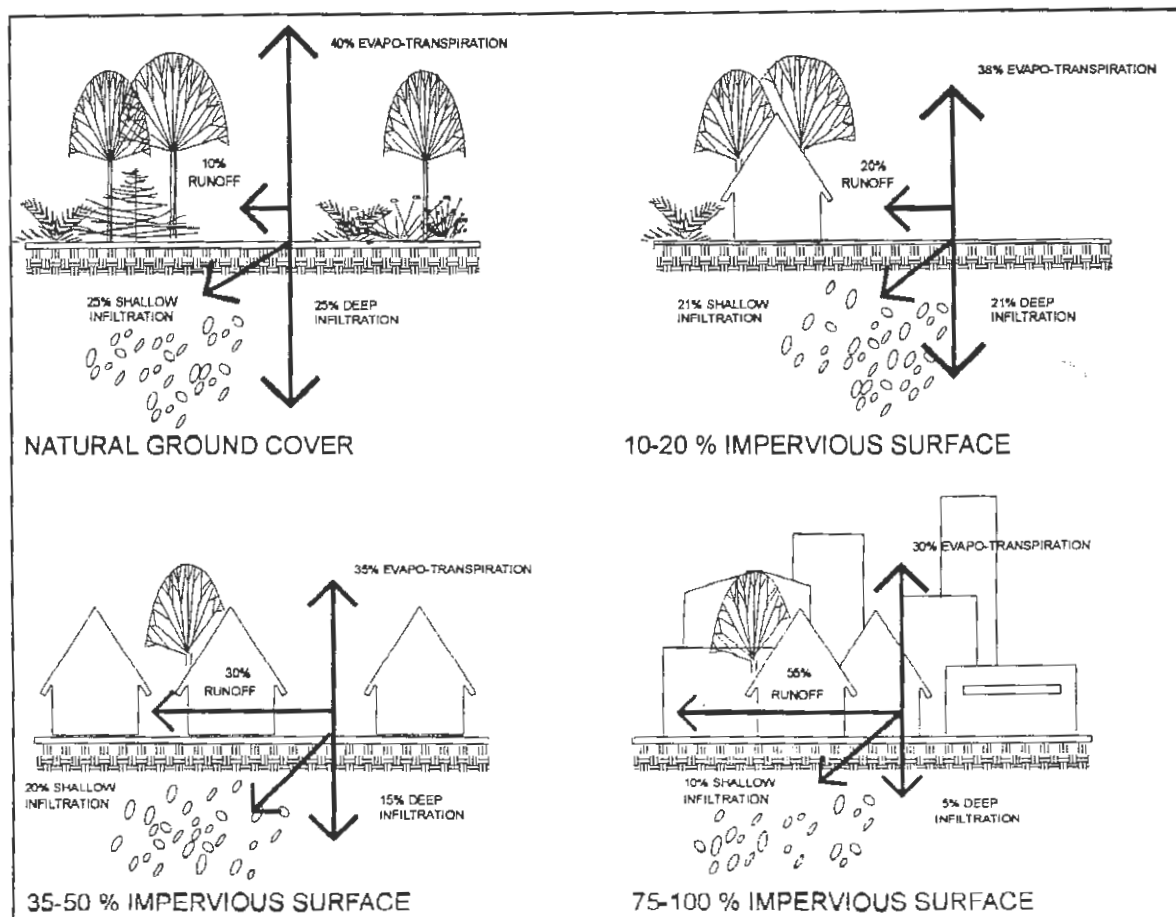
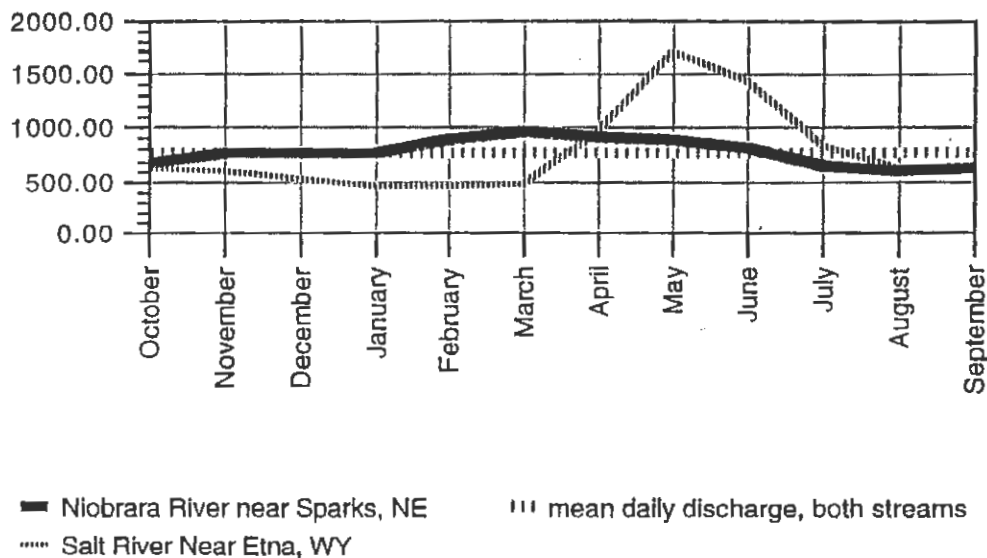


FIGURE 1. Water cycle changes associated with urbanization

Cherry County streams are especially vulnerable to the hydrologic impacts of land development because of their relatively constant flows. The hydrograph (a chart of water flow over time) below contrasts the mean daily flow, by month, for two streams that have essentially identical annual mean daily flows, the Niobrara River at the Berry Bridge (mean daily flow = 767 cfs), and the Salt River near Etna, Wyoming (mean daily flow = 774 cfs). Because the channel of the Salt is adapted to a regime of spring floods, it has a limited capacity to carry higher flows resulting from land development in its watershed. The channel of the Niobrara has no such pre-adaptation.

Mean Daily Discharge (cfs)



More detailed information on Cherry County's surface water resources and associated fish and wildlife habitats may be found in *Wetland Inventories of Nebraska's Sandhills*, a document produced by the University of Nebraska's Conservation and Survey Division, and *An Atlas of the Sand Hills*.

**B. Runoff and Erosion Control.** A runoff and erosion control plan shall be implemented in all developments. The plan shall:

1. identify runoff and erosion (water and wind) hazard areas on the site;
2. show how retention of existing vegetation will be maximized and land disturbance minimized;
3. show how the area disturbed by construction at any one time will be minimized, and how disturbed areas will be stabilized against both water and wind erosion during construction;
4. show how disturbed areas will be promptly, permanently stabilized using revegetation or structural techniques;
5. show how runoff velocities will be minimized and drainageways prepared to handle any acceleration or increase of runoff;
6. show how any additional runoff generated will be retained on-site and absorbed, evaporated, or released at a rate not exceeding the pre-development rate of release; and
7. show how sediment resulting from accelerated soil erosion will be retained on-site.

Erosion rates from construction sites are typically 10 to 20 times higher than those from agricultural lands ...

Goldman, et al. *Erosion & Sediment Control Handbook*, 1986

*Neb. Stat. Rev. §2-4606 allows counties to control runoff and erosion from development sites. This strategy uses that authority to ask developers to prepare and implement the equivalent of the farm plans prepared by the Natural Resources Conservation Service for most U.S. farms.*

## **5 - Protect Cherry County Taxpayers by Requiring Developments to Provide Adequate Facilities and Services**

An inventory of local public facilities and services was included in *Cherry County: A Factual Background for Planning*, a document prepared for the Cherry County Planning Commission in 1995. It suggests that any significant rural residential or recreational development will exceed the capacity of the available public facilities and services, which are adapted to a small, widely dispersed, and self-reliant population that already bears a high fiscal burden (high fiscal burden means that own-source local government revenues exceed 10% of the county's total personal income). Evidence from other rural communities -- see page 34 for a summary -- makes it plain that farms and ranches generally end up subsidizing rural residential development through higher property taxes. One purpose of this plan is to help minimize that subsidy.

**CHERRY COUNTY WILL REQUIRE DEVELOPERS TO PROVIDE NECESSARY ON-SITE FACILITIES. THE COUNTY WILL ALSO REQUIRE DEVELOPERS TO MAKE A FAIR PROPORTIONAL CONTRIBUTION TO ANY IMPROVEMENT OR EXPANSION OF OFF-SITE FACILITIES NECESSITATED BY THEIR ACTIVITIES.**

### **Public Agencies Can Be "Developers"**

The people of Cherry County are concerned that recreational developments like the Cowboy Trail will generate additional demands for law enforcement, emergency medical services, solid waste disposal, and other local facilities and services, without generating revenue to help meet those demands. It is the intent of this policy that state and federal agencies accept the same responsibility for providing facilities and services that this plan imposes on private developers.

### **Implementation Strategies for Policy 5**

#### **A. Access.**

1. All developments shall have a minimum forty (40) feet wide access by deed or easement to an existing Federal, State or County roadway classified by the Cherry County Board of Commissioners as maintenance level 1 through 3. Development of any lot on a county roadway classified as a Class 4 (minimum maintenance) roadway shall require the developer of such lot (s) to improve the roadway to County standards before the County shall accept maintenance of such roadway. Cherry County shall not be required to construct or improve any new private roadways and shall not be committed to accepting any such roadway as a publicly maintained County road even if such roadway is improved to County road standards by the owner (s) of such roadway.
2. Where more than one lot fronts on a private roadway, provisions shall be made for self-assessment of each such lot owner for the maintenance of such common private roadway.

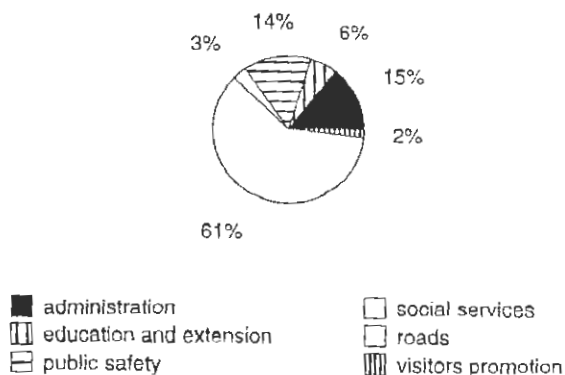
## Public Benefits and Costs of Rural Land Development

The American Farmland Trust (AFT) has sponsored several studies of the comparative fiscal impacts of agriculture and rural residential development during recent years. These "costs of community services" studies demonstrate that farms in Connecticut, Massachusetts, Minnesota, and New York generate more in local tax revenue than the services they demand cost, even where croplands are taxed on agricultural rather than speculative values. The farm revenue:expenditure ratio from nine different studies was \$1.00:\$0.29 -- meaning that for every dollar of local tax revenue collected from farms, public services to farms cost 29¢. A 1996 study by Montana State University mirrors these results: the revenue:expenditure ratio for farmlands in Gallatin County, MT was \$1.00:\$0.25.

AFT's research also showed why the surplus tax revenues generated by farms were essential to local government. The average revenue:expenditure ratio for residential development was \$1.00:\$1.13 -- which means that residential development required \$1.13 in expenditures for local public services for every dollar of local tax revenue it generated. The results of the Montana study were more dramatic: rural residential development demanded \$1.45 in services for every dollar of revenue it generated.

These results are consistent with a substantial body of research on the fiscal impacts of suburban development, and should be generally applicable in Cherry County (the budget for this plan did not include a local cost of community services study). It should be noted that the AFT studies do not apply to second homes, development of which is a definite possibility in Cherry County. Education is a large part of the public budget, and second homes add no students to local schools. The available studies suggest that second home development will have a positive fiscal impact on schools, but much the same impact as a year-round residence on other public functions.

Cherry County Expenditures 1995-96



This chart shows generally how Cherry County will spend its 1995-96 budget of approximately \$4.3 million. The chart includes county expenditures only. It does not include the fire protection districts, school districts, or hospital (which is partly supported by tax dollars). Note the predominance of roads. The county maintains some 1,440 miles of them. That is .22 miles per capita, nearly six times the state average of .04 miles of local road per capita.

3. Location of points of access onto Federal, State or County roadways shall be authorized by either the State Department of Roads or the Cherry County Board of Commissioners.

*A county map showing road maintenance levels appears on page 27 of the factual background document that accompanies this plan.*

**B. Parking.** All developments shall provide adequate off-street parking.

*The Institute of Transportation Engineers and other organizations publish parking standards for different land uses that are based on actual studies. Such details will be included in the ordinances adopted to help implement this plan.*

**C. Emergency Services and Wildfire Hazards.**

1. All developments should have adequate fire protection, and an adequate response time from the sheriff's patrol and emergency medical services.

2. Cherry County will work with the local fire protection districts and fire departments to help educate new residents about wildfire hazards. See also Strategy 1.A.

3. Individual homes and other principal structures should have a fire defensible space of at least 30 feet surrounding the home or structure. A fire defensible space is an area in which woody brush is removed or substantially thinned, trees are thinned so that their crowns do not overlap or touch, and dead fuel is removed.

4. Subdivisions and similar developments shall prepare and implement a wildfire prevention plan and shall:

a. show how wildfire hazard areas, including natural "fire chimneys" will remain undeveloped, or how the wildfire hazard in those areas will be mitigated;

b. show how the wildfire hazard within the development will be reduced prior to occupancy by thinning and similar techniques, including clearing or, preferably, thinning of road rights-of-way and removal of combustible slash resulting from road construction from a strip at least 100 feet on either side of all roads;

c. show how adequate access for fire fighting equipment and the evacuation of the development will be provided;

d. show how an effective system of perimeter and internal fuelbreaks will be designed, constructed, and maintained; and

e. show whether (and if so, how) a water supply adequate for wildfire fighting purposes will be provided.

*These strategies will help protect both the occupants of developments and volunteer fire fighters. A map of Cherry County's fire protection districts appears on page 31 of the factual background document that accompanies this plan. That report also provides details on the number of volunteers and fire fighting apparatus available in each district.*

**D. New or Improved Facilities.** All developments shall provide, or make a fair proportional contribution to, the provision of any new public facilities or any improvements to existing public facilities needed to serve their occupants. Such facilities shall be provided in compliance with this plan and may include: off-site runoff and erosion control measures; central water systems; fire-fighting water supplies; central sewerage systems; off-site road improvements including deceleration or acceleration lanes, turn lanes, signs or signals, and bridges or culverts; sidewalks; solid waste transfer stations; emergency services buildings and fire engines or ambulances; neighborhood parks; and schools.

## **6 - Maintain Land Use Compatibility**

Some uses are not wisely located near one another. The conflict between feedlots and downwind homes is the classic example, but compatibility is an issue in most land use changes.

CHERRY COUNTY WILL ENSURE THAT DEVELOPMENT IS COMPATIBLE WITH NEIGHBORING USES.

### **Implementation Strategies for Policy 6**

**A. Compatibility With Agriculture.** Compatibility with agriculture is addressed in Policy 1.

**B. Land Use Compatibility.** The compatibility of proposed developments with neighboring uses will be evaluated in terms of lot coverage, setbacks, building height, building bulk, activity level, the potential for nuisances (noise, glare, screening of solid waste storage, use or storage of hazardous wastes, odor, insects, etc.), and the impact on scenic views from existing uses and public recreation areas.

*Strategy 6.B. will be translated into more specific terms if Cherry County adopts zoning. Lot coverage, setbacks, building height, and building bulk can be measured. Activity level can be defined in terms of traffic generation, noise generation, the number and size of signs, the size of parking areas, the use of hazardous materials, and similar factors.*

## **7 - Protect Water and Other Resources, Match the Available Public Services and Facilities, and Maintain Cherry County's Character as Development Occurs**

Cherry County had 1.1 residents per square mile in 1990. Even modest development is sure to change the frontier character that goes with such a low density (though Cherry County could grow by some 5,500 and still have only two persons per square mile). The density of development permitted will also affect ground and surface water resources, and the need for additional infrastructure in rural areas.

But a frontier within the Lower 48 states? No, those days supposedly ended long ago. ... yet by the same, arbitrary criterion the Census Bureau once used to define a frontier and pinpoint its location, such a frontier survives.

Dayton Duncan, *Miles From Nowhere*

**CHERRY COUNTY WILL GUIDE DEVELOPMENT TO MINIMIZE CONFLICT WITH CONTINUING AGRICULTURAL PRODUCTION, PROTECT WATER AND OTHER NATURAL RESOURCES, MATCH AVAILABLE PUBLIC FACILITIES AND SERVICES, AND MAINTAIN ITS CATTLE COUNTRY CHARACTER.**

### **Implementation Strategies for Policy 7**

**A. Monitor Land Divisions.** Cherry County will monitor all land use changes. The following strategies apply to all land use changes.

1. **Minimum Lot Sizes.** New lots shall be at least 2.5 acres in size.

*A lot size of at least 2.5 acres is needed to protect Cherry County's water resources and maintain its rural character. A minimum lot size of just one (1) acre would result in a suburban landscape, and could combine with rapidly permeable soils to result in groundwater contamination from on-site sewage disposal systems.*

2. **Safe Access.** New lots shall have safe access to an existing Federal or State highway, or an existing county road of Maintenance Level 3 or better, as required by Strategy 5.A.1.

3. **Site Suitability.** New lots shall be suitable for the siting of an on-site sewage disposal system in compliance with state regulations. See also Strategy 7.E.

4. **Plan Compliance.** Subdivisions will be evaluated for compliance with all applicable policies of this plan.

*Strategies 1B.-1.F. are intended to help prevent conflict between rural residential development and agricultural operations. Policies 3 and 4 will help ensure that development does not degrade Cherry County's water resources. Policy 5 requires that adequate public facilities and services be available in new developments and Strategy 6.B. addresses land use compatibility. This policy -- 7 -- and Policy 9 establish limits on the overall extent and pattern of development.*

**B. Encourage Rural Development to be Near Services.** The most appropriate place for rural residential development in Cherry County is where public and commercial services are reasonably accessible, and a pattern of such development is consistent with the character of the area.

**C. Ensure that Rural Residential Development in 'Cattle Country' is Compatible With Continuing Agricultural Operations and the Application of Nebraska's Greenbelt Law.**

1. Nonagricultural uses allowed in the Cattle Country portion of Cherry County shall not conflict with or detract from this strategy.

2. Nothing in this plan shall be interpreted to negate the provisions of Sections 17-1343 through 17-1360 of the Nebraska Revised Statutes as they apply to the agricultural or horticultural uses of land.

**D. Limit Development to Maintain the Scenic, Pastoral Qualities of the Niobrara River Corridor.** This comprehensive development plan includes a special policy and strategies addressing the intensity of development in the Niobrara River Corridor. See Policy 9.

**E. Permit Development Only at Suitable Sites.** This plan requires proposed developments to demonstrate respect for neighboring uses (see Policies 1 and 6) and water resources (see Policies 3 and 4). Development plans should also reflect a concern for wildfire hazards (see Strategy 5.F.), wildlife habitat, and steep slopes. Naturally hazardous and sensitive lands are best left in agricultural use. Small areas of such lands may be included in a development -- as part of large lots or common open space areas -- but every lot shall include a building site that is not exposed to natural hazards and that does not intrude into riparian corridors, wetlands, or other sensitive areas, including the bluffs along the Niobrara River, which are specifically addressed in Strategy 9.E.

## **8 - Proactively Assert Local Interests and Values in State and Federal Land Management Decisions**

Cherry County's special landscape is being "discovered." And the growing interest of recreationists and the state and federal agencies that serve them is uncomfortable for many local people. Designation of the Niobrara as a National Scenic River, a national park feasibility study, and conversion of the abandoned railroad right-of-way through the county to a multiple-use trail have all been controversial. Public discussion of these events covers many practical issues (the costs of law enforcement and other services, the effect of grazing reductions on the local economy, etc.), but revolves around the issue of local control. Cherry County residents feel that they have not been effectively involved in, nor even consulted about, decisions that have a major impact on their lives.

This feeling persists despite the fact that both the national park feasibility study and the recent (March 1996) draft management plan for the Niobrara Scenic River clearly state that responsible local action is an acceptable option to greater federal involvement. Cherry County residents can have more effective influence on "outside" decisions, if they work consistently and cooperatively with the state and federal agencies (and the urban constituencies those agencies serve) to address land use and resource management issues, as provided by this goal.

CHERRY COUNTY WILL USE THIS PLAN AS A BASIS AND OPPORTUNITY FOR PROACTIVE MONITORING OF, AND INVOLVEMENT IN, STATE AND FEDERAL RESOURCE MANAGEMENT PLANNING AND DECISION-MAKING.

THE COUNTY WILL WORK COOPERATIVELY WITH STATE AND FEDERAL AGENCIES, BUT CONSISTENTLY ASSERT THE LOCAL VALUES THAT ARE EXPRESSED IN THIS PLAN, AND INSIST THAT THEY BE RESPECTED IN STATE AND FEDERAL LAND USE PLANNING AND DECISION-MAKING. THOSE VALUES INCLUDE:

- INVOLVING THE COUNTY'S PEOPLE IN DECISIONS THAT WILL AFFECT THEM;
- MAINTAINING AGRICULTURE, INCLUDING THE LAND AND WATER RESOURCES ON WHICH IT DEPENDS, AS THE BASIS OF THE LOCAL ECONOMY AND WAY OF LIFE;
- PROTECTING ENVIRONMENTAL QUALITY THROUGH PRIVATE STEWARDSHIP RATHER THAN PUBLIC LAND ACQUISITION; AND
- KEEPING DEVELOPMENT, INCLUDING PUBLIC RECREATIONAL SITES, IN SCALE WITH LOCAL PUBLIC FACILITIES AND SERVICES, AND IN CHARACTER WITH THE COUNTY'S PASTORAL LANDSCAPE.

Table 4 lists the public lands found in Cherry County. A brief description of those lands and current state and federal initiatives for their management begins on page 4 .

**Table 4 - State and Federal Land Ownership in Cherry County**

<i>managing agency</i>	<i>approximate acreage managed</i>
<i>U.S. Department of Agriculture</i> Samuel McKelvie National Forest	115,703
<i>U.S. Department of Interior</i> Bureau of Land Management Fish and Wildlife Service Bureau of Reclamation	776 90,622 1,311
<i>State of Nebraska</i> Trust Lands Department of Game and Parks	221,861 10,237
<b>TOTAL</b>	<b>440,510</b>

### **Implementation Strategies for Policy 8**

**A. Planning Commission Role.** The Cherry County Planning Commission will take the lead role in addressing land and resource management issues in cooperation with state and federal agencies. The commission will strive to implement the strategies adopted here, while keeping the people of the county aware of, and involved in, state and federal actions that may affect them.

*Federal law provides a strong basis for cooperation between agencies like the National Park Service, the U.S. Fish and Wildlife Service, and the U.S. Forest Service and county governments. The principal authorities are listed in Appendix F.*

## **Public Lands and Recreational Development in Cherry County**

As Table 4 indicates, state and federal agencies currently manage 440,510 acres, or about 11.5% of the Cherry County landscape. The public lands are shown on the land use maps that accompany this plan (see pocket).

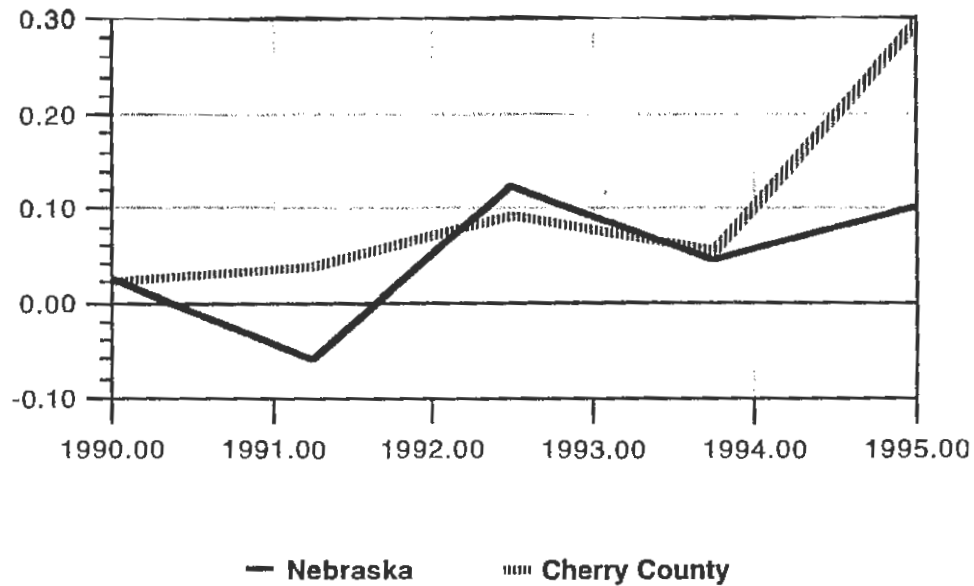
The bulk of the state land, and the few hundred acres administered by the federal Bureau of Land Management, are leased for agricultural use and blend more or less imperceptibly into the surrounding private lands. Grazing is also the principal activity on the Samuel R. McKelvie National Forest, but national forest lands are managed for multiple uses, including wildlife habitat and outdoor recreation. In fact, the Forest Service is currently proposing reductions in grazing on some allotments to benefit upland game birds. Fort Niobrara and Valentine National Wildlife Refuges (NWR) are managed primarily for wildlife habitat. Fort Niobrara NWR also receives considerable recreational use, including auto tours of the pastures where bison, elk, and longhorn cattle are exhibited, hiking to Fort Falls, and canoeing and tubing on the Niobrara River. There is some wildlife observation and hunting on the Valentine NWR.

The Nebraska Game and Parks Department administers four recreation areas in Cherry County: the Bowring Ranch, an historic site north of Merriman; the Cowboy Trail, which follows the abandoned railroad right-of-way across the county; Merritt Reservoir State Recreation Area, which consists of the Bureau of Reclamation lands around the reservoir; and Smith Falls State Park on the Niobrara River. The chart on page 5 shows recent visitation trends at the Bowring Ranch, Merritt Reservoir, and Smith Falls State Park (the first segment of the Cowboy Trail will not open until 1996). The Game and Parks Department also owns or leases several wildlife management areas and operates a fish hatchery on Minnechaduza Creek near Valentine.

The Niobrara National Scenic River, which was established in 1991, begins at the Borman Bridge, southeast of Valentine, then flows through Fort Niobrara National Wildlife Refuge and, further downstream, Smith Falls State Park. With the exception of a small site owned by the Middle Niobrara NRD at the Brewer Bridge, the rest of the shoreline is currently in private ownership. The National Park Service released a draft general management plan for the Niobrara. That plan, and Cherry County's role in managing this outstanding resource, are discussed in Policy 9.

The growth in visitation at the Game and Parks sites appears to be representative of the overall growth in recreational activity in Cherry County. The national wildlife refuges are also experiencing more use (about 130,000 visitor-days combined), though records are not consistent enough to graph a trend line. Lodging tax receipts offer another indicator of how travel to Cherry County is growing, as shown in the chart on the next page.

### Rate of Change in Lodging Tax Collections



*adjusted for inflation*

The growing number of visitors to the county should -- as this plan has already suggested -- be expected to translate into demand for second home sites and, eventually, local population growth. It combines with recent state and federal initiatives to suggest that Cherry County's days of relative isolation are numbered.

Fortunately, the people of Cherry County can use a proactive planning process to help maintain their vision as change occurs. The May 1995 study of the possibility of a national park reached this conclusion:

If good stewardship traditions continue, reinforced by effective local land use zoning and scenic river protection, then the study area would be adequately protected by other agencies and the private sector. It therefore would not require federal protection in the national park system.

**B. National Forest Planning and Management.**

Cherry County will proactively participate in the Northern Grasslands Planning Process recently initiated by the U.S. Forest Service. It will begin by seeking a memorandum of understanding (MOU) between the county and the Nebraska National Forest.

**C. National Wildlife Refuge Planning and Management.**

Cherry County will seek an MOU with the Fort Niobrara and Valentine National Wildlife Refuges. The principal purpose of this agreement will be to ensure consistent, early communication between the U.S. Fish and Wildlife Service and the county.

**D. Nebraska Game and Parks Planning and Management.** Cherry County will seek an MOU with the Nebraska Game and Parks Department. The principal purpose of this agreement will be to ensure consistent, early communication between the Game and Parks Department and the county. This agreement should include a procedure that allows Cherry County to refer development proposals to the Game and Parks Department for timely comment on the impacts of the proposed development on fish and wildlife resources.

*Developing MOUs and promoting early involvement of county residents in agency planning and projects is an essential step in restoring some sense of local control.*

**E. Wild and Scenic River Planning and Management.** The Draft General Management Plan Environmental Impact Statement: Niobrara National Scenic River recently proposed that Cherry, Brown, Keya Paha, and Rock Counties take principal responsibility for the management of the Niobrara National Scenic River, with support from the National Park Service. Strategy 9.A. calls for Cherry County to take advantage of this opportunity.

**What Would MOUs Do?**

MOUs with state and federal agencies have definite limitations, but can be an important basis for communication and cooperation. MOUs contain lots of legal language, but the point of a good one is simple: the state and federal agencies will communicate with the county before initiating action.

## **9 - Maintain the Niobrara River Corridor as a Nationally Significant Scenic, Recreational, and Biological Resource**

The Niobrara River cuts a broad-bluff-lined swath through northern Cherry County. The bluffs, the valley below, and the river itself offer scenic vistas and recreational opportunities that more and more people are discovering (see the chart and discussion on page 5). But the Niobrara is more than just a fun place to canoe. It provides a biological link between the Rocky Mountain Foothills -- the river originates in the Hat Creek Breaks of Wyoming -- and the Missouri River, and a refuge for plant and animal species that are rare on the Great Plains. The river has also exposed internationally significant fossil beds.

Congress officially recognized these values in 1991, when it added the reach of Niobrara that runs from the Borman Bridge south of Valentine downstream to the county line and beyond to the National Wild and Scenic Rivers system. This designation was controversial with some county residents, but is really a tribute to the good stewardship of local ranchers, who have maintained a pastoral landscape that is both productive and beautiful. River users -- and the outfitters and other business people who serve their needs -- also add valuable diversity to the county's economy.

**CHERRY COUNTY WILL MAINTAIN THE SCENIC, RECREATIONAL, BIOLOGICAL, HISTORIC, AND ECONOMIC VALUES OF THE NIOBRARA RIVER CORRIDOR BY:**

- PROMOTING SOUND PRIVATE MANAGEMENT OF THE LANDS IN THE RIVER CORRIDOR FOR THE TRADITIONAL AGRICULTURAL AND RECREATIONAL USES:
- ACTIVELY PARTICIPATING WITH RIVER CORRIDOR LANDOWNERS, OUTFITTERS, NEIGHBORING COUNTIES, THE NATIONAL PARK SERVICE, AND OTHER AGENCIES IN COOPERATIVE MANAGEMENT OF THE RIVER, AND
- ENSURING THAT ANY DEVELOPMENT PERMITTED IN THE RIVER CORRIDOR IS CONSISTENT WITH THE VALUES EXPRESSED IN THE GENERAL MANAGEMENT PLAN AND THE POLICIES OF THIS PLAN.

*All references to the 'general management plan' in this document refer to the Draft General Management Plan Environmental Impact Statement: Niobrara National Scenic River, which was the result of a four-year planning process conducted by the National Park Service with the assistance of a planning team composed of local officials and representatives from state and federal agencies.*

ADOPTION OF LAND USE REGULATIONS GOVERNING DEVELOPMENT IN THE RIVER CORRIDOR WILL ALSO HELP LIMIT FEDERAL ACQUISITION BY EMINENT DOMAIN, AS PROVIDED BY SECTION 4 OF P.L. 102-50.

The reasons why the Niobrara was given scenic river status are listed in the "Foundations ..." section of the general management plan. That material is reproduced in Appendix G. In developing this policy, however, the Cherry County Planning Commission decided to add to the general management plan list of the five most significant features of the river corridor. The planning commission believes that the river corridor also has special significance as an historic ranching landscape and as a generator of local economic activity.

The current land use map of the Niobrara River Corridor that accompanies this plan (see pocket) clearly shows the present predominance of agriculture. The public lands, including Smith Falls State Park and commercial campgrounds along the river also appear on that map. Another useful view of the river corridor is offered by the drawings on page 49. Those typical cross-sections show the three elements of the corridor: the Niobrara itself, the valley, which varies considerably in width; and the bluffs. The soil mapping units shown on the cross-sections are described in Appendix H.

### **Implementation Strategies for Policy 9**

*The area within which these strategies apply is delineated on page 51.*

#### **A. Actively Participate in Cooperative Management of the Niobrara National Scenic River.**

The general management plan (GMP) for the Niobrara National Scenic River calls for creation of a local council that would manage the river using a combination of local and federal funding. The functions of this new organization are not precisely defined in the GMP, but could include coordinating activities of the various agencies working in the river corridor; assisting Cherry, Brown, Keya Paha, and Rock Counties in land use planning and development review; providing technical assistance to landowners; mediating conflicts between landowners and the counties or other agencies; acquiring, or encouraging acquisition of, scenic easements along the river; and managing river use, including law enforcement and the maintenance and improvement of the facilities needed to accommodate the growing number of visitors. The structure of this local management council must evolve from a joint effort of the four counties, but it is essential that it include both strong representation of those who own land along the river and a representative of nonlocal people who care about the river. The first step in formally organizing the council will probably be an interlocal agreement (as authorized by Neb. Rev. Stat. §13-801, et seq.), but it will also be important for the council to obtain a specific charter from the Nebraska legislature.

**B. Protect Water Quality in the Niobrara River Corridor.** The scenic, recreational, and biodiversity values of the Niobrara River corridor will be greatly diminished if water quality deteriorates. Policies 3 and 4 of this plan are intended to help protect ground (remember that the flow of the river and its tributaries originates predominately as discharge from the High Plains Aquifer) and surface water quality.

**C. Encourage Continuing Agricultural Use of the Niobrara River Corridor.** Development in the river corridor can be limited by reasonable regulations, like those proposed here. But the best way to ensure that the scenic character of the Niobrara endures is to help the landowners along the river keep ranching.

1. Making the differential assessment of agricultural lands possible, as proposed in Policy 2 of this plan, will allow agricultural landowners in the river corridor to pay property taxes based on the production potential of their land, rather than on its speculative value.
2. The local management council should assist landowners in exploring the tax advantages of donating, or making bargain sales of, development rights along the river. The council should also actively seek funding for the acquisition of scenic easements within the river corridor.

**D. Require Development to Be Consistent with River Corridor Values.** This plan encourages continuing agricultural use of the lands in the Niobrara River Corridor, while recognizing that some changes in land use will occur. Such changes must be consistent with the vision of this plan. The desired future conditions listed in the GMP will also be considered in the review of proposed developments.

*The general management plan's statement of "Desired Future Conditions" is reproduced in Appendix G.*

(Amended by BOCC 8/8/00)

1. The performance standards for residential development will require that homes be set back a minimum of two hundred (200) feet from the high water mark of the Niobrara River and other streams or wetlands within the Scenic River boundary, exceptions to this standard may be authorized after review by the Niobrara Management Council and County zoning authorities where development within the two hundred (200) feet limitation can be effectively screened from the river and any on-site sewage disposal system serving such a use is located beyond the two hundred feet limitation, that most existing riparian vegetation be maintained, and that development be interspersed with wide open space corridors. These standards may also address building height and similar design issues.
2. The only commercial development permitted in the Niobrara River Corridor will be river-dependent and water-enjoyment recreational uses, and home businesses. The performance standards for these uses will require that development be set back a minimum of two hundred (200) feet from the high water mark of the Niobrara River and other streams or wetlands within the Scenic River boundary, exceptions to this standard may be authorized after review by the Niobrara Management Council and County zoning authorities where development within the two hundred (200) feet limitation can be effectively screened from the river and any on-site sewage disposal system serving such a use is located beyond the two hundred feet limitation, that most existing riparian vegetation be maintained, and the development be interspersed with wide open space

corridors. These standards will also address signs and outdoor lighting along the river, building height, and other design issues.

A **river-dependent use** requires direct contact with the water and cannot exist at a non-water location due to the intrinsic nature of its operations. A **water-enjoyment use** is a recreational use that facilitates public access to the shoreline as a primary characteristic of the use, or that provides for recreational or aesthetic enjoyment of the shoreline for a substantial number of people as a general character of the use and which, through its location, design, and operation assures the public's ability to enjoy the shoreline.

3. The density of development in the Niobrara River Corridor must be compatible with the vision of this plan and as much as possible follow the desired future conditions stated in the GMP. A basic level of development will be permitted to avoid takings claims. Limited additional development will be permitted only where that development results in permanent protection of other river corridor lands.

a. Development within the corridor that may be visible from any river level vantage point or prominent scenic vista shall be at least partially screened from view by landscaping and proper use of natural materials and colors.

(Amended by BOCC 8/8/00)

b. The basic level of residential development permitted in the Niobrara River Corridor will be two (2) dwelling units for each quarter section, provided that additional lots may be authorized by the Board of County Commissioners in accordance with the zoning regulations. (Amended by BOCC 8/8/00)

c. Additional residential development will be permitted only when a Conditional use permit for a residential subdivision, containing additional lots, is authorized by the Board of County Commissioners. (Amended by BOCC 8/8/00)

d. River-dependent and water-enjoyment recreational uses are also permitted in the river corridor, subject to the performance standards as set forth in the zoning regulations. (Amended by BOCC 8/8/00)

e. Development in the Niobrara Scenic River Corridor as designated by the River Management Council shall be subject to review and comment by the River Management Council for consistency with the River Management Plan.

(Amended by BOCC 8/8/00)

**E. Respect the Bluffs.** Development, including access roads, will be directed away from the bluffs along the Niobrara River. Bluff lands may be included in developments -- as part of large lots or common open space areas -- but every lot shall include a site where building can take place without exposing the occupants to slope stability or wildfire hazards.

*The graphic on page 51 shows the river corridor in cross-section. The water itself, is of course,*

*the main attraction, but the bluffs above the Niobrara, and tributaries like Minnechaduza Creek, play a central role in creating the river corridor's biological diversity and scenic appeal. North-facing bluffs combine with spring branch streams to create shady, humid microclimates and waterfalls, while south-facing slopes provide scenic vistas across the valley to the Sandhills, and habitat for native plants and wildlife that are adapted to drier conditions. The bluffs also present erosion and wildfire hazards that make them generally unsuitable for development.*

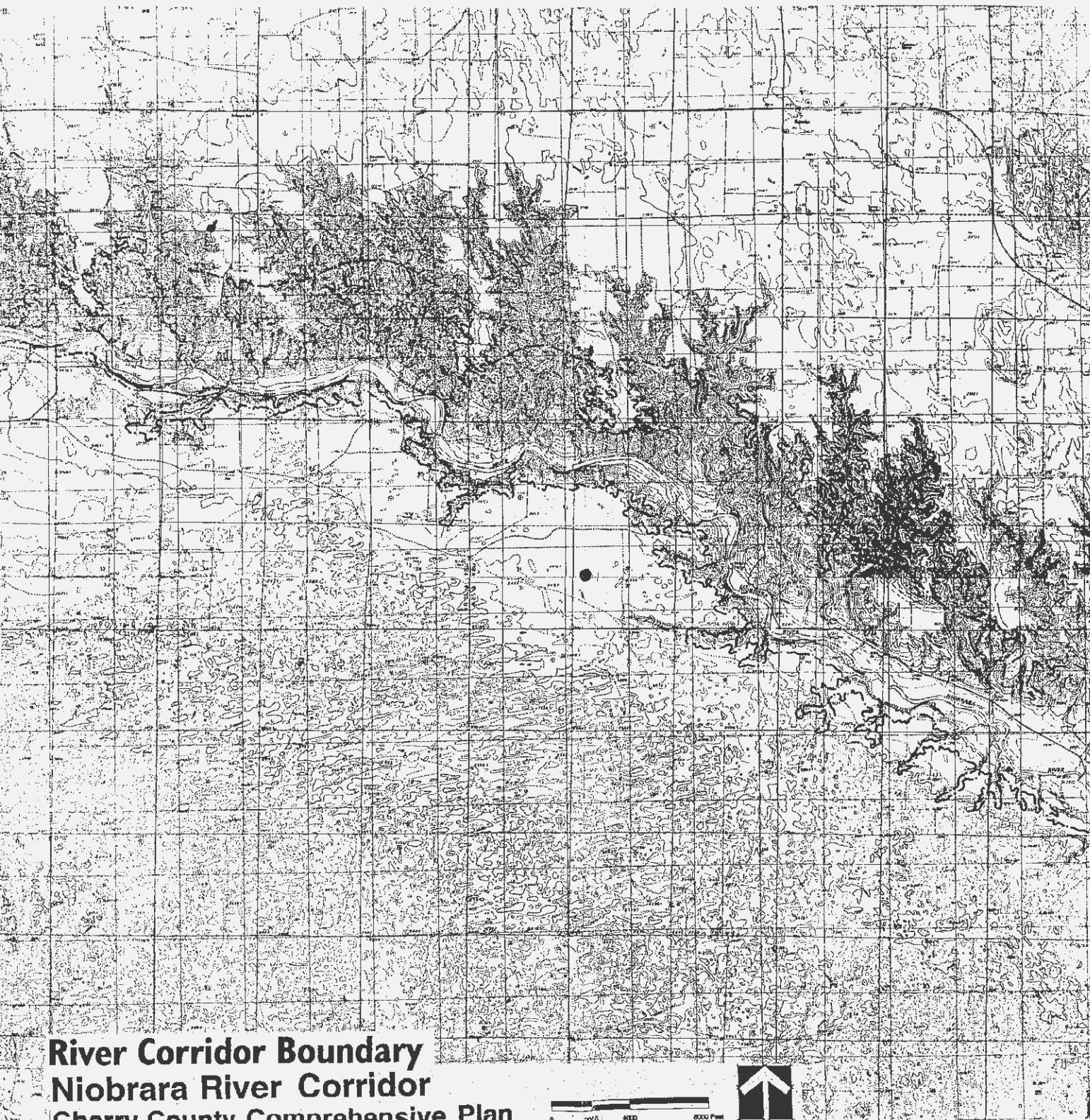




**River Corridor Boundary**  
**Niobrara River Corridor**



4/2/17



**River Corridor Boundary**  
**Niobrara River Corridor**  
**Cherry County Comprehensive Plan**





## **10 - Economic Development**

Some residents of Cherry County see increasing outside use of their county's natural assets as a threat to their independent way of life. The experience of other rural recreation and resort areas makes it clear that this perception is accurate, but incomplete.

Rising land values, increasing demands for public services, and the other impacts of rural residential and recreational development can have adverse impacts on existing resources and residents. Indeed, the principal purpose of this plan is to mitigate many of those impacts. But recreation also provides the only significant element of diversity in a local economy that is otherwise tied to the price of a single commodity. Further development of the county's attractions may create entrepreneurial opportunities and jobs that help families stay on the land.

CHERRY COUNTY WILL PROMOTE ECONOMIC DEVELOPMENT AND DIVERSIFICATION, BUT ONLY IN WAYS THAT ARE CONSISTENT WITH THE VISION ADOPTED IN THIS PLAN.

### **Implementation Strategies for Policy 10**

*No implementation strategies have been adopted for Policy 10 at this time.*

## **11 - Involve the People of Cherry County in a Continuing Planning Process**

This document captures an ongoing discussion about land use change and its impacts at one point in Cherry County's history. The guidance it provides is subject to revision as the county's people accumulate experience in the planning process, and as the demographic, economic, and land use trends affecting the county shift.

CHERRY COUNTY WILL MAINTAIN AN ONGOING PLANNING PROCESS FEATURING BOTH THE IMPLEMENTATION OF THIS COMPREHENSIVE DEVELOPMENT PLAN AND REGULAR PLAN REVIEWS AND UPDATES. THE COUNTY WILL ALSO CONTINUE TO EMPHASIZE CITIZEN INVOLVEMENT IN PLANNING.

### **Implementation Strategies for Policy 11**

**A. Review and Update.** The Cherry County Planning Commission will invite the people of the county to participate in an annual plan review, and recommend amendments to the Board of County Commissioners based on that review and its own experience. Proposed amendments should be subjected to thorough public discussion before they are adopted.

*This annual review and update should also cover plan implementation tools, including county ordinances or memorandums of understanding with state or federal agencies.*

#### **Changing This Plan**

This plan can only be changed via an open public process. Neb. Rev. Stat. §23-114.01(2) requires that the county planning commission conduct public hearings before recommending a plan or any amendments to the board of county commissioners. The board of commissioners cannot make changes before receiving a recommendation from the planning commission.

### **-- The Beginning --**

The planning commission, board of commissioners, and many interested citizens have invested tremendous energy in producing this comprehensive development plan for Cherry County. But completion of a document is only the beginning of the planning process. The 11 policies adopted here set an agenda for actions that will help the people of Cherry County realize their vision for the future.

## **Resources Consulted During the Preparation of this Plan**

Some people listed as interviewees actually contributed information on several occasions. The Cherry County Planning Commission and Lee Nellis thank everyone who consented to an interview. People who provided information, but are not listed as interviewees include Will Boyer of the Upper Loup Natural Resources District; Rob Coupland, Cherry County Attorney; Bob Kuzelka of the Water Center at the University of Nebraska-Lincoln; and Cherry County Surveyor, Lloyd Smith. Thanks to them, too.

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## **APPENDICES**

### Appendix A - Demographic Data

This appendix supports the material on the potential for land use change in Cherry County found on pages 4-5. Table A-1 gives the figures graphed in the population history chart. Table A-2 documents the crime rate. Table A-3 provides the visitor numbers graphed on page 5. Table A-4 supports Color Plates I and II, but the data used in constructing those maps are too bulky to reproduce in their entirety.

**Table A-1 Cherry County Population Since 1900**

<i>year</i>	<u>1900</u>	<u>1910</u>	<u>1920</u>	<u>1930</u>	<u>1940</u>
<i>population</i>	6,541	10,414	11,753	10,898	9,637
<i>year</i>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>
<i>population</i>	8,397	8,218	6,846	6,758	6,307

Source: U.S. Census of Population and Housing, various editions.

**Table A-2 Comparative Crime Rates - Crime Index Offenses per 1000 Population**

<i>year</i>	<i>U.S.</i>	<i>Nebraska</i>	<i>Cherry County</i>
<u>1990</u>	58.20	41.90	13.60
<u>1991</u>	58.98	43.70	11.90
<u>1992</u>	56.60	35.70	10.60
<u>1993</u>	54.83	32.80	11.60
<u>1994</u>	54.70	44.40	12.60

Source: Annual *Crime in Nebraska* reports by the Nebraska Commission on Law Enforcement and Criminal Justice. The Crime Index offenses are murder, forcible rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, and arson.

**Table A-3 Visits to Major Nebraska Game and Parks Facilities in Cherry County**

<i>facility</i>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
Bowring Ranch	9,027	10,914	10,878	12,914	13,354
Merritt Reservoir	131,178	119,568	126,468	153,622	148,161
Smith Falls State Park	not open	19,473	26,267	31,845	40,087

Source: Data provided by Smith Falls State Park Superintendent Larry Voecks.

**Table A-4 Urban Counties Within 300 Miles of Valentine, Nebraska**

<i>county</i>	<i>1990 population</i>	<i>1995 population estimate</i>
Arapahoe, Colorado	391,511	449,103
Douglas, Nebraska	416,444	434,147
Adams, Colorado	225,339	303,297
Boulder, Colorado	225,339	253,8850
Lancaster, Nebraska	213,641	228,638
Larimer, Colorado	186,136	217,215
Weld, Colorado	131,821	148,014
Minnehaha, South Dakota	123,809	135,641
Sarpy, Nebraska	102,583	111,800
Woodbury, Iowa	98,276	101,827
Pennington, South Dakota	81,343	87,304
Pottawatomie, Iowa	82,628	83,701
Laramie, Wyoming	73,142	78,444
Burleigh, North Dakota	60,131	64,807
Hall, Nebraska	48,925	51,178

Source: Bureau of the Census Current Population Estimates.

## Appendix B - Economic Data

This appendix provides data supporting the conclusions of the section of the main text titled "The Importance of Agriculture in Cherry County." Table B-1 presents 1993 (most recent available) employment data and Table B-2 presents the 1993 income data. These tables include 1988 data to show that there has been little recent change in the structure of the local economy. Table B-3 gives the 1995-96 taxable value of Cherry County property. Table B-4 gives the lodging tax collection data used in the section of the main text titled "Public Lands and Recreational Development in Cherry County." This plan's conclusions about the income and employment generated by agriculture and other sectors are based on location quotient analysis. That technique is described in the North Central Regional Center for Rural Development's *Community Economic Analysis: A How To Manual*.

**Table B-1 -- Employment of Cherry County Residents**

source	1988	% of total	1993	% of total
total employment	3442	100%	3727	100%
farm	1,183	34%	1,083	29%
agricultural services, forestry, fisheries	165	5%	194	5%
mining	--	--	--	--
construction	89	3%	159	4%
manufacturing	18	<1%	54	1%
transportation, communications, utilities	101	3%	95	3%
wholesale trade	73	2%	130	3%
retail trade	599	17%	711	19%
finance, insurance, real estate	154	4%	153	4%
services	535	16%	576	15%
government	523	15%	569	15%

**Source:** U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System. Data provided by Paul Zelus, Idaho State University Center for Business Research and Services.

**Table B-2 Personal Income Received by Residents of Cherry County**  
*(in thousands of dollars - 1988 amounts adjusted to 1993 dollars)*

<b>source</b>	<b>1988</b>	<b>% of total</b>	<b>1993</b>	<b>% of total</b>
<b>total personal income</b>	<b>94,890</b>	<b>100%</b>	<b>102,460</b>	<b>100%</b>
<i>per capita personal income (not in thousands of dollars)</i>	\$14,709	--	\$16,243	+10.4%
<i>% of US per capita income</i>	72%	--	78%	--
dividends, interest, and rent	27,790	29%	26,067	25%
transfer payments (social security and similar government payments)	14,644	15%	18,463	18%
farm	16,348	17%	18,894	18%
agricultural services, forestry, fisheries	1,826	2%	2,110	2%
mining	--	--	109	<1%
construction	2,344	2%	3,430	3%
manufacturing	365	<1%	983	1%
transportation, communications, utilities	2,534	3%	2,024	2%
wholesale trade	1,832	2%	2,281	2%
retail trade	8,839	9%	9,161	9%
finance, insurance, real estate	2,128	2%	2,028	2%
services	8,807	9%	8,594	8%
government	9,165	10%	10,451	10%

**Source:** U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System. Data provided by Paul Zelus, Idaho State University Center for Business Research and Services. 1993 is the most recent year available.

**Table B-3 -- 1995 Assessed Value of Cherry County**

<i>land use</i>	<i>assessed value</i>	<i>% of total assessed value</i>
residential	\$42,096,477	10%
commercial	\$16,901,598	4%
industrial/minerals	\$6,405	<1%
recreational	--	--
agricultural improvements	\$37,198,347	8%
irrigated cropland	\$7,098,924	2%
nonirrigated cropland	\$6,084,226	1%
grazing land	\$290,999,872	66%
waste land	\$209,309	<1%
<b>TOTAL REAL PROPERTY</b>	<b>\$400,595,158</b>	<b>91%</b>
commercial equipment	\$3,813,350	1%
agricultural equipment	\$13,172,652	3%
vehicles	\$23,777,851	5%
<b>TOTAL ASSESSED VALUE</b>	<b>\$441,359,011</b>	<b>100%</b>

Source: 1995 Abstract of Assessment prepared by Cherry County Assessor's Office.

**Table B-4 -- Lodging Tax Collections**

<i>year</i>	<i>Nebraska</i>	<i>Cherry County</i>
<u>1990</u>	\$1,362,705	\$21,201
<u>1991</u>	\$1,454,215	\$22,593
<u>1992</u>	\$1,507,692	\$24,144
<u>1993</u>	\$1,627,550	\$27,208
<u>1994</u>	\$1,739,749	\$29,421
<u>1995</u>	\$1,958,152	\$38,950

Source: Nebraska Department of Economic Development. These data were adjusted for inflation using the Consumer Price Index before being graphed in the main text. Lodging tax data must be interpreted with some caution: the trend may represent changes in the price of lodging, as well as changes in the number of rooms sold.



### Appendix C - Agricultural Data

This appendix supports this plan's discussion of the importance of agriculture in Cherry County. Table C-1 lists 1992 sales of the major local agricultural products. Table C-2 gives the acreages of agricultural land uses.

**Table C-1 Market Value of Agricultural Products Sold by Cherry County Ranches in 1992**

<i>product</i>	<i>market value</i>
<b>all agricultural products</b>	<b>\$101,233,000</b>
<b>all crops</b>	<b>\$3,743,000</b>
<i>corn for grain</i>	<i>\$1,651,000</i>
<b>all livestock</b>	<b>\$97,491,000</b>
<i>cattle and calves</i>	<i>\$95,426,000</i>
<i>dairy products</i>	<i>\$430,000</i>
<i>hogs and pigs</i>	<i>\$1,133,000</i>

Source: 1992 Census of Agriculture. There were minor (less 0.5% of the total) sales of wheat, oats, sorghum, soybeans, hay, other crops, poultry, sheep, and wool.

**Table C-2 Agricultural Land Use in Cherry County**

<i>use</i>	<i>acres in 1987</i>	<i>acres in 1992</i>
<b>farms</b>	<b>745</b>	<b>676</b>
<b>land in farms</b>	<b>3,962,751</b>	<b>3,887,635</b>
<b>average farm size</b>	<b>5,319</b>	<b>5,751</b>
<b>total cropland</b>	<b>406,160</b>	<b>407,033</b>
<i>harvested cropland</i>	<i>350,231</i>	<i>348,505</i>
<i>cropland for pasture or grazing</i>	<i>35,392</i>	<i>40,896</i>
<i>other cropland</i>	<i>20,537</i>	<i>17,632</i>
<b>total woodland</b>	<b>8,505</b>	<b>8,812</b>
<b>total pasture land, inc. crop and wood lands used as pasture</b>	<b>3,542,395</b>	<b>3,463,412</b>
<i>other pasture land</i>	<i>3,502,685</i>	<i>3,418,429</i>
<b>land in house lots, ponds, wasteland, etc.</b>	<b>45,401</b>	<b>53,361</b>

Source: 1992 Census of Agriculture. Note that the land reported "in farms" exceeds the total area of Cherry County. This reflects reporting errors.

**Table C-3 Cherry County Crop Production in 1994**

<i><b>crop</b></i>	<i><b>acres harvested</b></i>	<i><b>production</b></i>	<i><b>yield</b></i>
corn for grain	11,800	1,530.8 bushels	129.7 bushels/acre
corn for silage	2,900	51,300 tons	17.7 tons/acre
alfalfa hay	39,800	89,100 tons	2.24 tons/acre
wild hay	321,700	321,700 tons	1.0 tons/acre
other tame hay	26,500	42,400 tons	1.6 tons/acre

Source: 1994-95 Nebraska Agricultural Statistics. Crops of which less than 1,000 acres was harvested include oats, sorghum, soybeans, and wheat.



## **Appendix D - Nebraska Right To Farm Act**

This appendix presents the Nebraska Right-To-Farm Act and supplemental materials.

**§2-4401. Act, how cited.** Sections 2-4401 to 2-4404 shall be known and may be cited as the Nebraska Right to Farm Act.

**§2-4402. Terms, defined.** As used in Sections 2-4401 to 2-4404, unless the context otherwise requires:

(1) Farm or farm operation shall mean any tract of land over ten acres in area used for or devoted to the commercial production of farm products; and

(2) Farm product shall mean those plants and animals useful to man and includes but is not limited to forages and sod crops, grains and feed crops, dairy and dairy products, poultry and poultry products, livestock, including breeding and grazing, fruits, vegetables, flowers, seeds, grasses, trees, fish, apiaries, equine and other similar products, or any other product which incorporates the use of food, feed, fiber, or fur.

**§2-4403. Farm; farm operation; not a nuisance; when.** A farm or farm operation shall not be found to be a public or private nuisance if the farm or farm operation existed before a change in the land use or occupancy of land in and about the locality of such farm or farm operation and before such change in land use or occupancy of land the farm or farm operation would not have been a nuisance.

*The Nebraska Right to Farm Act applies only where there has been a change in land use or occupancy of land in and about the locality of such farm or farm operation, not where the change has taken place on the farm itself. Flansburgh v. Coffey, 220 Neb. 381, 370 N.W. 2nd 127 (1985).*

**§2-4404. Applicability of other statutes.** Sections 2-4401 to 2-4404 shall not affect the application of state and federal statutes.

**Title 130** of the administrative rules of the Nebraska Department of Environmental Quality limits the conditions under which a livestock operation may be declared a nuisance, as follows:

001 A livestock operation is not a nuisance if:

001.01 Reasonable techniques are employed to keep dust, noise, insects, and odor at a minimum

001.02 It is in compliance with applicable regulations adopted by the Council [Nebraska Environmental Quality Council] and zoning regulations of the local governing body having jurisdiction, and

001.03 The action is brought by or on behalf of a person whose date of lawful possession of the land claimed to be affected by a livestock operation is subsequent either to the issuance of an appropriate permit by the department for such operation, or to the operation of the feedlot and an on-site inspection by the department is made, before or after filing of the suit, and the inspection reveals that no permit is required for such operation.

## **Appendix E - Natural Resources District Groundwater Management Plans**

This appendix presents the policy portions of the groundwater management plans prepared by the two natural resource districts (NRD) in which Cherry County is included. The *Upper Loup Groundwater Management Plan* was adopted in 1991 and updated in 1994. The *Middle Niobrara Groundwater Management Plan* was adopted in 1996.

### **Excerpts from the *Middle Niobrara Groundwater Management Plan***

The Middle Niobrara Natural Resources District divides the policies of its groundwater management plan into two sections: quantity and quality. The goals and objectives from both sections are reproduced here, and supplemented by a brief description of implementation activities.

#### **Quantity**

IT SHALL BE THE GOAL OF THE MIDDLE NIOBRARA NATURAL RESOURCES DISTRICT TO FOREVER MAINTAIN THE PRESENT LEVEL OF GROUNDWATER WITHIN HISTORIC NATURAL FLUCTUATIONS THAT OCCUR.

#### **Objectives**

1. Monitor the status of the district's groundwater level a minimum of once annually.
2. Collect and incorporate precipitation data into the district's well monitoring efforts.
3. Increase district education efforts stressing the importance of maintaining the historic groundwater level and the impact that groundwater has on the area environment.
4. Develop an information and education program demonstrating the importance of water conservation and methods for reducing water use.
5. Working with the appropriate agencies, better determine how changes in surface water (wetlands, wet meadows, rivers, and streams) relate to changes in groundwater levels.
6. Monitor changes in surface water and incorporate data into the well observation program.
7. Closely monitor well registration activities to determine areas that experience increases in well installations.
8. Determine the district staffing and funding requirements needed to carry out the groundwater quantity management plan.
9. Utilize regulatory authority under the Nebraska Groundwater Management and Protection Act, when necessary, to manage areas displaying moderate groundwater level declines.

These groundwater quantity objectives are being implemented by well monitoring (the district has also proposed a program of monitoring wetland levels), education, and the establishment of groundwater watch areas. Groundwater watch areas are designated where average annual withdrawal of groundwater exceeds 50% of average annual recharge. Well monitoring and educational programs will be intensified in groundwater watch areas, and the district will work with irrigators to ensure efficient water use. As the map on page 25 of the main text shows, the Middle Niobrara NRD has established two groundwater watch areas: one is north of Valentine in Cherry County. The other lies mostly in Keya Paha County, but extends into northeastern Cherry County. Natural resource districts have the power to establish groundwater control areas, but none are currently proposed by the Middle Niobrara NRD.

#### **Quality**

IT SHALL BE THE GOAL OF THE MIDDLE NIOBRARA NATURAL RESOURCES DISTRICT TO FOREVER MAINTAIN THE PRESENT GROUNDWATER QUALITY, WITH THE EXCEPTION OF THOSE AREAS WHERE CONTAMINANT LEVELS HAVE EXCEEDED STATE STANDARDS, WHERE THE DISTRICT WILL STRIVE TO REDUCE CONTAMINANT LEVELS TO MAKE THE WATER SAFER FOR ALL PUBLIC USES.

## Objectives

1. Continue well monitoring throughout the district, sampling wells in the network a minimum of one time every two years with increased monitoring in concern areas.
2. Identify the existing point source and nonpoint source pollution threats to the groundwater resource in the district.
3. Determine the level of contaminants and their movement through the vadose zone.
4. Increase general information and education efforts focusing on the present quality of water in the NRD and how good quality water can be maintained.
5. Establish a districtwide well abandonment program. Utilize education and financial incentives to encourage landowners to properly abandoned wells.
6. Monitor the development of new wells in the District.
7. Determine the realistic potential for future degradation of the resource and utilize that information when developing the management plan.
8. Develop management schemes that encourage the voluntary use of management practices by landowners to protect and enhance the quality of the district's groundwater.
9. Utilize authorities provided NRDs under the Nebraska Groundwater and Protection Act to manage areas of the district displaying present or the potential for groundwater quality problems.
10. Take into consideration critical public water supplies in the district when developing the management plan.
11. Develop an information and education program directed at residents of cities and villages to make them more aware about the groundwater resources and what they can do to protect it.
12. Determine the staffing and administration requirements that will be necessary to carry out the plan. Identify potential sources of funding.

Four management zones are established to implement these objectives. Most of Cherry County is in Groundwater Management Zone 1, where less than 50% of wells monitored have nitrate levels above 5 ppm and less than 20% of the land is cropped. As the map on page 20 of the main text shows, however, a small part of western Cherry County is in Groundwater Management Zone 2. More than 20% of that township is cropped. Implementation activities in Groundwater Management Zone 1 include well monitoring, gathering data on the use of agricultural chemicals, encouraging irrigators to adopt best management practices, public education, and a well abandonment program. The main addition to this list of activities in Groundwater Management Zone 2 is a voluntary fertilizer management program.

### **Excerpts from the Upper Loup Groundwater Management Plan**

The *Upper Loup Groundwater Management Plan* emphasizes proactive, voluntary measures to address groundwater issues. It is summarized by the goal and list of implementation actions presented below.

#### **GROUNDWATER RESERVOIR LIFE GOAL**

THE GROUNDWATER RESERVOIR LIFE GOAL FOR THE ULNRD IS TO MAINTAIN, IN PERPETUITY, GROUNDWATER OF A QUALITY TO MEET STANDARDS APPROPRIATE TO ITS USE, IN AN ADEQUATE SUPPLY FOR DOMESTIC, LIVESTOCK, PUBLIC, IRRIGATION, AGRICULTURE, WILDLIFE, AND INDUSTRIAL USES. THE GOAL INCLUDES MINIMIZING, AS MUCH AS POSSIBLE, THE ADVERSE IMPACT OF THESE USES ON THE QUANTITY AND QUALITY OF GROUNDWATER THAT SUPPORTS LAKES, SUBIRRIGATED LANDS, AND STREAMS.

## **GROUNDWATER MANAGEMENT PLAN IMPLEMENTATION**

**Objective 1 - Continue existing formal and informal cooperative data collection and educational programs with local, state and federal agencies and develop additional programs where common interests and needs become evident.**

**Objective 2 - In cooperation with the Conservation and Survey Division UNL and USGS, review the existing network of wells with respect to geographical coverage, potentiometric surfaces, and existing groundwater development; eliminate some wells that may be providing duplicative information; and add some wells where existing or potential development may be concentrated.**

**Objective 3 - Install or convert the Hecla and Tryon wells to automatic recorder wells and install recorder wells near Stapleton and Brewster and in northeastern Brown County in cooperation with CSD and USGS and other interested agencies.**

**Objective 4 - Develop a lake level monitoring plan in consultation and cooperation with other interested agencies.**

**Objective 5 - Establish mean sea level altitude and observation well and lake reference points, by instrument survey where funding permits, or by field inspection and use of topographic maps.**

**Objective 6 - Develop a data base that will permit the construction of detailed water-table contour maps representing point-in-time conditions. Secure funding and cooperation to produce the maps.**

**Objective 7 - Repeat the NRD-wide cooperative groundwater quality sampling program of domestic wells approximately every 5-7 years. Develop and maintain an extensive sampling program of irrigation wells that will effectively quantify the extent of NPS contamination within areas of the ULNRD subject to human induced NPS groundwater contamination. Evaluate the data to determine any trends and needed groundwater management action. Increase sample collection to determine if contamination results from non-point sources in areas where contamination levels greater than 70% of Maximum Contamination Levels (MCLs) are detected. Hold a public hearing to determine what regulatory courses of action will be most appropriate if contamination greater than 70% of the MCL is determined to be from human induced NPS contamination and remediation will not be obtained from established information and Education programs including one-on-one contacts with fertilizer and pesticide users.**

**Objective 8 - Continue providing the service to citizens of analyzing water samples for nitrate-nitrogen with the use of laboratory kits. Advise well user if additional, more precise analysis is desirable.**

**Objective 9 - Disseminate information on well siting and well construction to prevent point source contamination of domestic water supplies in cooperation with local well drillers and Cooperative Extension.**

**Objective 10 - Continue monitoring the use of chemigation through irrigation systems and continue periodic and area-wide inspections of the chemigation systems.**

**Objective 11 - Coordinate efforts with adjacent NRDs directed at groundwater reservoir management, including the exchange of data, in recognition of groundwater movement both into and out of the NRD.**

**Objective 12 - Continue and expand as needed, educational programs for groundwater users with Cooperative Extension and the Soil Conservation Service on "best management practices" for application of irrigation water, fertilizers and pesticides. Strongly encourage such management practices to help stabilize, reduce and prevent the occurrence, increase or spread of groundwater contamination, and to prevent groundwater level declines.**

**Objective 13 - Encourage development of groundwater use for beneficial purposes within the district. Closely monitor legislation and proposals for any groundwater transfers that would result in transfer of water elsewhere. Vigorously represent the interest of district residents in protecting against adverse impacts to their well being.**

**Objective 14 - Encourage research directed at understanding the hydrologic, physical, chemical and biological characterization of wetlands. In cooperation with the Nebraska Games and Parks Commission, and other agencies, initiate efforts to develop plans for lake and other wetland management.**

**Objective 15 - Cooperate with NDEQ, NDOH and communities to establish Wellhead Protection Programs for endangered public water supplies.**

**Objective 16 - If data collected and studies indicate that water levels in a local or regional area are declining at apparent rates of more than one-half foot per year over a ten year period due to groundwater withdrawal, a public hearing will be held to determine what regulatory courses of action will be most appropriate.**

**Objective 17 - Review the groundwater management plan annually to monitor progress and the need for modification.**

**Objective 18 - Continue to provide a cost-share program for the proper abandonment of wells, and encourage its use.**

## **Appendix F - Authorities for Federal Cooperation With Local Governments**

This appendix lists the principal mandates federal agencies have been given to cooperate with local governments. These requirements have two sources, acts of Congress, which are found in the United States Code (abbreviated USC) and the administrative rules promulgated by the agencies, as directed by Congress. Administrative rules are found in the Code of Federal Regulations, which is abbreviated CFR.

### **Authorities for Specific Agencies**

#### ***All Federal Agencies***

31 USC 6505-6506 provide general authority for intergovernmental cooperation by all federal agencies. 31 USC 6506(c) states:

To the extent possible, all national, regional, State, and local viewpoints shall be considered in planning development programs and projects of the United States Government or assisted by the Government.

#### ***Bureau of Land Management - small, scattered parcels in Cherry County***

43 USC 869 is the Recreation and Public Purposes Act, which provides for the sale or lease of federal land to local governments for specified purposes. 43 USC 869(a) requires that a local plan and zoning be in place before more than 640 acres is made available. The rules for implementation of the Recreation and Public Purposes Act are found at 43 CFR Part 2740.

43 USC 1241 permits state weed control programs to operate on federal lands.

#### ***43 USC 1712 Land Use Planning***

(c)(9) requires coordination with land use planning and management programs of state and local governments. It also requires the Secretary to be apprised of local plans, to assist in resolving inconsistencies between Federal and nonfederal plans, and to provide meaningful involvement of state and local officials. Corresponding regulations are found at 43 CFR 1610.3-1 and 1610.3-2. These regulations impose specific requirements for determining the consistency of BLM plans with local plans.

(f) Local government must receive notice of BLM planning activities. See the regulations cited above.

43 USC 1713 states that state and local government are to be considered among potential purchasers of any federal land offered for sale. The corresponding regulation is found at 43 CFR 2710.0-6.

43 USC 1714(c)(7-8) requires consultation with state and local government and analysis of impact of major withdrawals on local economies. See 43 USC 1716(a) for land exchanges.

43 USC 1720 local officials must be notified before federal land is sold or otherwise conveyed, see also 43 USC 1721(c).

43 USC 1733 provides for contracts and cooperation with local law enforcement agencies. The corresponding regulation is found at 43 CFR 9260.0-3.

#### ***Fish and Wildlife Service - Fort Niobrara and Valentine National Wildlife Refuges***

No specific authority for cooperation. See the listings under "All Federal Agencies" and under the Endangered Species and Wild and Scenic River acts.

#### ***Forest Service - Samuel R. McKelvie National Forest***

The Forest Service is given authority for practical cooperation with local government in several sections of the U.S. Code, including, 16 USC 551(a) and 553.3. The corresponding regulation include 36 CFR 211.3 (cooperation in enforcement of state laws), 36 CFR 211.4 and 5 (cooperation in fire suppression) and 36 CFR 212.5 and 212.9 (cooperation road maintenance).

National forest planning is conducted pursuant to 16 USC 1604. The corresponding regulations are found at 36 CFR 219 - Planning.

219.1 includes coordination with local planning efforts as a goal of forest planning

219.5 make coordination a responsibility of the ID team

219.7 Coordination with other public planning efforts

(a) says responsible line officer SHALL coordinate with local planning

(c) requires responsible line officer to review local plan and display results in EIS

(d) responsible line officer shall meet with local government at beginning of planning process

(e) Forest Service shall seek input from local government, supplemented by (f) which requires monitoring impact on communities

36 CFR 222.8 provides for cooperation in state weed control, estray law, etc.

36 CFR 251.9 provides for the protection of municipal watersheds.

36 CFR 254.20 provides for the acquisition of up to 640 acres for townsites, including additions to existing communities. Authority for this regulation is provided by 16 USC 478(a).

#### ***General Services Administration - federal buildings***

40 USC 531-533 requires consistency with local planning in urban areas, see also 40 USC 345, which provides for discount sale of federal property to local governments. The corresponding regulations are found at 41 CFR 101-19.1.

### **Authorities in Federal Laws Affecting Multiple Agencies**

#### ***Endangered Species Act***

16 USC 1531(c) requires cooperation with state and local governments to resolve water resource issues related to endangered species.

16 USC 1533(b) states that decisions to list must consider state and local efforts to protect the species.

16 USC 1533(b) requires a 90-day notice to the affected state and county before listing a species. The corresponding regulations are found at 50 CFR 424.16.

#### ***National Environmental Policy Act***

42 USC 4332(c) requires that federal agencies account for the impacts of "... major Federal actions significantly affecting the human environment ... ."

40 CFR 1500, et seq. provides the Council on Environmental Quality's basic rules for the implementation of the National Environmental Policy Act (NEPA). Note that many Federal agencies also have specific rules for NEPA compliance.

#### ***Wild and Scenic River Act***

16 USC 1274(d) requires preparation of comprehensive management plan for each segment, and cooperation with state and local governments in the preparation of those plans.

16 USC 1277 limits acquisition of land owned by states and local governments, and limits acquisition of private land in incorporated cities where there is satisfactory zoning.

16 USC 1281 encourages state and local governments to cooperate in administration of segments on which they own land.

Public Law 102-50, the Congressional act that amended the Wild and Scenic Rivers Act to designate the Niobrara as a National Scenic River, places additional limitations on land acquisition, unless the Secretary of Interior finds that state or local government are not adequately protecting the values for which the river was designated.

Sec. 4. Limitations on Certain Acquisition.

(a) Limitations. In the case of the 40-mile and 30-mile segments of the Niobrara River described in the amendment to the Wild and Scenic Rivers Act made by section 2 of this Act, the Secretary of the Interior shall not, without the consent of the owner, acquire for purposes of such segment land or interests in land in more than 5 percent of the area within the boundaries of such segments, and the Secretary shall not acquire, without the consent of the owner, fee ownership of more than 2 percent of such area. The limitations on land acquisition contained in this subsection shall be in addition to, and not in lieu of, the limitations on acquisition contained in section 6 of the Wild and Scenic Rivers Act.

(b) Finding; Exception. The 5 percent limitation and the 2 percent limitation contained in subsection (a) of this section shall not apply if the Secretary of the Interior finds, after notice and opportunity for public comment, that State or local governments are not, through statute, regulation, ordinance, or otherwise, adequately protecting the values for which the segment concerned is designated as a component of the national wild and scenic rivers system.

16 USC 1283 permits written cooperative agreements with state and local governments for the management of wild and scenic rivers.

## **Appendix G - Excerpt from Draft General Management Plan and Environmental Impact Statement: Niobrara National Scenic River**

This appendix presents the "Foundations of the Plan" section of the general management plan for the Niobrara National Scenic River prepared by the National Park Service (NPS). The goals listed in this material were developed by the NPS in concert with a planning team comprised of local people and representatives from potentially affected state and federal agencies.

### **FOUNDATIONS OF THE PLAN**

#### **PURPOSE OF SCENIC RIVER DESIGNATION**

The basic purposes of scenic river designation were identified by the planning team based on the law and legislative history. They were also published in a newsletter in 1993, and revisions were made to reflect public comment and the advisory commission recommendations. They are:

- preserve the river in a free-flowing condition (existence of low dams at time of designation does not preclude a river from being included in the national wild and scenic river system);
- preserve the significant scenic, geological, biological, historic and prehistoric resources of the Niobrara river valley in concert with local custom and culture;
- provide for only that resource-based recreational use that is compatible with protection of the significant resources.

Legislative direction was identified early in the process by the interagency planning team to serve as a foundation of the plan. These were derived from specific laws and congressional testimony that led up to the 1991 act. They were published in the newsletter, public comments were made, the advisory commission made recommendations, and revisions were made. Legislative mandates are to:

- consult with all interested individuals and organizations to foster and develop intergovernmental cooperation in developing boundaries, formulating a management plan, and managing the national scenic river,
- limit government acquisition of land, contingent on effective local resource protection,
- respect the rights of landowners and recognize the importance of ranching in the Niobrara valley,
- allow hunting, fishing, and trapping on private property to continue under state regulations,
- continue management of the portion of the river within the Fort Niobrara National Wildlife Refuge by the U.S. Fish and Wildlife Service.

#### **SIGNIFICANCE OF AREA FEATURES**

Area features were analyzed and listed for consideration. These features make this place important and different, or "outstandingly remarkable." The following was also published in the 1993 newsletter and reviewed by the advisory commission.

The Niobrara River is an outstanding example of a largely free-flowing Great Plains river.

The Niobrara valley contains a large concentration of scenic river cliffs and waterfalls that are rare in the Great Plains.

The high bluffs along the river provide scenic vistas of the Niobrara River valley and its many ecosystems. Distant views of the sandhills prairie to the south are unusual in the Great Plains states. The river valley itself provides scenic views.

The braided lower river provides important nesting habitat for the endangered interior least tern and threatened piping plover. The river also provides important migratory habitat for the endangered whooping crane, bald eagle, and peregrine falcon.

The Niobrara valley supports exceptional biological diversity within the narrow confines of the valley, where elements of the following ecosystems exist in the same area or very close to each other: northern (boreal) forest, Rocky Mountain pine forest, eastern deciduous forest, tallgrass prairie, mixed-grass prairie, and sandhills prairie. Approximately 160 species of plants and animals found in the Niobrara valley are at the edge of their range. The number of plant species at or beyond their normal geographic range, the wide variety of plants, and the number of distinctly different plant ecosystems found close together is very unusual. Some plant and animal species are state or federally listed as rare, threatened, endangered, or candidate species.

The Niobrara River valley is an excellent example of a rural cultural landscape that contains ranches, limited development, and scenic vistas. Ranches are an important and integral part of the historic landscape. The existence of farms and ranches contributes greatly to the maintenance and preservation of the valley.

The area contains scientifically important deposits of mid-Tertiary and Pleistocene fossils. These are important to our knowledge of past life forms.

Fort Niobrara played an important role as a frontier Army post, than as an early national wildlife refuge preserving bison, elk, longhorn cattle, and native birds.

The sandhills near the river act as both a filter and reservoir of high quality water to sustain seepage springs, unusual plants, aquatic lifeforms, river flow, and scenic waterfalls.

The upper designated portion of the Niobrara River offers relatively safe and enjoyable river recreation for people of differing skill levels.

The river valley provides a high quality setting for a wide variety of resource based recreation.

The above list was used to make a short list of the most significant features the plan is meant to protect over the long term by different methods discussed under management alternatives. With the exception of specific fossil beds and waterfalls, these features are widely distributed up and down the valley.

- the free flowing Niobrara River
- the rural agricultural landscape of ranches and limited development
- unusually diverse natural ecosystems with many plant and animal species found at the edge of their range or beyond their usual range
- deposits of scientifically important fossils of mid-Tertiary and Pleistocene geological periods
- a scenic landscape with views of waterfalls, cliffs, forest, and open space with few developments.

## **DESIRED FUTURE CONDITIONS**

The planning team developed ideas for desired future conditions that could be considered management objectives or a vision statement for the plan. These were published in the 1993 newsletter and modified after public comment. These broad descriptions were developed in three separate categories: landscape preservation, visitor management, and resource management.

### **Landscape Preservation**

The mosaic of natural and cultural landscapes, including agricultural customs and culture, will be maintained in the valley. The intent is to maintain the nature and intensity of uses of the landscape that existed at the time of the designation.

Riparian landowners will continue to have access to water. There will be minimal impact on the riverbanks and water quality.

New development will have minimal impact on the largely natural and undeveloped conditions of the Niobrara River valley.

Roads and bridges will support acceptable levels of use and will not detract from the pastoral nature of the landscape.

The management of the scenic river will not cause an economic hardship to counties.

#### **Visitor Management**

Visitors will respect the privacy and property rights of residents.

Hunting, fishing, and trapping on private and state land will be conducted according to state laws. Trapping is prohibited in federally owned park areas. The Fort Niobrara National Wildlife Refuge rules are unaffected by the scenic river designation.

Visitors will see few developments and have the opportunity to enjoy and appreciate the resources.

Recreational developments will be consistent with acceptable levels of public use and will provide for public health and safety as well as resource protection.

Camping opportunities will range from backcountry to moderately developed areas. These camping developments will minimally impact the visitor's visual experience.

Opportunities will exist for canoeists and other visitors to experience relative solitude.

Visitors will have a canoeing experience free from user conflicts without overcrowding.

Motorized water travel will be prohibited except for emergency or approved administrative use.

Noise experienced by visitors will be typical for the surrounding natural and cultural environment, and will not be a nuisance to the majority of users.

An interpretative program will address the natural and cultural resource values of the national scenic river, along with visitor courtesies and safety concerns.

#### **Resource Management**

Significant historical sites, archeological sites, and cultural landscapes will be preserved.

Natural processes and geologic features such as bluffs, waterfalls, and streambanks will retain their natural qualities.

Water quality will be maintained to support wildlife, fisheries, agriculture, and the recreational values associated with the river.

Wildlife, recreational, and agricultural interests will work cooperatively to ensure an adequate future supply of water.

The wildlife resources and habitat of the Niobrara River valley will be managed and some missing species will be restored where culturally and biologically feasible.

Air quality will be maintained.

The biological diversity of the Niobrara River valley, including at least five major ecosystems, will be preserved and enhanced.

The significant fossil resources inside the scenic river boundaries will be preserved and made available for scientific research. Opportunities for interpretation will be made available.

## Appendix H - Niobrara River Corridor Data

This appendix provides supporting material for this plan's description of the Niobrara River Corridor. Table H-1 gives a brief description of each soil mapping unit shown on the Typical Landscape Sections that appear on page 51. The suitability of those soil mapping units for various uses is listed in Table H-2. The map on page H-3 shows the soil mapping units for the entire corridor, as taken from the soil survey field sheets prepared by the USDA-Natural Resources Conservation Service (NRCS). This map supplements the cross-sectional drawings on page 51 and will be a useful planning tool for anyone interested in the river corridor. Descriptions of all the soil mapping units it shows are too bulky to include here (they are available from the NRCS), but all units are included in Table H-2. This appendix ends with a reproduction of the National Wetlands Inventory maps for the Niobrara River Corridor. The wetlands classification system used on that map is explained in the U.S. Fish and Wildlife Service publication, *Classification of Wetlands and Deepwater Habitats of the United States*.

**Table H-1 Soil Mapping Unit Descriptions Shown on  
Typical Landscape Sections: Niobrara River Corridor Map**

<i>map symbol</i>	<i>mapping unit name</i>	<i>mapping unit description</i>
An	Anselmo fine sandy loam, 0-2% slopes	Very deep, well-drained eolian soil of moderately rapid permeability on the plains north of the bluffs. Land Capability Class (LCC) = IIe.
AnC	Anselmo fine sandy loam, 0-2% slopes	Very deep, well-drained eolian soil of moderately rapid permeability on slopes north of the bluffs. LCC = IIIe.
Id	Inglewood loamy fine sand, calcareous, 0-2% slopes	Very deep, moderately well-drained, rapidly permeable alluvial soil on river terraces. Has a seasonal water table at 3-6 feet. LCC = IVe.
McD MpD	McKelvie loamy fine sand, 3-9% slopes	Very deep, excessively drained, rapidly permeable residual soil at the foot of the bluffs north of the river. LCC = VIe.
McF MpF	McKelvie loamy fine sand, 9-30% slopes	Very deep, excessively drained, rapidly permeable residual soil that forms part of the bluffs north of the river. LCC = VIe.
MfG MtG	McKelvie-Rock Outcrop complex, 20-60% slopes	Very deep, excessively drained, rapidly permeable residual soil with sandstone outcrops in the bluffs north of Minnechadusa Creek and the river. LCC = VIIe and VIIIs.
MeG MuG	McKelvie-Fishberry-Rock outcrop complex, 11-60% slopes	Deep, excessively drained, rapidly permeable residual soil mixed with shallow, excessively drained, rapidly permeable residual soil, and sandstone outcrops. Predominant mapping unit for the steepest bluffs north of the river. LCC = VIIe, VIIIs, and VIIIs.

**Fort Niobrara Natl  
Wildlife Refuge**

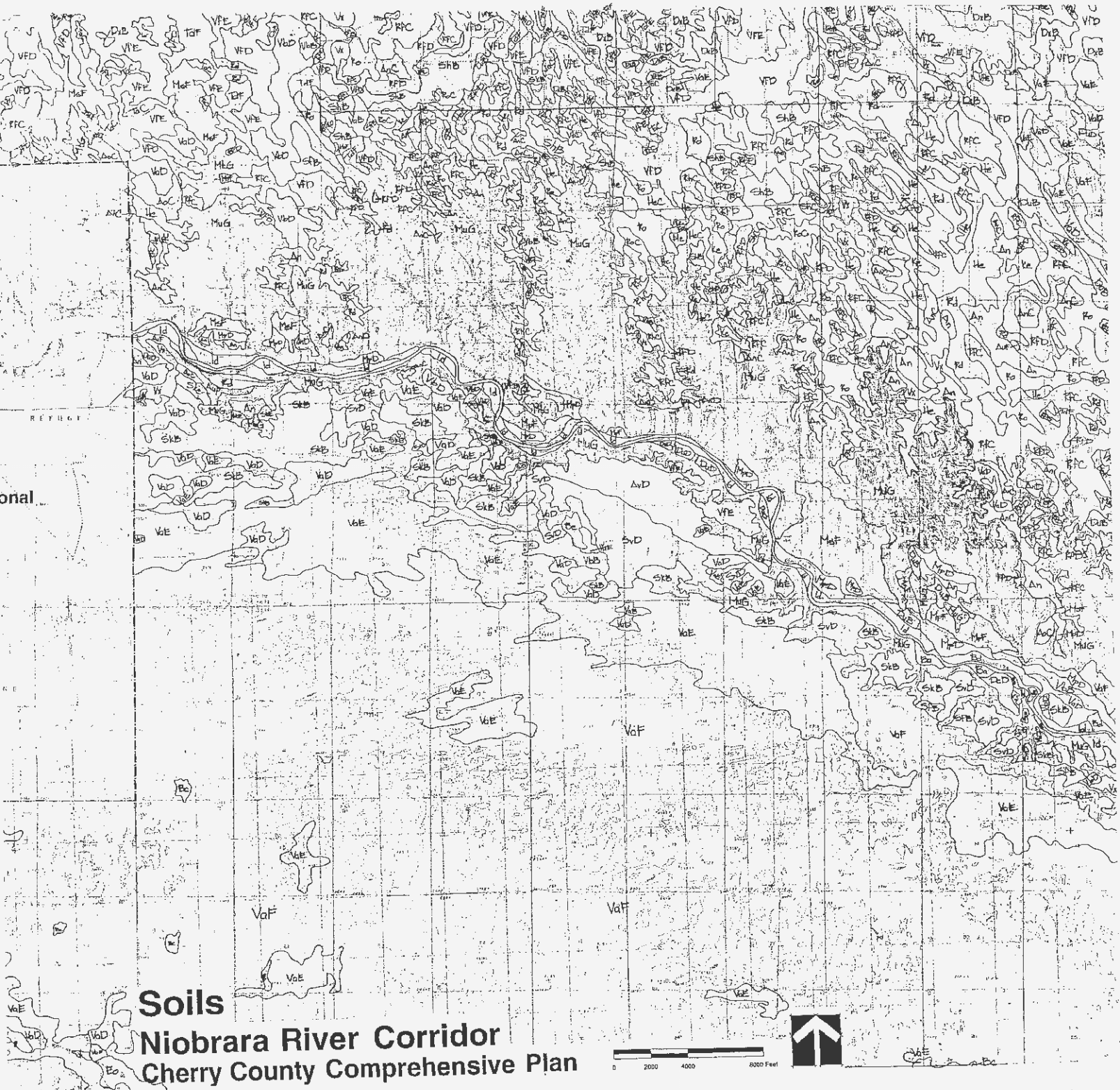


Table H-1, continued

Rd Ht	Holt fine sandy loam, 0-2% slopes	Moderately deep, well drained soil of moderately rapid permeability that occurs just above the bluffs north of the river. Land Capability Class = IIIe.
RhC HyC	Holt-Vetal fine sandy loams, 0-6% slopes	Mix of a moderately deep, well drained residual soil of moderately rapid permeability with a very deep, well drained eolian and alluvial soil of moderately rapid permeability on tablelands north of the river corridor. Land Capability Class = IIIe.
Ro	Hennings fine sandy loam, 0-2% slopes	Deep, well drained, residual soil of moderate permeability on tablelands north of the river and Minnechaduza Creek. Land Capability Class = IIIe.
SfB	Sandose loamy fine sand, 0-3% slopes	Very deep, well drained eolian soil of rapid to moderate permeability on tablelands north of the river. Land Capability Class = IIIe.
SkB SoB	Simeon sand, 0-3% slopes	Very deep, excessively drained, rapidly permeable alluvial soil above the bluffs south of the river. Land Capability Class = VIs.
SvD	Simeon-Valentine complex, 0-9% slopes	Mix of very deep, excessively drained, rapidly permeable alluvial and aeolian soils. Land Capability Class = VIs and VIe.
VaD	Valentine fine sand, 3-9% slopes	Very deep, excessively drained, rapidly permeable eolian soil on gentle slopes in the Sandhills south of the river. LCC = VIe.
VaE	Valentine fine sand, rolling	Very deep, excessively drained, rapidly permeable eolian soil on steeper slopes in the Sandhills south of the river. LCC = VIe.
VbD VmD	Valentine loamy fine sand, 3-9% slopes	Very deep, excessively drained, rapidly permeable eolian soil of the Sandhills south of the river. LCC = VIe.
VfD VnD	Valentine-Duda complex, 3-9%	Mix of very deep, excessively drained, rapidly permeable eolian soil with moderately deep, somewhat excessively drained, rapidly permeable eolian and residual soil on tableland north of the river. LCC = Vie.

**Table H-2 Cherry County River Corridor Soils**

This information is subject to revision when the Cherry County soil survey is published by the Natural Resources Conservation Service.

<i>map unit characteristics</i>			<i>limitations on ... Prime Farmland - where irrigated or drained - in italics</i>			
<i>map symbol</i>	<i>unit name</i>	<i>slope</i>	<i>septic tank absorption fields</i>	<i>camp areas</i>	<i>local roads</i>	<i>dwelling w/wo basements</i>
Ab	<b>Almeria fine sandy loam, wet</b>	0-2%	Severe	Severe	Severe	Severe
Ac	<b>Almeria fine sandy loam</b>	0-2%	Severe	Severe	Severe	Severe
Ad Ba	<b>Almeria fine sandy loam, channeled</b>	0-2%	Severe	Severe	Severe	Severe
An	<i>Anselmo fine sandy loam</i>	0-2%	Severe	Slight	Moderate	Slight
AnC	<i>Anselmo fine sandy loam</i>	2-6%	Severe	Slight	Moderate	Slight
AnD AuD	<i>Anselmo fine sandy loam</i>	2-11%	Severe	Moderate	Moderate	Moderate
AoB	<i>Anselmo loamy fine sand</i>	0-3%	Severe	Slight	Moderate	Slight
AoC	<i>Anselmo loamy fine sand</i>	3-6%	Severe	Slight	Moderate	Slight
AuF	<i>Anselmo-Longpine complex</i>	9-30%	Severe	Mod-Severe	Moderate	Mod-Severe
Bc	<b>Blownout land-Valentine complex</b>	0-60%	Severe	Severe	Severe	Mod-Severe
Bd	<b>Bolent-Inglewood calcareous complex</b>	0-2%	Severe	Slight-Mod	Severe	Severe

Table F-2, continued

map unit characteristics			limitations on ... Prime Farmland - where irrigated or drained - in italics			
map symbol	unit name	slope	septic tank absorption fields	camp areas	local roads	dwellings w/wo basements
Bo le	Bolent loamy fine sand, channeled	0-2%	Severe	Severe	Severe	Severe
DuB DcB	Dunday loamy fine sand	0-3%	Severe	Slight	Slight	Slight
DuD DcD	Dunday loamy fine sand	3-9%	Severe	Slight	Slight	Slight
DIB D1C DxB	Duda-Fishberry complex	0-3%	Severe	Slight-Severe	Slight-Mod	Slight-Severe
Eo	Els fine sand	0-2%	Severe	Severe	Moderate	Severe
EpB	Els-Ipage complex	0-3%	Severe	Severe	Moderate	Slight-Severe
Er	Els-Tyron complex	0-2%	Severe	Severe	Mod-Severe	Severe
Es	Elsmere loamy fine sand	0-2%	Severe	Severe	Moderate	Severe
Ew	Elsmere-Loup complex	0-2%	Severe	Severe	Mod-Slight	Severe
Fe	Fluvaquents, sandy	0-1%	Severe	Severe	Severe	Severe
He/Ro	Hennings fine sandy loam	0-2%	Severe	Slight	Moderate	Slight-Mod
HeC/RoC	Hennings fine sandy loam	2-6%	Severe	Slight	Moderate	Slight-Mod
Ht/Rd	Holt fine sandy loam	0-2%	Severe	Slight	Moderate	Slight-Mod

Table H-2, continued

map unit characteristics			limitations on ... Prime Farmland - where irrigated or drained - in italics			
map symbol	unit name	slope	septic tank absorption fields	camp areas	local roads	dwelling w/wo basements
HuC/RfC	Holt-Longpine complex	2-6%	Severe	Slight-Severe	Moderate	Slight-Severe
HuD/RfD	Holt-Longpine complex	6-9%	Severe	Slight-Severe	Moderate	Slight-Severe
HyC/RhC	Holt-Vetal complex	0-6%	Severe	Slight	Moderate	Slight-Mod
Ic	Inglewood fine sand, calcareous	0-2%	Severe	Severe	Moderate	Severe
Id	Inglewood loamy fine sand, calcareous	0-2%	Severe	Severe	Moderate	Severe
InB	Ipage fine sand	0-3%	Severe	Severe	Moderate	Slight-Mod
IpB	Ipage loamy fine sand	0-3%	Severe	Severe	Moderate	Slight-Mod
ItB	Ipage-Tyron complex	0-3%	Severe	Severe	Mod-Severe	Slight-Severe
Re	Keya loam	0-2%	Moderate	Slight	Severe	Slight-Severe
LfB	Libory loamy fine sand	0-3%	Severe	Moderate	Moderate	Mod-Severe
Lo	Loup fine sandy loam	0-1%	Severe	Severe	Severe	Severe
MpD	McKelvie loamy fine sand	3-9%	Severe	Moderate	Slight	Slight

Table H-2, continued

map unit characteristics			limitations on ... Prime Farmland - where irrigated or drained - in italics			
map symbol	unit name	slope	septic tank absorption fields	camp areas	local roads	dwellings w/wo basements
MpF	McKelvie loamy fine sand	9-30%	Severe	Severe	Severe	Severe
MsF	McKelvie-Fishberry complex	9-30%	Severe	Mod-Severe	Mod-Severe	Mod-Severe
MtG	McKelvie-Rock outcrop complex	20-60%	Severe	Severe	Severe	Severe
MuG	McKelvie-Fishberry-Rock outcrop complex	11-60%	Severe	Severe	Severe	Severe
Or	Ord loam	0-2%	Severe	Severe	Severe	Severe
RkG	Fishberry-Rock Outcrop complex	20-60%	Severe	Severe	Severe	Severe
SfB	Sandose loamy fine sand	0-3%	Severe	Moderate	Slight	Slight-Mod
ShB	Sandose-Hennings complex	0-3%	Severe	Slight-Mod	Slight-Mod	Slight-Mod
ShC	Sandose-Hennings complex	3-6%	Severe	Slight-Mod	Slight-Mod	Slight-Mod
SkB	Simeon sand	0-3%	Severe	Severe	Slight	Slight
SvD	Simeon-Valentine complex	0-9%	Severe	Severe	Slight	Slight
VaB	Valentine fine sand	0-3%	Severe	Severe	Slight	Slight

Table H-2, continued

map unit characteristics			limitations on ... Prime Farmland – where irrigated or drained - in italics			
map symbol	unit name	slope	septic tank absorption fields	camp areas	local roads	dwelling w/wo basements
VaD	Valentine fine sand	3-9%	Severe	Severe	Slight	Slight
VaE	Valentine fine sand	rolling	Severe	Severe	Severe	Severe
VaF	Valentine complex	rolling and hilly	Severe	Severe	Severe	Severe
VaG	Valentine fine sand	hilly	Severe	Severe	Severe	Severe
VbB	Valentine loamy fine sand	0-3%	Severe	Moderate	Slight	Slight
VbD	Valentine loamy fine sand	3-9%	Severe	Moderate	Slight	Slight
VfD	Valentine-Duda complex	3-9%	Severe	Slight-Mod	Slight	Slight-Mod
VsF/VfE	Valentine-Duda complex	9-24%	Severe	Mod-Severe	Mod-Severe	Mod-Severe
VuE/SkE	Simeon-Valentine complex	9-24%	Severe	Severe	Slight	Slight
Vy	Vetal loamy fine sand	0-3%	Slight	Slight	Moderate	Slight
Vx	Vetal fine sandy loam	0-3%	Slight	Slight	Moderate	Slight

**Legend**

**SYSTEM**

**SURBSYSTEM**

**CLASS**

**Subclass**

**2- LOWER PERENNIAL**

**NO. DETERMINED**

**AS AQUATIC BE**

**1 Subclass**

**2 Subclass**

**3 Subclass**

**4 Subclass**

**5 Subclass**

**6 Subclass**

**7 Subclass**

**8 Subclass**

**9 Subclass**

**10 Subclass**

**11 Subclass**

**12 Subclass**

**13 Subclass**

**14 Subclass**

**15 Subclass**

**16 Subclass**

**17 Subclass**

**18 Subclass**

**19 Subclass**

**20 Subclass**

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