

CHAPTER 5: NATURAL, AGRICULTURAL & CULTURAL RESOURCES



Photos above by Randy Uhl

5.1 Introduction

This element includes an inventory and analysis of the natural, agricultural, and cultural resources in the City of Decorah. Within the following narrative, various components of the community resource base are examined at a broad level or “planning scale”. The purpose of this examination is to provide the community with the necessary information to make informed decisions about future growth and development.

5.2 Natural Resources

Climate

Decorah’s climate is continental in nature, and is characterized by four distinct seasons, as well as a wide variety in temperature and precipitation. Decorah averages 32.09 inches of rain per year, the US average is 37. Snowfall is 38.7 inches; the average US city gets 25 inches of snow per year. The average high temperature is 54.8 degrees and the average low is 34.2 degrees each year.

Topography

The City of Decorah is situated within the Upper Iowa River Basin. The city and the planning area are drained by the Upper Iowa River and its tributaries. Except the areas that are protected by the levees, most of the bottomlands of the Upper Iowa River are subject to flooding. The protective levees around developed parts of the city were constructed by the U.S. Corps of Engineers in the mid-1950s.

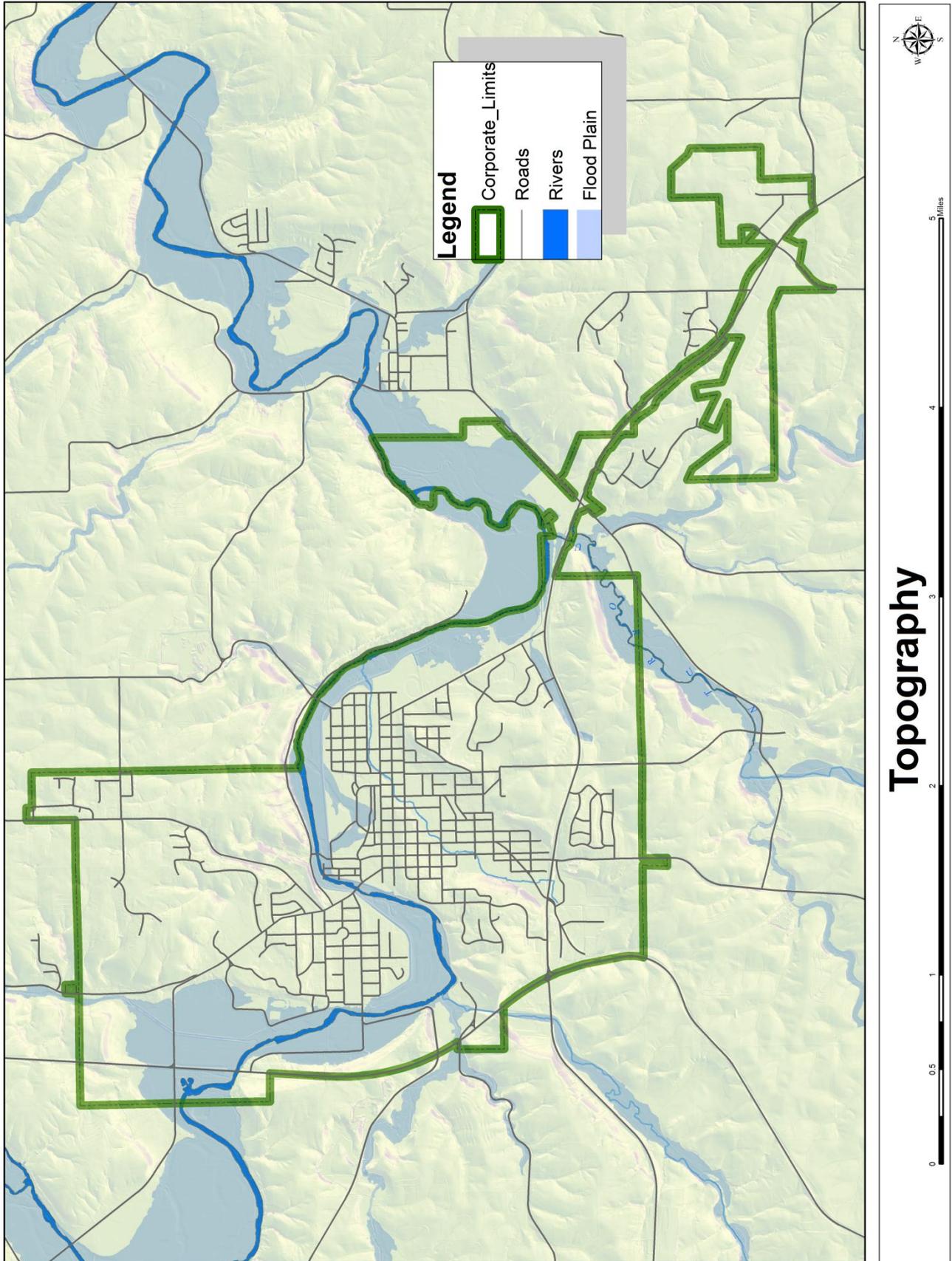
The topography of the city varies from relatively level areas along the bottomlands to steep side slopes along the drainage courses. The elevation difference in the planning area between the high points on the plateau and low point of the bottomlands is almost 400 feet.

Most of the developed areas of the city are located primarily on the nearly level to moderately undulating land of the bottomlands and side slopes, as shown on Figure 9.

The limestone outcroppings in the uplands and the sand and gravel deposits in the bottomlands have resulted in numerous quarrying operations in the city and the planning area. Parts of the uplands and the steep side slopes are densely wooded. The City of Decorah and Winneshiek County are known for the aesthetic qualities of natural features including caves, underground springs, trout streams and scenic areas, and for recreation facilities that have been developed. These features are all assets to Decorah and the surrounding area.

The City of Decorah is located in a geologic area known as the Paleozoic Plateau, or Driftless Area. Another geologic term often used to refer to Decorah is karst topography, which is characterized by caves and cave systems, disappearing streams, blind valleys, underground streams, sinkholes, springs, and cold streams. Karst topography presents some challenges and special requirements in terms of environmental protection, with the potential for water pollution being one of the top concerns.

Figure 9: Topography



Soils

An inventory of soils in Winneshiek County was completed and published in the report by the United States Department of Agriculture (USDA) in 2007. Winneshiek County soils were formed in loess, glacial till, alluvium, and organic parent materials.

Combinations of soil types form patterns which are known as associations. Soil associations include two or more soil types. Soil types in combination with other factors such as topography, drainage, vegetation and erosion identify the characteristic of each soil. Soil classifications generally apply to a depth of approximately five feet. The principal soil association in the Decorah area is the Steep Rock Land-Dubuque-Dorchester Association.

Soils of this association are composed of steep rock land; moderately steep, shallow, silty soils; and nearly level to sloping silty and loamy soils. Soils in Decorah include predominantly Terril Loam, Waukegan Loam, Fayette silt loam, Dorchester silt loam, and Winneshiek loam. The Terril soils are found primarily in the central part of the city on relatively level slopes along the Dry Run. The Waukegan and Winneshiek soils, found along the uplands, and Dorchester soils, found along the bottomlands, are predominant in the west part of Decorah. The Fayette silt loam is predominant in the southwest and north parts of the city on the uplands.

Soils such as Dorchester and Terril, located along the bottomlands of the Upper Iowa River, are subject to serve wetness and flooding.

The side slopes of the bluffs have been designated in the soil survey as steep rock land. Most of Palisades Park, Dunning’s Spring Park, and Ice Cave Hill Park are included in this designation.

A generalized summary of the soil limitations for urban development, excerpted from the soils report, is summarized in Table 26.

Table 26: Limitations for Urban Development due to Soil Type

Soil Symbol	Soil Series	Building Site Development	Sanitary Facilities*	Construction Material (Borrow)
De	Dorchester	Severe subject to flooding	Severe subject to flooding	Fair to Poor
Te	Terril	Moderate	Slight Except in drainage ways	Fair to Poor
Fa	Fayette	Moderate	Slight	Fair
Wk	Winneshiek	None if on bedrock	Moderate to severe	Fair
Wd	Waukegan	Slight	Slight	Fair

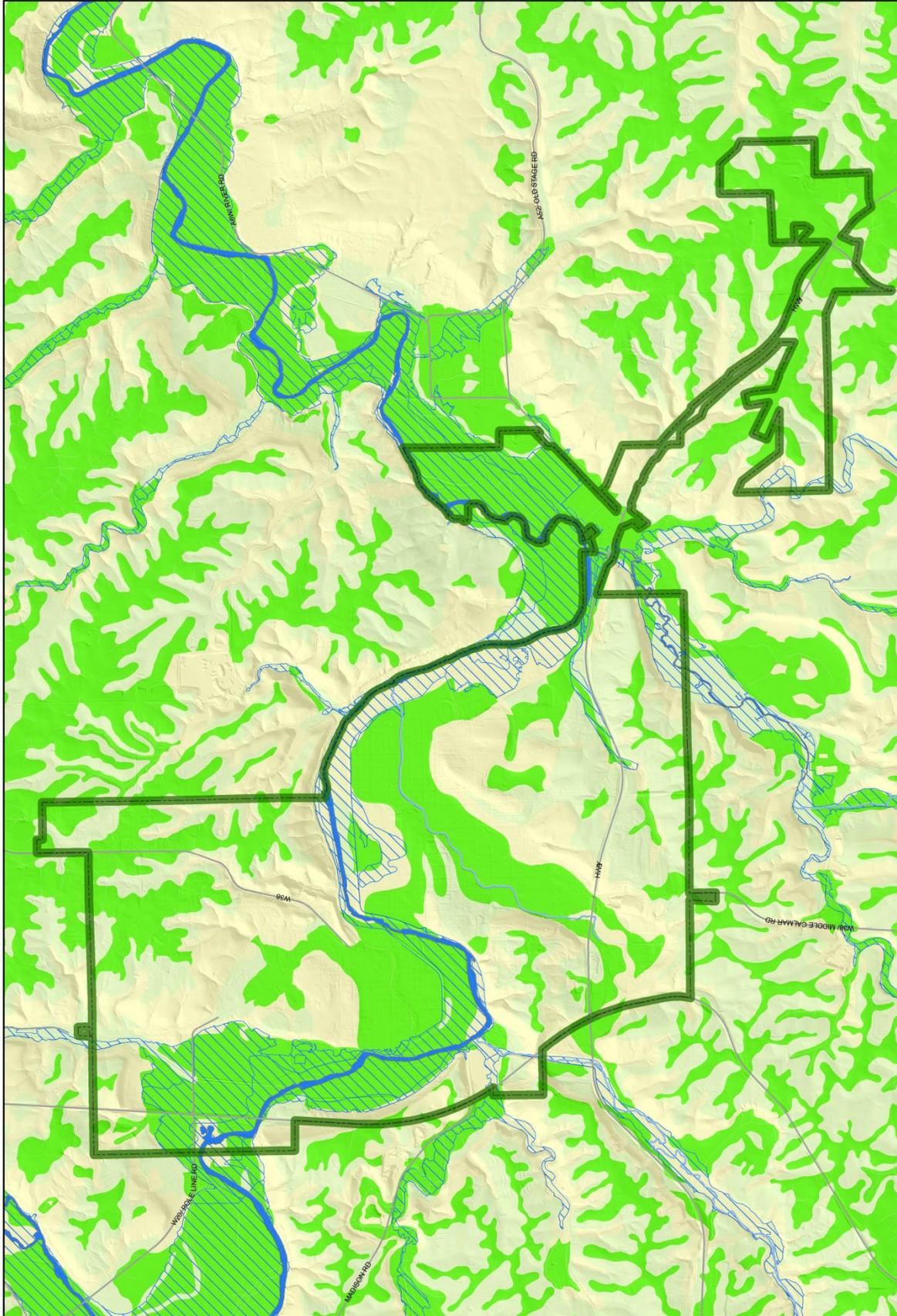
Source: Soil Survey, Winneshiek County, Iowa; SCS, 1968.

*Includes septic tank absorption fields, sewage lagoons, and sanitary landfill facilities.

Soils in the planning area include primarily Fayette silt loam and Down silt loam in the uplands and sides slopes and Dorchester silt loam in the bottomlands. Steep rock land is common along the side slopes of drainage courses.

The Winneshiek County Soil Survey Report Supplement indicated that the Dorchester soils, when not subject to flooding, and Down, Fayette, and Terril soils on level-to-moderate slopes are highly productive for crops. The Corn Suitability Ratings (CSR) for these soils range from 83 to 90 based on an index level of 100 and are shown on Figure 10. The 100 index level represents soils that have no physical limitations for continual row cropping.

Figure 10: Soils



Soils

Soil Rating

Yellow	Poor 0 - 33 CSR
Light Green	Fair 33 - 64 CSR
Medium Green	Good 65 - 95 CSR

SURFACE WATER RESOURCES AND WETLANDS

Water is an important resource for all communities, and it is an especially evident one for the City of Decorah in its rivers, streams, and springs.

Rivers in the Planning Area:

- Upper Iowa River is known for its excellent canoeing, fishing and tubing
- Dry Run Creek is located on the west edge of Decorah.
- Coon Creek drains into the Upper Iowa River west of Decorah. This stream is not stocked in June, July and August due to warm water temperatures.
- Trout River is a beautiful trout stream east of Decorah. It has access on both State and private land.
- Trout Run is located immediately south of Decorah. This stream starts at scenic Siewers Springs which provides water for the Iowa DNR Decorah Trout Hatchery. The hatchery rears trout which are stocked into area streams. Trout Run provides excellent fishing opportunities.
- Twin Springs lies just west of Decorah and has a wide range of camping facilities.
- Canoe Creek lies north of Decorah and is a good stream to fish in the Spring and Fall. Canoe is not stocked in June, July or August due to warm water temperatures. Much of the access on Canoe Creek is provided by private landowners.

Watersheds

Decorah is in the Upper Iowa Watershed. The Upper Iowa River watershed is a 1,005 square mile watershed recognized by the EPA and the State of Iowa in the Unified Watershed Assessment as a Priority Watershed. A diagram of the watersheds in the Decorah area is shown in Figure 11.

5.3 Agricultural Resources

The City of Decorah currently has 1,673 acres or 38% of its land in agricultural use. Going forward and as noted in the future land use map, Decorah has identified prime farm land with corn suitability ratings of 65 or higher and has marked those areas with the intention of considering prime farmland in future land use decisions.

5.4 Cultural and Historic Resources

Museums

Vesterheim Norwegian-American Museum, at 523 West Water Street, houses over 24,000 artifacts, which include large samplings from the fine, decorative, and folk arts, and the tools and machinery of early agriculture, lumbering, and other immigrant industries.

Porter House Museum illustrates the life and times of its owners, Adelbert and Grace Porter, with their personal furnishings, collections, art work, photographs, and library. The museum is located at 401 West Broadway Street.

The Luther College Fine Arts Collection has over 1,500 works including paintings, drawings, prints, photography, sculpture, assemblages, textiles, ceramics, and utilitarian objects. The museum is located at 700 College Drive in the Preus Library.

Arts

Decorah is well-known as a regional center for the arts and for artists. As the home of many professional artists, Decorah is well represented in an annual Northeast Iowa Studio Tour. In addition to the many performing arts and music performances offered by Luther College, there are also several other local stage productions and music on offer for the public to enjoy.

Historic Preservation

Decorah has an established Historic Preservation Commission. The National Historic Preservation Act was passed by Congress in 1966. The Act pledged Federal matching funds for historic preservation, authorized the National Register of Historical Places, and provided a measure of legal protection for registered properties. Decorah and Winneshiek County have several sites listed on the National Register of Historic Places, including those listed in Table 27.

Table 27: Historic Places in Decorah

Historic Site	Location
Birdsall Lime Kiln	NE of Decorah
Broadway-Phelps Park Historic District	West Broadway from Winnebago St. to Park Dr.
Cooley-Whitney House	305 Grove St.
Decorah East Side Elementary and Middle School	210 Vernon St.
Decorah Ice Cave	Ice Cave Rd.
Decorah Woolen Mill	107 Court St.
Ellsworth-Porter House	401 W. Broadway
Horn House	NW of Decorah
Jacobson Farm	SE of Decorah on Rt. 1
Koren Library	SE of Decorah
Locust School	N of Decorah
Luther College Farm	Luther College campus
Miller, Norris, House	118 N. Mill St.
Painter-Bernatz Mill	200 N. Mill St.
Steyer Bridge	Oneota Rd. off US 52
Steyer Opera House	102--104 W. Water St.
Ten Mile Creek Bridge	Happy hollow Rd. over Ten Mile Cr.
Washington Prairie Methodist Church	Luther College campus

<http://www.smalltowngems.com/browsetowns/iowa/decorah/decorahiahistoricsites.html>

In addition, there are a number of historical places that have been identified in Decorah by the Winneshiek County Historical Society. These range from the old post office (present public library) to several churches, the pool house, and the Vesterheim Norwegian-American Museum.

Broadway-Phelps Park Historic District has been established including Phelps Park, the 300 through 700 blocks of West Broadway, and the 300 block of Upper Broadway. The district includes a variety of old houses of Midwestern architecture, together with some of Gothic Revival and Italianate styles of architecture.

Winneshiek County has established a historic preservation ordinance and created a historic preservation commission to be able to participate in the certified local government program of preservation historic places. The program, among other things, enables the county to obtain federal funds administered by the State of Iowa for historic preservation activities.

Resources for Historic Preservation

The Decorah and Winneshiek County Historical Society protects, collects, preserves and promotes the written, oral and tangible items of historical importance and to cooperate with other organizations to accomplish common goals.

Iowa's State Historic Preservation Office (SHPO) is part of the State Historical Society of Iowa, a division within the Iowa Department of Cultural Affairs. Its mission is to identify, preserve, and protect Iowa's historic resources.

5.5 Natural, Agricultural, and Cultural Resources Protection Programs

There are many programs in place to assist with the protection of natural, agricultural, and cultural resources. A few examples of the opportunities available are the Watershed Protection Program, Iowa Conservation Reserve Enhancement Program (CREP), Iowa Water Quality Loan Fund, Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP) and Wildlife Habitat Incentive Program (WHIP). The Decorah area is an excellent candidate for many of these programs because of the unique and fragile nature of the ecosystem, therefore many of the programs listed are currently being utilized. Natural, agricultural and cultural resources protection programs are discussed in further detail in the Comprehensive Plan for Winneshiek County.

5.6 Natural, Agricultural and Cultural Resources Summary

The City of Decorah has an abundance of natural resources, ranging from rivers, streams and springs to limestone bluffs, woodlands, prairies and abundant wildlife. These natural resources are important to the local economy through tourism and recreation as well as limestone quarry operations.

Agriculture occupies a surprising amount of acreage within the City of Decorah, often in areas subject to flooding. The city recognizes that the rich soil that makes farming so successful here is a resource to be protected.

Cultural activities are an important aspect of the City of Decorah. Historic preservation is actively pursued when appropriate, and actions will be taken to ensure that preservation of historic properties becomes an integral part of the site development process. The arts community is thriving in the Decorah area, with visual arts, performing arts and music performances all well-represented. Vesterheim is a high-quality museum and is an asset to the city.

5.7 Natural, Agricultural, and Cultural Resources Policies

- The preservation and protection of historical and archaeological sites and environmentally sensitive areas should be continued.
- The steep rock land, limestone outcroppings, and other scenic landscapes should continue to be preserved through acquisition, easements and other methods.
- Dry Run, the principal drainage channel through the developed part of Decorah, should be improved and maintained as open space through residentially developed areas and enclosed only where necessary due to extension of streets and commercial and industrial development in the central business district.