

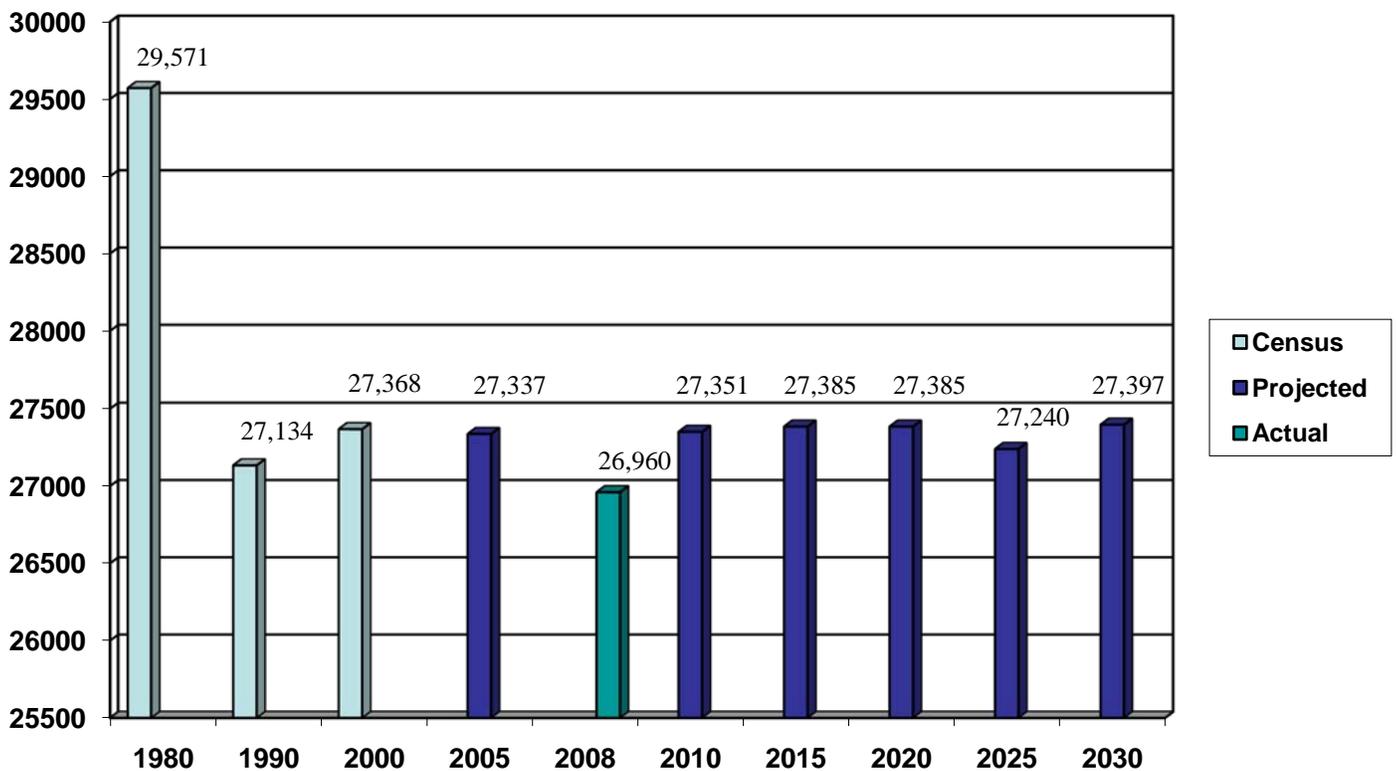
## Community Description

### A: Social

#### Population trends

Between 1990 and 2000, the City of Superior's population has been stable. The population growth averages approximately 234 residents per decade. This growth is projected for the next 20 years as unemployment and poverty rates continue to decrease. The actual population in 2008 was 26,960 which is about a 2% decrease from the year 2000. The estimated population appears to be slightly more aggressive than the actual population growth, see chart below.

City of Superior's Population Estimates from 1980 – 2030



## **Age Distribution**

Census figures show that the 2000 median age of the City of Superior residents was 36 years. According to the American Community Survey, in 2008 the median age was 35.9 years. This indicates positive and stable trends in the social and economic structure of this city. The number of school-age children (up to 19 years old) in the City of Superior decreased from 1990 to 2000 by 9.4%. Residents of working age (20-64) increased by 15.7% and residents of retirement age (65 or greater) decreased by 13.4%.

## **Population and Housing Forecasts**

While the population of Superior has been stable, housing unit projections also provide stable projections. 2010 projections were 12,276 units while projections for 2030 increase by just 161 units for a total of 12,437.

## **B: Physical**

Douglas County, the fourth largest county in Wisconsin in land area, (1,342 sq. mi.), lies in the far northwest corner of the state. Most of the communities in the county are within a half-hour's drive from Superior, the county seat and international seaport. The Superior-Duluth harbor ranks second in the nation in tonnage. Industry, agriculture, recreation, and forestry are the major sources of income for Douglas County residents.

### **Natural Features & Climate**

#### **Water**

The City of Superior lies 605 feet above sea level (Great Lakes Vertical Datum GLVD), at the westernmost tip of Lake Superior, in lowlands created during the last Ice Age. Superior is bordered to the northeast by Superior Bay, separated from Lake Superior, the largest freshwater lake by surface area, by the 2.5-mile long strip of land known as Wisconsin Point and its 6.8-mile twin, Minnesota Point. Superior is bordered to the northwest by St. Louis Bay. Superior lies north of the Continental Divide that separates the St. Lawrence (Lake Superior) and Mississippi River drainage systems. Moraine hills 1,200-feet above sea level direct water flow toward Lake Superior. The major drainage streams in Douglas County, north of the divide, are from east to west, the Bois Brule, Poplar, Middle, Amnicon, Nemadji, and St. Louis Rivers. Of these, the Nemadji River runs directly through the city. The St. Louis River runs through the basin at the western edge of the city to St. Louis Bay. Other rivers and streams running through the City of Superior and draining into the bays of Lake Superior include the Pokegama and Nemadji rivers, Bear, Bluff, and Newton Creeks. St. Louis Bay contains several smaller bays including Spirit Lake, Pokegama, Kelly, Kilner, Woodstock, and Kimball's Bays.

The Lake Superior Lowland, which adjoins Lake Superior, consists of a clay plain about 10 to 20 miles wide sloping gently from the Superior escarpment to the lake. Short, swift

streams flowing north into Lake Superior have cut deep V-shaped valleys below the plain.

### **Soils**

The northern part of Douglas County is underlain with Superior red sandstone, over which is a thick mantle of clay and gravel, forming an artesian slope. During the last glacial period (10,000 years ago), the Lake Superior Lowland was submerged under glacial Lake Superior and red clay was deposited on the old lakebed. Clay deposits in the valley under the St. Louis River are up to 600-feet thick. These calcareous red clay soils are finely textured, resulting in very poorly drained soils.

### **Climate**

The City of Superior has a continental climate, including long, cold winters with rather short, moderately warm summers. Superior's climate is modified by the tempering influence of Lake Superior. Lake Superior acts as a large storage basin for heat (or cold) and thus tends to increase the number of frost-free days along the lake, but it also acts as a coolant during the summer. The waters of Lake Superior are much cooler than land in summer and relatively warmer than land in late fall and winter. Winds blowing over the water toward the land in summer keep the air cooler, whereas in fall and winter, winds from the lake tend to raise air temperatures.

Average daily temperatures range between 15° F above zero in January and 66° F in July and August. Mean annual precipitation in the city is about 27.8 inches, occurring mostly in July, during peak thunderstorm season. Mean snowfall averages 40 inches along the lake with snow blanketing the ground approximately 120 days. The Duluth-Superior harbor is usually icebound from December until April; but Lake Superior itself normally does not completely freeze over. Large masses of ice tend to drift between the north shore (Duluth, MN) and south shore (Superior, WI) of western Lake Superior as dictated by wind direction. The first frost usually occurs in early October and the last frost of the spring usually occurs between mid-April and mid-May. Over the last ten years, temperature extremes include highs in the mid to upper 90s, usually in late July or early August and lows between 10 and 25 degrees below zero between December and February. A record high temperature of 105 °F occurred in July 1915. A record low temperature of -38°F occurred in March 1962 and February 1967.

### **Wetlands**

Recent inventories included in the City's Comprehensive Plan indicate that 7,130 acres of wetlands comprise approximately 25% of the total land area. As much as 65% of undeveloped city land was wetland as of 1998. Most of the wetlands in the city are shrub-scrub and forested with some wet meadow/emergent wetlands. Less abundant wetland types include unvegetated flats, open water, and aquatic beds.

The abundance of wetlands in the city have contributed to development difficulties. A variety of state and federal regulations limit filling wetlands, significantly increasing the time and uncertainty involved with completing development or improvement projects in the city. Other difficulties associated with development in such a wetland-rich region

include soil limitations and high seasonal water levels, causing problems such as flooding, wet basements, unstable foundations, and infrastructure failure in areas developed over wetlands.

In an effort to address wetland issues in a balanced and comprehensive manner, the City initiated the preparation of a Special Areas Management Plan (SAMP) in 1990. SAMPs are defined within the Corps of Engineers Regulatory Guidance Letter No. 86-10 as “a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth, containing a detailed and comprehensive statement of policies, standards, and criteria to guide public and private uses of lands and water; and mechanisms for timely implementation in specific geographic areas within the coastal zone.” The letter adds that SAMPs are “just as applicable in non-coastal areas.” The Superior SAMP covers 143 acres of wetlands in the city.

### **Flora and Fauna**

The City of Superior is located in the Lake Superior Coastal Plain which was historically a forested landscape. According to Wisconsin's Natural Communities (Hoffman, 2002) The City of Superior is host to several unique habitat types including:

White Pine-Hardwood Forest  
Forest Swamps  
Great Lakes Shoreland Forest  
Wet-Mesic Prairie  
Shrub Carr

Alder Thicket  
Northern Sedge Meadow  
Pine Barrens and Sand Barrens  
Shallow, Cattail, & Deep Marsh  
Lake Dune & Beach

Common tree species native to the City of Superior include quaking aspen (*Populus tremuloides*), white pine (*Pinus strobus*), red pine (*Pinus resinosa*), balsam fir (*Abies balsamea*), balsam poplar (*Populus balsamifera*), red maple (*Acer rubrum*), paper birch (*Betula papyrifera*), and American elm (*Ulmus americana*).

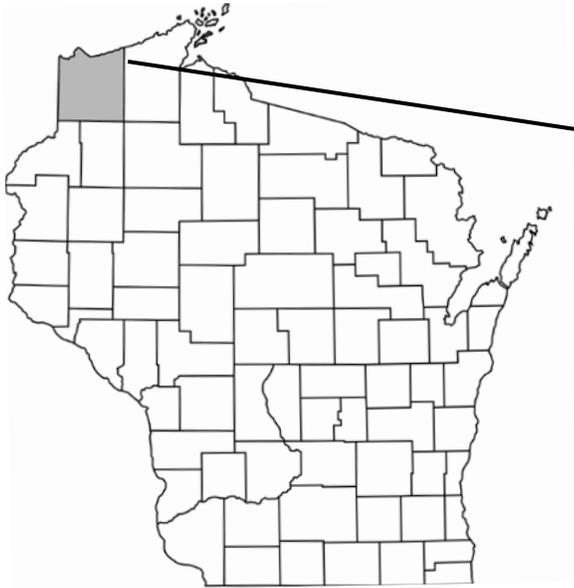
Common shrub species include speckled alder (*Alnus rugosa*), willow species (*Salix spp.*) including meadow willow (*S. petiolaris*), bog willow (*S. pedicellaris*), Bebb's willow (*S. bebbiana*), and black willow (*S. nigra*).

Common animal species in the City of Superior include those typical to these habitat types in the northern region.

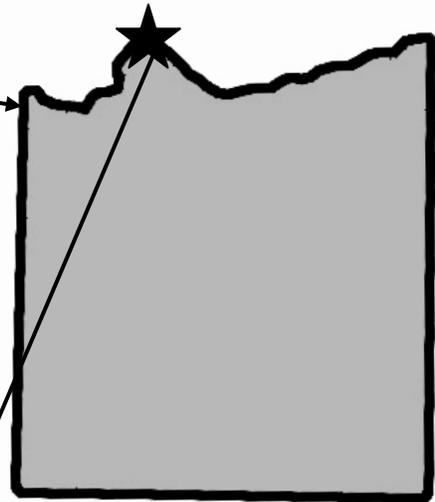
### **Parks and Natural Areas**

The City of Superior Parks and Recreation System includes 33 park and recreation sites, an extensive non-motorized trail system, and two unique, nature-based open space areas—the Superior Municipal Forest and Wisconsin Point. A complete park inventory is included in the City of Superior Master Park Plan Update (available from the Parks and Recreation Division of Public Works).

Superior Municipal Forest comprises 4,428 acres and is the third largest municipal forest in the nation, while Wisconsin Point is part of the largest sand spit on the Great Lakes.



State of Wisconsin



Douglas County

