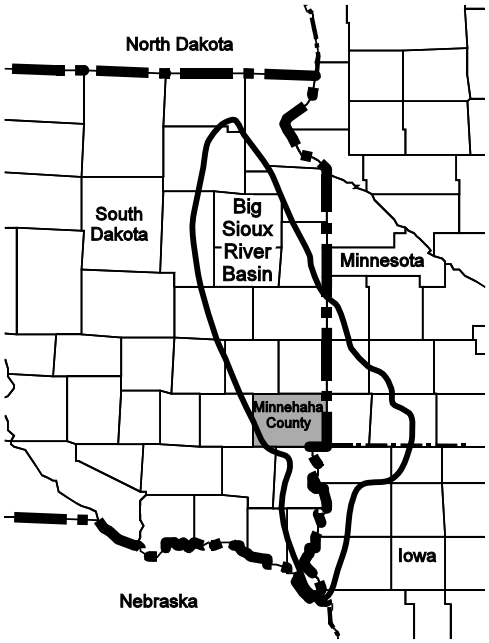
Streams, Lakes and Wetlands

Map 6 in the pocket insert shows the streams, lakes and wetlands in the county. The Big Sioux River, along with the Skunk and Split Rock Creek tributaries, form the major surface drainage features in the county, contributing to the larger Missouri River system. The Big Sioux bisects the county, flowing south from Dell Rapids to Sioux Falls, looping around the southern edge of the city and back north through the downtown area before heading east to Brandon and again south on its journey to the Missouri River. The Big Sioux River valley was originally cut by glacial meltwater flowing southward, confined between the glacier lobes that flanked the Coteau des Prairies. Figure 3 shows the extent of the Big Sioux drainage basin.

FIGURE 3
Big Sioux River Drainage Basin



Significant natural features associated with the Big Sioux River are apparent at both Dell Rapids and Sioux Falls. The Dells of the Sioux is characterized by steep, vertical quartzite walls where it splits from the river in Dell Rapids. The Dells flows south for three miles before rejoining the river two miles north of Baltic. The Falls of the Big Sioux is located north of the Sioux Falls downtown area. The city recently embarked on a major renovation project to showcase this natural resource and promote the area as a major tourist attraction.

Skunk Creek and its west fork tributary drain the western portion of the county, joining the Big Sioux in western Sioux Falls. Sand and gravel deposits are prevalent in the lower reaches of Skunk Creek where mining has been active for many years.

Split Rock Creek forms the dominant drainage feature in eastern Minnehaha County. The stream drains into the Big Sioux south of Brandon, near the intersection of Madison Street and Highway 11. The natural beauty of the stream is prominently displayed in the Garretson area within the city park and south at Palisade State Park. Steep quartzite walls and ledges accent these recreation facilities.

Numerous prairie lakes were created in eastern South Dakota by the glaciers. While they are most prevalent in northeastern South Dakota, a few prairie lakes were formed in the western portion of Minnehaha County. When the last glacier retreated from this area, glacial till filled many depressions formed by earlier glaciers, leaving shallow pot holes and wetland areas rather than well defined, deeper lakes. Wall Lake, with a surface area of 220 acres, is the only significant lake. The lake was dredged of silt during the early 1990's and now has a water depth in excess of 20 feet. Grass, Beaver, Lost, Clear, Buffalo and Diamond lakes are exceptionally shallow and function predominately as large wetland areas.

Wetlands are prevalent throughout western Minnehaha County. They perform several important functions, serving as natural water purifiers by filtering out pollutants, thereby enhancing surface and groundwater quality, increasing wildlife and fish habitat and providing recreational opportunities. Wetlands also reduce siltation and control flooding by slowing runoff during rapid snow melt and heavy

rainfall, releasing water gradually so erosion and downstream flooding are minimized.