

**Integrated Watershed Management Plan
Seine River Watershed**

**State of the Watershed –
Riparian Areas**

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Background

Riparian areas are the transitional zones that are found along our waterways, streambanks, lake shores and wetlands. Healthy riparian areas may have any combination of trees, shrubs, grasses, depending on the local conditions. They produce vegetation that is lusher than the surrounding dry land because of better soils and water availability. Healthy riparian areas have many important functions in our watersheds.

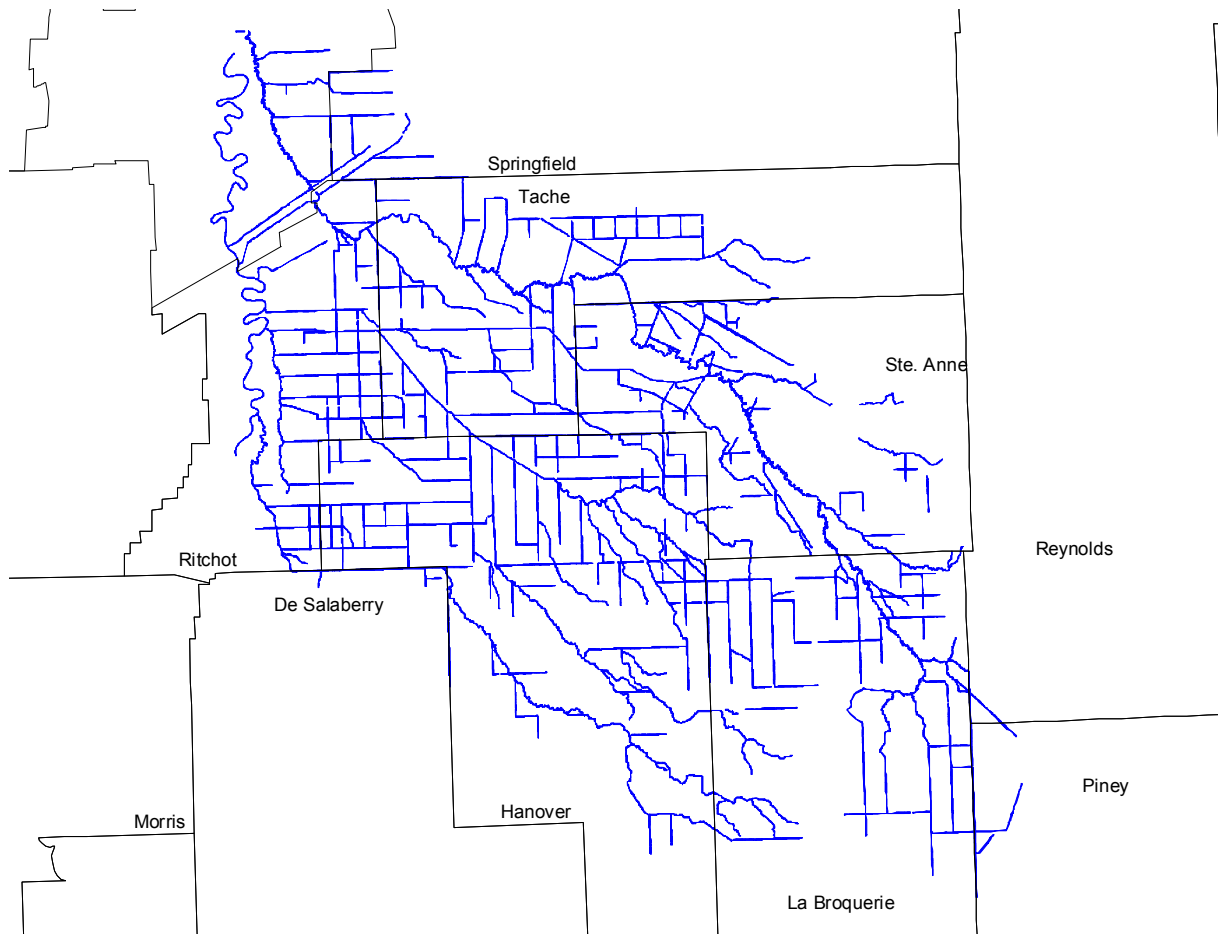
When it comes to water quality, riparian areas are the last line of defense for water that's running off the land into our lakes and streams. They are also extremely important for wildlife. Healthy riparian areas have a number of important functions. They act to trap sediment, filter and buffer water, store floodwater and energy, build and maintain streambanks, maintain biological diversity, recharge groundwater, and create primary productivity.

A healthy riparian area is one that carries out the ecological functions described above. In a healthy riparian area there is vigorous growth of trees, shrubs or grasses, stream banks are not eroding beyond what would be considered a normal amount, disturbance by humans or livestock is not excessive, and the watercourse can spill water into the riparian vegetation during a normal flood event.

Some of the key signs that point to the loss of riparian area health include the loss of natural vegetation (quantity, numbers of species and width of the riparian zone) and excessive erosion of the streambanks.

Given that riparian areas are crucial to the health of our surface waters and they are often our only remaining natural areas in some regions, it is especially important that appropriate land use practices are used to maintain or enhance their functions and values.

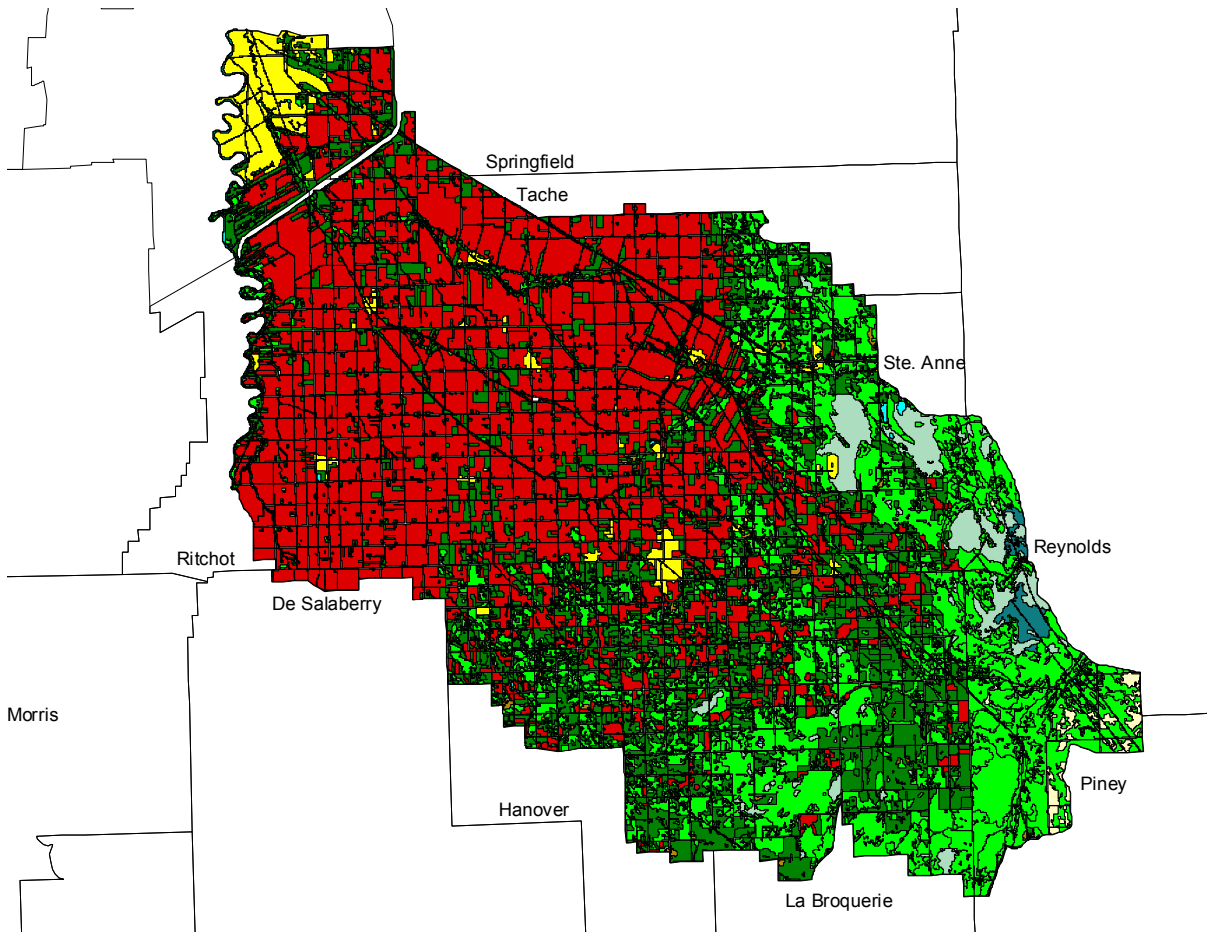
Figure 1: Waterways within the Seine River Watershed



Riparian Areas

To determine the landcover types within the riparian areas of the Seine River Watershed a 50 meter buffer was created alongside the watercourses (Figure 1). 2000 PFRA landcover data was then used to determine landcover types (cultivated, native, permanent cover, cultural or other). Figure 2 shows landcover within the Seine River Watershed.

Figure 2: 2000 PFRA Landcover of the Seine River Watershed



Of the total 1,989,039 acres of riparian buffer, native cover (grass, trees, shrubs) make up 41% (812,758 acres) of all landcover types in the Seine River Watershed (Table 1). 932,930 acres (47%) of the total riparian buffer is classified as being cultivated. A full 10% (195,927 acres) of the riparian areas in the Seine River Watershed are listed as “cultural” which would include cities, towns, roads, golf courses, and rural residential as well as other cultural features. The Permanent Cover and the Other category represent less than 5% (2% and 0% respectively).

Table 1: Landcover Acreage and Percent of the Seine River Watershed

Land Use	Area (hectares)	Area (acres)	%
Annual Crops	377,552	932,930	47%
Native Cover	328,918	812,758	41%
Permanent Cover	17,743	43,842	2%
Cultural	79,291	195,927	10%
Other	1,450	3,582	0%
Total	804,953	1,989,039	100%

The data presented here provides some indication of the landcover within the 30 m riparian buffers within the Seine River Watershed. Compared to the standard of a “satisfactory” watershed, which requires 90% of the riparian area to be in native or permanent cover, the Seine River Watershed is falling significantly short of this goal. When considering the functions of riparian areas in maintaining water quality and quantity it allows recognition of opportunities for the development and targeting of programs intended to promote and reward landowners for practices that are complimentary to maintaining and enhancing riparian functions.

While this data can provide some indication of the amount of landcover types it provides no information as to the condition of the respective landcover types. This information would be valuable in further establishing the overall health of the riparian buffers of the Seine River Watershed and their abilities to provide the desired protection and enhancement of water quality and quantity.