Land Use Changes

As the use of land changes, its appearance usually changes also. When River Keepers obtained control of this land we decided to change it from a residence and hobby farm growing irises and raising sheep to a demonstration site for riparian (riverbank) restoration. So its appearance is changing.

In the early 1900s this land was a riparian forest, looking much like the riverbank does directly across the river in Minnesota. The land use changed in the 1950s and this area was developed. The house and out buildings were constructed. Trees were removed and different plant material was installed, including yard grasses and large beautiful irises gardens. Fences were constructed and sheep grazed the area along the river.

This aerial view of the Living Lab shows that the Lab is also located on the outside bank of a meander where the river naturally erodes. It erodes even faster with the removal of deep rooted plants. So the riverbank started slumping and eroding at a faster rate due to those land use changes.



Land use changes resulted in the removal of trees on the North Dakota side of the Red River

The use of the land again changed when the Living Lab was created. In the process of creating the Living Lab. fences were removed, the Info Center (originally a sheep barn) was moved, the use of buildings was changed, plant material (including those large beautiful iris gardens) was removed and new plant material was installed. Now, most of the plant

material being installed is the same species as what was here before the area was developed. We have learned that for some land, especially land by rivers, streams and lakes, retaining or replanting native species is better for the land and the water.

In Grand Forks and East Grand Forks many homes were destroyed during the flood of 1997. The original riparian forest had been removed to make room for those houses. After the flood many of those houses were removed to make way for park land or a



Family walking in Grand Forks Greenway along the Red River.

"greenway". We now know that a greenway is a better use of that land. The rest of the community basically stays unchanged. In agricultural areas a similar transition often takes place. Original prairie is broken up to plant crops. Then after discovering problems with runoff and erosion, buffer strips using native plants are installed along streams and rivers with the rest of the property remaining as crop land. That's one of the things happening at the Living Lab. We are trying to reduce our impact on the land and river by replacing the riparian forest. But we still allow other uses on the remaining portions of the land.

River Keepers mission is to "advocate **sustainable** use of the Red River". Sustainable use can be defined as **exploiting natural resources without destroying the ecological balance of an area.** This swing was originally used by the children that lived here dozens of years ago. It was built in a way that did very little damage to the tree. It provided joy and recreation for the tenants of this site. We kept it as a reminder of the way humans change land use. While some of those changes can be sustainable, other changes may not be as sustainable. We need crops to eat and buildings to live in. So some change in land use is necessary if we are to live and prosper. The challenge is to do it in a sustainable way.