Ripple Effect #48

REMEMBERING THE '97 FLOOD

We've been hearing reminders this April that we are "celebrating" the 10th anniversary of the 1997 Red River flood. Actually, what we are celebrating is the resiliency of the people in the Basin. Nature has even added some "show and tell" with our recent April snows, a reminder of the badly timed ice storm and blizzard of April 5 – 6, 1997.

That blizzard, arriving during a late spring thaw, was just one of the components that added up to a flood that challenged the capacities of our Basin's flood-fighting mechanisms then in place; it still remains vivid for many of us ten years later. The Basin had received rain—lots of it—in the fall of 1996. Then, that same fall, a freeze came early, preventing the soil from taking in moisture over the winter months. Finally, of course, was the most visible—and memorable—component, the above-average snowfall in the Basin of from 70-120 inches!

These were only the special conditions of 1997 that contributed to the devastating flood. Other contributing factors are always with us. One of these is the Red River's gentle slope (.5 – 1.5 feet per mile), which means a relatively slow speed of river flow. This low velocity slows drainage—most flood events try our patience as we wait for overland flooding to find space in the river channel.

And then there is the Red River's shallow, meandering channel. This factor speaks for itself—if the channel meanders, it takes significantly longer to move water a mile north, and, even if the channel were straight, its capacity for holding and moving water is limited by its size.

A final constant is the Red River's unusual direction of flow, from south to north. This unusual phenomenon results in earlier thawing waters from the southern (upstream) segments of the river hitting still frozen segments of the river as they flow northwards (downstream). This meeting is often not a happy one—ice can jam, creating a build-up of waters to the south of the jam and sometimes even causing waters to flow backwards!

If you wish to remember or are interested in an illustrated version of this information, the North Dakota State Water Commission, in conjunction with the National Weather Service and the US Geological Survey, have produced a 10th Anniversary poster of the 1997 Red River Flood, with copies available at RRBC's web site, www.redriverbasincommisison.org, or at the Water Commission's, http://www.swc.state.nd.us. The poster contains a striking visual of the

flooding river from the Bois de Sioux River in South Dakota to the Canadian border, together with information about stream flows and elevations.

Words at the bottom of the poster sum up the 1997 flood experience in the Basin: “The 1997 flood on the Red River was one of the worst natural disasters in recent history for many people and communities in the Red River of the North Basin.”

Until the next Ripple Effect,

The Red River Basin Commission (RRBC)

The RRBC is a grassroots organization that is a chartered not-for-profit corporation under the provisions of Manitoba, North Dakota, Minnesota, and South Dakota law. Our offices in Moorhead, MN and Winnipeg, MB can be reached at 218-291-0422 and 204-982-7254, or you can check out our website at www.redriverbasincommission.org.