

Red River floods show: Time to 'think big' about infrastructure

by Marcia Merry Baker

As this issue of *EIR* goes to print, the flood crest of the Red River of the North should be reaching the city of Winnipeg, Canada north of which the Red empties into Lake Winnipeg. The scale of flooding in parts of southern Manitoba, North Dakota, and Minnesota (the Red flows south to north) has been phenomenal—"biblical" is the term used by President Clinton, during his April 22 aerial inspection tour of the town of Grand Forks, North Dakota, located near the mid-point of the 564-mile-long Red River.

The lesson to be drawn, is that the protection to be provided against natural disaster should likewise be phenomenal—of a man-made kind. There's no technological problem, just a mental problem. The situation in Winnipeg makes the point for infrastructure-building policy in North America, and anywhere in the world: Think big.

The Winnipeg Red River Floodway

Winnipeg (population 640,000) is home to the 29-mile-long diversion channel known as the Winnipeg Red River Floodway, otherwise called the "Ditch." In the wake of the 1950 flood of the Red River, which displaced 100,000 people from their residences, wrecked 10,000 homes, and caused an estimated \$650 million in damage, the town designed and built the Floodway, which was completed in 1968. The cost ran about \$2 billion—and was worth every penny. During the 17 floods since then, the town has been safe. At a low estimate of \$200 million in damages per flood, the city, province, and nation of Canada have saved \$3.4 billion, free and clear.

The current Red River "Flood of '97" is bigger than the previous floods, so Winnipeg may experience some damage this time, but it will be lessened thanks to the foresight of those who built the Ditch. The idea of the Floodway is to channel flood water eastward, into a levee-lined channel, away from Winnipeg, and dump it back into the river channel downstream. The Floodway is abetted by a network of permanent dikes, which can be, as at present, augmented by temporary reinforcements (sandbags and clay), as required. The Floodway is one of the biggest single projects in Canadian history. On April 21, the floodgates were opened.

On a piecemeal basis, certain other locations along the Red River watershed likewise have installed some critical flood protection structures. For example, Oslo, Minnesota (23

miles downstream from Grand Forks), has built a three-mile-long levee that stands an average of 12 feet high, and all but encircles the town. Eight towns in southern Manitoba have "ring dikes." However, the called-for infrastructure has not been built on an integrated, systematic basis throughout the Red River basin. Grand Forks does not have a ring dike system. Some 90% of the town's area (27 square kilometers) has been flooded; 48,000 out of 50,000 residents were evacuated.

Key infrastructure is likewise lacking in parts of the Red River's adjacent hydrological basins—the Upper Mississippi to the east, and the Missouri to the west. As the "post-industrial" policies took hold in the early 1970s, systematic water improvement projects were shelved. The hydrologic characteristics of each watershed differ, but the designs, in most cases, were worked out as of the 1950s, but not completed.

In the case of the Red River, the challenge is to build systems that cope with high water, over mostly a wide, flat plain—the old lakebed of the Ice Age Lake Agassiz. As of April 22, the Red River was almost 40 km wide near the U.S.-Canada border, nearly covering whole counties. Four major dams and reservoirs for the river's watershed (for floods, irrigation, and other uses) that were designed by the Army Corps of Engineers, were never built.

In the huge Missouri River basin, the overall plan voted by Congress in 1944, was never completed. The series of "Big Dams" and reservoirs on the main channel were built, but much else remains undone. An Army Corps of Engineers spokesman at the Omaha division told *EIR* on April 21 that flooding this spring, in such places as the James River Valley (flowing through the Dakotas, into the Missouri River in Nebraska), would have been mitigated if the Corps' channelization, irrigation, and related improvements to the James system had been done.

A 'Marshall Plan' approach?

On April 22, President Clinton said of the Red River at Grand Forks, "I don't recall ever in my life seeing anything like this." He added that it was "not an ordinary disaster, if there is such a thing." He announced a rebuilding fund of about \$488 million. Why not a "Marshall Plan" approach, is the question that was raised on April 21, by administration officials at the meeting with representatives of the Congressional offices from the affected states (Dakotas, Minnesota). Govs. Ed Schafer (N.D.) and Arne Carlson (Minnesota) held a news conference that day, stating their intention to form a joint Red River management authority.

At an April 21 press briefing in Washington, Senate Minority Leader Tom Daschle (D-S.D.) said, "You've seen the reports, but the reports really can't do justice to the damage and to the extraordinary loss that we have incurred. It is estimated that we have lost 200,000 head of cattle, and loss and property damage perhaps exceeding a billion dollars. . . . It is without precedent, without any comparison in history in South and North Dakota."