

## The University of North Dakota



The Flood of 1997 had an enormous impact on the University of North Dakota. Nearly 75 buildings took on at least some water; in some cases, the damage

added up to millions of dollars. With the city's water treatment plant out of commission, then-UND President Dr. Kendall Baker decided to cancel the final three weeks of the semester to allow students to evacuate the city. Perhaps for the first time in its now nearly 125 years, UND didn't have a spring commencement.

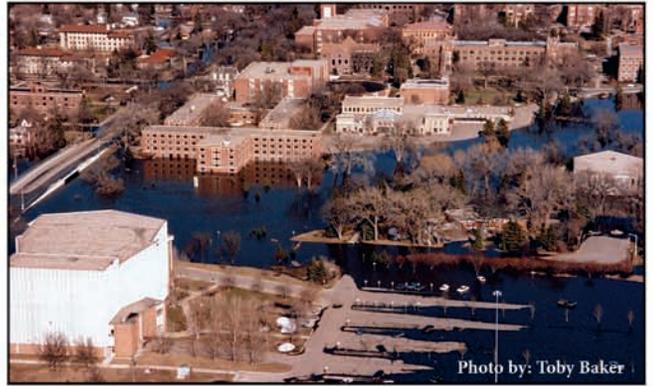
All told, the flood had a direct economic impact of at least \$45 million on the University. Later estimates — which included such things as the loss of flight fees in UND's world-recognized John D. Odegard School of Aerospace Sciences (which has the world's largest non-military aviation training fleet), the loss of income through housing, dining and other services, and the inability of other UND units such as the Energy & Environmental Research Center to seek funding opportunities — fixed the total financial impact in the \$75 million range.

Another major impact was the loss of nearly 1,000 students, dropping the enrollment to just above 10,000 (UND now stands at about 13,000 students). The University bounced back quickly, holding Summer Session on time, although some classes were moved to alternate locations. Major reconstruction was fast-tracked over the summer months. Aside from completing "finishing" work, such as putting on the trim at the bottom of walls, only those with prior knowledge about the flood would have known that the University had been affected. Still, the images of flood and fire and the word-of-mouth of those students who had left Grand Forks in the spring, as well as others who had visited the city in the initial stages of recovery, took a heavy toll on the University's enrollment.

Recovery began immediately and progressed quickly, but it takes some time to restore \$45 million worth of damage. From a cosmetic standpoint, UND was back to near pre-flood shape by the beginning of the fall semester. In fact, the hardest-hit academic facility on campus, the School of Medicine and Health Sciences, with several millions of dollars of damage, was ready for students by the first week of August of 1997.

But it took longer to address all of the deeper infrastructure damage, including the mechanical and electrical systems, much of which had been placed in basements and lower levels during the original construction of the buildings. In addition, nearly 12 miles of steam heat lines were essentially destroyed by the flooding, which caused significant damage to the insulation. The consequence is that UND spent the next few years with a carved-up campus as crews extracted the old steam heat lines and replaced them with new lines.

The cost was significant, undoubtedly totaling more than the initial \$45 million estimate. The steam line replacement itself cost more than \$20 million. To fast-track the reconstruction, UND's own work crews put in extra hours and UND hired many additional employees for the recovery work.



We learned a number of very important lessons from the Flood of 1997. A lesson of particular importance was to put our control equipment for mechanical and electrical systems on the top floors of new buildings. We also learned that it makes sense to take the extra time and spend the extra money to make facilities as disaster-proof as reasonably possible. A prime example is the \$104 million-plus Ralph Engelstad Arena. Engelstad paid for the construction of what is unquestionably the finest collegiate hockey facility in the world. He was very involved in every aspect of the construction, and that included making sure that flood- and other disaster-proof elements were added into the construction of the facility. A couple of examples: the site of the facility was raised by more than six feet, but it was done in a very gradual, sloping way that is nearly unnoticeable. Engelstad had installed special flood-proof doors based on his design for flood-proofing the Imperial Palace, his casino in Las Vegas and his same-named facility in Biloxi, Mississippi. He also installed on the roof special snow-catching structures, that prevent the shedding of snow. Likewise, UND has sought to do whatever is financially feasible and logical to flood- and disaster-proof its new structures. All told, there has been nearly a half-billion of dollars of new construction on the UND campus since the flood of 1997.

### For additional information the spokespeople listed below are available for contact.

- \* Peter Johnson, the main Flood of 1997 coordinating contact and an individual involved closely with the University administration throughout the flood situation. (701) 777-4317, peterjohnson@mail.und.edu.
- \* Dr. Charles Kupchella, UND's 10th President. (701) 777-2121.
- \* Dr. Robert Boyd, UND Vice President for Student and Outreach Services, who at the time of the flood was the Dean of Outreach and who coordinated a "virtual" university as UND came back on line immediately after the flood. (701) 777-2724.
- \* Larry Zitzow, now Director of Facilities, who was very involved with the recovery of the physical plant. (701) 777-2591.
- \* Paul Clark, now Associate Director of Facilities, who was very involved with the recovery of the physical plant. (701) 777-2591.