1998

The Return of Lake Agassiz: The University of North Dakota and the Flood of 1997

Jan M. Orvik
Richard P. Larson

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THE RETURN OF
LAKE AGASSIZ

THE UNIVERSITY OF NORTH DAKOTA
AND THE FLOOD OF 1997

By
JAN ORVIK & DICK LARSON
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PUBLISHED BY

THE UNIVERSITY OF NORTH DAKOTA
GRAND FORKS, NORTH DAKOTA
Despite the heartache and destruction, the Flood of 1997 left something for everyone to treasure: its heroes.

These heroes came from every neighborhood, from every walk of life, and from every age group. They came from nearby communities and from throughout the nation.

They were the volunteers who turned out by the thousands. Before the flood, students, from grade school through college, joined up with the citizens of Greater Grand Forks to fill sandbags and build dikes. Military personnel and their family members from the Grand Forks Air Force Base threw themselves into the fight.

When the flood overtook the cities, the surrounding communities — notably Thompson, Larimore, Manvel, Crookston, Devils Lake, Mayville, Hillsboro and the Grand Forks Air Force Base — opened their hearts and homes to displaced citizens. Hundreds of volunteers responded when the University desperately needed help to save its most treasured artifacts.

After the waters receded, neighbors helped each other as the exhausting task of cleaning up began. Buoying their spirits was the arrival of thousands of volunteers from throughout the nation.

In its battle with the Flood of 1997, the University of North Dakota had more than its share of heroes. They were too numerous to count, and far too many of their selfless actions went unrecorded. They were the employees who came back to help save the campus, even as their own homes were damaged or destroyed. They were the hundreds of volunteers who responded and truly saved the "jewels" of the University. It is to them that this book is dedicated.

A group of UND personnel played pivotal roles in leading efforts to protect the campus throughout the flood event and to assist the communities in the recovery effort. They include:

President Kendall Baker and First Lady Toby Baker; Al Hoffarth, Vice President for Operations, and members of his family; Lyle Beiswenger, Vice President for Finance; Gordon Henry, Vice President for Student Affairs; Dave Vorland, Assistant to the President; LeRoy Sondrol, Director of Plant Services; Larry Zitzow and Paul Clark, Associate Directors of Plant Services; Tom Lunski, Medical School Maintenance Supervisor; Randy Bohlman, Industrial Electrical Systems Analyst; W. Jeremy Davis, Dean of the School of Law and University Counsel; Robert Boyd, Dean of Outreach Programs; Duane Czapiewski, Chief of the University Police Department; Rich Lehn, Director of Telecommunications; Terry Webb, Director of Residence Services; Mark Thompson, Director of Career Services; Judy Sargent, Director of Apartment Housing; Suzanne Belyea, Assistant Director of Apartment Housing; Mark Hudson, Director of Residence Halls Housing; Donna Turner Hudson, Services Coordinator, Conflict Resolution Center; Cathy Buyarski, Director of Student Academic Services; Dale Vetter, Director of the Computer Center; Dorette Kerian, User Services Manager, Computer Center; David Jensen, Business Manager, Plant Services; James Penwarden, Director of University Relations; Peter Johnson, Media Relations Coordinator, University Relations; Barry Brode, Director of the Television Production Center; and Patsy Nies, Administrative Officer, Office of the Vice President for Student Affairs.

Plant Services staff members build a sandbag dike behind a home on Alpha Avenue.
ACKNOWLEDGMENTS

The principal sources for this narrative, in regard to events directly concerning the University of North Dakota and its students and employees, are interviews, personal accounts, and notes compiled in a daily report, *The Return of Lake Agassiz*, by Patsy Nies. Other sources are credited within the text.

Factual material about flood events concerning the region and cities of Grand Forks and East Grand Forks was drawn principally from these sources:


The principal reviewer for this manuscript was Dr. Kimberly K. Porter, Assistant Professor of History, University of North Dakota. Additional reviews were contributed by Kendall Baker, Alice Brekke, Mark Hudson, Donna Turner-Hudson, Marsha Johnson, Peter Johnson, Mavis Ness, Patsy Nies, Larry Orvik, James Penwarden, David Vorland and Larry Zitzow.

**PERSONAL INTERVIEWS**

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**Baker, Toby**, First Lady, UND

**Beiswenger, Lyle**, Vice President for Finance, UND

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**Boyd, Robert**, Dean of Outreach Services, UND

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**Buyarski, Cathy**, Director of Student Academic Services, UND

**Clark, Paul**, Associate Director of Plant Services, UND

**Czapiewski, Duane**, Chief, UND Police Department

**Davis, W. Jeremy**, Dean, School of Law, UND

**Freeland, Bonnie**, Family Nurse Practitioner, Student Health Services, UND

**Glass, Jack**, Director of Safety, UND

**Heinley, Tim**, Physician, Student Health Services, UND

**Henry, Gordon**, Vice President for Student Affairs, UND

**Hoffarth, Al**, Vice President for Operations, UND

**Hudson, Mark**, Director of Residence Halls, UND

**Jensen, David**, Business Manager, Plant Services, UND

**Johnson, Peter**, Media Relations Coordinator and Assistant Director, Office of University Relations, UND

**Kerian, Dorette**, Manager of User Services, Computer Center, UND

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**Thompson, Mark**, Director of Career Services, UND

**Uhlir, James**, Director of Auxiliary Services, UND

**Vetter, Dale**, Director of the Computer Center, UND

**Vorland, David**, Assistant to the President, UND

**Webb, Terry**, Director of Residence Services, UND

**Zitzow, Larry**, Associate Director of Plant Services, UND
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Crawford, Glinda, Associate Professor of Sociology: "Moving to Higher Ground: Seeking Wisdom From the Earth, River, and Critters in the Wake of the 1997 Flood," July 31, 1997

Devers, Karen, Doctoral Student and Lecturer in Visual Arts, UND, April 30, 1997

Elsinga, Lillian, Associate Vice President for Student Affairs, UND

Green, Meridee, Instructor in Physical Therapy, UND


Hilley, Cathy, Technical Support Specialist, Computer Center, UND

Hoffarth, Al, Vice President for Operations, UND, September 1997

Hudson, Mark, Director of Residence Halls, UND

James, Morgan H., Research Assistant/Lead Forecaster, Regional Weather Information Center, UND


Kurtz, Jane, Senior Lecturer, English, UND, http://www.geocities.com/Athens/5232

Nies, Patricia Motter, Administrative Officer, Office of the Vice President for Student Affairs, UND

Nordlie, John, Research Associate, Regional Weather Information Center, UND (includes account from Paul Erickson, East Grand Forks, Minn.)

Osborne, Leon, Director, Regional Weather Information Center, UND

Pedersen, Lila, Director; Rieke, Judy, Assistant Director; and Knight, Barb, Reference and User Education Librarian; Harley E. French Library of the Health Sciences, UND

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Thompson, Cynthia, Coordinator of Leadership Development and Programming, UND

Turner-Hudson, Donna, Services Coordinator, Conflict Resolution Center, UND

Tyree, Elizabeth, Clinical Associate Professor and Chair, Family and Community Nursing, UND


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April 22: Only the top railing of the Fox Bridge can be seen above the swollen English Coulee. In the background at left is the Chester Fritz Auditorium and at right is Smith Hall. Photo by Dick Larson.
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By the thousands, UND students turned out to fill sandbags and work on dikes throughout Greater Grand Forks. Their timeless efforts and good cheer inspired all who worked with them. Virtually every dike-building project in the two communities had UND students taking part.
As with many endeavors, this book began as a small project. Through determination, hard work, long hours, deep knowledge of the campus, and sheer luck, faculty, staff and students managed to protect a large part of the University from flooding; as a result, the campus became a "control center" from which city, state and federal agencies fought the Flood of 1997.

The initial assignment was simple. While memories were still fresh, interview key players and chronicle the significant events of the University's role in the flood emergency: the volunteer efforts of students, faculty and staff throughout the communities; the key decisions and their outcomes, good and bad; and reflections on what could be done differently, should an emergency like this occur again. The end product was envisioned as a "manual" of sorts on flood procedures. It would be stored in the University archives and other places for ready reference, should the need arise; it would also be a resource for any scholar who might one day wish to write about the flood.

However, the project escalated from the start. What began as five or six interviews mushroomed to 32 one-on-one interviews. Sessions that were expected to last only 20 minutes or so extended to two hours. The stories that emerged from those interviews proved too compelling to languish in archives, waiting for the occasional reader.

Thus, "The Return of Lake Agassiz" was born. The title comes from Patsy Nies, who worked on campus throughout the entire emergency. She kept a daily record of events and decisions and compiled them in minutes titled "The Return of Lake Agassiz," referring to the immense glacial lake that covered the Red River Valley and yielded both its rich, flat soil and propensity for flooding. These minutes were crucial in the development of this book. As word spread that a flood book might be forthcoming, members of the University community began sharing copies of their photographs and personal flood accounts.

And so this book was born, researched and written at night, on weekends and in between projects. President Kendall Baker and our office director, James Penwarden, supported the project with encouragement and allowed other projects to be delayed. Special appreciation is extended to student assistants Candi Bjorndahl and Debbie Luth, who compiled and filed a veritable "flood" of documents, clippings and photographs; and Mavis Ness, who executed the graphic production of this book. We thank the other staff members of the Office of University Relations, whose support and aid were invaluable; and those who reviewed the manuscript.

This book could not have been written without contributions from so many members of the University family. Almost everyone who was affected by the flood has a story to tell; we hope that the accounts we have utilized accurately reflect the experience of the University of North Dakota and the Flood of 1997. Please know that any factual errors are ours alone.

The Authors
April 18: Only the bowl and feed pipe of the Adelphi Fountain remain visible as the English Coulee continues to rise. Photo by Jim Penwarden.
INTRODUCTION

On Saturday, April 19, 1997, the inconceivable occurred: the worst flooding to hit the cities of Grand Forks, N.D., and East Grand Forks, Minn., in more than a century. The product of a remarkably bitter winter that saw eight blizzards and record snowfall, the flood became an immense, inexorable force that overwhelmed months of preparation.

The cities and the University of North Dakota had, in fact, felt prepared. A crest of 49 feet had been predicted for the Red River of the North. The highest mark in living memory, 48.81 feet in the flood of 1979, had been met successfully, with limited damage in isolated areas. Planning for the Flood of '97 had been under way for months; for weeks citizens, officials, and students had thrown themselves into filling sandbags and building dikes.

On the heels of one of the most brutal winter storms in decades, the spring melt swiftly pushed the Red Lake River and the Red River of the North out of their banks. The swollen rivers submerged the gauges designed to measure their depth; the waters overran roads, bridges, and the dikes intended to contain them, and spread out to cover most of the cities of Grand Forks and East Grand Forks. The crest was finally determined to be 54.33 feet, nearly twice as high as the flood stage of 28 feet.

Governor Edward Schafer and others would describe the Flood of '97 as the greatest natural disaster in North Dakota history. As measured by per capita damage and relocation of people, it became the largest disaster in the history of the United States.

Damages at the University alone were estimated at $75 million, with 72 of its 240 buildings flooded and 69 miles of steam and electrical distribution lines and sanitation and storm sewers affected. Classes were canceled three weeks early, disrupting research projects and a wide range of student activities.

The war against the flood was fought on many fronts, but the University became an indispensable battleground. It provided space and services for the Emergency Operations Center, the Grand Forks Police, the National Guard, the Red Cross, the Salvation Army, the U.S. Coast Guard, the U.S. Army Corps of Engineers, the Federal Emergency Management Agency, the North Dakota Department of Transportation, Grand Forks city government, and the Grand Forks Herald. The University also hosted one of the only radio stations left on the air and provided the only source of health care in the city.

After the flood, citizens came home to find houses damaged or destroyed, basements filled with polluted water, and generations of personal belongings lost. The beginning of the recovery was made even more difficult by the lack of safe drinking water and working toilets. The University stepped in to provide housing for citizens who had nowhere else to live, operating space for displaced businesses, accommodations for thousands of volunteers from across the nation, and many other services that before the flood were taken for granted.

This is the story of the Flood of '97 and the University of North Dakota.

"THE RETURN OF LAKE AGASSIZ"

Despite its renowned agricultural productivity, the Red River Valley seems to grab national attention only with the frequent appearances of its meteorological siblings, harsh winters and spring floods. As the snow melt from the south moves slowly northward into still-frozen rivers, it spills out of the riverbanks, spreading wide and shallow for miles and inspiring references to "Lake Agassiz."

Lake Agassiz was the latest and largest of
glacier-formed lakes to cover the Red River Valley area. The Valley existed before the glaciers and lakes, but the sediment they deposited created the fertile and extraordinarily flat region we know today.

Like the lakes that preceded it, Lake Agassiz developed as water flowing from the south met the glaciers from the north. Before glaciation — between two and three million years ago — nearly all streams in the state did flow northeasterly, eventually draining into Hudson Bay, notes North Dakota State Geologist John Bluemle.

The history of Lake Agassiz extended from about 9,000 to 11,700 years ago, Bluemle wrote in North Dakota Notes No. 5 from the North Dakota Geological Survey. The lake’s size and shorelines fluctuated with the advance and retreat of the glaciers and weather conditions. Evidence of the lake is found in an area of about 365,000 square miles — five times the size of North Dakota — although at no single time did the lake cover this entire area, he wrote. The lake was named for Louis Agassiz (1807-1873), recognized as the father of glacial geology.

The Flood of 1997 ranks as the largest such event of the 20th century to date. Anecdotal reports suggest that significantly worse flooding of the Red River was seen during the 1700s and 1800s, and physical evidence indicates that even greater floods have occurred many times since the retreat of Lake Agassiz.

"The Winter of Our Discontent"

Before the "Flood of the Century" came the "Winter of the Century." But one scientist regards a UND football game as the point when it all started.

The autumn of 1996 was distinguished by one of the latest major outbreaks of severe thunderstorms ever seen in the region, observed Leon Osborne, Director of the Regional Weather Information Center and Professor of Atmospheric Sciences. A massive wave of thunderstorms spread all across Minnesota and the Red River Valley.

One of those storms struck on Saturday, October 26, as the Fighting Sioux hosted the University of South Dakota at Memorial Stadium. Rain and lightning forced evacuation of the field and the stands. A half hour passed before play could resume, with UND finally coming out on top 29-6.

"That’s what we really refer to as the beginning of the Flood of 1997," Osborne said.

Because of abundant rainfall in September and October, the ground was saturated as temperatures began to drop. The stage was set for one of the most remarkable episodes in North Dakota history.

The winter of 1996-97 came early and stayed late in the Red River Valley, leaving behind mountains of snow, several deaths, and a weary populace. Beginning in late October with a long, cold rain that saturated the ground, the season marched on with a record eight blizzards and other storms that dumped a record 101.4 inches of snow on Grand Forks and East Grand Forks.

The blizzards, named by the Grand Forks Herald, included Andy on November 16-17; Betty on December 16-18; Christopher on December 20; Doris, January 9-11; Elmo, January 15-16; Franzi, January 22-23; Gust, March 3-4; and Hannah, April 5-7. The University closed during four of the blizzards.

Blizzard Andy brought tragedy to the campus with two deaths. Francis Delabreau, a computer science student from Shawano, Wis., disappeared while trying to walk home from a party; his body was found weeks later in a disabled van where he apparently had tried to find shelter. A motor vehicle accident near Greenbush, Minn., during the storm claimed the life of Guangqiu Li, a research associate in the Department of Biochemistry and Molecular Biology.

As the season wore on, everyday tasks became more difficult. Streets narrowed again and again with each snowfall, and homes and businesses began to disappear behind ever-taller walls of white. A few streets on the outskirts of the cities were abandoned to the relentless storms. The combination of blind intersections and road surfaces of packed snow and ice kept auto body shops and tow trucks busy. Along the northern edge of East Grand Forks, snowdrifts reached 15 feet high. And throughout Greater Grand Forks, parking lots shrank as huge piles of plowed snow grew and grew. The talk in homes, grocery stores and coffee shops was not about if there would be a flood, but how big it would be.

By late December, Leon Osborne and staff at the Regional Weather Information Center began comparing this winter with the historical record.
Snow drifts as high as rooftops accumulated on the northern edge of East Grand Forks by mid-February. Photo by Dick Larson.

Beyond natural and scientific curiosity, they had very practical reasons to be concerned.

The Center was participating in an experimental around-the-clock weather forecast facility for transportation in the Dakotas: the Advanced Transportation Weather Information System.

"We are constantly observing and forecasting weather," Osborne explained. "With our ability to accumulate the information, we were able to follow very closely where the precipitation was occurring in the Red River Valley. We could watch radar imagery and satellite imagery, and then take all the observations and collect all the precipitation amounts. We were very concerned by the time we got into early January."

Osborne continued, "The discussion around the facility was of survival of our program. Because it was an experimental program, we had been very careful since its onset. One bad incident, one terribly wrong forecast, one major accident that was weather related that we were not on top of— we were very nervous with all of those. What made us even more nervous was what if all of the telephone communications in Grand Forks were to go away? Our program is based entirely upon telephone communications to cellular telephones."

The US WEST facility in downtown Grand Forks was essential for connecting the UND program to the entire region. However, previous floods had shown how vulnerable the downtown district was. Utilizing terrain data from their Geographical Information Systems division, Osborne and his staff members generated overlays to determine the impact of various flood depths on Grand Forks buildings, particularly US WEST. The prospects were disheartening.

"With that, our planning pretty much ceased," Osborne said. "Now we were in a time period of less than two months. For the amount of equipment we would have to move, we just couldn't do it, nor did we have money in our budget to buy or rent additional equipment and move the operations out of our facility. We took more of the glum attitude that it was just a matter of time before we were shut down."

PLANNING FOR THE FLOOD

Despite the harshness of the winter, there were bright spots: Within the span of just eight days, UND student athletes brought home two national championships. On March 22, before hometown fans, the women's basketball team won their first-ever Division II NCAA championship; on March 29, the hockey team claimed its sixth NCAA Division I crown at the national tournament in Milwaukee. Mayor Pat Owens proclaimed Monday, April 1, to be Fighting Sioux/UND Day, and a celebration in Engelstad Arena honored members of both teams as well as the University's All-Americans in swimming, indoor track and wrestling. The North Dakota Legislature honored the champions with resolutions the next day.

April 1 also marked the first day the Emergency Operations Center (EOC) was open to the public. The National Weather Service had issued its first flood forecast of the season on February 14, predicting a 49-foot flood. The severity of flooding would depend on the spring melt and the amount of precipitation the area would receive between March and mid-April.

City and county officials had already been working with the U.S. Army Corps of Engineers on flood preparations, particularly on plans to raise the levels of the lowest dikes. Work done after the 1979 flood, including higher dikes and the English Coulee diversion project, had improved the city's readiness. The Grand Forks Herald noted that the diversion project had worked well in subsequent floods, preventing damage to UND and the Medical Park by routing water around the city. A new effort was an experiment in "ice dusting." National Guard crews dropped sand from helicopters on frozen rivers near 18 Red River bridges in an attempt to speed melting and prevent ice jams. The project was conducted by the North Dakota Division of Emergency
Management and Department of Transportation, with funding from the Federal Emergency Management Agency (FEMA).

Flood preparations at the University had been in motion for some time. "Planning for the flood really did extend back many months before the actual event," said Dave Vorland, Assistant to the President. "There was a great deal of skepticism by many of our senior people regarding some of the predictions. So, a lot of work had taken place, particularly in the Operations Division, quietly behind the scenes."

President Kendall Baker appointed a three-person team to direct UND's response to the emergency. Al Hoffarth, Vice President for Operations, was assigned to coordinate the flood-fighting effort; LeRoy Sondrol, Director of Plant Services, was charged with protecting the campus; and Mark Thompson, Director of Career Services, was assigned to coordinate the University's volunteers and community service activity.

Thompson set up regular Monday meetings with the city's Emergency Operations Center to determine what was needed; he also met regularly with United Way and Grand Forks Volunteer Coordinator Tom Mulhern. City officials knew that the University, high schools and the Grand Forks Air Force Base would be indispensable sources of volunteer help. The Office of University Relations spread the call for volunteers with information sheets, news releases and e-mail messages.

On Tuesday, March 4, the Grand Forks City Council declared a flood emergency, empowering the city to use emergency funds to order equipment, sandbags and other necessities. The city earlier had ordered pumps to prevent lift stations from backing up, a problem experienced in 1979.

On Friday, March 15, "Sandbag Central" opened in the Public Works Building on North 47th Street in Grand Forks. Dennis Borowicz, Grand Forks Community Development Coordinator, supervised the operation of two large machines capable of filling thousands of sandbags per hour. Shaped somewhat like a tall octopus, each machine was topped by a rotating hopper which fed sand down a circle of steel tubes. Assembly-line crews of volunteers at each tube would fill, twist and tie off sandbags, and throw them on conveyor belts. Up to 80 volunteers were needed at any time to keep the system working.

"The Sandbagger" was the invention of Guy Bergeron of St. Eustache, Manitoba. He had worked

With sidewalks surrounded by ever-growing piles of snow, the central campus began to resemble a white maze. Pedestrians frequently disappeared out of view as the heaps grew to 10 feet high and more. For Plant Services crew members, each new snowfall added to the difficulty of finding places into which to push the unwelcome accumulation.
on the concept over a 15-year period and sold one to the City of Winnipeg in 1993. Sandbag Central was opened for the 1996 flood fight, utilizing the Sandbagger owned by East Grand Forks. With a crest of 45.93 feet, that flood then ranked as the fourth-worst since the installation of the U.S. Geological Survey flood gauge in 1882. The City of Grand Forks purchased its own Sandbagger in 1997, and both machines were set up in Sandbag Central for the upcoming effort.

It was vital to have a supply of several hundred thousand filled sandbags on hand. These were stockpiled at UND’s Recycling Building. Well before flooding began, the pace was frantic.

“Sometimes we had trucks lined up three, four, five deep to unload into the Recycling Shed and Bus Garage,” said David Jensen, Business Manager for Plant Services. The typical truck could bring in about 900 to 1,000 sandbags on pallets and could be unloaded in about 10 minutes. “And we had four forklifts going, and five at times, so we could unload two semi loads within a 15-minute span if we had to,” Jensen added. “The hours of operation ran, at times, almost 24 hours a day, and some days it did run continuously. It’s phenomenal how many sandbags we got unloaded and loaded.”

The University facilities were crucial because they were needed to keep the sandbags from freezing. “Whatever overflow they had at Sandbag Central we were able to shelter and keep them from freezing up overnight and losing a good product,” Jensen explained. “If you’ve got frozen sandbags, it’s like trying to stack ice cubes.”

CALLING FOR VOLUNTEERS

From the start, UND officials knew that one of the most important resources they could contribute would be volunteer workers from among the students, faculty and staff. Mark Thompson organized buses and vans to transport volunteers to Sandbag Central and downtown to the Civic Auditorium, the staging area for dike workers. The operation soon ran around the clock. Initially, people were encouraged to volunteer around their regular schedules. “Our first priority was still the education process here at UND,” Thompson explained. Later, faculty and staff were encouraged to use vacation time to volunteer, and still later, as the flood neared, they were released from work.

All persons in the communities who could anticipate coming into contact with flood waters were urged to get tetanus vaccinations. UND’s Student Health Services, as well as the city and county health offices, offered the shots at little or no charge.

Students took on active roles in organizing their involvement, said Gordon Henry, Vice President for Student Affairs. “Our tradition over the years is that we would coordinate that kind of effort through the Student Government,” he explained. “Our initial meeting must have been a good six weeks ahead of time. We talked about how we were going to set up the structure and the organization for helping to plan for the volunteer work of students as we moved closer and closer to the flood date.”

Students often organized themselves into groups and teams, Thompson recalled. The women’s basketball team, the hockey team, the football team, and swimmers and divers all went to Sandbag Central. Fraternities and sororities, floors of residence halls, and student organizations all worked at filling sandbags and building dikes.

“We probably started earlier than ever trying to prepare and trying to get the students prepared for it,” Henry recalled. “It was interesting, though, that even as the flood grew in our consciousness — that there was going to be a flood, and it was going to be different from other floods — we were having a real challenge in trying to get the students to believe it. They didn’t seem to have the feeling of, ‘It’s really going to happen.’”

Perhaps because of past success in beating the flood, that feeling might have been widespread in the communities as well. Residents were encouraged to buy flood insurance; time was growing short, as insurance had to be purchased 30 days before flooding began. The University, the city of Grand Forks and Grand Forks schools all bought flood insurance for certain buildings; Grand Forks County opted not to, citing high costs. In the end, despite an extensive advertising campaign, only 10 percent of flood victims purchased insurance. In Grand Forks, with 50,000 residents and more than 10,000 homes, only 946 policies had been purchased, according to the Grand Forks Herald.

The University had flood insurance and purchased additional coverage for the Hughes Fine Arts Center, Wilkerson Hall, Smith Hall and the Delta Upsilon fraternity house, all of which had taken on water in the 1979 flood. Some departments in vulnerable areas were encouraged to move items up
and out of danger, as the flood insurance covered only structures and not contents.

"We went back and looked at the levels on pictures and at the damages of the 1979 flood," said Al Hoffarth. "We saw that with a 48-foot to 49-foot level, we would need to dike at the Smith cafeteria and at Wilkerson. At that level, we should be able to fight it and be safe in those areas. We shouldn't have had a problem at Fine Arts, nor the President's house. We thought that we'd have to help with Delta Upsilon and the sorority [Gamma Phi Beta] on University Avenue. We thought that there would be some difficulties with our steam line and the electrical distribution and telecommunication systems, and we had the necessary sandbagging done in those areas."

When Sandbag Central opened on March 15, Grand Forks and East Grand Forks began raising their dikes to 52 feet, three feet above the predicted crest of 49 feet for the Red River. In some areas, snow had to be bulldozed off the existing dikes to allow more clay and sandbags to be added. Stores began selling sump pumps, drain plugs, gas-powered pumps, shovels, and other flood supplies. Articles in the Grand Forks Herald discussed flood predictions, dike construction procedures, ways of protecting homes, and the need for volunteers. The turnout of volunteers rose and fell at times, but the cities pulled together and a flood-fighting spirit imbued most citizens.

A new feature was the development of Internet home pages to articulate policy and give current information. The UND Regional Weather Information Center page updated river flood gauge readings and carried photos of the river supplied by the Grand Forks Herald and the schools. The Energy and Environmental Research Center (EERC) flood page also provided vital information. These and the University's flood Web site provided emergency telephone numbers, tips for volunteers, and other information. UND's Cable Channel 3 also carried flood information. In late March, Mark Langemo, Professor of Business and Vocational Education, co-presented seminars to Fargo and Grand Forks businesses on protecting and saving flooded documents.

With a flood prediction of 49 feet, the University felt prepared, said Paul Clark, Associate Director of Plant Services. "We had a lot of sandbags ready on pallets, we had sources for sandbags, we had all the materials, pumps, all these kinds of things ready to go, and people lined up to do it, and crews all set to man the pumps," he explained.

With all of the work and concern, it was inevitable that rumors would spring up. "During the spring, rumors were beginning to go around about how we were going to close the University, and the students were going to take their grades," recalled President Baker. "I remember the first time I heard this rumor; I thought, 'Oh come on! You've got to be kidding!... There is just about no set of circumstances that I can think of that would require us to close the University and send our students home.'"

One student remembered, "The funny thing was that both students and professors knew something was going to happen that spring. But how big the devastation was going to be was not predicted. Once a rumor [completely unfounded] started about how the campus was closed in the mid-seventies due to a flood, there was no stopping it. People were proclaiming finals were optional, and they could either take them or go sandbagging, even before school was canceled. Students stopped going to classes and instead went sandbagging. When President Baker announced school was canceled for a couple days just so students could go bagging, that was the 'frosting on the cake.' Students started going to Sandbag Central all hours of the night, and from there people started figuring out the flood was going to be more serious than everybody thought."

In southwestern North Dakota, Mott, Carson, New Leipzig, Fort Berthold and Beulah experienced floods that destroyed homes and drowned cattle. By the end of the month, flooding had hit Bismarck, forcing families near Apple Creek to flee. Near Dickey, in southeastern North Dakota, a mother and daughter on their way to a horse show lost their lives when their vehicle hit a flooded road and plunged into a creek.

On Thursday, April 3, the Red River rose nearly three feet above the previous day's reading of 17.32 feet.

FRIDAY, APRIL 4, 1997

STORM WARNING

By Friday, April 4, when Rodney Slater, U.S. Secretary of Transportation, visited North Dakota, the Red River had risen another six feet to 26.53 feet. Flooding had begun in Fargo and Casselton. UND student organizations such as the Flying Team
challenged other groups to join in the flood-fighting effort.

At the University, the day started on a calm, almost mystical note. Thick fog enveloped the campus as the work day began. The English Coulee had spread under the footbridge at Smith Hall. Ducks swam in shallow bankside pools as the smell of the long-awaited spring melt hung in the air. In every direction, the background faded into the gray mist. Forecasts made it clear, however, that the fog and relatively warm weather of that morning would not last long.

Despite — or perhaps because of — storm warnings, hundreds of volunteers seemed to be making extra efforts throughout the city.

"After supper, I drove over to Alpha Avenue in the Riverside Park neighborhood and helped sandbag with about 200 other people," said Dean Schieve, Director of Institutional Analysis. "Semi trucks from Sandbag Central were being unloaded by several loaders and forklifts as fast as they drove into the unloading area. The path taken by the forklifts to the sandbag lines was doing what I thought — at that time — to be considerable damage to the lawns and driveways."

Schieve worked from 7 p.m. to 1:30 in the morning, as the volunteers tried to lay as many bags as possible before the approaching storm would make conditions impossible. The day had been drizzly and cold, and the rain started to freeze on the roads by evening.

"The darkness behind the apartment building and houses where we were making the dike was punctuated by relatively dim portable spotlights," Schieve said. "From my vantage, I could see very little of the river waters. The attitude of the sandbag crew and city employees was hurried. Not panicky, just hurried."

Occasional joking and chatter maintained the spirits of the weary workers, who ranged in age from...
early teens to senior citizens. Volunteers in a Red Cross truck served burgers and beverages during the evening. At one point, two people came to the sandbag line with boxes of rolls from Hugo's grocery.

The spring melt — long awaited and yet feared — came to an abrupt halt on April 5 with the arrival of one of the most brutal winter storms to hit the region in decades. What began as Friday's slow drizzle became steady rain, then sleet, then ice, and finally 10 inches of snow with high winds. By Saturday morning, city streets and sidewalks had become skating rinks. Reports of car accidents and broken bones abounded. Trees and power lines already were thick with ice as the freezing rain turned to sleet and the winds began to rise. Blizzard Hannah — to be remembered as "Hard-Hearted Hannah" by many — had arrived.

Rain fell steadily through Saturday, totaling more than two inches in many places. The Red River had leaped more than three feet in Fargo, and roads in Cass, Norman and Clay Counties were disappearing under overland flooding. In Wahpeton-Breckenridge, rain water pooled behind the weakening dikes as the river rose, prompting officials to declare a state of emergency. Meanwhile, full blizzard conditions had arrived in western and central North Dakota.

Into the evening and throughout the night, high winds whipped and snapped ice-laden power lines, which in turn pulled down their supporting poles and structures like dominoes. Radio and television towers throughout the Valley, including the 2,000-foot tower near Galesburg, N.D., came crashing down. Roads already coated with ice disappeared in snow and winds up to 50 miles per hour. Several cars which had plunged into water- and snow-filled ditches were frozen in solid as temperatures fell to zero. Later, backhoes would be needed to dig out enough snow and ice to remove the vehicles.

In Fargo, police threatened to arrest and fine people who went out in the storm, as rescue operations could be mounted only at great danger to emergency personnel. Roads were closed throughout the state, and both Grand Forks and Fargo declared states of emergency that prohibited driving.

Within the Grand Forks area, the storm had quickly halted all dike-building efforts. Upstream on the Wild Rice River, a nightmarish combination of storm and flooding assaulted the community of Ada, Minn., prompting the first evacuations of residents. In already-flooded Wahpeton-Breckenridge, dikes began breaking. President Bill Clinton would later recall how he watched, with disbelief, television reports of residents frantically working on sandbag dikes in whiteout conditions.

As more and more lines came down, the power outage spread up and down the Valley, leaving 100,000 people without electricity, heat, and most sources of information. About two-thirds of eastern North Dakota spent the weekend without electricity; some rural areas did not regain power for two weeks. Blocked roads, flooded ditches, ice, wind and snow all created near-impossible conditions for electrical utility workers.

John Nordlie, Research Associate with the Regional Weather Information Center, noted that power went off in his home shortly after midnight. Through Sunday morning, he had observed some of the worst blizzard conditions of the season: heavy snow and wind gusts of up to 50 miles per hour.
A "Hannah" Experience

A first-hand account of the ferocity of Blizzard Hannah was provided by Paul Erickson, an employee of the city of East Grand Forks, Minn., who shared it via e-mail with several friends, including John Nordlie. The authors express their appreciation to him for granting permission to reprint it.

Hello, all. This is the first chance I have had to get on the computer in over a week. Sad to say, it has been that long since I have been able to look at [the comet] Hale-Bopp. That nasty blizzard that went through really made a mess of things. I hope everyone fared okay. I really haven't even had time to read the paper or watch the news to see how the rest of the city did. I was able to listen to KCNN off and on, though, so I'm not completely clueless. We all know we lost power for an extended period of time.

I worked Saturday for flood preparations and then got called in Saturday night to work on storm-related problems. I was unfortunate to have the experience to have to work through the worst part of the storm. Different parts of town had already lost power, so we were recalled to work on isolating faults. About 12:30 a.m., it was decided we had to go out to the Industrial Park substation to open a line so that WAPA [Western Area Power Association] could refed the line from the south. By this time, the wind was blowing very hard, as you know. It was hard to see; visibility in town was less than a block, and traveling was slow. We got close to Highway 2 and 220 near Hugo's, and there were deep drifts, with a topiary of stalled cars. We tried to weave in and out of them in our four-wheel-drive truck but got stuck. Not a good start to a long night. After about 15 minutes, we were dug out. We continued on to the Industrial Park, which is east of the intersection on Highway 2, out in the open country.

As soon as we started heading east, visibility reduced even further. By the time we were adjacent to Pamida, we could barely see the road. In order to see, I had to open my window and stick my head out so I could see the white line. I was passing constant updates to Jeff so he could steer: "Come a little right ... straighten out ... a bit right again ... straighten out ... now left." We were doing about four to five miles per hour, and having to stop occasionally for complete white-outs. There were still a few streetlights on, but we could only see one at a time when we made our closest approach to it. This is one time I actually appreciated the things. We eventually ran out of streetlights, though, and ventured on as slowly as before. After a while, we saw some lights pointing up into the sky. Then a white-out, and they were gone. Then they were there again, and we realized it was someone in a ditch.

As we got closer, we realized they were stuck on the access road to our substation. We pulled in and ventured out to see if there was anyone inside. I strapped on my hard hat and stepped outside, and the full force of the wind immediately ripped the hat off my head. Gone in less than half a second! Thankfully, it did not take my liner and wool hat that I was wearing. We headed for what turned out to be a small truck. As the wind pushed us toward it, we could see someone inside. OOOOPS! The wind pushed us right past, and we overshot into the drift that was forming around the truck. Grabbing on, and reducing our "wind sail area," we made it back to the truck. We knocked, then louder, pounded, and tried opening the doors. The guy finally woke up. He was full to the top with beer, and had some still in the front seat! I thought, "What a bad night to pick to get drunk and go for a drive in the country." The guy had one shoe on, one shoe off, and only a light coat that he was using for a blanket. His truck was still on and the heater was going, so we left him for the substation.

Once we got to the gate, we got lucky. It was not drifted in yet. We opened the gate, climbed over a two-foot drift inside the fence, and got lucky again. There was only a little snow in front of the building door. We finally reached our destination, after setting out an hour ago. A trip that normally takes five minutes. We got the keys to the switch we needed to open, and got clearance to proceed to open it. We headed out the door for a 50-foot journey to the switch. The wind was blowing so hard we had to shoulder into the wind to make progress. After a few steps, and then a few steps more, we realized we were heading the wrong way. The gate was looming in front of us. We were heading north. We should have been at the tower, heading east! We managed to get lost and turned around in a distance of less than 50 feet! We finally made it to the switch, and our luck ran out. The lock was frozen, and we broke our key. I volunteered to go back to the truck to get a bolt cutter — a trip that took me nearly 20 minutes, when the truck was parked 150 yards away. I did stop and check on the drunk, though.

When we finally finished our work (to no avail — there were faults on the north-bound and south-bound line), the snow drift that we easily climbed over before was now up to six or seven feet. There
was no way we could close the gate, so we picked up
the drunk and headed for town. By this time,
another line truck had joined us. We tried to find the
turnaround to get into the west-bound lane. We
searched, and searched on foot, and finally found it.
By this time, one of the trucks had died, and we had
to jump-start it. What an ordeal! We finally got it
started, and then I played point guard to get the two
tucks turned around, and onto the turnaround, and
then on to the west-bound lane. The only way the
drivers could see was for me to direct them with a
flashlight 15 feet in front of the truck. Once we got
on the road, we traveled at a snail’s pace back into
town. A job that should have only taken a half-hour
had lasted almost five hours. It was now almost
5 a.m.

I have been through a few typhoons and
hurricanes, and have been outside with winds up to
90 miles per hour. Judging from the effort required
to stand still, walk into the wind, and by the wind
push I experienced in this storm, I estimated the
winds at 40 to 45 miles per hour sustained, with gusts
of 60 and maybe as high as 70 miles per hour at
times. A bit short of the strongest winds I have had
to venture out into, but still pretty nasty. In
retrospect, I think I would rather have experienced a
tropical storm. At least you know you won’t freeze to
death. We were lucky the storm came when
temperatures were above zero.

Since then, I have managed to put in almost 40
hours of overtime, and there is nothing but more in
sight. We have repaired most of our lines, but we still
have flood work to do. It has been a long week, and I
look forward to the ebb of the flow of the Red River
of the North and the Red Lake River. Hope you
didn’t get bored reading this. It’s as much to myself
(so I will remember) as to you all. I hope we talk
about this blizzard for another 50 years, as that will
mean it has not been surpassed. Clear skies (for a
long time, I hope). Paul.

**DARK AND COLD**

In thousands of houses, residents coped not
only with the loss of heat but also with a growing
sense of isolation and the overwhelming power of the
elements.

About noon, Nordlie rummaged through spare
parts and hooked up a black-and-white television set
with some batteries. He found only one station was
operating, Channel 11 in Fargo, and watched for just

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*Towers and trees throughout the Red River Valley were brought down by Blizzard Hannah’s combination of ice, snow and wind. Toppled power lines meant dark, cold homes for thousands of residents for hours — and even days and weeks. Many other structures gave way, including broadcasting towers, some roofs and this wall of netting between a town home development and the driving range on UND’s Ray Richards Golf Course.*
three minutes before they broadcast a message that they would be leaving the air, as their generator fuel supply was exhausted.

For most of the afternoon, KFGO in Fargo was the “voice of the valley,” the only radio station on the air. Listeners called in with news, pleas for help, and advice. Grand Forks Mayor Pat Owens called in to report that the generator for the Civic Auditorium had burned out, leaving the city’s principal emergency shelter with no heat or power. People called in, trying to locate relatives, needing fuel for generators, or offering warm shelter. A former power lineman called in with a tip about wrapping oneself with newspaper to keep warm.

The power outages threatened both too much and too little water. Basements began to flood when sump pumps couldn’t operate, while communities found themselves unable to pump water into their systems.

Like the rest of the city, the UND campus had been without power for most of the day. The residence halls were losing heat, and students had been served only a “cold brunch” of cereal and peanut butter sandwiches. LeRoy Sondrol and Terry Webb, Director of Residence Services, who had been on the job since 2 a.m., were developing plans to save frozen foods by putting them outside in a truck when, at about 4 p.m., power was restored.

As the storm seemed to slacken, some of the local broadcast stations were able to return to the air. KCNN radio, operating on limited power after staff members started up a 1957 backup transmitter, became a bulletin board for messages and offers of help. Grand Forks listeners got the relatively good news that power was being gradually restored in the city, but the prospects for rural areas were much worse. Early estimates suggested that it might take days to weeks to repair the damage.

“It saddened my heart to hear the weariness and sadness of some of the callers, with water in their basements or missing family members,” recalled Toby Baker, First Lady of the University. “Some hadn’t had heat in 36 hours.”

The calls reflected concern and compassion: “Anyone know anything about Fisher [Minn.]?” “If anyone from Park Manor needs a warm place, they can come over to my home.” “What about the Air Base? Are we tied to Grand Forks power?” “I rode out a hurricane in 1979, and that was a lot easier than this.” “We’re too far out to get to the emergency shelters.” Mayor Pat Owens reflected that she could not remember a situation like this and added that her 93-year-old father could not recall anything this bad, either. Psychologists called in and urged people to stay calm and be careful.

The appearance of blue sky signaled that the worst was over, but windy conditions persisted. Power companies reported that travel remained nearly impossible. Toby Baker went out to spread more feed for the birds and found the snowdrifts to be almost as high as before the melting. She stopped to shoot “a picture of the sun setting in a sky of ice crystals.” It was a sunset one hour later than the day before, daylight saving time having just started.

Spirits revived when the sun broke through, but many in the city still had no electricity.

“After a bunch of cold Spam for lunch, I decided to make something hot for dinner, darn it!” Nordlie wrote. “Canned corn beef hash never tasted so good!” Waiting in the dark, he recalled, “Five candles cast an eerie glow on our rather unhappy faces. Radio has nothing but promises of power and frustrated folks calling in to complain. Suddenly, power bumps on and off! Everyone holds their breath. Nothing. Sigh. One hour later, power twitches again, and then dies. Street lights one block away come on and glow constantly. We dare to hope.

The news on the radio is that power crews are being pulled in for the night. One crew says they’ll stay out until they encounter serious problems. Twenty minutes later, the power comes on! We wait five minutes, and then I turn on the furnace. The temperature in the house has dropped to 52 degrees.”

Visibility in open areas remained nearly zero. A house in Larimore burned to the ground when fire trucks were unable to reach it.

The University announced that it would be closed on Monday, April 7. Terry Webb called President Baker to report that no food had been lost during the outage, and that breakfast would begin at 10:30 a.m. Since the bakers normally come in at 4 a.m., he wondered if UND would need to send vehicles out to bring them in.

Seven more inches of snow had fallen in Grand Forks, bringing the city’s winter total to a record 101.4 inches. Throughout the Valley, small towns and rural areas faced the prospect of not regaining electrical power for days — or even weeks! The sun was out, and the temperature was dropping as people began to come out and inspect the damage. The high temperature for the day was just 9 degrees.
In what turned out to be a dress rehearsal for its role during the flood, KCNN had become the "voice of the blizzard," bringing essential information for snowbound residents night and day. The station teamed up with UND's Northern Lights Public Radio, which had full power but had lost its telephone lines. KCNN sent its signal over UND's AM frequency. Callers shared information on road conditions, power outages, firewood supplies, lost and found pets, and places to stay. Northern States Power and other utilities urged consumers to make sparing use of electricity as the fragile system was brought up. Most of the city had power, but there were still dark pockets; the Grand Forks Air Force Base remained without power. One-third of the power lines between the city and the Air Base were down.

In a broadcast interview, Leon Osborne, Director of the Regional Weather Information Center, described "Hard-Hearted Hannah" as the worst storm to hit the region in 50 years, with winds reaching 70 miles per hour. "This is a storm we'll tell our grandchildren about," he remarked.

Snowplows once again set out to chew paths through 10-foot high drifts, followed by emergency personnel and tow trucks seeking to locate and move stranded vehicles. A broken water main left a part of 32nd Avenue South flooded and frozen. Work began on a temporary clay dike on Belmont Road between 13th and 17th Avenues South.

The enormous repair job facing electric utility workers was compounded by the cold weather and icy roads. Flooding was threatening Warren, Minn. And across the state, ranchers went about the grim task of locating tens of thousands of cattle killed in the storm.

The spectacle of the combined flood and blizzard in Wahpeton-Breckenridge and Ada focused national attention on the crisis unfolding in the area. The evacuations and heartache seen in the southern end of the Valley would soon be replayed in the north.

Although she could not have imagined it then, Kathryn Thomasson, Assistant Professor of Chemistry, got a glimpse of things to come when one of her students, who lived south of Grand Forks, was forced out of her home by the storm and flooding. The student kept up with her studies and went on to earn one of the best grades in Thomasson's course, noting that she was glad her textbooks gave her something to do in the shelter.

John Nordlie drove in through a "slalom of many stalled vehicles" to update the Regional Weather Center's Web page. Relaying his experiences to some friends, he wrote, "Military helicopters are flying low over the city to survey power lines for the power crews. The flood is still coming, but hopefully delayed a bit by the cold weather. It ain't over yet!"

At 9 p.m. Monday, April 7, the Red River stood at 37.49 feet, a rise of six feet since noon Friday.

TUESDAY AND WEDNESDAY, APRIL 8-9, 1997

"IT WAS EVERYBODY'S FIGHT"

Upon Blizzard Hannah's departure, life slowly began to return to normal — or what passed for "normal" in the winter of 1996-97. Residents were cautioned to be careful about power usage as the fragile electrical distribution system was rebuilt. President Clinton declared the state a disaster area.

Even as streets and parking lots were cleared once again, the need to return to flood-fighting efforts became critical. On Monday, April 7, the Red River rose from 35.94 feet in the morning to 38.29 feet that evening, when Sandbag Central reopened. To the south, the flooding Marsh and Wild Rice Rivers forced the evacuation of the majority of the 1,700 residents of Ada, Minn.

Deep piles of snow left behind by Blizzard Hannah left motorists struggling again with icy roads and blind intersections. Photo by Dick Larson.
Frigid weather complicated the fight on several fronts. One immediate impact was that sandbags stored in unheated areas had to be hauled to UND's Recycling Center to thaw out. "It took a day and a half to thaw those out, and then we shipped them out to places that could use them," said David Jensen. "Frost built up on the walls from the moisture coming out of the frozen sandbags in a heated building."

More troubling was the potential for the cold to aggravate flooding. Even under good conditions, the northward flow of the Red River usually causes snowmelt to move into still-frozen areas. Record amounts of water were already headed for regions still deep with snow and ice.

**RISING WATER, FALLING TEMPERATURES**

The University reopened on Tuesday, April 8, and President Baker granted time off for faculty and staff who could volunteer for flood work. Governor Ed Schafer activated the National Guard to assist in the recovery from Blizzard Hannah and the flood fight. Among the Guard members called to duty were many UND students.

"The first person who really made me realize that the flood was going to be serious was my boyfriend, who was a member of the National Guard," a student recalled. "He told me a week or so before we were all evacuated that his superior officers were warning them that the flooding was going to be more serious than the public thought. I started preparing for the flood early on, not by packing and moving things but by sandbagging."

Her view seemed to be shared by most, an attitude of both urgency and optimism: Hard work and long hours were needed, but we could do it and we'd win.

The river rose, and the temperature fell. As the Red reached 39.5 feet on April 8, the city experienced a record low temperature of 5 above that night. Cold temperatures persisted through the week.

The Center for Aerospace Sciences widened the perspective on the flood fight by flying officials over the English Coulee and Red River drainage areas. During their regular flight training, aviation students kept an eye out for ice jams on rivers and reported problems for relay to the Emergency Operations Center. Student aviation organizations voted to cancel their Parents Weekend for the first time in 20 years and instead help with sandbagging and dike building.

The quick rise of the Red — more than 11 feet from flood stage in just four days — seemed to spur the turnout of workers.

"It was difficult to get the volunteer structure to work at first," recalled Dave Vorland, Assistant to the President. "They were not ready downtown to handle large volumes of volunteers, so we had to organize it ourselves on campus. We provided bus transportation. We put the structure in place to get students, staff and faculty to participate."

The University operated shuttles to Sandbag Central and to sites where dike workers were needed. Campus police assisted in directing the heavy traffic around Sandbag Central, where trucks, forklifts and other official vehicles mixed with the coming and going of up to 250 volunteers at any one time.

It is impossible to estimate the number of UND students, faculty and staff who took part in the flood fight, although volunteer coordinator Mark Thompson believes a majority — literally thousands — did.

"They were out filling sandbags until all hours of the night . . . and then they were out on the dikes after that," said Mark Hudson, Director of Residence Halls. Many tried to sandbag for too many hours and "burned out." Residence hall staffers established checkpoints at which students could go out and sandbag for 10 or so hours, sleep for a few hours, and then go out in shifts or waves as they were refreshed. The psychological boost these volunteers could give was as important as the physical work.

"It was especially important in the overnight period," Hudson explained. "I talked to several people from the community who told me what it was like at 4 in the morning, when they've been sandbagging their house furiously for 12 hours and they're just on the edge of exhaustion. And this van would pull up, and here come 15 students bouncing out, all full of vim and vigor. They'd rally together and keep on going."

About three weeks before the onset of flooding, the residence halls set up a system to organize student volunteers for dike-walking patrols in the cities. Like their community counterparts, they would form two-person teams to patrol assigned areas for two-hour periods. About 100 students from the halls were eventually signed up, but their participation
ended up being quite limited as a result of the rapidly deteriorating situation in the cities.

Early in the sandbagging effort, University officials tried to keep a record of the volunteers, but the overwhelming turnout made it impractical.

“Of the students that lived on campus, I would bet that 75 percent of them got involved in one way or another,” said Gordon Henry, Vice President for Student Affairs. “The residence halls were great. The fraternities and sororities, they were just unbelievable.” Similarly, off-campus students all over town left their homes or apartments to help people in their neighborhoods.

**Organizing Special Teams**

Just as massive turnouts of volunteers were crucial, the cities also relied on the speed and expertise of smaller, more focused groups.

The concept grew out of the success Plant Services volunteers demonstrated while working as a team at several dike sites. “We took on projects over at Alpha Avenue, under the Kennedy Bridge and along North Third Street,” said Al Hoffarth. “We decided to take the project so that we could do it with our own people and get it accomplished.”

Because of their familiarity with each other, their resources and the job to be done, the team members could work more efficiently, explained LeRoy Sondrol.

“I was heading up the remote sandbag group that went in behind people’s yards,” he said. “We used our own staff to place sandbags, along with some of the volunteers who joined us during the day. . . . We were moving so fast that the only ones who knew where we were were our own University personnel [Food Services, for example]. The Salvation Army and Red Cross couldn’t keep up with us. We were moving fast through the system. We became quite well known for how fast we could move into an area, get it sandbagged, and move on to the next one. The city started to depend on that. It was a very good, positive experience.”

“We took a lot of the tough jobs that the city couldn’t get people to do,” added Paul Clark. “And we’d do probably two or three places like that every day. We did that for almost a week. We started at probably 7 in the morning and went until 7 at night, doing that on different city-owned properties around downtown and on residential areas all over.”

The Emergency Response Team was an around-the-clock effort manned by volunteers from the University staff, faculty and students. “We would run different crews into different areas, to where the hot spots were,” said Larry Zitzow, Associate Director of Plant Services. “Well, the city would send us, it seemed, to the most difficult areas they could find, and we would put up sandbags. It was fun. There was a lot of fun in doing that.”

Zitzow headed up a special group of volunteers called the “Plastic Roll Team.” That effort, noted Sondrol, was a fairly high-risk operation.

“Basically, what we did was try to save the existing dikes that the city had built,” Zitzow explained. “They didn’t have time to line them with plastic [to enable the dikes to withstand more water pressure], so we had a team of about 25 people that could go in on top of the dike and roll poly down to the bottom when water was already covering that side. We had to figure out how to get the plastic down to the bottom. They showed us a 15-minute film of how to do this, and we were on our own and ready to go.”

Volunteers for these and other jobs were easy to find. “Everybody chipped in because it wasn’t just one person’s fight — it was everybody’s fight,” said David Jensen. “By teaming up, we achieved more together than we would ever have done on our own.”

Flooding increased to the south in Moorhead, Georgetown, Hendrum, Halstad, Shelly and Climax, Minn. Harwood, N.D., residents ringed their community with a dike. By the end of the week, flooding cut off all overland access to the community until the water receded.

**Thursday, April 10, 1997**

**"The Air Was Blue With Exhaust"**

Greater Grand Forks officials declared the sandbagging effort ahead of schedule, but the sense of urgency increased as more towns to the south flooded and people lost their homes. The University expanded shuttle services for students who wished to go to Sandbag Central; those who could not lift heavy items were encouraged to volunteer for other duties. Dike patrolling began as the Red River rose to 41.71 feet.
Sandbag Central did indeed become “central” to the lives of Greater Grand Forks citizens as hundreds volunteered for hours every day. The noise and energy created indelible images for many.

“Huge front-end loaders pushed piles of sand from semi trucks, and heavy dump trucks came rolling in to accept another load of sandbags on their way to dikes,” recalled Glinda Crawford, Associate Professor of Sociology. “The air was blue with exhaust. I was reminded of the frenzy of little children playing in sandpiles with Tonka trucks before a flood of their own making.”

The energy was nothing less than phenomenal, she continued: “Community spirit surged. The recent national championships of the Sioux women’s basketball and men’s hockey teams helped us feel like we could win, no matter what. Each day that last week, the speed of events turned up a notch. Then each hour, later each minute, until we were operating, as individuals and as a city, at a pace not less than a frenzy.”

When the sandbagging machine was operating smoothly, each of its 12 “arms” had a crew working in a near-choreographed routine of filling, twisting and tying off sandbags, and heaving them on conveyor belts. Moisture in the sand, however, would sometimes cause it to clump and stick in the feed tubes of the arms. Then, the “hammer girl” — a nimble person of either gender — would climb up into the machine and pound on the tube with a rubber mallet to break up the clumps and get the sand flowing down again. “If you’re not prepared for this, it really startles you when you hear these big pipes being hit by a mallet,” observed Toby Baker. “The ‘hammer girl’ never has stress when she goes home.”

In Grand Forks, work was completed on raising some of the dikes with clay. Meanwhile, parts of Interstate 29 were closed because of overflowing water. A trip from Grand Forks to Fargo now required a lengthy detour through Casselton. Winter kept its seemingly endless grip on the area, with a high only in the low 30s, far below average. KCNN continued its blizzard recovery and flood coverage.

To this point, most student volunteers had been
Volunteers work on building a sandbag dike in the Sunbeam area of southeast Grand Forks. Photo by Toby Baker.

working at Sandbag Central; now they were being brought out to help build dikes at private residences, too. As work accelerated throughout the community, the National Guard had to direct traffic as well as work on the dikes. Volunteers arrived from across North Dakota and Minnesota.

"It was really that last week before the flood hit that the students began to get very passionate and very individual in their own feelings as to what was happening," observed Gordon Henry. "I've never seen such an outpouring of student concern and commitment. From about April 10 to April 19, it was unbelievable. Many students would work 18 to 20 hours, go home and sleep for three or four hours, and then go right back out, working on the dikes or whatever."

The Memorial Union was headquarters for UND's volunteer effort. Henry praised the work of the Union staffers, including MaryAnne Lustgraaf, Cynthia Thompson, Ben Subedi and Carmen Ahlers: "They were so committed. Many of them slept right there. They didn't leave. They stayed there 24 hours and slept and worked with the volunteers coming in and out."

"The week after the ice storm," recalled a student, "the entire campus joined as a community, working side by side to fight the flood. I worked with organizations, and with people I had never met before from around the campus and community. I dreamed of sandbags at night, and could hardly move my arms in the morning."

"Everybody wanted to be a part of the process."

said Larry Zitzow. "They wanted to feel that this was for everybody. The president, the vice presidents worked side by side, throwing sandbags for hours. Toby [Baker] also helped. She and I were throwing sandbags side by side, building a dike that night. It didn't make any difference who you were, what level you had. Everybody was equal, and it was really fun because there was no peer pressure or anything else to do. You just performed, and everybody did the same thing. That was really fun."

The Smith Hall cafeteria closed at noon to allow construction of a clay dike. "There was a lot of preparatory work on campus," said LeRoy Sondrol. "We were prepared for 49 to 50 feet on campus. We had done the dikes at the Delta Upsilon and Gamma Phi houses, and the Smith Hall area was diked. We had gone through and had all the sump pumps in our buildings monitored. Every one had been put in action and tested, and we were monitoring them all through our automation center. We could keep track of every one of them, and we felt pretty comfortable about that."

It is no exaggeration to state that every major dike in Grand Forks, if not East Grand Forks as well, had a UND representative helping to build it. The Red River stood at 42.48 feet; the National Weather Service continued to predict a 49-foot crest would occur between April 20 and 27. Within the region, 4,000 people still were without electricity.

SUNDAY, APRIL 12, 1997

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SATURDAY, APRIL 13, 1997

The Red River was thought to be cresting at 37.55 feet, the second-highest level in Fargo-Moorhead history.

On Saturday, April 12, Vice President Al Gore visited Fargo and Breckenridge to view the flooding. There, the Red River was thought to be cresting at 37.55 feet, the second-highest level in Fargo-Moorhead history.

In Greater Grand Forks, so many people were driving to the various dike sites that city officials asked volunteers to report first to the Civic Auditorium and be bused from there. Dean Schieve observed: "The bustle of National Guard vehicles, forklifts, payloaders, school buses, cars, Red Cross trucks, and pedestrian traffic of homeowners and volunteers all gave the area the look and feel of urgency mixed with community spirit."
On Sunday, the Red River rose to 43.22 feet. Residents started building sandbag dikes in the Point area of East Grand Forks, and Grand Forks officials worked on refining the city’s evacuation plan. Sandbag Central thrrobbed with the noise and congestion of round-the-clock activity.

Dike patrols began Monday, April 14, as the Red reached 44.43 feet. Volunteers from neighboring communities were welcomed, but they and residents found it increasingly difficult to get around. Columbia Road north of Gateway Drive (the old “University shortcut” from Highway 81) was closed, as was a part of DeMers Avenue. Belmont Road had been cut in two earlier with placement of a clay dike between its intersections with 13th and 17th Avenues South. Also closed was the road beneath the railroad bridge in East Grand Forks. Throughout the Valley, flood waters were shutting down roads and bridges. Even Amtrak riders were forced to take a bus between Fargo and Minot.

Writing to friends, John Nordlie reported, “They are also building a dike near the Columbia Road fire station, stretching from Gateway Drive to Sixth Avenue [North]. That’s never happened before, so it sure got our attention -- our house is about two blocks from there.”

Looking south, citizens found no good news. After a brief dip, the Red was rising again in Fargo, and overland flooding hit Breckenridge, forcing the evacuation of more than 200 homes.

**Tuesday, April 15, 1997**

**Dikes Across the Campus**

The Point and Sorlie Bridges between Grand Forks and East Grand Forks were both closed on Tuesday, April 15. As the Red River rose to 46.6 feet, the National Weather Service upped its crest prediction from 49 feet to 50 feet.

On campus, the rising English Coulee had surrounded the Adelphi Fountain and nearly reached the bottom of the Fox Bridge. The University Avenue pedestrian underpass on the Coulee was already under water. Against this background on a chilly afternoon, small armies of volunteers attacked several dike-building projects on campus. Popular tunes from UND’s carillon bells, including Frank Sinatra hits and “Never on Sunday,” mingled with the beep-beep-beep and growl of heavy equipment backing up and dropping off pallets of sandbags.

New dikes sprang up to the Coulee sides of Smith Hall and Wilkerson Hall. Others surrounded the transformers by the Chester Fritz Auditorium and Wilkerson. Volunteers worked to raise the height of sandbag dikes already in place at the Delta Upsilon fraternity and the Gamma Phi Beta sorority houses. Plant Services workers also placed sandbag dikes in front of ramp entrances descending into Gustafson Hall, Chandler Hall and Engelstad Arena.

The footbridge south of Smith Hall was closed, and UND Telecommunications employees disconnected the emergency phones there and near Wilkerson. Rushing water and floating sheets of ice now covered the marble benches in front of the Smith-Johnstone sculpture.

During the day and through the night, the U.S. Army Corps of Engineers continued work on a two-foot earthen dike stretching across the Bronson Property.

To the south, the situation was getting more serious as more residents had to be evacuated from Breckenridge and the Red rose past the 38-foot mark in Fargo. The Forum reported that the Red had swollen to 10 miles wide along the Traill-Norman County line.
The cities became even more isolated as flood waters to the north closed Interstate 29 between Grafton and Grand Forks. At 9 a.m., the Red River stood at 47.67 feet, up more than two feet overnight. A little later that morning, Gateway Drive was closed by the swollen English Coulee, and overland water spread across part of 32nd Avenue South. An ice jam was reported under the Kennedy Bridge.

"The English Coulee is starting to back up and has jumped about three feet," reported John Nordlie in an e-mail message to friends. "The diversion is working, but is only diverting about 50 percent of the water from the Coulee away from the city. The town is abuzz with military and civilian trucks and helicopters. It's quite a sight."

The Regional Weather Information Center had added a weather forecast section to its flood page on the Web. Nordlie noted that the page had generated more than 20,000 hits in the last week, when it had been moved to a new server because the heavy traffic was paralyzing the main server.

About 400 East Grand Forks residents were evacuated from neighborhoods closest to the river. They were allowed to return to their homes only during daylight hours by showing passes to National Guard troops patrolling the areas. Grand Forks officials laid out the city's evacuation phase plans, but no evacuation orders were given. In a radio interview, Mayor Pat Owens said the hospital area shouldn't flood.

On campus, sandbagging was completed around Wilkerson and Smith Halls as the English Coulee reached the bottom of the Fox Bridge.

At 2 p.m., President Baker canceled classes for the rest of Wednesday afternoon and for Thursday to free students, faculty and staff for the flood fight. Canceling classes, recalled Dave Vorland, was a difficult decision to make.

"The argument could be made," he said, "that perhaps some of the damage could have been avoided if more University students had been available to work on diking in the weeks preceding
the actual crisis. We sought to involve our students and staff in an active way without calling off class because we wanted to continue our function as a university. There was a lot of pressure to do that. As it turned out, that was probably a good thing because students certainly were available to work when the emergency occurred, and yet they were able to complete enough of the work of the semester that we could, in fact, call off classes and in most instances award credit for the work that was done."

The University remained officially open, noted President Baker, so "we could continue to ask our own employees, on University time, to go and work in the flood effort." At the same time, the University needed to be open so it could conduct as much regular business as possible, not only in Grand Forks but also with people from across the United States.

Anyone who could help with the flood fight was encouraged to do so. The University Children's Center offered free child care for flood volunteers.

Sandbag Central remained open through the night but ran at half-steam. Though it usually took 80 people to run each of the two sandbagging machines to capacity, some 40 volunteers were on hand to run one machine through the night, each doing the work of two people. Hauling away the filled bags were all types of trucks, including farm trucks, those of the National Guard, Air Force, City Street Department, and even moving vans.

Exhausted residents had been building dikes for days. Pumps up and down the dike lines threw back the water that leaked in. Open fields on the Bronson Property and in city parks were "mined" for more clay to raise the dikes; sandbags were piled on top of the fresh clay.

While walking Kodak, their dog, that afternoon, Toby Baker observed that the Coulee had risen to cover all of the footbridge planking. "The water has lots of ice floes and is very cold, but Kodak is in paradise," she wrote in her journal. "He keeps bringing to shore plastic bottles and pop cans in hopes I'll throw them in and he'll get to fetch them again. He loves the water and then rolls in the snowdrifts — what a combination!"

A little before midnight, the Red reached 39 feet in Fargo-Moorhead, just one-tenth of a foot shy of a century-old record. In Grand Forks, the Red reached 48.98 feet and looked likely to surpass the 1897 record of 50.2 feet. The National Weather Service had issued a new flood crest prediction of 50.5 feet at 4:30 p.m.

City leaders began holding neighborhood evacuation meetings for residents of low-lying areas. These were one of the first signs that the flood fight was not going well. The meetings came as a surprise to Cathy Buyarski, Director of Student Academic Services. Up to that point, she had not even thought about the possibility of her own home flooding.

"The mayor [Pat Owens] was the first to speak," Buyarski recalled. "She said, 'In order to assure that we do not lose any lives, we highly recommend that you be out of your homes by tomorrow.' Never, ever did I think that was going to happen at the meeting . . . I just couldn't believe it."

After that meeting, Buyarski, who also directs the Student Ambassadors program, went to their awards meeting that evening and encouraged them to sandbag. "Afterwards," she recalled, "a number of students came to me and said, 'Cathy, we'll come to your house right now and move you out. Do you need your house sandbagged?' They were ready to do whatever I needed." Ken and Toby Baker visited with a student who expressed amazement at the height of the water in the Elmwood Drive neighborhood where she worked on a dike crew.

For many Grand Forks residents, evacuation plans would become reality the next day.

**THURSDAY, APRIL 17, 1997**

**"SANDBAGS FILLED WITH HOPE"**

Water from horizon to horizon. That's what viewers saw on aerial photographs taken by staff members of the Regional Weather Information Center. John Nordlie observed, "You might mistake some pictures of the countryside for images of the Arctic Ocean, complete with icebergs." A closer look revealing the trees and roads would clear that up, but the scenes still kept viewers guessing. "Overland flooding makes river level estimates difficult," he explained. "The water has no place to go, so it just rolls over the landscape, heading generally north."

Surveying the developing situation, Nordlie remarked, "No word from the Canadians yet, but I'm sure they're sucking up their seat cushions. Satellite images reveal that they are still frozen up there, so
The water will have to go overland when it reaches them."

The English Coulee continued its dramatic rise on campus. By noon, the Campus Road bridge by the Hughes Fine Arts Center and Gustafson Hall had gone under water. Only the railing of the Fox Bridge was visible, and just the top foot of the Adelphi Fountain stuck out to mark its site. A small portion of the railing of the Smith Hall footbridge remained above water.

A member returned to the Gamma Phi Beta sorority house to find this scene: "When I walked in the door, everyone was running up and down the basement stairs carrying as much as they could. I ran down the stairs to check out what was going on. When I looked in one of the bedrooms, water was seeping in through the walls and slowly rising."

UND's mission as a research university posed a significant consideration. Hazardous chemical agents and radioactive materials are used in many investigations. Action had to be taken quickly to prevent any spills that would complicate the flooding situation, let alone the cleanup to come.

This was one instance in which advance preparations really paid off, observed LeRoy Sondrol: "Before the buildings flooded, we got together with our Safety staff and decided we needed to know where all this stuff was. Fortunately, we had good records on where the volatiles were, where we had hazardous materials. We did a crash program, almost overnight, of clearing out all of the basements and low areas, and got those materials into safe locations."

Jack Glass, UND's Director of Safety, directed quick action to ensure that the flood waters, already polluted, would not be further contaminated by hazardous releases from UND.

"The first thing we hit," Glass recalled, "was the
Medical School, where they had a radioactive storage area in the basement. It could have been a real problem, because then all the water moving north from here would have been questionable."

Glass and Jason Uhlir, Hazardous Material Coordinator and Radioactive Waste Specialist, moved everything to the fourth floor of the building, taking over a research laboratory that had continuous ventilation and emergency generator power. They wiped down the original storage room to ensure and document that there was no residual contamination.

Glass and his team believed the chemical storage areas on campus would be safe but began moving materials, just in case.

“We went over to our ‘haz-mat’ [hazardous materials] storage building between the EERC and Engelstad [Arena], and emptied out the bottom floor completely,” he said. Everything was moved up to pallets on the first floor. The team also moved chemicals in other buildings, including Abbott Hall, home of the Department of Chemistry. There, the volume of materials was so large that only toxic and water-reactive agents could be moved. Through these actions, the University ensured that problems resulting from the flood waters as they flowed north would not be worsened by any toxic releases from the campus.

The mood in the city was turning from optimism to grave concern. “While panic is not yet in the air, it is nearby,” John Nordlie commented. With the river still rising, dike and sandbag crews redoubled their efforts. About 140,000 sandbags were produced in the course of a 26-hour period. East Grand Forks’ Sandbagger machine had been moved from Sandbag Central to their Civic Center parking lot when it became apparent that the Kennedy Bridge access was in jeopardy.

Those at the water’s edge now found themselves facing situations they could barely have imagined. “It became a hard reality when I went to the top of the dike behind my parents’ house on Lincoln Drive to sandbag,” another student remembered. “There was a line of kids from Central High School on top, so I went to join in. It was the first time I had gone to look at the river. I couldn’t believe what I saw. It was incredible! The river was to the top of the dike, already touching the bags — the bags filled with sand and a lot of hope.”

He continued, “As I was sandbagging, a siren went off, and there was a stream of people running down the dike. I was scared. The National Guard was present, so I knew that things were slowly slipping out of control.”

Cracks started appearing in the dike by the Lincoln Park Golf Course, and the University released employees who lived there from work so they could attempt to save their homes. At the time, some wondered if the decision seemed a little panicky, recalled Dave Vorland. But in an afternoon meeting, LeRoy Sondrol reported that dikes in the southern end of town, even if they did hold, would be topped by the river. Al Hoffarth had been sandbagging in the area for several nights with his brother and brother-in-law. “It was just awesome,” he recalled. “I will never forget how, at midnight, it looked just like a sea.”

**The Quick Response Teams**

The fight for the Lincoln Drive area remains a vivid memory for many. The operations undertaken there by UND’s Dike Patrol and Plastic Roll Teams were hard, dangerous work.

“We were out on another dike when the sirens went off,” said Larry Zitzow. “We all stood there and looked at each other like, ‘What do we do? Do we climb a tree? Do we run? What do we do?’

“A city person came by looking for our team and told us to go over to Lincoln Park,” he continued. “The Corps of Engineers had four holes in the dike that they needed plugged. It was just like in the movies, where a little boy watches the water come out of the dike. You could just see the springs coming out of the dike. Thirty feet in the air is where these things were, and they were shooting out.

“We got our team in there and stopped the first one, which was great. We got to the second one, and we couldn’t stop it. We built sandbags 10 feet out into the river to try to stop this problem, and we couldn’t do it. So we told the Corps we’d move to the next one. We stopped it. We went to the fourth one — that’s the one that actually broke the next morning — and we were not able to fix that one, either. The Corps guy said, ‘You guys have done everything you possibly could to fix this. Go back to where you were.’

Mud, snow and ice on the ground, combined with the frigid, swiftly flowing river just inches away, made the work perilous and challenging.

“We wore life jackets, and we had to tie ourselves off,” Zitzow explained. “We had to figure
out a procedure on how to make this thing work. It was actually kind of fun, but it was very treacherous. You were walking on the very top of the dike, with floes coming by and crashing into trees and power lines. The power lines were slamming and banging and popping, and it was just a real scary time of the flood. The weather was fantastic, and it was nice to be outside. But it was a scary situation."

The work, he continued, was exhausting: "We were very tired. More tired than you could ever imagine. We were going on adrenaline through the whole process, and we didn’t get a lot of sleep. We were working 14 and 16 hours a day. After you got done throwing sandbags, your arms felt like they were 10 inches longer than they were supposed to be."

Terry Webb, Director of Residence Hall Services, got a call to bring food down to the quick response group working by the lift station in the Lincoln Drive area.

"I was trying to get them to come down off the dikes for food, and they weren’t coming," Webb recalled. "LeRoy Sondrol came down, and he looked at me and said, ‘We’re going to lose it.’ And I said, ‘LeRoy, don’t be kidding me like that!’ LeRoy never says we’re going to lose anything. Never says die. He said, ‘No, we’re not going to make it. That dike is going down. It’s not going to be very long from now.’ I could see the water oozing out of it, and I thought, I want to get the hell out of here right now!"

**Desperation on the Dikes**

Cracks in dikes had prompted evacuations of residents in the Griggs Park and Sherlock Park neighborhoods of East Grand Forks. Grand Forks had reached “phase three” of its evacuation plan. People living in neighborhoods near the Red River — Riverside, Lincoln Drive, Central Park, Belmont Road and Elmwood Drive, as well as some downtown areas — were strongly advised to evacuate as soon as possible. The Emergency Operations Center encouraged everyone to plug basement drains; those who were evacuating were reminded to shut off their gas and power services. Mayor Pat Owens urged businesses to close or send teams of employees to sandbag.

In the Lincoln Drive neighborhood, sirens began blaring in the afternoon. Water was pushing up into the streets through the storm sewers, and cracks were opening in the dikes. As some workers continued to sandbag, others poured a special cement mixture into the large cracks and draped them with plastic. Secondary dikes were built to catch the leaking water. The human chain moving sandbags to the top of the dikes was joined by a potato conveyor belt.

At 6 p.m., an urgent call went out for more volunteers in the Lincoln Drive area. Dean Schieve, Director of Institutional Analysis, and his wife, Mary, were among those who responded. The river was flowing only a foot below the sandbags on the top of the clay dike, and people were working hurriedly to widen the sandbag dike and increase its height.

"As dusk approached," he said, "large floodlights were set up all along the base of the dike. The setting was eerie. Hundreds of people working feverishly on top of the dike, looking down at the rooftops of dark, vacant houses, with brilliant lights casting a scene reminiscent of ‘Close Encounters of the Third Kind.’"
With mud everywhere and considerable snow and ice still on the ground, footing was often treacherous. Nonetheless, hordes of volunteers would charge up the dikes as the buses dropped off fresh reinforcements. The weary "veterans" seemed to become re-energized as each new wave of volunteers arrived.

At the University's volunteer center, the Memorial Union bustled with activity around the clock. Students and staff showed up at all hours.

"Students were out riding those buses all through the night, trying to find additional sites where they could help sandbag," said Mark Thompson, Director of Career Services. "People were helping anywhere that there was a need. I don't think that there was anybody who, asked to do something, said no. It was everybody's effort, anywhere there was something that needed to be done."

Often, no one even needed to ask for help. Recalled Gordon Henry, "When the flood hit in the evening, I was trying to help sandbag my own home, and we were working in our neighborhood. A lot of students came out to help us. I hadn't asked them — they just showed up. That was a real thrill."

After working much of the day on dike building in the Sunbeam Addition neighborhood, Toby Baker walked the three miles back to the Civic Auditorium and took in a first-hand look at the efforts along the river. Water was lapping at the very top of the clay dike on Belmont Road as National Guard troops tried to build it up higher.

"All of these houses had been evacuated," she observed. "It was so quiet except for the pumps that were trying to keep the water from going over the top. It was so quiet and eerie because no one lived there anymore. I felt like I was one of the last people to walk through that area before the dike was breached and that neighborhood was lost." Reaching home, her feelings echoed those of tired residents throughout the city: "My arms are shot. My legs are shot. My clothes are so dirty. I'm so weary."

At 10 p.m., the National Weather Service raised its crest prediction to 52 feet. Work continued on reinforcing the dikes on the UND campus.

"When Ken and I stood on our deck," Toby Baker recalled, "we could hear the students laugh and joke as they hauled sandbags. The sidewalk lights looked very romantic where they stood, two feet deep in water."

Along the Lincoln Drive dikes, the situation intensified. After his wife Mary left at 10 p.m. to tend to their children, Dean Schieve ran into Don Vangsnes, Assistant Director of TRIO Programs and Upward Bound.

"Around midnight, a National Guardsman yelled out that he needed 30 volunteers to shore up a weak spot about 200 yards to the south," Schieve said. "Don and I joined the Guardsman, and we walked in darkness to the sound of squishing mud along the top of the dike. As we neared the spot, we could see the shadowy outline of about 40 other volunteers sitting on the dike."

A floodlight was brought in, and more volunteers joined in. As the situation became more urgent, a young woman initiated an effort Schieve described as "speed-zoning."

"Sandbags," he explained, "were lifted over the heads of the volunteers and conveyed — or should I say catapulted — up the dike with our fingertips as the only point of contact. A toll was taken on our shoulders, and occasionally a 60-pound sandbag would crash down on someone." Sometimes there was a word of warning: "Heavy!" But as the night wore on, all the bags seemed to get heavier.

When Schieve left the area at about 3 a.m., the river had already risen to within six inches of the newly added top layer of sandbags.

At midnight, the Red River in Grand Forks stood at 51.28 feet. In Fargo, the Red rose past its old record to 39.51 feet. There, a dike failed, sending water into the Oak Grove Lutheran School and surrounding neighborhood.
Leaving the Lincoln Drive dike, Dean Schieve discovered his night was not over.

"I took a bus back to the EOC [Emergency Operations Center] with the intention of heading home, only to learn volunteers were needed at seven places, two of them urgently: Belmont Road and under the Kennedy Bridge," he continued. Riding to the bridge with other volunteers, including Joan Jorde (Assistant Director of Student Support Services and TRIO Programs), he listened to radio reports of serious problems there and throughout the city. Lewis Boulevard underneath the bridge was already four feet under water. About 100 volunteers got to work on building a ring dike around a leaking section of sandbag dikes. Because he was wearing waterproof boots, Schieve was among a dozen who had to work in water to get the bags laid properly.

"It soon went over the top of my boots," he recalled, "and within a half-hour the 38-degree water was having a debilitating effect on me." At about 5 a.m., he decided to try to hitch a ride home.

"The sirens began sounding from the Lincoln Park neighborhood, and the sound of helicopters thumping through the night air was becoming quite regular," Schieve said. "While there was no civilian traffic, a city employee inspecting lift pumps did stop to give me a ride, and I got home around 5:30 a.m. The mandatory evacuation of Lincoln Park was now in place. It hit me now that our efforts to save the neighborhood were fruitless."

An air of desperation and confusion was taking over as plans came undone. Jerry Bulisco, Coordinator of Crisis Programs for the Division of Student Affairs, was one of about 75 UND personnel who had been trained for a trio of dike emergency-response teams.

"I had just gotten home from Sandbag Central, and it was getting to be after midnight," he recalled. "My beeper went off, and I went running to Plant Services." Nearly everyone on his team seemed to have responded to the call, and they got on a bus.

"We were told we had to go to Lincoln Park," he continued. "We were down near Lincoln [Drive] in Lincoln Park, and it was really scary. You could see a panicked look on the faces of people that lived there. So, the bus pulls in, and here we are. The city people, or whoever was supposed to coordinate with us, weren't where they were supposed to be. I heard all this noise, and I looked around the corner. About

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April 16: National Guard troops stand watch as the Red River rises near the downtown pedestrian footbridge. Warm, pleasant weather — and historic flooding — were still days away. Photo by Meridee Green.
100 people came walking around the corner, and they are supposed to be there, too. They were just volunteers to fill sandbags. Our team was standing together saying, 'Okay, we are here. What do you want us to do?' You could look behind the houses where we were, and you could see the water really coming up high.

"Finally, some city official came and said, 'Where's the UND people?',' Bulisco continued. "Our team leader said, 'Here we are!' He [the official] said, 'Well, we need you at the Kennedy Bridge.' So I said, 'Okay, get back on the bus.' We're going to be heroes. We jumped back on the bus. That's the time when the dike at the base of the Kennedy Bridge was leaking. We got there and looked at this, and said that this is not the kind of thing that people can fix. You need equipment in here real fast. We stood there for a while, and they began to bring equipment in — whoever they were, the city or whatever. Then they said the UND team had to get back on the bus, and they had another place for us to go. We stayed there for about an hour or so, waiting for whoever to tell our team leader where to go. No one did. Now half the night was gone. We drove back to Plant Services."

Reflecting on the episode, Bulisco said, "We were a good resource, but the city, or whoever, couldn't figure out where to use us."

**EVACUATIONS BEGIN**

The early morning sirens signaled the start of the onslaught. More cracks appeared in the dikes. Frantic repairs sometimes didn't work, and soon workers were pulled off the dikes for their own safety. Water pushed through cracks, literally blasting some houses off their foundations.

As it became clear the river could not be confined, city officials issued evacuation orders, beginning about 4 a.m. with the Lincoln Drive neighborhood. Hundreds of people, including residents of the Valley Memorial Home on Almonte Avenue, were evacuated as police and firefighters spread the warning up and down the streets. Two hours later, evacuation was ordered for the Riverside and Central Park neighborhoods, and for the Belmont Road and Cottonwood and Chestnut Street areas between 13th and 17th Avenues South. Police threatened to issue $500 tickets to anyone sightseers found in flooded areas.

At first, the water near the Lincoln Park Golf Course was thought to be storm sewer backup. By 8 a.m., however, it was clear that the river had found the dike system's weak spot at the end of the concrete flood wall and the northeast edge of the golf course. Water poured into the southern part of Lincoln Drive and then started to race down into the lower areas of the neighborhood.

The days of work to shore up the dikes to a 52-foot level soon became meaningless. At 2:45 a.m., the Red had been measured at 51.42 feet; at noon, it stood at 52.19 feet. The National Weather Service revised its crest prediction to 53 feet for Friday or Saturday, the 19th. Surveying the campus, Toby Baker saw "just one big lake from the railroad tracks to the opposite bank by Twamley." In an e-mail message to colleagues, John Nordlie described the cities' situation and signed off, "I'll keep you informed . . . if I don't float away first."

The focus of the flood fight was shifting to the battle to save individual homes and neighborhoods. As the crisis grew, emotions and physical efforts intensified.

Classes at the University were canceled; again, faculty, staff and students were asked to come to the Memorial Union to volunteer. Only three people staffed the main administration building, Twamley Hall. Mostly, they fielded telephone calls from worried parents.

"Looking at the empty pages of sign-up sheets, I wondered how we could possibly fill the hours," recalled Cynthia Thompson, Leadership Coordinator. "However, swarms of people came as early as 8 a.m. and continued throughout the day." The Union staff listened to KCNN for word of where volunteers were needed.

Exhausted from sandbagging, Toby Baker went to KCNN, which needed volunteers to answer telephones and relay messages to announcers.

"At the beginning, people were looking for sandbags," she said. "They were looking for volunteers. They were looking for help. Pretty soon, the calls got more frantic: 'We're out of sand, we're out of bags, we need help now! The water is coming, we can't stop it, and we've got to have help!' It was heartbreaking to see the notes coming and to sense the frustration and sadness of those out fighting the water."

Throughout the city, students joined in the battle. For many, the experience became more personal than they had expected.
"We were sandbagging a family's home," one student said. "The dike was already four feet high. We were standing on crates so we were out of the water. Unfortunately, the water was rising as fast as we were passing bags. We worked for two hours when, all of a sudden, the sirens went off and the Guardsmen and continued to work for a while, but soon we realized we had lost . . . .

Kathryn Thomasson remembered trucks: "I saw trucks of every kind — pickups, furniture trucks, grocery trucks; if it could loosely be called a truck, it was carrying sandbags. All businesses were shut down, except for those selling flood-related items, so the entire city could pull together to fight the flood. I met more people this day than I had in the entire four years I have spent in Grand Forks."

"I joined a line of people passing sandbags from a truck to a dike behind a house," Thomasson continued. "We were passing the bags from person to person as fast as we could. Even so, the dike bowed and broke, sending water into the house. The owners told us to let it go and to move on to where our help would be more useful."

Leon Osborne had worked until about 1:30 Friday morning with other staff members on a shift broadcasting flood information over UND-TV (Cable Channel 3). He had rested about a half hour when a frantic call came in for volunteers to help build a sandbag dike along 47th Avenue South. Working there until about noon, Osborne had to step away from the line from time to time to take calls from members of the state's Congressional delegation. The Regional Weather Information Center received a request to do one more overflight. Upon completing the flight in mid-afternoon, Osborne reported his observations to the river forecast center in Chanhassen, Minn., and to the Congressional delegation, and returned to sandbagging along Northridge Hills Court. "It was just one of the most beautiful days I've seen," he reflected. "It was just a shame that it had to be totally destroyed by throwing sandbags."

Across the river, a temporary clinic was opened at the Northwest Technical College under the direction of Dr. Thomas Cariveau, Assistant Program Director in Family Medicine for UND's School of Medicine and Health Sciences. Concerned that the city would end up being cut off from health facilities in Grand Forks, East Grand Forks Mayor Lynn Stauss had earlier asked Cariveau to set up the clinic. The Technical College already had appropriate facilities on hand as part of its programs for training medical and laboratory personnel. With equipment loaned by United Hospital, the clinic was set up to handle emergency, trauma and cardiac patients.

**The Point Goes Under**

At about 3:30 p.m., a dike broke near the Louis Murray Bridge, sending water into the Point area of East Grand Forks. By 4 p.m., sirens were sounding and the area was ordered evacuated. A student crossing the bridge in her new car was rear-ended by a boat.

At KCNN, Toby Baker heard the sirens. "The gal who was on the phone was nudging me," Baker said. "She was writing, 'The Point just went under.'" There was shock and disbelief in the station when she gave the message to Jim Bohlman in the booth: "That was the beginning of all these calls. 'The dike is breaking.' 'The water is rushing.' 'We're evacuating.'"

The concept of "evacuation" was moving quickly from an abstract precaution to a hard reality. Grand Forks Mayor Pat Owens, in an interview with CNN television, announced that evacuation procedures were in place and might be needed for the entire city. The new National Guard Armory west of Interstate 29 was designated as an evacuation shelter. The Emergency Operations Center advised that no one should sleep in a basement this night. A heartsick Gary Sanders, East Grand Forks Emergency Manager, who had been on radio and television constantly encouraging his flood fighters, now had to tell them to give up.

"We weren't prepared mentally for having to leave our house," said Dale Vetter, Computer Center Director. "We weren't below the dike. We were helping sandbag other people's houses when we heard the order to get out.

"This was 4 o'clock in the afternoon, and we went over to the shelter at the high school in East Grand Forks," Vetter continued. "I think the thing that got to me was the confusion. It was hard to think beyond just the fact that, okay, we are out of the house."

"The thing that is etched in my mind," he said, "is they were evacuating people from the Point to the high school with helicopters. It seemed like a war
April 17: Flood waters are nearly at the top of this clay dike on Belmont Road between its intersections with 13th and 17th Avenues South. Trucks raced back and forth, unloading clay in a desperate effort to keep ahead of the water swelling over the Lincoln Park Golf Course. Photo by Toby Baker.

zone. It was chilly out, because of the water, and there was a sharp smell in the air. I heard the sound of heavy equipment and the sound of the helicopters, and I saw the dazed people getting off those helicopters and coming into the school.”

Jackie Flaten, Public Information Director for the UND Alumni Association, had been awakened in the early morning hours by fire trucks using loudspeakers asking for people to come and sandbag. That afternoon, she headed out on foot. “My poor dog needs to go for a walk, so we head for the park,” she recalled. “I live on a main road. Pickups are racing by even faster than usual, overflowing with furniture and people.

“It’s a beautiful day,” she continued. “People are out, talking to neighbors, looking serious and concerned. Kids are riding bikes and playing. Suddenly, sirens blare and three large military helicopters fly over head. I see water bursting from the manholes and gutters. Running back inside, the radio newscaster says, ‘The Point Bridge dike has burst. The Louis Murray Bridge has buckled from the water’s force.’

“I have no car, so I decide to head out,” Flaten said. “But first I run up and down the stairs about 50 times, hauling CDs, photo albums, high school yearbooks, sentimental stuff. I grab my pre-packed little suitcase, grab the camera, put the dog on the leash and head for the Kennedy Bridge. More cars are racing by, even faster now. I get to the bridge and have an irrational fear of stepping on it. Water is lapped up to the edge, and I think if I get on it, it will be the proverbial straw that broke the camel’s back. A dilapidated school bus pulls up. The driver is eating a sandwich and asks if I need a lift. A surly teenage boy, the only passenger, is sprawled in his seat. I get to North Dakota okay.”

As Sharon Rezac Andersen, Director of the International Centre, headed out of town to her home in Minnesota, she met a continuous stream of police cars, rescue squads and sheriff’s deputies, all coming into East Grand Forks and pulling rescue watercraft.

On the UNO campus, residence hall parking lots began flooding. Students were encouraged to evacuate, if they wished, during daylight hours.

“I was never really aware of what was to come, or what could happen, for that matter,” one student said. “I was a regular, sandbagging student. I had started thinking that something big could happen when all the hype was going on in Fargo, and they kept predicting a higher and higher crest for Grand Forks. I thought all of the great sandbagging efforts here would pull us through, and there would be no
problems. Knowing that my 21st birthday was coming up on April 21, my friends and I had been talking about not being able to get to Whitey’s and the Antique, and such. I just figured that if we couldn’t drive there, we would just have to walk across the bridge. There were a few announcements of evacuations on the East side, but we figured that would be the worst of it.

“What we didn’t realize, until a friend stopped by, was that a dike had broken in the south end and an evacuation plan was in progress,” she continued. “We decided to leave that night, just to get out of there, not knowing how long we would be gone or anything. Leaving was really hard. As I drove over the coulee bridge, past Wilkerson, I hit a fairly large puddle crossing University Avenue. It was then that I realized how severe this could get.”

Other students stayed on and continued to sandbag. “Soon it was dark, and the people at the site had called it quits,” one volunteer said. “As we walked the 10 blocks back to the residence hall, I got this very eerie feeling. It was so quiet, quiet like my home town of 1,000. I had never experienced this in Grand Forks. It was like a ghost town. No cars, horns, kids, not a person to be seen. . . . Soon we realized that we hadn’t eaten all day. We headed down to the West Bank Convenience Store, but it was closed. We decided to try and order pizza, but even all the pizza places were closed. In Grand Forks, pizza men deliver through everything, even blizzards. This was a true sign to a college student that something big was happening.”

By 4:30 p.m., the Lincoln Drive neighborhood had flooded to the same depth as the river. Water advancing through the streets threw a double-blow at flood fighters. As more and more homes became directly threatened, it became harder for volunteers to even reach them. The calls for sandbags surpassed the ability of Sandbag Central to supply them; trucks dropped off sand and empty bags for volunteers to fill on site.

The increasingly desperate situation forced Grand Forks officials into a triage mode. A string of emergency levees was laid in streets in the south end, sacrificing some neighborhoods and homes in what proved to be a futile attempt to save the rest of the city.

THE EOC

By 8 p.m., the Red had passed 52.6 feet, and the National Weather Service raised its crest prediction to 54 feet for Saturday. The Central Park neighborhood southeast of downtown began to fill.

As sewage lift stations failed and the water treatment plan was threatened, severe water restrictions were imposed on the entire city. Showers, laundry, and toilet flushing were banned.

Sometime after 9:30 p.m., water rushing up through the storm sewers reached the Grand Forks Police building on South Fifth Street. The city’s Emergency Operations Center, located in the basement, had to be moved quickly to the UND campus.

“There was a wall of water coming down Fifth Street from the south, from the Reeves Drive area,” recalled Duane Czapiewski, Chief of the University Police Department. “I thought I’d go down to the EOC and find out what is going down. . . . I had barely gotten in the building when they came running upstairs and said, ‘We’re coming over.’ So I turned around and flew back, and they followed right behind me.”

“They said that they had flooded and they would be here in 45 minutes,” explained LeRoy Sondrol. “Could we have an EOC up and running in that amount of time?” In normal times, a task of this magnitude could take up to two or three weeks.

“We pulled together our electronics staff,” Sondrol explained. “Randy Bohlman headed it up with the people that were here from TeleComm [UND Telecommunications]. They went into the supply room, pulled all the cable off the shelves that was needed, and requisitioned everything that we had
in the place. They started plugging in lines and ran up, I think, 19 telephones. They did it in 45 minutes." After waiting on US WEST to switch the phone lines downtown, the EOC was fully up and running.

Overnight, the relocated EOC in UND's Plant Services building became the headquarters for the National Guard, the U.S. Army Corps of Engineers, the Coast Guard, the City Engineer's Office, the City and State Health Departments, the Fire Department, the Police Department, and, for a while, the Mayor's Office. It also became the headquarters for the University itself.

"It was overwhelming, but fortunately enough we had just gone through a renovation in the building, so our whole second floor was empty," Sondrol said.

Media Relations Coordinator Peter Johnson, his wife, Marsha, and their three children had driven through the downtown area just before, en route to a wedding dance scheduled for the Town House Motor Inn. The streets looked wet but were not yet flooded.

"Everything seemed incredibly calm," he recalled. "Trucks prowled through the streets carrying loads of clay and sandbags, but there seemed to be little other activity." Finding that the dance had been moved, they checked out the south end of town. "South Washington was lit up, but there were very few cars and very little activity," he said. "It seemed much more like 3 a.m. than 9 p.m."

A call from Dave Vorland updated him on the rapidly deteriorating situation in the city. "I was getting anxious to get Marsha and the kids out of Grand Forks, not because I thought at this point the city would flood but because it would be difficult to bring supplies, like food. And maybe, we thought, we ought to move some stuff upstairs. For literally weeks Marsha had asked me if I thought we needed flood insurance. I had always responded, 'Look, I lived on this lot in 1979 and it didn't flood then. If this lot gets flooded, the whole city is in trouble.' So we hadn't even bothered to pull stuff out of the lower level of our split-level house — until the night of April 18. Then we worked from 11 p.m. to about 4 a.m., dragging as much stuff as we could upstairs and piling things on beds downstairs. After five hours of this and a week of very busy days at work, I said I needed to go to bed. I knew I had to be at Engelstad Arena by 9 a.m. when President Baker, and the vice presidents and deans and assorted officials, would be gathering to decide what to do."

April 18: The disaster begins to unfold in Grand Forks as the Lincoln Drive neighborhood is lost. By the late afternoon, the area had flooded to the same depth as the river, and water was advancing into surrounding areas. This view looks down Maple Avenue, with Lincoln Drive winding around south of the flood wall. Photo by Dick Larson.
In the dark, the enormity of the situation was not yet entirely apparent. UND’s Transportation Department stopped running shuttle buses after 10 p.m., but Memorial Union staff continued to drive shuttles as long as volunteers came.

"Students continued to show up, and the need for sandbaggers increased throughout the evening," said Cynthia Thompson, Leadership Coordinator. "Reports from KCNN continued to tell us of additional voluntary and mandatory evacuations."

Unaware that diking operations at the river had ceased some time before, many volunteers asked to be sent there. The Union had to stop sending shuttles to any place outside the campus because of the danger posed by darkness and the spreading waters. Meanwhile, the situation was becoming increasingly serious all along the English Coulee.

Smith Hall became the primary battleground. "I remember it so clearly," said President Kendall Baker. "We started out with 15 students there, and by the time we finished we had over 100 students. We had to pull the students off because their weight was eroding the clay dike that was underneath the sandbags. And the students, they just didn't want to quit. They wouldn't quit. It was like they said, 'If you need a 60-foot dike, we'll build you a 60-foot dike.'"

As he was sandbagging with the students, President Baker received an emergency call from Plant Services notifying him that the city was losing the water plant. He left to meet with Lyle Beiswenger, Al Hoffarth and LeRoy Sondrol. There was little choice, they decided, but to close the University. They would need to confer with the deans the next morning to determine how to assign grades and evacuate the students. They also agreed to provide whatever services they could to the city of Grand Forks.

"By that time, we knew we were in a major disaster," said Sondrol. "When the water plant shut down, that would shut down our steam plant. That meant we couldn't heat our buildings. We couldn't cook for our people."

"At first, I just did not want to accept the magnitude of what had happened," President Baker recalled. "The reaction from the people that I was talking to was, 'We don't have any choice. We are not going to be able to maintain sanitary conditions. We are not going to be able to feed anyone. We are not going to be able to operate any laboratories.'"

"That was a very, very difficult decision for the President and the vice presidents," Sondrol
continued. "Yet, it was the one that had to be made. At the time, there were a lot of questions about it. But looking back, there was a great deal of wisdom in it. It took a lot of people off the campus and reduced the liability that we were facing. Students leaving for home were going to a better place than we could provide. They moved out in an orderly fashion. Those that wanted to stay and help did so for a while, but they knew that they had to leave, too. You wouldn’t have thousands of kids to worry about feeding and housing during a very, very difficult time."

Just as wrenching as the decision to close was the situation that would face them at Smith Hall. In the excitement of the job at hand, the volunteers were pouring their hearts into their work.

Dean Schieve remembered the scene: "A student on the third floor of Smith Hall had his stereo turned on, and loud renditions of classic Sixties rock tunes kept the large group of sandbaggers swaying and rocking on the dike. The mood was a strange mixture of camaraderie, purposefulness, urgency, fun, excitement, and a real awareness of potential danger. More students kept arriving as the work stretched into the night."

"We brought food down for the students who were sandbagging, and they wouldn't come off the dike," said Terry Webb. "They didn't want to leave. They didn't want to lose it."

Throughout the night, some students decided to evacuate the residence halls and the city.

"After returning home from sandbagging," a student said, "we all overreacted and left in the middle of the night. It wasn't really necessary, but none of us had ever been through a flood. I remember how emotional it was, and how scared I was. I wasn't sure what I was scared of. It wasn't necessarily the water, but more the destruction the water could cause."

"At one point in the evening, it was like a mass exodus," Webb recalled. "We had staff at the doorways pleading with students not to leave. We were really concerned that someone might drive through water into a ditch and drown."

At 11 p.m. a dike near the Kennedy Bridge in East Grand Forks failed, flooding the Sherlock Park neighborhood and spilling across Gateway Drive, severing the last connection with Grand Forks. Michael Harwood, Wilkerson Complex Director for Housing, had been sandbagging on the East side. Catching a ride in a Humvee, he was one of the last persons to get across the Red River, leaving his car behind. At about the same time, Toby Baker left KCNN, with its basement already filling with water.

The midnight reading of the Red River was 53.02 feet, up nearly two feet in 24 hours. In Fargo, the Red crested at a record 39.55 feet.
SATURDAY, APRIL 19, 1997

EVACUATION AND FIRE

Evacuation was now mandatory for all Grand Forks residents living within the 100-year flood plain and voluntary for all others. In a midnight news conference with KCNN, Governor Ed Schafer described the still-unfolding event as the worst natural disaster in the state’s history, and said he would remain in Grand Forks to work with city officials. Mayor Pat Owens expressed relief that no lives had been lost yet in some dangerous situations. She talked about seeing city engineers crying as the dikes began to crumble. The Corps of Engineers, she said, was doing what it could, but the water was moving in unexpected ways.

For so many citizens who had labored for hours, days and even weeks in flood-fighting activities, the time had come to do what they could, in just minutes, to save what had become important to them over a lifetime.

Leon and Kathy Osborne returned to their home at midnight. They had already moved as much out of their basement.

"I surveyed around the house and told the family this wasn't enough — we've got to move everything upstairs," Osborne said. One of the worst parts, he recalled, was moving 20 years of scientific journals.

"Even one year of those is incredibly heavy," he explained. "We were moving all of the journals. We were moving whatever personal possessions we could. We finally got to the point that we couldn't move any more upstairs, and it was then that Doug Lee, the pastor of our church, just miraculously arrived with..."
one of the other members of our congregation. It was one of those times that we were saying prayers that we needed help, and certainly those prayers were answered. So, there we had seven people moving things upstairs as frantically as possible. We ran out of space upstairs, so we started taking old journals that I didn’t care about and put them underneath furniture on the main floor, just so we could get a little more elevation.”

**THE SMITH HALL DIKE**

“People are tired and emotions are high,” Toby Baker recorded in her journal. “Everyone is trying, but 1,000 homes are flooded. Rumors fly and are difficult to combat.

“Big machinery and a crew of students are fighting valiantly to put yet another layer of sandbags on the dike at Smith-Johnstone,” she continued. “The trucks are beeping, the music is blaring and the lights are flashing.” The still-rising English Coulee had now topped its bankside near the Chester Fritz Auditorium and spilled over into Yale Drive.

At 1:30 a.m., Rod St. Aubyn, Assistant Director of Plant Services, visited by cell phone with President Baker about the soggy, saturated ground on the Smith side of the dike.

LeRoy Sondrol recalled, “I saw that we were going to lose the battle, and I had to tell Paul Clark and the President that we’ve got to pull off this dike, we can’t win this one. Nobody really wanted to quit because everybody was there and had worked so many hours already, and they were determined that we were going to hold out. I’ll never forget the look on Paul’s face and the President’s. I think it was something they knew, but they didn’t want to give in. I was not a popular one at that time because there were 100 students there who didn’t want to quit, either. They were standing in mud to their knees, and water to their waists in some places. We were trying to do everything we could, and you could see it was going to go down.

“I think that was maybe the lowest time of the whole effort that I went through,” said LeRoy Sondrol. “When you knew people wanted to keep going, and you knew no matter how hard you tried that you were going to lose it. To tell people to retreat from the dikes when they wanted to keep going. You just literally had to go face-to-face with people and say, ‘This is it. We’ve got to quit.’ That was tough. Watching their faces and knowing that they’d given everything that they could, and they didn’t want to back off. But you knew they had to, or they would collapse on the spot. We needed to regroup. We knew we lost that battle, but we had to win the war. That was the decision that had to be made.”

At 3:30 a.m. a student called President Baker and told him he wanted to continue the fight: “Are we just giving up? I’ve been up for 22 hours. Give me two hours sleep, and I’ll be back out on the line. We just can’t quit! We can’t give up!”

“To this day, I don’t know that student’s name,” Baker said.
April 19: President Baker and others discuss the situation as the flooding English Coulee threatens to spill over the sandbag dike in front of the Wilkerson Dining Center. Water had also spread over University Avenue between Wilkerson and the Chester Fritz Auditorium. Photo by Toby Baker.

EVACUATION

Hour by hour, the Red claimed more land. Between midnight and 1 a.m., the Griggs Park Area and the north side of East Grand Forks were swamped; by 5 a.m., the downtown districts of both communities were lost. Water came from everywhere: through and over the dikes, overland from farm fields, backed up from the English Coulee, up through the sewers and down the streets. By mid-day, half of Grand Forks and almost all of the East side would be flooded.

About 2:30 a.m., Mayor Pat Owens spoke on KCNN, urging evacuation of most of the city. Many residents, asleep or at work on dikes, scarcely imagined that their own homes were threatened.

“My wife and I had been helping other areas of the community to sandbag,” recalled Robert Boyd, Dean of Outreach Services. “There was no sandbagging in our area at all. We weren’t in the flood plain.

“Like everyone else, we had been sandbagging or watching pumps almost around the clock,” he continued. “We went to bed on Saturday morning about 2:30, so tired that we could hardly sleep. We set our alarm for 5:30, thinking that what we would do, when the alarm rang, is get up and see what the circumstances were. We’d have plenty of time to move things out of our lower level.”

Like so many, the Boyds soon discovered that time had run out: “As the alarm rang, we heard a distant loudspeaker. My wife looked at me and said, ‘Oh, no.’ Within half a minute, they were coming down our street, saying, ‘You must leave immediately. Report to Red River High School and register.’

“We left our home,” Boyd continued. “It took us a half-hour. There was already water in the street. As we walked out of our house, we thought, ‘What are we going to find when we come back?’ We had no chance to really save anything.”

An unforgettable scene awaited them at the Red River High School: “As we arrived, there were bewildered people. There were people just wandering around. They didn’t know what they were supposed to do. Some of them were quite elderly. In fact, we had taken our elderly neighbors with us, and all they brought with them was a little, tiny suitcase. They didn’t know where they were going.

“As we got out of the car,” Boyd continued, “a man came up and said, ‘You can’t go in there because it’s already full.’ What he meant — as I now know — was that you couldn’t go in and sleep because all of
the space was needed. He took the elderly couple we had brought with us and put them on a bus to the Air Base. That scene of the elderly couple, who didn’t have the slightest idea where they were going or what was happening to them, crawling on that bus will stick with me forever.

The Boyds later got in touch with the couple’s daughter, who was able to go to the Air Base and get them.

Leon Osborne reflected on the eeriness of the sirens in the quiet, almost serene hours of the evening and early morning. “I grew up in northwest Texas where tornadoes were quite prevalent,” he explained. “I remember that as a youngster, sirens would go off in the middle of the night alerting us to seek shelter because of tornadoes. I had never felt that sensation again in 30 years as I did in the flood. Perfectly calm. One of the most beautiful evenings, and you had the sheriff’s department or the police going up and down the street, sounding their sirens and telling everyone to evacuate.”

Osborne and his family arrived at Red River High School to register. Looking at his fellow evacuees, he observed, “You could tell that they just came off sandbag duty. Many of them probably had been up for 48 hours, or at least 24 hours. Many of them still had mud on their faces. It was just total surrender.”

Glinda Crawford, Associate Professor of Sociology, echoed the shock of the sudden escalation of the situation.

“The last 36 hours we were in the house, an energy consumed me to move up anything that had any meaning,” she said. “All during that longest day, military helicopters constantly chopped through the air over our house, evacuating people from Lincoln Park and East Grand Forks Point areas. Sirens screamed as new areas near us were being evacuated, and radio announcers shrilled the latest emergency updates.”

Mayor Pat Owens and others had warned residents to be ready to evacuate and to have emergency provisions packed. “Still, few people got the enormity of what was upon us,” Crawford recalled. “Most assumed we would evacuate for a few hours, the normal seepage would creep a few inches into basements, and people would return to their houses to the tune of ‘normal.’ Most didn’t move anything up from basements; if they did, they moved precious items to ‘safety’ up on a 2x4 or a shelf just off the basement floor.

“At 2:30 a.m., Richard (Professor of Biology) and I crawled into bed, weary beyond words, expecting to catch a few winks, or at best a short nap, before our [evacuation] call,” she continued. “We could not lift one more item. Much of our furniture was left in place in the lower levels.

“At 3 a.m. neighbor Jim Numendahl alerted us that our neighborhood was being evacuated. The hastily built Belmont [Road] dike had breached two small blocks away. Sirens screamed in our ears, and an Army vehicle crawled down streets blaring, ‘You must leave your homes immediately.’ What was happening to us? Our sleepy town, our quiet and simple lives were jarred into a new consciousness, beyond what any of us could imagine.

“While Richard turned off the gas and electricity, I called one neighbor and went to three houses of neighbors to warn them. We piled into the car, Richard and me, our dog Wicket on my lap, our cat Gizmo wedged under the passenger seat and convinced she was taking the ‘vet trip to hell.’ We headed cautiously to the Grand Forks Air Force Base, traveling on back streets we thought were open,
wondering where the water would be. At the gate to the Base, we picked up a Special Events Pass marked 'Flood' (which was 'not valid after event') and made our way slowly through unfamiliar streets to the evacuation center. We checked in with the Red Cross and were taken to our 'bedroom,' complete with 300 cots, each one foot from the other, with enough light to read by, at 4 a.m."

North Dakota University System Chancellor Larry Isaak was roused at 4 a.m. by a telephone call from the State Disaster Emergency Management Team in Bismarck. After being briefed on the deteriorating situation in Grand Forks, Isaak called Ellen Chaffee, President of Valley City and Mayville State Universities, and Sharon Etemad, Executive Dean of UND-Lake Region at Devils Lake. He asked them to make arrangements to house Grand Forks evacuees on their campuses.

"When the phone rang at 4:30 a.m. on Saturday morning, I was sound asleep," Chaffee related in a speech presented at a conference later. "It took a while to realize that this was no dream. The Chancellor was calling from the state emergency center in Bismarck.

"We’re losing Grand Forks,’ he said. ‘How many can you take?’

"How many what? What for?’

"Before this is over, all 50,000 residents will probably be evacuated. They’re starting with one small area now, but it could go fast. How many can you take?"

"Neither of us knew what we needed to know in order to answer that question,” Chaffee said. “What do people do when they’re ordered out of their homes? Where do they go? How long would they stay? What would they need? This seat-of-the-pants decision making was to characterize at least a dozen decisions we made every day for two weeks. Past blizzards had taught me that food stocks for the weekend would be the critical factor. I woke the new Marriott food service director and then called the Chancellor back.

"‘200 if they need meals all weekend, 400 if they’re passing through,’ I told him.

"He went away for a few minutes and came back on the line.

"‘I told them 1,000,’ he said. ‘They’re desperate. Do whatever is necessary to help these people. And keep a log with their names and addresses.’

"Those were the only instructions I ever had, and the sum total of my training as a relief center director,” Chaffee said. "I called three vice presidents
and the director of physical plant, who had been sandbagging his own home in Fargo, 50 miles away. I grabbed what seemed potentially useful — all the pads of paper and pens I could find, a roll of masking tape and a box of Kleenex — and headed for the student center. By 6:30 that morning, the MSU [Mayville State University] Relief Center was open for business.”

Classes were canceled at Mayville and UND-Lake Region for the remainder of the semester, and faculty and staff then became disaster relief workers. More than 5,000 people would take shelter at UND-Lake Region, and nearly 2,500 would make Mayville their temporary home.

Evacuations had continued through the night and morning. “It seemed to me like a scene from a war movie,” a student recalled. “All of my neighbors were running around, shoving their families and belongings into their cars. Loud sirens were going off, and the National Guard troops were yelling into megaphones, ordering us to evacuate immediately.”

A National Guard helicopter flew over the city constantly, sweeping neighborhoods with a searchlight, as trucks prowled the streets.

“I fell asleep last night to distant sirens and the grind of big trucks,” observed Toby Baker. “This morning, I woke to the chop-chop-chop of Army helicopters.”

The Red was now pouring into the evacuated Riverside Park neighborhood. By 10 a.m., evacuation had been ordered for all areas east of Washington Street. Grand Forks’ water plant had failed during the night. In East Grand Forks, National Guard troops worked on a sandbag dike to protect the police...
The Return of Lake Agassiz

April 19: A pump tries to push out water leaking through the Smith Hall dike. Photo by Toby Baker.

April 19: The railing of the Fox Bridge is nearly submerged. Photo by Toby Baker.

building on DeMers Avenue, and the fire station was relocated to the Northwest Technical College.

Closing the University

President Baker had called all of UND's academic deans before 6 a.m. to ask them to come to a 9 a.m. meeting in the loft of Engelstad Arena. Driving to the meeting, Dave Vorland encountered a horde of police cars and other emergency vehicles by the Home Economics Building, which had been converted into a temporary police department. Continuing on, he saw steam escaping from the Hyslop Sports Center.

"Something had already invaded Hyslop, and huge columns of steam were pouring out," Vorland said. "It was so eerie. It was a premonition of things to come."

The loss of drinkable water and sewage service made closing the university a foregone conclusion. The major concerns now were the safe evacuation of students and how grades for the semester would be determined. The deans decided students could take their choice of receiving the grades they had earned thus far or taking "incompletes." The spring commencement ceremonies also were canceled.

Returning to Plant Services, President Baker and Peter Johnson walked over to the temporary media room and arranged a quick news conference to announce the decisions. Johnson returned to Twamley Hall and got his first glimpse of the "exodus": "That's when I first saw University Avenue as so many of us remember it now from that day -- an incredibly long and, frankly, orderly line of cars, literally as far as you could see, all headed west. I kept thinking, 'This is like a scene from a war movie: the people fleeing from the ruined city.' I passed Marsha and the kids, and I knew, somehow, that I wasn't going to see them for a week."

Students and city residents clogged the roads leading out of Grand Forks. Residence hall officials had encouraged students to wait until daylight for safety reasons.

"There's no manual on how to evacuate a residence hall," explained Mark Hudson, Director of Residence Halls. "We thought if they could get a little sleep or at least wait until daylight, the chances of accidents were diminished." A sign taped to a window in McVey Hall said it all: "Build the Ark!"

Toby Baker spent the morning in the President's Residence fielding calls from students and parents. As she worked, she watched students across the English Coulee. For now, the Smith-Johnstone dike seemed to be holding; pumps threw back water leaking through it. She noticed ducks swimming and the sun glinting off the water as the Twamley carillon bells played, "I Love You Just the Way You Are."

"I could see students embracing for the last time," she recalled. "I could see them loading their cars, and saying very hasty goodbyes."

She and the President would remain on campus throughout the emergency. "I knew that we weren't going anywhere," she said. "Even if we had to leave the house, we would still be part of the emergency
team somewhere on campus, fighting the good fight.
So, with my trusty dog, I was standing out by 'Lake Kodak' and watching the cars going down University Avenue. And everyone was so polite. They were courteous and let other drivers enter the stream.

"In the cars, there would be the mom, the dad, the kids, the dogs, the cats... you could see everything kind of scrunched in there, whatever they could fit into the car or the truck," Baker continued.
"There were a lot of trucks loaded up, people who were able to take what they could and get out of town. And there were no cars going the other way."

By this time, University Avenue was one of the few routes open to Interstate 29. At the English Coulee bridge, deep water flowed over the pavement, forcing drivers to slow to a crawl.

"It was a very lonely feeling to watch a University leave without saying goodbye to itself, and to watch a city leave and to know that I wasn't going," she said.

A bumper-to-bumper line of vehicles slowly threaded its way out of the city limits. "It was just solid, solid traffic, but it was still orderly," said Duane Czapiewski. "When it got to the Interstate, it looked like a kid playing with his two cases of Matchbox toys. All stacked up, going down the Interstate. No one was coming this way; they were all going out. It was just a steady line."

"Looking down University Avenue, as far as I could see, there were cars lined up leaving the city," said Gordon Henry, Vice President for Student Affairs. "I sat there and cried. It seemed almost unbelievable. The scene burned into my mind, those
April 19: This view looks down DeMers Avenue toward the Sorlie Bridge. At right is the old depot building, now housing KCNN radio, Schoen Associates and other businesses. Photo by Meridee Green.

cars lined up as far as you could see, leaving the city. It wasn't just the University.

John Nordlie observed, "University Avenue looks like that scene from [the movie] 'Independence Day,' where the fleet of RVs and campers is crossing the desert. The exodus has begun!"

Streams of vehicles headed out slowly to the south and west. "We took a back road which was bumper-to-bumper traffic," one student remembered. "We could not travel over 30 miles an hour. We stopped off at the Burger King in Hillsboro to eat. The place was filled with people from Grand Forks. Everybody in the restaurant was pretty grim-faced. I could look from table to table and tell who had just come from Grand Forks. Everybody looked like they were in shock, not really yet grasping the full extent of what was happening to them."

By noon, half of Grand Forks and almost all of East Grand Forks were under water. The north side was caught between the swollen English Coulee on the west and the Red River spilling over and surging through the storm sewers from the east.

"None of us would have admitted it at the time — and none of us probably is even willing to admit it very loudly right now — but we were scared," President Baker noted. "We didn't know what was going to happen. I drove to the intersection of Columbia and University in Al Hoffarth's Blazer and looked up University Avenue. I saw water coming right straight at us. The intersection was dry at this point, and this water was just coming right down the street. That was scary!"

Karen Devers, a graduate student and lecturer in the Department of Visual Arts, struggled to retrieve possessions from her home in the Princeton
“As I reached the front of the trailer, I lifted my foot up and felt the water almost sweep me away,” she recalled. “I looked down and realized that the water was within inches of the top of the waders, which came to my inseam. The water pressed tightly around the rubber waders like a drawn corset, and I could feel how icy cold it was as it closed around me and my memory-filled home.”

Nearly all aspects of normal life had ceased in the community. Restaurants and retail establishments had closed. In the one grocery store left open, Hugo’s on 32nd Avenue South, the line behind each till stretched nearly the length of the store. Hundreds of anxious customers waited an hour or more in line, most with shopping carts filled to overflowing.

As the city continued to empty, activity on the campus increased. More disaster response personnel rushed to the western edge of the campus, along with a growing body of news media representatives. Mike Jacobs, Editor of the Grand Forks Herald, announced that his staff members would regroup in the Memorial Union’s computer laboratory at 2 p.m. The press run for the April 19 edition had been halted at 2:20 that morning as the flood overtook the Herald’s offices and printing plant in the downtown area.

While registering his family with the Red Cross at Red River High School, Leon Osborne thought over the situation. Rather than leaving town, they would come to the University and the Regional Weather Information Center (RWIC), and try to keep it operating as long as possible. Some staff members and a couple of students were still working. Everyone who wasn’t absolutely essential was advised to evacuate. Osborne noted the sacrifices they had already made, particularly forecaster Morgan James, who lost everything in his downtown apartment.

“Here’s a person that had worked with emergency management,” Osborne said. “Rather than protecting his own property, he was more concerned about protecting the property of others.”

Osborne had decided to stay for as long as possible. He soon discovered that he and his family were not forgotten. John Odegard, Dean of the Center for Aerospace Sciences, and his wife brought sleeping bags. So did Alan Borho, Research Associate in Atmospheric Sciences, and his wife before they left for Devils Lake. President Emeritus Tom Clifford and his wife Gayle were among several who dropped off bottled water. Research Associate Bryan Hahn remained behind to help Osborne run the RWIC as best they could.

Under siege from the north, south and east, the...
UND campus soon would be impacted much more seriously than had ever been anticipated. Smith Hall, the Hughes Fine Arts Center, Wilkerson Hall and the West Complex residence halls were the most immediately threatened structures, but far more of the campus was in peril.

President Baker called together the vice presidents and other key personnel. "It was not a matter of whether or not we were going to be damaged, but how much damage would we sustain and how we could prevent some things from being damaged beyond repair," said LeRoy Sondrol. "If we were going to survive the flood, we would have to take the campus down in such a way that we could put it back together in an orderly fashion."

The loss of the Steam Plant was a major blow, especially since the University had planned ways to save it and keep it running. As well as providing heat to the UND campus, it also served United Hospital [now Altru Hospital] and the medical park complex.

"That was the thing that really broke our back," noted Larry Zitzow. "We had pumps on those, and we kept them alive during the 1979 flood. The ground would shake and it would bang, and it would pop and it would move. We were able to keep the Plant alive in '79, so we thought, okay, we're prepared for that. It wasn't enough. We wound up shutting it off. It sat stagnant for about three weeks, full of water. That became a real big problem."

All facilities below ground level had to be considered in jeopardy. Of critical concern were the computer facilities in Upson II. A group of faculty and staff worked frantically to disconnect cables and move computers, mainframes and servers to higher areas. Backup tapes were transferred from a vault in

April 19: This view looks south down Walnut Street from the area immediately west of United Lutheran Church. The stop signs are at the intersection with Fourth Avenue South. Photo by Meridee Green.
the Laird Core and Sample Library to a bank in Larimore. Securing the mainframe was a top priority.

"We have the central processing unit for the whole state Higher Education Computer Network," said Lyle Beiswenger, Vice President for Finance. "If our mainframe goes down, everybody goes down.

"With the disaster everybody was going through, it was important that we be able to run payroll," he continued. "Normally, payroll runs four or five days prior to the end of the pay period, so we didn't have much time to react." This was not only payroll for UND people, most of whom were dealing with one of the worst disasters of their lives, but also payroll for all other campuses in the North Dakota University System.

Pat Carey of IBM suggested that the mainframe be moved to North Dakota State University in Fargo. Dale Vetter made arrangements for space there. President Baker contacted an Allied Van Lines employee who had volunteered transportation services. University personnel began disassembling the components and preparing them for shipping.

In other threatened buildings, some precautions already were being taken. Kitchen equipment had been moved out of the Smith Hall cafeteria. Some materials had been moved up in the Chester Fritz

Libary and the Thormodsgard Law Library, but much more had to be done.

THE DOWNTOWN FIRE

The situation continued to intensify in the community. At a noon meeting in the EOC, Governor Ed Schafer reviewed the crisis with city and University officials, disaster response personnel and Representative Earl Pomeroy. At a 2 p.m. news conference, Mayor Pat Owens announced more evacuation orders and estimated that the water plant could be down for two weeks or more. Security in the city would be upgraded. Hotels and motels were required to close, except for those that would be housing emergency workers. At this time, United Hospital was expected to remain in operation, with purified water provided by the National Guard.

Activity had intensified at the temporary East Grand Forks clinic directed by Dr. Thomas Cariveau. In addition to treating injuries, the clinic was now receiving Minnesota patients being evacuated by helicopter from United Hospital. Those patients were evaluated and then sent by ambulance to hospitals in Bemidji, Crookston and Thief River Falls, Minn. The operation was completed about 9 p.m. Just an hour and a half later, the clinic closed after
rising water cut all roads leading to the Northwest Technical College. The weeklong schedule of operations Cariveau and his staff originally planned had lasted just two days.

Following the news conference, Peter Johnson headed over to the Memorial Union to help the Grand Forks Herald set up a makeshift news room in the computer lab. Phone lines were installed, the necessary Internet connections made, and computers set up.

"I was there when the reporters, photographers, graphic artists — essentially every available hand possible — had showed up," Johnson said. "Mike Jacobs was clearly moved by the fact the group had assembled despite the fact their homes — his own, included — were overrun by water. Mike was the first person I saw cry about the flood. Not about the flood, exactly, but about the fortitude and willingness of employees to persevere. It was a moving sight to see him wipe the tears out of his eyes and hear his voice break as he told the staff how proud he was of them. Frankly, I believe it was in those moments that the Herald captured the potential to earn a Pulitzer Prize."

For all the efforts made, this temporary news room would last only one day. Rising water at the English Coulee made University Avenue impassable for all but the largest vehicles and forced UND officials to shut down the Union and other buildings. The Herald relocated to the Manvel Public School on Sunday. But events were unfolding Saturday afternoon that would dramatically impact the future of the Herald and Grand Forks.

Shortly after 4 p.m., fire was discovered in the Security Building on the corner of First Avenue North and North Third Street in downtown Grand Forks. It was the beginning of a nightmarish drama that would grip the attention of the nation.

Emergency personnel evacuated about 20 residents from the area. Flames quickly shot through the Security Building and began spreading northwest into the adjoining buildings on the block. Firemen who relied on water as their weapon now were defeated by it. The murky, waist-deep floodwaters stalled their trucks and hid obstacles and fire hydrants already made useless by lack of pressure. Three firefighters had to be treated for hypothermia after struggling in the near-freezing water.

Meridee Green, Instructor in Physical Therapy, was riding with four others in the bucket of a large payloader as they checked on their homes.

"We noticed a large cloud of smoke coming from downtown and headed that way," she recalled. "Our adventure, north down Cherry Street, found us picking up several people attempting to walk to their
homes.” They found others still in their homes, and took them to dry land. “Once downtown, we assisted local firefighters by lifting them in the payloader bucket to the roof of a local bank to put out small fires caused by falling cinders,” Green continued. “After this, the firefighters requested that we stay around in case they needed to use the payloader again.” Stopping by the downtown parking ramp, Green shot several photos of the fire before leaving the area by the DeMers Avenue overpass. By early evening, as the flames moved toward the Grand Forks Herald building on the other end of the block, an airplane normally used for forest fires began bombing the area with rust-colored fire-retardant chemicals. Helicopters equipped with leather buckets picked up water from the river and dumped it on the blaze.

As the city emptied out, activity became concentrated on the UND campus, particularly in Plant Services and Ryan Hall. The rest of the community was quiet, except for the sound of rushing water. Many recalled it as being eerie: quiet and yet busy. There were no regular traffic sounds. But the helicopters were incessant, along with National Guard vehicles. Sirens were still sounding, but less frequently.

“You'd hear the sirens going off when they'd evacuate parts of the city while you were out on campus, and you could see the smoke from downtown,” said Paul Clark. “We were so busy that you'd just look at it and you'd kind of say, 'Oh, geez,' and then you'd keep going because you didn't have time to really think about it a lot. And that was probably good because you might start worrying more about your own home or your friends.”

The campus looked kind of peaceful, except when the National Guard trucks and those kinds of things would come rolling through. There was nobody around; birds and animals had the grounds to themselves. It was eerie to see it like that. Very wet. Water coming up in the streets and all over.

Plant Services Business Manager David Jensen saw the unfolding situation from another viewpoint. Having lost his home in the Lincoln Drive neighborhood the day before, he was evacuating family members when he heard the news. “I was driving toward Fargo and heard on the radio that the city of Grand Forks was on fire,” he recalled. “Looking back in my rearview mirror, seeing the smoke billow from the community, I knew there was nothing that I could do at the time other than keep traveling.” Jensen took his family to shelter in Fargo and then headed back north. “There was nothing I could do to even try to save my home,”

April 19: Smoke from the downtown fire fills the sky in this view of 13th Avenue South, looking east from the vicinity of its intersection with Rider Road. Photo by Dean Schieve.
he said. "I realized there were a lot of things I could do to try to save the city of Grand Forks as well as the University of North Dakota, and the people that had a few things left to save."

**A CITY DISPLACED**

Thousands of Greater Grand Forks citizens were gradually coming to terms with the upheaval in their lives. They were bound together by a fate they had scarcely ever imagined: being homeless.

Neighboring communities opened shelters, their homes and hearts to the first waves of evacuees. Those closest to the area — Manvel, Larimore, Thompson, Hillsboro, Mayville, Crookston, Devils Lake and the Grand Forks Air Force Base — played particularly important roles in the evacuation effort.

"We spent 16 hours at the Grand Forks Air Force Base," said Glinda Crawford, Associate Professor of Sociology. "We catnapped, ate, connected with precious other homeless ones we knew. Many others were coming to the Base. All shared a dazed look and walked in slow motion. Tears came from enormous rivers only just beginning to flow. Nikki Seabloom [wife of Robert Seabloom, Professor of Biology] quietly asked, 'I can understand rebuilding a house, even a neighborhood. But how do you rebuild a town?'

"We connected quickly with other [Department of Biology] families and Bernard [Dean Emeritus of Arts and Sciences] and Marcia O'Kelly [Professor of Law]; each privately began to plan strategies for those next painful steps," Crawford continued. "The quick departure from our home was beginning to look like weeks before our return. Where would we go? Going south was not possible: I didn't want to head 'into' the flood. Going east was impossible: The Kennedy Bridge was closed. Going north didn't make sense: The river would soon catch up. West seemed best, but not out of reach of news of the Forks.

"Putting into words what it was like to leave one's home without any assurance that we would have a home to return to is impossible," Crawford said. "We were homeless. All 60,000 of us. The river was a great leveler, a great equalizer. At least for the moment. As we headed west into an uncertain future, we were one of a great line of cars in the growing dark. No cars headed back to the place from where we had come." The Crawfords made their way to Williston, N.D., and the home of Bev (former UND Home Economics faculty member) and Jim Witt.

At the Air Force Base, three airplane hangars housed some 3,000 evacuees.
"The experience totally changed my opinion of the American military," observed Kathryn Thomasson. "I used to only associate them with war and police actions, but they were so kind, patient and upbeat while taking care of us that I view them now more as guardian angels. The whole time I was in the shelter, I knew the care I was enjoying was of the highest quality.

"The people at the Air Base were limiting their own resources by inviting us to join them," observed Lillian Elsinga, Associate Vice President for Student Affairs. "This generosity cannot be overlooked. The Air Force residents invited many of us into their homes so that some semblance of order and family life could occur, often at great expense."

Grand Forks residents spread out throughout the state and region, with thousands taking up shelter at Mayville State University and UNO-Lake Region in Devils Lake.

Evacuation plans for Jim Penwarden, University Relations Director, were much less complicated. He and a small number of other UND officials expected to remain on campus and live in Brannon Hall for the duration of the emergency. The flood had not yet reached his neighborhood, but activity was still frantic.

"My attention was caught by several students in an apartment building across the street," he said. "They were rushing, seemingly in panic, between apartment and truck, throwing belongings in the back. They raced away so fast you would have thought water was visibly rising in the street."

Like others, he was struck by the irony that the state's worst natural disaster was unfolding against the backdrop of an exceptionally pleasant day — "the nicest weather of the spring to that point."

About 400 National Guard troops were now on duty in Grand Forks. Their presence added another method of judging the depth of water in the city: "Humvee." In one area, the water was halfway up the door of a National Guard Humvee. At Central High School, a Humvee couldn't make it to the building. Half of the city was now under water as search-and-rescue missions began. Some homeowners were still trying to do more sandbagging.

After evacuating earlier to Hoople, N.D., Karen Devers returned to retrieve her computer, which contained her doctoral dissertation. "The sounds of disaster were drawn in sharp contrast," she recalled. "Absolute silence punctuated by roaring trucks, skimming helicopters, and the desperate, undulating wail of a storm siren signaling another breach of the dike." After persuading a National Guardsman to let them in by boat, she and a friend found four inches of water in her trailer. A neighbor's deck — detached and floating — was pressed into service as a makeshift raft to haul out more of her possessions. "I remembered sitting on that deck, laughing and eating delicious grilled pork chops," she said.

**MAJOR FACILITIES IN TROUBLE**

A small lake now stretched from the lawn of the Chester Fritz Auditorium to the Smith-Johnstone dike, and water was beginning to fill in the Hughes Fine Arts Center parking lot. At the low spot just
west of the Coulee bridge, the water on University Avenue could still be cleared by car.

From the beginning of flood preparations, UND officials knew that Wilkerson Hall and the West Complex residence halls would be particularly difficult to protect. The complex was expected to provide sleeping and dining facilities through the emergency. The English Coulee had already spilled into the parking lot, threatening the complex not only from Wilkerson but also through Noren and Selke residence halls. During the afternoon, Plant Services personnel set up a sandbag dike on the Selke Hall entrance facing the parking lot and placed sump pumps on the dike protecting Wilkerson. The Bakers and other staff members ate dinner that evening in Wilkerson and watched WDAZ-TV’s report of the downtown fire.

“We’d put these new entrances on the buildings and lowered the topography so you could walk straight in off the parking lot,” noted Mark Hudson. “Well, that ended up being sort of a nightmare because that also took out the natural dike that was there. We were fighting diligently to try to keep the water out, but there came a point where we just sort of said, ‘It keeps coming up, and we just can’t do it.’ So then the water came over.”

Terry Webb recalled the efforts of Jeff Anderson, a student employee with Housing. “All the students had been evacuated,” Webb said. “He stayed. He asked what else we needed him to do. We started hauling computers out and doing all those kinds of things. At one point, the water was running down the tunnel in Selke, and Jeff and someone from Plant Services were sandbagging the tunnel. At this point, we knew it was going to go. But he said, ‘I know we can make this, we can make this work.’ He wanted to stay and finish the dike. He was helping sandbag the front door of Wilkerson.”

The scene was being replayed at the School of Medicine, now housed within the renovated and expanded former St. Michael’s Hospital.

“The first inkling we had of the trouble there,” said Larry Zitzow, “was when we heard on the radio about a bunch of sandbaggers on Sixth Avenue North putting up a dike to try to save the Medical School. The President and LeRoy and Al and I were meeting in a room when that happened. They said, ‘Well, we’re not aware of any problems. Larry, you better go over there and look.’ So I went over, and there was a whole army of people on the outside of the building putting up sandbags. The water was coming across from the [Princeton] trailer court. It was filling up, it was coming toward the Med School. Then we got a call saying there was water coming in the basement.
April 19: South Washington Street is filled with water from the underpass up to 15th Avenue South. Photo by Dean Scheive.

Zitzow continued: “I remember going in there with LeRoy and a plumber, trying to find where this water was coming from. It was coming up everywhere. We tried to plug everything that we possibly could, and we left. We had the pumps going. We had the generators going. We had everything we possibly could get in there going at that time. That is when the lift station went down.” While they were working, librarian Barb Knight was allowed into the lower level of the Harley French Library of the Health Sciences to save what she could in just an hour.

At the eastern edge of the campus, the Energy and Environmental Research Center was in trouble. The ground there drops slightly, part of the old coulee bed that extends from the hospital area on the south through University Park and the cemetery on the north.

When the basements and lower levels of the EERC began taking on water in the afternoon, about a dozen of the Center’s employees were on hand to battle the flooding. Water initially came from the south into the basement of a research building and then traveled through telecommunications conduits into the basement of the Administrative Building. Pumps were set up quickly to discharge the water.

Of particular concern was the downsloped area on the north side of the EERC’s Environmental Research Laboratory Addition, which had been completed in 1994. This area was sandbagged to protect it from water coming overland from the north and east. However, water backed up through the sewer drains and began to pool in the basin next to the windows. Pumps were set up to protect labs in the below-ground level of the addition. With those and the dikes, the EERC volunteers managed to stay ahead of the water for the night.

**SETTING SUN, RISING WATER**

A small group of UND personnel now had the responsibility for dealing with the worst natural disaster ever to hit the campus. Even with concerns about their own homes and their friends always in the back of their minds, they found themselves intensely focused on the tasks before them.

The mood was serious, recalled Judy Sargent, Director of Apartment Housing: “There’s no road map for this, no practice drills. Everything is being responded to without time for meetings or chitchat, and everybody is doing their part. In that way, the University has always been strong. The Physical Plant people know what their part is. As Housing people, we know what our responsibilities are. Dining knows what they do. Computer Center knows their thing. Everybody knows their own jobs, and
together I think it's a strong statement about the University."

"Not a cross word was ever spoken," recalled President Baker. "Everybody worked together to try to make things happen. This was at a time when folks were experiencing, in their own personal lives, unbelievable tragedy. I mean, the very people that were at the University doing everything they could to help it and the rest of the community had basements full of water or, in many instances, first-floor water."

Toby Baker went out in the evening to inspect the campus. The dike at Delta Upsilon was leaking into its patio entrance. Many pairs of running shoes hung in a nearby tree as a reminder of those who had evacuated. The Smith-Johnstone dike was now failing as well. Mark Hudson prepared to spend the night in Noren Hall; others would sleep in Brannon Hall.

After working late in the University Relations Office, Peter Johnson left for home to get a bite to eat and tend to Bjorn, the family dog. "I hadn't realized until I was driving home that water had broken across Gateway Drive west of Columbia Road," he said. "It was like a shimmering lake in the setting sun. I couldn't see the western edge, even though I was sitting up in a van. I had tried to go down University Avenue to 20th Street, my normal route home, but the water had turned me back. Every street I tried along the way told the same story. I finally turned east on Gateway and realized I wouldn't be able to go as far as 20th Street.

"I pulled into the Happy Harry's lot, parked the van and walked to 13th Avenue North, which was completely filled with brackish water," Johnson continued. "I probably could have driven the van in the streets, but the water was so high I didn't want to risk it. As I stood on the curb surveying my options, I was mildly stunned that the river had come this far west. This seemed inconceivable. A National Guard Humvee rounded the corner of 13th Avenue and 23rd Street, and I could tell the two Guardsmen were eyeing me. As they got closer, the driver asked me what I wanted. I told him my wife had left our large dog for me to evacuate, thinking I would have time. I also said I needed to get some clothes. I asked if there was any way they could give me a ride to my house, which was just two blocks over. The two talked for a second, and then the driver picked up a microphone. After chatting with whomever was on the other end of the line, he said they had approval to give me a lift, and he pulled in close enough to the curb that I could climb in without getting wet.

"Around the block, down the street and around another corner, and they pulled up into my yard. The water was 10 feet from my front door. The driver apologized for driving on the grass, but I told him that was no problem. I dashed into the house and could immediately see that the downstairs was dry. I was very happy about this, of course. I grabbed my backpack — my mobile home for the next few weeks — and literally threw in clothes, trying to anticipate all kinds of weather and situations. I made sure all
the lights, etc., were turned off, grabbed the dog, locked the door, and jumped back into the Humvee. The driver gave me a lift back to the van and, after I gave them my profuse thanks, went off on another mission."

Johnson headed for the airport to wait for his brother Sam and his family, who were coming in on a late evening flight. "It seems to me I saw the smoke before I headed for the airport," he continued. "It was at the airport, though — my first chance that day really to watch TV — that I first saw images of the fire and understood the severity of it. It started in the Security Building, which had sentimental value to me as the site of the Chronicle, the weekly newspaper my brother and I had owned. Although not all my memories of the Chronicle are happy, it was a very sad thing indeed to see it burn." His brother Sam arrived and noted that he had observed a number of Red Cross personnel on the flight, a sign that something big was happening.

Mayor Pat Owens had ordered an 8 p.m. to 6 a.m. curfew in Grand Forks. The city's sewer system was now completely inoperable. The flood was spreading into Stanford Road and North 39th Street as Jim Penwarden made his way to Brannon Hall. "Some signs of the recently departed students remained," he noted. "There was a general sense of disarray and debris that seemed almost fitting in the larger situation."

"I was physically exhausted before we got into Friday, Saturday and Sunday too heavily," noted Judy Sargent, who worked the office in Brannon Hall that night. "We tried to accommodate as many people as possible in the guest rooms that we had there. I stayed up that night in the hall office just so I could check people in and out of there. We had Physical Plant people who had already worked three shifts and needed some rest. So I just kind of laid down on the couch in the office for a catnap when I could grab one. That was the night, too, that the fires were on downtown, so I had the TV on in there. As people came in, they joined me in the office and got caught up, because we were really severed from any information."

The Computer Center was completely powered down. Cathy Hilley, Technical Support Specialist, came in from her Buxton home to coordinate a team of four IBM technicians from Fargo, who had arrived at 11 p.m. to disconnect the most critical and expensive equipment and move it to the third floor of Upson II.

At midnight, the Red River stood at 53.65 feet.
SUNDAY, APRIL 20, 1997

THE "JEWELS" OF THE UNIVERSITY

Still rising, the flood waters forced more of the communities' few remaining residents to evacuate. The landscape was largely one of desolation, punctuated by small zones of frantic activity.

One of those was downtown Grand Forks. Spread by breezes and burning embers, the blaze expanded through the night, consuming the entire Security Block and hopscotching over to buildings in nearby blocks. Firefighters could do little but watch until two pumpers could be loaded on to large military flatbed trailers that could clear the flood waters. Those enabled the firefighters to make serious progress in containing the blaze. With daylight, a "sky crane" helicopter equipped with a 2,000-gallon bucket joined the fight, making trip after trip to fetch water from the river and dump it on the buildings below.

Eleven structures were destroyed or heavily damaged. Among the major buildings destroyed were the First National Bank, the First Trust Center, the Security Building and the press and business offices of the Grand Forks Herald. Also gone was a row of businesses along North Fourth Street, including Bonzer's Pub, Formal Affair, CPS Limited, Creative Camera and Browning Arts.

Sunday would be another remarkably pleasant spring day. Yet, downtown areas of Grand Forks and East Grand Forks were engulfed in five to six feet of water. The crest was still more than a day away. The Minneapolis Star Tribune reported that the Red was now the largest river in North America, with a volume about 15 percent greater than the Mississippi River.

On campus, the initial battle had been lost. Flood waters were approaching too quickly and from too many directions. Nothing could be done to halt them, but there still was much that could be done to lessen the flood's impact on the campus.

The first of the twice-daily meetings began at 9 a.m. Only 14 persons were present to decide on how to protect a 570-acre, 240-building campus in a flooded city with no water, no sewage and a shaky electrical power system.

"We looked at how the campus could flood," recalled LeRoy Sundrol. "We knew that the Coulee was going to be a major source of water coming up on the campus. We also knew that if water entered our tunnel system, we could end up with a real severe problem of flooding from within. It is almost like..."
sewer backup. Many cases of that also happened when the lift stations went down. We had been assured that those things weren’t going to fail. We were feeling fairly confident about that until the flooding went beyond what the city had expected. All bets were off, and we more or less had to fend for ourselves.”

**WHICH “JEWELS” TO SAVE?**

As the flood spread in the city, frantic homeowners made snap decisions about what they could save and what they had to abandon. Now, the University had to make those same decisions. Mark Hudson recalled the mood as President Baker addressed the group: “I will never forget these words: ‘Which jewels of the University are we going to save? What are they? Let’s make a list.”

The decades of experience and knowledge shared among this group was crucial, President Baker said. “We were very fortunate in having people who had worked with the University for long periods of time and who, as a consequence, valued its traditions and history, and knew what we had to do to preserve them,” he explained.

The priorities they chose reflected the different roles of the University. Science journals and microfiche and microfilm collections had to be moved in the Chester Fritz Library. Holdings in the lower level of the Thormodsgard Law Library also were threatened. Pieces in the University’s art collection had to be moved from the Hughes Fine Arts Center. Theatre Arts’ collection of costumes was located in the basement of Burtness Theater. Library materials and Student Health Service records were stored in the lower level of O’Kelly Hall.

Specific facilities and resources were crucial and had to be protected. The Emergency Operations Center, now located in the Plant Services Building, was depending on communications equipment in the lower level of Merrifield Hall; electrical power for that equipment would be gone if the transformer by the Hughes Fine Arts Center was lost.

The group considered a wide range of issues and assignments, from saving buildings to finding portable restrooms. All were important. Patsy Nies, Administrative Officer to the Vice President for Student Affairs, began keeping notes of the meetings in a compendium titled “The Return of Lake Agassiz.”

Communications was the crucial component in the flood crisis. How was it threatened? How could it be protected? Without a functioning communications system, it would be almost impossible to organize any kind of effective effort. But both the city’s and University’s facilities were in grave peril.

Apart from the fire fighting effort, about the only people left in downtown Grand Forks were workers for US WEST. Their building on North Fifth Street housed emergency communication equipment as well as switching equipment for the city’s telephone lines. The Coast Guard joined in the effort to protect the building, pouring water on the roof during the downtown fires and pumping out the basement until the flood subsided.

On campus, UND’s telephone facilities were located below ground level, on the lower floors of Merrifield Hall and the Home Economics Building.
These had to be protected at all costs to maintain telephone connections for the University and for all of the other emergency services operating out of the campus. A handful of staff volunteers started a vigil that would keep them virtually isolated. For nine days they lived in the Merrifield switch room, sleeping on the concrete floor and pumping water from the main cable vault and cable manholes.

"At the beginning of the flood, that first week, we had four in addition to myself," said Rich Lehn, Director of Telecommunications. "We were operating around the clock. We slept in Merrifield. We ate our meals in Merrifield. Everything was done out of Merrifield at that time."

Likewise, electrical power was a primary concern. The UND campus was one of the few areas in north Grand Forks between 42nd Street and the river that still had power. Sandbag dikes protecting the campus transformers were all that kept the University and its communications equipment functional.

The situation with the library was especially critical. Many of the items truly were "jewels" — impossible or prohibitively expensive to replace.

Toby Baker went on KCNN radio with an urgent plea for volunteers. The response was almost immediate.

"By the time I left and walked back to where we were going to receive the volunteers, people were already there," she said. "Two minutes, and they had already come. It just blew me away that folks would do this. The whole city was evacuating, and we were able to get volunteers in to help us."

Chester Fritz Library staff member Wes Edens was at a rest stop when he heard the plea. He turned around and returned to Grand Forks, where he was able to guide volunteers in moving the most irreplaceable items.

While making a quick check on the residence halls, Mark Hudson came out of Bek Hall and encountered a truck parked nearby.

"There were three or four people in this truck, and I recognized one of them as a person connected to the church that we go to," he said. "I went over and said 'hi' to them. They were worried about a relative's home that was over by the fire station on Columbia Road."

Hudson explained that it would be difficult, if
not impossible, for them to reach it. “They just said, ‘We feel like we need to do something. Is there anything we can do to help the campus?’” Hudson continued. “So I said sure, and took them over to Plant Services and hooked them up with the Chester Fritz detail. They went over and worked the whole day, moving periodicals and important documents. That was really neat how members of the community were looking for some way to do something.”

By 3 p.m., 170 volunteers had responded, moving in just a few hours a staggering number of items. On and off between Friday and Sunday, staff and volunteers moved four photocopiers, nine computers, 14 microform reader/printers, 10 microfiche readers, 41,300 volumes of periodicals, 48,000 government documents, 6,930 reels of microfilm, and 1.4 million microfiche.

Next door to the Library, the School of Law was also considered critical. Whether from seepage or water coming up University Avenue, it looked likely that the lower levels would be lost. Volunteers were dispatched quickly to the School under the direction of its dean, W. Jeremy Davis. Among them was Jerry Bulisco, Coordinator of Judicial Affairs and Crisis Programs in the Division of Student Affairs, who had just returned from evacuating his family to Fargo.

“I got back and walked out of my van, and somebody said, ‘Quick, go to the Law School,’” he recalled. “So I ran over to the Law School, and there was a team just going in to take out what I was told were the most important documents we had, which happened to be on the lowest floor and the lowest shelf. And that was the Supreme Court briefs of North Dakota from the time it became a state. So, we madly, frantically put those on carts, brought them to the elevator, and sent them up. After we finished that, we were told we only had a few minutes left. We took any book that was low and put it high.”

Like the other volunteers, Jerry Davis was ready to do whatever was needed at the moment. “One specific task that I frankly gave myself was to make sure that the pumps continued to work at the Law School. We realized that if water was going to come in, it would be through either the storm sewers or probably the steam tunnels. As long as we could keep the pumps going, we thought we’d have a chance of keeping the library dry.”

Another of the most immediate priorities was to ensure that the students had left the residence halls and apartments safely, that doors and windows were secured, and that no fire hazards existed. Mark Hudson and Al Hoffarth’s children — Amy, Katie, Jerry and daughter-in-law Jen — inspected the Johnstone-Fulton-Smith complex, while Walsh, Squires, Hancock and Bek Halls were checked out by Complex Director Bill Easton Jr., Housing Office
Administrative Assistant Dawn Ellingson and her husband, Larry, and his brother, Bruce.

"The halls were like ghost towns," remembered Hudson. "You sucked all the people out of it. ... All the remnants of several weeks of work were everywhere, dirty boots and clothing [from sandbagging]. ... And on the doors, people had left notes to each other: 'Didn't expect it to end this way.' 'Love you guys.' 'Keep in touch.'

"We work all year to develop this community where people care about each other and respect each other's rights, and they grow into very deep, personal relationships," Hudson continued. "And then, overnight, without any closure, everyone just had to go. You could see the pain in people's writings to each other."

Making the rounds of housing facilities, Mark Hudson discovered some water coming into the basement of the new Apartment Community Center. Plumbers were able to stop up the drains and prevent further damage. Earlier that morning, Housing officials had made a sweep through the residence hall complex convenience stores and computer labs to haul up equipment.

The situation at the School of Medicine was described by LeRoy Sondrol as "gruesome." Larry Zitzow recalled the sights they encountered: "It was filled to three and one-half feet with sewage. With sewage, yep. The smell was unbelievable! It was so brand new, everything in there, all the instrumentation and lab equipment. It was just something you couldn't believe. Then, with the different levels in there, some places were even deeper. It was something else!"

"The thing that we couldn't control was the sanitary sewer when the lift stations started to back up," observed Paul Clark. "I think they have 35 or 36 lift stations throughout the city, and they were really confident right up to the last minute that they had that covered. They had back-up systems. I think all but five eventually ended up going down. That's really what hit us the worst here on campus."

Jim Kelleher, Professor of Microbiology, approached President Baker after a painful decision was made not to save the experiments in the Medical School.

"I said we just can't do it," Baker recalled. "We just don't have the people, we don't have the capabilities, we don't have the generators. 'How about if we do it?' Jim said. Fine, I said, how are you going to do it? He said, 'We'll figure it out. We're organizing.'"

The Medical School did have an emergency generator so that essential research and laboratory animals could be saved. Taking turns watching the generator were faculty members Kelleher, Ann Flower, Jon Spanier, Tom Hill, Kevin Young, David Lambeth and John Shabb, Medical School Maintenance Supervisor Tom Lunski and other Plant Services staff members.

Kap Lee, Director of the Center for Biomedical Research, found three student researchers who volunteered to come in and tend to the laboratory animals housed in O'Kelly and Starcher Halls for the School of Medicine and the Department of Biology.

"Those were just wonderful examples," said President Baker. "Some of the 'jewels' ended up being saved on the initiative of the people themselves. They were willing to dedicate themselves to it. They were willing to take the risks."

On the east side of the Wilkerson Dining Center, water had already spilled around the main sandbag dike and was pressing against the secondary dike thrown up against the main entrance. Several pumps resting on the first dike tried to keep the water outside under control. However, it was water from within that ended the fight.

"There were not many people around at that point," said Paul Clark. "There were probably eight of us, and we'd worked the entire day over there trying to get the dike built up high enough to try and save Wilkerson. I don't remember what the river level was, but when the sanitary sewer went, the water came up inside. It was useless for what we were doing on the outside. We just walked away. I guess that is something I will never forget. You always feel like you should have done more."

In the Center for Aerospace Sciences, Leon Osborne was assessing conditions there and what it would take to keep the Regional Weather Information Center operating. Although they had bottled water and food supplies, the situation was not encouraging.

"Because the water had been cut off, the air filtration system and cooling system were not working," he explained. "So, the smell within the building was starting to go a little bad. Of course, the restrooms were not working, and conditions were starting to deteriorate. At that particular point, we thought we were just going to have to shut down the facility."
His wife Kathy contacted her employer, Community National Bank, and learned that they were going to reopen in Larimore. She would evacuate to Larimore with their two youngest children, while Leon and their oldest son John, a UND sophomore, would stay on at the RWIC.

“Whenever I wasn’t in forecasting, Bryan [Hahn] and I would typically be watching WDAZ because that was the source of information,” Osborne recalled. “We’d go up on the roof, and we’d watch the Ray Richards Golf Course go under water. Or we would walk out on to the street and watch the water coming down University Avenue, or we’d watch water start bubbling up out in the CAS parking lot. It almost became a morbid game with us, guessing how fast it was rising and trying to project ahead.”

**SETTING UP AT PLANT SERVICES**

Even as work continued to extinguish the smoldering rubble downtown, three private homes in Grand Forks burned. To decrease the potential for more fires, electric power and gas service was shut off to much of the city. East of 42nd Street, only a handful of businesses were still operating.

As it became apparent that both Wilkerson Hall and the President’s Residence would have to be evacuated, First Lady Toby Baker decided to try to buy bottled water for the emergency headquarters at Plant Services. Her first effort to get to Hugo’s supermarket on 32nd Avenue South — the last grocery store still open — got as far as the top of the Columbia Road Overpass.

“It was the most amazing sight,” she said. “All you could see was water at the bottom of it. There were a few cars that were sort of bobbing in the water. Their drivers had tried to make it through and then had to abandon their vehicles. The wind was blowing, and I was the only one at the top of this bridge.”

After finding another way to Hugo’s, she bought 16 cases and immediately ran into a CBS news crew.

“It really is hard to be inconspicuous when you are buying 16 cases of water,” she said. “They wanted to do an interview with this woman buying her water. I don’t know if it ever made it on the air.” The crew helped her load up the Jeep; a few hours later, Hugo’s closed.

“Camping” at Brannon Hall came to an end, as electric power was being shut down for the entire Wilkerson complex. Mattresses were removed from Brannon, and a number of “cubicle condo’s” were set up in the offices of Plant Services. Toby Baker retrieved sleeping bags, pillows and a few other necessities as the flood surrounded the President’s Residence.

Activity escalated at the Plant Services building as more and more emergency personnel and media representatives arrived.

“The phones never stopped ringing,” she noted. “You’ve got your FEMA people and all those trucks. And at the time they had not set up Ryan Hall as the media location, so we had all the media, all their satellite trucks and their on-camera crew people. And then we had the emergency people from the University. And, of course, we had no water and no sewer.”

Bathroom facilities had to be acquired immediately, wherever they could be found.
I truly think they chiseled these little porta-potties out of the ice," Toby Baker remarked. "Honest to Pete, these were real rough-lookin' porta-potties. It was only because everyone was in serious need that we even touched the door... you opened it, and it was like, 'Oh wow, where has this been?' Well, it had been in a snow bank someplace.

"We weren't able to get the porta-potties cleaned and rotated, and new ones brought in for several days," she added. "You share three porta-potties with 200 people, and you get 'interesting' times."

That was just one aspect of the critical health issues that had to be addressed. Working in flood conditions posed a wide range of risks: biological and chemical contamination, hypothermia, the vastly increased potential for injury, and the breakdown of all normal services. With the hospital and clinics closed, it was now up to the University to establish a health care center for the city.

Bonnie Freeland, Family Nurse Practitioner, heard the radio request for volunteers from Student Health to come in to move records and other items. While she was working there, Gordon Henry reached Dr. Tim Heinley on a car phone as he was traveling between Carrington and Jamestown. Heinley found a field road, turned around, and came back to set up a makeshift clinic that evening at Plant Services.

Back at O'Kelly Hall, the power situation was very much on the minds of Henry and Jerry Bulisco as they continued to move records and personal items from offices.

"Gordon and I were running out and stuffing things on the elevator," Bulisco said. "You know the elevator in O'Kelly, you have to ride on it. We knew the electricity was going to go off any time. So we'd just kind of jump in, take a turn, say a prayer, close the door, press a button, go up one floor, push everything off into the hallway, and then run down the steps. And he and I did this for about two hours... Right at the end, Gordon said we couldn't stay any longer. Water was coming up by the Law School, and we had to get out."

The depth of the still-rising water that had spread over the city and campus continued to startle all who saw it.

"One of the more eerie sights was watching cars actually float down Columbia Road and University Avenue," recalled Duane Czapiewski. "Nobody in them. The water was high, and they were just floating along until they came up on a berm or against a tree. You could see them floating for two to three blocks. You'd go up on top of the [Columbia Road] overpass and look down toward the hospital. I remember that one red car just bobbing down the street. When kids are fishing, they use those little red floats. That's what it looked like when you first glanced at it."

The challenge of getting around on campus became increasingly difficult. "We started out with
just using big four-wheel drive vehicles, such as Suburbans," Czapiewski continued. "Then, as the water rose, we had to go to the 10- and 20-ton dump trucks. Most of them are diesel. They exhaust out, and they're framed higher." Finally, people had to be transported across the coulee in the front end of payloaders.

They also had to have a reason to be going anywhere. Access to all affected areas was controlled by the largest security force ever assembled in the area, including the National Guard and law enforcement officers from all levels. "There were more police here than you could dream of," observed Larry Zitzow. "I've never seen so many cops in my life."

"Checkpoint Charlie" was staffed by UND police and the National Guard at the corner of University Avenue and North 42nd Street. They took their responsibilities very seriously, many discovered. "If you didn't have the proper credentials or a silver tongue, you didn't get access to the campus," said Peter Johnson, who had returned after meeting with his family at Devils Lake. Their presence could be intimidating. "We were fairly sure they had bullets in those guns," observed Leon Osborne. A makeshift blue identity badge was created for University personnel.

The whole scene had a decidedly military air, Johnson said. Uniforms, badges and tags of all kinds appeared everywhere: those of the National Guard, state and local police, FEMA officials, the Red Cross and other emergency and relief agency personnel, and, in landlocked North Dakota, the Coast Guard.

"I've seen them on the coast, but never in the mainland," Zitzow said. "To see a Coast Guard helicopter was something else. They were here with boats, rafts and special animal patrol people."

"The National Guard had been in town for some time, so there was already a military aspect to things," Johnson noted. "But it started to intensify now. Humvees prowled the streets. Helicopters thundered overhead. Everyone, it seemed, carried a cell phone and used it at all times. Not unlike, it seemed to me, having a radio on patrol and radioing back to headquarters. People were coming and going, much like soldiers who might 'chopper' in and hook up with their platoons at strange places."

"Everything was out of this area here," Zitzow said. "The whole thing revolved right around here. There were helicopters flying steadily. There were trucks from everywhere you could imagine."

The intensity of the situation and the strain were beginning to tell on the flood fighters, most of whom had been sandbagging and diking for weeks before the crisis hit.

"When we were actually shutting power off to the facilities, you saw the water just coming up and up," Zitzow said. "You'd make a mark, you'd measure, and you'd see it was just coming up, and it never quit. It just never quit. Mentally, the strain was just unbelievable. You just didn't know where to go next."

**THOMPSON OPENS ITS ARMS**

The twice-daily meetings, initiated just that morning, already were proving to be crucial focal points for the group. Events were unfolding rapidly, and communication was sometimes catch-as-catch-can. The meetings gave the group a chance to share information, evaluate priorities and plan action, rally their spirits, and even begin to look ahead beyond the crisis.

Sunday's 5 o'clock meeting included a quick review of what had happened and what had been accomplished. The fires downtown and elsewhere in the community underscored the tasks before them.

"We needed to decide on how we were going to shut our buildings down so they wouldn't be completely contaminated," said LeRoy Sondrol. "We started looking at shutting the power off to our facilities. We started to do that so we could literally take everything down and not have any fires in our buildings. After the fire downtown, we found out right away what had caused that. We had very similar situations here on campus, should we become flooded." Natural gas service was cut off, and work began on powering down the campus as much as possible.

The meeting included some great news for the group: people in the nearby community of Thompson, N.D., would be providing hot food, beds and showers. For days now, first at their own homes and now on campus, the UND flood fighters had been working nearly around the clock and subsisting largely on pop and packaged snack foods. Illnesses were beginning to crop up as a result of fatigue and unsanitary conditions.

Becky Bohlman, Administrative Secretary in the Department of Industrial Technology, headed the formidable task of organizing the efforts of the
Thompson volunteers; assisting her was Terri Clark, Director of Fiscal Affairs at UND Aerospace.

The experience of this generosity was almost overwhelming, remembered Gordon Henry: "For two and one-half days, I hadn't had a bath, or a shower, and hadn't had anything to eat except potato chips and warm pop. Then we went out to Thompson. We walked into the church. And I'll never forget when I picked up the plate . . . here I am, I'm the evacuee. That's what I am, an evacuee. I've never had that experience. Never thought I would. 'That only happens to people in Pakistan, you know . . . it's not going to happen to me.' When she put the hot food on my plate, I broke down and started to cry. She was a hero. They were there when you needed them. They were heroes, those people in Thompson."

"We looked pretty rough," Toby Baker said. "We had hair sticking out all over, and we'd all been in the same clothes for a couple of days — maybe what even seemed like a couple of weeks. So we had dinner and then had our very first shower at the Thompson school locker rooms."

Beds for several of the group members were set up in the Thompson High School library. "My section was the non-fiction section," noted Judy Sargent. After that first night, they would have beds at St. Matthew's Lutheran Church in Thompson for two weeks.

The second floor of Plant Services became "home" for some other members of the group. "When the mattresses came, we hauled them upstairs and claimed our spots," recalled Peter Johnson. "Since I was the first one up, I got to pick what I thought — and still think — was the premium spot: a room that contained all kinds of blueprints and schematic drawings. It was also the only available unlocked room with a door. Everyone else got cubicles. Jim Penwarden slept just across the hall from me and just south of Jerry Davis. Around the corner to the south was the Baker Suite, where Ken, Toby and Kodak resided. Dave Vorland also slept up there [at Plant Services], as did Patsy and Gerry Nies, Tim Heinley and Marlene Strathe."

Critical work continued on campus. From 6 p.m. to midnight, Computer Center personnel loaded the components of UND's mainframe onto a truck for shipment to Fargo the next morning. A small health clinic was organized on the ground floor of Plant Services. Meanwhile, Terry Webb contacted the North Dakota State University Laundry to see if they could provide UND with towel and linen service.

Faculty volunteers in the Schools of Medicine and Law babysat generators and pumps. Jerry Bulisco and Mark Thompson volunteered to staff a night watch shift.

**Cities Without People**

When the Federal Emergency Management Agency arrived in Grand Forks, one of its priorities was to restore the information flow from officials to the media and the people. The Aerospace Network, which operates a satellite broadcasting and television production facility in Ryan Hall, was asked to accommodate FEMA and the media. Commencing with its first news conference on Sunday, the Network became the Federal/State Joint Information Center. Ryan Hall became one of the points from which media reports were sent by satellite around the nation and the world.

At the news conference shortly before noon, Mayor Pat Owens announced an around-the-clock curfew in mandatory evacuation zones. "It is very hard to turn away from your home and watch it go under," she said. "That home can be replaced, but the lives of our valuable citizens cannot be replaced. What makes a community a place to live is not the buildings or anything else. It's the people — the spirit and the faith that are in those people."

At the Point in East Grand Forks, the confluence of the Red Lake and Red Rivers, the water was up to the eaves of homes there. Some houses had been blasted off their foundations. The Minneapolis Star Tribune noted that emergency personnel there had to duck when their boats passed under power lines.

The exodus that began the day before had continued through Sunday. Almost all residents of East Grand Forks had left, and by the end of the day three-fourths of Grand Forks citizens were gone. United Hospital had evacuated the last of its patients by 7 p.m. A crew of about 50 hospital employees stayed on to monitor the building's infrastructure, equipment and records, and a sandbag dike surrounding the structure.

Relocated in Park River, Jackie Flaten echoed the emotional turmoil of evacuees: "I am very agitated. I can't stand watching TV, but I can't stop, either. I feel so helpless. I go to Drayton with my brothers; they are sandbagging. My sister-in-law is helping an elderly neighbor pack, 'just in case.' Eighty-year-old Tillie's house is maybe five yards from the dike. I go with them to a town meeting.
where the mayor describes the scenario. Anyone who is not able to work on dike building, as well as the children and the elderly, are urged to leave town, ‘just in case.’ Afterwards, everyone is standing around saying, ‘Hmmm, what to do, what to do?’ I want to grab the microphone and shout, ‘Everybody get out now! Get your important stuff and go!’"

At 6 p.m., the Red River climbed just over 54 feet. It fell back to 53.9 feet at 9 p.m. and then resumed its rise, reaching 54.19 feet at midnight.

Duane Czapiewski made an evening inspection of the area.

“The eeriest part,” he recalled, “was taking a drive up on top of the Columbia Road Overpass. Pitch black outside. The city of 50,000, pitch black, and all you see is water. You turn around in four directions, and you see nothing but water. No movement, no people moving, just a ghost town. And the smell of fuel oil, because that was on top of the water. That darkness, that emptiness, and the smell still linger with me.”

"Every day is so full of the unexpected,” Toby Baker recorded in her journal. The English Coulee continued to swell, intensifying the crisis. On campus and in the city, officials were working minute to minute, making decisions on the spot and hoping for the best.

The newly commissioned night crew of Jerry Bulisco and Mark Thompson had barely turned in when Diana Knain, a Plant Services Communication Center employee, roused them with news that water was threatening the transformer near the Hughes Fine Arts Center.

This situation was critical. The Emergency Operations Center, FEMA, the Army Corps of
Engineers, the city offices and all other emergency entities housed at UND needed the transformer to function. Its loss would leave them unable to communicate with each other and the outside world.

Thompson grabbed his radio and headed for the transformer site. Bulisco ran through the Plant Services Building, waking people up.

"It was difficult," he noted. "Nobody wanted to hear the term 'sandbagging' again. Anyway, I ran down there, and President Baker was right behind me. We got down to the Hughes Fine Arts Center, and there was so much water that we couldn't sandbag directly."

Thompson radioed back to Plant Services that help was needed urgently. An operator called the National Guard and Sandbag Central, now operated by the Grand Forks Air Force Base. They shut down Sandbag Central and came in trucks to save the transformer, rotating some 60 workers each hour throughout the early morning. Because they were not wearing waterproof footgear, a bridge of pallets and sandbags had to be erected quickly.

"The water was coming in so fast inside the dike of the transformer," said Paul Clark. "We had two two-inch pumps going wide open, and one other small pump, and we were just staying even with it. Anyway, we got that [bridge] built, and we called and said we needed waders. Nobody had waders. So then six [Grand Forks] firemen came out there, and they had waders on. We started building up the base all the way around this thing, and this was 20 yards long by 10 yards wide. We had to build it up this wide all the way around the outside before we could even start to build the height on it.

"We were there until 10 o'clock in the morning," Clark continued, "but we did it. Certainly, there were a lot of people who helped. I have no idea who was coordinating and where they were coming from, but every hour there would be a new truck load [of workers]. So we had fresh people all night long. It
worked great. That is something I'll always remember — being able to save something after we'd already lost Wilkerson and Smith."

"I think everybody and anybody who was available rushed out there," observed Mark Thompson. "We had Plant Services folks, and pretty soon some firemen showed up in their waders. We had National Guard and Air Force personnel, and we had people from Sandbag Central and the EOC [Emergency Operations Center]. We had truck drivers from the DOT [North Dakota Department of Transportation] and other folks bringing sandbags."

While working at the site, Paul Clark stepped into a rut made by a payloader. The frigid water spilled over and filled his waders, but he stayed on, sandbagging for hours. "Paul was just amazing," Jerry Bulisco remarked.

The successful fight to save the transformer, combined with the previous day's efforts to preserve historic treasures, marked a climactic point in the flood.

"We knew that this was the crunch point," said Jerry Davis. "This was going to be the crest, the high point of the water."

At that morning's 9 o'clock meeting, President Baker began with a review of events and progress made. Among the "jewels of the University," the archives in the Chester Fritz Library had been a top priority.

"The President started out to say that we had saved the 'history of the University,'" Davis recalled. "It was a very moving experience. He couldn't finish the statement. He couldn't finish telling it, and he just broke down. Nobody was saying anything, and LeRoy [Sondrol] jumped in then to take over. He started talking about what they had done overnight, and he couldn't finish. He broke down. It was an unbelievable experience. I knew then, if I hadn't known before, that if there was any way humanly possible to come out of this thing, we could because we had the people to do it.

"For all the tragedy and all the personal loss that people had, the hard work and everything, this was, on balance, a very positive experience because of what we learned about what we could do, and how we could work together. We don't know how good we are and how much we can do. We can do a lot, and we proved it," Davis concluded.

"The emotion [of that meeting] was something else," Gordon Henry reflected. "We had one of the most wonderful moments of the whole flood fight. As President Baker started to speak to the group, he broke down and cried. You could hear a pin drop in there. At that moment, there was a connection with President Baker and everybody in that room that will be there for the rest of their lives. It will never disappear. You can't tell anybody in that room that we didn't have the most wonderful president in the United States at that time. Just like that, he really connected with everybody there."

**A Flood of Questions**

The 9 a.m. meeting continued with an assessment of threatened facilities. The transformers seemed to be safe now, but the situation in the tunnel system was still difficult.

"Water was pouring in from all directions, through the floor, the walls, the tunnels, the conduits," recalled Rich Lehn. Plant Services staff member Mark Johnson crawled into the tunnels to locate the sources of the infiltration.

"We found places where we could put pumps at strategic locations to keep the water at a level where we could sustain our communication system," said LeRoy Sondrol.

Crew members in the Steam Plant were working to keep it as dry as possible to minimize problems with restarting it. Security for the campus, and particularly the Emergency Operations Center, was a concern. Jim Uhlir, Director of Auxiliary Services, volunteered to screen people stopping at "Checkpoint Charlie" at the intersection of University Avenue and North 42nd Street.

The crowded, hectic conditions in Plant Services presented several problems. Janitorial work was needed to restore some order. But food was the principal concern. The Emergency Operations Center had been set up in the Plant Services lunch room. President Baker asked Terry Webb to see what could be done to put together a small dining facility somewhere in the Plant Services complex.

"As the water continued to rise, there was the growing problem of meeting another flood — of questions. The abrupt closing and evacuation of the University had left people scattered throughout the region. Their lives were on hold; they were scrambling for any piece of information about their homes, about their futures. Some kind of framework had to be established for providing information and services.
Students had been sent home with the advice that they could visit with their instructors regarding grades or incomplete classes.

"How in the world were these students going to make contact with the University?" asked Robert Boyd. "I thought our Division [the Division of Continuing Education] had the people to be able to do that and set up the communication link."

The winter's eight blizzards had made Boyd aware of how many of his staff members lived outside of Grand Forks and were impeded by the severe weather. Now, many of these people would likely not have been affected by the flood. "I knew they'd be willing to come back if I simply called them," he explained. "I had a resource there that not every unit, obviously, was privileged to have."

What was needed was an outreach center — actually, a "reach-in center," a way for people to reach into the University. A new group had to be assembled; up to that point, the barrage of incoming phone calls was being handled by a small number of people who had been present virtually since the start of the emergency, notably Patsy Nies.

At the 9 a.m. meeting, Boyd proposed the formation of a phone bank to maintain contact with students, faculty and staff.

"I told President Baker that we needed 10 phone lines and two toll-free lines," he said. "We would get it set up in cooperation with Telecommunications, and that I'd have the people there to actually answer the phones and get things under way."

The Division of Continuing Education faced significant challenges. While its operational base, the UND campus, was virtually shut down, its responsibilities remained. Many of its clients were not affected by the flood, and the Division had obligations to them. Boyd later met with his
directors at the Rural Technology Center to discuss their situation.

"We had two conferences that were scheduled, not in Grand Forks but elsewhere, and people fully expected those conferences to operate," he explained. "Those were a very high priority for us. Who was going to actually coordinate the conference? What details still remained?"

Correspondence Study was another high priority. How would the Division get mail from students? How would it mail materials to students? Numerous extension classes were scheduled to start within months. Brochures and other materials had to be printed and distributed. And then there was the question of the Summer Session. Was it even possible to hold it?

The Red River had reached the 54-foot mark Sunday evening. After dropping just slightly, it continued to rise slowly throughout Monday. Except for the work of emergency personnel, almost all activity had ceased in Greater Grand Forks.

"I've never seen a city at a point where you couldn't buy anything," Larry Zitzow remarked. "You couldn't buy one thing in this town. Absolutely every store was closed. You couldn't get a drink of water, and yet there was water everywhere you looked. It was just unbelievable."

The Plant Services building, by contrast, was packed with motion and conversation.

"Everyone was carrying cell phones and talking on them most of the time," Boyd recalled. "In spite of what ended up being kind of a chaotic environment, it was not a 'Keystone Cops' affair in which everyone seemed to be running in different directions, bumping into each other and accomplishing nothing. It was quite the opposite. It was chaotic, and it was a crisis, but there seemed to be an intentional, organized, assignment-given environment. I can't think of an incident where I really thought it was just wasted activity, where people ran around in circles. People were doing things because there was some kind of intentional, thought-out strategy, what was important, and why it was a priority. That's pretty incredible."

"A certain sense of freedom comes with being in a crisis situation," observed Peter Johnson. "Normally, whether you work for a business or a university or some kind of governmental agency, there is a protocol — red tape, I guess you'd call it — in trying to accomplish a significant task. Permissions have to be sought, particularly with spending money. In a crisis, though, things have to get done — Period! You are given the freedom to operate, to make decisions, to use your common sense. What was particularly helpful at UND is that many of us had worked together for so long that we instinctively trusted one another to do his or her absolute best for the good of the institution. And it worked. I can't think of a single time that I thought a poor decision was made, that something could have been done better. As the flood reached its apex, the non-stop barrage of emergencies and questions began to take its toll.

"You were so tired, and so worn out and fatigued," Zitzow recalled. "I got to the point where I found a little office and just sat in a corner for a while. When I came out, it was just like a famous person had come out the door. You knew what they were waiting for . . . they just attacked you with questions and things that you needed to provide. It was just unreal. It was steady bombardment. I've never seen anything like that in my life. It was just steady questions. You couldn't answer them fast enough."

**THE CREST NEARS**

The flood waters were reaching their high point on the campus. University Avenue was filled from downtown to the intersection of Oxford Street and again from the Coulee to Stanford Road. Along University Avenue, water was close to the foundations of the fraternities and sororities, all of which sustained major flooding in their basements.

"One thing that really struck me as weird was the first time I saw an air boat zipping down the street," noted Rich Lehn. "You normally don't hear or see that type of thing coming down University Avenue, turning at the Memorial Union and heading back off across open yards."

Second Avenue North was filled to the intersection of Columbia Road. More water filled Second Avenue at its intersection with Cornell Street near Abbott Hall, the Hyslop Sports Center and Swanson Hall. The Memorial Union parking lot was half full.

Along the eastern edge of the campus, the U.S. Department of Agriculture Human Nutrition Research Center was impacted by direct flooding, as were several buildings of the Energy and
Environmental Research Center. The EERC parking lot on Second Avenue North was completely filled.

"All of University Avenue from in front of the Chester Fritz Library to as far as I could see to the east was under water, and it extended over the curb to varying distances on each side of the street," observed Jim Penwarden. "I was particularly struck by the sea of water that covered the large parking lot between University Avenue and Second Avenue, north of the football stadium. It stopped to the \\

The Return of Lake Agassiz

Widow's Island, north of the Great Northern Railway tracks, east of North 42nd Street. The lower level of Wilkerson was flooded, and water also was impacting Selke and Noren Halls. Across the Coulee, the basements of Gamma Phi Beta sorority and Delta Upsilon fraternity had been inundated. Flood waters filled half of the West Complex parking lot and two-thirds of the Princeton parking lot. The basement of the Phi Delta Theta fraternity house was flooded.

Sixth Avenue North was full from the river up to the railroad tracks east of North 42nd Street. The depth of the water became apparent when Judy Sargent and Susie Belyea needed to check out the University-owned buildings in the Gallery Apartments complex. "The National Guard said, "You're going to need a ride in. Get in the Humvee," Sargent recalled. "I started to say, 'Oh, we can walk,' and they said, 'Yeah, yeah, we're going to need a ride down there.' So, he took us in that Humvee down to Building K, which took us through some water, and he said, 'Lift your feet up. There's water coming in.'"

"The water came up in the floor boards, and I was just amazed," Belyea said. "We were kind of worried because the water was getting kind of high up on the ground. We wondered if we were going to find any water in there, but we didn't when we got in and actually checked the apartments. But I'll never forget driving down that street with the water coming up the floor boards in front of the Gallery Apartments, which is so far away from the river and the coulee."

Between Sixth Avenue North and University Avenue, Princeton, Oxford, Harvard, Cambridge and Hamline Streets all had water in them. Except for the tennis courts, the north campus, or "Bronson property," was completely submerged. The Medical Science Building had direct contact with flood water only along one corner bordering the alley on its western side. However, sewer backup had filled the lower level to nearly six feet.

The EERC

At the eastern edge of the campus, the ground drops slightly, part of the old coulee bed that extends from the hospital area on the south through University Park and the cemetery on the north. The deeper water there would result in the loss of another major facility, the Energy and Environmental Research Center.

"We couldn't get there by truck," said Mark Thompson. "We saw a Humvee coming down Second Avenue [North], and the water was up to its lights." Attempts to go behind Engelstad Arena were also halted by the deep water.

John Hendrikson, the EERC's Assistant Director, had a team of people battling to save the facility.

"John and I were communicating back and forth on a daily basis, trying to see what he would need," said Larry Zitzow. "One night, he called and said, 'Well, the water is starting to come up to the dike.' There is a dike on the north side of Building W, their new research facility. The Group Burdick building. I said that I had just been there a few hours ago, and
there is no problem. He said, 'You probably should come over here.' So I went back to look. I could hardly get there. In just a few hours — that's how fast the water had come up.

"John had asked for more sandbags and more people," Zitzow continued. "The resources were getting tougher and tougher to get. There were no people left. We got him more sandbags, but the whole thing got engulfed. We were forced to say, 'John, we've got to let it go.' That was hard for John. He worked so hard to get that center up and running, to keep it going. A brand new building, and we have to say, 'Let it fill up with water.'"

"That was tough," said LeRoy Sondrol. "There were people in the building, working hard, trying to save it. But they were doing it at the risk of their own lives. We had gas engines running inside the building pumping water, and it was very, very high risk. Both the President and the Chancellor [Larry Isaak] advised me to go in and shut the building down."

"We tried and tried and tried," observed President Baker. "And John — my lord, that man deserves 15 medals for the effort he made to try to preserve the EERC. They told me what the circumstances were, and I said we just can't do it. We have to pull the plug. We've got too much risk of life, too much risk of fire. We have to take it down. That was an exceedingly difficult decision. I knew how much equipment was in the basement of the EERC, but we couldn't run the risk anymore."

Painful as it was, the decision proved to be the correct one, as a fire situation at the Human Nutrition Research Center would demonstrate just the next day.
WORKING IN THE WATER

The mainframe computer had been moved to NDSU in Fargo; in a conference room in the Hatton bank, plans were made to run payroll for the North Dakota University System and resume mainframe processing for the Higher Education Computer Network. Computer Center staff disconnected more cables to be sent to NDSU, along with about 8,000 backup tapes. For the rest of the day and into the night, staff and volunteers used space in the Buxton bank to sort the tapes into a usable sequence.

Basic necessities continued to pose problems. David Jensen scrambled to find more suppliers of portable toilets and arrange deliveries; meanwhile, a trough-style urinal was fashioned to relieve demand on what few porta-potties were available. An order was placed for a portable kitchen. Work continued on setting up a clinic, but water hindered access to supplies on the main campus, as did the lack of keys to the pharmacy.

Don Shields, head of the Grand Forks Public Health Department, asked UND's Student Health crew if they could go out to give tetanus shots to workers at the US WEST building downtown.

"I went in the back of a 'duck' with the National Guard," Bonnie Freeland recalled. "It took us at least 45 minutes to go [down DeMers Avenue] from Ray Richards [Golf Course] to NSP. It was really weird. Very quiet, very calm that day.

"When you looked down Columbia Road, as we drove by, there was water as far as you could see," she continued. "Everything was basically abandoned."

Smoke was still rising from the smoldering ruins of the downtown fires as they reached the US WEST building. Except for the firemen, US WEST and NSP workers there, the area was virtually deserted.

"They were so happy to see us, even though we were coming to give them shots," Freeland said. "We were somebody different to see. There were other people in town besides themselves!"

Jack Glass was released by the University to work with the city and the hospital whenever possible. At the height of the flooding, city officials loaned Glass a pair of waders and asked him to help inspect a chemical storage facility off Washington Street near Home of Economy.

"The flood water was black," Glass recalled. "It was halfway up my chest, and you couldn't see an inch under it, so I'm walking through blindly. All I would have had to do was hit a tire rut, and I'd have gone down. So that was a little overwhelming. It took four hours to walk around the building because we were walking like blind persons, holding this shovel in front of us and tapping the ground, making sure we had something to step on. We had to move slowly so that we didn't splash flood water on us because, well, we were in a chemical plant. We didn't know what was going to be in there." Fortunately, the flood impact there was minimal.

City officials were still fighting to contain the flood damage. In an effort to stem the flow into the western half of the city, a fleet of large orange dump trucks from the North Dakota Department of Transportation began building a new dike of crushed concrete down the center of the flooded portion of Washington Street, starting at Hammerling Avenue and moving north.

"These trucks were going through water constantly," noted Jim Uhlir. "All of those vehicles had to come in and have maintenance work done to get the contaminated water out of their transmissions and engines. It was a major work effort on the part of the DOT crew and our Transportation people. We spent three days doing that, day and night. That's one of those things I don't think a lot of people really know about, but it saved the state lots of dollars in maintenance costs."

Even as the river continued to rise, work had to be done downtown to reduce the hazard posed by the ruins of the burned-out buildings. A crane started knocking down the remaining walls before they collapsed on their own.

UND's Flight Operations, working in coordination with University Relations, arranged numerous helicopter flights for state and local leaders. Toby Baker and Gordon Henry accompanied Grand Forks Mayor Pat Owens on one of these flights.

"We couldn't go below 2,200 feet, or whatever it was, because the National Guard had that air space," Henry said. "As we flew toward Grand Forks from the airport, here we were, almost half a mile high, and as far as I could see, to the north, to the east, to the south, all I saw was water. I sat there, and I couldn't believe it. That really was when the reality hit me. The pilot went down as low as he could go so we could look at our homes. That's the first time that I realized, I'm flooded. That hit."

Toby Baker observed, "The water just seemed to reach forever. The houses next to Lincoln Park were
April 21: UND housing facilities are among those most directly impacted, including Noren, Selke and Wilkerson Halls (lower right) and Smith Hall (center). Photo by Peter Johnson.

not just flooded — they were splintered into floating pieces."

While on the helicopter ride, Mayor Owens received a telephone call informing her that she would be meeting with President Bill Clinton during his visit to the city the next day. Recalling her excitement as she got the news, Henry observed, "This lady who had worked her way up from being a secretary and an administrative assistant was now going to be meeting with the President of the United States. I’m sitting there, and I am as proud as punch and so happy for her."

President Baker and LeRoy Sondrol accompanied North Dakota University System Chancellor Larry Isaak on a helicopter tour of the area. Isaak later conferred with Gov. Ed Schafer, who was in the city to meet with Mayor Owens. David Jensen also had the opportunity to see the city from the air. "There was water as far as you could see," he said. "In very few spots, even out in the fields south and north of town, was there ground that you could actually see. You could see the river channel, the tree lines, but the rest was like a great, huge lake with little bobbers floating in it. You couldn't imagine the river that high, where you can't even see a bridge. You see the steel structure, but the driving lane is covered with water flowing over it. It looked like mini-rapids."

A CNN report commented, "All sense of direction and dimension was lost in the mass of water. Cars and houses and playground equipment looked like toys in a bathtub."

East Grand Forks Mayor Lynn Stauss noted that all but 250 of the community's 9,000 residents had evacuated. That city's government had set up offices in the Comfort Inn. Although there was no water or sewer system operating, the motel was on dry land. National Guard troops, including one sergeant who was a plumber, succeeded in keeping water out of the Police Department's building on DeMers Avenue.
Several neighborhoods in the western areas of Grand Forks had not been evacuated, and many residents, despite the lack of water and sewer service, stayed on. The National Guard set up "water buffaloes," each containing about 2,000 gallons, near the Ramada Inn to provide purified water. People were urged to stay away from flooded areas, which were contaminated with sewage, dead animals, fuel oil, farm chemicals, and other pollutants. National Guard troops were stationed at numerous checkpoints to restrict access to evacuation zones.

For those evacuated families who had been forced to leave pets behind, good news came in the form of the arrival of the Emergency Animal Rescue Service.

Although pets are not permitted in campus residences, Housing officials were not surprised to find a few when they made their first sweep through the residence halls and apartments as the crisis began. As time allowed, National Guard troops and University Police officers had escorted some residents in to retrieve their pets.

Members of the Humane Society were busy doing rescues in East Grand Forks, so Judy Sargent and some residence managers set out to check on animals they knew about. Accompanying them was Pattijean Hooper, a member of the School of Communication faculty.

"We found a couple of white mice that somebody had obviously brought home from a school," Sargent said. "They had names on them, Pinky and Stinky, or something. Pattijean was so wonderful about getting these little mice out of their little cage and petting them, and making sure they had water."

Hooper and a manager continued on to other apartments, including one with two cats who didn't seem to be distressed at all.

"Just as they were getting the cats secured, they noticed that the aquarium had been dumped over, and the little rocks were all over and the light was hanging, and so forth," Sargent noted. "So, they felt that the cats had gotten into the aquarium and were no longer hungry or thirsty."

Throughout the region, people continued to mobilize efforts to assist the flood victims.

Sharon Rezac Andersen, Director of the International Centre, had evacuated to her home in Park Rapids, Minn. At the courthouse there, she outlined plans to bring evacuees to shelter in Park Rapids. Flood volunteer coordinators asked her to stop back before she left. When Rezac Andersen returned a half-hour later, two school buses and six vans, loaned by auto dealers, schools and individuals, were waiting to accompany her to Grand Forks.

"I was raised here, and I have never been more proud to call Park Rapids home," she told the Park Rapids Enterprise. At the Grand Forks Air Force Base shelter, she saw friends, including lawyers, doctors and colleagues, all living on cots in a hangar. A church and several resorts and homes took in evacuees, including many international students. Assistance flowed in from many sources, including a flood relief fair. Park Rapids eventually took in 300 international students and Grand Forks residents.

There was an intense "need to know." In motels, campgrounds, shelters and homes of friends, evacuees waited anxiously for any new scrap of information: What had happened to their homes and neighbors, and their jobs? What were officials doing? Was there any kind of word yet about when they might be able to return?

In an unprecedented move, FEMA installed an emergency radio transmitter and antenna on top of Ryan Hall to keep KCNN and UND's Northern Lights Public Radio Station on the air. Dislodged from its downtown headquarters, KCNN teamed up with Northern Lights to operate jointly as the Recovery Radio Network.

Reporters and support personnel from all across the nation had descended on Grand Forks. To relieve crowding, the media center was relocated to Ryan Hall. The move gave media personnel, especially those in television, access to facilities geared for their needs and also allowed the emergency workers back in Plant Services a little distance and "breathing room."

FEMA began broadcasting emergency information 18 hours a day, using the facilities of UND Aerospace. Press briefings were carried by CNN and local media, and an informational "billboard" provided telephone numbers for relief agencies.

The Aerospace Network also was used to do a live hookup with the PBS News Hour. A segment of NBC's Dateline was recorded in the ASN broadcast classroom, and FEMA used the facilities to produce an original 90-minute program, "The Road to Recovery," which was broadcast live via satellite on Sunday, May 4. While FEMA managed and
On Saturday, April 19, 1997, a tenuous line of clay and sandbag fortifications fell to a monstrously large volume of water working its way northward up the Red River Valley. The Flood of 1997 wreaked havoc on the lives of tens of thousands of citizens, and left the communities of Greater Grand Forks and the University of North Dakota wrestling with the pain of loss and the challenges — pitfalls and opportunities alike — of an uncertain future.
Saturday, April 19, 1997: Fire breaks out in the Security Building on North Third Street. The downtown fire, which grabbed the attention of the nation, damaged or destroyed 11 buildings. Meridee Green, Instructor in Physical Therapy, shot this photograph while riding in a front-end loader.
January 1997: A seemingly endless string of storms left the campus buried in record snowfall. Sidewalks, such as these near Old Science (left), resembled a white maze. In the parking lots, including this one for the Wilkerson complex residence halls (below), Plant Services crew members struggled to find places into which to push the ever-growing piles of snow. Photos by Dick Larson.

April 8, 1997: The rain and sleet that preceded the blizzard left a coating of ice on everything from the tallest broadcasting towers to the smallest blades of grass where the ground had melted free of snow only a few days before. The ice left widespread damage and small scenes of beauty. *Top photo by Toby Baker; bottom photo by Dick Larson.*

April 6, 1997: "Hard-Hearted Hannah" brought life to almost a complete halt on campus and throughout the region. "This is a storm we'll tell our grandchildren about," commented Leon Osborne. *Photo by Toby Baker.*
April 11, 1997: The Red River rises close to the deck of the Sorlie Bridge on DeMers Avenue (above). On the scene is a satellite news truck from KNSP Television, Minneapolis-St. Paul. Photo by Joyce Coleman.

April 15, 1997: Sandbags on pallets are piled on Yale Drive between the Chester Fritz Auditorium and the English Coulee. Rising flood crest forecasts made it clear that more had to be done to protect facilities within the Coulee's reach. Photo by Toby Baker.

April 8, 1997: Members of UND's Plant Services staff (left) work on a sandbag dike behind a home on Alpha Avenue. Several groups of volunteers from the University formed special teams to respond to emergency needs. Photo by Dick Larson.
The University of North Dakota and the Flood of 1997

April 17, 1997: The swollen Red River is flowing over the approaches to the Sorlie Bridge on both sides of the border (above, left). The Red is now over 50 feet for the first time since the river gauge was installed in 1882. Photo by Joyce Coleman.

April 15, 1997: Hundreds of students, staff and faculty turned out to help raise sandbag dikes around transformers and along the coulee banks near Smith and Wilkerson Halls (top, right). Photo by Toby Baker.

April 20, 1997: The water filling University Avenue is up to the grill of a four-wheel-drive pickup as it approaches the intersection with Columbia Road (above, right). Photo by Toby Baker.

April 19, 1997: Flood waters have spilled down DeMers Avenue in this view looking east from the top of the Columbia Road Overpass (right). Photo by Toby Baker.

April 19, 1997: Yellow police tape closing off the Fox Bridge lies submerged in this early morning view (bottom, right). Only the bowl of the Adelphi Fountain can be seen; by the end of the day, it would be nearly engulfed. Photo by Jackie Flaten.

THE RIVER WINS

April 17, 1997: The swollen Red River is flowing over the approaches to the Sorlie Bridge on both sides of the border (above, left). The Red is now over 50 feet for the first time since the river gauge was installed in 1882. Photo by Joyce Coleman.

April 15, 1997: Hundreds of students, staff and faculty turned out to help raise sandbag dikes around transformers and along the coulee banks near Smith and Wilkerson Halls (top, right). Photo by Toby Baker.

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April 19, 1997: Flood waters have spilled down DeMers Avenue in this view looking east from the top of the Columbia Road Overpass (right). Photo by Toby Baker.

April 19, 1997: Yellow police tape closing off the Fox Bridge lies submerged in this early morning view (bottom, right). Only the bowl of the Adelphi Fountain can be seen; by the end of the day, it would be nearly engulfed. Photo by Jackie Flaten.
April 21, 1997: The artificial turf floats on water that has filled the entire interior field of Memorial Stadium (above). The water has spread into Second Avenue North and parking lots on both sides of Columbia Road, and into Centennial Drive between Witmer Hall and the Hyslop Sports Center. *Photo by Peter Johnson.*

April 19, 1997: Traffic lights glow red on DeMers Avenue, looking toward the Souris Bridge and East Grand Forks (below). The Red River would rise another foot from this level before cresting at 54.33 feet. *Photo by Meridee Green.*
You'd hear the sirens going off when they'd evacuate parts of the city while you were out on the campus, and you could see the smoke from downtown. We were so busy that you'd just look at it and you'd kind of say, 'Oh, geez,' and then you'd keep going because you didn't have time to really think about it a lot.

— Paul Clark

April 19, 1997: The Chester Fritz Auditorium stands in the background as water leaks through the sandbag dike protecting Smith Hall (top). President Baker (red vest) talks to Plant Services crew members and volunteers about efforts to shore up defenses at the Wilkerson Dining Center, while smoke from the downtown fire rises in the background (above). Throughout the day, an orderly line of vehicles made its way carefully through water on University Avenue as citizens evacuated the city (extreme right). Against the backdrop of fair skies and warm temperatures, helicopters and smoke fill the air on one of the most remarkable days in North Dakota history (right). All photos by Toby Baker.
April 21, 1997: Only skeletal remains of buildings that made up the "Security Block" on North Third Street continue to stand after the spectacular downtown fire. The business and editorial offices of the Grand Forks Herald were housed in the structure on the extreme left. The blaze leaped across First Avenue North to destroy and damage more buildings, including the First National Bank and Browning Arts. *Photo by Toby Baker.*

April 20, 1997: "Home" for some three thousand Grand Forks citizens is now a cot in a hangar at the Grand Forks Air Force Base. Before, during and after the disaster, service personnel from the Base and their family members assisted Greater Grand Forks residents in countless ways. *Photo by Carmen Ahlers.*

April 22, 1997: President Bill Clinton speaks to evacuated citizens at the Grand Forks Air Force Base. After an aerial survey of the disaster, the President vowed to ask Congress for $500 million in emergency relief funds. *Photo by Dean Schieve.*
Water and Damage Everywhere

April 21, 1997: Water surrounds the Wilkerson Dining Center (above). A sandbag dike set out on the jogging path could not hold. A secondary dike set up inside the main door proved futile, as the lower level was filled by sewer backup. *Photo by Mark Hudson.*

April 21, 1997: The Kennedy Bridge is isolated by water flowing over U.S. 2 in numerous spots (right, top). The yellow structure near the bridge is Riverside Manor on Lewis Boulevard. The Sherlock Park neighborhood of East Grand Forks lies to the right on the Minnesota side of the river. *Photo by Toby Baker.*

April 21, 1997: State Highway Department trucks dump loads of gravel to build a dike down South Washington Street (right, center). The controversial project was intended to keep flood waters heading north, rather than allow any further spread to the west. *Photo by Toby Baker.*

April 21, 1997: The ruins of the “Security Block” cast shadows on the flood waters covering North Third Street (right, bottom). City Hall is at the upper left corner; Dacotah Place is at the lower right. *Photo by Toby Baker.*
"I remember that one red car just bobbing down the street. When kids are fishing, they use those little red floats. That's what it looked like when you first glanced at it."

— DUANE CZAPIEWSKI

April 21, 1997: Flood waters come within just a couple of inches of spilling into the main campus at the height of the emergency (top). Photo by Toby Baker.

April 24, 1997: Small cars turned out to be particularly vulnerable in the flood (center). Their lighter weight and front-wheel-drive design allowed the currents to spin them around into trees, light poles and other fixtures. Photo by Cathy Buyarski.

April 23, 1997: Personnel from the National Guard, the Coast Guard, and other military and law enforcement organizations utilized a wide variety of vehicles to contend with the challenges posed by deep flood waters (bottom). Photo by Dick Larson.
April 30, 1997: James Mochoruk (Associate Professor of History), a table and a telephone comprise the College of Arts and Sciences in the "Virtual University" (top, left). Photo by Toby Baker.

April 24, 1997: The Plant Services parking lot serves as an emergency operations compound as various agencies, including FEMA and the U.S. Army Corps of Engineers, set up specialized trailers (top, right). Photo by Plant Services Planning and Design.

April 21, 1997: Flood waters flow up Second Avenue North and into Cornell Street between Abbott Hall and the Hyslop Sports Center (right). In the background is Swanson Hall. Photo by Jim Penwarden.

April 28, 1997: The Red Tag Diner, named for the identification badges worn by UND personnel, is an immediate hit (right, bottom). Photo by Toby Baker.

April 23, 1997: The facilities are rather rustic but extremely important (below). Portable toilets were dug out of snowbanks and hurriedly plucked from every other available location when the city's sewer service went down. Photo by Toby Baker.

“It was at the Red Tag Diner where the discussion became quickly not of despair but of renewal. It was at the Red Tag Diner that smiles were the primary entree served up by the Food Services staff.”

—Leon Osborne
"The water stretched as far as you could see. You saw the river channel and the tree lines, but the rest was like a great big lake with little bobbers floating in it."

— David Jensen


April 25, 1997: Electrical equipment in the mechanical room of Johnstone Hall is wet but relatively undamaged (left, center). Millions of dollars were saved by powering down buildings before flood waters could short out equipment. Photo by Mark Hudson.

April 22, 1997: At the 5 p.m. meeting of the flood team, LeRoy Sondrol (center) guides Al Hoffarth (left) and President Baker through a map showing the damage status of campus buildings. Photo by Toby Baker.
THE UNIVERSITY OF NORTH DAKOTA AND THE FLOOD OF 1997

THE CLEANUP BEGINS

“We asked how long it would take. They said seven days. There was a lot of concern in the Med School about getting it done faster, so I asked them how much it would cost if we got it done in four days. Twenty-one days later, they were still working in the building, with 60 people on the crew.”

— PAUL CLARK

LATE APRIL 1997: The School of Medicine stands out as one of the most dramatic examples of the flood's impact on the UND campus. Video footage of laboratories, lobbies and the Bookstore was used extensively in telling the University's story. Photos by Wanda Weber and Robert Fischer.

EARLY MAY 1997: All fraternities and sororities report substantial damage in their lower levels. The Pi Kappa Alpha fraternity house was closed as a result of structural problems, and the future of the Kappa Sigma fraternity house (left) is uncertain. Because so many members of UND's Greek units were busy with sandbagging and dike-building efforts, they had little opportunity to move items out of their lower levels. Photo by Carmen Ahlers.
May 1997: The quiet, working-class neighborhood of Lincoln Drive is a national symbol of the devastation wreaked by the Flood of 1997. One of the most photographed structures is the home of Don Devos, 103 Polk Street (left). The flood lifted the house off its foundation and set it to rest on the hood of Devos' car. Photo by Toby Baker.

DEBRIS AND MEMORIES ON THE CURBS

May 1997: A thick layer of mud covers streets, buildings, grass and debris alike in the lower area of the Lincoln Drive neighborhood (above, right). In the background, tractors run pumps to suck up the remaining water and push it over the dike and back into the river. Meanwhile, curbsides through Greater Grand Forks are piled high with small mountains of debris (below, right). Thousands and thousands of water heaters, furnaces, washers and dryers were thrown, along with rugs and carpeting, sheetrock, couches, chairs, books, photos, collections, and small treasures of every kind. Photos by Carmen Ahlers.
May 9, 1997: A yardful of debris awaits removal (right). Heavily damaged homes in the Lincoln Drive area are marked for demolition. Water lines on the walls did not necessarily mark the highest levels reached by the flood. *Photo by Toby Baker.*

Late April, 1997: Steel girders that once supported the Security Building in downtown Grand Forks resemble a free-form sculpture (below). *Photo by Joyce Coleman.*

Early May, 1997: Various pieces of store equipment and a mannequin rest on a sidewalk near the City Center Mall in Grand Forks (above). The flood wrote the final chapter in the difficult history of the mall. *Photo by Joyce Coleman.*

Early May, 1997: A storage shed, picnic tables and countless pallets are just some of the items that came to rest on the Lincoln Drive dike after the flood waters receded (left). *Photo by Carmen Ahlers.*
The Flood of 1997 was no surprise; it had been anticipated for months. Unlike many other natural disasters, it arrived not with a roar but with a steady, silent swell. The sounds of the flood fight were all man-made: the bustle of vehicles, the grinding of heavy equipment, the chatter of volunteers, and finally the wail of sirens. Once the cities were evacuated, those who remained behind were struck by the silence, a quiet punctuated only by helicopters slapping the air. As the water receded, so did the quiet. Against a noisy background of generators, trucks, payloaders and other equipment, residents set about repairing their homes and their lives.

"And I said, 'Rich, what's the matter?' He said, 'It's too quiet.' And it was."

—JUDY SARGENT
supervised the flow of information, ASN facilities were maintained and operated by UND personnel throughout the emergency.

Through a friend at UND Aerospace, Jackie Flaten secured a cubicle, a cot and access to a computer. "I find being at the Aerospace building mesmerizing," she said. "Because the [flooded] area's restricted, the media have to form pools as to who gets to ride along in a boat or helicopter. Some of the journalists practically get into fistfights — they all want to go! Every evening I watch an hour of raw footage taken during the day. I don't see my house on TV, so I figure that's good news."

"*We're Still Here*"

During the day, Grand Forks officials had managed to pull some computer equipment out of the flooded City Hall and were looking for a place to store it. Terry Webb took a call from City Auditor John Schmisek and offered space in the link between the Housing Office and the Apartment Community Center.

"I hadn't slept a lot in the previous days at all, and as I was talking I fell asleep," Webb recalled. "I woke up later, walked to the front of the office, and there were these people here. I looked at Mark [Hudson] and said, 'Who the hell are those guys?' He said, 'You told them to come out here.' I went out and asked them what I could do for them. I didn't recognize John because he had a hat on. He said, 'To store this stuff.' I recovered quickly enough and realized then that I had been at it a couple of hours too long. You kept getting one phone call after another, one person after another, all needing something. You couldn't possibly answer them all because there were so many. And not enough people to answer the phone."

At the Regional Weather Information Center, Leon Osborne and his skeleton crew of two had established a routine that would continue for a week. The Center's normal operations would include a staff of 10 to 12 persons working at any time, not including secretarial staff and others who handle the incoming telephone calls.

"Being the only forecaster, to handle the 24-hour-a-day forecasting activity I would catnap when I could," Osborne explained. "But for the most part, it was 20- to 22-hour days." Bryan Hahn helped run the facility during the day and then returned to his home at night. "He helped me keep my sanity," Osborne observed.

Leon's son John handled the telephones and also kept checking the sump pumps in CAS I (now John D. Odegard Hall) and Clifford Hall. "We still had the supercomputer in Clifford Hall," he said. "If water started backing up there, then that equipment would have to be evacuated."

Conversations with the steering committee for the Advanced Transportation Weather Information System project made it clear that every effort had to be made to maintain operations.

"There was very strong concern that if we were to shut down, it would seriously damage the credibility of the program," Osborne explained. "As one individual put it very clearly to us, the problems we're having in the Red River Valley, although very significant, don't overshadow the fact that there are serious driving condition problems that can develop due to weather. They felt that we should look at the whole of North and South Dakota, as opposed to just what was happening in the Red River Valley."

Those who were on campus and in the city then would share memories of the sounds: of the ones that were missing and the new ones that seemed to fill the air.

"Probably more than anything else was the ever-present vibration of CAS as the helicopters would come in and leave," Osborne said. "It was like a battle zone. It was something that you never want to see happen again, but you don't really want to forget." Camping out in Merrifield Hall, Rich Lehn remembered, "The city was pitch black, and you hear helicopters, or you see aircraft flying over, performing surveillance."

"By Monday, we were into the eerie time," President Baker recalled. "Our world was a very, very different world. There was very little noise because there weren't any people. What you heard were helicopters, several at a time. No noise because there weren't any people. No cars. You had to have a pass to go through all the check points. National Guard at every entrance."

"But then, Monday afternoon, Monday night, okay, we can handle this," he continued. "There began to emerge a sense of, okay, we've survived. You could almost feel the confidence building. We've saved ourselves, we survived. We fought the flood and, all right, fine, it overran everything. But we're still here, and our facilities are still here. We're
damaged, but we're not down. We still have some dry places in the community, and we can carry on.

"There was really a sense of achievement, of accomplishment, and maybe some euphoria," said President Baker. "It was sort of like, by golly, we did it! Okay? And then we instantly switched from flood fighting to flood recovery."

At the 5 p.m. meeting, the upbeat mood was reflected in topics ranging from "housekeeping" issues to an expanded vision of the roles the University could play in the city and state.

LeRoy Sondrol reported that good progress had been made in tracking down the source of water coming into the tunnel system and containing it. More buildings had been powered down. Archaeological specimens in the basement of Babcock Hall remained dry, and volunteers had moved materials out of the basement of the North Dakota Museum of Art. Gustafson Hall had seepage which was being controlled by sump pumps.

Discussion of security led to the creation of one of the enduring symbols of UND's flood fight: the red tag. Blue identification cards had been improvised early into the flood event, but concerns were expressed about whether they could be easily counterfeited. For reasons of health and safety, as well as to protect personal and University property, access to the campus had to be controlled. Duane Czapiewski proposed using surplus "A" zone (red) hang-style parking permits from the 1995-96 school year. The hanger parts were cut off, and clips or neck chains were added. Because the red tags were distinctive and highly visible, they became widely recognized by security personnel throughout the city.

The meeting concluded with members of the flood team huddling around a television set to watch some of the first aerial videotape footage of flooding.

April 21: Flood waters touch the exterior of the Medical School Building only on its western side at the alley. Major damage, however, results from sewer backup. The intersection of Columbia Road and Sixth Avenue North is at the left center edge. Photo by Peter Johnson.
at the University. It was shot by Peter Johnson on one of the first helicopter rides available to UNO personnel during the emergency.

**RESTARTING THE UNIVERSITY**

President Baker ended some speculation by announcing that the summer session would be held as scheduled, beginning on May 12 — just three weeks away.

"I think people thought I was nuts," he remembered. "Perhaps they worried about whether or not I had gotten a little 'flood fever.' Most people knew that I hadn't had very much sleep. Toby calculated at one point that I'd gone about 40 hours with only three hours of sleep.

"But it wasn't any of that," he continued. "I felt without any question whatsoever that we had to start indicating our ability to function as an institution as quickly as we possibly could. My view was that if we didn't operate our summer program, we were really making it very difficult for us to be able to get our students back in the fall.

"I knew when I made that decision that it would be pretty tough," he acknowledged. "Conditions would be less than ideal. And they were. But it was a statement. It was a signal to our students and our community that we were coming back."

President Baker expanded on this to propose that the flood crisis was presenting UND with a significant opportunity. Although it had sustained a lot of damage, most of the University was relatively unscathed. It had the space, the resources and the people to provide a staging point for the area's post-flood recovery. By exploiting its technological capacities and increasing its involvement in the community, UND could create a model of the "University of the 21st Century."

This would be demonstrated by setting up a "virtual university" in the Rural Technology Center. In the plan developed by Robert Boyd and his division directors, the University, while not physically open, could exist and operate in electronic form. It could open its "doors" by Monday, April 28.

"As we made this transition into flood recovery, we made it clear that what we wanted to try to do was to be functionally operational," said President Baker. "We knew we couldn't be open, and we knew we couldn't serve people on our campus. We didn't have any water, we didn't have sanitary conditions, we didn't have any food. We didn't have anything ... What we could do, though, was be functionally operational ... We couldn't open, but we could respond."

Beginning the next day, phone lines would be installed in the RTC and Continuing Education personnel would begin training as members of the Transition Team. Two existing 800 numbers — that of the Division and Enrollment Services' 1-800-CALL-UND number — would be publicized as sources for information about the University. The Transition Team would begin taking calls as of 1 p.m. the next day. Peter Johnson and Jim Penwarden of University Relations were asked to work with media in getting the numbers distributed as widely as possible, which they did through a mass media and advertising campaign that included full page ads in North Dakota daily newspapers. It was reported that the flood emergency seemed to be getting rather light coverage in the western part of the state.

One of the key tasks of the Transition Team for the next couple of days would be to contact as many key personnel as possible. Representatives for all of the academic units and administrative offices to comprise the "virtual U" would have to be identified, brought in and trained.

Meanwhile, a "virtual medical library" was set up in Fargo at the Medical School's southeast campus and Veterans Administration Hospital. Barbara Knight of the Harley French Library of the Health Sciences became a "suitcase librarian," handling inquiries and providing medical references to faculty and staff. After a few days she was joined by another staff member, Mike Safratowich, and compiled a bibliography of information on flood disasters for the health care community. UND's Health Sciences Library would remain closed until June 2, but would temporarily locate in the Chester Fritz Library.

**A WORLD APART**

Despite the heavy media presence and the plans for an electronically connected University, the group on campus found itself mostly cut off from the outside world.

"The President [Clinton] coming was a really big deal, but I could hardly tell what was going on because we weren't watching TV," observed Mark Hudson. "I had to call my wife in Sioux Falls just to find out what the news stories were because we didn't
have access to that kind of media. We were the story, but we weren't watching the story. We were out there just slugging away."

St. Matthew's Lutheran Church became the new gathering point in Thompson. In just one day, the evening meal and the brief trip away from Grand Forks had already become a much-anticipated daily highlight. Besides truly excellent food, the dinner offered the flood group some time to unwind, talk and reflect on the events of the day. About a half-dozen UND workers set up new sleeping facilities in the church's pre-school room.

Work continued at a frantic pace in the Plant Services building. One calming influence turned out to be Kodak, the Bakers' dog.

"EOC people, National Guard people, the cops, complete strangers, FEMA people — they would throw their arms around this dog," said Toby Baker. "Fortunately, he was in the most wonderful, lovey mood. Keep in mind, this dog looked pretty tough. He had been swimming in coulee water for three days. It wasn't like this was a cute, fuzzy, white dog. This was a grungy, black-and-white dog. It was great."

When taking Kodak out of the President's Residence the night before, she was concerned about how others would react to his presence at Plant Services.

"I was totally overwhelmed," she said. "No one said a negative word. In fact, Kodak became the 'therapy dog.' People in crisis, people in stress, people who were just emotionally involved in a disaster needed a warm, fuzzy thing to throw their arms around.

"He was available for petting and was quiet otherwise," Toby Baker added. "I think he only barked twice in the week and a half, and he slept with us on our mattresses [in 'Cubicle A'] at night. It was kind of funny because in Cubicle B, where Patsy and Gerry Nies were, every night Kodak would make sure that we were all in our right sleeping bags, and then he would go to sleep. He was cute, counting noses."

During the early morning, the Red River had dipped slightly below 54 feet. By noon, it resumed its slow rise until reaching its crest of 54.33 feet at midnight.
“HOLDING OUR OWN”

“The birds continue to sing,” Toby Baker wrote in her journal. “The honking of the Canadian geese going north makes me smile and warms my spirit, for it’s very quiet water. It seems to suck up sound as it sucks up ground.”

The situation was still critical, but the mood on campus had changed sharply. It was no longer one of “crisis to crisis,” but rather of “holding our own.” The weather remained fair, and the flood waters seemed to have peaked. UNO officials now could begin to plan for post-flood needs and activities, and beyond.

A convoy of FEMA vehicles, the Mobile Emergency Response Section, had arrived on campus at 1 a.m. after an 18-hour drive from its base in Denton, Texas. Among the units brought in was a one-of-a-kind, $1 million operations trailer featuring communications gear, satellite capabilities, computers, television sets, a conference room and a crew of 18 personnel.

At the 9 a.m. meeting, President Baker outlined a vision: Even though the flood was leaving UND with many hardships and problems to overcome, it also was presenting great opportunities. In reaching out to work with the city and state in recovery, UND could build public-private partnerships to create a model for the “University of the 21st Century.”

He explained, “The characteristics of the ‘University of the 21st Century’ that people talk about are that there will be much, much closer linkages between institutions and their communities, and that there will be closer relationships and partnerships between the University and public and private groups. There will be all sorts of technologically facilitated instruction and interaction. Because of the circumstances the flood put us in, I felt that we had an opportunity to begin to develop that kind of prototype.”

Certainly, UNO would have much to repair. But it also had much that was relatively undamaged. The University, Baker asserted, would have not only the physical facilities but also the technological resources to make significant contributions to the communities’ recovery. A key component would be the “Virtual University.”

“The Virtual University was the University of North Dakota operating basically in a technological environment,” Baker continued. “We didn’t have any space, and there wasn’t any place we could go. We didn’t have water; instead, we had porta-potties! We couldn’t go to a laboratory. We couldn’t do any of those things. But what we could do was find a place where we could put an awful lot of people with an awful lot of computing power.”

Even before 8 a.m., Robert Boyd’s Transition Team began working on the details of organizing the phone bank for the “Virtual University.” At the same time, they had to plan for a very rapid return of the “real” University.

“The President had made the decision that we were going to hold summer school,” Boyd said. “As a consequence, Dr. [Donald] Piper and I spent more than a little time trying to figure out how in the world we were going to have summer school when the residence halls were full of students’ belongings and University Avenue was still impassable, except in Humvees and other kinds of things. It really took a lot of our time and our planning to think of how we could get hold of faculty members.”

Another transition task force, chaired by Terry Webb, began developing plans to bring back the UND campus as quickly as possible so it could serve...
April 23: The phone bank handles thousands of calls from students and evacuees. Photo by Dick Larson.

•

April 22: Conditions were hectic but not chaotic in the crowded Emergency Operations Center. Photo by Dick Larson.

as a base for the city’s recovery efforts. Among the top priorities would be cleaning up the residence halls and securing the personal items left behind as students evacuated.

In discussing potential housing, the University could offer a lot, if it was creative, President Baker observed. With 250 buildings on 570 acres, UND should be able to meet the needs of students and the community, although not necessarily in the residence halls. Take the global view of things, he explained: transform UND into a community which can respond to the needs of our area. Webb, Al Hoffarth, LeRoy Sondrol and Jerry Davis took on the task of determining just what the University could do and presenting a formal offer to FEMA.

The 9 a.m. meeting included a review of other tasks and concerns. There were still some materials that had to be moved in the Alumni Center and O’Kelly Hall. No problems were reported at “Checkpoint Charlie” on University Avenue and North 42nd Street, and the “red tag” ID badges seemed to be working well. Student Health Services was now located in its trailer but still needed a phone hook-up. At the end of the meeting, UND baseball caps were distributed to the group members, with this gentle admonition: “The UND baseball hats will not be worn backwards or sideways or any other ‘wards’ except frontwards!”

THE NUTRITION RESEARCH CENTER

As the flood waters remained close to crest levels, UND officials began making a survey of the campus. LeRoy Sondrol led a small group on an inspection of several facilities to assess the damages and clean-up challenges, and to search out hazard areas.

“It was the first time we were going into some of the buildings,” Sondrol said. “I needed to get out and look at some of the facilities so we could start to anticipate what we were getting into and make an assessment.

“I knew we were going into some tough areas and some very dangerous areas,” he continued. “Well have to take some risks. That was a given. But I didn’t want to delegate undue risk. Those things that I felt were beyond what I could ask somebody else to do, I was going to do myself.”

The Medical School building was the first priority. “The public was concerned about the fact that there were cadavers in the Medical School,” Sondrol explained. “We needed to put to rest some rumors about conditions there.

“I asked for a volunteer cameraman, and we got Monte [Koshel, of UND’s Television Center] to go with us,” Sondrol said. “He’s a super guy. He just did a great job.” Some of Koshel’s footage, particularly of the atrium, bookstore and laboratories in the Medical School, was replayed extensively in the following year.

Denise Schaefer, the animal caretaker at the Human Nutrition Research Center, asked if she could join Sondrol’s group and make a stop at that facility. Although located on campus, the Center is operated by the U.S. Department of Agriculture and thus is not in the University’s jurisdiction.

Opening the metal front door, they found a foot
and a half of water on the floor and the hallway lights on. The electric power to the building was still on. Working with NSP, the University had already shut off power to most campus buildings to reduce fire risks and equipment damage.

"By that time, we were already standing in the same water as the Coke machine, so it didn't make much difference," Sondrol said. "We walked down the hall, and there was a copier machine standing there, and it was running. We decided to take a look at some of the rest of the building.

"We were on our way up to the animal quarters when I thought we had better check the mechanical room and the boiler room," he continued. "We opened the door, and just as I was waving a flashlight across the room, we noticed that the top of the main switch gear — where the high voltage came in — was smoking."

As the group quickly left the building, Sondrol slogged through a water-filled hallway and called the Communications Center on a cellular phone. The Fire Department was summoned, and NSP was contacted to shut the power off.

"I walked them [city firefighters] back into the building to show them where it was after we had the power shut off," Sondrol said. "By that time the water was hot inside the boiler room.

"We were fortunate," he reflected. "It was smoking in the center of the building. There was no way that you could literally get to that kind of fire, had it broken into flames, because that's a huge building." He added that the Center had chemicals and other hazardous materials present. While these are safe in controlled storage areas, a fire might have resulted in a very volatile situation.

The incident demonstrated how UND personnel frequently had to wrestle with unexpected complications during the flood fight.

"We had turned off [power to] several of our buildings already because we knew that water was going to be there," said Larry Zitzow. "We shut the equipment off so it wouldn't short out, because that is typically what happens. This one hadn't been turned off because we couldn't get hold of anybody to find out what they wanted to do.

"The campus is not just on campus power," he explained. "NSP has certain facilities, and we have certain facilities. There are other utility companies that are hooked into some of our buildings as well, so the coordination was difficult. NSP, Nodak [Electric Cooperative], they all had a long list of buildings that they had to do, and we were calling constantly to shut this one off and that one off. It had become real complicated as how to get them shut off, and which ones were on and which were not."

Inspections turned up more significant damage to University buildings, particularly in the lower levels of the Memorial Union, Swanson Hall and Wilkerson Hall. Between one and two feet of water was found in the basements of Montgomery, Walsh, Squires and Bek Halls. Water also was reported in

April 22: President Bill Clinton shakes hands with Grand Forks Mayor Pat Owens in the receiving line by Air Force One. The President took an aerial tour of the flood-stricken area and then addressed evacuees at the Grand Forks Air Force Base.

Photo by Toby Baker.
April 22: President Bill Clinton visits with evacuated residents in a hangar at the Grand Forks Air Force Base. "You bring us hope," Grand Forks Mayor Pat Owens told the President after he pledged to ask Congress for $500 million in disaster aid. Photo by Dean Schieve.


About a foot-and-a-half of water filled the basement of the President's Residence. Toby Baker observed, "It was almost a relief to know water was finally there." Like many others, she found that the reality of being flooded seemed easier to handle than the waiting and dread.

**PRESIDENT CLINTON VISITS**

The magnitude of the disaster in Greater Grand Forks was underscored by the visit of President Bill Clinton. Among other actions, he ordered FEMA to pay 100 percent of the costs of immediate emergency work. Typically, the federal government pays 75 percent, with state and local governments picking up the remaining 25 percent.

Accompanying President Clinton were FEMA Director James Lee Witt, Secretary of Agriculture Dan Glickman, Secretary of Health and Human Services Donna Shalala, Secretary of Housing and Urban Development Andrew Cuomo, and Secretary of Transportation Rod Slater.

The University had contributed expertise and equipment as the Grand Forks Air Force Base prepared to host the Clinton visit. UND Aerospace Network personnel provided cameras and other equipment. Preparations had not gone flawlessly, however. In the rush to move Computer Center equipment to higher quarters and to Fargo, the Regional Weather Information Center's web page access was disabled. A telephone call from Washington strongly advised that the site be connected by the time of Clinton's visit. Network Services Manager Greg Herndon had been working in Fargo, seeing his family to safety. His wife had car trouble in Wahpeton at 3 a.m. in the morning; he drove to Wahpeton, then to Grand Forks, then to Fargo, and back to Grand Forks to successfully connect the Internet site.

After Air Force One touched down at the Base, President Clinton greeted local and state leaders and members of the Congressional delegations of North and South Dakota and Minnesota, and then embarked on an aerial tour of the communities. Beneath him lay "water the color of gravy spread as far as he could see, covering houses to the rooftops, trees to their tiniest, high limbs; cars, businesses and schools," reported an MSNBC network commentator.

Accompanied by Congressional delegations from North and South Dakota and Minnesota, as well as Mayors Pat Owens and Lynn Stauss, President Clinton addressed some 3,000 evacuees in a large hangar on the Base. Echoing Mayor Owens'
statement that a community was about people and not buildings, the President said, "Water cannot wash that away. Fire cannot burn that away. And blizzards cannot freeze that away. If you don’t give it away, it will bring you back better than ever." Clinton pledged to ask Congress for $500 million in aid. "You bring us hope," Owens replied to the President.

KCNN/K-Lite had invited Toby Baker to accompany their group to the Air Force Base for President Clinton’s visit.

“When I got to the hangar where President Clinton was speaking, I accidentally walked in the wrong door and I went into the part where people were housed,” she said. “It took my breath away. Here were cots as far as I could see in these nice, neat little rows with belongings underneath. I had no idea what to expect, and it was so overwhelming that this is where people had been living and were going to continue to live for several days. It made me realize how lucky I was to live in Cubicle A and have a mattress."

The visit also highlighted some of the differences in media outlooks. "After President Clinton and the entourage left, all the national media folks, poof, they were out of there and on to the next stop," Baker observed. "All the local media hung around. We all took pictures in front of Air Force One. You take me, I’ll take you. So, all the local media from Grand Forks and Fargo, we had a wonderful time taking our pictures. We kind of sauntered over to the next stop. National media —
boom, they were gone! They had done this all before."

**Small Steps Up**

Back on campus, the “business” of saving the University went on. With such a complete disruption of normal daily patterns, each small improvement meant a great deal. A hot lunch of scalloped potatoes and ham was brought in, bringing cheers from all. One portable kitchen arrived; two more were on order. More portable toilets were on the way.

United Hospital representatives set up quarters on the second floor of the Transportation Building, and Telecommunications crew members installed phone lines. Student Health Services got the pharmacy computer installed in their trailer, and a pharmacist went on duty. Tetanus shots were administered to Border Patrol officers.

Rooms in the recently completed Rural Technology Center were opened, and several administrative offices began moving equipment into their temporary new homes. Jim Shaeffer, Associate Dean of Continuing Education, was put in charge of assigning space.

As people searched for news about the flood and friends and relatives, web sites rose to the occasion. The 3,000 evacuees at the University of Minnesota at Crookston were listed at UMC’s web site; Moorhead State University and Mayville State University also listed evacuees. UND-Lake Region, which had closed for the semester along with Mayville State, was housing 2,000 evacuees. Offers of housing, clothes and goods were posted by *The Forum* on its web site, and the “flood team” at NDSU posted an extensive collection of links to flood information.

Despite losing its building and presses, the *Grand Forks Herald* did not miss a single issue during the catastrophe. Operating out of cramped facilities at the Manvel School, *Herald* staffers wrote up detailed descriptions of the situation in Greater Grand Forks. Their stories were relayed via the Internet to the *St. Paul Pioneer Press*, where special editions of the *Herald* were printed. The newspapers were flown and trucked to locations throughout the region and distributed free.

Representatives of IBM in Fargo assisted UND personnel in getting administrative systems running on the mainframe computer, now installed at NDSU. Dorette Kerian worked with the flood team to obtain software and work stations, and to assess damages on campus. The emptiness of the city seemed surreal to her.

“There’s nobody there except Guard trucks and helicopters overhead,” she remembered. “The sun actually shone through most of the time. The grass was coming up, the birds were singing, the ducks were on the water, and it was surprisingly normal. And then you go further. You’ve got guards and checkpoints. Instead of 7 o’clock at night, it might be like it was at 2 in the morning. It’s that quiet.”

Despite the water completely surrounding their downtown building, US WEST employees were successful in protecting the telephone cable vault in their basement. Meanwhile, nearly 150 National Guard troops worked into the night to sandbag an
NSP switching station supplying the electrical power still available in the city.

The drive to Thompson, the showers and the evening meal at St. Matthew's revived the spirits of the flood crew. Joining the flood team there were Cathy Buyarski and Donna Turner Hudson, who had earlier evacuated to Sioux Falls, S.D.

“It was very difficult to be far away and wondering what was going on,” Buyarski said. “Mark Hudson was calling and kind of giving us bits and pieces, but it was hard... we both said we have to go back, no matter what it takes.”

Patsy Nies had called that morning to let them know there was plenty for them to do. Buyarski recalled an “incredible sense of relief that we were going to be able to come back and help. It was a desire to help. I would have felt horrible sitting at home thinking that maybe I could be there doing something, and that there was going to be a tremendous amount of work that needed to be done.”

The small contingent bunked there for the night could only wonder about how their homes had fared. Technology offered one clue.

“What we would do at night is that we would call our home phone numbers from the church to see whose phone was ringing and whose was busy,” Mark Hudson explained. “We knew if the phone was busy, it meant that water was in the house and it had compromised the phone lines. My phone rang, plus the answering machine picked up, which meant that the electricity stayed on. It was like, oh gosh, is this even possible that we may dodge the bullet?”

April 22: Grand Forks buildings along South Third Street run along the bottom of this view. Prominent East Grand Forks structures include the Holiday Mall, American Federal Bank, Town Square Apartments, and Sacred Heart Church and School. Crossing the Red River are the Sorlie Bridge and the Burlington Northern railroad bridge. Photo by Jim Penwarden.
**Wednesday, April 23, 1997**

**Turning the Corner**

Dropping water levels on campus were the clearest signal yet that the corner had been turned in the flood battle. At the 9 a.m. meeting, cheers greeted the news that "normal" vehicles — not just trucks or payloaders — could now cross the English Coulee on University Avenue.

"It was like yesterday never happened," observed Toby Baker. "Nearly all the water in the Chester Fritz [Auditorium] parking lot is gone. Gone! Like the running rivers. Water in the fenced yard -- gone!"

Reflecting on how the President's Residence had been completely surrounded, she noted, "If I hadn't taken pictures of yesterday's water levels, I would have thought I was dreaming the whole 'tiny island' thing."

The results of the previous day's survey of buildings were shown on a color-coded campus map. Green indicated dry and usable buildings; blue-colored buildings had a foot or more of water in them.

Just because buildings were "dry" didn't mean that they were safe for use, LeRoy Sondrol cautioned. It would take a coordinated effort to get buildings ready. Power had to be restored, and the water system and steam plant had to be brought on line again. "Green" buildings on the map indicated that they could be made ready for summer session, but they were not open now. Brannon Hall was designated as the first priority. Early that morning, UND officials had been notified that immediate housing was needed for 20 firefighters.

Rich Lehn noted that moisture in the phone
system would cause some strange noises and problems, and that equipment would have to be dried out.

With the long hours, stress and the presence of micro-organisms in the flood water, a number of illnesses were cropping up. Dr. Tim Heinley spoke at the meeting about the "UND raspy voice syndrome."

"The raspy voice syndrome," he explained, "came about as President Baker and the vice presidents were around us, speaking 20 out of 24 hours a day. Often, to groups larger than could easily be heard, I guess, so they had to talk loud. Everybody was just down to a whisper pretty soon."

"I think it was related to fatigue," Bonnie Freeland added. "People were getting run down. That was another health maintenance thing we did. Tried to just tell people to take care of themselves if we were to keep going — get rest, nutrition, that sort of thing."

Hygiene was critical, particularly as all relief facilities were still relatively rustic. Frequent use of sanitizing hand lotion was emphasized.

Continuing her media responsibilities, Toby Baker went with Bob Boyd and Mark Thompson for interviews on KNOX and on KCNN, where she handled some of the announcing work. "It made me feel good that Scott [Hennen] trusted me enough to turn over the mike to me," she reflected.

During the interview, Thompson said the University needed volunteer help again. The crisis point was past, and now so much needed to be done to begin the rebuilding process.

"We didn’t have a labor force on campus at this point," he explained. While specialists were required
for many jobs, other tasks, such as unloading relief supplies, simply required some helping hands. The call went out on the radio, and again the response was heartening.

“It was amazing, the commitments and volunteers from the small towns and cities around here,” Thompson said. “They were not only coming in and helping with recovery efforts and unloading supplies, but they also were housing a lot of the folks who had evacuated.” A volunteer center and information desk was set up in the lobby of Ryan Hall.

Media representatives found themselves playing new roles. Radio, in particular, became the “eyes” for listeners. Caller after caller asked the same question: How deep was the water in my part of town? Relying on videotape footage and reports, announcers became adept at estimating depths for nearly every affected neighborhood. Meanwhile, WDAZ-TV relayed hundreds of messages concerning offers of lodging and supplies, and people trying to locate relatives, friends or employees.

**MAKING CONTACT**

In person and on the phone, business owners began contacting the University, looking for some way to get going again.

“They needed to make contact with their customers and to try and figure out a way to somehow serve them,” said Bob Boyd. “Some were almost frantic. Others were just kind of stunned, not knowing what they should do, but they thought they ought to do something. Where do you go when the whole city is under water? Where do you go to start your business?”

UND's new Rural Technology Center, now home to the “Virtual University,” had been designed from
the start to provide incubator space for new businesses. “It was an incredibly lucky moment,” Boyd observed.

Once the needs of University offices had been accommodated, there was still space available in the building. As directed by President Baker, the University would provide as much space on campus as needed just as soon as buildings could be opened and electric and telephone service restarted. Bruce Gjovig, Director of the Center for Innovation, worked extensively with the businesses that contacted UND and helped arrange space for them.

As the recovery process began, Plant Services and the Emergency Operations Center became even busier. Patsy Nies found herself adding “traffic director” to her list of responsibilities. Dozens of non-campus people were coming in, including one who said, “Well, where do you want the two semi’s of water?”

“Okay, let me think,” Nies said. “Who ordered them?”

“George.”

“Well, we did a little digging and found out that George was with the Coast Guard or something,” she remembered. “We said, ‘Ah, I can get you to that person upstairs in EOC.’ It was very handy having EOC up there. But you also had all sorts of people coming through looking for EOC business, people wanting contracting jobs or looking for the city electrician’s office, or this or that. I figured anything I could do to help filter and get people the right information, and keep things calmer, was a step in the right direction.”

Incoming phone calls now numbered in the thousands. Twenty persons had been trained for the phone bank and were working in rotating shifts. Peter Johnson compiled a script providing answers to the most frequently asked questions received so far. The script was updated continually as more information became available.

The phone bank was working out of one conference room in the Rural Technology Center. Setup continued for the “Virtual University” in the RTC’s large conference room. While operations were to formally begin on Monday, the 28th, the “Virtual University” was already functioning to a large extent, as incoming calls were relayed to available personnel.

Vice President for Academic Affairs and Provost Marlene Strathe convened the first meeting of the deans since the Saturday meeting that closed the University.

“In some ways, the fact that we had dismissed school and that we had a limited number of people on campus made it easier,” Strathe observed. “At that point, we didn’t have to worry about classes. We weren’t having to worry about what we were going to do about May commencement. We didn’t have to worry about opening the mail and moving paperwork. The only tasks you needed to attend to were finding your people and being prepared to go into summer school and into fall. So you could attend totally to your people and facilities.

“In many respects, the academic side of the institution was very, very fortunate,” she added. “Although there were academic buildings affected by the flood, for the most part our classrooms were not, nor were the offices of our faculty and, most importantly, our library, which is absolutely critical to us.”
The deans' meeting was in itself a demonstration of the "Virtual University": about half the deans were there in person, and half participated by telephone.

The first priority for the deans would be to contact each person scheduled to teach in the summer session and find out if he or she would be back.

"I think we had only one faculty member that was not able to do that," Strathe recalled. "It wasn't a question, from my perspective, of if we could do summer school. The question was whether or not students would return. We knew very early on we would have classes, we would have buildings and we would have professors."

Housing rapidly escalated as a concern. Fearing the worst about their homes, anxious city residents quickly focused on the campus as a possible source of temporary shelter. President Baker emphasized that the University would do whatever it could; however, its limited resources would have to be rationed. As an educational institution, UND's first priority had to be housing for its summer session students and their professors. Before any of this could happen, however, facilities would need to be cleaned and powered up.

Serious discussions about how to provide emergency housing had started on Tuesday. As one transition task force member observed, "One room-one family would be tight, but we could house lots of
Monte Koshel of the UND Television Center tapes flood damage in the Hancock Hall exercise room. Photo by Mark Hudson.

people that way.” How much housing would be needed, however, was anyone’s guess at this time.

The city was beginning to restore the sewer system; by the end of the day, 16 of 36 lift stations were working. At the Grand Forks Air Force Base, the number of evacuees still housed there had dropped to 600 as more people found suitable temporary housing. The tight water supply situation at the Base was being stabilized.

Work was completed on the temporary dike on South Washington Street. The project raised some heated debate, particularly among those whose homes were on its east — and wet — side. Officials explained that the dike’s purpose was to keep the river moving north, rather than spreading west.

**RECOVERY MODE**

The transition into recovery mode picked up as more personnel returned to the campus. Their greater numbers put more demands on resources and services.

“Our storeroom basically was open 24 hours a day, and we rotated our people in and out,” said David Jensen, Plant Services Business Manager. “We did what we could to ensure that all supplies for whatever we needed were here and readily available.” Parcelling out everything from waders and barricades to plumbing fixtures and cleaning supplies, Jensen became Plant Services’ unofficial quartermaster.

“The hat you wore on a normal business day was not the hat you ever got selected to wear,” he observed. “You picked a hat off the rack. You got appointed. You volunteered to do things. You did whatever it took all along the way to eliminate or minimize our losses.”

The “Red Tag Diner” opened for business with lunch at the loading dock of the Food Services warehouse, and became an immediate and rousing success. The name referred to the old “A” zone parking permits now being used as identification badges for UND personnel.

Terry Webb worked with Gayle Bergeron, Wilkerson Production Manager, and Pat Swangler, Memorial Union Food Services, in setting up the cafeteria. Sanitation was a priority. Menus would be based on whatever was available in the warehouse and freezers.

“Primarily, it was something to go off in a different direction and get away from the flood stuff for a while,” Webb said. “We had ovens in the bakery. We had an old fryer in the back that wasn’t being used, and we got the electricians to run some juice to it. We’d fry out of there. We did sandwiches. We’d always have some hot entree that we would be serving. It was basically what was in the cooler, because we weren’t getting deliveries of anything.”

President Baker works at the hand-washing station for breakfast at the Red Tag Diner. Photo by Toby Baker.
To ensure sanitary conditions, an innovative hand-washing service was provided by Dining Services staff. Water provided by a Thompson farmer was boiled over a gas grill. Patrons stood in line to rub their hands in a large kettle of warm, soapy water. Clear, warm water from another kettle was ladled over their hands to rinse off the soap, and paper towels were offered. At this time when there still was no running water, patrons said they looked forward to the hand-washing regimen almost as much as a shower.

“This was the only time all day you had water that was warm and soapy,” remarked Patsy Nies. “You realized very early on, too, that you could take your glasses off, swizzle them in the water and get them rinsed, too.”

“It was a lifesaver,” David Jensen remarked. “I mean, the people had to eat. They were working hard. They were running, coming and going. There was no other place within miles. Without it, I don’t think we could have done what we had to do. You couldn’t have gotten the people to stay without the necessities the University provided.”

Another tremendous boost came with the arrival of 300 porta-potties, with word that another 300 were en route from Chicago. Todd Hanson of the city’s Public Health Department rode herd on their acquisition and delivery to Grand Forks, and Jensen supervised their distribution on campus.

“It’s amazing how we thought we were hardy people,” Jensen observed. “You realize that the lack of water is the lack of plumbing supplies. With the number of people that did come back, and every day as it grew, more and more necessities were needed just for cleanliness and hygiene.” Arrangements were made with an Akron, Ohio, firm to ship in more waterless hand sanitizer.

As the “porta-potty czar,” Jensen found his responsibilities to be a two-edged sword. “I was well-thanked,” he laughed, “but Food Services also told me that if I didn’t accommodate them, I would no longer be welcome for breakfast and lunch. We ensured that they got one or two more.”

**SPREADING THE WORD**

The flood emergency remained a top news story in print and broadcast. CNN reporter Gary Tuchman did a live interview with President Baker near the intersection of University Avenue and Columbia Road. Tuchman observed that the interview was taking place within view of UND’s hockey arena and that he was a graduate of Boston University, whose team UNO had defeated less than a month earlier to claim the NCAA Division I hockey championship.

Elizabeth Dole, President of the American Red Cross, and North Dakota First Lady Nancy Schafer toured the flooded areas with Mayor Pat Owens. Senator Kent Conrad took an aerial tour of the region. North of Grand Forks, the flood had spread out from 30 to 40 miles wide.

The next day, President Baker was to report on the flood fight in person at the State Board of Higher Education meeting in Bismarck. At the UND Television Center, Barry Brode and Monte Koshel
worked through the day and late into the night to assemble a video tour of the campus and overview of the city. Those who previewed the finished tape had one reaction: "Awesome!"

University Relations, working out of Rural Technology Center in space provided by the Television Center, continued to contact media representatives with announcements, handle requests and update fact sheets for the phone bank workers.

CALLS IN THE NIGHT

Feelings of helplessness were common among evacuees. Their lives had been turned upside down, while all around them life remained pretty much normal. They were sad, angry, and desperate for any scrap of information.

The media responded heroically and with remarkable innovation. Although its own printing plant was destroyed, the Grand Forks Herald did not miss an issue. Printed by the St. Paul Pioneer Press, copies of the Herald were distributed free of charge at locations throughout the region. KCNN, KNOX and WDAZ took hundreds of calls each day, as did UND's call-in center and Virtual University. Even the Regional Weather Information Center became a sounding board.

"Probably the biggest challenge was handling all of the telephone calls late at night," observed Leon Osborne, the Center's Director. "Because we had placed flood information on our web site, we found that a lot of people were coming back to it whenever they relocated. Well, because our telephone number is also very popular, we also found that people wanted to complain. And I don't blame them.

"We had damage at our home, but it was nothing compared to some," he continued. "People
would call and wanted to express their utter frustration. Well, it was one of those things you just had to sit there and take. Try to console them, try to help them through the situation. I think that was the most difficult challenge. It seemed like the only time that people would call would be late at night. I don't know if it's because they couldn't sleep, and they wanted to call and just go ballistic. I've heard an awful lot of colorful language, but I learned words that I never heard before, or were spoken in that manner before. I guess that some of the difficulty was that they wanted to know, could they have done more?"

The Red River inched slowly downward through the day, from 53.59 feet at 3 a.m. to 53.31 feet at noon and 52.9 feet at 9 p.m.

**Thursday, April 24, 1997**

**WET AND DRY CITIES**

Most of East Grand Forks remained inundated; it would turn out that only an "elite eight" homes would escape the disaster unscathed. Grand Forks was basically two cities, one wet and one dry, divided roughly by Washington Street. South of the railroad tracks, flood water still filled the streets east of Washington; north of the tracks, water extended further to the west.

City officials worked with engineers from Webster, Foster, Weston/Advanced Engineering on trying to resurrect the water and sewer systems. The lift station most important to the campus, however, was in bad shape.

Thursday would be the first day that residents would be allowed in for a few hours to visit homes in relatively dry areas of the evacuation zones. In broadcast and print, homeowners were advised to pump out only two feet of water per day from their basements; otherwise, pressure from the saturated soil could damage or collapse their foundations.

On campus, the improvement in the situation had been dramatic. "I'm amazed at the drop in the water level," Toby Baker wrote in her journal. "If I hadn't taken pictures, I'd never know there had been..."
a flood at all. Only the washed up and abandoned debris indicates the water level and flow."

**AN "OASIS" ON CAMPUS**

The Computer Center restarted the University's website and began posting information online from both Grand Forks and Fargo. Answers were offered for some of the more common questions about grades, housing, payroll, and other concerns. The Counseling Center began providing information on emotional issues resulting from the disaster. Other web sites carrying flood information included the Grand Forks Herald, Grand Forks home page, NDSU, message services, Mayville State University, UND-Lake Region, the University of Minnesota-Crookston, Bemidji State University, Park Rapids, Jamestown College, churches, the National Weather Service, and The Forum, Fargo.

Throughout the disaster, UND's Regional Weather Information Center had continued to operate the Advanced Transportation Weather Information System around the clock. Much of the time, Leon Osborne and his son John were the lone occupants of CAS I (now Odegard Hall), and conditions were not exactly luxurious.

"This building was rank," he recalled. "It just reeked. Of course, about a 10-day period of not taking a shower myself didn't help matters. I learned what it was like to take a paper-towel bath in cold water. That's how we used a lot of the jugs of water."

The isolation and eerie quiet within the building were having more of an effect than Osborne realized.
“I was subsisting on peanut butter-and-jelly sandwiches and luncheon meat sandwiches,” he said. “I was trying to tough it out.

“Bryan Hahn and Gerry Nies recognized that I was pretty much at my limit. They just came to the conclusion that I needed to get out. The threat of violence wasn’t used so much as it was implied. It’s nice to have an awful lot of very good friends who are looking out for you.

“Once we went to the Red Tag Diner, probably one of the best things was they had hot water for washing hands. That was great! I didn’t know just how much I missed hot water. Of course the food was good — in fact, it was great! But the people, and the fact that you could sit there and visit with people who had been going through many of the same experiences, and the camaraderie. Particularly, seeing a lot of the people both within the administration and within Plant Services that you’d known for ages. You could sit down and unwind a little bit. That was the best thing about the Red Tag Diner. It was an oasis.”

While having lunch at the Red Tag Diner, Toby Baker got some news from Plant Services crew members: “Guess what we found in your basement,” they said. Oh, I don’t know. You have to imagine that the house has no power, and it is dark, cold and quiet. They are down there setting pumps, and there goes a fish. I tell you, if I had been there seeing that ripple, I would have been screaming all the way to Winnipeg.”

The “Virtual University” was well on its way to becoming a reality. Each academic dean had a “virtual office” — actually a chair, table and telephone representing the college. With the restoration of GroupWise, they once again had access to e-mail. Cathy Buyarski prepared a training session for the deans and other staff members who would operate the Virtual University.

Telephones were ringing constantly, with nearly 2,500 calls a day coming in. University Relations developed fact sheets and news releases to cover the most frequently asked questions and posted the information on the UNDInfo web site. To reach evacuees scattered throughout the state, advertisements were placed in the Bismarck Tribune and other newspapers. Temporary housing and mail seemed to be the top concerns of callers.

Working with Al Hoffarth, Bob Boyd instituted a Business Relocation telephone number.

“We began to work with companies and said, ‘What kind of space do you need?’,” Boyd said. “Many of them said, ‘I just need a telephone and a connection to the Internet. That’s all I have to have because I’m communicating with customers that way.’

“Businesses would call in and tell us the amount of space and the kinds of services they needed. We began to catalog those, even before we had spaces. All we could say to them when they called in was, ‘Okay, I’m taking the information. Sometime within the next three or four days we hope we’re going to be able to provide you with something.’

“We began to negotiate with Al Hoffarth on the kind of space that was needed, and what he might be able to make available. Of course, electricity wasn’t on in many of those areas. Telephone service had not been restored. So we might have a dry office, but we had no way to provide electricity or telephone service at that time. The assignments were still made, and we said, ‘This will be your spot as soon as we get electricity and the phone line. This is where you’ll be.’ Often, for businesses, that’s all they needed to know. They just needed to know they had a spot.”

The University began discussions with the Federal Emergency Management Agency about providing emergency housing and how costs for that and flood damage repairs would be handled. Now that the emphasis was on recovery and rebuilding, Jerry Davis traded in his “handyman-at-large” role for that of lead liaison with FEMA.

“FEMA people are prepared to come in and take over without any local support,” he observed. “Their usual situation, as I understand it, is that they come
in to an area where there is a total lack of any kind of structure because of the disaster. They impose the structure on it. Here, I think the city and the EOC did have structure. The FEMA people come in and have their own structure. Now, how did those things all work together? I thought they worked together pretty well. Personally, I found the FEMA people very engaging to work with. They were very helpful. One of the things that was a little bit difficult is that they keep changing people. You sort of have to bring people up to speed when they come in, although they are very quick at that."

Davis worked hard to ensure that accurate records and justification were kept of the funding and expenditures. "All this time," he explained, "I’m thinking of how is this going to look next year, and the year after, when the federal auditors come in and ask, ‘Why did you do it this way? Why did you do it that way?’ And we have to have some answers for that because we don’t want to have to return any of the funding. We want to make sure that we get everything we are entitled to under law, and we have to make sure that every ‘t’ is crossed and every ‘I’ is dotted. Sometimes that is a little difficult when you are up to your knees in water. I guess my experience with FEMA is a very positive one, even to the point where I have a great deal of admiration for most of the FEMA people I worked with."

The resources and capacities that FEMA brings into an emergency situation are remarkable, Mark Hudson observed. "We talked about how we were going to get these buildings back on line," he explained. "We’d say, ‘I know that when we have to order this part, it takes 16 weeks before you can get it.’ Ed, the FEMA logistics guy, says, ‘I can have that here tomorrow.’ It’s like, whoa! As he said to me, ‘I have the full resources of the United States government at my disposal.’ I mean, that’s a cool thing! I can just picture this helicopter coming over, bringing this generator in or whatever. That’s the kind of thing they could do because it was a crisis, an emergency. They could pull those people together and make it happen immediately."

"THEY WERE JUST A FRIGHT"

Cleaning efforts continued at Brannon Hall, the first residence hall that would be made available for disaster housing.

In normal times, the University has about 150 custodians on the staff, noted Paul Clark. "The first day we tried to get people back, we sat in a little conference room, and there were five of us," he recalled. "That’s all we had to start with. Each day, we picked up one or two. We just kept building until we got back to where we had a staff that could take care of the buildings. They were just a fright, as you could imagine.

April 22: The Hughes Fine Arts Center is virtually isolated. Although the building was directly touched by water along much of its exterior, damage turned out to be relatively slight. Preliminary estimates placed the dollar amount of damage at the President’s Residence (upper right corner) as higher than to the Hughes Fine Arts Center. Photo by Jim Penwarden.
"One of our guys rigged up a thing with a vacuum cleaner to suck out the toilets because they were in such bad condition," Clark continued. "There wasn't water running, but people had used them. We called him the 'Honeywagon Guy' and sent him around. He cleaned bathrooms for about a week."

This was just one example of necessity being the mother of invention, Clark explained: "There wasn't anything to work with. There wasn't electricity in a lot of places, and no water, so we were just back to basics."

The magnitude of the cleaning and repairs needed became more evident as the water dropped, leaving debris and an especially tenacious coating of mud on everything.

"You see the water in there and you start walking through it, and it's chest deep, and you see desks, you see chairs, and you see books," Larry Zitzow observed. "You see all that floating in the water, and then you start to realize what kind of a problem you have here."

"As the water receded, it was just like someone went in with a spoon and stirred up everything in the room," he continued. "There was stuff from this room that was moved to another room. It was just a total disaster."

Don Shields, Grand Forks' head of public health, had addressed the flood team earlier in the day on the need to be careful in handling anything touched by the flood. Having picked up microbes from the soil and other sources, the flood water was sewage, for all practical purposes. Tetanus shots were a must.

Student Health staff members Bonnie Freeland and Terry Wold returned to the downtown area to give tetanus shots. Their National Guard truck got stuck near the Town House Motor Inn. Putting on waders, they slogged through the water to the DeMers Avenue overpass, crossed over and waded into the water again to reach the fire station.

"That was quite a trek," Freeland said. "Because it was dark, murky water, you couldn't see where the sidewalks and curbs were. You didn't know where you were walking, so it was very scary. At some points, I had to raise my arms."

On top of the overpass, Freeland and Wold encountered some "refugees": newsmen reporting the scene from the highest vantage point around. They were given tetanus shots, too.

**The Board of Higher Education**

President Baker left the area for the first time since the emergency began to attend a meeting of the State Board of Higher Education in Bismarck. Some University System officials, notably Chancellor Larry Isaak, had witnessed the flood first-hand, and Board member Cynthia Kaldor and her family had helped rescue materials in the Chester Fritz Library. But the video program put together by Television Center staffers had a pronounced impact on all who saw it. The Board passed a resolution directing the 11 campuses in the North Dakota University System to continue to help the state throughout the tragedy by providing shelter and aiding in the recovery and clean-up effort.

Back in Grand Forks for the 5 p.m. meeting, President Baker reported on the strong response generated by the video program. He also noted that reporters in Bismarck didn't seem to share our confidence that the summer term would begin as scheduled.

Even though water levels had dropped significantly in the campus area, that didn't mean our problems were over, LeRoy Sondrol reminded the group. He pointed out that water was now showing up in basements that hadn't been wet before.

These developments underscored the fact that bringing the campus back up again would not be a quick process, Rod St. Aubyn continued. Even if things "look fine," contamination could still be a serious problem. Jack Glass would have to assess each building for hazards, including structural, chemical, electrical, water and radiation. The Safety Office would have to approve a building for entry.
Security, therefore, remained a critical concern. Almost all outside building locks had been changed. Access to an individual building could be granted only by the individual vice president. Keys had to be obtained from — and returned to — Plant Services. Leon Osborne discovered this the hard way.

"I went out to use the porta-potty, and I couldn't get back in because they had re-cored it," he explained. "Trying to get back into the building and convincing people that, yes indeed, I do belong there, was quite a challenge.

"Actually getting the porta-potty in the first place was a challenge," he continued. "It took us about four days to get one, and then they delivered it to the wrong place. It took us two more days to get it delivered to the right place, and the day that they finally delivered it was also the day they decided to re-core the building. I look back on it now and kind of chuckle, but at that time it was kind of, 'What else can happen?'"

Security, President Baker told the flood team, was an important issue to the Board of Higher Education.

"Fortunately, we have a key system on this campus that we installed a number of years ago that allowed us to change all of our buildings in a couple of hours," Sondrol explained. "All the front doors were changed, and we locked them all up. We were able to secure the entire campus and make sure nobody was going into our buildings who wasn't supposed to be in there."

The Greek houses, however, remained vulnerable. Their student members still had keys, and the electrical power situation in them was unknown. As for the UND residence halls, students would not be allowed back on campus to get their belongings until water and electrical services were restored. Because summer session students and disaster victims would need the rooms soon, however, the time available for checking out of the residence halls would have to be relatively short. Housing officials started looking for a service that could box and safeguard the personal possessions of those who couldn't make it in right away for check-out. It turned out, however, that this service wasn't needed; afterward, Housing officials did not receive a single complaint about missing personal items, Mark Hudson noted.

They also decided to refund room, board and apartment rent to students, at a cost of about $850,000. "We just felt it was the right thing to do," explained Terry Webb. "We didn't provide the service that they wanted. It was through no fault of our own. We could probably have gotten out of it under an 'act of God' kind of thing, but we felt it was better that we refund it."

Logistical challenges were piling up on all fronts. The Postal Service, for example, notified UND officials that about 300 containers of mail for the University had accumulated so far.

Even so, the campus was definitely in the recovery mode. Recognizing the around-the-clock efforts over the past week, Ken Baker issued a presidential directive: Take the weekend off!

Repaying the favor, flood team members presented a surprise gift certificate to the Bakers, good for a weekend stay at the Fargo Ramada Inn Suites. In making the presentation, Lyle Beiswenger observed that the Bakers and Kodak probably would not feel truly at home until they put the mattresses on the floor and shut off the water.

After the briefing, a group of flood team members talked a National Guardsman into letting them ride along as they made one of their trips downtown in a "deuce-and-a-half," a large truck with a boat on top. As they got closer to the downtown area, the streets were still several feet deep with water, and the Washington Street underpass was completely full.

"Down by the Y, it was probably five feet, and the truck was making all these waves in the water," recalled Judy Sargent. "This thing was so tall that we had to duck so the stop lights and the branches wouldn't hit us. It was quite startling! The water at City Hall was still up to the door handles."

The evening meal at St. Matthew's Lutheran Church in Thompson continued to be a daily highlight, with only one drawback.

"It was kind of the standing joke that we were going to be the only community that goes through a crisis and collectively gains weight," Cathy Buyarski explained. "Man, did we eat! Between the Red Tag and Thompson, we were eating really good."

"The meals were exceptional," said LeRoy Sondrol. "They were kind of like the home-cooked church supper meals. They were really good, the vegetables, meat, potatoes, salads and desserts, just good old home cooking. That, I think, made everybody's day. Plus, there was the camaraderie of sitting around afterwards and visiting with the people in the community. You could get away from the
University for a little while and talk. It was a break that everybody needed."

"The residents of the outlying communities were absolutely wonderful and kind, and welcomed everyone with open arms," said Jackie Flaten. "How are you doing?, they would ask, and they were sincerely interested. They would 'forget' to charge you for an appetizer. A second beer would show up in front of one, but nobody would admit to buying it. I vow to patronize the businesses in small towns around here more often."

GOODBYE TO A "FAMILY"

The Red River continued its slow descent in Greater Grand Forks. From 52.85 feet at midnight, it fell to 52.34 feet at noon. The 9 p.m. reading was 51.95 feet, the first time Red had been below 52 feet since the morning of Friday, April 18. Over the day, the Red had dropped about nine inches in Fargo. Residents of flood-ravaged Breckenridge and Ada, Minn., were beginning to clean out their homes and businesses. The evacuee population at the Grand Forks Air Force Base dropped to 400.

At this point, most residents of the two cities could only guess at the condition of their homes. Frustration began to surface as worried homeowners waited for the opportunity to come in and inspect the damage. In private conversations and calls to the media, many expressed anger, especially about the accuracy of the flood crest forecasts. Mayor Pat Owens asked residents to lay off the fault-finding and focus instead on recovery.

To the north, the flood outlook was improving. As the water spread out, sometimes to as much as 25 miles, it appeared increasingly unlikely that the higher, revised crests would be realized. Oslo, Minn., protected by a ring dike, was completely surrounded by water but unharmed. Plywood dikes reinforced with sandbags were keeping the water at bay in Drayton and Pembina.

The University was officially closed, but increasing numbers of people were returning to undertake the process of restoring the campus to running order. The abrupt change from "crisis" mode to "recovery" mode was welcome, but also somewhat unsettling. With more tasks being spread out among a larger group, the intensity, closeness and emotion were fading.

"As new people join our Emergency Team," Toby Baker wrote in her journal, "new work is getting done, but the immediate connection fades. It's good because we're moving forward. But it's sad to say goodbye to a 'family' with whom one shares a disaster."

FRIDAY, APRIL 25, 1997

SPREADING THE WORD

National attention was again focused on the area with the visit of Newt Gingrich, Speaker of the U.S. House of Representatives. Such first-hand experiences were crucial to community and campus leaders in making their case for federal disaster assistance. Governor Ed Schafer and the Congressional delegation worked tirelessly to explain the extraordinary circumstances of the flood emergency and to uncover every available source of assistance. The lengths to which they went required campus officials to keep on their toes.

"The Governor and the legislators, they were here, in regular clothes just like everyone else," said Larry Zitzow. "You talked to them, just like you and I are talking right now. They came in and asked questions, and you just answered them, and off you went. Off to another situation. That's how it worked."

"It was very important, particularly for folks like Larry Isaak and so on, to actually see first hand what was happening and to have the opportunity to have an interchange with us," said Dave Vorland. "The exchange we had with Senator Conrad, for instance, was absolutely vital. All kinds of things resulted from that. For example, he played a role in the relationship we had with the agencies that control our research funds. We were able to get the kinds of waivers and so forth that made it possible for us to basically not do any research work for a period of time and still get paid — and, in fact, receive, in some cases, additional funding for the damage that had occurred.

"Senator Conrad was able to play an important role because he came here and we took the time," Vorland continued. "The President took the time to fully brief him and ask for his help. How did that happen? We just got it done. We would hear that the Senator was going to be here from 12 to 2 tomorrow, and those of us working with the President made sure
that all arrangements were made to take care of his needs. So there was nothing magical about it. Everybody did things that, in some cases, they were not trained to do, and that was true in this area as well as a lot of others."

During the day, Minnesota higher education leaders, including Nils Hasselmo, President of the University of Minnesota; Don Sargent, Chancellor of the University of Minnesota-Crookston; and Judith Eaton of the Minnesota State University System, held a news conference at the Grand Forks International Airport. Presiding at the conference was President Kendall Baker.

**STARTING THE CLEANUP**

The Red River continued its slow decline, from 51.47 feet at midnight to 50.9 feet by 9 a.m. Flood waters still filled the downtown area as firefighters continued to douse hot spots six days after the dramatic blaze.

Efforts continued to restore water service to the city, but progress was sometimes disappointing. Wild cheers from the flood team greeted the news that water service might be restored by Sunday, but that turned out to be too optimistic.

Outwardly, the campus appeared to be returning to normal, although in dire need of a cleanup; inside, the dimensions of the disaster continued to unfold. Many buildings had been relatively untouched. In others, electrical and mechanical systems had been submerged in eight feet of water and sewage.

The lack of basic utilities still controlled the recovery effort. "All of our staff were basically home and calling in, wanting to come to work," Zitzow said. "We limited the number of people to come to work because what could you do with them? There was no place to sleep, no food for them to get, no electricity anywhere. What do you do with them? You're limited to the number of people that you can use."

The decision to power down buildings before flooding became severe proved to be crucial. "At the time when I was sitting there working on trying to fight to save these buildings, that decision — LeRoy and I talked about them for hours, and what we should do — was the right thing to do," Zitzow explained. "No question about it. We took them down one at a time as the problem developed, and we were able to save the switch gear. Some of it just had to be cleaned up. At the Energy Research Center, some of their facilities were left on, and because of that, the total switch gear was shot. They had to replace the whole thing, and many times those were things that cost hundreds and hundreds of thousands

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*Steam billows out over a distribution line near the intersection of Campus Road and Stanford Road. These "geysers" erupted in several spots after the Steam Plant was restarted, demonstrating the severe damage done to the insulation of steam distribution lines by the flood waters. The distribution system will be replaced over the next several years through major support from FEMA.*

*Photo by Toby Baker.*
of dollars. That is what we tried to avoid, and we were able to do so in the process.”

“Having a circuit get wet is not a problem,” noted Jack Glass. “It dries out, and you can use it again. Having a ‘live’ circuit get wet will cause fires, explosions and shorts. It would completely devastate our power at the University. So that single action probably saved us the most money of any action taken because it was so easy to get back up. Now all we had to do was decontaminate them, dry them out and turn them back on.”

Another decision that yielded dividends larger than expected was the one to begin cleaning as soon as possible, even before the flood waters had receded. As events elsewhere in the city would show, the longer that soaked items were allowed to stand, the more stubborn and widespread mold problems became. But the benefits and consequences were not apparent right away.

“Those are the things you don’t even think about,” Zitzow remarked. “You really have no clue what kind of problems really occur until you really go through this. There are specialists that just thrive on this kind of thing. I had people come and call on me, and stand in line wanting to talk to me about whatever. They could do anything. There were specialists in everything you could possibly dream of.

I thought, what do we need duct cleaning for? What do we need special washers for? Why do we need dehumidifiers? Why do we need all of these things that are part of a flood? Three or four days later, then you realize why you need it. Why they are there. It was just unbelievable the number of people that preyed upon you. That is kind of how I felt during the flood. I didn’t have time to talk to them. I didn’t really want to get involved in it because I had other things that I thought were important. Later, you find out that these are important issues, too. But the timing wasn’t just right. So we wound up dealing with those people, a lot of them. Some of them left. They come and go as fast as the flood.”

**The Town Meeting**

Telephone calls continued to pour in to the phone bank. Traditional outreach methods — news releases, interviews, Web sites, and advertising — were being utilized as much as possible. A small group of people began to explore another approach: a televised, interactive “town meeting.”

To some extent this was already being done with question-and-answer programming on KCNN as part of the Recovery Radio Network. What was needed, however, was a way to reach more of the thousands of
Friday, April 25, 1997

area residents — many students, faculty and staff among them — who had relocated out of the station’s signal range.

Meeting to consider the “town meeting” were Bob Boyd, Dean of Outreach Programs; Barry Brode, Director of the UND Television Center, and his staff members Monte Koshel and Dale Ricke; Mike Karim, Assistant Dean of the Center for Aerospace Sciences; and Peter Johnson, Media Relations Coordinator and Assistant Director of the Office of University Relations.

A town hall meeting was possible, they decided, but the challenges were legion: finding locations with downlinking capabilities throughout North Dakota and Minnesota where people could congregate to watch the program, buying satellite time, finding telephone lines and numbers, training telephone-answering volunteers, scheduling participants, and advertising the event.

President Baker gave the go-ahead, and the group set Wednesday, April 30, as the date for the event. Normally, planning and executing a project of this magnitude would require at least two weeks. The group had three days.

Jon Ness of the UND Aerospace Network managed to find some satellite time, a challenge likened to finding real estate in Hawaii. Barry Brode negotiated with the Meyer Broadcasting Network to carry the town hall meeting live over its stations, as well as some public access stations in the Minneapolis-St. Paul area.

Full-page advertisements the University had been running in the state’s four major daily newspapers were changed to announce the town hall meeting and list locations where people could go to participate. University Relations also contacted other regional television and radio stations, including ones in the Twin Cities, to offer the satellite signal which would carry the program. KCNN made plans to carry the event as well.

**RESIDENCE HALLS OPEN FOR CHECK-OUT**

Somewhat inadvertently, residence halls west of the English Coulee were opened for students to retrieve possessions. Housing officials were planning to begin the process on Monday.

“I was in my office about 10 minutes to noon when the call came over,” recalled Mark Hudson. “Someone had just put out a piece of information that said Wilkerson was opening up at noon. We had

April 24: Shown here is City Hall from the corner of University Avenue and Fourth Street. Beyond City Hall to the left are Central High School and the parking ramp. The objects in the foreground are part of the National Guard “duck” that was driving through the water. Photo by Cathy Buyarski.
five residence halls [West, McVey, Brannon, Selke and Noren], and I had three staff people back. So I said, 'Okay, you cover these two buildings, you cover these two buildings, and you cover this building. I'll be over to help as best I can.'

"Ordinarily, these buildings have about 50 staff people in them. We had three to cover these buildings, put up signs, run back and forth covering the two buildings, get the stuff out.

"And this was at a time when we had just gotten power in Wilkerson," Hudson added. "The sewer system was not up, so there were a lot of toilets that had not been flushed for a long time. The smell was just a little bit ripe — very ripe! So, you know, it wasn't the greatest environment to be in anyway. We tried to prepare it to make this check-out process work as smoothly as possible, and then we put out the call for everybody else."

About 15 to 20 students showed up to check out and claim their belongings that afternoon, and more showed up through the weekend.

THE PAYROLL RUN

The day also included one operation, normally routine, that symbolized the extraordinary efforts required by the disaster and consideration for its victims. That effort was the running of payroll.

The University's mainframe computer, which had been literally uprooted from UND's Computer Center and trucked to NDSU, is the central processing unit for the state's Higher Education Computer Network, Lyle Beiswenger pointed out. Among other things, it generated payroll not only for UND but for all other higher education employees in the state.

John Lindstrom and Bruce Klinder of NDSU started work on procedures, while UND staff members restored the database. "We did not have time slips in at UND," said Vetter, "so the decision was made that we would just assume that whatever a person got paid the month before, even if it was hourly, they would get paid the same the next month, and then there would be corrections after that.

"It turned out that we were able to recover, we were able to get the system up on Thursday of that week," Vetter continued. "We restored the database, which was another miracle. We were able to get all of the database and software systems back up."

NDSU made available equipment and technical help to assist UND Payroll staff members as they entered every available time slip and payroll revision.

April 24: The remains of the building that housed the business and editorial offices of the Grand Forks Herald are at the right in this view looking down Second Avenue North toward the Red River. The original Herald building, which housed the printing operation, is just out of view to the right. The taller building at left housed Aaker's Business College. Photo by Cathy Buyarski.
April 28: The Virtual University operates as an electronic version of UND. Major offices and the academic divisions are represented by tables, telephones and computers. At right, Marlene Strathe, Vice President for Academic Affairs, and Harvey Knoll, Graduate School Dean, talk with Graduate School staff members Kristin Ellwanger and Connie Borboa. Photo by Dick Larson.

"We kept our record intact of never missing a payday in the 32 years I've been at UND," Beiswenger said.

"That's the closest we've ever come," Vetter added. "It was a real tribute to a lot of people. I know several people who spent three days without sleep, or maybe catching a wink or two here and there, getting the software up and running, getting the database restored, and getting everything tested. There were a lot of heroes in that group, and they deserve a lot of credit."

"The Cities Reopen"

The Red River slowly receded back to its original crest prediction. From 50.13 feet at midnight, it fell to 49.34 feet by noon Saturday, and at 6 p.m. it stood at 49.01 feet.

More neighborhoods were opened in Grand Forks, as was the central portion of East Grand Forks. East side residents were asked not to do any basement pumping, while Grand Forks homeowners were cautioned to pump out only a few feet to forestall collapsed basement walls. With no electricity or heat, they were limited to working during daylight hours and then had to return to their temporary homes, sometimes a hundred or more miles away.

Throughout the cities, what once were cozy homes now were, at best, cold and desolate. At worst, they had been reduced to twisted and scattered wreckage. In the worst-hit neighborhoods, rooftops were still all that showed. In many homes, fuel oil tanks had floated and broken free in basements, spilling their toxic contents and spreading that distinctive smell throughout houses and neighborhoods.

A numbers game began, one that would continue through the rest of the year and beyond. The first rough estimate of property damage in Grand Forks and East Grand Forks was pegged at about $775 million. What could not be calculated, as returning homeowners were starting to discover, was the loss of family treasures and confidence in themselves and their future.

"Going Home"

Like many residents, John Nordlie had been waiting for the announcement that his neighborhood was now open. While living in Bismarck he stocked
up on materials for the unenviable tasks ahead, including a gas-powered water pump, hoses and fittings, waders, gloves, boots and cleaning supplies.

Nordlie, along with his parents and sister, arrived back in Grand Forks shortly before noon Sunday. "CAS and the ATRC had enough satellite trucks, command trailers and mobile homes to run the space program," he observed. "Power was still out to most areas. UND police were chasing most folks away from the campus."

Nearing their house, he discovered his first flood loss: "My car, alas, had watermarks up to its poor little headlights. Battery completely dead. Interior wet, muddy and smelly. It may be a write-off."

The main level of the house was untouched, but a look down the stairs showed the basement full of water to within two feet of the floor joists. Floating ceiling tiles indicated that the water had receded some after completely filling the basement.

"Mom and sister Margaret took on the unenviable task of emptying the fridge of what can loosely be called food, while Dad [Robert Nordlie, Chester Fritz Distinguished Professor of Biochemistry and Molecular Biology] and I set up the pump," Nordlie continued. "After a few abortive attempts at priming, we finally got the pump to start pulling a steady stream of water. The Red Cross came by in their van to give out food and drink, while we planned our next move."

"I donned a pair of waders and elbow-length rubber gloves, and descended the stairs as much as I could. Wow! You'd never figure water could be that cold! My breath was plainly visible, and even the insulated waders didn't keep the cold from numbing my legs. I snapped some pictures from the stairs. Mostly floating stuff: an upright player piano, chair, chest, bookshelf, half the bar, and miscellaneous items from the various storage racks and rooms in the lower level. I used a broom to rescue (or retrieve and throw away) as much as I could reach and lift."

"After two hours, the pump ran out of gas," Nordlie said. "After I refilled the tank, cranked it and cussed at it good, our neighbor told me you had to choke Briggs & Stratton engines, even when they're hot. You learn something new every day. We ended up pumping about two feet of water out of the basement and called it a day. There was talk of storm sewers being overloaded again by the chorus of pumps running all over the neighborhood, and I started to hear some rather ominous snapping or cracking sounds. They could have been anything, but I sure as hell wasn't going to stay around if the house was going to fall on me! The water table is still fairly high, and some folks had pumped out two feet yesterday only to find a foot had returned during the night."

"History was made when the Red Cross offered their first-ever drive-in food service," wrote Elizabeth Tyree, Associate Professor of Nursing, in an article in the September 1997 issue of Nursingmatters, a professional publication. "Close to one million meals were served by the Red Cross, Southern Baptists and Salvation Army. The trucks took to the streets, like the Good Humor man, and brought flood food right into the neighborhoods." Many people had difficulty accepting the aid and told of crying at the realization that they needed "charity."

"It is sobering to me," Tyree wrote, "to think of what a very small cadre of public officials it was that kept vigil through the worst of the disaster, backed by emergency personnel and the National Guard, and came back. The leaders of the city and the University linked arms, with the presence and support of the Governor, and those few people saved every shred of physical integrity the city had left."
For Judy Sargent, President Baker's directive to "take the weekend off" provided her first opportunity to assess the damage to her home.

"I couldn't get the door open," she recalled. "Greg Teator [UND Dining Services Director] had taken me there in a big vehicle, so I wasn't alone. But I couldn't get the door open." More than two feet of water on her main floor had apparently exited by the front door.

"All of these things had been sucked over to the door, and it was probably swollen up," Sargent said. "My tan, light-colored carpet was totally black, and that's when I knew this was not going to be over soon. Then I walked around to the kitchen, and it was just a slimy layer of mud all over the kitchen floor. I can remember opening the refrigerator door, and the apples and onions and things in the vegetable drawers were just floating around. And then I pulled out the stove drawer, and there was water in all the pots and pans and everything under there."

**EVERYONE WAS HURTING**

Work continued through the weekend to start bringing the campus back. Although Wilkerson Hall was still in bad shape, power had been restored to the West Complex residence halls and announcements were sent out asking students to come in as soon as possible to retrieve their belongings.

Even with reinforcements, the flood team was exhausted, and a decision had been made not to staff the 1-800-CALL UNO telephone lines for the weekend. That turned out to be a mistake as a barrage of incoming calls overwhelmed the few volunteers available to staff the phone center. Many UND employees, especially among the Plant Services, Dining Services and Housing Office staff, were working long hours to put the campus back together and then returning to ruined homes that needed to be pumped out and repaired.

The magnitude of the challenge facing home and business owners was becoming more apparent. "Virtually two entire cities of 58,000-plus people were affected," said Lillian Elsinga, Associate Vice President for Student Affairs. "There was a massive shortage of service people of all kinds: electricians, plumbers, heating repair, plaster repair, appliance repair, etc. Usually a disaster affects a narrow area, but other services are nearby to help the recovery of the affected areas. Not true here. The services and businesses were as badly hit as the rest of us, so we were all struggling."

At midnight Sunday, the Red River stood at 48.62 feet. It dropped almost a foot to 47.67 feet at 6 a.m., rose briefly again, and slowly fell to 47.39 feet at 9 p.m. One great piece of news for the day was the reopening of Interstate 29 all the way to Fargo. The detour through Casselton had taken longer and longer as heavy traffic severely damaged the surface of Highway 18.
THE CITIES REUNITED

After 10 days of separation, the cities of Grand Forks and East Grand Forks were linked again with the reopening of the Kennedy Bridge. Hundreds of vehicles lined up for the event. Crossing the river was both a small step toward recovery and a sobering reminder of the cost, with devastated homes in the Riverside and Sherlock Park neighborhoods easily visible from the bridge.

Richard "Dick" Armey, Majority Leader in the U.S. House of Representatives and a UND alumnus, visited the city and campus on Monday. The Red River continued its slow descent, from 46.91 feet at midnight to 46.62 feet at noon and 46.27 feet at 9 p.m. After several unofficial meetings, the Grand Forks City Council sat down for its first formal meeting since the flood began, with Mayor Pat Owens calling the meeting to order by rapping a donated can of drinking water.

The five West Complex residence halls were now "officially" opened to students to retrieve their possessions. Resident assistants — Housing Office student staff members living in the halls — were returning to the campus to conduct the check-out process.

"Finally we were told we could come back and pack up our things," one student recalled. "I didn't know what to expect. When I returned, many places were still not open. There was one gas station, and that was it. There wasn't any food except the Salvation Army drive-through. We had to use bottled water for everything."

Despite the lack of tap water and sewer service, students living in family housing were allowed to return to undamaged units. Some of the six-plexes had basements which had taken on water. Some other auxiliary housing properties had been badly damaged, particularly the ground-level apartments at 1225 Stanford Road.

STILL OFFICIALLY CLOSED

Access to the campus was loosening, and it was presenting many security problems. Campus buildings were locked up as much as possible, but about a half-dozen had hoses and cords coming out of them and couldn't be made secure. University Police were staffing the checkpoints and patrolling the campus, but controlling access was becoming more difficult.

President Baker asked the flood team leaders to bear in mind that the University was still officially closed. They were a volunteer group trying to respond to major needs and priorities. The University simply did not have the facilities to accommodate any more than a core group of essential personnel. Moreover, the campus was still a hazardous area. Office heads were asked to bring in no more staff members than necessary.

Inspections of the campus kept turning up new damage and new problems. One example was that many elevators would have to be repaired. When the power goes off, elevators are programmed to return to their "home" position, usually the basement. Many of these flooded, resulting in repair bills in excess of $275,000. The sewer system, sidewalks, and electrical and steam distribution systems all showed significant damage.

Work continued on setting up the interactive Town Hall Meeting. Karen Berthold of the Division of Continuing Education agreed to coordinate the telephone bank and train people to answer the phones. President Baker would host the program, flanked by Grand Forks Mayor Pat Owens and East Grand Forks Mayor Lynn Stauss. The Office of University Relations arranged to have on hand about 30 resource people, primarily from the University but also from the municipal, state and federal agencies involved in the flood crisis. They would answer live, phoned-in questions by using a wireless microphone. Some satellite time fell through, but more was secured.

NEIGHBORHOODS MADE UNFAMILIAR

Throughout the opened neighborhoods, residents confronted a disheartening task. Although they might have imagined the scenes repeatedly in the days before, they were often stunned at actually viewing the wreckage the flood left behind in their homes. Familiar rooms were dark, cold, damp and smelly; treasured possessions were left in slimy, jumbled heaps.

"The basement brought tears to my eyes," Toby Baker wrote in her journal. "Not for the 'stuff' — 'stuff' is replaceable. Perhaps I was sad because of
the mess of it all. I was sad because my house and my space had been invaded by a dirty enemy.

“When I drove to Sam’s Club for Clorox and film, the streets were gray with litter and garbage,” she continued. “Cars remain askew where they pounded into trees or up curbs. Big chunks of pavement are gone in many places, and it’s wise to drive cautiously. The traffic lights are out in many places, and four-way stops are at the discretion of the driver.

“On 32nd Avenue, Premier Living had a sign in big, bold letters, ‘WE WILL REBUILD,’” she wrote. “A statement of courage, knowing what I now know of the flood aftermath. As I drove through neighborhoods, sump pumps were draining basements into streets lined with filth. In front of some houses, the industrious had already created piles in the front yards: appliances, furniture, carpet, hazardous and other. It reminded me of the work yet to do at our house. It seems odd to see so many people driving and in Grand Forks. I want to tell them, ‘We’re not ready yet!’”

**TUESDAY, APRIL 29, 1997**

**LIVING “In the Moment”**

Some University buildings were opened, but Abbott Hall, Burtness Theatre, the Hyslop Sports Center, Leonard Hall, McCannel Hall, the School of Medicine, Memorial Stadium, the Memorial Union, Montgomery Hall, O’Kelly Hall and Starcher Hall remained closed.

Plant Services crew members began pumping out buildings but soon found their efforts defeated by sewer backup caused by failed lift stations. For example, the Memorial Union’s lower level, previously filled with flood water, now was filled with raw sewage. LeRoy Sondrol noted that it takes six days between the time a lift station is restored and when it can maintain itself. No more pumping would be done until the river level fell to 42 feet. Even when electricity was restored to a building, it might take longer before it could be opened for use.

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*The Sherlock Park neighborhood of East Grand Forks was wiped out by the flood. Almost every single family home there had been demolished or moved within a year. Photo by Dean Schieve.*
Work continued on the interactive Town Hall Meeting. Telephone lines were hooked up, and the phone crew rehearsed their procedures. Problems occurred with satellite time; the program was now scheduled for 3:15 to 5 p.m. The group had arranged for a 3 p.m. live start. To fill the gap, Peter Johnson suggested showing 12 to 13 minutes of the University’s flood damage video footage. The video had been shown the week before to the State Board of Higher Education, and portions had been aired on evening news programs. This would be the first time the entire state would have the opportunity to see it.

**Housing Check-Outs Move East**

As check-out continued for the West Complex residence halls, the halls east of the English Coulee still lacked electricity. Bergstrom Electric was brought in to string construction lights in Johnstone, Fulton, Smith, Walsh, Bek, Squires and Swanson Halls, and hook them into gas-powered generators. Check-out for residents of these halls would begin on Thursday, May 1.

About two-thirds of Resident Assistants were able to get back to handle the check-out process, Mark Hudson noted. “They didn’t have to come back,” he said. “They were here, slugging away. They were working late hours, and they lived in buildings that had no potable water. They were using the porta-potties outside and eating at the Red Tag, and doing all that kind of stuff. It was great. It was at least some opportunity for closure for that group.

“The hall directors did things for their staffs,” Hudson continued. “You couldn’t go to a movie. There was nothing to do in town. But some of them had video collections. They got TVs together, several on a floor and hooked together in series. They could watch some movies and try to think of something else, other than the matter at hand. We tried to be around and make sure they knew how much we appreciated the efforts that they were putting in.

“I think the other group of ‘unsung heroes’ was the support staff in this office,” Hudson added. “They went through this whole flood like all the rest of us did, and they came back. And you couldn’t believe the number of phone calls we were getting from people trying to get back to get their stuff and people looking for housing. Incredible variables that we didn’t have all the answers to. Being the front-line receptionists and answering all those questions was exasperating. But they did very well. They did a great job. We tried our best to keep up with as much information as we had, but, man, the information was changing minute by minute. We tried to have ongoing staff meetings to make them aware of everything we knew. Information is everything during this time. People needed to know.”

Some remarkable news grabbed the attention of area residents as well as regional and national media. An anonymous donor pledged to give $2,000 to every household in Grand Forks and East Grand Forks affected by the flood. Meanwhile, the *Grand Forks Herald* noted that 1,000 portable toilets had been distributed throughout the city. The Red River stood at 45.98 feet at midnight, and fell to 45.4 feet at noon and 45.17 feet at 9 p.m.

That evening the Bakers attended the Presidents Club Dinner presented by the Alumni Association and Foundation in Fargo.

“It feels very odd to be wearing a dress and nylons,” Toby Baker observed. “It was harder to accept the idea of attending a ‘scheduled’ function. For the last 10 days, I’ve blithely crossed off stuff from my calendar. It’s funny that Ken and I felt freer and more ‘normal’ than we ever have as President and First Lady. I think this crisis has been good for us in the fact that it tossed us out of our stifling ‘schedules’ and forced an ‘in the moment’ type of living and management style.”

The flood video produced by the Television Center was shown and drew many comments. Toby Baker reflected on whether it was possible to fully communicate the intensity of the experience: “It seems so real and poignant to us. What do the folks hearing us actually hear? I wonder. It’s almost an unbelievable story, except I was there.”

**Wednesday, April 30, 1997**

**Town Hall Meeting**

At a morning news conference, Mayors Pat Owens and Lynn Stauss officially announced that an anonymous woman, dubbed “the Angel,” had offered to give $2,000 to each household affected by the flood. Shortly after the conference, the mayors told the University that they would have to forego the town hall event, “UND-Greater Grand Forks Town Meeting: Facing the Challenge”; instead, they would be signing and handing out “Angel” flood relief
checks. Owens was apologetic but insisted that she
and Stauss had a greater responsibility to start
sharing the money.

The news prompted a scramble to find people
to represent both cities at the Town Hall Meeting.
Finally, Ken Vein, Grand Forks City Engineer, and
R.C. “Punky” Beauchamp, East Grand Forks City
Council President, agreed to participate. In lieu of
an appearance by the mayors, Peter Johnson
arranged for a rebroadcast the portion of the news
conference at which Owens and Stauss announced the
“Angel” fund. For many viewers, this was their first
news of the gift. The conference footage was followed
by reports from Vein, Beauchamp and President
Baker, and then the phone lines were opened.
During the last hour, dozens of calls came in from
North Dakota and Minnesota, reconnecting displaced
residents with their home communities, if only for a
short time. The event enabled the University to make
some important contacts with faculty, staff and
students, and to answer common questions. The calls
were screened so that only new and different
questions were dealt with on the air.

The Town Hall Meeting, Johnson observed, was
another example of how, in a crisis situation, people
had to trust their instincts and make decisions
quickly. “Normally it would have taken weeks to do
this kind of thing — buy satellite time, buy
advertising space and time, line up the logistics for
where people would be able to get access to the
broadcast, plan out budgets,” he explained. “We did
it in a few days. Having to move quickly allowed us
to move decisively and efficiently. I am enormously
proud of that Town Hall Meeting and of all of the
things we accomplished during that two-week period
in April.”

The show also allowed the UND Alumni
Association and Foundation to launch a flood-related
fund-raising campaign. The effort would net more
than $1 million in flood relief for the University.

One area that would require consideration for
flood-related funding would be the University’s
library system. The Chester Fritz Library had
escaped any direct water damage, although water had
filled University Avenue just 75 feet away. Volunteers
had moved threatened holdings as the flood waters
neared; not rescued, however, were thousands of
items out on loan. Still, UND’s losses seemed light
compared to the East Grand Forks Public Library,
which was completely destroyed.

PICKING UP THE PIECES

“I returned home April 30,” recalled Glinda
Crawford. “I cannot describe the terror I felt
entering my own home for the first time.”

Throughout Greater Grand Forks, residents
were returning to homes that would be different.
Hundreds were now just wreckage. Many, many more were damaged but restorable. For those that escaped the flood altogether, there still was a sense of loss. From “security” and “warmth,” the concept of “home” now stood for hard work, shortages, waiting, and uncertainty.

“The treasured space that had held us and that we had created as a haven of safety and love was empty and violated, a tormented box,” Crawford said. “I embraced the feelings, took a deep breath, opened the door and walked in. It was bad, but it could have been much worse. Now there was work to do. But could we restore it? Even if we did, would we really want to live here? The river had swept away the illusion of safety we had imagined. I (and all others of Greater Grand Forks) could no longer sleep in our beds with the safety we had imagined before. This could happen again, and it could be worse.

“Richard and I stayed in our house that night. We slept in our bedroom, under piles of blankets and pets, and packed tightly amidst treasures stowed. To walk around, we had to move sideways and carefully. The house smelled horrible. Not an organic smell, as in decomposition; the smell was chemical. I left the window open over our heads for better (and, of course, colder) air. We went to bed as the sun went down because we had no electricity. Voluntary curfews were in effect; we were asked not to be in our houses, and if we were, we were not to move in neighborhoods at night. We had no heat, no water, no sewage. Growing like the mold in the dark was the fear of the mysterious ‘killer mold’ common to flooded areas. We lay in bed over a ‘swimming pool’ in our own house and listened to new noises that had claimed our home while we were gone. The house creaked and popped through the night as it expanded and contracted from water moving through every pore. Outside, it was black with a myriad of stars now visible which city lights had erased before.”

“The day came when we could finally go home,” a student wrote, “even though there would be curfews that would only allow us to be at our homes from 9 a.m. ‘til 6 p.m. When we drove into Grand Forks, it looked like a ghost town. But the thing that stood out most when we re-entered the city was the sign on the windows of a business that read, ‘Welcome Back GF/EGF, We Will Rebuild.’ At that moment I became very emotional. We still had not reached our home, but I knew that our community would somehow get through this. We pulled into the cul-de-sac; the road was covered with mud, and there was still water on some areas of the street. We opened the door, and the first thing we noticed was the indescribable stench. Most important, there was no main floor...”
damage. We walked to the basement and looked down to see that it was filled and within inches of reaching the main floor. Our first thought was that we were very lucky.”

Homeowners began picking up the pieces, figuratively and literally. Judy Sargent noticed that her mailbox was missing. She had asked a neighbor to build it last October, and the new box and post had already been damaged during the rough winter. Taking a break from mucking out her home, she stopped in to see a friend who lived three blocks away.

“Her husband is a letter carrier, so I was teasing Jeff, 'If you find an extra mailbox on your route, mine's missing, and this has been nothing but problems anyway,'” she recalled. “And he’s real quiet and says, 'You're really missing a mailbox?' And I said, 'Yes.' ‘Well, we found one about two houses down. Let's go look at it,’ he said. ‘Are you Number 37?’ I said, 'Yes, is it black?' ‘Yes.' ‘That's my mailbox!' So I picked up the mailbox on the post, all hooked together still. He was going to carry it for me, and I said, 'Oh no, it's my mailbox.' And I put it over my shoulder, kind of like the old rugged cross or something. She reset the mailbox in front of her house. The next week, a sewer line caved in right underneath the newly installed box.

Enough water had been pumped out for John Nordlie to don a pair of chest-high waders and go down into his basement.

"Amazing the amount of devastation water can cause!" he observed. "The black, near-freezing water was three and one-half feet deep, and I had to feel my way along with my feet in case I should trip on some submerged item and fall. Not a pleasant thought, considering what’s in flood water! After forcing open a damaged door enough to squeeze into the space near the furnace, I thought of how much like a cheap horror movie this was. Black, gross water with all manner of debris in it, the lone explorer with only a flashlight, peering into the gloom. I chastised myself for thinking such things just as I pulled a fallen ceiling tile out of my way. I looked down, and what should I see floating face down before me but a severed human head! I let out a yell and nearly jumped out of my waders. How I didn't drop my flashlight or fall over, I'll never know, but my mind recovered and quickly ran over the facts: the windows and screens were all secure. The doors had been locked. No one could have entered the house, and the breaks in some basement windows were too small to admit a head or body. This assured me enough to pick up the grisly object for closer inspection. It revealed the 'head' was actually one of my mother's old wigs, pinned to a styrofoam head, complete with pink plastic face! I started laughing at my gullibility, while my father called down the basement stairs to see what the noise was all about.”

**Thursday through Wednesday, May 1-7, 1997**

**MUCKING OUT**

The landscape of the two cities was being transformed. Outfitted in boots, rubber gloves, old clothes and protective suits — often fashioned quickly from garbage bags — residents trudged down into their basements and re-emerged with armfuls of debris. Piece by piece, the heaps grew, spreading across lawns, sidewalks and berms, and into the streets.

"Streets around the city," said Dave Vorland, "are now becoming canyons between mounds of destroyed carpet, furniture, appliances, beds, books, toys and other property, including in too many instances irreplaceable family articles that would have been passed on through the generations."

Mucking out became the principal occupation of Greater Grand Forks. Only two areas did not participate. Homes around the outskirts, particularly western Grand Forks, had emerged relatively unscathed. On the other hand, in those neighborhoods bordering the rivers, homes were completely demolished; their owners could only rummage through the debris for any small treasures that could be saved.

"The city looked awful, quite frankly," said Lyle Beiswenger. "There were certain components of the city that we couldn't get to with a big farm truck. I guess the smell at that point wasn't so bad, until people started to clean out things. Driving down the streets of the city and seeing just berms piled with people's possessions: That'll stick with me."

"After the flood, some folks cried, cleaned basements, headed back to work, volunteered with crescendo, took on 'normal' with the same energy as we built sandbag dikes," noted Glinda Crawford. "I lost track of time. I didn't know what time it was or what day it was. Time didn't matter in the scheme of things. We did what had to be done. Richard and
daughter] Melanie had the mucking-out process pretty well in hand when I got there. The water was out of the family room. We pumped two feet of water from the basement each day. Some nights a good bit would seep back in. Some people pumped too quickly; basement walls collapsed because the pressure of the water in the surrounding soil was immense.”

“This is a dreary business,” Toby Baker wrote in her journal. “For the most part, these are only ‘things.’ But sometimes it pulls at me, like when I was surprised to find a soggy box of some of my favorite photos in some wonderful frames at the bottom of a stack of boxes. I had only recently removed them from the living room in my sweep of trying to simplify. Out went the antique chest of drawers Grandmother Lucas gave me 23 years ago. I’ve hauled it all over the country — Indiana, Ohio, Illinois, Wyoming, North Dakota. Out went the wooden cubes Ken made for us 17 years ago. We used them as night stands, and I think every child used them at one time, repainting them each time.”

Cleaning was emotionally draining work, and humor became vital to keeping spirits up. T-shirts were a popular medium for expression. Some messages were bitter, but many echoed the sentiment of this popular shirt: “No Food, No Water, No Power, No Problem.”

Glinda Crawford’s neighbor provided another bright spot: “We found rare entertainment while she was gone. She had goldfish in her basement, free-swimming from their winter home in the wading pool. Melanie took me to Marcia’s right away when I got home. Sure enough, the goldfish surfaced in their basement stairwell. As the water went down in her basement, we would tire of our own chores and head to Marcia’s to go fishing.”

There were few distractions from the tasks at hand. Only a small number of businesses were open to provide essential supplies. All activities were regulated by certain fixed points: Sources of supplies and drinking water. Streets that were open or closed. And, above all, the locations of the nearest portable toilets.

“Grand Forks was like a war zone, complete with military vehicles,” Crawford continued. “Litter and debris, including logs, cars, plastic bags and styrofoam peanuts, were everywhere. Even quiet parks, the golf course and athletic fields had been hastily torn up for the excavation of clay for dikes. Parks along the river were under water and damaged by the river’s flow. You couldn’t get away from destruction.

“The simplest errands became a major chore,” she said. “With no sewage, we had four porta-potties on the corner. Many streets had been converted into dikes; going from ‘Point A’ to ‘Point B’ was difficult beyond imagination. All businesses were shut down, except those three businesses we know of as ‘essential services’ in the extreme southwest side.”

“I knew I would probably see water since I had to come back early, and I also expected to see garbage everywhere,” a student remembered. “I was not prepared to see the cars that were sitting on lawns because they had floated there in the flood. I did not expect to see houses off of their foundations, with water lines left by the flood next to the roof. I was also not prepared for the smell. The hardest thing that I had to deal with upon returning was having no water. I did not like having no showers and using outhouses.”

One returning student was unprepared for the destruction: “When we arrived, I never expected to see what I saw. Driving over the bridge on Gateway Drive, I saw a living room recliner hanging on the side of the bridge, children’s toys littering the trees, and household items scattered everywhere. Reaching our home, I was absolutely horrified because everything I owned was ruined. I eventually managed to salvage a few things from my room, like a few dirty, curled-up pictures and a couple of special letters, which were now crinkled, smeared and brown. It was then I realized that everything I now owned fit into a shoe box.”

“When I entered Grand Forks, I immediately covered my nose because the stench was so strong and crude,” another student recalled. “It took a while to get used to it. I didn’t really know what to expect to see, maybe a few puddles of water. What I did see was garbage lying all over. Empty sandbags were scattered on the sides of roads, some furniture pieces in people’s yards, and porta-potties on every street corner. I was surprised to see that the grass had grown and was bright green, and leaves were starting to grow on the trees. I was also surprised by the amount of traffic. I somewhat expected to enter a ghost town.”

Driving had become, in fact, one of the major activities in town. Not only was it necessary for acquiring supplies, but driving also provided a temporary escape from the depressing job of mucking out. Those working on their houses grumbled about
Sightseers, but almost everyone shared a curiosity about just what had happened and where. Certain damaged houses became some of the most-photographed structures in Grand Forks.

Some people were doing more than looking. Even though they had thrown items out as unsalvageable, homeowners were appalled to discover strangers pawing through the articles that had once been part of their daily lives. Mayor Pat Owens issued an executive order banning scavenging. Learning that out-of-towners were snatching flood-damaged appliances to sell, angry homeowners responded by spray-painting messages on the items or by "customizing" them with several bashes from a baseball bat (also known as "flood therapy") so they couldn't be reconditioned.

Grand Forks residents would spend weeks without power, heat, air conditioning or hot water. But the thought of having water running through a tap, instead of through the house, was reviving. Water service was restored to much of Grand Forks by Friday, May 2. Residents were cautioned to boil water for at least 10 minutes before using it to drink, cook or wash. The advice was a moot point, however, for hundreds of homes with damaged electrical systems; the competition for the services of electricians and inspectors became intense.

**The Housing Lists**

Students living in UND residence halls east of the English Coulee were asked to come in and retrieve their belongings, beginning Thursday, May 1. Within a one-week period, Housing Office staff and student employees checked out nearly 1,800 residents. Mail for students was distributed at the east end of the first-floor hallway in Twamley Hall.

Cleaning residence hall rooms and utilities for emergency housing accelerated, but big challenges remained. Damage in the lower levels and service areas of many residence halls, such as Smith, Squires, Walsh, Bek, Hancock, Johnstone/Fulton, and Swanson Halls, was extensive.

While working with Academic Affairs on training volunteers for the Virtual University, Cathy Buyarski had also wound up with the task of compiling a list of faculty and staff who would need emergency housing. Along the way, the project had mushroomed.

"It was a frustrating thing to work with," she remarked. "I have to say that because what started out as a very, very well-intentioned kind of thing got out of control. It got to the point where I wasn't sure we were going to be able to follow up with all these people and deal with it.

"I should say there were several lists," Buyarski continued. "We had a list of faculty and staff we were trying to prioritize. Part of it was we had no idea how many people were going to come in. We didn't know if we were going to have every employee of the University needing housing, or if we were going to have 10 people. We just didn't know. So, you plan for the worst-case scenario."

Setting priorities for faculty and staff was eased considerably by the vice presidents or their...
representatives, who often knew what the circumstances were for individuals and how severe their needs were. But the requests from the community, usually through the 1-800 numbers, presented a much more troubling challenge. Here was a disaster unmatched in American history for the number of people displaced; yet, the University had only so many rooms, and it was also committed to returning to its function as an educational institution.

"People from the community would call the 1-800 number and say, 'I need housing,'" Buyarski explained. "Sometimes it was faculty, sometimes students, sometimes staff. Sometimes it was banks, or community businesses, saying, 'I need housing for 25 employees,' or whatever.

"This list was the hardest to deal with. We didn't necessarily know how to contact them, we didn't know what their situations were. Did they need it right away? Did they need it later? Did they need it long-term? Did they need it short-term? What did they need? At one point I felt horrible about it because I realized there was no way we were going to be able to follow up with each and every one of these people.

"Many of them thought that when they called in, it guaranteed them a slot," Buyarski said. "They didn't necessarily understand that at the time when we first started taking calls, we didn't know what we could offer. We were taking information. We'd get people who would call back every day — sometimes several times a day if they were really desperate — saying, 'I'm on your list. What number am I on your list?' As I'm hearing this, I'm thinking, 'Oh my God, oh my God, these people, all of their plans and hopes are relying on us, and I don't know what we're going to do about this. I don't know.'"

Eventually, the lists were turned over to FEMA, which would make the final determinations about emergency housing. "I remember sitting down with Chris — as Mark [Hudson] calls him, the Head FEMA Housing Dude — and I said, 'All right, here's the list, here's the disk. Please assure me that you're going to be able to do something with this,'" Buyarski recalled. "Then he kind of looked at me, and said, 'Well, you know our priority is to get people out of the shelters.' And I said, 'Absolutely, absolutely — the people who are living at the Air Force Base or whatever, they need to come in. But somehow these other people need to be worked into this housing system.'" Chris was a kind, sympathetic man. I think he sensed my desperation and kind of said, 'Okay, give it all to me. We'll make sure we do something.' I'm not sure what happened with it or how it worked. Yeah, that list had a life of its own."

Buckled lanes spell the end of the bowling alley in the Memorial Union after more than three decades. Declining use of the facility before the disaster prompted UND officials to clear the space for other uses. Photo by Carmen Ahlers.
RESTARTING THE CAMPUS

An updated survey listed 72 UND buildings as having received damage, with nearly 500,000 square feet affected. Water damaged materials in those buildings as well as much of the infrastructure supporting them. President Baker reported that the total cost would be in the tens of millions of dollars.

The steam system was restarted, but it became apparent that major damage had occurred. “Geyers” appeared at several sites as disintegrated insulation on the pipes allowed the steam to heat up the saturated ground.

The University began awarding cleaning contracts. “We had to get the contracts in place to take all the debris out of the buildings,” said LeRoy Sondrol. “When we finally compiled the net worth of just the equipment that had been flooded, there was some $20 million worth that had to be taken out during a two-week period of time. Why the two weeks? Again, sometimes it’s better to be lucky than smart. We felt that if you took it out wet, we wouldn’t have as many problems with it.

“The environmentalists tell us now that was a very good decision,” Sondrol continued. “We didn’t have the dust afterwards, and we didn’t have as much spore growth and mold. To clear out the debris — the sheetrock, the doors, the flooded materials just heaped up in our parking lots all over the place — in the amount of time we had was a problem. Paul Clark headed that up for me because he is in charge of our custodial efforts. He got contractors in and started cleaning out the buildings one after the other. Larry Zitzow was restoring power to the buildings. He contracted electricians, and we got those people all hired while we were waiting for the flood to recede enough so we could get to work.

“Then we had to start looking for emergency housing for the FEMA people, for electrical contractors, plumbers and other people,” Sondrol added. “You have a town with no restaurants, no housing, no motels, and we needed thousands of workers overnight. The University became the best hotel in town. Considering the work conditions, it was vital to be able to provide not only beds but showers as well.”

The two-week head start in cleaning saved the University months of work by cutting off mold problems, asserted Jack Glass.

“Once we got the water out, we began drying buildings immediately,” he explained. “That’s why we’re in such good shape now.” Buildings and walls were power-washed, scrubbed, bleached, scraped, disinfected, and washed again.

“We began removing the saturated material and dehydrating the buildings right away, as soon as the water went down,” Glass said. “That reduced our losses tremendously. It increased the speed of us being able to repair them and get back in there by literally months.”

Workers had been trained to recognize and treat mold growth. Mold and dampness tended to work upward in buildings.

“In many buildings we caught the contamination when it was only 30 or 40 inches above the flood line,” he observed. “There were other buildings [in Grand Forks] where it was four stories above the flood line. That’s why we’re in such good shape now.”

The Edina, Minn., firm of Barton Malow was signed to manage the recovery construction on campus.

“We got a call one day from Norm Chaffee at Barton Malow,” said Lyle Beiswenger. “He is a graduate of UND. He said, ‘We would be interested in doing an assessment for you, free of charge.’ We had another bid for $67,000. LeRoy, President Baker, Al [Hoffarth] and I pursued that and ended up contracting with Barton Malow to do our assessment. They did a very outstanding job in, I’m guessing, a three-week period. Obviously, their motive was to get some work out of it, which they did. We ended up hiring them as our construction manager, and they’ve been outstanding to work with.”

REACHING OUT TO THE COMMUNITY

The Business Relocation effort spearheaded by the Division of Continuing Education continued to enroll firms and assign space. Most would find temporary quarters in the Rural Technology Center and the Law School Building. Jo Coutts and Galen Cariveau took major responsibility for the program.

A decision had been made early on that the University would not charge rent for the space, Bob Boyd noted. If organizations were willing to pay for their own telephone costs, the University would not charge for electricity or other utilities. About 40 organizations, profit and non-profit, signed up for space on campus. Continuing Education staff members helped them with questions such as parking
policies, access to copiers, installation of fax lines, etc.

"We just happened to be in the right place at the right time," Boyd commented. "It wasn't that other units on the campus weren't interested or couldn't have helped, but we just happened to be there, and it was consistent with our mission. Obviously, we build alliances with businesses all along. Then there's the fact that I was chairman-elect of the Chamber of Commerce. I was seeing all of this from the Chamber perspective as well.

"Someone from the community said that the alliances that were built with businesses and the University are going to live a long time because businesses really did appreciate what happened," Boyd said. "I'm really happy we were able to do that."

FEMA formally approached the University to provide beds for up to 1,000 evacuees and to assist with clean-up costs for the residence halls. Housing officials began allocating the available beds, with first priority given to students who would attend summer session and the faculty who would teach them.

FEMA had asked if Housing officials needed any help with checking out students from the residence halls. Terry Webb replied that they could use 100 volunteers. Later on, Mark Hudson received calls from the Air Force Reserve and the Air National Guard, each sending 50 service personnel "to deploy at your position." They arrived at UND's Apartment Community Center that next morning and split up into two groups, working at residence complexes on both sides of the English Coulee. Hudson mentioned to FEMA that they could also use boxes. The next day, 1,000 boxes arrived at the Housing Office.

In addition to the other shortages, child care had become almost nonexistent in the city. UND's Children's Center made plans to offer as much care as possible, and United Day Care was trying to arrange facilities at Lake Agassiz Elementary School.

On May 2 United Hospital reopened its emergency room. Jack Glass worked extensively with officials there on developing a safe water supply. "They are under a whole different set of criteria," Glass noted. "We only have to meet EPA [Environmental Protection Agency] drinking water standards, whereas hospitals are assumed to have a higher level of care. It's supposed to be a safe haven, so they had to take extra steps to ensure that the water was going to be of the highest quality possible. They had RO [reverse osmosis] processes in place, and they needed to make sure that was effective. The water was being pulled right out of the coulee. Weather changes altered that, and what was in the coulee changed from moment to moment. We might get a plug of one thing or another floating by, and that would be drawn up into the hospital water system. And then there's trying to sterilize the water transport system. Every time the water stands still, it begins to stagnate. So we had to get the water moving, run through super-chlorinated water, and then we had to wait until all the chlorination was gone so you could drink it. It was a rather large mess of super-chlorinating, un-chlorinating and super-chlorinating until we came up with clean water."

**RETURNING TO NORMAL**

On many fronts the University was working back to a "pre-disaster" status. Thursday, May 8, would be the last day that showers would be available at the Thompson School. The last evening meal at St. Matthew's Lutheran Church in Thompson would be served Friday. The number of patrons at the Red Tag Diner had increased steadily, and included Chancellor Larry Isaak and other members of the North Dakota University System staff. Wednesday, May 7, was the last "true" Red Tag Diner day in its location at the Central Foods warehouse; on Thursday, it would move to Wilkerson Hall and then "fold its tents" with the start of summer classes.

More buildings were opened, and plans were made to "un-recore" some of the locks so that regular keys could be used again. Rich Lehn reported that about half of the campus telephones east of the English Coulee were having problems as a result of wet lines.

President Baker announced that the University would officially reopen on Thursday, May 8. Contrary to some rumors still circulating, the summer session would begin as scheduled on Monday, May 12. Offices would be open for their normal hours, but Baker instructed department heads and supervisors to be "humane and human" in accommodating the needs of employees to deal with their own cleanup and repair situations.

Duane Czapiewski noted that the University Police Department had also reported a return to "normalcy" with the issuance of a citation for DUI and speeding tickets, including one for 72 miles per hour.
Large bladders known as "water buffaloes" are used to provide water for United Hospital after the disaster. Water was drawn from the English Coulee west of the Medical Park and run through a thorough cleaning and purification process. In this view from 11th Avenue South, United Hospital is on the left and the Rehabilitation Hospital is on the right. Photo by Dean Schieve.

Thursday, May 8, 1997

THE UNIVERSITY REOPENS

The Virtual University gave way to the actual University as UND officially reopened on Thursday, May 8. Because of the extensive damage to their building, employees of the School of Medicine and Health Sciences would not be allowed to return to work until May 19.

Offices and departments often were not fully staffed. Many employees were cleaning and repairing their own homes; a few simply hadn't returned. Those who made it usually found their work sites almost exactly like they had left them. Because tight security measures had been taken very early in the crisis, no theft complaints had been reported.

The Steam Plant was back on line, providing heat and water to many buildings; flooded tunnels, however, continued to present serious problems for both the steam and telecommunications systems. Telephone service was still out in several buildings, including Witmer, Swanson, Robertson-Sayre, McCannel, Squires, Johnstone/Fulton, and Smith Halls; the Hyslop Sports Center, the Energy and Environmental Research Center, and the Medical School.

Because of ADA (Americans with Disabilities Act) concerns, repairs to the fire alarm systems and elevators were made a high priority. Programmed to return to their "home" positions on the lowest levels when electric power was interrupted, the elevators had sustained serious damage. Repairs were estimated at $26,000 to $36,000 per elevator car.

Preparing the residence halls for housing displaced citizens and disaster workers had been made the top priority. Summer session students would be housed in Selke and Noren Halls. UND employees and their families would have priority for housing in Brannon, McVey and West Halls. Johnstone/Fulton and Smith Halls were designated for displaced community citizens, and trades people would be housed in Squires Hall. Swanson Hall would house FEMA and Small Business Administration employees. Walsh and Hancock Halls, both still needing some work, would be held as backup facilities. The buildings would open for occupancy on Saturday.

In a departure from normal policy, the Housing Office decided to allow University-affiliated people to sublease UND apartments.

Greater Grand Forks citizens heard news that brought both hope and uncertainty. Just as the original "Angel" gift of $15 million was depleted, a second "angel" donated another $5 million to the fund. However, resentment was already being voiced at how the funds were being distributed. As the last of the evacuees left the shelter at the Grand Forks Air Force Base, some residents expressed concern and confusion about how a proposed dike line would affect their homes. The Red River now stood at 39.45 feet, still more than 10 feet over flood stage.
ABOVE: The county fairgrounds lie under water in this view taken April 22 by Jim Penwarden. Gateway Drive runs left to right, with the race track at the left edge and the North Dakota State Mill at the right. BELOW: 32nd Avenue South runs from Washington Street at bottom to the Red River. Photo taken on April 23 by Dick Larson.
In the period immediately following the flood, an initial estimate of financial impact of $43 million was released. This estimate included about $3.7 million in emergency response costs (flood fighting, cleanup and drying), $22.8 million in permanent repairs, and $8.5 million in lost revenue, not including the loss of tuition revenue. Eighteen months later, this estimate has reached about $75 million. The major differences come from identification of additional revenue loss and the cost of replacing the steam distribution system, which had not been included in the original estimate. It will be several years before the final numbers are known.

Governor Ed Schafer and the State Board of Higher Education granted a “fast-track” approach for securing contractors. UNO was authorized to obtain quotes for cleanup, rather than going through the usual, lengthy bidding process. Three large cleaning contractors were hired to perform the initial cleanup, which included removing flood-damaged equipment, supplies, sheetrock and other debris. The initial cost was $800,000.

Seventy-two of the 238 buildings on the campus, occupying a total of about 500,000 square feet, were affected; among the hardest-hit were the School of Medicine and the Energy and Environmental Research Center. Extensive damage was done to the University's 69 miles of underground steam pipes, service tunnels, and water, electrical, telecommunications and sanitary/storm sewer systems. Also damaged were roads, sidewalks, parking lots, lawns, lighting fixtures, signs, and the rugby field along Columbia Road, which was heavily "mined" for clay for emergency dikes. The three transmitters and tower of UND's public radio stations were also severely damaged.

Buildings which took on water in their lower levels included Wilkerson Hall, the major student cafeteria building; all but three of the residence halls (Noren, Selke, Squires, Hancock, Walsh, Bek, Johnstone/Fulton, Smith, Swanson, and the Conference Center), the Memorial Union, the Energy and Environmental Research Center, the Chester Fritz Auditorium, Memorial Stadium, Engelstad Arena, the Hughes Fine Arts Center, the Honors House, the President's Residence, the Native
American, International and Era Bell Thompson Centers; and Abbott, Starcher, O’Kelly, Babcock, Gustafson, Leonard, Montgomery, Robertson-Sayre, McCannel and Witmer Halls, as well as a number of family housing units.

Damage to the Medical School building and equipment totaled about $5.2 million. Chest-high sewer backup had spread throughout the lower level, devastating the Health Sciences Bookstore, laboratories, offices, student lounges, the MedStar video studio, and small-group classrooms. About $3.1 million worth of technical equipment and research was destroyed. Two scanning electron microscopes were lost, as were some 500 microscopes in the anatomy lab, a student computer lab, the Health Sciences Bookstore, and facilities of the new MedStar satellite broadcast system, used to educate physicians and nurses throughout the state. Losses would have been even more severe had James Kelleher not formed a team which babysat generators during the flooding. Those generators kept freezers running to save tissue and blood samples and other research materials.

A remarkable effort was put forth by Kap Lee and three student volunteers in taking care of laboratory animals for the School of Medicine and the Department of Biology.

“There were hundreds of animals up there [in O’Kelly Hall],” noted Jack Glass. “Mice, rabbits, rats, everything you can imagine. And then, down in Starcher Hall, we had fish, alligators, all kinds of stuff down there. We were concerned about what was going to happen with these. The National Guard got them in every single day. They went into each building, cleaned the cages, and fed them. We had clean water shipped in for them. The animals never knew there was a flood there, except for the fact they were in the dark more because the lights were off. I could not believe the work they did in there. It probably took them six hours a day to care for all the animals. They went right from O’Kelly, with all the land animals, to Starcher, with all the water animals. Everything was tended.”

The Medical School was by far the most difficult building to clean. It reeked of raw sewage. Four prospective contractors examined the building prior to quoting prices to the University. “One we never heard from again after the walk-through,” said Paul Clark. “Another one wouldn’t give us a bid. We got two bids. We asked them how long it would take. They said seven days. There was a lot of concern in the Med School about getting it done faster, so I asked them how much it would cost to get it done in four days. Twenty-one days later, they [were] still working in the building, with 60 people on the crew. They worked two shifts.” To facilitate the process, a drive-in opening was punched in the concrete wall of the new addition on the south side.

Research programs in the Department of Biology took a significant hit. Scientists there were forced to throw away about $50,000 worth of enzymes and reagents after refrigerators failed.

The Grand Forks Herald noted the efforts of technician Morris Pung in saving projects by pumping out water from the lower level of Starcher Hall and summoning pumper trucks to water greenhouse plants. John LaDuke, Professor of Biology, lost more than 100 plants from three continents as a result of too much sun and too little water. Doctoral student Donovan Verrill lost about half a tank of yellow perch from Devils Lake. The federally funded corn genetics project of William Sheridan, Chester Fritz Distinguished Professor of Biology, suffered equipment losses in test fields on the North Campus.

Damage in the Energy and Environmental Research Center totaled about $2 million in equipment losses, including a scanning electron microscope, an X-ray diffractometer, X-ray fluorescence spectrometer, and a molecular-scale milling machine. More than $5 million was lost in research contracts.

The federally funded USDA Human Nutrition Research Center also suffered severe damage to its building and scientific equipment, estimated at $7 million for the building and $4 million for lost research and samples.

Facilities for athletic and recreational use were affected. Water destroyed a players’ lounge and locker room in Engelstad Arena, as well as two compressors in the Zamboni area. In Memorial Stadium, the artificial turf was damaged but usable. Further inspection showed that the backing had separated from the turf, and FEMA agreed to fund a new playing surface. Officials decided not to replace the bowling alley in the Memorial Union, and instead studied ways to reconfigure the space for other uses.

Many remarked that during the flood the cities were virtually dead. But the water left behind life, in the form of widespread mold growth.

“The Return of Lake Agassiz

“The Return of Lake Agassiz

“The Return of Lake Agassiz

“The Return of Lake Agassiz
into dry areas; in others, it didn't. The microbial growth was extensive. There were some buildings that were just beautiful microbial experiments. You could see all the structures of the fungi. They were very well formed.

“The microbial analyst that we were using was surprised that they weren't more diverse,” Glass added. “Over time, we saw maybe 50 varieties. Because of the way the water was and the huge volume of nutrients that was in the water, they expected to see 50 varieties in each sample. That really didn’t happen.” The quick work undertaken by the University to remove soaked materials and clean contaminated surfaces was crucial in controlling microbial growth, particularly in preventing its spread to non-flooded areas.

**Recovery to Restoration**

“It’s more than cleanup,” LeRoy Sondrol said. “I'd rather say we're in the restoration phase. Cleanup was something we did right after the flood, when we 'mucked out the stalls.' If you've raised horses, you know what that’s all about.

“We got a construction management team in here, Barton Malow, and they've done a fantastic job,” Sondrol continued. “We needed the environmental people to come in. We knew right off the bat that we would have some environmental problems. We'd heard about microbial growth, the possibility of asbestos materials, things that we knew could become hazardous if they weren’t handled properly. We did an early assessment of that. We knew we had to have clean, safe buildings if we were going to occupy them for summer school. That was the first thing on our mind. We put together a team, and they got on it. They not only helped us keep our buildings clean, but they enabled our people to work in safe environments. That was key.”

To ensure that control efforts were effective, the University hired a professional environmental consulting firm, AEC Inc., to provide expertise that would ensure a safe and healthful working atmosphere for members of the University community. Their subcontractor, Legend Technical Services Inc., provided a team of microbiologists and industrial hygienists to test for air and surface mold contamination in the buildings following cleanup activities. Some contaminants were detected in June and July, and were cleaned; testing was expanded to include sororities and fraternities in August. The Plant Services staff was trained to respond to and treat any mold problems.
"We didn't have any bad effects," Sondrol observed. "We didn't have any accidents. We didn't have any people getting sick from microbial growth. We were given the information so we could deal with every situation. That has proven to be maybe one of the wiser things that we did up front, making sure we could control the environments within our buildings. That speeded our recovery immensely.

"We can say with a great deal of confidence that we have cleaner buildings today than we had before the flood," he said. "That has been documented. Now the trick is how we monitor and maintain. When you have flooded buildings, they have got to be cleaned out, but there is an incubator growth period of time when some of this can reappear. We're going to have to monitor and maintain that level of cleanliness until our buildings are thoroughly dried out." Each building had to be wiped down daily for 30 days with a bleach solution to make certain all spores were killed.

The importance of this effort was underscored by other developments in the communities. During the week of June 18, about 700 children in Head Start, United Day Care and the Y Family Center had to be moved from Kelly and Lake Agassiz Schools after black fungus mold was discovered in tunnels and crawl spaces. The schools were being used as temporary day care facilities during the summer. Significant mold problems cropped up in various areas of the cities, particularly the devastated downtown sections.

Mold claimed one structure on the UND campus. The Honors House on Harvard Street ended up with such extensive mold problems that cleanup would have been prohibitively costly; the building was later demolished.

"**DRINKING FROM A FIRE HOSE**"

During the recovery, between 300 and 400 projects were being juggled at the same time. Sondrol likened it to "taking a drink from a fire hose."

Progress was made through the spring and summer, but the path was often bumpy. One example was the 10-plex at 1225 Stanford Road.

"We had five apartments that got flooded on the main floor," Sondrol explained. "The carpets all got trashed, the floors got trashed. There was a crawl space underneath.

"At first observation it looked like a very simple project: you go in and redo the carpet and the cabinets and some of the sheetrock in five apartments. Well, we hadn't been into the job for more than a couple of weeks, and all of a sudden we found that the substructure that supported the building had gotten flooded and caused some sinking. So we had a structural problem on our hands. We had to put new foundations under a portion of the building, tear up all of the floors, and go in and pour concrete and build new substructure.

"We got that solved, and then we ended up with microbial growth. That backed us up another two weeks. We finally got the microbial thing under control. One morning, I went through the project, and we were ready to say, yes, we can move in, and then we found a section of the sidewalk out in front — about a 12-foot section — that was totally caved in underneath and was ready to collapse. It also

Regular sewer service was restored by the time most buildings reopened. Photo by Dick Larson.
supported the balcony above. We had another structural problem on our hands that we had not been able to see before.”

It needs to be pointed out that progress was made on campus in spite of great personal hardships experienced by so many Plant Services staff members, added Larry Zitzow. “Many of them didn’t have a place to live,” he said. “They didn’t even know what they were going to do. They were devastated. And now they came back to work on the flood at work and to work on the flood at home. That was the hard point, to get them to a point where we’ve got to push, we’ve got to keep going. It’s hard to do. It was hard to push them when you knew they were hurting at home. They lost a whole house, or the main floor, or the basement. These people are still scarred and hurting.” Their dedication and sacrifices were truly heroic, he observed.

Some of the biggest challenges were replacing or cleaning air-handling units. In many cases, the buildings were constructed around air-handling units, making them impossible to remove.

“This happened in several parts of the Energy Research Center,” Sondrol noted. “We thought we had it all cleaned up, cited, and then something else happened. Maybe you couldn’t get an air-handling unit when you wanted it. Maybe we couldn’t get the transformers when we thought they were gonna ship. We had things delayed, and all of a sudden the manpower wasn’t there. The entire community was looking for everything from tapers and electricians to plumbers and carpenters. There weren’t enough of them. So when they said they’re going to be done with the job on Monday, you could usually figure that’s a week later, the next Monday. Scheduling was a very, very difficult thing.”

The amount of materials involved in the rebuilding effort was another measure of the disaster. These included 8,000 square yards of carpet, 800 gallons of paint, 113,000 square feet of sheetrock (3,531 sheets), 100,000 feet of electrical wire, 38,000 square feet of sidewalk and concrete, 1,018 linear feet of curb and gutter, and 96,261 square feet of asphalt. A total of 18,440 separate work orders were issued to repair flood damage.

Between late April and mid-September 1997, Plant Services had completed $2.8 million of work on flood restoration. Normally, this amount of work would take about a year to complete. The University hired 59 different contractors, with 259 separate contracts and 10 architectural firms.

All of this rebuilding activity took place concurrently with the normal construction schedule. About $10.3 million of non-flood projects were under way, including previously scheduled renovations and construction of skywalks over University Avenue (connecting Johnstone and Hancock Halls) and North 42nd Street (connecting Clifford and Ryan Halls).

**The Students**

The flood had taken an enormous toll on the area in physical terms alone: the structures and possessions lost or damaged, and the dollars it would take to replace or repair them. But what of the human costs? How could one measure the loss of confidence in the future?

Population would be one indicator. How many people would choose to leave the area and restart their lives elsewhere? There were many guesses but few firm figures for the communities. The University, on the other hand, had one: enrollment. The summer session would be the first measure of the flood’s impact on student plans and outlooks. Reviewing the experiences of other academic institutions that had suffered disasters, UND officials knew that a big enrollment drop was likely.

As the University reopened on May 8, the figures looked bad, about 30 percent behind the previous year’s pace. There was an enormous image problem to overcome, not only for the summer term but also the regular school year to come. That image was of an utterly devastated community and campus. More often than not, media reports emphasized the bleaker aspects of post-flood life in the area.

To some degree, the reporting was accurate. Streets throughout the cities were piled with flood debris for months. It looked like the disaster area it was. But real progress was being made, sometimes at remarkable speed.

The University had suffered significant damage, but the campus was in relatively good shape. As the leaves came out and the grass greened up, it looked almost normal. Vital operations and resources were being restored, and the University could once again serve students. But did students know this? Or were they imagining a muck-covered campus filled with broken windows and flood litter, and a desolate town in which life had ground to a halt?
“Getting the word out” became a top priority. Newsletters, flyers, public service announcements, radio appearances and advertisements all helped spread news about the University’s recovery. At the weekly 9 a.m., Don Piper, Summer Sessions Coordinator, reported steadily improving registration figures. By the time the regular eight-week summer term started on June 9, enrollment was down only 16 percent from the 1996 summer term, up substantially from the 30 percent drop seen just a month before.

Extensive contacts were made with media representatives; with news releases, campus tours and video footage, the University sought to show there was a dimension to the Greater Grand Forks flood story beyond the popular “cities in ruins” angle.

A number of events and special programs, ranging from Alumni Days and Girls State to the Summer Institute of Linguistics, had to be canceled or moved to other institutions because of housing concerns. However, other summer programs, notably the various athletic camps and such efforts as Aerospace Camp, were able to go ahead as scheduled.

All summer session classes were able to meet in their originally scheduled locations, and all but two faculty with summer appointments returned after the flood to teach their courses. A special “combined” commencement ceremony was held Friday, August 1. Invited to participate were not only the summer session candidates but also those who would have attended the three spring commencement ceremonies. Special remarks were presented by the three members of North Dakota’s Congressional delegation: Representative Earl Pomeroy and Senators Byron Dorgan and Kent Conrad.

On May 20 work began on a new video program that would highlight the flood recovery. Written by Dean Schieve and produced by the Aerospace Network, it was finished on May 26. The program was used throughout North Dakota and Minnesota to demonstrate the progress that had been made. President Baker and Enrollment Services staff members held a series of statewide outreach meetings for current and prospective students and their parents. Faculty, staff and student volunteers called students to reassure them on the campus situation and to ask about their plans for the fall. Several offices held evening hours in July to enable students to register for classes, pay bills, apply for financial aid and seek academic counseling. Special efforts were made to ensure the extra hours were well publicized.

Because many members of UND’s financial aid staff had to deal with damage to their own homes, a number of other agencies stepped in to help. Among these were the financial aid staff of UND-Lake Region, UND-Williston and North Dakota State University; Student Loans of North Dakota, the Education Assistance Corp., USA Group; and Norwest Bank.

Help in the form of donations arrived from all over the country. On May 12, the UND Foundation launched a nationwide flood recovery fund drive. Mailings were sent to 65,000 alumni and friends; more than $1.2 million would be raised.

The University of Nebraska took in some 35 UND medical students to enable them to finish their anatomy courses. The arrangement came about when medical student Keri Hill contacted her father, Dr. Gary Hill, Associate Professor of Anesthesiology at the University of Nebraska. Hill contacted Dr. Ed Carlson, Chair of UND’s Department of Anatomy and Cell Biology, and offered the course free to any students who wished to take it. Carlson and Dr. Jody Rada, Assistant Professor of Anatomy, taught the course along with three Nebraska professors, and their School of Medicine donated supplies and materials. The students who took the course presented their instructors with a plaque titled “A Red River Flood of Thanks.”

Another project interrupted by the flood was UND’s first solar car project. Students in the Society for Energy Alternatives, mainly from the School of Engineering and Mines, had designed and built the vehicle, dubbed “Subzero,” for SunRayce 1997. In this event, schools from throughout the nation race their solar-powered vehicles from Indianapolis to Denver. After the flood, a small group of students returned to finish the vehicle and qualify it for the national race. They completed the race in the top 20 and were honored with the “Ready to Roll” and “Sportsmanship” awards, as well as a special participation award from the U.S. Department of Energy.

After spending more time throwing sandbags than practicing, the UND Flying Team still was able to capture second place in the National Intercollegiate Flying Safety and Flight Evaluation Conference, coming within three points of taking first place. They have won the national title in 10 of the last 12 years. Studio One, the University’s live, weekly morning show produced by students, placed as one of the top five college shows in the nation.
Recovery: The Students

Housing for Students

Housing posed an especially serious problem. The flood had devastated almost all of the basement and garden-level apartments typically rented by students; another large group of inexpensive rooms and apartments had been consumed in the downtown fire. Rumors spread about steep rent hikes and gouging for an almost non-existent supply of vacant apartments.

It was estimated that the flood damaged about a third of the 15,000-plus rental units in Greater Grand Forks, said Jerry Bulisco. President Baker appointed him to head up an Off-Campus Housing Office. Bulisco, Karen Berthold and DaLonna Bjorge worked with property owners and students to arrange for housing. The Off-Campus Housing Office launched a campaign to verify the return of students other than those who were already signed up for residence hall rooms and University apartments. The Housing Office staff worked to help out all of these students.

UND Housing officials commissioned a survey by the Social Science Research Institute to determine how many UND students had secured housing for the fall semester. The results were encouraging: 80 percent said they had found housing. Residence hall space was expanded by returning 90 beds reserved for conference housing back to regular student use.

The fall semester began on Aug 26 as scheduled. Final enrollment for the semester totaled 10,395. The decline from the previous year’s mark of 11,300 was substantial, but not as serious as the 25 percent drop some observers had predicted. Nonetheless, it did carry a shortfall of about $2.8 million in expected tuition income for the 1997-98 fiscal year. President Baker announced that Enrollment Services and other units would initiate several new programs to rebuild enrollment levels.

Students Reflect on the Flood

Dr. Morten Ender, Assistant Professor of Sociology, was one of several UND instructors who utilized flood experiences in their classes. In his Social Psychology course, students contributed the following observations.

"The flood didn’t allow for closure, and coming back to school was difficult,” one student wrote. “It’s now December, and I don’t know where the semester has gone. In a way, I haven’t been as motivated as I was in past semesters, but I also wonder if I have just become more relaxed. I have talked with other students, and they say the same thing. The flood seemed to have taught me what is really important in life; friends and family, not ‘A’s. I also believe I have learned to take life a little less seriously and just enjoy what I have now. Also, every time I dwell on what I
don't have, I remember all the things that flood victims lost."

"With your friends and family around to support you, you can pull through anything," another offered. "I do not think our recovery could have been possible without the incredible support we received from all the surrounding communities and even the President of the United States! With a support system like we had, the recovery process had not been nearly as painful as it might have been."

"I think the flood has changed the UND community because it has made them realize the value of their students," a third wrote. "They now know how hard they had to work to get the students back. Overall, I was very impressed by UND's response to the flood. They really pulled together in a time of adversity and accomplished what many thought would be impossible, which was getting a significant number of students back and making sure they had a place to live. Looking ahead, I see UND as a much more student-conscious school, which will give them an edge in the future when recruiting students."

One student elaborated on a theory of the "Pioneer Spirit in North Dakota": "Aside from the destruction of the flood, there is an underlying 'challenge' issue. It is found more openly in the blizzards each winter. People venture out knowing that they could lose their lives, but wanting the excitement and the challenge of the cold winter storm. A natural force that can be defeated. It can be noticed by those who refuse to move out of the flood plain to a safe area. It is also represented by those who drive in a snow white-out with their heads out of the car window looking for the road. It symbolizes the 'adventurer' spirit of the past, a symbolic gesture of defeating the unknown. Becoming the adventuring settler of past generations. As we discussed in class, we live out the 'traditions of the dead generations'."

**A COMMUNITY'S THANKS**

In his "State of the University" address on Sept. 30, President Baker praised all of the work that had been done to fight the flood and recover from its effects, starting with the students. He observed, "Like many of you, I have an enduring image of our students, dressed for the most part in winter gear because of the cold, filling sandbags at Sandbag Central and building dikes all over town. It was their very hard work that built the dikes to 52 feet and more on campus and in various parts of our community, and it was their positive spirit, idealism and wonderful energy and enthusiasm that was so infectious and gave us such hope as the final dreadful hours unfolded between April 18 and April 20."

"In the process, they learned about their community. They went to parts of town I'm sure most of them had never seen. They developed relationships on the dike and sandbag lines that will in some cases, I'm sure, endure throughout their lives. In short, they participated in the defense of Grand Forks, and, as a consequence, they took some ownership of Grand Forks. Like our athletic teams, they were champions, and we shall be forever grateful to them for their unbelievable contributions."

**THE CITIES**

Within Greater Grand Forks, the steps to recovery and rebuilding were often difficult and emotional. Trust in experts and authorities had been shaken severely. Bewilderment and anger surfaced as people encountered delays and what seemed like a maze of procedures and regulations.

Temporary dikes started coming down on May 5, although the large one laid down South Washington Street would take weeks to remove. Water service was restored to East Grand Forks on May 10, and the Point Bridge reopened the following day. On May 12, the same day the UND summer session began, Grand Forks officials canceled the order to boil tap water before using it. The Sorlie Bridge on DeMers Avenue finally reopened on May 18 after being closed for a month. The next day, the Red River dropped to 27.98 feet, the first time below flood stage (28 feet) since April 3.

Because of destroyed water heaters and electrical panels, life in many homes continued to be a challenge. Outbreaks of cold weather made the task of mucking out even drearier. UND was able to offer one amenity by making available hot showers in the Hyslop Sports Center.

Debris continued to accumulate on berms and in yards and alleys. "The piles grew head-high, eight feet at the base, and from one end of the block to the next," recalled Glinda Crawford. Their heap was unanimously voted by neighbors to be the neatest, although they hadn't planned it that way."

"Driving down streets, you could hardly see
houses for debris,” she continued. “Sometimes, piles seemed to exceed the volume of houses. People told painful stories of treasures in their piles: sewing machines, children’s beloved stuffed toys, wedding dresses, Grandpa’s trunk from the old country, life collections, antiques promised to children and grandchildren, Christmas decorations, even pianos.” Like so many others, the Crawfords discovered scavengers had been rifling through their cast-offs: “Richard put a sign on our enormous pile: ‘Memories Oct. 1976-Apr. 1997: Rest in Peace.’” In a response that spread swiftly through the communities, owners began bashing and spray-painting larger items to discourage scavengers. Some painted on witty remarks; others wrote bitter and even profane sentiments.

Regaining heat, hot water and electrical power were top priorities for homeowners. Even with hundreds of contractors and workers brought in from throughout the region, competition for their services was intense, and the wait was often exasperating.

“As soon as we got into the flow of flood work, we knew we needed to get on lists,” Crawford said. “Richard’s job was to muck out, and mine was to get on lists: for electrician, furnace, hot water heater, FEMA, insurance, duct cleaning, washer and dryer. Since Richard and I were in our house night and day with little relief, we were more in tune with what needed to be done, and we were more persistent. As a result, our services were up and running a good deal more quickly than others. Plus, the neighborhood ‘watch’ kicked in. We became alert to any potential utility truck or delivery truck coming down the street. Our neighbor, Myrt Sandstrom, came stomping into our house, and never mind the usual knock: ‘Richard, Richard, come quick! The furnace man is at our house!’ Later, at her house, she addressed the 40-ish furnace man by the childhood name she knew: ‘Now, Billy, you must take care of Richard here.’ It worked! We had a furnace two days later! Another neighbor, Bob Sischer, had watched the neighbors, one by one, get electricity when he had none. He got up one morning and said, ‘Today, I am going to find an electrician,’ just as if he was going to pick a tomato from the garden patch. He started walking, found one, and brought him home.”

Another of Crawford’s neighbors, Carlyle Sandstrom, recommended this technique: “It works really well when you lay down in front of the [service] truck.”

The buzz of cars, pickups and vans already filling the streets was joined by the formidable presence of large trucks, pay loaders and other heavy equipment removing small mountains of flood debris. Contractors were already hauling away six million pounds a day when the U.S. Army Corps of Engineers determined it would have to hire even more to meet the target of clearing the berms by the end of June.
By the start of June, contractors had hauled more than 90 million pounds of debris to the landfill, the Grand Forks Herald reported. The trash included 300,000 square yards of wallboard, furniture, carpets, shelving and other items, for about 45,000 tons. About 145,800 tons of levee material, such as sandbags, had been hauled away. The Corps of Engineers estimated that the debris would total about 135 million pounds, plus an additional 486 million pounds of levee material.

QUESTIONS ABOUND

There was quick and widespread agreement that something had to be done to prevent a disaster like this from happening again; exactly what to do, however, was another matter. Protests and counter-proposals appeared swiftly in early May as preliminary plans for new dike lines were offered. On both sides of the river, hundreds of homeowners learned that they might not be allowed to rebuild their flood-damaged properties.

Marathon sessions became routine for the Grand Forks City Council, beginning with its meeting on May 12 in UND's Chester Fritz Auditorium. More than 1,000 residents turned out to hear presentations on dike plans and to voice opinions.

"Buns of Steel," the title of a popular fitness video, became popularly known as the chief requirement for enduring the lengthy meetings. Diverse ideas were offered for preventing future disasters, ranging from region wide water management strategies to digging a gigantic tunnel under the city. Most discussion, however, centered on "the dike or the ditch" — new levees or a diversion channel, or a combination of the two.

President Clinton's pledge of speedy flood relief became ensnared in a partisan test of wills in Congress. On May 15, Grand Forks Mayor Pat Owens met with the President and First Lady Hillary Clinton, and Governor Ed Schafer also went to Washington to lobby for disaster relief. State and local leaders, along with the area's Congressmen and President Clinton, roundly criticized the decision to recess Congress for a Memorial Day holiday without completing the disaster bill. The bill that finally emerged was loaded with several nondisaster-related provisions and was vetoed by President Clinton on June 9. The Republican leadership retreated and sent back a "cleaned-up" disaster relief bill, which the President signed on June 12. The $8.6 billion package included $500 million for Grand Forks and East Grand Forks.

The accuracy of the flood-level forecasts was another focus of post-disaster debate. It was revealed that the Army Corps of Engineers had earlier developed its own forecast with a 54-foot crest, but that this had not been disseminated. A National Weather Service team visited Grand Forks on May 24 to review data on how predictions for flood crests had been developed. Their goal, they stressed, was not to assign blame but to improve future flood forecasts for the Red River of the North.

A CHANGED COMMUNITY

As the flood retreated, it left behind a changed and uncertain community. Whole neighborhoods would disappear. Many more homes, including some of them the oldest and most elegant in the area, sat in a "gray zone" that might have to be sacrificed for flood protection. Traditional landmarks had been demolished. From all around the country, former residents and UND alumni asked about Whitey's. The famous horseshoe bar could be salvaged, but the building was probably doomed. Downtown was virtually deserted, with the rubble of the fire serving as the backdrop for countless news stories speculating on the city's future. Would businesses return to those buildings that had not been destroyed? How much should be done to revive the district? Even buildings that didn't yet exist became the focus of debate again; work on The Aurora events center was suspended for a year.

Home and business owners wrestled with the procedures and requirements of FEMA and the Small Business Administration. FEMA Director James Lee Witt visited Grand Forks on May 14 and talked to reporters at the Joint Information Center at UND. At that time, some 6,000 people lacked electricity, and another 6,000 were without natural gas. Only 10 percent of the victims had flood insurance policies in effect at the time of the disaster. The Small Business Administration had approved $3.7 million in disaster loans.

Fewer than 500 flood victims were still in shelters, and FEMA was bringing in hundreds of travel trailers for residents to use while repairing their homes. At the same time, plans were developed for four mobile home parks with nearly 500 units to house those whose residences had been destroyed.

An NDSU agricultural economist, Dwight Aakre,
calculated that the rough winter and flooding would cost the state's economy $886 million in direct and indirect losses to crop and livestock production, farm buildings, machinery and stored commodities. He estimated that about 123,000 head of livestock, valued at about $59 million, had died in snowstorms and bad weather.

As of June 14, FEMA had paid out $43 million to 22,703 people in Greater Grand Forks for housing assistance and rebuilding costs.

### Housing

The University's residence halls were indispensable in the first part of the recovery. A large portion of the city's motel rooms already had been reserved for disaster and public officials and construction personnel. The University was committed to making available all housing resources beyond those needed for summer session students and faculty.

FEMA would compensate the University for the rooms it made available for emergency housing; the point was how to set up a process that would not add financial pain to flood victims who had already suffered tremendous emotional blows.

"Initially, FEMA was telling us we were going to have to charge the people, and they'd have to get reimbursed from FEMA," said Mark Hudson. "We just said this is way too much stress to put on them."

With the assistance of Senators Byron Dorgan and Kent Conrad, President Baker and Housing Office staff members proposed an arrangement by which the University would receive direct crediting from FEMA. The proposal was accepted, and the whole process worked out very well, Hudson noted.

The hasty evacuation had left the rooms in less than the best condition. Following a rapid cleanup, "opening day" for occupancy was set for Saturday, May 10. Up to that moment, UND Housing officials really didn't know exactly what to expect.

"We had a list of thousands of people who wanted housing," Hudson explained. "But did they really need housing? They may have called in on the first day and said, 'I have no place to live.' Now, maybe, they had found some place. We had no way of knowing. We tried to call people back, and they weren't at those numbers. It was kind of a nightmarish situation.

"I was scared to death that the next morning there were going to be 5,000 people outside the front door wanting to get into these 900 spaces, and it was going to be Mark trying to do the 'loaves and fishes' thing to kind of make this work out. But it did work out. We had our summer staff in place, so the check-in process went smoothly."
University faculty, staff and family members were assigned to the West Complex buildings of Brannon, McVey and West Halls. The largest group of faculty, staff and family members housed at any one time in the residence halls was about 650. By putting the University people together — people who shared a common mission and quite frequently knew each other — Housing officials hoped to boost spirits during a difficult time.

“We weren’t ready [to open] yet,” recalled Cathy Buyarski. “It was a day or two before, but we had a few beds. We could let people in. The secretary at Housing came and said, ‘Cathy, there is somebody out there, and you probably should talk with him. If you could take care of this, I’d really appreciate it.’

“The first reaction on my mind is, ‘Oh, this is someone who had driven into town, and they have no place to stay. Yes, we’ll give them housing. But I’m probably going to need to listen to some ranting and ravings first when I say we’re not really open, and I try to kind of assess whether this is somebody who truly needs immediate housing, or should we save that bed for somebody else.’ I walked out, and this faculty member talked on and on about how he was just so proud that he worked for UND. He was so thankful, we were so fortunate to have an employer who would take such good care of us. He couldn’t believe we had gotten paid. He couldn’t believe we were giving them housing.

“It was really a neat thing,” Buyarski observed. “It came just at the right time, too. You know he’s right. I know that in their hearts all of these people who are frustrated know that, and they’ll recognize it eventually.”

This was an unprecedented situation for the University, and a wide range of procedures and issues had to be acted on quickly.

“One of the things in our negotiation with FEMA,” said Terry Webb, “was, since we had no idea who we were going to get in or what their mental state was, or anything like that, we told them we would do it, and we told them what the per-night cost would be on it, and we also said we wanted six 24-hour-a-day security people. Mark Hudson thought of that one, and it was one of the smartest things we ever did. The FEMA people were starting to talk about rules, and we said, ‘We want them to follow our rules, and that’s no smoking, no drinking.’ One of the FEMA logistics guys, Ed Adamson from Ralton, Montana, said, ‘We have one real simple rule: No hitting.’ I said, ‘We like that rule.’ I had thought of different ways we say that. We talk about appropriate behavior on a college campus, but we never got it down to that simple, and it’s a very basic thing. You hit somebody else, and you’re out of here. Well, the first night we had a domestic dispute. Two nights later, we housed the trades people over in Squires, and two of the people over there got into a fist fight. One was a union guy, and the other wasn’t. So we threw them out. We had a few alcohol things, and then it kind of settled down.”

One of the main concerns of this transition effort was to restore, to whatever extent possible, some sense of normal life. With beds, showers and hot meals available, flood survivors could concentrate on how to go about rebuilding their homes and lives.

“I think most people were just so thankful that they had a place to stay, but at the same time we also knew that living in a residence hall is very different from living in your own home,” said Cathy Buyarski. “What could we do to try to make this like a neighborhood and get people to talk and share stories?”

One effort was to create a newsletter. Most of the new residents were unfamiliar with the ins and outs of hall life. Another effort was to hold a get-acquainted social.

“It was very interesting,” Buyarski said. “They were a lot like the students. You know, we said 8 o’clock, and at 8 there was hardly anybody there. About 8:15, 8:20, people would come down and start looking like they were going to walk through and go out the door. Then they would stop and stay. What they were kind of doing was, ‘I’ll go and see what’s going on, and if it looks like a cool thing, then I’ll stay.’ That really was a fun evening.

“It was also fun when they first checked in,” she continued. “Faculty were joking around the lobby like, ‘Hey, do you want to join a fraternity?’ ‘Where’s the party tonight?’ Talking, joking with each other like they were back in college again. One of the student staff members said to me, ‘This is so weird, giving keys to the residence halls to one of my professors. Talk about role reversal!’ She also said it was neat, fun to do.”

In McVey Hall, suites were designated for family housing. For Peter Johnson and others, it was an opportunity to reunite family members. The youngsters often looked at it as kind of an adventure.

“The kids referred to the residence hall as ‘the Hotel,’ as in, ‘Let’s go back to the hotel’,” Johnson
referred. “We liked the fact that we could walk, rain or shine, to Wilkerson and get breakfast, lunch and dinner. There is a breakfast bar with something like 20 or so kinds of cereal. The kids thought that was great!”

“Thomas, who was only eight months at the time, was extraordinarily good. He became sort of a Wilkerson Hall mascot. All of the cooks and workers doted on the kids. George was a favorite. And Millie, in particular, took a fancy to Thomas, as well as to Carly and Jacob, and was always bringing them special treats or sending treats home with them. She would push Thomas so we wouldn’t have to juggle our trays, and in all ways just plain made it as wonderful an experience as possible.”

Meals, particularly in the evening, provided occasions for community. People went from being “nodding acquaintances” to sharing their experiences, backgrounds and opinions. Once just familiar faces on the sidewalks or in the halls, they now welcomed each other to their dinner tables.

“Each evening we learned what had transpired during the day with each of us at the table,” Johnson said. “Some were power washing. Some were digging out. Some were spending the day visiting FEMA and SBA people. Most were busy all day, and the evening meal became a necessary time for decompression. All of the meals were polite and civil, and filled with good camaraderie. Despite all of their personal turmoil, everybody really had an upbeat attitude. Very rarely did I run into anybody who seemed down about the whole business. Everybody just persevered and moved forward with good humor.

“People were very willing to share, too. I remember one day when Chuck and Vera Wood left a sack of Nike socks on our door, all too small for their children and all just right for our three. That was a very welcome gesture.”

The last day emergency housing was provided in the residence halls was July 31; after that, the rooms had to be empty so they could be cleaned and repaired for the upcoming fall semester. As they packed, the occupants frequently were surprised at how much they had stuffed into their rooms, even for a “bare minimum” standard of living.

“The absolute worst part of the experience was packing up and heading back,” Johnson recalled. “It literally took us days to pack things up and move them home. I was tired out just from the physical exertion of doing that.”

Some of the hall residents headed for new temporary lodging in the form of mobile homes set up on campus. The University had negotiated with FEMA to place approximately 40 mobile homes in the Princeton Trailer Court on Sixth Avenue North. Nearly 500 mobile homes were set up in the two cities to house disaster victims through September 1998.

A total of 728 UND faculty and staff, and their family members, stayed in the residence halls. Also housed there were 656 community residents, 164 FEMA and SBA employees, and 412 utility and contractor employees.

The residence hall rooms could not replace home. But they were a vital part of the recovery, providing some breathing room for citizens as they started to rebuild their lives.

The atmosphere was intense but rarely contentious, many recalled. Everyone was simply too busy for arguments and second-guessing. With ranks spread thin, people had the freedom — in fact, the responsibility — to make quick decisions as they thought best. The experience of being jolted out of the routine was exhilarating, as Cathy Buyarski related to Margaret Meyers at one of the dinners in Thompson: “I leaned over and I said, ‘Margaret, I have to tell you, sometimes I feel horribly, horribly guilty about this because I’m having so much fun. This should not be fun, this is a crisis, this is very devastating to the community and to people. But you know, I’m kind of having the time of my life.’

“This was the ultimate work environment,” Buyarski explained. “I like change. I like things that are very different. I loved coming to work every day and kind of going, ‘Okay, what am I going to do today?’ Being able to get very short-term rewards and gratification from what you’re doing because everything was operating in the short term. Not having to wait, like, okay, we’re going to plan this project, and four years from now it will mean 10 more students graduate — and then you don’t really know
if you can attribute it to that. Instant gratification. Lots of different things to do. Most importantly, this was the ultimate work culture: Everyone was absolutely committed to the institution and the goals, and to each other.

They had to be serious, but they still had time to find a lighter side.

"I think Mark Thompson started this thing," LeRoy Sondrol recalled. "He was giving me guff about being an old guy, and he said, 'You were here during the last flood.' I said, 'Yeah, I was here in '79.' 'No,' he says, 'I meant the one with Noah.'"

The portable toilets were a great equalizer; there were no 'executive' facilities on campus. Everyone took their turn using them in circumstances that could range from rustic to risky.

"I went into one," Sondrol said. "We must have had 20 to 30 of them out here, and they were rearranging the yard. Someone decided while I was in there they were going to move this one with the forklift. That was an uplifting experience! They said I had the funniest look on my face when I came out."

A Flood of Help

Greater Grand Forks citizens had long been good supporters of charitable organizations; now, they had to adjust to the unaccustomed role of being recipients of charity. The UND flood team had learned this when the citizens of Thompson welcomed them with hot meals and showers.

"One of the things everyone learned in this was not only how important it was to give, but how important — and how difficult — it is to receive," Toby Baker said. "It's so much easier to give than it is to receive."

"After two days, we were feeling guilty," she continued. "These were wonderful meals. Everyone was feeling guilty, and we said, 'We just can't prevail upon them to cook dinner for us again.' That's when I learned how to receive. They said, 'Have we offended you? Why aren't you coming back?' We said, 'We can't expect you to do this — this is too much.' And they said, 'We have to do this, we need to do this. We need to do something to do our part in this recovery, and this is what we can do for you.'"

In the weeks following the flood, Grand Forks and East Grand Forks citizens benefited from a remarkable outpouring of generosity and concern. Charitable groups, businesses, and fraternal and civic organizations responded with donations ranging from toys and clothes to building materials.

In an article she wrote in September 1997 for the professional journal Nursingmatters, Elizabeth Tyree described this scene: "My pastor preached on
the necessity to accept help when it is offered. One of the more touching donations was a truckload of French bread given out after church services on a Sunday. An entire congregation leaving with their daily bread.

Most importantly, thousands donated their time and sweat. Volunteers arrived by plane and by bus in numbers never seen before in this region's history. With large interior spaces and shower facilities available, the University was an obvious site for housing them.

"President Baker had said that we wanted a spot for volunteers," recalled Terry Webb. While discussing with Athletic Director Terry Wanless the situation and resources needed, UND swimming coach Mike Stromberg walked into the office. "There's the guy I want to work with on this," Webb said.

Stromberg and Webb went to work on the details. "We got hold of FEMA, and they had 1,000 cots in Fargo," Webb said. "We got them to bring them up to us, and, really, Mike took over from there.

"He took that whole area and managed it for us. He was the right person for that kind of thing. He is not afraid to make a quick decision when he needs to."

One of the first priorities was to clean the cots. That was accomplished by dunking them in the nearest large body of clean water: the University's swimming pool.

Over the months of recovery and rebuilding, the Hyslop Sports Center would host a total of 4,955 volunteers with shelter, showers and meals. Although not luxurious, the accommodations were a good match for the generous spirit of the volunteers.

"It would have been difficult, because of the space limitations, if we had tried to put them in residence halls," Webb said. "Those were the people who were most accepting of coming and sleeping on cots, and things like that. They understood what they were getting into when they came."

Each day, dozens — and often hundreds — of volunteers descended into cold, dark basements and pulled out, by hand, tons and tons of muck-covered debris. The physical and emotional boost they gave to weary homeowners was invaluabke.

The prospect of having showers available at the end of the day was also reviving. In disaster situations, FEMA can bring in 'comfort stations' with portable showers and washing machines. UND had extensive shower facilities in the Hyslop Sports Center and offered them to FEMA.

"Wally Helland [Environmental Supervisor with the Grand Forks Health Department] called and asked if we could do it because some people just couldn't get a shower anywhere," Webb said. "I said, 'We've already got it taken care of. They can shower from 6:30 in the morning to 10 at night.' That was a big help for people to be able to get a warm shower. I know for the first few days that I was in the middle of the flood, I couldn't get to a shower and I couldn't stand myself. I found that being able to get to hot water was really important. Next was food, but first I wanted to take a shower."

Before, during and after the event, the flood brought out some of the best qualities in people.

"It shows that we are people who really care about each other," said Mark Thompson. "There is a University, Grand Forks, the Air Force Base, and East Grand Forks. I think we all became one big community. Everybody's efforts and interests were in doing everything and anything necessary not only to protect and save the physical part of the city but also out of concern for each other in terms of humanity. Absolutely nobody really knew what was going to happen. Yet, everybody kept in there and kept going. Personal losses were set aside, and they kept doing whatever they could for the benefit of the city, the University, and people as a whole."

Leon Osborne noted that some flood heroes were "invisible."

"We've heard an awful lot about the truly heroic things that the police and firemen and others in an official capacity did, but we haven't heard about the people in amateur [ham] radio services," he explained. "Again, these people were volunteers. It was not part of their jobs — they were strictly volunteers and worked endless hours. They would go out with search and rescue groups, they would provide communications support. These people were heroes — just true heroes. And to be able to say that I work with those people is a tremendous source of pride.

"Those people also would call to check and see how we were doing here," Osborne continued. "Former students called. I even had college buddies from 25 years ago that were trying to get in touch with me. It was just phenomenal how a disaster like this can bring about a tremendous sense of community, where you want to help them and they want to help you."
**Bouncing Back**

The weekly 9 a.m. meeting on Wednesday, May 14, included a small bit of news that brought cheers: despite the huge rebuilding job ahead, the University's famed flower borders would be planted again. Green's Garden Center had saved the flowers from freezing during the blizzard and from drowning during the flood. LeRoy Sondrol put it this way: "More than ever, the flowers this year will have a new meaning. With God's blessing, they will be a symbol of life and the ability to overcome."

On Friday, May 23, Texas Lil and "the world's largest transportable smoker" rolled into town to throw a free barbecue party for 5,000 Greater Grand Forks residents. Titled the "Come Hell and High Hog BBQ," the party was held at Memorial Stadium with partial sponsorship by UNO. Texas Lil, the owner of a dude ranch, also brought furniture and donated goods from Texas and Kansas.

In the weeks and months following the flood, several well-known entertainers made special stops in Grand Forks. The Charlie Daniels Band presented a free concert in the WalMart parking lot on May 17. Another free concert was given on June 9 in the Engelstad Arena by pianist Lorie Line. Country singer Kathy Mattea waived her fee for a benefit concert presented October 7 in the Chester Fritz Auditorium for the UND Flood Relief Fund.

The "Bouncin' Back Bash" on Sunday, June 22, brought thousands to Memorial Stadium. The event was sponsored by the Grand Forks Convention and Visitors Bureau. With bands, food, games and a generous helping of good humor, there was something for everyone. In the "Sandbag Smash," kids swung baseball bats at substitute pinatas: hanging sandbags adorned with such statements as "49 feet?" and "My other car is an ark!" Children were given books, stuffed animals and other items donated from all around the country. Musical acts

April 23: This view of the Sherlock Park neighborhood of East Grand Forks looks southeast from the vicinity of Gateway Drive. The pedestrian bridge and Sorlie Bridge are visible at the top; the downtown district is at the top left. Photo by Dick Larson.
 Recovery: The Spirit

included Jazz on Tap, Purple Planet, Mike and the Monsters, Gary Lewis and the Playboys, Lesley Gore, the Tokens, Peter Noone (of Herman and the Hermits fame), the Crystals and Lou Christie. A fireworks show, followed by some of Mother Nature's lightning, topped off the celebration.

In a column carried by newspapers around the state, Professor Emeritus and former Lieutenant Governor Lloyd Omdahl reported the results of his "unscientific" poll, asking folks what they liked about the flood. "A recruiter for the University of North Dakota was actually excited about the flood," Omdahl related. "He thought prospective students would like the shorter semesters with no final exams." And, he added, "a researcher smoking outside a campus laboratory said he was happy because he proved that his abacus could consistently outperform three models of computers under water."

Several began to write about their flood stories and feelings, and to collect the reflections of others. Darlene Hanson, a faculty member in the College of Nursing, encouraged children to express themselves in writing and art. Titled A River Comes to Visit, the book was a child's-eye view of the flood experience.

Students Return

As the fall semester began, the flood remained an important, if not immediate, presence. While the campus seemed outwardly restored, many effects would be felt for years to come. The Kappa Sigma fraternity house was heavily damaged, and the Pi Kappa Alpha house was closed completely. Both structures need to be replaced. The bowling alley in the Memorial Union, a fixture since the 1960s, was torn out and would not be rebuilt. Substantial damage to the insulation of steam heating pipes will require renovation of the entire system, with excavation to take place over a number of years.

Hitting the books once again, students now considered what the flood meant to the future of the University. But there still were occasions to reflect and celebrate. Homecoming featured the theme "Welcome Home." Comedian Paula Poundstone performed at the Hyslop Sports Center as a "thank you" event for students.

"I think the flood changed the UND community for the better," a student commented. "During the flood, a lot of us students pulled together to try and save our community. It would have been so easy for us to just give up and go live [with] our parents back in our hometowns. But instead, many of us stayed and tried to help fight the flood. As a result, I think that we feel even more a part of the community, especially those of us who are not originally from Grand Forks. For this same reason, I also feel more optimistic about the future of UND. Pulling together like we did gave us all a strong sense of kinship. I was more excited than ever to return to UND after this summer. I love being part of a campus which I feel is now even more closely knit."

New "Terms of Endearment"

Many have described the Flood of '97 as a "defining point" in the history of Greater Grand Forks. Wrestling with terms like FEMA and SBA, citizens generated new definitions and concepts to suit a new reality.

"Well, we have a whole new definition of what is dirty and what is not dirty now," said Toby Baker. "Filthy is when you can write 'wash me' in the silt that's on your arm. What is optimism? Optimism is 'velcroing' in your wallboard so in next year's flood, you just pull it out, no problem!"

Conventional fashion was displaced by flood chic: "You had to have your rubber boots and some kind of shirt that you didn't care if you ever saw again, or something you could hose down. And a dust mask to kind of filter out the icky pollen spores and something to cover your head so that you wouldn't get stuff all over it," Baker explained, "I went to Hugo's dressed like that, and no one looked twice because everyone was dressed like that. I mean, we all looked the same."

Baker collected a number of flood phrases and terms, some of which were published in a sidebar in Newsweek magazine. There was "Floodweiser," the white can of drinking water sporting the logo of its donor, Anheuser-Busch. Another was "flood tan," the little piece of sunburn between the top of your rubber gloves and the end of your short-sleeve shirt. "Buns of Steel" stood for seemingly interminable City Council meetings. "Flood moment was a temporary lapse in attention: 'Oh, I missed what you were saying — I was having a 'flood moment.'"

Some terms were not as light-hearted. Many experienced the "flood cold," a particularly nasty and long-lived respiratory ailment seemingly aggravated by working in cold, muddy basements. "Dry house guilt" described the awkward social situation of visiting friends who had suffered severe damage while...
you had not. "Predicted crest" had the same credibility as "The check's in the mail." And then an atmosphere of testiness swirled around the "D words": dike, dredge, diversion and disbursements. Mental health experts stressed that it was perfectly normal to be feeling anger and frustration, given the circumstances.

"B.O.B." stood for "Basement On Berm." The piles of debris became adorned with imaginative sentiments, such as "It looked better in the basement," "Next time the party's at your house," and "NDSU Bookstore." People were dancing the "muck-a-rena."

In some ways, the mucking-out process could be one of relief. After throwing out so many possessions, one might figure, what the heck, go all the way and throw out some of those old habits, too. Start over with a clean slate. Baker explained, "Like a friend of mine said, 'Okay, that's it, I'm not saving coupons any more.' I said, 'Oh, did they get wet?' And she said, 'No, I'm just not doing it any more.'"

When in doubt, throw it out. That was the prevailing attitude, and mini-mountains of debris built up. Not until the heaps were removed, however, did a sense of emotional recovery start to set in. Debris collection was a lengthy process measured in terms of successive passes through the cities. "If you've had a second pass, it's not a good idea to tell someone who hasn't had a first pass yet that you're already on 'pass three,'" Baker observed.

HELPING EACH OTHER

The flood left the two cities shaken. How to rebuild, who to believe, what to do to protect the communities in the future: these subjects were widely debated. But citizens did learn they could rely on each other — family, neighbors and even complete strangers — when help was needed most.

"The thing is," said Mark Thompson, "you can't begin to know how much was going on, on the part of
individuals, in East Grand Forks and Grand Forks. Friend helping friend, neighbor helping neighbor. They were just all over, and it wasn’t just our efforts at that point. It was everybody’s efforts anywhere there was something that needed to be done.”

As UND continued to recover, a similar disaster struck Colorado State University in Fort Collins in July 1997 as a flash flood hit the campus. President Baker and others at UND contacted CSU officials to offer assistance and advice on working with FEMA. “We obviously had a lot of immediate experience,” Baker said. “We’ve received so many wonderful, overwhelming offers of help and support, so it was nice to be able to reciprocate.”

**Could It Happen Again?**

The “Flood of the Century?” A 500-year flood? These terms made for catchy headlines, but it was, in reality, the flood of 1997.

Less than two weeks after the April 22 crests, experts were already discounting the label of a “500-year flood” and warned that more severe flooding could occur in the near future.

In an editorial column in the summer 1997 issue of the *NDGS Newsletter*, North Dakota State Geologist John Bluemle wrote, “One important area of our understanding relating to flooding that I’ve always had misgivings about is the idea of a 100-year flood or a 500-year flood. It’s a purely statistical concept that most people simply don’t understand, and I wish we could just trash it. Too many people take the idea seriously — that because a certain water level is considered to be a 100-year flood, then it must be a rare event. Quite honestly, we don’t have enough data, and our historical record isn’t long enough to assign such categories. For example, we could have four ‘500-year’ floods in three years. We would then recalculate and reconfigure our statistics, and such a flood would no longer be a ‘500-year’ flood.

“Our own (North Dakota Geological Survey) research over the past 20 years indicates that severe flooding is more common (in a recent geologic sense) than we had thought,” Bluemle continued. “Our human experience in North Dakota is skewed by a long period of dry conditions. The late 19th century and the first half of the 20th century — an interval which coincides largely with the time the state was settled — is our perception of reality, that is, what we, our parents and our grandparents experienced during our and their lifetimes. With a couple of notable exceptions, the 110-year period from about 1830 to the 1940s, the period during which the Plains were settled, was one of dry conditions. Since about 1940, we seem to have ‘turned the corner’ and are — have been since about 1940 — in a wet cycle. I’ve pointed out in the talks I’ve given on Devils Lake that the cycles apparently last from 100 to 200 years.”

Bluemle concluded his column by writing, “It seems that some people want to attribute the recent flood on the Red River and the ongoing flood at Devils Lake to the results of human activity. It’s human nature to want to ‘blame’ someone. I don’t know how many times I’ve heard that the flooding is the result of drainage of the wetlands, and if only those wetlands hadn’t been drained the lake would still be ‘normal’; or if the wetlands were restored, the lake level would drop; or if there weren’t so many drainage ditches in the Red River Valley and farmers were more conservation-conscious or some such thing, we wouldn’t be having these floods. I think that such self-serving misstatements by various special interest groups are somewhat disingenuous and do a disservice as they keep attention from being focused on the real problems. The floods are not abnormal, and no one is to blame for them. Devils Lake is behaving normally, doing what it had done many times in the past: rising toward overflow into Stump Lake and ultimately into the Sheyenne River. Similarly, the Red River and its tributaries are behaving normally when they spread out on to their flood plains when the winter snows melt. Quite simply, the floods are being caused by increased precipitation, and that increase, as I have pointed out in all of the talks I have given on Devils Lake, is an entirely normal occurrence. Certainly, we need to take whatever action we can to alleviate the effects of the floods; there are many things we can do to deal with the problem, and we should do them.”

Examination of the Devils Lake situation and the 1997 flood led to these observations by Leon Osborne.

“We have just completed a study, although it would have to be categorized as preliminary since it only covers a five-month time period,” Osborne said. “We were under contract to the U.S. Army Corps of Engineers to look, first and foremost, at the Devils Lake Region. With all of the ongoing devastation occurring there, the Corps wanted to know a little
more from a climatology standpoint, as well as from a trend standpoint, of what may happen in the Devils Lake basin.

"So we've been conducting a study since last November and just recently finished it," he said. "As I say, it's preliminary because it had to be done so quickly, but some of the things we're finding is that there appears to be a 60-year cycle: 30 years of dry conditions, 30 years of wet conditions. That's by looking at records across North Dakota, Minnesota and Manitoba. One of the things that we have deduced out of this is that there appears to be a much longer cycle that appears to be anywhere from 150 to possibly as much as 180 years in duration.

"It appears right now that, if the hypothesis is correct, we are on the upswing of the wet portion of the 60-year cycle and, at the same time, we're on the upswing of the wet portion of the 180-year cycle. To put a point of reference on it is to go back to the 1820s, which is the last, at least by record, most recent devastating flooding anywhere similar to what we have seen in the Red River Valley or in the Devils Lake Basin. Conceivably, we have not reached the wettest portion of this cycle.

"Does that mean we'll see a repeat of flooding like what we saw in 1997?" remarked Osborne. "It doesn't mean that at all because there are a lot of other factors of very short time scale that go into consideration. But what it does mean is that it does appear that the potential for major flooding may continue for at least another 10 years. So, it's a situation that I think people need to be mindful of. Do they need to move out of this region? No. It's a possibility people should be aware of, but not over-react to. We have to remember that with all of the technology and power and intelligence that we think we have, Mother Nature is far more powerful.

"There are climatic factors that can wash away the entire Red River Valley, and we have to remember that," he continued. "Just as people in California have to be concerned with the San Andreas Fault, we have to be concerned with devastating flooding in the Red River Valley. That's a cross we have to bear, just as they have to with regard to earthquakes. But you certainly don't see people leaving California. Hopefully, we won't see people leaving the Red River Valley. But we do have to take intelligent, preventive measures. I think that needs to be a very high priority over the next decade for the entire Red River Valley basin, and not just Grand Forks.

"There is an awful lot that we are learning," Osborne said. "To a certain extent, flooding of the Red River Valley is manageable. But we also have to
April 23: Lewis Boulevard is prominent in this view of the Riverside neighborhood in Grand Forks. The swimming pool building is at the upper center of this view. Beyond the river, the straight horizontal line marks 23rd Street Northwest in East Grand Forks. Photo by Dick Larson.

remember that likely some day — maybe next year, maybe 100 years from now, maybe 800 years — there will come a flood that will virtually wipe out the entire Red River Valley. We just have to be mindful of it. As meteorologists, we hope that we can learn enough to provide sufficient advance notification when those conditions are going to occur. And I think if we ever see one that totally obliterates the Valley, most people will see it coming well in advance."

It is possible, he added, that the area could experience a “monster” flood with relatively little warning. It has to be borne in mind that the 1997 flood was, in fact, the result of a fairly good melting pattern.

“We have conducted a study here in the facility [the Regional Weather Information Center] in which we’ve gone back to try to answer the question of how this flood compared to what could happen,” Osborne explained. “Again, the numbers are not overly precise because it’s something that was done fairly rapidly. But, we believe now that the greatest flood we could see with just snow melt alone, which was what we had in 1997, is probably 56 feet. So we were very close to as great a flood as we could ever have under the conditions that we saw in 1997. What is disturbing to me, though, is that our numbers also tend to indicate that if you put rain with snow, it could be as much as 10 feet higher.

“Sixty-six feet. But even with that, you could almost see it coming. During the winter months, you can see the snow accumulate, and you can start planning. I think that’s one of the messages we hope will come out of this particular flood is the fact that planning for flooding should begin in the fall. It should become something that everyone does, although it doesn’t have to become the central focus of their lives. But if you have heavy rain in the fall followed by heavy snow in the winter, it’s not rocket
science — you are going to have some flooding. People need to be a little more conscious about what’s happening around them.

“What really is dismaying to us, though, is that our studies have also indicated that heavy rainfall in a summer situation, where you have consistent heavy rain for a number of days, can result in massive flooding,” Osborne continued. “Just here in 1998, with the heavy rain that took place in southeastern North Dakota for about a one-week period, and it wasn’t consistent every day, it still resulted in almost a 36-foot flood stage in Grand Forks. While we have taken that into consideration, we believe that consistent day-after-day heavy rains, like what occurred in the Mississippi Valley in 1993, could easily result in a flood of 50 feet, and that would be where you would have maybe 10 days notice. We think that summertime rainfall could conceivably produce a flood as high as 60 feet.

“Those are the ones that you really can’t prepare for,” Osborne said. “What’s the likelihood of them occurring? I don’t know. We only have 500 years worth of data, so we don’t know what a ‘500-year’ flood in Grand Forks would look like.”

April 22: Rob and Kirsten Carolin survey the English Coulee, looking toward the Hughes Fine Arts Center and the Chester Fritz Auditorium. Only the top pipe of the Adelphi Fountain stuck out of the water at this point. Photo by Dick Larson.
1996

Saturday, October 26
Lightning and heavy rain delay UND’s football game with the University of South Dakota. Heavy precipitation leaves the ground saturated for the onset of winter.

Saturday-Sunday, November 16-17
Blizzard Andy hits the region. UND research associate Guangqiu Li dies in an automobile accident, and computer science student Francis Delabreau disappears in Grand Forks.

Monday-Wednesday, December 16-18
Blizzard Betty leaves nearly nine inches of snow. UND is closed all day Tuesday and reopens at noon Wednesday.

Friday, December 20
Blizzard Christopher adds another four inches of snow.

1997

Saturday, January 4
The body of UND computer science student Francis Delabreau is found in a disabled van, where he apparently had sought shelter while walking home during the November 16-17 blizzard.

Thursday-Saturday, January 9-11
Blizzard Doris dumps nearly nine inches of snow. UND closes at 1 p.m. Thursday and reopens at 4 p.m. Friday.

Tuesday-Thursday, January 14-16
Blizzard Elmo brings fierce winds but only a half-inch of snow. UND closes at 2 p.m. Wednesday and reopens Thursday for normal hours.

Wednesday-Thursday, January 22-23
Blizzard Franzi leaves behind over eight inches of snow. UND does not close, but employees and students living in rural areas are asked not to travel.

Friday, February 14
The National Weather Service issues its first flood outlook, predicting a 49-foot crest.

Monday-Tuesday, March 3-4
Blizzard Gust strikes with high winds but virtually no snow.

Tuesday, March 4
The Grand Forks City Council declares a flood emergency.

Saturday, March 15
Work begins in both cities on raising dikes to the 52-foot level. Sandbag Central opens in Grand Forks’ Public Works Building on North 47th Street.

Saturday, March 22
The UND women’s basketball team wins the NCAA Division II national championship.

Saturday, March 29
The UND men’s hockey team claims its sixth NCAA Division I national championship.

Tuesday, April 1
Grand Forks Mayor Pat Owens declares Fighting Sioux/UND Day, honoring the champions in women’s basketball, men’s hockey, swimming, track and wrestling. The Emergency Operations Center (EOC) opens to the public. The Red River stands at 17.05 feet (all readings are 9 p.m. measurements, unless otherwise specified).

Friday, April 4
Rodney Slater, U.S. Secretary of Transportation, visits North Dakota. The Red River reaches flood stage (28 feet).

Saturday-Monday, April 5-7
Beginning with rain and an ice storm, Blizzard Hannah shuts down the Red River Valley, causing widespread power outages. KCNN/K-Lite radio becomes the “voice of the blizzard,” teaming up with UND’s radio station to broadcast news. UND is closed Monday. On April 7, the Red River measures 37.49 feet.
Thursday, April 10
The Red River stands at 41.81 feet.

Friday, April 11
Overflowing water closes parts of Interstate 29 between Grand Forks and Fargo. UND's Smith Hall cafeteria is closed to facilitate construction of a clay dike to protect it from the English Coulee. Most work is completed on raising clay dikes along the Red River in both cities. The National Weather Service predicts a crest of 49 feet will occur between April 20 and 27.

Saturday, April 12
Vice President Al Gore visits Fargo and Breckenridge, Minn. The Red River stands at 42.63 feet.

Sunday, April 13
Residents begin building sandbag dikes in the Point area of East Grand Forks. Grand Forks officials refine evacuation plans. The Red River measures 43.37 feet.

Monday, April 14
Dike patrols begin. The Red River stands at 44.69 feet.

Tuesday, April 15
The National Weather Services raises the crest prediction to 50 feet. The Point and Sorlie Bridges are closed. Work begins on new sandbag dikes on the UND campus.

Wednesday, April 16
Interstate 29 is closed between Grafton and Grand Forks by flooding. Parts of Gateway Drive and 32nd Avenue South go under water. UND classes are canceled at 2 p.m. for the rest of the day and all of Thursday. The National Weather Services raises the crest prediction to 50.5 feet. Meetings are held for Grand Forks neighborhoods near the river to provide information on evacuation plans.

Thursday, April 17
Cracks in dikes prompt evacuation of the Griggs Park and Sherlock Park neighborhoods in East Grand Forks. Meanwhile, cracks appear in the dike near Lincoln Drive; Grand Forks residents living near the river are advised to evacuate. UND officials move hazardous materials from low areas. The National Weather Service raises the crest forecast to 52 feet. The noon reading of the Red River is 50.24 feet, surpassing the 1897 flood crest, the previous high mark since the installation of the official flood gauge.

Friday, April 18
Water pours into the Lincoln Drive neighborhood; the Riverside and Central Park neighborhoods of Grand Forks and the Point area of East Grand Forks are engulfed. Advancing water forces evacuation of the Emergency Operations Center from the Grand Forks Police Department building to UND's Plant Services building. Sewage lift stations fail, and water restrictions are imposed. The Grand Forks water plant goes down. A dike near the Kennedy Bridge in East Grand Forks fails, flooding the Sherlock Park neighborhood and cutting the last link between the two cities. Classes are canceled at UND, and a desperate effort to save the Smith Hall sandbag dike starts. Residence hall parking lots start flooding, and students begin to evacuate. The National Weather Service raises its crest prediction to 53 feet and again to 54 feet. The Red River stands at 52.91 feet.

Saturday, April 19
Evacuations become mandatory for all Grand Forks residents living in the 100-year flood plain. The effort to save the Smith Hall dike at UND is abandoned. Evacuations increase; by noon, half of Grand Forks and nearly all of East Grand Forks are under water. UND officials cancel classes for the remainder of the semester. Patients are evacuated out of United Hospital. Thousands of residents seek shelter at the Grand Forks Air Force Base, Mayville State University, UND-Lake Region, and surrounding communities on both sides of the Red River. Emergency personnel and media representatives set up headquarters on the western edge of the campus. Preparations begin to move UND's mainframe computer to Fargo. Sewer backup begins to fill the lower level of the Medical School building, while volunteers struggle to hold water out of the Energy and Environmental Research Center (EERC). Fire breaks out in the Security Building in downtown Grand Forks and spreads throughout the evening. The Red River measures 53.58 feet.

Sunday, April 20
The fire in downtown Grand Forks is brought under control, but three private homes in the city burn; electricity and gas service are shut off to much of the community. Three-fourths of Grand Forks and virtually all East Grand Forks residents have evacuated. A team of UND officials sets up twice-daily meetings to evaluate the campus situation and plan action. A list of priorities is drawn, and a call for volunteers is sent out to save the University's most valuable holdings, particularly in the Chester Fritz Library. Sewer backup fills the lower level of the
Wilkerson Dining Center. Medical School faculty organize an effort to save research and laboratory animals. Ryan Hall becomes media headquarters, with the Aerospace Network providing important services. People in Thompson, N.D., offer showers, meals and beds to the UND flood team. The Red River reaches 54.01 feet.

**Monday, April 21**

Water threatens a transformer near the Hughes Fine Arts Center, endangering communication links for the Emergency Operations Center. UND officials start planning a phone bank to handle incoming calls and a “Virtual University” capable of carrying out UND’s core functions until it can reopen. President Baker encourages flood team members to consider how UND’s actions could apply in building a “University of the 21st Century.” North Dakota University System Chancellor Larry Isakson and Grand Forks Mayor Pat Owens tour the flooded area by helicopter. Work begins on knocking down the ruins of burned-out buildings in downtown Grand Forks. President Baker announces that UND will hold its summer sessions as scheduled, beginning May 12. Dangerous conditions force UND officials to discontinue the effort to save the EERC from flooding. The Red River stands at 54.29 feet.

**Tuesday, April 22**

The Red River crests at 54.33 feet at midnight. President Bill Clinton flies in to the Grand Forks Air Force Base and embarks on a helicopter tour of the flood-stricken communities. He visits with evacuated citizens sheltered at the Base and announces that FEMA will fund 100 percent, rather than the normal 75 percent, of immediate emergency work. President Clinton also announces he will ask Congress to approve $500 million in disaster aid. In Grand Forks, National Guard troops sandbag a Northern States Power switching station, and US WEST employees continue their fight to protect the telephone cable vault in the basement of their flooded downtown building. UND officials make plans to have the Virtual University running by April 28; discussions also begin on what kind of emergency housing UND could provide to displaced community residents. Plant Services Director LeRoy Sondrol discovers smoldering electrical switch gear in the U.S.D.A. Human Nutrition Research Center. The Red River falls slowly to 53.78 feet at 9 p.m.

**Wednesday, April 23**

American Red Cross President Elizabeth Dole and North Dakota First Lady Nancy Schafer tour flooded areas with Mayor Pat Owens. The UND phone bank handles more than 2,000 calls a day; a volunteer center is set up to seek and coordinate outside help. The Red Tag Diner opens with a noon lunch in the Dining Services warehouse. Three hundred portable toilets arrive, and another 300 are on the way. UND officials start planning how to clean flooded buildings, and the academic deans meet for the first time since the disaster began. The Red River falls to 52.90 feet.

**Thursday, April 24**

President Baker attends a Board of Higher Education meeting in Bismarck and presents a videotape overview of the disaster. Some Grand Forks residents are allowed to come in for a few hours to inspect their homes. The Red River measures 51.68 feet.

**Friday, April 25**

Newt Gingrich, Speaker of the U.S. House of Representatives, visits the cities. Minnesota higher education officials hold a press conference in Grand Forks, with President Baker presiding. The Wilkerson Complex residence halls — West, McVey, Brannon, Selke and Noren — “unofficially” open for students to check out and retrieve belongings. Planning begins for a live, interactive, televised Town Hall Meeting. The Red River falls to 50.35 feet.

**Sunday, April 27**

Interstate 29 reopens between Fargo and Grand Forks. More neighborhoods in Grand Forks and the central portion of East Grand Forks are opened to residents.

**Monday, April 28**

The Wilkerson Complex residence halls are opened for check-out, and students living in family housing are permitted to return home. The cities of Grand Forks and East Grand Forks are linked once again as the Kennedy Bridge reopens. Richard Armey, Majority Leader in the U.S. House of Representatives and a UND alumnus, visits the city. The Grand Forks City Council holds its first official meeting since the flood started. The Red River stands at 46.27 feet.

**Tuesday, April 29**

UND begins pumping water out of some flooded buildings; others unaffected by flooding or contamination are opened on a limited basis. An anonymous "angel" pledges donations of $2,000 to flood victims in Greater Grand Forks.

**Wednesday, April 30**

UND holds a live, interactive Town Hall Meeting, with satellite feeds across North Dakota and
Minnesota. State and local officials answer phoned-in questions.

**Thursday, May 1**
Cleanup activities accelerate in the cities, and curbsides begin to overflow with ruined belongings. Residence halls east of the English Coulee are opened for students to reclaim possessions and check out.

**Friday, May 2**
Water service is restored to much of Grand Forks. Residents are asked to boil the water before using it to wash, cook or drink. The emergency room at United Hospital reopens. President Baker announces that UND will provide temporary housing for displaced faculty, staff and community residents.

**Sunday, May 4**
North Dakota's Congressional delegation asks the National Weather Service and the U.S. Army Corps of Engineers to explain why they did not share information that might have yielded a more accurate flood forecast.

**Monday, May 5**
Work begins on removing temporary dikes. A preliminary assessment lists 72 of UND's 238 buildings as having sustained flood or sewer backup damage.

**Thursday, May 9**
UND officially reopens, and the Steam Plant is restored, making heat and hot water available to some buildings.

**Saturday, May 10**
UND employees and family members, and Greater Grand Forks residents begin checking into temporary housing in the residence halls.

**Sunday, May 11**
The Point Bridge reopens.

**Monday, May 12**
UND's summer session begins on time. The University Children's Center reopens, offering free child care. Grand Forks officials declare the city's water safe for drinking. The UND Foundation launches a nationwide fund drive to assist the University's recovery.

**Tuesday, May 13**
The Sorlie Bridge on DeMers Avenue reopens.

**Wednesday, May 14**
FEMA Director James Lee Witt tours the Greater Grand Forks area. President Baker addresses faculty and staff in a standing-room-only briefing. An Off-Campus Housing Office is created to assist students in locating housing within the communities. The Hyslop Sports Center begins housing volunteer flood workers from throughout the nation.

**Thursday, May 15**
Grand Forks Mayor Pat Owens meets with First Lady Hillary Clinton and President Bill Clinton to discuss the progress of the disaster aid bill in Congress.

**Saturday, May 17**
UND's mainframe computer returns "home" from its temporary quarters at NDSU in Fargo.

**Monday, May 19**
The School of Medicine and Health Sciences reopens. The Red River falls below flood stage of 28 feet.

**Friday, May 23**
The cities celebrate at a free barbecue at the Memorial Stadium, sponsored by area businesses and Texas Lil, owner of a dude ranch in Texas.

**Thursday, June 12**
President Bill Clinton signs a bill providing disaster relief funds for Greater Grand Forks, the region and other areas.

**Saturday, June 28**
The "Bouncin' Back Bash" fills Memorial Stadium with free concerts and numerous activities.

**Tuesday, July 8**
UND announces final summer session enrollment totals 2,852. While down from last year's figure of 3,382, officials point out that significant progress was made in rebuilding enrollment from early projections of a 30 percent drop for the summer term.

**Friday, August 1**
A special combined commencement ceremony is held for summer session degree candidates and those who would have participated in the traditional spring ceremonies that had to be canceled.

**Thursday, September 18**
UND reports a final fall semester enrollment total of 10,395, down from the previous year's figure of 11,300. Officials note a large drop in the number of part-time students, who may be taking time off from studies for flood recovery tasks.
The following table of gauge readings was provided by Dr. Paul Todhunter of the UND Department of Geography.

<table>
<thead>
<tr>
<th>Tuesday, April 1</th>
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Records of flooding on the Red River of the North have been kept since 1882 by the U.S. Geological Survey. The gauge, which has been moved several times over the years, is now located at River Mile 297.6, just south of the Sorlie Bridge on DeMers Avenue. The bottom of the river channel at the location is River Gauge 0.0, or 779.0 feet above mean sea level. Flood stage in Grand Forks is 28 feet. During the 1997 event, the Red River passed above flood stage in the late evening hours of Friday, April 4, and did not fall below 28 feet until Monday, May 19. The following table of gauge readings was provided by Dr. Paul Todhunter of the UND Department of Geography.
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<td>3 a.m.</td>
<td>53.71 feet</td>
<td>3 a.m.</td>
<td>49.94 feet</td>
</tr>
<tr>
<td>6 a.m.</td>
<td>53.78 feet</td>
<td>6 a.m.</td>
<td>49.76 feet</td>
</tr>
<tr>
<td>9 a.m.</td>
<td>53.82 feet</td>
<td>9 a.m.</td>
<td>49.54 feet</td>
</tr>
<tr>
<td>Noon</td>
<td>53.88 feet</td>
<td>Noon</td>
<td>49.34 feet</td>
</tr>
<tr>
<td>3 p.m.</td>
<td>53.91 feet</td>
<td>3 p.m.</td>
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</tr>
<tr>
<td>6 p.m.</td>
<td>54.01 feet</td>
<td>6 p.m.</td>
<td>49.01 feet</td>
</tr>
<tr>
<td>9 p.m.</td>
<td>53.90 feet</td>
<td>9 p.m.</td>
<td>48.81 feet</td>
</tr>
<tr>
<td>Midnight</td>
<td>53.85 feet</td>
<td>Midnight</td>
<td>50.13 feet</td>
</tr>
<tr>
<td>3 a.m.</td>
<td>53.69 feet</td>
<td>3 a.m.</td>
<td>49.94 feet</td>
</tr>
<tr>
<td>6 a.m.</td>
<td>53.59 feet</td>
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</tr>
<tr>
<td>9 a.m.</td>
<td>53.50 feet</td>
<td>9 a.m.</td>
<td>49.54 feet</td>
</tr>
<tr>
<td>Noon</td>
<td>53.43 feet</td>
<td>Noon</td>
<td>49.34 feet</td>
</tr>
<tr>
<td>3 p.m.</td>
<td>53.13 feet</td>
<td>3 p.m.</td>
<td>49.17 feet</td>
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<tr>
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<td>6 p.m.</td>
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<td>9 p.m.</td>
<td>52.90 feet</td>
<td>9 p.m.</td>
<td>48.81 feet</td>
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The highest crests of the Red River of the North recorded since the installation of the U.S. Geological Survey gauge in 1882 are:

- **1997** 54.33 feet  
- **1897** 50.20 feet  
- **1979** 48.81 feet  
- **1882** 46.30 feet  
- **1996** 45.93 feet  
- **1978** 45.73 feet  
- **1969** 45.69 feet

This initial damage assessment for University facilities was compiled and reported by Barton Malow Company on May 30, 1997. Although a preliminary draft, it illustrates the types and severity of damages in various areas of the campus. The Building Loss Summary shows only partial detail supporting the total estimated loss.

### Emergency Responses

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
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<td>Flood Fighting and Emergency Response Force Account Labor</td>
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<td>Regular</td>
<td>$ 729,536</td>
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<td>Overtime</td>
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<tr>
<td>Cleanup Costs/Drying Costs</td>
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<tr>
<td>Emergency Electrical Costs</td>
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<td>Emergency Mechanical Costs</td>
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<td>Emergency Elevator Repair</td>
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<tr>
<td>Dehumidification/Drying</td>
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<td>Equipment Stabilization</td>
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### Permanent Repairs

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<td>Architectural Restoration</td>
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<td>Mechanical Restoration</td>
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<td>Electrical Restoration</td>
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<td>Abatement - Allocances for Anticipated Work per AEC estimate</td>
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### Infrastructure

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<td>Landscaping</td>
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<td>Site Lighting</td>
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<tr>
<td>Bio-contamination Assessment/Testing/Remediation</td>
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### Losses

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<td>Reported Loss of Revenue</td>
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<td><strong>Total Estimated Loss:</strong></td>
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## Building Loss Summary As of May 30, 1997

### Category B Responses

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<th>Cleanup/Debris Removal</th>
<th>Emergency Electric</th>
<th>Emergency Mechanical</th>
<th>Emergency Elevator</th>
<th>Dehumidification</th>
<th>Equipment Stabilization</th>
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## PERMANENT RESPONSES

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<tr>
<th>Building</th>
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<th>Mechanical</th>
<th>Electrical</th>
<th>Abatement</th>
<th>Architects &amp; Engineers Costs</th>
<th>Construction Management Costs</th>
<th>Total</th>
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<tbody>
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## Permanent Responses

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<th>Abatement</th>
<th>Architects &amp; Engineers Costs</th>
<th>Construction Management Costs</th>
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Subtotals: $3,350,340 | $2,892,056 | $946,594 | $827,800 | $584,736 | $250,531 | $11,443,737
“This was incredible. There is just no other way to describe it than that. I’ve said it to many people: We were fortunate at UND to have the finest group of people that I’ve ever had the privilege of working with, and they happened to all be there at that particular point in time. There weren’t very many of us, okay. We were a small group, but, by golly, if you are going to have 15 or 20 people to take on a job of this magnitude, those are the 15 to 20 people that I’d pick. They were all there. My gracious! The dedication, the selflessness, the commitment, the incredible energy: It’s indescribable. You don’t get an opportunity to work in that environment with those kinds of people very often.”

KENDALL BAKER
On April 19, 1997, Grand Forks and East Grand Forks were overtaken by the largest flood seen in the cities in modern times. Tens of thousands abandoned their homes. Scattered throughout the region, they could do little more than wait for news reports and worry about what they would find when the waters subsided. At the University of North Dakota, the academic year had come to an abrupt end. Students, faculty and staff were among the evacuated. A small group of UND personnel now had to decide how to protect, as much as possible, an institution worth hundreds of millions of dollars.

THE RETURN OF LAKE AGASSIZ

THE UNIVERSITY OF NORTH DAKOTA AND THE FLOOD OF 1997