

Fighting Floods, Saving Property, Protecting Lives

During extensive heavy rains, Kenosha County emergency management personnel and law enforcement officers keep in steady contact with National Weather Service officials concerning rainfall predictions and monitored river levels. When the waters of the Fox River rise to hazardous flood stage levels, the county executive will issue an emergency declaration (see sidebar), to set in motion safety procedures to protect citizens in the path of floodwaters.

In an emergency declaration, county law enforcement officers personally warn residents of the imminent danger of fast-moving flood waters and will provide help to evacuate them to safety if the need arises. At times, officers patrol the flooding areas in four-wheel drive vehicles, carrying personal flotation devices, in case people need assistance.

In the span of ten years, five emergency declarations have been issued for the Fox River Floodplain in Kenosha County. But with the emergency declaration issued in May, 2004, when the Fox River again overflowed its banks, many fewer homes and residents were at risk because over that ten year period 56 property owners have participated in the Fox River Flood Mitigation Program, administered by the Kenosha County Housing Authority, with staff support provided by the Southeastern Wisconsin Regional Planning Commission (SEWRPC).

In 1994 Kenosha County officials initiated a plan to help people move out of the flood-prone area that was mapped as the 100-year floodplain of the Fox River. In the intervening years, owners of 56 properties in the communities of Wheatland, Salem and Silver Lake have participated in the voluntary buyout program, coordinated by Kenosha County. Various sources have been tapped to fund the program including Community Development Block Grants - Emergency Assistance Program (CDBG-EAP) from the Wisconsin Department of Commerce, as well as grant money from the Hazard Mitigation Grant Program and Flood Mitigation Assistance program that is administered through Wisconsin Emergency Management (WEM).

During the emergency phase of the 2004 flooding, Kenosha County Emergency Management/Homeland Security Director Ben Schliesman said that because of the buyout program, emergency responders had far fewer doors to knock on as they went door-to-door to warn residents of the dangerous flooding situation. Schliesman reported that in addition to fewer enforcement personnel required, no rescue squads were dispatched to help people leave the flooded area. Additionally, flood fighting and emergency response costs were below previous years of serious flooding, even though the May event was the second highest crest level of the Fox River, at almost four feet above flood stage.

Local Emergency Declaration for Fox River

Notice to all citizens in low-lying areas along the Fox River South of Hwy 50 and North of Hwy F

“. . . the Fox River will rapidly rise from its current flood stage level to 12.5 feet by Saturday morning and will maintain that level through Sunday. Rapid river rise will mean that dangerous river flowage may surround many low-lying homes overnight. Residents are strongly urged to evacuate until river levels subside on Monday or Tuesday. Rapidly-rising swift currents will provide an extreme danger to residents and responders.”

May 19, 2000

On the other hand, after flooding in 2000 that crested at 2.75 feet over flood stage, under a presidentially declared disaster, the communities of Salem and Silver Lake were reimbursed for emergency protective measures under the Public Assistance program for \$3,431 in expenses. Kenosha County received reimbursement for \$9,253 in expenses for emergency protective measures that includes the cost of sandbagging and overtime hours incurred while notifying residents of flooding and evacuating flooded residents. With fewer homes to notify and provide sandbags for, the costs decrease for the affected communities and county enforcement agency. More importantly, lives of first responders and residents are not put at risk.

Reductions in flood fighting and emergency response costs are only a small piece of the savings a buyout program such as this can accrue. Tina Chitwood, coordinator of the program and senior economic development planner for SEWRPC, said monetary damages from past floods that were reported by buyout participants included the cost of staying at hotels when they couldn't return to their flood-damaged home, lost wages from missed work, costs associated with cutting down trees and using power generators, repair of damaged foundations and siding, and mold and flood debris cleanup. Cost estimates recounted on participant surveys used by Chitwood in the buyout process ranged from \$2,000 to \$7,000 in damages incurred by households in the program area.

Under the disaster declaration of 2000, eligible flood victims in the Silver Lake and Salem communities received grants from FEMA that averaged \$2,800 for minimal repairs to make the home livable. If the homes had remained in the floodplain, with each successive flood event, like in 2004, an estimated \$156,800 in disaster recovery grants for these residents could be incurred, not to mention all the property replacement and cleanup costs that grants do not cover, and the emotional strain on losing property from flooding.

The relief of not worrying about flooding every spring is apparent in Megan Shuemate's comments about participating in the buyout program. Shuemate said every time the Fox River flooded, her family always had water on their property. "Our garage got flooded, water got up under the house" said Shuemate. "Although we didn't have a basement, the house was damp all the time and we had mold problems. If we would have still been there, this year's flood would have been worse than other years."

But the buyout program provided the Shuemates with an opportunity to move out of the unhealthy conditions of flood-prone properties. Especially useful to Wisconsin buyout participants are the aids that help in buying another home outside of the floodplain that include a purchase price based on pre-flood fair market value of the house, and relocation expenses up to \$25,000 for homeowners in additional funds to buy a comparable house to the one that is being vacated.

"The buyout program went smooth for us and helped us get into our next house," said Shuemate. The Shuemate family moved to nearby Burlington, and as Shuemate describes, found a house "at the highest point of the hill in our development."

Costs/Benefits of the program

So far, the Fox River Flood Mitigation Program removed 56 structures from harm's way at a cost of \$5.5 million dollars, with FEMA contributing \$2.5 million in HMGP and FMA grants and CDBG providing approximately \$3 million in grants.

Using a formula based on past experiences with flood damages to homes and the effect on infrastructure, recovery officials estimate that the height of the water in the flooding in May of 2004 would have caused projected damages to homes in the floodplain at an estimated 20% of the value of the home. The value of those houses that were removed from the site of the flooding averaged \$84,000 for the 56 properties. Using projected damage estimates, the flood of 2004 would have caused \$940,000 in damages to homes and the associate costs of recovery had the acquisition project not occurred.



Floodwaters damaged this home five times in ten years and the owner took the opportunity to participate in the buyout program. Acquiring and demolishing 56 structures, including this one, and opening the Fox River floodplain to green space will save an estimated \$940,000 in flood damages and recovery costs for each flood event.

For more information on mitigation in the State of Wisconsin, please contact Roxanne Gray, State Hazard Mitigation Officer, by phone at 608-242-3211 or email at roxanne.gray@dma.state.wi.us. For more information about the Wisconsin Division of Emergency Management, go to <http://emergencymanagement.wi.gov>