

Jefferson County, Wisconsin



Former residential lot bought out by Jefferson County. Photo by Rebecca Kihslinger.



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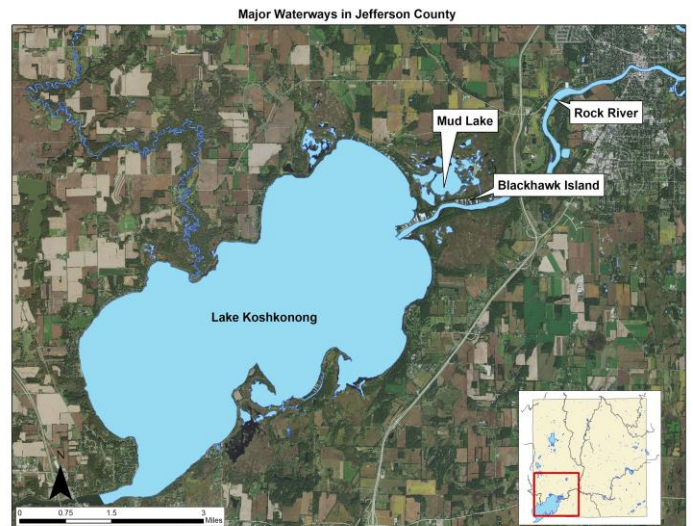
Background

Jefferson County (pop. 83,686) is located in southeast Wisconsin, between the cities of Madison and Milwaukee. The Rock River, a tributary of the Mississippi, flows northeast-southwest through the center of the county. The largest city, Watertown (pop. 12,000) is located partly in Jefferson County and the adjacent Dodge County to the north. The City of Jefferson (pop. 8,000) is the county seat. Manufacturing serves as the primary industry in the county, while the Rock River and Lake Koshkonong, located in the southwest portion of the county, are popular vacation destinations.

Figure 1: Jefferson County Location



Figure 2: Major Waterways, Jefferson County



History of Flooding and Mitigation

Jefferson County has been victim to several floods in the current and last century. The worst flood occurred in 1929, when Rock River levels rose 6 feet above the flood stage. Damage to properties were minimal due to a lack of properties located along the river. While most development in Jefferson County is located outside the 100-year floodplain, many homes lying near the river or lakes were constructed in the late 1940s, after the 1929 flood (Natural Hazard Mitigation Plan, 2013).

More recently, a major flooding event occurred in June of 1993, when heavy rains caused water levels to rise 10 inches shy of the 1929 water level. Over \$1.5 million was awarded in federal and state grants to assist in recovery. During the summer of 2007, heavy rains in southern Wisconsin caused significant flooding to Jefferson County, more specifically, the Town of Lake Mills. Barely a year later, heavy rains plagued southern Wisconsin again, causing significant damage to homes, businesses, and agriculture. Jefferson County alone received \$10 million in assistance through federal grants and loans. For all three of these flood events, a presidential disaster declaration was made, giving the county the opportunity to apply for federal assistance (NHMP, 2013).

Table 1: Jefferson Demographics

	Jefferson	Wisconsin
Population (2010)	83,686	5,771,337
Median age	38.7	38.5
Housing units	35,147	2,648,317
Owner occupied	71.4	67.7
Black (%)	0.8	6.6
White (%)	94	87.8
Hispanic or Latino (%)	6.6	6.5
High school degree (%)	91.7	90.8
Bachelor's degree (%)	23.3	27.4
Median household income	\$54,522	\$52,738
Poverty rate (%)	10.6	13.2

Source: US Census, 2010 and American Community Survey 2014

Jefferson County is the 20th largest county, by population, in the state of Wisconsin. Many of the county's demographic characteristics, such as median age, high school graduation, and household income, mirror that of the state's. However, characteristics such as the White population in Jefferson (94% vs. 88%), the Black population (0.8% vs. 6.6%), residents with bachelor's degrees (23% vs 27%), vary.

The Buyout

In response to the 1993 and 2008 floods, two major buyout events occurred. In 1995, Blackhawk Island, which was severely affected by the flood in 1993, was the first area selected to participate in the buyout program. Blackhawk Island, which is not actually an island, is an area located in the low-lying lands near the banks of the Rock River, Lake Koshkonong to the west, and Mud Lake to the north. Under the Hazard Mitigation Grant Program administered by FEMA, residents of Blackhawk Island were asked to participate in a voluntary Flood Mitigation Buyout Program. Funding requirements for the HMGP is 75% from FEMA and 25% from local sources. The State of Wisconsin funds half of the local funding requirement, leaving Jefferson County to come up with only 12.5% of the cost of the buyout. Jefferson county funded its cost share portion with a \$600,000 grant from the Wisconsin Department of Natural Resources and a \$500,000 grant from the Wisconsin Department of Commerce. Federal funding totaled \$1.5

million. From 1995-2008, 35 properties in Blackhawk Island were acquired (Program Cooperation, p. 1-2).

In the summer of 2008, Jefferson County was victim to heavy flooding once again. The next year, FEMA released \$4,483,260 in HMGP funds to the county. State grants accounted for the remaining 25% (\$1,494,486) of the project costs. These funds were used to purchase 28 residences, and one commercial structure (“FEMA”, 2009). Since then, an additional 44 properties were acquired, bringing the total number of properties acquired since 1995 to 107.

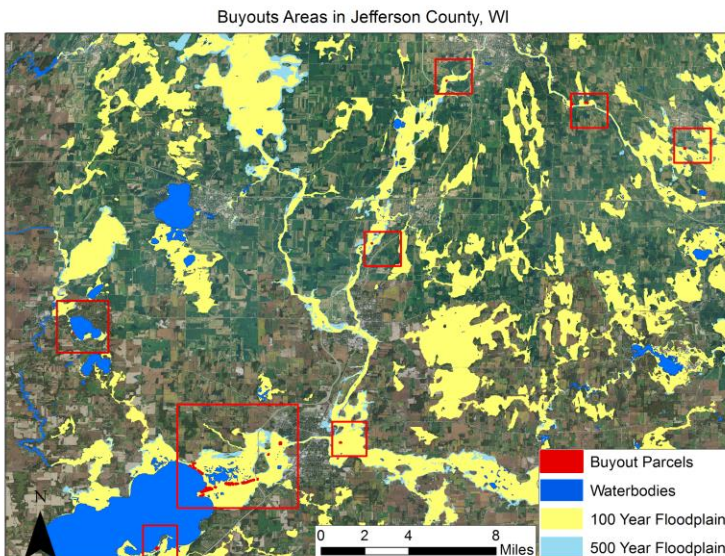
According to Donna Haugom, Director of the Jefferson County Office of Emergency Management, 90% of homeowners approached to participate in the buyout lived in the 100-year floodplain. Initially, participation in the program was low, but once word spread, the program became popular for homeowners. The program runs something like this: willing participants submit applications to the Department of Emergency Management in Jefferson County. Once funding is received, these applications are forwarded to the state, which then conducts a cost-benefit analysis and provides an appraisal to the homeowner, to which the homeowner can accept or decline.

Priority is given, in order, to permanent/primary residences, rental properties, and lastly seasonal properties. According to Haugom, everyone that applied and received a positive cost-benefit outcome has sold their home. However, maintaining funding for the county’s 12.5% cost-share remains an issue for purchasing additional homes.

Figures 3 and 4 show areas where buyouts occurred. In northern Jefferson county, buyouts are disjointed, as shown in Figure 3. One to three parcels in five different areas along waterways were purchased in the northern portion of the county. Near Lake Koshkonong, buyouts were clustered along the Rock River/ Blackhawk Island area, as well as the north shore of the lake (Figure 4). Figure 5 shows a close-up of the buyout in the Blackhawk Island Area. If all parcels were bought along the stretch of parcels along the Rock River, roughly two miles of natural open space would be created.

Figure 3: Map of All Buyout Areas

Figure 4 : Buyouts near Lake Koshkonong



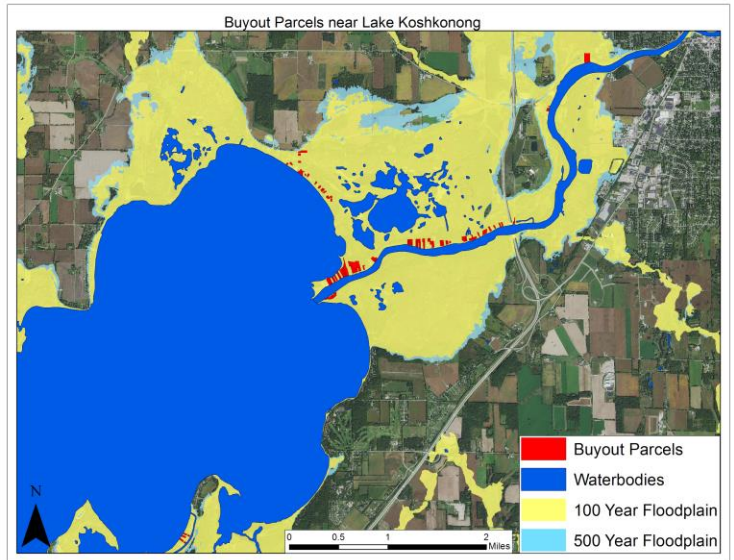
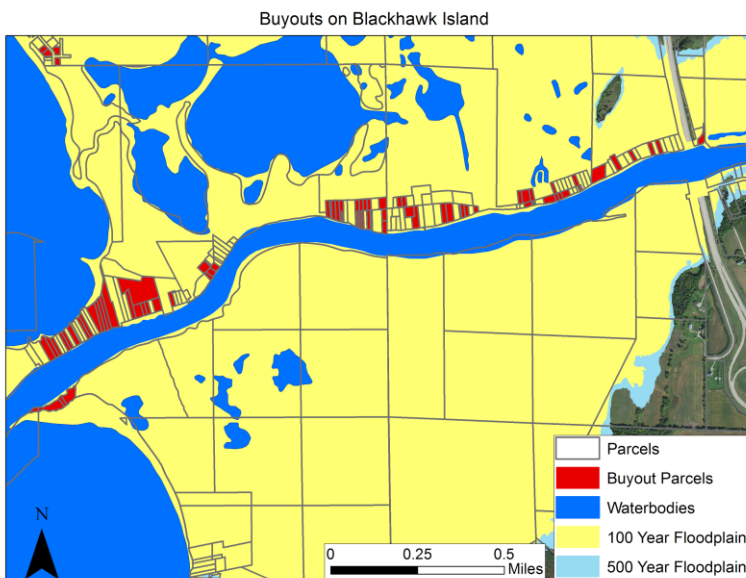


Figure 5: Buyouts on Blackhawk Island



Current Status

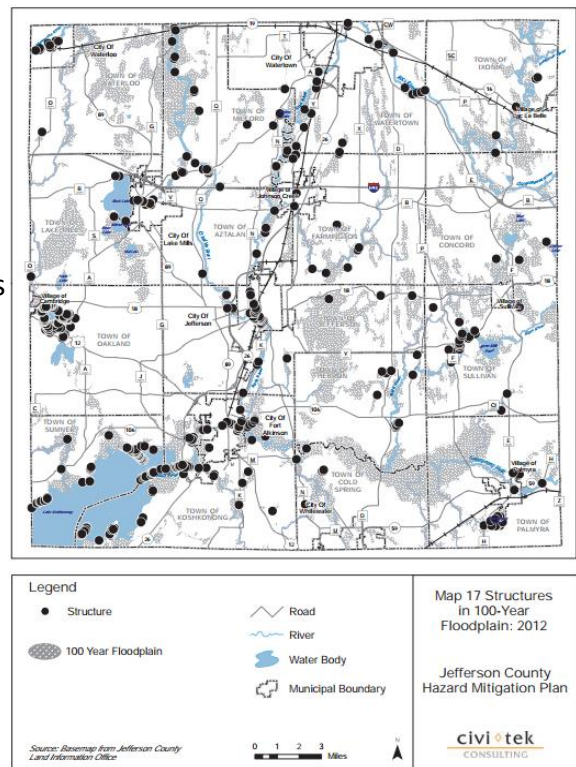
According to FEMA regulations, buyout homes purchased with federal funds must be demolished or relocated. All structures acquired in the Jefferson County buyout were demolished. In addition, local zoning ordinances state that if an existing property on the floodplain becomes 50% or greater damaged, the property must be demolished or rebuilt to meet ordinance standards (Floodplain Ordinance, p. 16-17). Furthermore, the Jefferson County

Figure 6: Existing Structures in the 100 Year Floodplain

floodplain ordinance restricts new development in the floodplain. The ordinance states that “if a proposed building site is in a flood-prone area...all new construction and substantial improvements shall be...constructed to minimize flood damage(s)” (p. 7). The Jefferson County Department of Emergency Management is responsible for demolition; afterwards, the land is given to the county Parks Department, which is responsible for invasive species control and periodic inspection. Otherwise, the land is left alone to let natural vegetation to grow undisturbed.

Integration with Hazard Mitigation Plan

Jefferson County updated its Natural Hazards Mitigation Plan in 2013. Objectives and policies for flood mitigation strategies include decreasing “the number of structures currently located in the 100-year floodplain” and “continuing the buyout program on Blackhawk Island”(NHMP, p. 6:21). In 2006, the county identified 843 structures remaining in the 100-year floodplain. Civi-Tek Consulting provided a map (Figure 6) of structures still in the floodplain for the Hazard Mitigation Plan (NHMP, 7:17). The plan identifies several strategies to reduce the county’s vulnerability to flooding, including “apply(ing) for funding through the Federal Hazard Mitigation Grant Program...to help flood proof repetitive loss sites or remove them through acquisition followed by demolition or reconstruction” (NHMP, p 6:21)



Integration with Land Use Plan

The floodplain buyout plan is not referenced in Jefferson County’s Agricultural Preservation and Land Use Plan created in 1999. However, the 100-year floodplain is defined as an environmental corridor subject to developmental restrictions (Agricultural Preservation and Land Use Plan, p. 48). In addition, Jefferson County’s Floodplain Ordinance puts strict zoning and development regulations on development in the floodplain (Floodplain Ordinance, p. 2). For example, in the 100 year floodplain, new structure plans must “provide plans showing adequate drainage paths to guide floodwaters around structures” (p. 14).

Conclusion

Overall, the buyout in Jefferson County has been moderately successful. In total, 107 properties have been acquired and demolished, thus reducing the county’s vulnerability to future flood damage. However, according to the county Hazard Mitigation Plan, some 843 structures

remain in the 100-year floodplain. In total, the buyout cost over \$7 million--approximately \$66,000 per home acquired. Yet, as of August 2015, the county Department of Emergency Management states that 70 vulnerable properties still need to be purchased. Funding needed for the county portion of the buyout program remains a challenge. In addition, townships in which the buyouts occur suffer from the loss of tax base. Finally, the disjointed, piecemeal nature of the buyout prevents the creation of contiguous, natural open space.

References

Department of Homeland Security Documents. "FEMA Awards \$4.4 Million Grant to Jefferson County." 17 Nov 2009.

Jefferson County Planning and Zoning Department. "Agricultural Preservation and Land Use Plan." 14 Feb 2012.

Jefferson County Planning and Zoning Department. "Floodplain Ordinance". 4 Feb 2015

Jefferson County Emergency Management. "Natural Hazards Mitigation Plan 2013-2017." 28 Oct 2013.

Wisconsin Emergency Management. "Program Cooperation Alleviates Repetitive Flooding Burden."