

Austin, Minnesota



Flooding in Austin (FEMA, 2013)



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Background

Austin (pop. 24,720) is the county seat of Mower County, Minnesota, at the southeastern border of the state, adjacent to Iowa. Austin developed along the Cedar River with a long history of flooding, at the confluence of the three water sources that make up the Upper Cedar River Watershed. Industrial, commercial and residential developments are located within the floodplains of these three bodies of water (FEMA, 2013). The 100-year floodplain includes part of Austin's downtown.

In 1971, the city adopted a floodplain zoning ordinance in an attempt to minimize losses in flood-prone areas. Still, several major floods have occurred since then, resulting in substantial damages to homes and other structures. Due to Austin's history of flooding, Austin participates in the National Flood Insurance Program and the Community Rating System. Additionally, Austin residents receive a 25% reduction in flood insurance premiums (Woznak, 2015).

Figure 1: Location of Austin, Minnesota



History of Flooding and Mitigation

Austin experienced flooding every year from 2000 to 2012, with the largest floods occurring in 2004, 2008 and 2010. In 2004, heavy rainfall over southern Minnesota led to severe flooding. At the city's water treatment facility, the Cedar River crested at 25 feet: a record that remains to this day (FEMA, 2013). In 2008, heavy rain fell over two, two-day periods: June 7-8 and June 11-12. The one-two punch of these two storms caused major flooding and led to a presidential declaration of a major disaster. Major flooding also occurred in 2010 when a storm dropped up to 10 inches of rain across southern Minnesota.

Many areas of Austin have flooded repeatedly. For example, the Wildwood Park area of Austin, has flooded more than six times since 1978.

Table 1: Austin Demographic Information

	Austin	Minnesota
Population (2010)	24,720	5,303,925
Median age	37.0	37.4
Housing units	10,870	2,347,201
Owner occupied (%)	64.7	72.1
Black (%)	3.0	5.2
White (%)	86.8	85.3
Hispanic or Latino (%)	15.4	4.7
High school degree (%)	84.4	92.3
Bachelor's degree (%)	19.2	33.2
Median household income	\$39,890	\$60,828
Poverty rate	18.0	11.5

Source: US Census, 2010 and American Community Survey 2014

Table 1 compares demographics of the city of Austin to the state. Household income in Austin is around \$20,00 less than the state, as well as having a higher poverty rate and lower education percentages. In terms of race, Austin has a considerably higher percentage of Hispanic or Latinos than the state as a whole (15.4% vs 4.7%), and a slightly lower percentage of Black residents (3.0% vs 5.2%).

The Buyout

The first mitigation projects in Austin were implemented following flooding in 1978, after the US Army Corps of Engineers concluded that structural flood control projects and dredging of the Cedar River was not cost-effective. With a \$1.7 million grant from the Community Development Block Grant program, the city acquired 58 flood-prone, residential properties. Austin continued to purchase homes through the 1980s, 1990s and 2000s. Following the widespread flooding of the upper Mississippi River valley in 1993, FEMA funded the acquisition of 101 homes in Austin, using funds from the Hazard Mitigation Grant Program or HMGP. Minnesota's Department of Natural Resources provided the 25% matching funds required by FEMA's HMGP. Where possible, homes were acquired in blocks along the Cedar River, Turtle Creek and Dobbins Creek and incorporated into the City's Linear Park System.

Table 2. Buyouts in Selected Years

Year or Flood	Buildings Acquired	Total Cost
1978	58	\$7,112,759

1988	4	\$270,797
1993	101	\$7,042,430
Total	163	\$14,425,986

Source: FEMA 2013. Loss Avoidance Study: Austin, Minnesota

Starting in 2004, Austin also purchased homes in the floodplain using funds generated from a 0.5 cent local option sales tax, as permitted by state law (Woznak, 2015). Revenues generated by the tax can be used for a variety of city services and investments, including acquiring homes in flood-prone areas. Since 2008, the special sales tax has generated over \$1 million per year for the city. The sales tax will continue to collect revenue for flood projects until 2027 (Mewes, 2013).

The goal of the buyout program was to permanently eliminate the repetitive flooding of homes along its waterways. In particular, the city sought to:

- Purchase, from willing sellers, homes with the most severe and repetitive flooding problems,
- Auction the acquired structures for relocation outside the floodplain and use the proceeds to acquire more flood-damaged homes,
- Improve floodwater discharges by removing structures from the floodway, and
- Convert the acquired lands into permanent open space.

The buyouts have reduced the impacts of subsequent floods. For example, in 2007, Austin acquired 15 flood-prone homes, bringing the total number of acquisitions up to 240 since 1978. The acquisition was funded by a Pre-Disaster Mitigation Competitive grant from FEMA, Minnesota Homeland Security and Emergency Management, and the City of Austin. Less than a year after the 15 homes were acquired, a flood swept through the area that would have flooded the homes up to the first floor. The open space has since been turned into a park.

In 2013, FEMA conducted a loss avoidance study to determine the benefits of the 163 acquisitions in Austin completed between 1978 and 2001. According to FEMA, the total acquisition cost was \$14,425,986, and the total losses avoided were estimated to be \$38,274,070, for a 2.65 return on investment for the state (FEMA, 2013).

The City of Austin's Capital Improvement Plan for the years 2013 through 2017 lists seven scheduled flood mitigation activities, including property acquisition and structural protection of property. Other activities taking place include a series of projects northeast of Austin--funded with \$1.5 million from the Minnesota Clean Water Fund and implemented by the Cedar River Watershed District--to curb erosion and hold water and sediment before they return to Dobbins Creek, stabilizing stream banks, and restoring habitat. The Cedar River Watershed

District is also collaborating with Mower County’s Soil and Water Conservation District, and nearby watershed districts to implement a long-range plan for the Root River.

Table 3 shows the total number of homes in Austin and the total number acquired as part of the buyout. Unfortunately, we were unable to obtain figures for the total number of homes damaged or destroyed by flooding, the total cost of the buyout or the number of homes that remain in the flood hazard areas.

Table 3: Homes Acquired

Total # of homes in Austin	10,870
Homes acquired in buyout	240
Total cost of buyout	N/A
Homes remaining in flood hazard area	N/A

According to local officials, most of the homes acquired through the buyouts were, in general, low-value, owner-occupied and inhabited primarily by elderly and low-income residents. As in other communities, the acquisition of a large number of flood-damaged homes led to a housing shortage, at least in the short term. In response, the city built two market-rate housing facilities, both contained around 100 units. Some homeowners moved into those units, while others simply moved out of town.

Figure 2 below shows the buyouts clustered along the rivers, with most parcels located in the 100-year floodplain.

Figure 3 highlights areas of significance for biodiversity. Not surprisingly, the most significant areas lie on the periphery of Austin, away from the most dense development. The majority of the buyouts were clustered in the south-central part of the city. Thus, there is little overlap between the buyout areas and the areas of significance for biodiversity.

Current Status

Buyout areas in Austin are being managed by the Department of Parks and Recreation. Much of the land went to parks and trails, and parts of the land are designated sites of prairie and wetlands restoration. A community church stands within a park that was created as a result of the buyout. The church, which has been retrofitted to reduce its vulnerability to flooding, is used for weddings, graduations and community celebrations. Some parcels recently acquired in other parts of Austin are more patchwork than contiguous, but they still serve as natural

areas (floodplain) adjacent to the woods. The Cedar River Watershed Group, inaugurated in 2004, is working to find ways to use these natural lands, such as by creating more walking trails.

Austin has established development restrictions to keep development out of the floodplain and ensure that future construction on Main Street is elevated above flood level. As of March 2016, the City Council was developing a flood mitigation plan for the Lions Park area of downtown Austin, which contains 18 properties in the floodplain. If the properties are acquired by Austin, the future of potential development will be determined by the extent to which the local option sales tax funds the estimated \$1.2 million acquisition of those properties. For example, funding the buyout 50% through the sales tax and 50% through a Department of Natural Resources grant would limit development, but funding the buyout solely through the sales tax would open the area up to future redevelopment (Gerald, 2016). Until these decisions are resolved, it remains to be seen whether future homes and businesses will be built in the floodplain.

Figure 2: Location of Buyouts in Austin, Minnesota

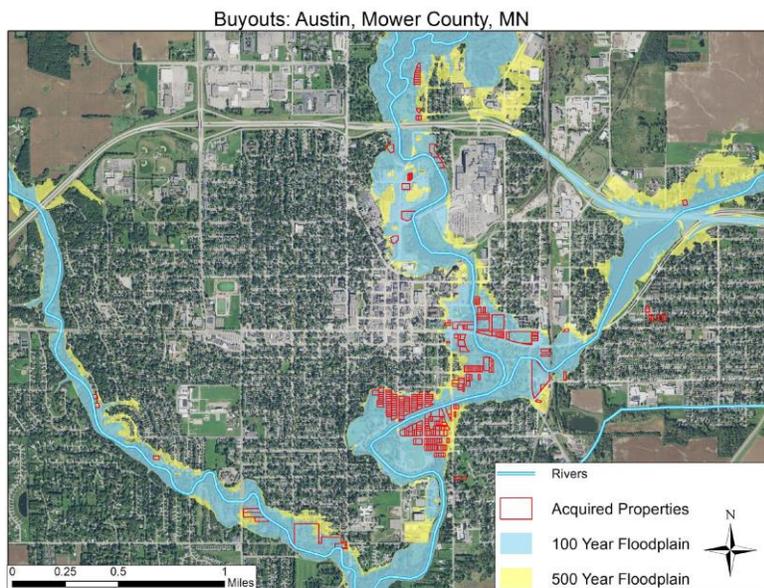
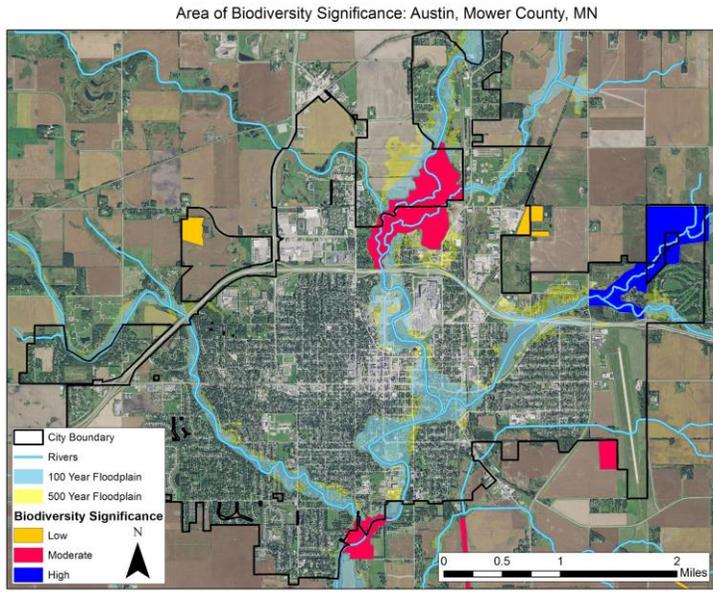


Figure 3: Biodiversity Areas of Significance



Source: Minnesota County Biological Survey. Shape file from the Minnesota Geospatial Commons.
<https://gisdata.mn.gov/dataset/biota-mcbs-sites-of-biodiversity>

Integration with Hazard Mitigation Plan

The Minnesota State Hazard Mitigation Plan (adopted in 2014) includes the following goals: to provide funding for mitigation planning, to encourage communities to update and implement local hazard mitigation plans, and to improve compliance with state floodplain regulations and encourage participation in the National Flood Insurance Program. There is a section of Mitigation Actions that includes Property Protection: the "acquisition, repair, or retrofitting of property...to prevent or reduce risks to property from flooding" (p. 222).

The State Hazard Mitigation Plan references the Austin Loss Avoidance Study, which demonstrated the positive impact of "acquiring property and converting to open/green space" for the community (p. 232). The plan also summarizes the losses avoided due to acquisitions in Austin.

Integration with Land Use Plan

Austin is in the process of updating its Comprehensive Plan of 2000. The 2000 plan emphasizes the importance of stormwater management and flood mitigation, but does not reference specific details of the buyout program, other than to mention that "as a result of flooding in 1978, 159 homes and businesses have been removed from the city's floodway" (Austin Comprehensive Plan, 2000:62). This figure does not, of course, include homes acquired since 2000. The plan does acknowledge the vulnerability of the city, and particularly its downtown, to flooding.

Conclusion

Since the adoption of its floodplain zoning ordinance in 1971, Austin has strived to reduce the impacts of flooding. The city participates in the NFIP and the Community Rating System. In addition, over the years it has acquired some 240 flood-damaged properties, reducing the city's vulnerability to flooding and creating parks and open space along its rivers and creeks. What sets Austin apart from most other buyout communities is the way many of its buyouts have been funded. Austin adopted a local option sales tax to pay for many of the homes that have been acquired. This gives the city greater flexibility in the use of the lands acquired and allows it to be proactive, purchasing lands before the next disaster strikes, whereas federal funding, e.g., HMGP, tends to be tied to a disaster.

The buyouts have more than paid for themselves. According to FEMA's analysis, the cost of property acquisition was more than made up by the savings from losses avoided in future floods (FEMA, 2013). The land acquired in the floodplain is now protected and used for parks and recreation.

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