

Montevideo, Minnesota



Buyout parcel used in the Lowland Prairie Project

Background

Montevideo is a small city (pop. 5,383) in Chippewa County, located in southwest Minnesota about 140 miles west of Minneapolis. The city lies in a double river valley where the Minnesota and Chippewa rivers converge. It is surrounded by farmland, prairie and river valleys.

As with the rest of Minnesota, Montevideo has a four-season humid continental climate with great variances between summer and winter. The average July high is 82 °F while the average January high being 21 °F. This combination can lead to heavy winter snow and ice accumulations and a rapid thaw in the spring that result in inundating flooding.

Table 1: Montevideo Demographic Info

	Montevideo	Minnesota
Population (2010)	5,383	5,303,925
Median age	41	37.4
Housing units	2,510	2,347,201
Owner occupied (%)	66.1	72.1
Black (%)	0.6	5.2
White (%)	92.0	85.3
Hispanic or Latino (%)	8.4	4.7
High school degree (%)	86.1	92.3
Bachelor's degree (%)	19.0	33.2
Median household income	\$44,503	\$60,828
Poverty rate	14.2	11.5

Source: US Census, 2010 and American Community Survey 2014

Table 1 compares demographics of Montevideo with the state of Minnesota. Montevideo has a lower median household income, lower percentages in education, and a higher poverty rate than the state. In addition, the Black population of Montevideo is considerably lower than the state (.06% vs 5.2%), and the Hispanic or Latino population is higher (8.4% vs 4.7%).

Figure 1: Location of Montevideo, Minnesota



History of Flooding and Mitigation

The city is vulnerable to flooding given its location at the confluence of the Chippewa and Minnesota Rivers. Montevideo has suffered major flooding in 1997 and 2001.

In the spring of 1997, heavy winter snow and ice accumulations combined with a rapid thaw in the spring resulted in historic flooding in Minnesota. The Minnesota River flooded the western portion of the state, inundating homes and businesses in a number of communities. Since the 1997 flooding, there have been ten significant flooding events in the Montevideo area, as shown in Table 2.

Table 2: Historical Crests for Chippewa River at Montevideo

Depth:	Date	Flood Stage
15.17'	Apr. 14, 1998	Minor
11.71'	May 18, 1999	Action
22.15'	Apr. 14, 2001	Major
11.44'	Apr. 11, 2002	Action
12.72'	Jun. 25, 2005	Action
15.082'	Apr. 08, 2006	Action
15.05'	Apr. 05, 2007	Action
12.34'	Jun. 26, 2008	Minor

The Buyout

The city of Montevideo has been actively mitigating the threat of flooding from the Chippewa River since 1993, when it participated in its first acquisition and relocation project. Since 1997, Montevideo has acquired numerous flood-prone properties and converted the land into open space (FEMA, 2010). The goals of the acquisition projects have been to eliminate 1) health and

safety issues associated with flood damaged structures, 2) problems caused by flooded sanitary sewer systems, and 3) the need for costly disaster interventions.

One neighborhood known as Smith Addition experienced flooding in 1993, 1997, 2001, and 2009 from the adjacent Chippewa River. Montevideo acquired 109 properties from Smith Addition, leaving only 21 properties occupied in the area. Of those remaining properties, few are located in 100-year floodplain. The properties and locations acquired from Smith Addition are seen in the GIS map below (Figure 2).

Another 22 homes were acquired in a neighborhood known as Gravel Road, with only seven homes remaining. All seven are protected by the levee system.

Figure 2: Buyouts in Montevideo

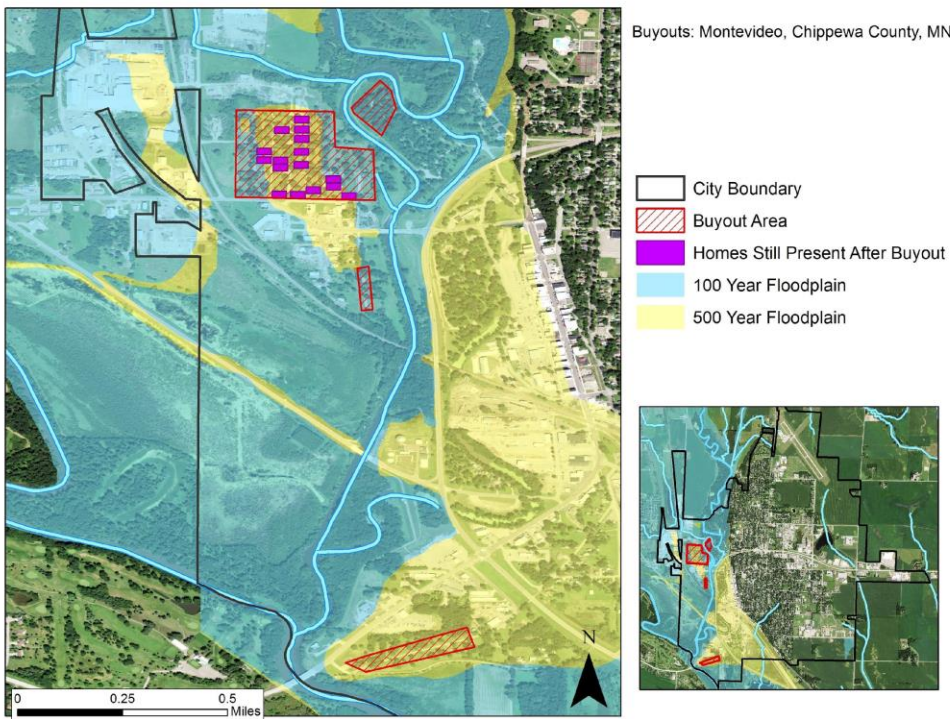


Table 3: Total Number and Value of Homes Removed

Total homes in Montevideo	2,510
Homes damaged or destroyed	N/A
Homes acquired in buyout	131
Total cost of buyout	\$1,388,759
Average cost per home	\$10,601
Homes remaining in flood hazard area	18
Value of homes remaining in flood hazard	N/A

area	
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Montevideo’s flood prevention efforts have paid off. In March of 2009, the city experienced its sixth highest flood on record, but damages were relatively minor. There were no health and safety issues, no flooded sanitary sewer systems, and no costly disaster intervention.

As of September 2015, 18 homes still remain in the 100-year floodplain.

FEMA’s Hazard Mitigation Grant Program was administered by the Minnesota Division of Homeland Security and Emergency Management, and funded four separate projects to mitigate flood damages. Over the course of the four projects the city received \$1,388,759 in Federal funds to acquire 74 properties susceptible to flooding. In addition to the HMGP funds, the city worked diligently to obtain other grants to acquire even more flood prone parcels: a total of 131 properties in all.

Current Status

Many areas that were acquired have been incorporated into the Lowland Prairie Project, a project where native prairie grasses have been seeded to promote wildlife and open space. 2015 marked the first year where the prairie grasses have successfully reclaimed the land. Other areas have been converted into wetlands or detention ponds. A community garden has also been established on the site of the Smith Addition buyouts (see Image 2). Part of the incentive of the community garden is that there is now less acreage to mow.



Community Garden at Smith Addition

[Integration with Hazard Mitigation Plan](#)

Montevideo's floodplain buyout project closely follows the Chippewa County All-Hazard Mitigation Plan. The county's plan identifies specific protocols for flood mitigation, such as to "Improve the safety and security of Flood Prone areas throughout Chippewa County" and to identify residences prone to flood hazards for future buyouts.

[Integration with Land Use Plan](#)

The City's Comprehensive Plan, approved in August 2013, includes a section on Flood Plain and Flood Issues. Here, Montevideo planned to complete the third phase of a three-phase levee project by the end of 2015. The City also planned for the ongoing Smith Addition buyouts: the removal of 7 businesses (in addition to the 130+ homes that have been removed). The Gravel Road buyouts are also discussed. Finally, the long-term plan is to coordinate floodplain issues in the Chippewa and Minnesota River watersheds with regional planning efforts to offer greater protection and lower overall flood insurance rates (53).

Conclusion

Montevideo's buyout program led to the successful removal of more than 130 homes through close cooperation with the State of Minnesota and FEMA. The Smith Addition and Gravel Road areas have not seen the removal of all affected properties, but the few homes that do remain are protected by the recently strengthened levee system. When Montevideo experienced the sixth highest flood on record in 2009, it suffered little damage—a testament to the benefits of buying flood-prone homes. However, as of September 2015, 18 homes still remain in the 100-year floodplain.

Montevideo manages much of the acquired property through the Lowland Prairie Project, which preserves wildlife and open space by facilitating the reclamation of prairie grasses. Wetlands, detention ponds, and a community garden are other assets of the land in the floodplain.

References Cited

Federal Emergency Management Agency. 2010. Mitigation Prevents Disaster Declaration for Montevideo, Minnesota. <https://www.hSDL.org/?view&did=13987>