

Structural Damages & Losses by Incorporated Area

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GEOG:4520 GIS for Environmental Studies: Applications

Abstract

Maps of incorporated areas within Cerro Gordo County depict the 100-year floodplain depth grid as defined by the Iowa Flood Center for parcels anticipated to incur physical and structural damages.

Damage estimations for each incorporated city within Cerro Gordo County are estimated based on agricultural, commercial, industrial or residential land use. A total of \$3,800,718 is estimated for overall losses to structures within the incorporated areas of the County.

Materials and Methods

The Iowa Flood Center IFC depth grid was created via computer-based simulations using statewide light detection and ranging (LiDAR) imagery of Iowa's river and stream networks at a three-meter resolution. This resolution provides a higher level of accuracy for land elevation and estimating flood depth grids at varying storm return frequencies, and follows FEMA specifications for floodplain delineation.

Damage curve estimations were calculated based on methods developed for the HAZUS multi-hazard damage and loss estimation model. The model operates in conjunction with ArcGIS 10.4 software.

Total Estimated Losses By Incorporated Area

City	Parcels	Total Damages
Clear Lake	16	\$390,799
Mason City	78	\$3,837,254
Plymouth	4	\$93,094
Rock Falls	3	\$51,244
Rockwell	1	\$1,657
Thornton	2	\$30,547
Ventura	2	\$8,616
Total	106	\$4,413,211

