



FM AREA DIVERSION PROJECT IMPACTS and BENEFITS

November 2016

The number of benefited landowners far outweighs the number of impacted landowners. Impacted landowners will be compensated according to applicable law.

Benefits Exceed Impacts: STRUCTURES

	TOTAL STRUCTURES BENEFITED ¹	TOTAL STRUCTURES IMPACTED IN UPSTREAM INUNDATION AREA ²	RESIDENTIAL STRUCTURES IMPACTED IN UPSTREAM INUNDATION AREA ²
MN	663	317	28
ND	15,902	511	98 ³
TOTAL	16,565	828	126

¹ MN DNR FEIS, table 3.78 based on HAZUS data

² MN DNR FEIS, table 3.82 based on GIS count

³ Number now lower due to structure removals

- ▶ Benefited structures outnumber impacted structures by 20:1. In MN alone, the ratio is more than 2:1.
- ▶ The majority of impacted structures are non-residential.

Benefits Exceed Impacts: LAND

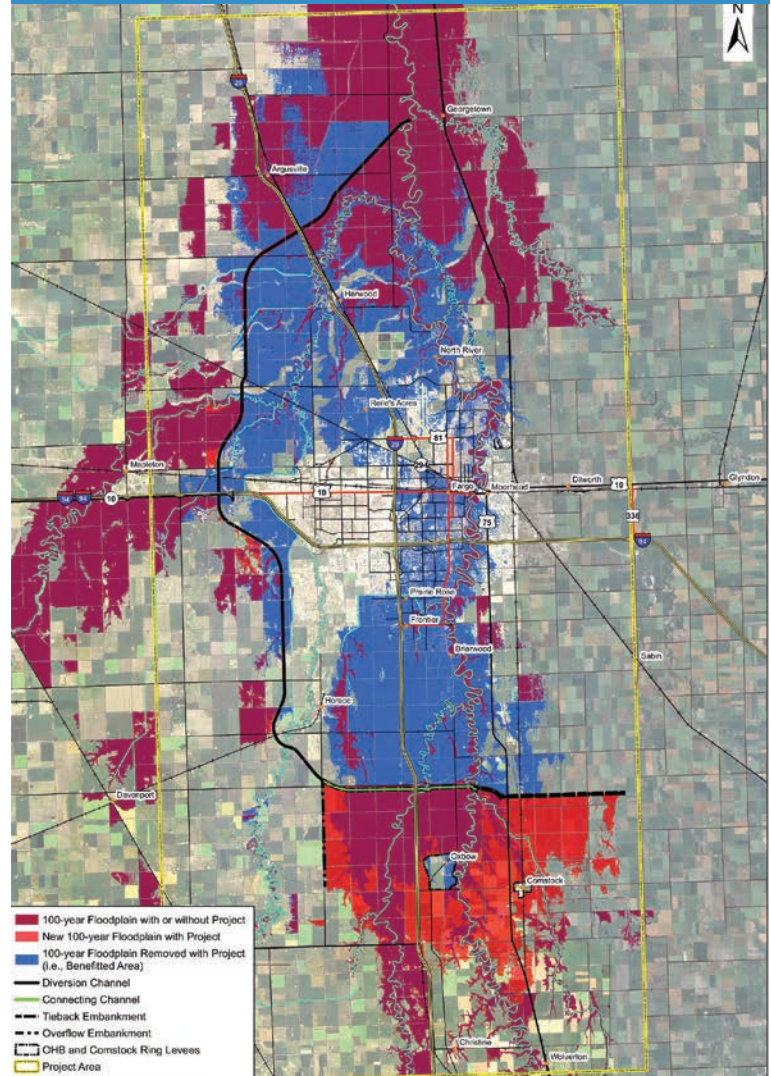
	ACRES BENEFITED [blue]	ACRES NEWLY IMPACTED [red]	NET BENEFITED ACRES
MN	10,229	12,317	-2,088
ND	62,694	8,145	54,549
TOTAL	72,923	20,462	52,461

MN DNR FEIS, page ES-61

- ▶ Benefited acres include concentrated urban areas which result in significant economic and social damages when flooded.
- ▶ Flooded ag lands become farmable within days after waters recede; land with homes that flood take much longer to make livable.
- ▶ Newly-impacted acres are primarily agricultural and would infrequently be impacted by flooding from project operation.
- ▶ The Project will operate once in 10 years, on average, for a few weeks in March-April. In the past 100 years, the Project would have operated 11 times for a total of 69 days.
- ▶ A majority of the upstream land is currently in the 100-year floodplain and in agricultural use [see maroon area on map].
 - ▷ Agricultural use will continue once the project is in place. There is no evidence that land values would decrease.

100-YEAR FLOOD INUNDATION

BLUE ▶ BENEFITED AREAS | RED ▶ NEWLY IMPACTED AREAS
MAROON ▶ FLOODED WITH OR WITHOUT PROJECT



AT A GLANCE

- ▶ Overall, the project's benefits outweigh its impacts measured in terms of both land and structures.
- ▶ Project would **benefit more than 600 structures** (mainly homes) in Minnesota and **impact fewer than 30 homes** in the Minnesota portion of the upstream inundation area.
- ▶ The Project includes mitigation for land and structures that are impacted.
- ▶ **There is no alternative that reduces impacts to the Fargo-Moorhead area and has no impacts on others.**



Source: MN DNR Final EIS dated May 2016 (unless otherwise noted)

- ▶ **“Flooding poses a significant risk of damage** to urban and rural infrastructure and **disrupts transportation** throughout the metropolitan area. The F-M urban area is a **regional center for healthcare, education, government, and commerce. Infrastructure at risk** in the F-M urban area includes several **regional medical centers, three college campuses, and city and county government offices.**” [pg. ES-8]
- ▶ Flood stage has been exceeded 52 of the past 114 years. [pg. ES-8]
- ▶ In 2009, Minnesota National Guard supported flood fight operations with 382 personnel and 166 vehicles in Clay County, MN and 300 personnel in North Dakota. [Minnesota National Guard Fact Sheet, 15 April 2009]

SOCIOECONOMICS

- ▶ “Some of the factors potentially influencing socioeconomics as a result of the Project would include economic growth, health and safety, impacts to communities from relocation of its residents, and economic costs, including lost income or reduced property values.” [pg. 3-217]
 - ▷ FM Diversion protects 605 structures in Moorhead and an additional 58 in Clay County in a 100-year event and 1,094 structures protected during a 500-year event [pg. 3-237]
 - 16,565 structures in total protected from the FM Diversion in a 100-year event [pg. 3-237]
- ▶ **Moorhead, MN was the fastest growing city in the metropolitan area** between 2000-2010. 18.3% [pg. 3-220]
- ▶ Total **Minnesota State and Local Taxes Lost** Due to Loss of Building Function in FM Metropolitan Area Due to Flooding = **\$4 Million / Year** [pg. 3-245]
- ▶ Total Minnesota Jobs Lost Due to Loss of Building Function in FM Metropolitan Area Due to Flooding = **380 Jobs / Year** [pg. 3-245]
- ▶ Total **Minnesota Business Output Lost** Due to Loss of Building Function Due to Flooding = **\$43 Million / Year** [pg. 3-267]

3,180 primary structures in Moorhead would be **impacted by a breach of emergency floodfighting** measures, 100-year event. [City Engineer, Moorhead, MN]

FARGO AND MOORHEAD WILL BENEFIT TOGETHER

- ▶ “Project construction and operation would **reduce the stress** experienced by communities and individual property owners/renters in the Benefitted Areas by reducing the threat of flooding and flood fighting efforts.” [pg. 3-258]
- ▶ “Although constructing **emergency levees** have been successful in the past, they are at **high risk of catastrophic failure.**” [pg. 3-258]
- ▶ “The two cities do share an economic vitality. If Moorhead were to be protected from a large-scale flood event such as a 100-year flood, and **Fargo was not protected**, it is likely that **Minnesota** would still be **affected both socially and economically.**” [pg. 3-259]

13,377 residents in Clay County area employed in Cass County. [Greater Fargo-Moorhead Economic Development Corporation]