



# 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 <sup>1</sup>	TOTAL STRUCTURES IMPACTED IN UPSTREAM INUNDATION AREA <sup>2</sup>	RESIDENTIAL STRUCTURES IMPACTED IN UPSTREAM INUNDATION AREA <sup>2</sup>
<b>MN</b>	<b>663</b>	<b>317</b>	<b>28</b>
<b>ND</b>	<b>15,902</b>	<b>511</b>	<b>98<sup>3</sup></b>
<b>TOTAL</b>	<b>16,565</b>	<b>828</b>	<b>126</b>

<sup>1</sup> MN DNR FEIS, table 3.78 based on HAZUS data

<sup>2</sup> MN DNR FEIS, table 3.82 based on GIS count

<sup>3</sup> 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

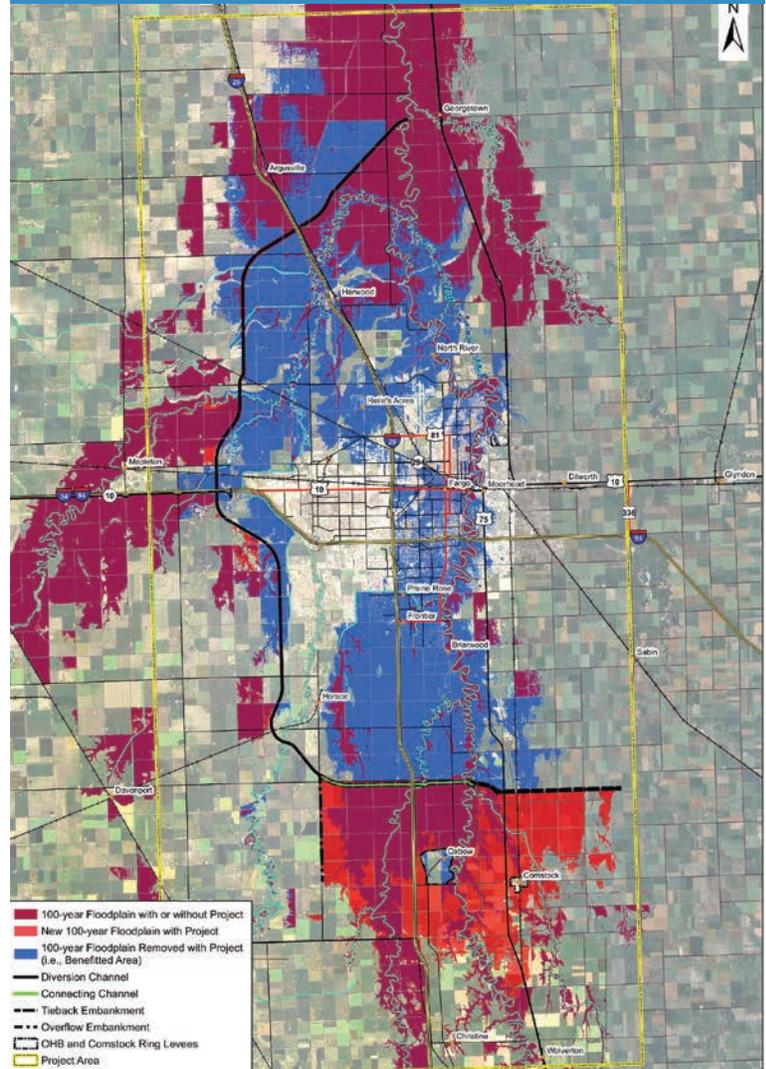
	ACRES BENEFITED [blue]	ACRES NEWLY IMPACTED [red]	NET BENEFITED ACRES
<b>MN</b>	<b>10,229</b>	<b>12,317</b>	<b>-2,088</b>
<b>ND</b>	<b>62,694</b>	<b>8,145</b>	<b>54,549</b>
<b>TOTAL</b>	<b>72,923</b>	<b>20,462</b>	<b>52,461</b>

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]