

# Responses to False Information on the Diversion Project

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<b>Mis-Information Item/Topic</b>	<b>Response/Correct Information</b>
<p>1. Retention / Distributed Storage will eliminate the need for the upstream staging area.</p>	<p>Distributed storage will not eliminate the need for the Storage Area. The current and recommended plan includes 215,000 acre feet of retention directly upstream of the project. This is the most effective and efficient retention - which is necessary to mitigate for the downstream impacts that were associated with previous diversion options.</p> <p>To be effective at reducing peak floods at Fargo-Moorhead, retention must be located in the “early” or “middle” drainage area of the Red River Valley, which is basically along the Red River south of Fargo-Moorhead in Cass, Clay, Richland, and Wilkin counties.</p> <p>Modeling performed by the U.S. Army Corps of Engineers, Houston Engineering, and Moore Engineering estimates that 400,000 to 600,000 acre feet of retention upstream of the diversion would be required to replace the 215,000 acre feet of retention included in the recommendation.</p> <p>In addition Local Water Resource Districts in North Dakota have completed a sensitivity analysis for the 2009 flood event on the Wild Rice River that demonstrated how distributed storage is not a viable option to replace the storage component of the diversion channel. Modeling showed that if this option were pursued for the Wild Rice River, nearly all of the distributed storage would need to be placed in eastern Richland County. Additionally, even if this occurred, the distributed storage would not be enough to replace the storage required for the diversion channel. These results could also be applied to other tributaries and Wilkin County. Therefore, the direct impacts to Richland and Wilkin Counties would be much greater with distributed storage than with the current recommendation.</p> <p>Additional upstream retention could help reduce the frequency of use of the FM Area Diversion Project. The Diversion Authority has pledged \$25 Million to upstream retention</p>

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	projects that demonstrate this benefit.
2. The Staging Area is not needed (land immediately south of Fargo is better used as staging area).	<p>The staging area is required to mitigate the downstream impacts that were associated with previous diversion options. The downstream impacts associated with the previous plan extended into Canada and would have impacted more structures and more land than upstream staging. The current upstream staging location minimizes the number of residential properties that are impacted by the project, and is the best technical solution. If the staging area was moved north to other areas it would impact more residential properties, than are being impacted by the current proposal.</p> <p>The Post-Feasibility study examined moving the staging area north of the confluence of the Wild Rice and Red River. It was concluded that moving the staging area north would impact approximately 170 more residential properties than the current proposed location as more rural developments exist closer to Fargo. It was determined that the staging area will impact the same area regardless of its location (FRP: 33,930 ac, Preferred alignment: 32,523 ac, VE13 Option C: 32,383 ac).</p>
3. Staging Area will be a dead zone (farm land out of commission, no growth allowed in that area).	<p>The Staging Area will not be a dead zone. Farming will continue in the staging area. The staging area will only operate under flood events larger than a 10-year event, which means there is a 1 in 10 chance in any year that the staging area would be used. This means that on average 9 in 10 years, the staging area would not be used. In addition, in the 10 percent chance that the staging area is used, the additional duration of flooding would be up to 5.5 days. As stated in Appendix G Real Estate, page 6, of the FEIS, in areas with less than 1 foot of flooding for the 1-percent chance event (approximately 3,486 acres), future residential development would be allowed if raised above the 0.2 percent chance event elevation.</p>
4. This project only benefits Fargo.	92 percent of Cass County residents will benefit from this Project.

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	<p>This project benefits the vast majority of Cass County. Once the Diversion is built, the Cass County cities of Oxbow, Briarwood, Wild Rice, Horace, West Fargo, Reile’s Acres and Harwood will no longer be threatened with flooding. In addition, Clay County including the cities of Moorhead and Oakport will receive benefits from the Project.</p>
<p>5. This project is only to protect Fargo's growth in the floodplain("Fargo land grab") (Diversion channel location was chosen based on this - further south than the MN alignment).</p>	<p>The Diversion alignment was selected for technical and policy reasons. The design intent was to benefit as much existing development as possible, while minimizing overall impacts to the floodplain and the environment, while at the same time, minimizing costs.</p> <p>The southern diversion alignment was located to keep flood water out of the Rose Creek watershed by capturing overland flows south of Fargo, to stay south and west of the existing Sheyenne River Diversion control structure at Horace, ND and to include Horace on the benefitted side. The alignment continues due east to minimize the length and cost of the southern embankment and to reduce the long term risk to the benefitted communities.</p> <p>The diversion outlet was located downstream of the mouth of the Sheyenne River to maintain natural drainage within the benefitted area. The channel alignment north and west of Harwood, N.D. was adjusted to avoid Drain 13, as requested in a petition from local landowners. In general, to the extent possible, the alignment avoids existing structures and crosses rivers and major roads and railroads at right angles.</p> <p>The City of Fargo follows all Federal floodplain management and flood insurance program rules and has actually adopted rules for development that exceed what is required under Federal and State law.</p> <p>The project was designed to provide benefits to the existing infrastructure and not for future development. A small amount of future development was included in the economic analysis, consistent with Corps policy, based on current growth rates, all future development was assumed to be constructed consistent with Federal and State law above the 1% chance</p>

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<p>6. Farmers won't be fairly treated - they will only get \$800/acre payment and won't be able to get insurance.</p>	<p>floodplain, and represents a small portion of the economic benefits.</p> <p>Title III of the Federal statute entitled Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646), as amended, imposes certain requirements on the acquisition of property for federally funded projects. Federal processes will be followed to acquire real estate interests (fee title or easements) for the project. The draft Agriculture Impacts Mitigation Plan covers flowage easements and crop insurance and defines ways to compensate landowners for the impacts of water retention from the Diversion Project's operation.</p> <p><b>Flowage Easements</b></p> <p>Flowage easements required will follow the Federal Process.</p> <ul style="list-style-type: none"> <li>· A flowage easement would give the Diversion Authority the legal ability to retain water temporarily on land. The intention is to follow the Federal/Corps of Engineers process and will be determined by appraisal. Factors that will be considered are depth, duration, and frequency of additional flooding; and highest and best use of the property.</li> </ul> <p>The Federal policy defines a flowage easement as a one-time payment made at the time that the easement is acquired, currently estimated in 2020.</p> <p>Flowage easements are required as part of the Federal Process.</p> <ul style="list-style-type: none"> <li>· A flowage easement would give the Diversion Authority the legal ability to retain water temporarily on land. The intention is to follow the Federal/Corps of Engineers process and will be determined by appraisal. Factors that will be considered are depth, duration, and frequency of additional flooding; and highest and best use of the property.</li> </ul> <ul style="list-style-type: none"> <li>· Corps policy defines a flowage easement as a one-time payment made at the time that the</li> </ul>
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	<p>easement is acquired, currently estimated in 2020.</p> <ul style="list-style-type: none"><li>· Appraiser may consider future impacts including delayed planting, yield loss, debris, and limitations to future land use, resulting from operation of the Project.</li><li>· Values of flowage easement will vary depending on the location of the property, magnitude of impacts, and future risks to the property.</li><li>· Flowage easements will allow for farming to continue on properties, however development will be limited.</li><li>· The Corps' Feasibility Study estimated Ag flowage easements at 25 percent of land costs, on average. The actual value will be adjusted to reflect current valuation when easements are acquired.</li></ul> <p><b>Crop Insurance</b></p> <ul style="list-style-type: none"><li>· There is a 90 percent chance that the staging area will not be used in any given year, and for the 10 percent chance that the staging area will operate in any year, additional flooding will exist for a maximum of 5.5 days beyond existing conditions.</li><li>· Federal crop insurance will apply if a crop can be planted before the established late planting dates.</li><li>· The Diversion Authority intends to provide a supplemental risk policy. The draft policy provides equivalent crop insurance coverage as growers have today.</li><li>· The risk policy will cover prevent plant scenarios where Project operation would prohibit</li></ul>
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	<p>planting.</p> <ul style="list-style-type: none"> <li>· The risk policy would also cover damages caused by project operation to planted crops (summer impacts).</li> <li>· The Diversion Authority will base its risk policy on federal crop insurance programs administered by the United States Department of Agricultural (USDA) - Risk Management Agency (RMA)..</li> <li>· RMA policies and procedures will be used to define insurance coverage for damages caused by the Diversion Project.</li> <li>· The Diversion Authority intends to contract with an independent insurance provider to administer the coverage and damage adjustment process.</li> <li>· The Diversion Authority will explore self-insurance vs. supplemental insurance through a provider.</li> </ul>
<p>7. This project hasn't looked at all the options. There is a better plan out there.</p>	<p>All viable options have been considered and no evidence has been presented by any parties that demonstrates otherwise. A <u>three-year study led by the Corps of Engineers</u>, including local engineering firms, found that a diversion was the only concept that could significantly reduce flood risk in the Fargo, ND-Moorhead, MN area from flood events larger than the 2009 event. A diversion channel is the safest and most robust flood risk reduction option available because no matter the size of the flood, a diversion channel will provide some benefits.</p> <p>When floods exceed the capacity of levees and dams, the results can be catastrophic. A number of alternatives, including levees and water retention, were analyzed before a</p>

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	<p>diversion channel was recommended.</p> <p>The Fargo area lacks high ground to begin and end levees, and that limits the potential levee height. As such, the largest cost-effective levee plan could only be certified up to the 2-percent chance (50-year) event. This alternative left an intolerable level of remaining risk, so the levee alternative was dropped from consideration as a stand-alone alternative.</p> <p>For greater levels of protection, a ring levee would have to be built around the cities of Fargo and West Fargo, ND, making this option cost prohibitive.</p> <p>Flood storage was also considered. Water resource managers in the Red River Basin estimated in the Fargo-Moorhead and Upstream Feasibility Study that up to a total of 400,000 acre-feet of flood storage (or 40,000 acres covered with 10 feet of water) could be constructed at various locations upstream of Fargo-Moorhead at a cost of approximately \$600 million. Such a system of storage sites would reduce the 100-year flood crest at Fargo by less than two feet. The proposed diversion would reduce the 100-year flood stage in Fargo by 12.4 feet.</p> <p>The Corps will continue to seek ways and consider input on how the impacts of the project can be minimized. The ideas will be evaluated based upon project benefit, project cost, imposed risk, function, bid-ability, constructability, operability &amp; environmental impacts. The federally recommended plan meets these conditions and is the only path forward that will provide reliable and robust flood protection to the Fargo-Moorhead area.</p>
8. Drainage west of alignment will back up on farm land.	<p>Drainage will be similar to what occurs now in most areas and will likely be improved for smaller events.</p> <p>Detailed local drainage plans have been developed for channel reaches currently under</p>

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	<p>design and will be developed for future reach designs. Drainage features of the Diversion Project will include drainage channels constructed parallel to and outside of the Excavated Material Berms (EMBs) for the entire length of the project. The purpose of the drains is to pick up drainage off of the EMBs as well as local drainage approaching the project from either side.</p> <p>The project will be designed to minimize impacts to tributaries, especially for smaller, more frequent flood events. The design goal is to not change the one-percent chance floodplain outside of the diversion. The project will include measures to capture and direct flows along the tieback levees to the diversion channel.</p>
<p>9. The Diversion Authority and Corps of Engineers haven't allowed for public input.</p>	<p>The Diversion Project has been studied for over three years and over 50 public meetings have been held in that time, including monthly Diversion Authority board meetings made up of publicly elected officials from Cass and Clay County; along with the Cities of Fargo, West Fargo and Moorhead. During the Feasibility Study, the Corps responded to over 1600 pages of comments made by approximately 430 Agencies and members of the public. In addition, there have been numerous neighborhood meetings where property owners within the staging area were invited to attend, listen, and ask questions.</p> <p>During the feasibility phase 51 public meetings have been held to inform and gather input from November 2008 to June 2011. Nine public meetings have also been held to specifically address upstream concerns from December 2010 to January 2013.</p> <p>The Diversion Authority and Corps of Engineers have also been busy meeting 1-on-1 with individuals impacted by the construction and operation of the Diversion and will continue to do in order to mitigate impacts and ease other concerns. The website <a href="http://FMDiversion.com">FMDiversion.com</a> also offers a transparent look at all the documentation used by elected officials to make their</p>



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	<p>decisions and allows the ability for the public to ask questions and receive answers.</p>
<p>10. MN doesn't need this project.</p>	<p>Minnesota, in particular, Moorhead will receive significant benefits as a result of this project. Moorhead continues to be at risk from large flood events and significant investments would be necessary to continue to reduce that risk without a diversion. The Diversion project is complementary to Moorhead's ongoing flood protection efforts. The Diversion will provide 100 year certifiable protection to the City, which is a higher level of protection than what is provided by Moorhead's current flood protection plan. The Diversion Project also provides benefits to the entire Fargo-Moorhead Metropolitan Area, resulting in benefits to much more than just Fargo and Moorhead.</p>
<p>11. Sponsors/Corps made up data (hydrology used to define the new 100-year flood, funky economics).</p>	<p>No data was made up for this study, and all information and data has been reviewed by Independent experts in their field, in addition all information has been publically provided and there has been no indication that information was made up.</p> <p>The Corps and FEMA are not in disagreement over the proposed project and in the future FEMA and the Corps will base their information on the modeling completed by the Corps as part of the Fargo-Moorhead Diversion Project.</p> <p>The primary difference between the current Corps and FEMA numbers is that the FEMA model is from 2003 and the Corps model is from 2011, which includes the floods of 2009, 2010, and 2011.</p> <p>In addition the Corps worked with national experts to include the analysis of wet and dry periods (EOE) into the analysis; although this work was included the results were not significantly different than if the traditional method of utilizing the entire period of record (POR) was used. The information for both is reflected in the table below. It is anticipated that either the USACE EOE or POR will be adopted by FEMA in the future for floodplain mapping purposes.</p>

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Event	RRN Discharge (cfs) at USGS Gage at Fargo, ND
100-year FEMA	29,300
100-year USACE EOE	34,700
100-year USACE POR	33,000
500-year FEMA	50,500
500-year USACE EOE	61,700
500-year USACE POR	66,000
1997 Historic	28,000
2009 Historic	29,500

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<p>12. Since the opponents' area/location of Staging Area has never flooded, opponents are currently safe from all future floods.</p>	<p>Determining if something is safe and free of hazards is dependent on each person perspective of the situation. The people along the gulf coast felt they were "protected" until Katrina hit. The people in Minot, ND felt they were "protected" until snow melt and rainfall event overwhelmed the system and they were flooded.</p> <p>The same situation is probably present with the area within the staging area and the residents feeling "protected" because they haven't been flooded. At some point, an event will happen that the people living in the area have never experienced. To aide in predicting the potential of an event, the Corps develops hydrologic and hydraulic computer models, calibrated to historical events, to predict flood levels for future event based upon various flood frequencies. Armed with the knowledge of the possible future events which is based upon sound engineering and science principles, action plans can be developed to reduce the risks to the population.</p> <p>The 2009 flood of record crested at 40.8' at the Fargo Gage, which based upon the computer modeling is approximately a 50-year event. The 2009 flood threatened nearly the entire metro area with a complete disaster situation. Based upon modeling, the 100-year event would increase the gage level to 42.5' and would impact the area greater than a 50-year event. A 500-year event would increase the gage level once again and impact a greater area.</p> <p>In conclusion, just because someone hasn't experienced a "big" flood doesn't mean the probably of the "big" flood doesn't exist.</p>
<p>13. The Project includes a 50,000 acre pool/reservoir</p>	<p>The upstream 100-year inundation with the Project in place is 50,750 acres of which 32,602 acres would already be flooded under existing conditions (without a Project in place). The 100-year inundation within the Staging Area with the Project in place is 32,600 acres of which 15,600 acres would already be flooded under existing conditions.</p>

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<p>14. Upstream is not against the Project – just the dam part.</p>	<p>The upstream coalition has stated that they are not against the Project but instead are against the upstream staging (dam) part of the Project. They do believe that the Fargo-Moorhead area is in need of permanent flood protection but do not support the dam.</p> <p>The diversion channel and upstream staging (dam) are one in the same and the overall project would not be feasible without the diversion channel and the dam. The dam is required to efficiently move the excess water from the Red River into the diversion channel. Without the dam the diversion channel would not efficiently convey the water around the Fargo-Moorhead metro area.</p>
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