



# MRCDC's Missouri River MT Irrigator Survey Results

## 2024 USACE Fort Peck Dam Test Flow Impacts on Irrigators

Funding provided by MRCDC and Roosevelt County Conservation District

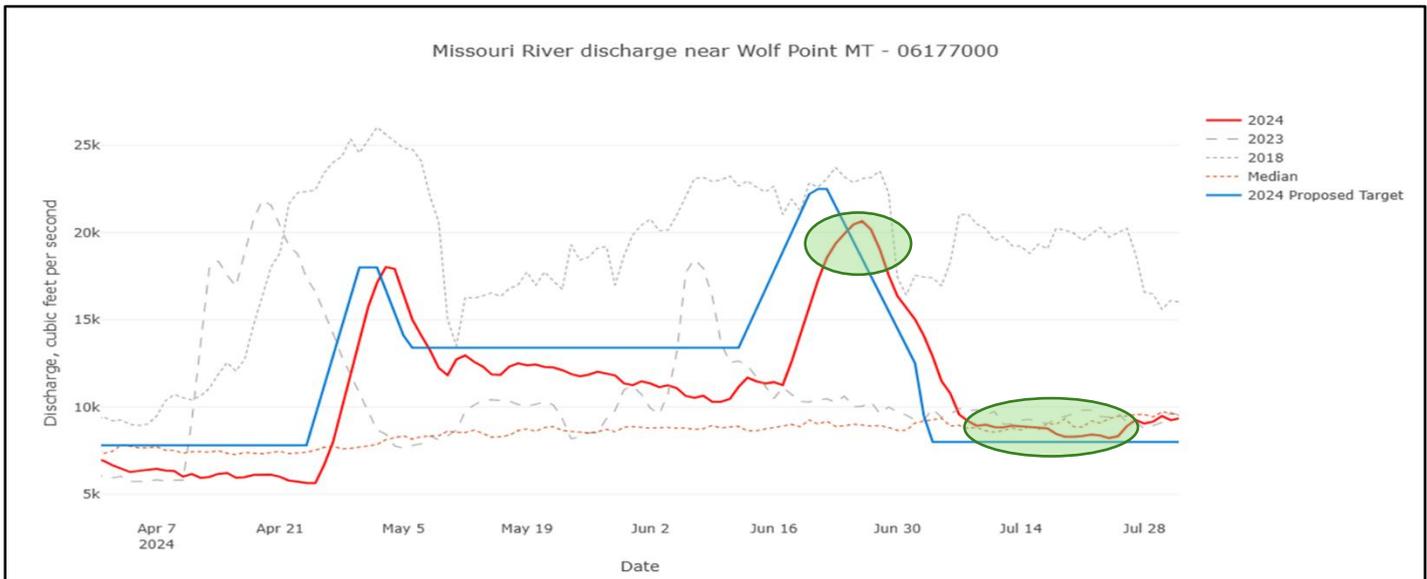
### WHY DID MRCDC CONDUCT THE SURVEY?

The US Army Corps of Engineers (USACE/Corps) did conduct human consideration surveys of their own. The Missouri River Conservation Districts Council's (MRCDC) survey was conducted to supplement the USACE data with information the Council felt was missing and to help bridge the gap of past communication challenges between irrigators and the USACE. Survey data gathered will be used to:

- ◇ Inform state and federal legislatures on losses occurred in 2024, and the potential damages that may occur from future test flows
- ◇ Inform the USDA Risk Management Agency (RMA) of potential changes needed to crop insurance
  - ◆ RMA crop insurance will not cover 'man-made' events
- ◇ Inform USDA Natural Resource Conservation Service (NRCS) of a potential need for multiple pump site modifications
- ◇ Inform the USACE of human consideration impacts when designing the next test flow

### 2024 TEST FLOW DESIGN

The graph below shows the 2024 proposed (blue line) and the 2024 actual (red line) flows compared to other key years of water flows at the Wolf Point gauging station. Here is a summary of the 2024 actual test flow: Beginning on April 26, the 'attraction flow' began with the first peak of about 18,000 cubic feet per second (cfs) being met on May 3. Starting on May 4 the flows were decreased to 12,000 cfs and held in a 'retention flow' discharge until June 17. From June 18 to June 26, flows were increased for the second, higher peak of 20,600 cfs for the 'spawning flow'. The flows were then decreased to about 9,000 cfs by July 9 for the 'drift flow'. On July 24, the flow decreased to about 8,200 cfs. By July 28, the Corps did increase the flow back up to 9,000 cfs through irrigation season which ended September 8.



The graph above shows the 2024 proposed (blue line) and the 2024 actual (red line) flows from April 1 to September 30 compared to other key years of water flows at the Wolf Point gauging station. The website to view this is <https://www.hydroviz.ca/missouri-river-daily-update>. The green areas are where the two biggest challenges for irrigators surfaced during the 2024 Test Flow.

The picture to the right shows large debris that built up some pump sites in the Missouri River during the second, high peak flow from June 21 to June 27.



**SURVEY SUMMARY**

There were 14 irrigators representing 38 pump sites surveyed. Survey data revealed widespread disruption due to the 2024 USACE Fort Peck Dam Test Flow. Data and information gathered in the survey included general operational challenges, economic impacts, environmental impacts, human health and safety considerations, and other broader concerns from irrigators.

During the second, high peak flow from about June 21 to June 27 was the first of two larger challenges of the Test Flow. There was an increased need for constant pump monitoring and adjustment. There was frequent pump damage from large floating debris. Clearing this debris from pump sites created very dangerous working conditions. Here is a quote from one irrigator surveyed:

*“We’ve had to wade into the river with life jackets and chainsaws to clean our pump sites – multiple times per day. It’s just a matter of time before someone gets seriously hurt.”*

The other larger challenge was the low drift flow that began on July 9. There was an increased need for pump monitoring and adjustment. The fluctuation of the low flows would often cause pumps to lose their prime, stopping water flow into the pumps causing issues. Once the lowest flow of about 8,200cfs was reached, a few pump sites were stranded from Missouri River access leaving them unusable. Many producers were forced to rent heavy equipment to dredge new access channels to Missouri River water. In some cases though, equipment access was impossible due to mud and unstable banks, which makes for dangerous working conditions.

Below is a summary of the economic impacts compiled from the survey. A few of the take-a-ways are the economic losses from overall crop loss and infrastructure repair, totaling \$1,173,712 for the 38 pump sites surveyed. The top three individual responses for economic loss were \$507,250, \$237,000, and \$103,480. If another loss like this occurs, who knows how long those irrigators may be able to continue to be in business.

Question	Total Cost of All Responses	Average Cost Per Pump Site (Total/38 Pump Sites)	Average Cost Per Irrigator (Total/14 Irrigators)	Top Three Responses Per Irrigator
What were the approximate costs of parts, infrastructure, etc.?	\$262,800	\$6,916	\$18,771	\$130,000 \$112,000 \$40,000
What were the approximate costs of equipment rental, fuel, etc.?	\$72,550	\$1,909	\$5,182	\$15,270 \$13,500 \$10,000
What was your crop economic loss due to drought or flood conditions?	\$838,362	\$22,062	\$59,883	\$385,250 \$100,000 \$87,000
<u>Total loss of money</u> (Parts, infrastructure, equipment rental, etc. and crop loss combine).	<u>\$1,173,712</u>	-----	<u>\$83,837</u>	<u>\$507,250</u> <u>\$237,000</u> <u>\$103,480</u>

A few other broader concerns of those surveyed were:

- ◇ A voiced frustration and confusion about the overall goals and sustainability of the Fort Peck Test Flows
- ◇ The feeling that there has been a lack of transparency, measurable success metrics, or sufficient outreach to justify the repeated disruptions to their livelihoods and land
- ◇ Risky side effects to recreationist on the river from the change in flows and additional hazards from increased debris, changes in sandbars, and destabilized and collapsing riverbanks.



Pictured above is a pump site that was stranded during the lowest flow of 8,200cfs.