

MITIGATION ACTIONS

Mitigation Action	1] Install failsafe traffic signals, street lighting and message boards along designated emergency routes
Hazards Addressed	All hazards
Responsible Agency	City of Fargo
Cost	\$5 million
Description	This updated equipment will ensure traffic can still flow along key evacuation routes during hazard-caused power outages.
Potential Funding Sources	Infrastructure sales tax
Timeline	10-50 years
Priority	Low
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	2] Remove structures from slough and cutbank areas along Red River
Hazards Addressed	Flooding (riverine and flash)
Responsible Agency	City of Fargo
Cost	\$15-20 million
Description	Continuing with property acquisition along rivers and streams will remove structures at risk of erosion.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 years
Priority	Low
2021 CRS-510 Annual Review	No properties currently at risk.
2022 CRS-510 Annual Review	No properties currently at risk.
2023 CRS-510 Annual Review	No properties currently at risk.

Mitigation Action	3] Execute Fargo's Revised Comprehensive Flood Mitigation Plan
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	\$80 million
Description	Completely implementing Fargo's comprehensive flood control plan will save nearly a billion dollars in structural losses as well as removes threats to life and property by reducing reliance on emergency flood protection measures. This plan identifies buyouts and levees in areas hardest to provide emergency protection for. It also seeks to avoid loss of housing because of construction of freeboard purely for the purpose of obtaining certification in areas that have not experienced flooding in the past.
Potential Funding Sources	Flood control sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Added 5 new properties as identified by the River Gauge 37' BFE impacts.
2022 CRS-510 Annual Review	The 5 properties identified were purchased and removed.
2023 CRS-510 Annual Review	Plan implementation in progress.

Mitigation Action	4] Bury electrical power and communication lines
Hazards Addressed	Wind, Thunderstorms, Winter storms
Responsible Agency	Private utility companies
Cost	\$50 million
Description	Coordinate with electric and telecommunications companies in identifying appropriate areas where lines can be buried.
Potential Funding Sources	Private companies' capital work plans
Timeline	10-25 years
Priority	Low
2021 CRS-510 Annual Review	Awaiting utility funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	5] Elevate, floodproof, or fill basements of residential structures in the Special Flood Hazard Area
Hazards Addressed	Flood
Responsible Agency	Private
Cost	\$150 million
Description	Structures that cannot be feasibly acquired and moved can be retrofitted instead according to FEMA standards that ultimately lead to a reduced flood insurance premiums for the property owners.
Potential Funding Sources	Flood control sales tax
Timeline	15-30 years
Priority	Low
2021 CRS-510 Annual Review	Elevate & Floodproof standards are required in area identified in the 41' WSEIA.
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Continue to require elevation of new structures

Mitigation Action	6] Floodplain storage areas in select locations citywide (250 acre footprint or larger)
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	\$20 million for three ponds for total of \$60 million
Description	Floodwalls and levees alone cannot control flooding, unless combined with a water retention strategy.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Location identification and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	7] Storm water retention ponds in select locations citywide
Hazards Addressed	Flooding (localized)
Responsible Agency	City of Fargo
Cost	\$5 million
Description	This will provide relief to the City's storm sewer system during heavy rainfall events, thus minimizing damage to properties as well as maintaining traffic flow for emergency personnel.

Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Storm ponds now required on a development basis, per design policy.
2022 CRS-510 Annual Review	Continue to enforce policy on ponds.
2023 CRS-510 Annual Review	Continue to enforce policy on ponds and encourage regional retention.

Mitigation Action	8] Install relief storm sewer in select locations citywide
Hazards Addressed	Flooding (localized)
Responsible Agency	City of Fargo
Cost	\$10 million
Description	In areas where the existing storm sewer is undersized, a relief storm sewer can provide extra capacity for peak flows during extreme precipitation events.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	2 projects in 2020 – 32 nd Ave S (25 th St S - University Dr S) & 21 st Ave S (24 th – 17 th St S)
2022 CRS-510 Annual Review	2 projects completed, additional projects not implemented - Funding
2023 CRS-510 Annual Review	Project being constructed in 2023 – 32 nd Ave S (18 th – 25 th St S)

Mitigation Action	9] Install permanent generator at STS LS #8 (Drain 10: 32nd Street south of Main Avenue)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will ensure pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The lift station has free flow gates but if water downstream of the lift station is at a higher elevation the pumps are needed.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting priority status and funding (panel replacement)
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	10] Install permanent generator at STS LS #9 (Drain 40: 45th Street at Main Avenue)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000

Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The lift station has free flow gates but if water downstream of the lift station is at a higher elevation the pumps are needed.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 Years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting priority status and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	11] Install permanent generator at STS LS #16 (Drain 10 south of 2nd Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The lift station has free flow gates but if water downstream of the lift station is at a higher elevation the pumps are needed.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 Years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting priority status and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	12] Install permanent generator at STS LS #21 (Drain 3: West of 18th Street and north of 12th Avenue North)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The lift station has free flow gates but if water downstream of the lift station is at a higher elevation the pumps are needed.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 Years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting priority status and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	13] Install permanent generator at STS LS #33 (East of Dakota Drive on 19th Avenue North)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The lift station has free flow gates but if water downstream of the lift station is at a higher elevation the pumps are needed.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 Years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting priority status and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	14] Install permanent generator at STS LS #50 (45th Street South of 3rd Avenue North)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The lift station has free flow gates but if water downstream of the lift station is at a higher elevation the pumps are needed.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 Years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting priority status and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	15] Raise gatewell and install permanent generator at STS LS #1 (2nd Street South at Main Avenue)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise gatewell: \$100,000 Permanent generator: \$150,000
Description	This will maintain traffic for civilian, city and emergency personnel and also from river flooding. This lift station pumps water from the underpass on 2nd Street north of Main Avenue. If this lift station lost power the underpass would be impassable to citizens, city maintenance workers and emergency vehicles during rain events. The top of the gatewell elevation is below the flood of record and needs to be ringed with sandbags during high flood events to keep river water from expelling out of the lift station.
Potential Funding Sources	Infrastructure and/or flood control sales taxes

Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	2020 New Lift Station & Gatewell (need generator)
2022 CRS-510 Annual Review	LS constructed, generator not implemented - Funding
2023 CRS-510 Annual Review	Generator not implemented - Funding

Mitigation Action	16] Install permanent generator at STS LS #3 (25th Street at Main Avenue)
Hazards Addressed	Flooding, Thunderstorms
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Maintaining traffic for civilian, city and emergency personnel. This lift station pumps water from the underpass on 25 th Street north of Main Avenue. If this lift station lost power the underpass would be impassable to citizens, city maintenance workers and emergency vehicles during rain events.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	Medium
2021 CRS-510 Annual Review	2020 New Lift Station & Gatewell (need generator)
2022 CRS-510 Annual Review	LS constructed, generator, not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	17] Install permanent generator at STS LS #6 (45th Street at 19th Avenue North)
Hazards Addressed	Flooding, Thunderstorms
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water in Cass County Drain 40 that collects water from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. Lift station has free flow gates but if water downstream of the lift station is at a higher elevation the pumps are needed.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	2020 New Lift Station & Gatewell (need generator)
2022 CRS-510 Annual Review	LS constructed, generator, not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	18] Install permanent generator at STS LS #11 Trollwood (east lift)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000

Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	19] Install permanent generator at STS LS #14 (West of 25th Street at 26th Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. This lift station is critical to pump storm water out of Bluemont Lakes in the event of heavy rainfall/large runoff.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	20] Relocate lift station and install permanent generator at STS LS #15 (East of 9th Street at 26th Avenue South - Country Club)
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	Relocate lift station: \$2 million Install permanent generator: \$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The location of the lift station makes it susceptible to river flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Lift Station elevation to be complete in 2023, generator not implemented - Funding

Mitigation Action	21] Install permanent generator at STS LS #16 (Cass County Drain 10 south of 2nd Avenue South)
Hazards Addressed	Flooding, Thunderstorms
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	22] Install permanent generator at STS LS #17 (University Drive at Main Avenue)
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water from the underpass on University Drive north of Main Avenue. If this lift station lost power the underpass would be impassable to citizens, city maintenance workers and emergency vehicles during rain events.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Installed in 2022, will be connected in 2023

Mitigation Action	23] Install permanent generator at STS LS #20 (Island Park)
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	\$150,000
Description	This will maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	24] Upgrade to duplex pumping station for redundancy and install permanent generator at STS LS #24 (Wastewater Treatment Plant)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$2 million
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. This lift station also pumps runoff from around the wastewater treatment plant. The potential for property damage, wastewater plant flooding along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	2021 construction to connect to Waste Water Treatment Facility generators
2022 CRS-510 Annual Review	Station continues under construction, generator is being re-evaluated
2023 CRS-510 Annual Review	Station construction continues, plan to be operational in 2023

Mitigation Action	25] Install permanent generator at STS LS #26 (Ridgewood Addition)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax
Timeline	10-20 years
Priority	Low
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	26] Relocate lift station at STS LS #30 (Milwaukee bike trail south of 40th Avenue)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$200,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	1-3 years
Priority	High
2021 CRS-510 Annual Review	Completed - operational
2022 CRS-510 Annual Review	Continued operation
2023 CRS-510 Annual Review	Continued operation

Mitigation Action	27] Install permanent generator at STS LS #34 (West of Elm Street on Forest Avenue)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	28] Install permanent generator at STS LS #35 (Cass County Drain 10 south of 6th Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	29] Relocate lift station and install permanent generator at STS LS #39 (VA Hospital)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Relocate lift station: \$2 million Install permanent generator: \$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. Location of the lift station makes it susceptible to river flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Low
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Lift Station under construction in 2023

Mitigation Action	30] Relocate lift station and install permanent generator at STS LS #40 (East of Eagle Street on 32nd Avenue North)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Relocate lift station: \$2 million Install permanent generator: \$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. Location of the lift station makes it susceptible to river flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	10-20 years
Priority	Low
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	31] Raise gatewell at STS LS #41 (10th Street North - 3700 Block)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$10,000
Description	Minimize river flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the gatewell is close to the flood of record. If water was to expel out of the gatewell it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	10-20 Years
Priority	Low
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	32] Relocate lift station and install permanent generator at STS LS #42 (5th Street South at 21st Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Relocate lift station: \$2 million Install permanent generator: \$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. Location of the lift station makes it susceptible to river flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	1-10 years
Priority	High

2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	33] Relocate lift station and install permanent generator at STS LS #43 (West side of University Drive at Rose Coulee)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Relocate lift station: \$2 million Install permanent generator: \$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. Location of the lift station makes it susceptible to river flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Lift Station combined into LS #30, replaced with gateway
2022 CRS-510 Annual Review	Completed
2023 CRS-510 Annual Review	Completed

Mitigation Action	34] Elevate lift station cover slab, pump and control panel at STS LS #47 (38th Street south of Cass County Drain 27)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Contain river water in the lift station structure and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Design in progress - Begin construction 2023

Mitigation Action	35] Raise gateway at STS LS #48 (38th Street north of Cass County Drain 27)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$50,000
Description	Contain river water in gateway and maintain pumping to minimize flooding damages to commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the gateway elevation is below the flood of record elevation. If water was to expel out of the gateway it would lead to flooding commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years

Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Design in progress - Begin construction 2023

Mitigation Action	36] Raise gatewell and install permanent generator at STS LS #49 (45th Street north of Cass County Drain 27)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise gatewell: \$50,000 Install permanent generator: \$150,000
Description	Contain river water in gatewell and maintain pumping to minimize flooding damages to commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the gatewell elevation is below the flood of record elevation. If water was to expel out of the gatewell it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	37] Raise lift station at STS LS #52 (East of Broadway at Kandi Lane)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$100,000
Description	Contain river water in gatewell side of the lift station while maintaining pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable. The top cover of the lift station is above the 2009 high water elevation, however, the risk of flood water expelling out of the gatewell on a larger flood event is possible.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	10-20 years
Priority	Low
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	38] Install permanent generator at STS LS #53 (Drain 10 at 40th Avenue North - CC20)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$200,000

Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water in Cass County Drain 10 that collects water from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	10-20 years
Priority	Low
2021 CRS-510 Annual Review	Scheduled decommission in 2021, new Lift Station on Drain 10 Levee alignment
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	To be completed in 2023 or 2024

Mitigation Action	39] Raise gatewell and install permanent generator at STS LS #54 (36th Street north of 40th Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Install permanent generator: \$150,000
Description	This lift station pumps water from the underpass on 40 th Avenue South at I29. If this lift station lost power the underpass would be impassable to citizens, city maintenance workers and emergency vehicles during rain events.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Gatewell raised, generator not implemented - Funding

Mitigation Action	40] Raise gatewell and install permanent generator at STS LS #55 (42nd Street north of Cass County Drain 27)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$50,000
Description	Contain river water in the gatewell and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the gatewell elevation is below the flood of record elevation. If water was to expel out of the gatewell it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Lift Station under construction, generator not implemented - Funding

Mitigation Action	41] Raise lift station and install permanent generator at STS LS #56 (42nd Street south of Cass County Drain 27)
Hazards Addressed	Flooding, Thunderstorms
Responsible Agency	City of Fargo
Cost	Raise lift station: \$150,000 Install permanent generator: \$150,000

Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Lift Station under construction, generator not implemented - Funding

Mitigation Action	42] Raise lift station and install permanent generator at STS LS #57 (Trollwood - west lift)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise lift station: \$150,000 Install permanent generator: \$150,000
Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	43] Raise lift station at STS LS #58 (University Drive at 64th Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	44] Install permanent generator at STS LS #59 (36th Street at 9th Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water primarily from commercial areas and from the 9 th Avenue South underpass at Interstate 29. If this lift station lost power the underpass would be impassable to citizens, city maintenance workers and emergency vehicles during rain events.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	45] Raise lift station and install permanent generator at STS LS #61 (East side of 5th Street at 18th Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise lift station: \$150,000 Install permanent generator: \$150,000
Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	46] Raise lift station and install permanent generator at STS LS #67 (Osgood lift station - east side Cass County Drain 27)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise lift station: \$150,000 Install permanent generator: \$150,000
Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium

2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	47] Raise lift station and install permanent generator at STS LS #68 (Osgood lift station - west side Cass County Drain 27)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise lift station: \$150,000 Install permanent generator: \$150,000
Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	48] Raise lift station and install permanent generator at STS LS #70 (45th Street south of Cass County Drain 27)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise lift station: \$150,000 Install permanent generator: \$150,000
Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	49] Raise lift station and install permanent generator at STS LS #71 (Cass County Drain 53 at 52nd Avenue South)
Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	Raise lift station: \$150,000 Install permanent generator: \$150,000

Description	Contain river water in gateway side of lift station and maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. The top of the lift station is lower than emergency levees installed in 2009. If water was to expel out of the gateway side of the lift station it would lead to flooding residential and commercial property along with street flooding.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	50] Install permanent generator at STS LS #75 (2nd Street North at 15th Avenue)
Hazards Addressed	Flooding, Thunderstorm
Responsible Agency	City of Fargo
Cost	\$150,000
Description	Maintain pumping to minimize flooding damages to residential and commercial properties along with maintaining traffic for civilian, city and emergency personnel. This lift station pumps water that collects in the storm sewer system from both residential and commercial properties. The potential for property damage along with street flooding is present if this lift station was to become inoperable.
Potential Funding Sources	Infrastructure sales tax, flood sales tax
Timeline	5-15 years
Priority	Medium
2021 CRS-510 Annual Review	Awaiting FM Diversion scheduling and funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	51] Emergency generator for STS LS #58 (University Dr at 58th Avenue South)
Hazards Addressed	Thunderstorms, heavy rainfall intensity
Responsible Agency	City of Fargo
Cost	\$1 million
Description	Power supply to Lift Station #58 in event of grid power loss, allowing the city to continue sewer operations thus minimizing flooding, overflows, and sewer backup damages to properties.
Potential Funding Sources	Infrastructure Sales Tax
Timeline	1-10 years
Priority	High
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	52] Emergency generators for Wastewater Treatment Plant
Hazards Addressed	All hazards
Responsible Agency	City of Fargo
Cost	\$2 million
Description	The installation of four backup power generators will ensure the water treatment plant continues operation during disasters.
Potential Funding Sources	FEMA (HMGP or PDM) with local match including infrastructure sales tax

Timeline	1-5 years
Priority	High
2021 CRS-510 Annual Review	Completed
2022 CRS-510 Annual Review	Completed
2023 CRS-510 Annual Review	Completed

Mitigation Action	53] Effluent force main improvements
Hazards Addressed	Thunderstorms, Flooding
Responsible Agency	City of Fargo
Cost	\$4 million
Description	Modify existing force main to more efficiently manage flows, which potentially minimizes flooding, overflows and sewer backup damages to commercial and residential properties.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	Low
2021 CRS-510 Annual Review	Scheduled construction in 2021-2022
2022 CRS-510 Annual Review	Under construction
2023 CRS-510 Annual Review	Under construction

Mitigation Action	54] Storm Lift Station Upgrade - Wastewater Treatment Plant
Hazards Addressed	Thunderstorms, heavy rainfall intensity, flooding
Responsible Agency	City of Fargo
Cost	\$500,000
Description	Install a new pump and retrofit the existing pump station to allow the Storm Lift Station to operate correctly during high flow and high water events at the Wastewater Treatment Plant preventing surcharging of the storm sewer system.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-10 years
Priority	Low
2021 CRS-510 Annual Review	Construction 2021-22
2022 CRS-510 Annual Review	Under construction
2023 CRS-510 Annual Review	Station construction continues, plan to be operational in 2023

Mitigation Action	55] Emergency standby generator at Sheyenne River Pump Station
Hazards Addressed	All hazards
Responsible Agency	City of Fargo
Cost	\$1 million
Description	Power supply to the Sheyenne River Pumping Station in event of grid power loss allowing the City to continue to provide raw water to the treatment plant to be treated for fire protection and to serve users.
Potential Funding Sources	Infrastructure sales tax
Timeline	1 year (2019)
Priority	High
2021 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	56] Relocation of the Sheyenne River Pump Station
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Hazards Addressed	Flooding
Responsible Agency	City of Fargo
Cost	\$15 million
Description	New location to remove loss of service due to flood event
Potential Funding Sources	Infrastructure sales tax
Timeline	1-3 years
Priority	High
2021 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	57] Emergency standby generator at Red River Pump Station
Hazards Addressed	All hazards
Responsible Agency	City of Fargo
Cost	\$1 million
Description	Power supply to Red River Pumping Station in event of grid power loss allowing the City to continue to provide raw water to the treatment plant to be treated for fire protection and to serve users
Potential Funding Sources	Infrastructure sales tax
Timeline	1-5 years
Priority	Low
2021 CRS-510 Annual Review	Water Treatment Facility construction 2021
2022 CRS-510 Annual Review	Under construction
2023 CRS-510 Annual Review	Under construction

Mitigation Action	58] Emergency Standby Generator at High Service Pump Station
Hazards Addressed	All hazards
Responsible Agency	City of Fargo
Cost	\$1 million
Description	Power supply to High Service Station in event of grid power loss allowing the City to continue to provide potable water for fire protection and to serve users and maintain pressure within the distribution system to prevent contamination
Potential Funding Sources	Infrastructure sales tax
Timeline	5-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	59] Electric Actuated Valve for Water Source
Hazards Addressed	All hazards
Responsible Agency	City of Fargo
Cost	\$350,000
Description	The City of Fargo utilizes two surface water sources. The two sources come together in the yard of the Water Treatment Plant and currently a manual valve needs to be adjusted to switch water sources, this actuated valve would provide a near instantaneous transfer allowing the City to maintain their treatment process in the event of the loss of a raw water station
Potential Funding Sources	Infrastructure sales tax
Timeline	5-10 years

Priority	Low
2021 CRS-510 Annual Review	Not implemented - Funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	60] Expand dry chemical storage capacity
Hazards Addressed	All hazards
Responsible Agency	City of Fargo
Cost	\$500,000
Description	The City of Fargo currently has 7 days' capacity for dry chemical storage at water treatment plant. This requires additional chemical deliveries weekly to provide for water treatment. This project would allow for 30 days' worth of storage.
Potential Funding Sources	Infrastructure sales tax
Timeline	1-3 years
Priority	Low
2021 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2022 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2023 CRS-510 Annual Review	Awaiting funding Water Treatment Facility

Mitigation Action	61] Permanent floodwalls at High Service Pump Station
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	\$500,000
Description	Floodwalls around the High Service Pump Station to protect against a flood allowing the High Service Station to stay in service allowing the City to continue to provide potable water for fire protection, serve users and maintain pressure within the distribution system to prevent contamination.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Floodwalls constructed in 2022

Mitigation Action	62] Red River Pump Station flood prevention and flood wall construction
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	\$5,810,750
Description	Reconstructing the intake pump house at the water treatment plant will raise all pumps, controls, and electrical components above base flood elevation flood wall height. Also, install a flood wall to tie into the existing flood wall north of the pump stations as well as tying to Phase III of the Belmont Flood protection project on the south. This will protect the Red River Pump Station intake and the Water Treatment plant.
Potential Funding Sources	FEMA Pre-Disaster Mitigation (75%), Water Utility (25%)
Timeline	1-2 years
Priority	High
2021 CRS-510 Annual Review	Construction 2021-22 with HMGP funding
2022 CRS-510 Annual Review	Under construction
2023 CRS-510 Annual Review	Completed

Mitigation Action	63] Permanent levee for Wastewater Treatment Plant
Hazards Addressed	Flood
Responsible Agency	City of Fargo
Cost	\$4,900,000
Description	The construction of permanent, long-term flood protection consisting of levees, sheet piles, and road raises will protect the wastewater treatment plant up to a 500-year flood without the need for a temporary enclosure.
Potential Funding Sources	Flood Mitigation Assistance (FMA)
Timeline	Begin construction 2020
Priority	High
2021 CRS-510 Annual Review	Construction 2022-23 with approved HMGP funding
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	64] Relocation of Red River Intake Screens
Hazards Addressed	Drought
Responsible Agency	City of Fargo
Cost	\$1.5 million
Description	Relocating the intake screens from the side channel to the deeper center channel of the River would allow prolonged use of the Red River during drought periods.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-10 years
Priority	Low
2021 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	65] Emergency Water Supply Line Improvements
Hazards Addressed	Drought
Responsible Agency	City of Fargo
Cost	\$12 million
Description	Provide water source Sheyenne River to the Water Treatment Plant for treatment in the event of the Red River being too low.
Potential Funding Sources	Infrastructure sales tax
Timeline	5-10 years
Priority	High
2021 CRS-510 Annual Review	Awaiting funding Water Treatment Facility
2022 CRS-510 Annual Review	Not implemented - Funding
2023 CRS-510 Annual Review	Not implemented - Funding

Mitigation Action	66] Encourage rooftop retention on buildings and parking garages in downtown Fargo
Hazards Addressed	Severe weather (heavy precipitation events)
Responsible Agency	City of Fargo, private developers
Cost	Dependent on building
Description	Mitigates stormwater quantity and quality as well as storage of water for fire suppression if stored on high elevation. It is estimated in downtown Fargo there are enough flat roofs to have approximately 875,000 cubic feet of capacity.
Potential Funding Sources	Building owners
Timeline	Ongoing

Priority	Low
2021 CRS-510 Annual Review	Site plan specific
2022 CRS-510 Annual Review	Site plan specific
2023 CRS-510 Annual Review	Site plan specific

Mitigation Action	67] Retain rainwater on street through green infrastructure methods
Hazards Addressed	Thunderstorms, heavy rainfall
Responsible Agency	City of Fargo, private developers
Cost	To be determined according to location and method
Description	The installation of storage capacity underground (i.e. under sidewalks and roads where space is available) can provide rainwater retention in an area where large-scale detention/retention basins are infeasible such as the more densely built downtown.
Potential Funding Sources	Incorporate within normal road construction budget and funding sources, North Dakota Department of Health (CWSRF)
Timeline	Ongoing
Priority	Low
2021 CRS-510 Annual Review	Site plan specific
2022 CRS-510 Annual Review	Site plan specific
2023 CRS-510 Annual Review	Site plan specific

Mitigation Action	68] Increase tree canopy coverage downtown to reduce urban heat island
Hazards Addressed	Excessive heat
Responsible Agency	City of Fargo Forestry Department, private property owners
Cost	To be determined
Description	Having adequate shade can reduce temperatures in the downtown core, thus alleviating somewhat the urban heat island effect. Air conditioning costs are reduced and the aesthetic value of street trees will increase property values.
Potential Funding Sources	Incorporate within Forestry Department budget paired with grants from National Fish and Wildlife Foundation, ND Forest Service, and other funders.
Timeline	Ongoing
Priority	Low
2021 CRS-510 Annual Review	Tree plantings are now standard in new/rehab/reconstruction projects
2022 CRS-510 Annual Review	Continued site plan specific plantings on all future projects
2023 CRS-510 Annual Review	Continued site plan specific plantings on all future projects

Mitigation Action	69] Support the establishment of a day center for homeless individuals
Hazards Addressed	Extreme cold and heat
Responsible Agency	Social service agencies with support from City of Fargo
Cost	To be determined
Description	Most of the homeless shelters in the area are only open in the evenings and overnights. A center where people can visit during the day will not only provide a space to access services but will also be a place to warm up or cool down during extreme temperatures.
Potential Funding Sources	Foundation grants, City of Fargo's CDBG allocation and social service funding
Timeline	To be determined, but within five years
Priority	Low
2021 CRS-510 Annual Review	Planning initiative
2022 CRS-510 Annual Review	Temporary site implemented sometime during 2021
2023 CRS-510 Annual Review	Currently located in downtown Fargo