

# GRAND FORKS FLOOD CONTROL FLOOD FIGHT ACTION LISTING FOR PUMP STATIONS, GATEWELLS, CLOSURES, VALVES, ETC.

Revised on February 25, 2020

NOTE: ALL ELEVATIONS IN 1929 DATUM

Action #	Action Completed	River Level		Structure	1st Float on Elev.	Responsible Department	Action Required	Gate/Valve Invert or Closure Sill		Gate or Closure Size
		Elev. at Structure	** River Gage					Elev. at Structure	** River Gage	
1		-	19.0	Sanitary MHs in Rural & New Development Areas		WW	Consider covering to limit infiltration	-	-	-
2		802.0	23.0	Flap Gate on Riverside Pool River Discharge Pipe		P	Verify Flap in MH Sealed - drains basement now filled with pea rock	802.0	23.0	12"
3		-	30.0	Riverside Pool		P	Remove Equipment/Prepare Building if predicted to exceed 42.5' (deck = 830.3 = 40')	-	-	-
4		812.5	34.5	Lower Lincoln Dr.		S	Close Road due to overtopping water & verify transformers removed by Lyons Club	-	-	-
5		816.4	35.4	Pedestrian Bridge - South		S	Remove Rails/Close Bridge (low rail = 826.3 = 45.0', low trail = 816.4 = 36.3' @ GF)	-	-	-
6		814.6	35.9	Flapgates (2) on W Riverside Low Level Levee		P	Verify Both Sealed & Install Gas Pump (if predicted less than top of low level levee = 45.7')	814.6	35.7	18" & 36"
7		816.0	36.0	PS - D3 - 208 - 1497 Belmont Rd.	817	SW	Close Gates & Activate PS	803.7	23.7	(2) 108"
8		818.6	36.9	Storm Sewer Between 217 & 233 Desiree Dr.		SW	Install & Brace Deflated Plug in 30" Storm Sewer on Downstream Side of MH (inflate at approximately 50')	818.6	36.9	30"
9		819.0	37.9	Interconnect at 40th Ave. S & S 16th St.		SW	Monitor Flapgate to Prevent Water Backflow into PS - E1 - 210	825.0	43.8	72"
10		819.0	37.9	GO - F1 - Northridge Hills		SW	Close Gates (flows to PS - E1 - 210)	819.0	37.8	48"
11		817.0	38.0	PS - C3 - 204 - 202 Demers Ave.	815	SW	Close Gates & Activate PS (see note 1)	800.5	21.5	(2) 60"
12		817.0	38.0	Boathouse		S	Remove From Site	-	-	-
13		-	38.1	Diversion Structure #13 at Legal Drain #9		SW	Close Gates 4 hr. min. (24 hr. pref.) prior to activating PS - G1 - 201 (see note 2)	834.1	58.8	(2) 5'x5' RCB
14		817.0	38.1	PS - G1 - 201 - 1 27th Ave N	814	SW	Close Gates & Activate PS (Close @ 35' if > 38' predicted to create storage)	796.0	19.0	(2) 10'x12' RCB
15		816.5	38.3	27th Ave. N		S	Close Road about 3' before overtopping & Inform ND Mill Unit Trains Not Permitted (road overtops @ 41.3')	819.5	41.3	-
16		817.5	38.5	PS - C1 - 203 - 726 N 3rd Street	818.5	SW	Close Gates & Activate PS (see note 1)	803.0	24.0	108"
17		817.0	38.6	Slidegate on E Riverside Low Level Levee		SW	Close Wet Side Gate & Install Gas Pump (if predicted less than top of low level levee = 45.7')	801.7	22.7	12"
18		817.2	38.7	G0 - A3 - Conklin Ave.		SW	Close Gates (flows to PS - C1 - 203)	811.0	32.5	60"
19		820.0	38.9	PS - E1 - 210 - 3757 Belmont Rd.	821	SW	Close Gates & Activate PS	809.9	28.7	108"
20		817.3	39.3	Pedestrian Bridge - North		EGF	Remove Rails & Close Bridge (low rail = 822.5 = 44.5', low trail = 817.3 = 39.0' @ EGF)	-	-	-
21		818.0	40.0	PS - A1 - 202 - 700 Red Dot Place	819	SW	Close Gates & Activate PS (see note 3)	804.4	26.1	72"
22		820.0	40.0	PS - D1 - 206 - 803 Almonte Ave.	821	SW	Close Gates & Activate PS	814.0	34.0	(2) 60"
23		819.0	40.0	GO Private (Dachota Hotel Private Outfall)		SW	Close Gates & Notify Property Owner to Pump (see note 4)	807.3	28.3	12"
24		822.5	40.3	N Shady Ridge Court		S	Close Road due to overtopping water	-	-	-
25		822.5	41.0	Flap Gate on Sunbeam Swale Storm Sewer		SW	Monitor for Leakage	822.5	41.0	30"
26		822.0	41.5	PS - E2 - 209 - 3101 Elmwood Dr.	823	SW	Close Gates & Activate PS	817.0	36.5	48"
27		822.0	42.0	PS - D2 - 207 - 1215 Lincoln Dr.	823	SW	Close Gates & Activate PS	808.5	28.5	54"
28		-	42.0	*Closure - RR S of Demers Ave.		E	Notify RR (see note 5)	-	-	-
29		-	42.0	Valves - Riverside Park		W/WW	Close Water (823.0) & Sewer (823.0) Valves & Notify Park Dist.	823.0	44.5	3" & 8"
30		-	42.0	Valves - St. Ann's		W	Close Water Valves (N. = 819.0, S. = 818.3) & Notify Fire Dept.	818.3	39.3	8" & 8"
31		-	42.0	Valves - Community Green Water Fountain		W	Close Water Valve	822.0	43.0	2"
32		-	42.0	Valves - Water Interconnect with EGF		W	Monitor Valves for Leakage (Normally Closed @ EGF Side)	814.0	35.0	12"
33		-	42.0	Valves - Lincoln Dr. Park		W/WW	Close Water (823.5) & Sewer (823.5) Valves & Notify Park Dist.	823.5	43.5	2" & 8"
34		-	42.0	Valves - Elks Dr.		W/WW	Close Water (824.0) & Sewer (816.5) & Notify Park Dist.	816.5	36.0	6" & 8"
35		-	42.0	Valves - 47th Ave. S.		W	Close Irrigation Valve & Notify Park Dist.	825.0	43.5	8"
36		-	42.0	Valves - 62nd Ave. S.		E	Water Main Perm. Capped	826.0	44.3	16"
37		821.0	42.5	*Closure - Roadway at N 1st St.		S	Assemble Road Closure	824.0	45.5	3 @ 17' = 50.5'
38		824.3	42.8	G0 - H4 - 47th Ave. S		SW	Close Gates (flows to PS - H1 - 211)	819.8	38.5	72"
39		824.5	43.0	G0 - H1 - Southend Drainway Underdrain		SW	Close Gates (see note 6)	811.2	29.2	48"
40		824.6	43.1	PS - H1 - 211 - 79 Desiree Dr.	825.5	SW	Close Gates & Activate PS (see note 6)	822.2	40.7	(3) 9'x9' RCB
41		822.5	43.3	G0 - C4 - Gertrude Ave.		SW	Close Gates (flows to PS - C5 - 205)	807.3	28.3	48"
42		823.5	43.5	PS - C5 - 205 - 411 Woodland Ave.	824.5	SW	Close Gates & Activate PS	808.0	28.0	54"
43		824.8	43.5	*Closure - Roadway at Demers Ave.		S	Assemble Road Closure w/ EGF Closure & Adj. Signal Timing - COE requires to install by 45.8' (see note 7)	827.8	48.8	6 @ 17' = 110'
44		823.9	43.7	Lincoln Club House Basement Floor		P	Plug Floor Drains	-	-	-
45		824.7	44.9	*Closure - Roadway at Minnesota Ave.		S	Assemble Road Closure When Water Ponds on Street in EGF - COE requires to install by 45.2' (see note 7)	827.7	48.2	4 @ 17' = 67.5'
46		827.1	44.9	S Shady Ridge Court		S	Close Road & Provide Temp. Provisions for Sanitation, Fire, Police, etc.	-	-	-
47		824.0	45.7	Riverside Low Level Levee		P	Floodwater overtops Low Level Levee	-	-	-
48		825.2	45.9	85 4th Ave. S Open Pipe to River		E	Notify Property Owner to Monitor - plugged 2010 (see note 14)	825.2	45.9	4" or 6"
49		825.0	46.0	Sunken Courtyard at Dakota Hotel		E	Information Only	-	-	-
50		824.5	46.2	Riverside Pool Main Floor		P	Information Only	-	-	-
51		827.2	46.2	*Closure - Trail Access at Elmwood Dr.		S	Assemble Road Closure	830.2	49.2	1 @ 12' = 11.5'
52		830.5	47.0	G0 - H7 - Belmont Rd. & Merrifield Rd.		SW	Monitor Flap Gate & Close Sluice Gate	830.5	47.0	48"
53		826.0	47.0	*Closure - RR S of Demers Ave.		S	Assemble RR Closure (see note 5)	829.4	50.4	1 @ 20' = 20'
54		826.0	47.7	Riverside Warming House Main Floor		P	Prepare Building for Flooding (826 = plan f.f. elevation)	-	-	-
55		-	48.0	Sanitary MHs Adjacent to Levee & Floodwall		WW	Begin Monitoring for excess infiltration (previous began monitoring at 45')	-	-	-
56		827.0	48.0	*Closure - Trail Access at 2nd Ave. N		S	Assemble Road Closure	830.0	51.0	1 @ 17' = 17'
57		-	48.0	Floodwalls		E	Begin Patrolling Wet Floodwalls	-	-	-
58		827.0	48.1	*Closure - Trail Access at 7th Ave. N		S	Assemble Road Closure	830.0	51.2	1 @ 17' = 17'
59		-	48.2	Heartsville Coulee Breakout (64.2' Thompson Gage)		E	Red begins flowing into Heartsville Coulee N of Thompson Bridge @ 3 Locations	-	-	-
60		829.8	48.5	*Closure - Roadway at Elks Dr.		S	Assemble Road Closure (see note 13)	832.8	51.3	3 @ 17' = 50.5'
61		829.0	48.5	*Closure - Roadway at Lincoln Dr.		S	Assemble Road Closure	832.0	51.0	3 @ 17' = 50.5'
62		825.0	48.7	G0 - J6 - SW side of Highway 81		SW	Monitor & Close Sluice Gate if Flap Gates Leak	822.0	45.0	60"
63		825.0	48.7	G0 - J1 - SE side of I-29		SW	Monitor & Close Sluice Gate if Flap Gates Leak	822.7	45.7	60"
64		825.0	48.7	G0 - J2 - SW side of I-29		SW	Monitor & Close Sluice Gate if Flap Gates Leak	824.1	47.6	(2) 60"
65		825.0	48.7	G0 - J4 - N 55th St. & 20th Ave. N		SW	Monitor & Close Sluice Gate if Flap Gates Leak	827.9	52.4	(2) 60"
66		826.9	49.4	*Closure - Roadway at ICS (former RDO Foods)		S	Assemble Road Closure (see note 8)	829.9	52.9	2 @ 17' = 33.5'
67		-	50.0	Levees		E	Begin Patrolling Levees	-	-	-
68		833.0	50.0	Shadyridge - Desiree Dr. (wet side)		SW/WW	Inflate 30" Plug, Install Gas Pump, Sandbag Low Areas, Protect San. MHs, Plug CBs (See Shadyridge Plan)	-	-	-
69		827.6	50.1	Valves - ICS - N End (office)		W/WW	Close Water (822.0), Sewer (816.5), & Gas Valves (821.5) (see note 8)	816.5	38.5	10" & 8" & 6"
70		831.8	50.2	Valves - Lincoln Golf Course Irrigation Lines		P	Close Both Wet & Dry Side Valves at Both Crossings (4 valves total)	-	-	unknown
71		827.6	50.2	Valves - ICS - S End (old RDO WW Plant)		W/WW	Close Water (819.5) Verify Sewer Closed (normally closed 815.5) (see note 8)	815.5	37.2	10" & 8"
72		827.6	50.2	*Closure - RR at ICS		S	Assemble Road Closure (see note 8)	830.6	53.2	1 @ 20' = 20'
73		-	51.0	*Closure - RR at 40th Ave. N (on ECD)		E	Notify RR (see note 9)	n/a	n/a	n/a
74		833.5	51.1	G0 - H10 - Old Belmont Rd. & 62nd Ave. S		SW	Close Gate (flows into Pond & into PS - H1 - 211)	833.5	51.1	48"
75		827.0	51.2	PS - J1 - 212 - 1700 N 55th St.	828	SW	Close Gates & Activate PS	826.6	50.8	2(60")
76		831.0	52.0	Electrical Feedpoint Wet Side Demers Ave.		E	Notify Xcel to Cut Overhead Power & Let Feedpoint Flood	-	-	-
77		-	52.0	Valves - GFT Rural Water at 62nd Ave. S		E	Monitor for Leakage & Close if Needed (see note 10)	824.0	45.0	5"
78		-	52.0	Valves - Viking Gas Main at 27th Ave. N		E	Monitor Valves for Leakage & Close if Needed (see note 11)	817.3	39.3	6"
79		-	52.0	*Closure - EGF Gateway Drive		S	Close Gateway Drive Due to Installing EGF Closure (water ponds in EGF at 53.0', GF closure installed at 56.7')	-	-	-
80		-	52.5	Thompson Bridge		E	Bridge Closes Due to Water on MN Hwy (67.9' on Thompson Gage)	-	-	-
81		-	52.5	Valves - Desiree Dr.		W	Close Water (824.7), Storm & Sanitary filled w/ concrete 2009	824.7	43.2	8" & 18" & 8"
82		834.0	52.6	Valves - Adams Dr.		W/WW	If Floods, Close Water (824.5) & Sewer Valves (808.2) & Notify Residents	808.2	25.2	12" & 12"
83		834.0	52.7	Lincoln Park Warming House Main Floor		P	Prepare Building for Flooding (834 = plan f.f. elevation)	-	-	-
84		-	54.0	Valves - GFT Rural Water on Merrifield Rd.		E	Monitor numerous valves for Leakage & Close if Needed (see note 10)	varies	varies	varies
85		830.5	54.7	*Closure - RR at 40th Ave. N (on ECD)		S	Place Dirt Closure (see note 9)	830.5	54.7	n/a
86		835.0	56.5	*Closure - Stairway at St. Ann's N & S		S	Assemble Road Closure	838.0	59.5	-
87		835.2	56.7	*Closure - Roadway at Gateway Dr.		S	Place Dirt Closure - EGF closure at 52.0', water ponding in EGF at 53.0' (see note 7)	838.2	59.7	n/a
88		832.8	57.0	Valves - EGF WW Interconnect		WW	Monitor for Leakage & Close Only if needed & Notify EGF	815.3	37.8	-
89		841.5	57.7	*Closure - I-29 under Merrifield Road Overpass		S	Place Aggregate Material in Ditches & on I-29 (see note 12)	-	-	n/a

\* Timing of installation of Street & Trail Access Closures (except RR, ICS, & I-29) is 3' in advance of floodwaters reaching sill elevation

\*\* Adjusted for Stage & Gradient using Corps Multi-Stage Rating Curves with Demers Avenue Gaging Station as reference point

PS = Pump Station

GO = Gated Outlet

Note 1: PS C1 203 & PS C3 204 are interconnected at 4th Avenue N. & N. 5th Street at elevation 823.0 (approximately 44.0' river gage)

Note 2: Notify GF County Water Resource District prior to closing (780-8312 & see board member e-mail list)

Note 3: Notify State Mill to watch for water backup in their basement (Shane Johnson 701-330-7584 or Dillon Janousek 701-330-4323)

Note 4: Notify property owners of 100 N. 3rd Street & 112 N 3rd Street (Dan Sampson 701-885-1111 or Chuck 701-213-8445) to pump private sewer (drains sunken courtyard only - parking lot CB's drain into PS C3-204)

Note 5: At 42' if predicted > 50.4', notify RR to prepare crews to cut & remove tracks & ballast - Road Master (Nels Christensen 701-795-1266 or 320-444-4150 or Lee Hanson 701-795-1252) & RR Terminal Master (Peter Hjerstedt 701-795-1255)

At 47' if predicted > 50.4', notify RR to cut & remove tracks & ballast & allow City to excavate fill over closure & install stop logs

Note 6: The PS H1 211 area includes the pump station, discharge chamber, & a gated outlet. The gated outlet is adjacent to the PS H1 211 discharge chamber located at 79 Desiree Drive

Note 7: Notify NDDOT & EGF, implement detour plan/adjust signal timing, & ask RR to avoid using Mill spur. (Minnesota lowest point = EGF 44.9') (Demers lowest point = EGF 46.2'/close at 43.5') (Gateway lowest point = EGF 53.0'/close at 52.0')

Note 8: Notify ICS (Kip Langei 701-775-8480 or 701-740-4582) 24 hrs. prior to installing road or RR closure & Western Polymer (Larry Iverson 701-792-3923 or 701-740-0773) of RR closure. City may install when river is within 4' elevation of closures

Note 9: 3 days prior to water reaching 830.5 (approximately 53.5' river gage) at tracks, notify RR Fargo Division Engineer (Hank Jeske 701-280-7239) & Minneapolis Assistant Director Public Projects (Spencer Arndt 763-782-3491) to cut &

remove tracks & ballast & allow City to construct emergency levee across track bed. (sill = 49.8', adjacent ground = 51.2', top of rail = 52.0')

Note 10: Notify Grand Forks Trail Rural Water District to close Rural Water Valves if needed

Note 11