Summary of Lower Platte & Elkhorn Rivers

Initial Ice Report 1/11/2014 through 1/17/2014:

Summary (1/17/2014)

The observations from the Platte River, the confluence of the Platte and Elkhorn Rivers and the Elkhorn River are summarized as having an average temperature of 24.3 °F with wind speeds averaging 10.3 mph.

The <u>Platte River</u>, <u>Elkhorn River</u> and the <u>Confluence of the Platte and Elkhorn rivers</u> were experiencing 80-100% ice coverage with some areas of that Platte showing a 10-20% channel. The Elkhorn continues to be 100% covered and the Confluence is showing about 10% open from each river. Ice thickness measurements for the Platte remain around a foot at this time.

** ICE Thickness Reports are attached at the end of this report**

NO ICE JAMMING HAS BEEN REPORTED AT THIS TIME

Platte River:

LN1 - Saunders/Dodge County, on the Platte Hwy 77 at Fremont

Latitude: 41:21:14 Longitude: 96:30:9 (Wednesday, January 15, 2014 @ 3:15PM CDT)

Temperature was 35°F. The average wind speed was 12 mph (S). It was estimated that it was less than 8 feet bank full at this location. The channel remains NA%. It was noted: "At Fremont, Hwy 77, conditions are the same. Very little open water, smooth ice cover, looks pretty solid."

Latitude: 41:21:14 Longitude: 96:30:9 (Thursday, January 16, 2014 @ 8:15AM CDT)

Temperature was 40°F. The average wind speed was 24 mph (E). It was estimated that it was less than 4.5 feet bank full at this location. The channel remains NA%. It was noted: "This observation of the Platte River was about 1/2 - 3/4 miles upstream from the Hwy 77 Platte River Bridge, near Big Island. 80% of the river is still ice covered at this location. There is water pooled on top of the ice, but it does not appear to be moving. The open section at this location was right off the north bank and the water was moving rapidly in this spot. There has been some decaying of the ice here, but cracks are not easy to see, it's mostly candling."

LN2 -Saunders/Dodge Co on Platte Hwy 79 at North Bend

Latitude: 41:27:7 Longitude: 96:46:30 (Wednesday, January 15, 2014 @ 2:00PM CDT)

Temperature was 37°F. The average wind speed was 12 mph (S). It was estimated that it was less than 8 feet bank full at this location. The channel remains NA%. It was noted: "Ice Channel opening on south side has increase in size. The channel is both west and east of the Hwy 79 Bridge. Large opening downstream of bridge a quarter miles is still open and large in size adjacent to island. In the area of the bridge, water is flowing on top of the ice and some ice has become dark or discolored, indicating some decay is occurring. The north side of the river is much the same as last week, very little open."

PM4 - Douglas County, on the Platte Hwy 92

Latitude: 41:14:2 Longitude: 96:21:55 (Wednesday, January 15, 2014 @ 09:20AM CDT)

Temperature was 12°F. The average wind speed was 5 mph (NW). It was estimated that it was less than 10 feet bank full at this location. The channel remains 20%. It was noted: "West side 10% open water, no flowing ice, low water level some sand bars. East side 20% open, no flowing ice."

PM7 - Douglas County, on the Platte Union Dike, 1/4 mile west of Hwy 275 & 3.1 miles upstream of Hwy 64

Latitude: 41:21:40 Longitude: 96:25:0 (Wednesday, January 15, 2014 @ 10:00AM CDT)

Temperature was 12°F. The average wind speed was 5 mph (NW). It was estimated that it was less than 4 feet bank full at this location. The channel remains 20%. It was noted: "20% open water, water level low some sandbars, looks like some water on ice."

P7 - Sarpy County, on the Platte Hwy 31 at 204 St.

Latitude: 41:1:27 Longitude: 96:15:29 (Wednesday, January 15, 2014 @ 04:16PM CDT)

Temperature was 36°F. The average wind speed was 15 mph (SW). It was estimated that it was less than feet bank full at this location. The channel remains 20%. It was noted: "channel along bank twice as large as last reading, ice blocks locate on top of ice covering the middle of the river"

P9 - Sarpy County, on the Platte Hwy 6 & Platte River Bridge (Linoma)

Latitude: 41:3:42 Longitude: 96:19:31 (Wednesday, January 15, 2014 @ 03:57PM CDT)

Temperature was 36°F. The average wind speed was 16 mph (S). It was estimated that it was less than feet bank full at this location. The channel remains 10%. It was noted: "several days of warm temperatures followed by below freezing temperatures leading up to the report date"

P10 - Sarpy County, on the Platte Hwy 50 & Platte River Bridge

Latitude: 41:0:53 Longitude: 96:9:28 (Wednesday, January 15, 2014 @ 04:29PM CDT)

Temperature was 36°F. The average wind speed was 15 mph (SW). It was estimated that it was less than feet bank full at this location. The channel remains 20%. It was noted: "estimate of ice measured at boat ramp is 6 inches"

Confluence of the Platte and Elkhorn Rivers:

E1 - Sarpy County, on the Platte/Elkhorn Confluence of Platte and Elkhorn Rivers

Latitude: 41:8:0 Longitude: 96:19:0 (Wednesday, January 15, 2014 @ 08:45AM CDT)

Temperature was 12°F. The average wind speed was 5 mph (NW). It was estimated that it was less than 12 feet bank full at this location. The channel remains 10%. It was noted: "Platte River is 10% open; Elkhorn River is 10% open. There is frazil slush ice coming out of Elkhorn river side."

Elkhorn River:

PM2 - Douglas County, on the Elkhorn Hwy 36

Latitude: 41:22:45 Longitude: 96:18:9 (Wednesday, January 15, 2014 @ 09:50AM CDT)

Temperature was 12°F. The average wind speed was 5 mph (NW). It was estimated that it was less than 13 feet bank full at this location. The channel remains NA%. It was noted: "100% ice covered"

PM3 - Douglas/Saunders County, on the Elkhorn Hwy 92

Latitude: 41:13:51 Longitude: 96:16:41 (Wednesday, January 15, 2014 @ 10:30AM CDT)

Temperature was 12°F. The average wind speed was 5 mph (NW). It was estimated that it was less than 13 feet bank full at this location. The channel remains NA%. It was noted: "100% ice covered"

PM6 - Douglas County, on the Elkhorn Hwy 64

Latitude: 41:17:30 Longitude: 96:17:0 (Wednesday, January 15, 2014 @ 09:40AM CDT)

Temperature was 12°F. The average wind speed was 5 mph (NW). It was estimated that it was less than 13 feet bank full at this location. The channel remains NA%. It was noted: "100% ice covered"

PAPIO-MISSOURI NRD-ICE THICKNESS REPORTS:

TO: File 536

FROM: Bill Warren, O&M Superintendent

SUBJECT: Platte River Ice Thickness Measurement Along Union Dike

DATE: January 7, 2014

On January 7, 2014, the writer performed ice thickness measurements on the Platte River. The measurements were taken perpendicular to the river flow, near the dike's 10 jetty project location, near Werner Property south line, at approximately Station 155+00 (1.1 miles upstream of Highway 64).

A gas powered auger was used to drill the holes. The location of the holes on the table below were measured (stepped off) from the east bank of the Platte River. Ice was too thin past 420 ft. hole to permit ice boring.

Distance From East Bank (Feet)	Ice Thickness (Inches)	Depth From Top of Ice to River Bed (Inches)
40	14.0	22.0
140	12.0	38.0
240	13.0	30.0
420*	11.0	38.0

^{*}This hole is located about 580 feet from the west bank of the river. The average ice thickness is **12.5 inches**.

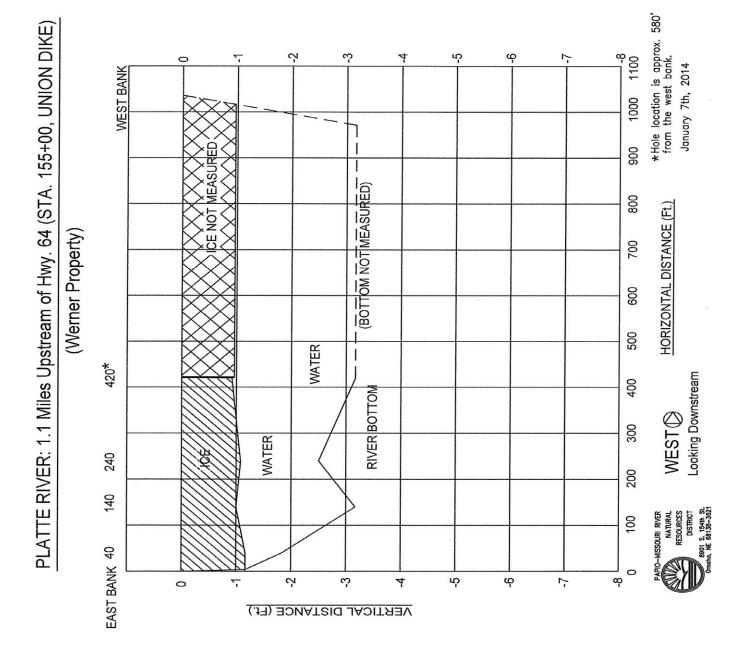
Enclosure

CC: John Winkler, Marlin J. Petermann, Martin Cleveland, Amanda Grint,

Emmett Egr, and Directors, P-MRNRD

Mary Baker, NEMA Bill Jones, NDNR David Pearson, NWS Kim Thomas, USACE

614 MC:pb file 536



TO:

File 536

FROM:

Bill Warren, O&M Superintendent

SUBJECT:

Platte River Ice Thickness Measurement Along Western Sarpy Levee

DATE:

January 7, 2014

On January 7, 2014, the writer performed ice thickness measurements on the Platte River. The measurements were taken perpendicular to the river flow, near the levee in Beacon View area, at approximately Station 31+00 (0.6 miles upstream of BNSFRR).

A gas powered auger was used to drill the holes. The location of the holes on the table below were measured (stepped off) from the east bank of the Platte River. Ice was too thin past 350 ft. hole to permit ice boring.

Distance From East Bank (Feet)	Ice Thickness (Inches)	Depth From Top of Ice to River Bed (Inches)
50	10.0	26.0
150	11.0	22.0
250	12.0	39.0
350*	12.0	23.0

^{*}This hole is located about 800 feet from the west bank of the river. The average ice thickness is **11 inches**.

Enclosure

CC:

John Winkler, Marlin J. Petermann, Martin Cleveland, Amanda Grint,

Emmett Egr, and Directors, P-MRNRD

Mary Baker, NEMA Bill Jones, NDNR David Pearson, NWS Kim Thomas, USACE

514 MC:pb file 536

PLATTE RIVER: 0.6 MILES UPSTREAM OF BNSFRR (STA.31+00 WESTERN SARPY LEVEE) ★Hole Location is approx. 800′ **EAST BANK** from the East bank. January 7th, 2014 က္ ιņ φ 4 4 1 ထု 1100 (BOTTOM NOT MEASURED) 1000 900 800 (NEAR CAMP ASHLAND) HORIZONTAL DISTANCE (Ft.) 90 000 200 400 350* Looking Upstream EAST (() 300 WATER 250 200 RIVER BOTTOM 150 9 PAPIO-MISSOUR RIVER
NATURAL
RESOURCES
DISTRICT
DOMNA, NE 68138-3821 WEST BANK 50 0 S က္ 4 'n φ 1 ထု VERTICAL DISTANCE (Ft.)

FROM: Bill Warren, O&M Superintendent

SUBJECT: Platte River Ice Thickness Measurement Along Union Dike

DATE: January 14, 2014

On January 14, 2014, Pat McEvoy performed ice thickness measurements on the Platte River. The measurements were taken perpendicular to the river flow, near the dike's 10 jetty project location, near Werner Property south line, at approximately Station 155+00 (1.1 miles upstream of Highway 64).

A gas powered auger was used to drill the holes. The location of the holes on the table below were measured (stepped off) from the east bank of the Platte River. Ice was too unstable/thin past 140 ft. hole to permit ice boring.

Distance From East Bank (Feet)	Ice Thickness (Inches)	Depth From Top of Ice to River Bed (Inches)
40	12.0	21.0
140*	11.5	24.5

^{*}This hole is located about 860 feet from the west bank of the river. The average ice thickness is **11.8 inches**.

Enclosure

CC: John Winkler, Marlin J. Petermann, Martin Cleveland, Amanda Grint,

Emmett Egr, and Directors, P-MRNRD

Mary Baker, NEMA Bill Jones, NDNR David Pearson, NWS Kim Thomas, USACE

914 MC:pb file 536

