Summary of Lower Platte & Elkhorn Rivers

Initial Ice Report 2/01/2014 through 2/07/2014:

Summary (2/07/2014)

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 minus 1°F with wind speeds averaging 10 mph out of the North early in the week and the Southwest during the later readings this past week.

Thanks to Lynn Marshall for the pictures this week.

The <u>Platte and Elkhorn rivers</u> were experiencing 65-100% ice coverage with most areas of the Platte showing snow coverage as well. There are several open pockets of water and channels but no flowing ice at this time. The Elkhorn continues to be 100% ice & snow covered and the Confluence is showing about 10% open from the Elkhorn and 20% from the Platte River. *Ice thickness report is attached at the end of this summary. Thank you Papio MO NRD.*

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 (Thursday, February 6, 2014 @ 8:00AM CDT)

Temperature was -9°F. The average wind speed was 9 mph (W). It was estimated that it was less than 4.5' feet bank full at this location. The channel remains NA%. It was noted: "The Platte River at the Hwy 77 Bridge is snow covered and 99% frozen over. The surface is smooth with little to no open water. Cracks can be seen, but are not recent. There is no water pooled on top of the snow at the time of observation."

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

NO report this week.

LS1 -Saunders Co on Platte Hwy near Ashland

No report this week.

PM4 - Douglas County, on the Platte Hwy 92

Latitude: 41:14:2 Longitude: 96:21:55 (Thursday, February 6, 2014 @ 09:10AM CDT)

Temperature was -6°F. The average wind speed was 5 mph (SW). It was estimated that it was less than 9 feet bank full at this location. The channel remains 20%. It was noted: "West side is 10% open, snow on ice, some pockets of open water. East side is 20% open, snow on ice with some pockets of open water. "

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 (Thursday, February 6, 2014 @ 10:00AM CDT)

Temperature was -2°F. The average wind speed was 5 mph (SW). It was estimated that it was less than 4 feet bank full at this location. The channel remains NA%. It was noted: "100% ice covered some snow on ice."

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

Latitude: 41:1:27 Longitude: 96:15:29 (Wednesday, February 5, 2014 @ 2:30PM CDT)

Temperature was 10°F. The average wind speed was 20 mph (N). It was estimated that it was less than feet bank full at this location. The channel remains 65%. It was noted: "02/05/2014 14:30 Platte River, Hwy 31 Channel depth - 17.78ft Channel flow - 21.7kcfs Flood Stage - 20ft. The channel is ice covered at about 65%. The intact ice surface is snow covered from recent snow on February 3rd & 4th. The channel has about 35% of open water and minimal or no moving ice types."(picture looking across Platte)



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

Latitude: 41:3:42 Longitude: 96:19:31 (Wednesday, February 5, 2014 @ 2:14PM CDT)

Temperature was 8°F. The average wind speed was 20 mph (N). It was estimated that it was less than feet bank full at this location. The channel remains 5%. It was noted: "02/05/2014 14:15 Platte River, Ashland Hwy 6 Channel depth - 17.78ft Channel flow - 21.7kcfs Flood Stage - 20ft. The channel is ice covered at about 95%. The intact ice surface is snow covered from recent snow on February 3rd & 4th. The channel has about 5% of open water and no moving ice types."(Picture looking upstream)



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

Latitude: 41:0:53 Longitude: 96:9:28 (Wednesday, February 5, 2014 @ 2:40PM CDT)

Temperature was 10°F. The average wind speed was 20 mph (N). It was estimated that it was less than feet bank full at this location. The channel remains 75%. It was noted: "02/05/2014 14:40 Platte River, Hwy 50 Channel depth - 4.21ft Channel flow - 2.54kcfs Flood Stage - 20ft. The channel is ice covered at about 30%. The intact ice surface is snow covered from recent snow on February 3rd & 4th. The channel has about 75% of open water and minimal or no moving ice types. "



Confluence of the Platte and Elkhorn Rivers:

Latitude: 41:8:0 Longitude: 96:19:0 (Thursday, February 6, 2014 @ 08:40AM CDT)

Temperature was -6°F. The average wind speed was 5 mph (SW). It was estimated that it was less than 12 feet bank full at this location. The channel remains 20%. It was noted: "Platte River is about 20% open channel, open channel about 1/4 mile long, snow on ice. Elkhorn River is about 10% open, snow on ice."

Elkhorn River:

PM2 - Douglas County, on the Elkhorn Hwy 36

Latitude: 41:22:45 Longitude: 96:18:9 (Thursday, February 6, 2014 @ 09:40AM CDT)

Temperature was -2°F. The average wind speed was 5 mph (SW). 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 and snow covered."

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

Latitude: 41:13:51 Longitude: 96:16:41 (Thursday, February 6, 2014 @ 10:15AM CDT)

Temperature was -2°F. The average wind speed was 5 mph (SW). 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 and snow covered."

PM6 - Douglas County, on the Elkhorn Hwy 64

Latitude: 41:17:30 Longitude: 96:17:0 (Thursday, February 6, 2014 @ 09:30AM CDT)

Temperature was -2°F. The average wind speed was 5 mph (SW). 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 and snow covered."

Papio-Missouri NRD

Platte River Ice Thickness measurements- Feb 4, 2014

(Sarpy County did not do Ice Measurements this past week due to the conditions.)

TO:

File 536

FROM:

Bill Warren, O&M Superintendent

SUBJECT:

Platte River Ice Thickness Measurement Along Union Dike

DATE:

February 4, 2014

On February 4, 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. There was an open water area beyond the last boring, so it was not possible to drill additional holes.

Distance From East Bank (Feet)	lce Thickness (Inches)	Depth From Top of Ice to River Bed (Inches)
40	9.5	18.0
150*	13.0	38.0

^{*}This hole is located about 850 feet from the west bank of the river. The average ice thickness is **11.3 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

3814 MC:pb file 536

Hole location is approx. 850' from the west bank. PLATTE RIVER: 1.1 Miles Upstream of Hwy. 64 (STA. 155+00, UNION DIKE) ņ ကု S 110°8 4 9 1-0 February 4th, 2014 WEST BANK 1000 900 (BOTTOM NOT MEASURED) 800 HORIZONTAL DISTANCE (Ft.) (Werner Property) 700 WATER 900 500 Looking Downstream 400 WEST 300 WATER 200 150 PAPIO-MISSOURI RIVER
NATURAL
RESOURCES
DISTRICT
BOOTS, 154th St.
Omoho, NE 68138–3621 100 RIVER EAST BANK 40 ? φ 1 4 ņ 7 0 VERTICAL DISTANCE (Ft.)