

Summary of Water Year 2011 Ice Season

The 2010-2011 winter was an active one. Ice formation began in the middle of December, bringing with it freezeup jams. There was flooding in several states, but the most noticeable incident occurred on the Kalamazoo river in Michigan. Ice impacts were present at the site for the cleanup operations for the Enbridge Spill. The wakes from air boats caused ice to move downstream and create a one mile long jam and boat traffic had to be halted. CRREL personnel traveled to the site to assess conditions and advise on measures to continue cleanup with the presence of ice.

Other notable jams were the breakup jam near the mouth of the Cattaraugus Creek in New York and the breakup jam on the Kuskokwim River near Crooked Creek Alaska. The Cattaraugus Creek jam flooded portions of the Sunset Bay forcing the evacuation of 200 people from their homes. The Kuskokwim River jam forced 47 evacuations and was declared a FEMA disaster because of the amount of damage done to Crooked Creek.

Ice formation began around the middle of December in the Northern and Central part of the states, bringing with it the risk of freeze up jams. Freeze up jams were reported in Wisconsin, Maine and one near Fort Riley. The Mississippi River experienced stage fluctuations due to ice and there was flooding in the Wisconsin, Mississippi, and Aroostook rivers. As December continued the cold temperatures became less severe and ice formation continued at a slower pace. More freeze up jams were reported in Missouri, Wisconsin, Nebraska and Montana. Also in December, CRREL advised on the ice impacts on Enbridge spill cleanup on the Kalamazoo River in Michigan. Andy Tuthill of CRREL traveled to the site to assess conditions and advise on measures to continue cleanup with the presence of ice.

January started warm, weakening ice covers and increasing discharge. Cold air moved in and began to thicken ice. As mid January came, extremely cold temperatures caused further ice formation and accumulation in Upper Midwest. The cold temperatures reduced ice jam risk in Montana and Idaho as ice continued to thicken. However in New England, the risk of freeze up increased with the cold. By the end of January most of the rivers in the cold regions of the U.S. were ice covered. During January there were ice jams reported in Illinois, Ohio, New York, Vermont, Nebraska, Montana, Louisiana, Missouri, Michigan, and New Jersey.

February began with a high chance of freeze up jams due to an expected drop in temperature combined with a major winter storm. As ice continued to thicken, ice jam potential leveled back down to normal. In the North Central areas however, ice effects kept the ice jam potential high. In mid February, high temperatures led to significant thaw in the cold region of the U.S. There was significant snowmelt, rivers rose and there was

lots of ice breakup. In an effort to prevent ice jams, warm water siphons were activated in Illinois. A warm spell the week of 18 February led to ice breakup in many states and minor flooding. The main breakup for the season continued through the end of February with the Northern Plains and Upper Midwest finishing break-up by the first week of March.

A warm spell in early March followed by cold temperatures in New England led to a freezing in of ice that was in the p[rocess of breakup and inducing flooding in 4 states. Warm rainfall allowed most of the ice to run without jamming a few days after the cold spell. Ice jams and river ice persisted in the Dakotas and Montana through the end of the month, amid various cold spells. The spring thaw in those regions was slow enough that most jamming did not cause flooding.

In May, an ice jam on the Kuskokwim River near Crooked Creek led to evacuations and damages to 70% of homes. This was later declared a national disaster.

River Ice Updates

This is the first River Ice Update of 2010-11 Winter Season. This update is provided by the ICE Engineering Group at ERDC/CRREL to the UOC and the EOCs on river ice conditions during the ice season. During the peak of the ice season, this update will be distributed three times a week on Monday, Wednesday and Friday. At this time, due to limited ice activity, the update will be provided once a week on Wednesdays and as situations warrant.

If you know of ice problems in your area please send information to meredith.l.carr@usace.army.mil. All questions and comments are welcome.

Below is the River Ice Update for 15 December 2010.

15 Dec 2010

Overview:

Low temperatures in the Northern and Central parts of the US have led to ice formation. Freeze-up jams have occurred in Wisconsin and ice production on the Mississippi River has led to stage fluctuations in Minnesota and Missouri and increased risk of freeze-up jamming. Warm temperatures over the weekend led to ice motion in New England and some small jams, though temperatures have plunged since. CRREL has been advising in ice impacts on the oil spill clean-up operation the Kalamazoo River in Michigan and will be visiting the site in the upcoming week. In the past week flooding caused by ice has been reported on the Wisconsin River at Portage, WI, the Mississippi River at Fort Ripley, MN and the Aroostook River near Caribou, ME.

Mississippi River:

The Mississippi is 70-100% ice cover from L&D Pool 1 to 25. Ice production has been enhanced due to the extremely low temperatures. Ice jamming has been reported at L&D 16 and 17 on the Iowa/Illinois border and near Louisiana, MO. Continued very low temperatures will increase the risk of freeze-up jams, particularly due to high flows occurring for this time of year.

Fort Ripley, MN: A freeze-up jam set near Fort Ripley on 7 December and has held in place, causing minor flooding and stage fluctuations. At this time, stages are below flood level, but expected to remain elevated until the jam releases.

Wisconsin:

A freeze-up jam has been in place resulting in near flood levels on the Wisconsin River near Portage since 7 December and caused nuisance flooding. Near but below flood level stages due to freeze-up ice jams also were noted on the St. Croix River at Danbury and the Brule River at Florence.

Maine:

The combination of heavy rain, snowmelt and small jams contributed to flooding in Maine over the weekend. Small jams were observed on the Aroostook River near Caribou and Fort Fairfield, leading to minor lowland flooding. A small jam on the Penobscot River at Howland contributed to flooding which stranded a hunter on an island overnight.

Michigan:

Ice impacts on the cleanup operations for the Enbridge Spill on the Kalamazoo River in Michigan are being closely followed. The wake from 30 air boats conducting cleaning operations caused shore ice to move downstream to a choke point where a 1 mile long jam has formed. Water levels have risen due to the jam, though no flooding is occurring at this time. Boat traffic is halted until the ice stabilizes. Ice production is expected to continue with expected cold temperatures.

ERDC/CRREL Personnel:

CRREL has been contacted to advise on ice impacts on the cleanup operation for the Enbridge Spill on the Kalamazoo River in Michigan. CRREL attended a conference call on Friday with EPA, NOAA/NWS, the town of Enbridge to review the situation. Andy Tuthill of CRREL will travel to the site early next week to assess conditions and advise on possible measures such as installation of web cams and stage monitoring.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 22 December 2010.

22 Dec 2010

Overview:

Ice formation continues in the Northern and Central parts of the US, though at a slower pace due to less severe temperatures. Ice growth is continuing in tributaries in New England and New York. A risk of freeze-up jams continues with low temperatures continuing in most of the Northern states. Freeze-up jams have occurred in the past week in Missouri, Nebraska, Wisconsin and Montana. Flooding is occurring on the Platte River near Doniphan and Alda, NE and on the Missouri River at Great Falls, MT.

Nebraska:

Platte River: A jam reported to be between 5-8 miles long formed near Alda and Doniphan on Sunday night. There have been three county road closures, evacuation of two homes that are not accessible and flooding of lowlands near the river. Flooding has slowed as water works its way through the jam, though there is potential for the flooding to continue for several days. Temperatures near freezing will likely prevent melting of the jam.

Missouri:

Mississippi River: The Mississippi is mostly ice covered with jamming at L&D 18, 19, 25 and Mel Price Lock and Dam. Elevated stages were reported at the town of Louisiana due to ice effects.

Wisconsin:

Stage levels were elevated on the Trempleau River near Dodge due to freeze-up downstream. The freeze-up jam on the Wisconsin River near Portage which has been in place since 7 December continues to cause elevated stages.

Montana:

Missouri River: A freeze-up jam formed Tuesday in Grand Falls, leading to road closures and water coming out of bank between the 10th Avenue and 15th Street bridges.

ERDC/CRREL Personnel:

Andy Tuthill of CRREL traveled to the site of the Enbridge Spill on the Kalamazoo River in Michigan early this week to assess conditions and advise on measures for continuing the cleanup in the presence of river ice.



Photograph of Alda Road bridge across the Platte River south of Interstate 80 as an ice jam causes flooding to the surrounding area and a number of closed roads. (Independent/Barrett Stinson)

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Below is the River Ice Update for 29 December 2010.

29 Dec 2010

Warm air and light to moderate rainfall is expected Wednesday into Friday in the Midwest, bringing temperatures 10-25 degrees above average, with a forecast of a 50 degree high in Chicago. These mild temperatures will force snowmelt, and combined with the rainfall, the run-off will increase flow in rivers and may lead to some ice jamming and minor river ice related flooding. Potential for ice jamming is reported as far South as the Ohio River Basin. Temperatures are expected to plunge again into the weekend and may freeze jams in place. New York and New England are expected to experience milder, though not as warm, temperatures into the weekend, which may lead to gradual melting of some river ice. Freeze-up jams have continued to cause minor flooding and road closures on the Platte River in NE and the Missouri River in MT.

Nebraska

Platte River: Water levels from the jam at Alda and Doniphan receded during the past week, while a new jam set-up near Grand Island on Sunday night causing road flooding and the evacuation of one home. Road closures were still in place on Tuesday when county emergency management reported that water levels dropping at the Grand Island jam.

Montana

Missouri River: The freeze-up jam that formed last week in Grand Falls is still in place and continues to cause minor flooding and road closures. The jam is expected to persist several more days.

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Below is the River Ice Update for 03 January 2011.

03 Jan 2011

Warm weather over the past several days has led to weakened ice covers and increased discharge due to snowmelt, resulting in several localized ice jams in IL, OH, NY and VT. A return to colder temperatures could result in additional ice accumulation, and a continued risk for flooding due to ice jams in the next few days, particularly in the Upper Mississippi River Valley. Prolonged cold periods have led to ice jamming and have caused localized flooding of lowland areas in NE and MT.

Illinois:

Fox River: An ice jam and some stage fluctuation were reported at Dayton over the weekend, a location where a severe freeze-up jam caused much concern last year. Flood concerns have since diminished.

Ohio:

Ice jams were observed on the Chagrin River Friday and Saturday in Gates Mills, Willoughby and Eastlake. Minor flooding was reported, but most of the water was reportedly running under the jams. The water levels have since receded.

New York:

An ice jam Friday and Saturday caused overflow of low-lying areas of Cazenovia Park near West Seneca. This jam and another on nearby Buffalo Creek have released

Vermont:

Local ice jams were reported on the Lamoille River at Georgia, Black Creek at Sheldon and the Great Chazy River at Perry Mills. No flooding was reported.

Nebraska:

North Platte River: An ice jam set in on the North Platte River in Llewellen over the weekend. The river has risen, but flooding is not expected. An ice jam on the Platte River near Kearney led to at least one home evacuation on Sunday. Minor flooding was reported Saturday at a jam on the Loup River near Sargent, a location known for ice jams. Pastureland flooding is likely.

Montana:

Missouri River: The ice jam in Great Falls has stabilized and water levels have receded, though road closures persist due to frozen flood waters. Road closures are expected to continue at least another 5 days.

Gallatin River: An ice jam near Logan forced the river out of its banks, but has not affected roadways. This is a common area for ice jams, and the ice jam will likely stay in place causing occasional minor flooding.

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Below is the River Ice Update for 05 January 2011.

05 Jan 2011

After an active weekend and with the return of normal or below normal temperatures, ice jam activity in the Midwest has slowed. Cold air in the upper Midwest will continue to thicken ice on waterways and will bring some risk of jamming due to residual high flows from the weekend snow melt. Minor flooding due to ice jams continues at locations in MT and NE. Stability of these jams may be affected by rising temperatures expected in that region.

Nebraska:

The ice jam that formed at the North Platte River at Lewellen this weekend continues to cause elevated stages, but may break up due to expected milder temperatures. Minor flooding is occurring due to the jam on the Platte River near Kearney where water levels are fluctuating around flood stage.

Montana:

Minor flooding due to ice effects continues on the Missouri River in Great Falls and Gallatin River near Logan. Flooding in Logan has affected a trailer home and several out buildings on a property very close to the river.

An ice jam on the Beaverhead River downstream of Twin Bridges, MT, is causing flooding of a local park and affecting some local residences. Local authorities have requested Reclamation to reduce flows from Clark Canyon Dam. A conference call to discuss the request is being conducted Wednesday morning with local representatives, Reclamation and Corps District personnel.



A man drives his loader full of sandbags and helpers to his neighbor's house which was flooding Monday as a result of ice jams on the Gallatin River near Logan. By Erik Petersen for the Chronicle

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Below is the River Ice Update for 07 January 2011.

07 Jan 2011

Ice jams continue to cause minor flooding in Montana and Nebraska, where below freezing temperatures expected through the weekend will likely forestall any breakup. A risk of local ice jams is reported in

the Midwest, due to continued cold temperatures and high streamflows. Local flooding is also occurring due to a jam in Illinois.

Nebraska:

Minor flooding continues due to the jam on the Platte River near Kearney.

Montana:

Minor flooding due to ice effects continues on the Missouri River in Great Falls, Gallatin River near Logan and on the Beaverhead River in Twin Bridges, MT.

Illinois:

Minor flooding is occurring due to an ice jam on the Rock River near Machensey Park.



The Beaverhead River ice jam in Twin Bridges, MT on Wednesday. Flooded Jessen Park can be seen in the foreground.

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Below is the River Ice Update for 10 January 2011.

10 Jan 2011

There was little ice action over the weekend, though there is still a reported risk for localized ice jam flooding in parts of Michigan and Illinois due to remaining high streamflows and continued ice production. River ice related flooding and water level rises are reported in Illinois, Missouri and Nebraska. River ice levels in most of New England are reported below average and ice jam risk in that area is currently low.

Illinois:

Minor flooding of low lying areas continues due to an ice jam on the Rock River near Latham Park.

Missouri:

Rises in water level are reported on the Mississippi River in the pool of Lock and Dam 22 near Hannibal due to a freeze-up ice jam. The North Central River Forecast Center reports uncertainty as to whether the crest will be above or below flood level.

Nebraska:

Gages are exceeding flood level, though flooding is not reported at this time near an ice jam on the Platte River near Kearney, NE. Other jams in Nebraska are no longer causing flooding, but several still remain in place.

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Below is the River Ice Update for 12 January 2011.

12 Jan 2011

Due to extremely cold temperatures, ice formation and accumulation is occurring and will continue in the Upper Midwest. The risk of freeze-up ice jam formation continues in the Midwest while ice continues to form and high streamflows linger. On the Mississippi River in Hannibal and Louisiana, MO, ice development and accumulation has led to jamming and stage fluctuations. A warm-up expected later in the week in Eastern Washington and Northern Idaho may break-up river ice, and, combined with increased flow from snowmelt and rainfall, may lead to ice jamming in the region. Concerns linger for some Montana communities where ice jams are still in place, though no flooding is occurring, such as near the Beaverhead River ice jam in Twin Bridges. Minor flooding of lowland areas is occurring due to a jam along Platte River near Central City, MT.

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Below is the River Ice Update for 14 January 2011.

14 Jan 2011

Risk of localized ice jam flooding continues in Illinois. Some small stream flooding is also possible in the state of Washington, due to warming temperatures and increases in streamflow. Ice jamming and accumulation is still keeping the Mississippi River near Hannibal and Louisiana, MO near flood stage, and water levels are expected to fluctuate near flood stage until the jams breakup. The ice jam on the Platte River near Kearney, NE continues to grow Westward, causing minor lowland flooding.

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Below is the River Ice Update for 19 January 2011.

19 Jan 2011

The risk of breakup jam flooding was high in parts of Montana and Idaho over past days due to a warm up and rapid snowmelt. Colder temperatures are moving into the area, reducing the risk of breakup jams. Bitter cold temperatures late in the week in the Midwest will increase ice thickness and the risk of localized ice jamming will continue. Ice jams have been occurring in Montana, Nebraska, Michigan and Missouri. Flooding resulted in road closures and evacuations in Libby, MT and vessel traffic on the St. Clair River is being affected by river ice.

Montana:

Beaverhead River:

The jam near Twin Bridges has moved and is causing minor flooding again, mostly in rural lands.

Flower Creek:

Flooding occurred early Monday due to an ice jam releasing near Libby. Hwy 2 and some side streets were closed for a time. Some residences were affected, and sandbagging was used to divert water away from streets and residences. Voluntary evacuations of residences along the creek were enacted. By early afternoon the intense flooding had subsided.

Nebraska

Platte River:

Minor lowland flooding occurred through the end of last week and over the weekend near Odessa due to a jam on the Platte River. Stages have receded below flood level.

Michigan

St. Clair River:

River ice conditions have limited vessel traffic on the St. Clair River between Marine City and St. Clair to one-way only. US Coast Guard cutters Mackinaw, Neah Bay and Bristol Bay are working with a Canadian Cutter to keep vessels moving. A local ferry in Marine City is temporarily closed.

Missouri

Mississippi River:

Ice jams near Hannibal and Louisiana, MO finally released this weekend and water elevations are dropping. Ice accumulation and jamming at Grafton, IL is causing raised water levels, but is not expected to reach flood stage.

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Below is the River Ice Update for 24 January 2011.

24 Jan 2011

Bitterly cold weather this weekend increased ice formation in the Upper Midwest and there was some freeze-up jam risk, but no significant jams were reported. Heavy ice formation and jamming on the Mississippi River is affecting normal flow conditions and stages at Hannibal and Louisiana, MO are being affected. Risk of freeze-up ice jams will accompany the bitter cold in New England into Tuesday. Minor flooding occurred this weekend, but has receded, due to ice jamming on the Platte River near Odessa and Elm Park, NE.

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Below is the River Ice Update for 26 January 2011.

26 Jan 2011

No river ice related flooding has been reported since the last update, even in areas where bitter cold temperatures had indicated some risk. Warm temperatures across parts of Nebraska Thursday and Friday will lead to snow melt and increase the risk of ice jams, particularly in the Platte, Loup and Elkhorn River basins.

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Below is the River Ice Update for 28 January 2011.

28 Jan 2011

A risk of ice jams continues through Friday in Nebraska where mild temperatures are causing rapid snow melt. Lowland flooding is occurring due to an ice jam on the Platte River near Kearney, NE. There is an ice jam which has caused rapid stage increases on the Delaware River near Trenton, NJ, but no flooding is expected.

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Below is the River Ice Update for 31 January 2011.

31 Jan 2011

After a warm-up at the end of last week, cold temperatures are returning to Nebraska, where now the risk of freeze-up ice jam flooding is a concern, particularly along the Platte River. Most rivers in the rest of the cold regions of the U.S. are ice covered at this time, but do not present an immediate risk of ice jam related flooding. Flooding along the Platte River near Kearney, NE, receded this weekend and no other river ice related flooding is reported at this time.

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Below is the River Ice Update for 2 February 2011.

2 Feb 2011

With expected cold temperatures accompanying the major winter storm this week, the risk of freeze-up ice jams is increased, particularly in Michigan. The threat of ice jams due to fluctuating temperatures in the Northern Plains is also high. Ice action and movement on the Mississippi River will likely cause some stage fluctuations. No river ice related flooding is reported at this time.

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Below is the River Ice Update for 2 February 2011.

2 Feb 2011

With expected cold temperatures accompanying the major winter storm this week, the risk of freeze-up ice jams is increased, particularly in Michigan. The threat of ice jams due to fluctuating temperatures in the Northern Plains is also high. Ice action and movement on the Mississippi River will likely cause some stage fluctuations. No river ice related flooding is reported at this time.

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Below is the River Ice Update for 7 February 2011.

7 Feb 2011

Ice jam potential is typical for this time of year in most parts of the country, with ice continuing to thicken under cold temperatures. Minor flooding due to ice jams is occurring on the Platte River near Kearney, NE.

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Below is the River Ice Update for 9 February 2011.

9 Feb 2011

Ice jam potential is normal at this time in most cold regions in the US, with high at some locations in the North Central US where gages are showing ice effects. Fluctuations due to ice are expected on the Mississippi River. Flooding due to ice jams is occurring on the Platte River, near Kearney, NE.

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Below is the River Ice Update for 11 February 2011.

11 Feb 2011

With warming temperatures expected through the weekend and the beginning of next week, the risk of ice jams is increasing, particularly in Nebraska and Montana. Temperatures are likely to remain in the 50s for several days in Nebraska, leading to ice breakup and a risk of flooding. The Platte, Middle Loup and Loup Rivers are particularly prone to ice jams under these conditions, especially considering their already elevated stages.

In an effort to prevent ice jam flooding during breakup, the warm water siphons on the Kankakee River in Illinois are being activated Friday. The siphons will likely be run for 2-4 weeks.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at [under current events in CorpsMap](#)

Comments or questions are welcome.

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Below is the River Ice Update for 14 February 2011.

14 Feb 2011

Continuing mild temperatures are melting the remaining snowpack, leading to ice breakup and increasing the risk of ice jams in Nebraska. This pattern of daytime temperatures above freezing is predicted to continue east across the Midwest and into the Northeast through the week, bringing snowmelt, increasing stages and the risk of ice jams. There is no flooding due to ice jams reported at this time.

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Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 16 February 2011.

16 Feb 2011

Overview:

Above normal temperatures this week has led to a significant thaw in much of the cold region of the US, producing snowmelt, river rises and ice break-ups in some locations. The risk of ice jams has been tempered by moderate rates of thaw and of river rises and by the lack of accompanying precipitation. At some locations in the North Central states, snowmelt has had less effect on river stages, and this risk of ice jams, due to sublimation in the warm, dry and windy conditions. However, ice break-up and potential for ice jamming is still a concern and is been reported in Montana, Nebraska, South Dakota, Wyoming, Illinois, New York, and Western New England. Localized ice jam flooding risk is also reported in Michigan, Missouri, Vermont, and lower New York State.

The Mississippi River, which has been experiencing ice conditions since December, will see some ice deterioration and breakup due to the warm temperatures. Minor flooding due to ice jams has been reported along several creeks in SD, along the White River near Interior, SD, the Musselshell River near Mosby, MT and the Loup River near Genoa, NE. Flood watches or advisories for ice jams have been issued in several counties in NE and SD, and in the Buffalo, NY, area.

CRREL Personnel:

On Feb. 14, 2011, Andy Tuthill of CRREL visited a bridge construction project on the Merrimack River at Groveland, MA. The contractor, Cianbro Corp., is concerned with the unusually heavy ice conditions and the fate of their equipment should a dynamic breakup occur. Cianbro is considering hiring an ice breaking tug to clear the ice from the lowermost 9 miles of the Merrimack. This would allow them to move their equipment out of the way of the breakup ice run if needed.

Image:



Aerial view of ice affecting construction project on the Merrimack River at Groveland, MA

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 18 February 2011.

18 Feb 2011

Overview:

There has been much ice breakup on rivers and some flooding due to ice jams during the warm spell this week. The risk of ice jams remains high while temperatures stay mild through Friday for some areas and into the weekend for others. A cold spell into next week should reduce runoff from snow melt and slow ice deterioration, thus lowering the risk of ice jams.

A risk for ice jams has been reported in NE, SD, IA, MO, MI, IL, OH, NY and VT.. Stage fluctuations due to river ice have been reported in IA and NY. Minor flooding due to river ice has occurred in NE, SD, ND, MT, IL and OH.

Nebraska:

Elkhorn River

Two ice jams were reported Thursday, one to the East and one to the West of Pilger. Some minor flooding along the River is forecasted. Minor flooding of farmland due to ice action along the river from West Point to Arlington was forecast overnight Thursday.

Platte River

Minor flooding was reported near Ashland due to ice congested downstream. Flooding was reported late Thursday night in the Willow Point area, the Linoma Beach area and East of Yutan. Water rose over the levee in Willow Point and the main flooding appeared to be upstream of the I-80 Bridge.

Loup River

Stages have receded at Genoa due to an ice jam that began on Tuesday which caused lowland flooding. The Loup River is considered at very high risk for ice jams at this time.

Montana:

A jam occurred on the Musselshell River near Mosby, NE last week, but stages receded. However, the ice jammed again earlier this week, reaching 5 feet above flood stage. On Wednesday there were reports of water over roads, basement and yard flooding and part of a subdivision stranded. Currently, the stage is slowly receding.

North Dakota:

Ice congestion on Ox Creek near Belcourt on Tribal Lands led to flooding starting on Wednesday. US Highway 281 is closed and other road closures have occurred. Water has affected homes and backed up into the hospital. Sandbagging and ice clearing was still continuing on Thursday.

South Dakota:

White River

Jams have been making their way through the river, building up then releasing. A jam near Interior which has caused minor flooding of low lying areas released on Tuesday. Another jam south of Kadoka released on Wednesday. On Thursday, rapid stage fluctuations and minor flooding due to ice jams were reported at Oacama (now moderate flooding), North of White River and near Reliance. Minor flooding is expected to continue on the White River through Sunday.

White Clay Creek

Flooding of lowland areas has been reported due to an ice jam near Ogala, SD. Four to six inches of water were flowing across Highway 18 on Wednesday, requiring a detour which will be in place for the next few days

Iowa:

Many rivers in Iowa are experiencing flooding due to a combination of moving ice and snowmelt runoff.

Raccoon River

Rapid water fluctuations due to swiftly building and releasing ice jams started Thursday in Van Meter and Des Moines. By late afternoon, the jam in Des Moines had released.

Des Moines River

Backwater fluctuation from 1-3 feet due to ice jams were reported near Keosauqua which was near flood stage. The jam released late Thursday night.

Illinois:

Ice action and snow melt on the Spoon River at London Mills has caused a rise above flood levels Friday morning.

Ohio:

An ice jam, ice action and snow melt led to stage fluctuations on the Grand River near Painesville starting Wednesday night and rising above

flood stage Friday morning,. An ice jam was observed on the Huron River West of North Fairfield and was causing stage fluctuations. Minor flooding occurred overnight, but has now receded, due to an ice jam that formed and releases on the Chagrin River near Eastlake.

New York:

City of Buffalo officials report developing ice jams on Cazenovia Creek. A downstream gage also indicate a rise in stage associated with an ice jam.

Image:



Slabs of ice build up against the 63rd Street Bridge Thursday in Des Moines. Rodney White, The Register.

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Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>

Below is the River Ice Update for 23 February 2011.

23 Feb 2011

Overview:

Ice jam action has been active since the last River Ice Report on Friday, with over 35 jams reported. Flooding has been reported in Iowa, New York, Nebraska, Montana, South Dakota, Pennsylvania and Michigan. A potential for ice jam continues, particularly in Nebraska, Iowa, Illinois and Pennsylvania.

Nebraska

An ice jam on the Elkhorn River near West Point led to road closures on Tuesday and lowland flooding. Another jam was noted in Wisner. Several minor jams formed over the weekend on the Platte River. A large jam on the Platte River near Woodcliff released on Monday after causing minor flooding. Minor flooding due to ice jams also occurred on the Loup River near Fullerton and lowland flooding was occurring near Genoa.

Montana

Minor flooding occurred through Monday on the Jefferson River in Jefferson Acres near Silver Star.

South Dakota

Ice jams continued to cause stage increases and fluctuations through the weekend on the White River, causing some flooding near Reliance. On Tuesday, the stage began to increase again at Oacama on the White River, with minor flooding occurring and expected to continue.

Michigan

A jam in place at on the Grand River at Comstock Park appeared to be receding on Tuesday night. Minor flooding of some homes was expected.

Iowa

Monday, an ice jam on the Cedar River near Mount Auburn resulted in evacuations from cabins by boat as the river rose quickly. An ice jam on the Cedar River near Cedar Rapids was causing road closures Tuesday night. Flooding was caused by a jam on the Des Moines River in Fort Dodge leading to damage to over 12 homes and some evacuations ordered.

Pennsylvania

Minor flooding was reported Saturday on the Allegheny River upstream of East Brady, but has since released. A flash flood condition occurred briefly in Oil City On Friday due to a jam on Oil Creek.

New York

Ice jams occurred on Cazenovia Creek and Buffalo Creek in the Buffalo area. A jam formed and released on Cattaraugus Creek at Sunset Bay on Friday, only to be followed by a more severe which led to minor flooding on roads and near homes. Voluntary evacuations of Sunset Bay were in place until the second jam released. Lengthy jams also occurred on Canisteo Creek near West Cameron and the Cohocton River near Campbell.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>

Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 25 February 2011.

25 Feb 2011

Overview

Risk of localized flooding due to ice jams continues through the end of the week in Nebraska and Iowa. Recent above freezing temperatures and runoff from rain and snow melt has caused a risk for localized ice jamming in Illinois. Localized ice jam flooding is also possible due to rainfall and mild temperatures in parts of the Northeast. Flooding due to ice jams is occurring or has occurred in South Dakota, Montana, Nebraska, Iowa, and Michigan

South Dakota

Ice jams on the White River near Reliance continue to cause flooding and substantial stage fluctuations at Oacoma.

Montana

Flooding has continued since Monday due to a jam on the Jefferson River 4 miles south of Silver Star, where over a dozen homes have been flooded.

Nebraska

A jam on the Elkhorn River near West Point has kept stages above flood level since Tuesday. Significant lowland flooding is occurring and stages are expected to decline slowly.

Iowa

Several ice jams on the Cedar River upstream of Cedar Rapids caused road closures. Flooding continues due to a jam that formed Sunday on the Des Moines River near Fort Dodge in the Breen housing addition. 15 homes are underwater and several households remain evacuated. Jams are also reported at the Skunk River at Augusta and the English River at Kalona.

Michigan

An ice jam downstream of Eagle on the Looking Glass River led to a brief flooding condition on Wednesday.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>

Classification: UNCLASSIFIED

Caveats: NONE

Below is the River Ice Update for 28 February 2011.

27 Feb 2011

Overview

Risk of localized flooding due to ice jams continues through the middle of the week in Nebraska, Iowa, Montana and North Dakota with the continuation of above freezing temperatures and snowmelt. Localized ice jam flooding is also possible due to forecast rainfall and mild temperatures in the Northeast Monday and Tuesday. Flooding and elevated stages due to ice jams are currently occurring in South Dakota, Montana, Nebraska and Iowa.

South Dakota

An ice jam on the White River near Oacoma continues to cause near-flood stages.

Montana

Ice jamming continues on the Jefferson R. 4 miles south of Silver Star where several homes are affected and some roads have been washed out. Ice jams on Lolo and Graves Creeks to the west of Lolo are causing minor flooding. A jam on the Missouri R. north of Ft. Benton is flooding low-lying areas.

Nebraska

Jams remain on the Elkhorn R. near West Point and the Loup R. near Genoa, with stages slightly below flood levels.

Iowa

A flood warning remains in effect due to an jam on the Des Moines River near Fort Dodge. A jam on the Little Sioux River at Lynn Grove is causing near-flood stages.

Comments or questions are welcome.

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Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Below is the River Ice Update for 2 March 2011.

1 March 2011

Overview

Localized flooding due to ice jams continues in the Northern Plains region with a slow return to seasonal temperatures. Localized ice jam flooding is occurring on several rivers in NY State with stages slowly dropping. Farther west, it appears that runoff volume and rather than ice was the major factor in the recent flooding in northern Ohio, Indiana and Illinois.

North Dakota

The Souris R. at Foxholm, Towner and Bantry remains near flood stage with an estimated 1.5 ft attributed to ice backwater. There are concerns that the sheet ice could break up and jam, increasing water levels.

South Dakota

An ice jam on the White River near Oacoma continues to cause near-flood stages.

Montana

A 10-mile long jam on the Jefferson R., from north of Twin Bridges to 4 miles below of Silver Star continues to cause minor flooding.

Nebraska

A jam remains on the Elkhorn R. near West Point with stages slightly below flood levels. A jam on the Platte R. south of Clarks is flooding low lying areas and closing some roads. Ice-affected stages on the White R. at Oacoma and Reliance remain just below flood levels.

New York

In western NY, a jam near the mouth of Cattaraugus Creek flooded portions Sunset Bay causing the evacuation of 200 people from their homes. Stages are now slowly dropping. A jam near the mouth of Cazenovia Creek in Buffalo caused the closure of the Stevenson St. Bridge. The jam on the Cohocton R. below Campbell remains in place with stages expected to crest on 3/1/11. A jam on the Wallkill R. in eastern NY is causing minor flooding from Walden to Gardner.

Comments or questions are welcome.

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Classification: UNCLASSIFIED

Caveats: NONE

Below is the River Ice Update for 4 March 2011.

4 March 2011

Overview

Localized flooding due to ice jams continues in the Upper Midwest Northern Plains regions. Looking ahead, flooding and ice jams are anticipated due to the above-average snowpack in Iowa, Minnesota, the Dakotas, and Montana. Concerns exist for potential ice jams on eastern NY and central New England rivers during the expected warmup and rain of this weekend.

North Dakota

The sheet ice covered Souris R. at Foxholm, Towner and Bantry remains about 1 ft below flood stage.

South Dakota

An ice jam persists on the White River near Oacoma which crested yesterday at about 1 ft above flood stage.

Montana

Conditions are unchanged on the Jefferson R. where a 10-mile long jam from north of Twin Bridges to 4 miles below Silver Star continues to cause minor flooding. A jam is still in place on Lolo Creek west of Lolo. The above average snowpack in central and southwestern MT is causing concern in terms of spring flood and ice jam potential, particularly in the Milk R. Basin.

Nebraska

The jam on the Elkhorn R. near West Point remains in place as does the one on the Platte R. south of Clarks where stages are slowly dropping. Elevated stages due to ice are still being reported on the White R. A jam on the Loup R. is causing road flooding in central Howard County near St. Paul.

New York

A jam on the Buffalo River extending up Cazenovia Creek has frozen in place and is causing concern. Upstream open water has generated frazil to solidify the downstream jam. The jam on the Cohocton R. below Campbell remains in place with conditions essentially unchanged.

Comments or questions are welcome.

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Classification: UNCLASSIFIED
Caveats: NONE

7 March 2011

Overview

Rainfall and snowmelt from warmer air temperatures over the weekend caused rising flows and flood watches in a broad area of the northeast from Pennsylvania into New England. Ice jams are occurring in New York and Vermont as a result. Ice remains an issue in the upper Midwest with some problems reported in North Dakota and Nebraska.

Vermont

An ice jam on the Mad River at Moretown, Vermont caused the Mad River to go out of banks as of 1259 PM EST, Sunday, 6 March. Several road closures resulted. Ice jams on the Mad and Dog Rivers are expected to continue to cause road closures through the day. Flooding from ice impacts on the Missisquoi River has caused road closures in Montgomery, VT. An ice jam formed and released on the White River at West Hartford.

NY

Ice jam flooding is reported on the Ausable River at Jay and Upper Jay, NY. A "huge" ice jam remains in place in the Cohocton River at Campbell, NY. The icejam extends from the I-86 overpass through the village of Campbell. In the Delaware River ice jamming continues at Barryville, NY. A local ice jam is in place on the Black River east near the Boonville gage. It is causing high water but the river remains within bankfull.

North Dakota

The sheet ice covered Souris R. at Foxholm, Towner and Bantry. Minor flooding is occurring and is expected to continue.

Nebraska

The jam on the Elkhorn R. near West Point is causing water levels to fluctuate.

Comments or questions are welcome.

Best Regards

Steve

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Classification: UNCLASSIFIED
Caveats: NONE

Below is the River Ice Update for 09 March 2011.

09 Mar 2011

Overview:

Rainfall and snowmelt over the weekend in Northern New England led to considerable ice jam action, with more significant jams freezing in on Monday as cold temperatures set in. Mild temperatures and rainfall are expected in the region Thursday into Friday, which will likely start the ice moving again, with the potential for break-up jams and flooding. Temperatures in parts of Montana are expected to rise into the 40s and 50s Wednesday into Thursday, increasing the potential for ice jams as river ice breaks up. Reservoir releases to the Platte River in parts of Wyoming and Nebraska are increasing flows and increase the chance of ice jams.

Flooding due to ice jams was reported in VT, NY, NH and CT.

New York

Moderate flooding is occurring on the Hudson River at North Creek. Minor flooding has occurred on the Susquehanna at Windsor and on East Canada Creek at Dolgeville. Other jams have been observed at several locations along the AuSable River including Keesville, AuSable Forks and Clintonville and on the Sacandaga River near Hope and the Mohawk River in Schenectady.

Vermont

Flooding caused by a jam on the Mad River near Moretown has receded below flood stage. Several roads and home were flooded in Townshend and Newfane due to an ice jam on the Rock River along Dover Road. Route 114 was closed due to high water from a jam on the Passumpsic River between East Burke and Lyndonville. An ice jam on the West Branch of the Deerfield River near Stamford caused flood waters to reach the first floor of some residences. Officials in Montpelier are concerned that conditions are ripe for ice jamming on the Winooski River due to heavy rain and snowfall on Monday and rainfall and warm temperatures expected later this week.

New Hampshire

Three jams were observed on the Contoocook near Peterborough. One jam remains in place and the river has receded, but there is concern over the risk of more flooding should any high water event occur. Moderate flooding occurred due to a jam on the Sugar River at West Claremont on Monday. A 7-10 mile jam is in place near Plymouth where lowland flooding occurred. Other jams have been observed on the Saco River near North Conway and on the Ammonoosuc River in Bretton Woods, where the jam had flooded the clubhouse and maintenance shed of a local golf course.

Connecticut

Flooding was aggravated along the Housatonic River in Kent by an ice jam which broke on Monday. Roads remained closed on Tuesday as flood waters receded.

Images



Saco River just west of North Conway, NH.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in
CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 11 March 2011.

11 Mar 2011

Overview:

Cooler temperatures midweek reduced the ice jam activity in Northern New England, however, heavy rainfall, warm temperatures and snowmelt Friday into Saturday will again increase the risk of ice jam flooding, particularly in Maine, Vermont, Northern New York and New Hampshire. A warm-up starting Sunday in Montana will also bring the risk of ice jam flooding to that area.

New York:

A significant jam is causing moderate flooding on the Hudson River near North Creek. Other jams are still in place on Sacandaga River near Hope and on the Mohawk River in Schenectady.

New Hampshire:

A large jam remains in place on the Pemigewasset River below Plymouth.

Vermont:

A large jam is in place at the confluence of the Connecticut and Nulhegan Rivers in Bloomfield, causing backyard flooding.

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Below is the River Ice Update for 14 March 2011.

14 Mar 2011

Overview:

Warm rain brought a lot of ice jam activity to the New England region late last week and through the weekend. Most of the river ice ran without flooding, though several ice jams still remain in place in Maine, Vermont, and New York. Ice jams in Montana, South Dakota and Nebraska have also caused minor flooding over the weekend and remain in place. River ice activity is expected to continue through the upcoming week as temperatures fluctuate and precipitation and snowmelt contribute to rising stream flows.

Maine:

The ice has run on several rivers in Maine with reports of temporary flooding in many locations. Ice jams on the Piscataquis River in Maxfield and the Kennebec River in Augusta remain in place, though no reports of flooding.

Vermont:

A jam on the Passumpsic and Moose Rivers is causing minor flooding in St. Johnsbury, VT. One house was evacuated.

New York:

An ice jam still in place on the Mohawk River between locks 6 and 7 is causing flooding of several roads and houses in the Schenectady area. An ice jam on the Hudson River near North Creek has moved downstream to Thorburn, NY.

Montana:

A large ice jam on the Musselshell River near Mosby, MT is causing concern, and minor flooding was reported on several tributaries of the Musselshell River. Multiple ice jams are in place in the Yellowstone Basin, with minor flooding in Crow Agency and Miles City, MT due to ice jams on the Yellowstone, Tongue, and Powder Rivers, and Pumpkin Creek.

South Dakota:

Minor flooding is occurring in several locations in SD due to ice jams: the White River near Oacoma, SD, the Belle Fourche River near Sturgis, and the Cheyenne River near Plainview, as well as on several tributaries. Several roads have been affected.

Nebraska:

An ice jam on the Keya Paha River near Naper, NE has caused flooding on Highway 12. Minor flooding is also reported near Verdell, NE due to an ice jam on Ponca Creek.

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Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

Carrie M. Vuyovich, PE
Research Hydraulic Engineer
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Below is the River Ice Update for 16 March 2011.

16 Mar 2011

Overview:

Warm temperatures will continue to cause snow melt and ice break-up, increasing the risk of flooding due to ice jams in Montana, North Dakota and South Dakota. Ice still remaining on some rivers in Maine combined with warm temperatures continues to provide a possibility of jams. Runoff from snowmelt is expected to break up ice in parts of Wisconsin later this week, bringing the risk of ice jam flooding.

Montana:

Multiple ice jams on the Musselshell River combined with snow melt runoff has caused minor flooding. As the Yellowstone River has begun to run, numerous ice jams, some over 10 miles long, are impacting low lying areas. Jams have formed West of Terry, at Glendive where extensive lowland flooding occurred and near Hathaway which led to extensive lowland flooding and high water surrounding several structures.

South Dakota:

Multiple jams have formed and released along the White River including a jam near White River that led to moderate flooding. The river is expected to remain above flood stage through Friday.

Maine:

A jam on the Penobscot River near Lincoln caused road flooding. Jams on the Piscataquis River near Howland and Maxfield led to road flooding.

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Comments or questions are welcome.

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Below is the River Ice Update for 18 March 2011.

18 Mar 2011

Overview:

As warm temperatures and snow melt continue, ice breakup and ice jam flooding risk is elevated in Montana, North Dakota, South Dakota and Wisconsin. Continuation of mild temperatures and snow melt in Maine may allow further ice breakup and jamming.

Ice jam flooding has been reported in Montana, North Dakota, South Dakota, Wisconsin, Vermont and Maine.

Montana:

Multiple ice jams have caused minor lowland flooding along the Yellowstone River as break-up continues: a nine-mile long dam west of Terry, near Glendive (released), near Savage, near Interstate 94 in Hathaway and near the Dawson County border. Bank-full flows were occurring and rising at another jam near Richland Park. Major ice jams are still occurring north of Mosby on the Musselshell River. Lowland flooding is occurring due to an ice jam on Big Dry Creek near Jordan. Field flooding was reported along the Little Missouri River near Albion.

North Dakota:

Flooding due to an ice jam on the Little Missouri River near Medora has transitioned from ice jam flooding to flow based flooding,

South Dakota:

An ice jam on the White River near the town of White River caused road closures but has since released. Another jam south of Reliance is causing flooding for several miles upstream. Minor flooding due to ice jams along the Cheyenne River will continue through the end of the week. Water levels are rising on the Moreau River due to the combination of ice jams and snow melt.

Wisconsin:

Minor lowland flooding due to an ice jam on Duck Creek above Howard was reported.

Vermont:

Ice jam flooding was reported in St. Johnsbury on the Moose River near the confluence with the Passumpsic. One home was evacuated and basement flooding is occurring in others.

Maine:

Roads were closed and some homes were flooded due to an ice jam on the Penobscot River from Chester to Lincoln, but waters have receded. Jams on the East Branch of the Penobscot River near Grindstone and the Middle Branch Stream near Brownville are causing high water levels. No flooding is occurring, but the jams are being observed carefully for potential changes. Stage is being affected by ice jams on the Kennebec River near Augusta.

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Comments or questions are welcome.

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Classification: UNCLASSIFIED

Caveats: FOUO

(Corrected)

21 Mar 2011

Overview:

Snow melt, ice breakup and ice jam flooding continue as temperatures increase during the early stages of the spring season. Weather forecasts for the upcoming week show a step back into winter weather with rain, freezing rain or significant snow additions to the remaining snow pack. Currently, ice jam flooding is reported in Montana, New York, North Dakota, and Vermont.

Montana:

The combination of snow melt and ice jams have the Milk River at Dodson holding steady around flood stage causing minor flooding. Three ice jams remain in place on the Yellowstone River; at the Fallon Bridge, the North Dakota border near Sydney and 6 to 7 miles south of Glendive. These jams are creating low land flooding along the Yellowstone River from Terry to the North Dakota border. The remainder of the Yellowstone River is ice free. Ice jams and high water resulting from snow melt will continue to impact some locations along the Yellowstone, Tongue, Powder and Little Missouri Rivers east of Billings.

New York:

An ice jam remains in place on the Great Chazy River in Champlain Village. Water is finding its way through and around the jam causing low land and yard flooding.

North Dakota:

The combination of snow melt and ice jams has caused the Grand River near Little Eagle to rise above flood stage. It is expected to remain above flood stage as weather conditions persist.

Vermont:

An ice jam on the Missisquoi River is causing minor flooding on Route 105 between Berkshire and Enosburg.

Additional Resources:

See the Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
A map of ice jam locations is in EngLink under current events in CorpsMap.

Comments or questions are welcome.

Jeffrey P. Niehaus, P.E.
Research Hydraulic Engineer
For

Meredith Carr, PhD

Below is the River Ice Update for 23 March 2011.

23 Mar 2011

Overview:

Though ice jams are continuing to cause problems in North Dakota and Montana, expected below normal temperatures into the end of the week could slow down snowmelt and reduce the potential for ice jams. Some potential for ice jamming still exists in Northern New York and Northern New England. Ice jamming has contributed to minor flooding and road closures in North Dakota, Montana, Minnesota and Vermont.

North Dakota:

An ice jam was contributing to minor flooding along the Cannonball River East of Breien. Another jam near Raleigh led to a 10 foot rise in stage, but has released. Minor flood stage has been reached in part due to an ice jam on the Heart River near Mandan.

Montana:

Much of the ice on the Yellowstone River has cleared out, though a jam at Richland Park near Sidney is still causing some minor lowland flooding and was covering a roadway on Monday. Flooding from ice jams was reported near Albion along the Little Missouri River. A jam was also occurring on Beaver Creek 13 miles from Wibaux and high waters were threatening one home.

Minnesota:

A jam on the Rush River south of Henderson led to closure of Highway 93. Another jam on the Minnesota River near Henderson led to closure of Highway 19, but has since released..

Vermont:

A jam is in place on the Great Chazy River near Champlain Village. The jam was flooding low lying areas and yards on Monday, but water had found a way through the jam by Tuesday.



An ice jam on the Great Chazy River near Perry Mills, 20 March 2011

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in
CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 25 March 2011.

25 Mar 2011

Overview:

River ice and risk of ice jamming is still present in parts of North Dakota, Montana, Minnesota, Northern New York and Northern New England. Cool temperatures through the end of the week in North Dakota and

Montana will slow snow melt and reduce ice movement. Currently, no flooding primarily due to ice jams is reported.

Montana:

Ice jams are still in place along the Yellowstone near Sidney and on Beaver Creek north of Wibaux, though water levels are lower and flow under the jams are less. Movement of the jams are not expected in the next few days.

Minnesota:

Risk of ice jams is increased on the Redwood, Cottonwood and Little Cottonwood Rivers. Ice jams are occurring upstream of Mayer on the South Fork Crow River and near Redwood Falls on the Redwood River.

North Dakota:

The ice jam on the Heart River near Mandan is still in place though water levels are below flood stage. Minor flooding is still being affected by ice on the Cannonball River at Breien.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 28 March 2011.

28 Mar 2011

Overview:

Though flooding due to ice jams has tapered off in the past week, ice jams are still possible due to remaining river ice in Montana, North Dakota, South Dakota, Minnesota, Northern New York and Northern New England. With temperatures warming again to above freezing, snow melt is expected to resume midweek in Montana, bringing the possibility of ice jams. In Minnesota and North Dakota, as waters rise and ice releases, there is a reported risk of ice jams on the Redwood River, Cottonwood River, Little Cottonwood River and tributaries to the Red River of the North. No flooding due to ice jams has been reported since the last River Ice Update.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at [under current events in CorpsMap](#)

Comments or questions are welcome.

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Below is the River Ice Update for 30 March 2011.

30 Mar 2011

Overview:

Above freezing temperatures in Northeast and North Central Montana will cause new snowmelt and increase the risk of ice jams through the end of the week. Cold temperatures have slowed snowmelt in the Red River of the North basin, where most river ice has not begun to move or disintegrate and therefore the possibility of ice jams is still present. No ice jam flooding is reported at this time.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at [under current events in CorpsMap](#)

Comments or questions are welcome.

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Below is the River Ice Update for 01 Apr 2011.

01 Apr 2011

Overview:

River ice is still remaining in the Red River of the North basin, parts of Montana and parts of Northern Maine. A slow melt has continued in the Red River of the North basin, where many tributaries are still ice covered and the main stem is still affected by 1-2 ft of ice. Above freezing temperatures is bringing snow melt runoff and water level rises to some rivers and creeks in Montana, where ice jams are still possible.

Ice jams have been reported on the Wild Rice River near Abercrombie, ND, where water levels are rising mainly due to snow melt runoff.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 04 Apr 2011.

04 Apr 2011

Overview:

The potential for ice jam flooding remains while the spring melt continues in North Dakota, Minnesota and Montana, particularly along Northern tributaries to the Red River.

Minor flooding affected by ice jams has been reported on the Big Muddy North of Plentywood and near Reserve, MT.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 06 Apr 2011.

06 Apr 2011

Overview:

With warmer temperatures, the spring thaw is progressing and the potential for ice jamming continues in North Dakota, Montana and Minnesota, especially on the Northern tributaries to the Red River

Ice jams have been reported on the Milk River at Nashua and Big Muddy Creek South of Reserve, MT, the Red River downstream of Fargo and Beaver Creek near Linton, ND and the Red Lake River near Crookston, MN.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 08 Apr 2011.

08 Apr 2011

Overview:

A risk of ice jams continues for Montana, North Dakota and Minnesota. Some rivers in these areas are already at or near flood stage due to the spring thaw and are also being affected by ice jams. In addition, a possible strong rain event in combination with ice breakup on some rivers in Wisconsin over the weekend may lead to ice jams.

North Dakota:

An ice jam raised water levels 3 feet on the Sheyenne Diversion in West Fargo due to an ice jam at a railroad bridge. Heavy equipment was used to break up the jam. Ice jams have been indicated at several locations along the Maple River including near Mapleton. Ice jams have been reported on the Goose River upstream of Hillsboro and on the Red River downstream of Fargo.

Minnesota:

Ice jamming has been reported on the Red Lake River in many reaches upstream of Crookston, where a high risk of ice jam flooding is predicted. An ice jam was reported on the Snake River downstream of Warren.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 11 Apr 2011.

11 Apr 2011

Though the risk of ice jams in the continental US has largely diminished, there is still river ice reported in parts of North Dakota. Ice breakup in these areas is expected to continue over the next few days with expected warm temperatures. Stage fluctuations due to ice action are possible on the James and Pembina Rivers in ND.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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13 April 2011 River Ice Update

This will be the final regular river ice update of the season. Additional river ice updates will be transmitted when ice jams occur. It is expected that the River Ice Updates will restart when ice jams begin occurring in Alaska starting in late April or early May.

An initial review of the 2010-11 ice season for the 48 contiguous states will be transmitted soon. If you have any suggestions for information you would like to see in this review, please let us know.

Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at "under current events" in CorpsMap.

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Below is the River Ice Update for 6 May 2011: Alaska

6 May 2011

The Alaska ice breakup has begun. The general outlook is for a mild breakup and due to a slow steady snow melt the danger of river ice related flooding is low to moderate for most locations. Breakup has occurred on the Upper and Central Tanana River, which is now open down to Nenana. The Kuwoskim is beginning to breakup and the Yukon River is still solid ice. Minor flooding occurred Monday and Tuesday on the Tanana River near Salcha.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at [under current events in CorpsMap](#)

Comments or questions are welcome.

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Below is the River Ice Update for 9 May 2011: Alaska

9 May 2011

The Upper Yukon River mostly open to Eagle and the Tanana is mostly open to Nenana. An ice jam formed on the Kuskokwim River near Eightmile below the Village of Red Devil. Low lying areas around the village are beginning to inundate.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 11 May 2011: Alaska

11 May 2011

River ice breakup is continuing in Alaska, with the Tanana River mostly open, the Upper Yukon River broken up to about 30 miles upstream of Circle, and ice jam flooding occurring on the Kuskokwim River. As of Wednesday afternoon, an ice jam remained in place on the Kuskokwim near the tiny village of Crooked Creek. 47 people were evacuated on Monday and the flooding has lifted several homes off their foundations, led to water inside 70% of the villages houses and flooded the road to the airport. When the jam releases, there is potential for flooding downstream.



Breakup of the Kuskokwim River at the village of Crooked Creek, 9 May 2011, photograph by Alaska Division of Homeland Security and Emergency Management.

The Ice Jam Database: <https://rsgis.crrel.usace.army.mil/icejam/>
Map of ice jam locations is in EngLink at under current events in CorpsMap

Comments or questions are welcome.

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Below is the River Ice Update for 13 May 2011: Alaska

13 May 2011

A warm-up expected into the weekend in the Alaska interior will increase snowmelt, raising runoff rates and causing stages to rise early next week.

Water levels have dropped 6-10' behind the ice jam on the Kuskokwim River near Crooked Creek. Though water is flowing around the jam, many low lying areas are still flooded. The jam is weakening, but is still holding back enough water that when it releases, it poses a risk of flooding downstream at Aniak, where ice from an early winter jam is still in place.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

If you know of river ice problems in your area please send information to meredith.l.carr@usace.army.mil. Questions and comments are welcome.

This River Ice Update, which summarizes river ice conditions, is provided by the ICE Engineering Group at ERDC/CRREL to the UOC, EOCs and others. During the peak of the ice season, this update will be distributed three times a week on Monday, Wednesday and Friday. Data is gathered and summarized from various sources including the Ice Jam Database (<https://rsgis.crrel.usace.army.mil/icejam/>), National Weather Service Products, newspapers and individual observations.

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Below is the River Ice Update for 16 May 2011: Alaska

16 May 2011

An ice jam has formed on the Koyukuk River below Allakaket and is causing flooding. The jam on the Kuskokwim River at Crooked Creek released sometime Thursday and waters have dropped below flood stage. Ice has gone out on the Kuskokwim down to 3 miles upstream of Aniak, where a jam has formed. However, water levels continue to drop and flooding is no longer likely. The ice jam on the Yukon River 25 miles upstream of Circle likely went out on Sunday and water levels are low at Circle. Water levels on the Yukon are low from Tanana upstream and the flood threat is minimal.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

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Below is the River Ice Update for 18 May 2011: Alaska

18 May 2011

The ice jam on the Koyukuk River at Allakaket went out late Sunday and water levels receded. The Yukon River is mostly open from Eagle to Ruby and the breakup front was downstream of Kaltag on Tuesday morning. Multiple jams are in place upstream of Buckland on the Buckland River and some overbank flooding is occurring. Ice is still solid at a site downriver where jams traditionally occur and further flooding is likely when the jams upstream release.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

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Below is the River Ice Update for 20 May 2011: Alaska

20 May 2011

The multiple ice jams upstream of Buckland on the Buckland River are holding in place, while a new jam has formed in front of the village. As of Thursday afternoon, uptown areas were under 1-3 feet of water, the airport road was under water and water levels were within 2 feet of going overbank along Front Street. No damage was being reported. No other river ice related flooding is reported in Alaska at this time.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

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Below is the River Ice Update for 23 May 2011: Alaska

23 May 2011

The ice jams upstream of Buckland on the Buckland River released and water levels have dropped. Moderate flooding occurred due to an ice jam on the Kobuk River near Kobuk, but released on Saturday night. An ice run has raised the water level to flood stage on the Porcupine River from the mouth of the Coleen River to Fort Yukon. A flood warning is in effect.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

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Below is the River Ice Update for 25 May 2011: Alaska

25 May 2011

Water levels have risen to flood stage behind the main ice run on the Porcupine River and water has moved into some low lying areas near Fort Yukon. Water levels in Hospital Lake and sloughs near Fort Yukon are expected rise as the ice run moves further downstream.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

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Below is the River Ice Update for 27 May 2011: Alaska

27 May 2011

River ice on the Porcupine River has flushed completely into the Yukon River, but high water continues due to high rates of snow melt. The breakup front on the Yukon River itself has progressed all the way to the coast. No river ice related flooding is reported at this time.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

If you know of river ice problems in your area please send information to meredith.l.carr@usace.army.mil. Questions and comments are welcome.

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Below is the River Ice Update for 01 June 2011: Alaska

01 June 2011

An ice jam formed on Saturday on the Colville River about 3.5 miles upstream of Colville Village. Minor flooding occurred, inundating low lying areas and the runway. The jam released Monday afternoon and water levels have dropped below flood stage. Reports indicate that all North Slope rivers are mostly open, signaling that the ice breakup is Alaska is complete or near complete.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

If you know of river ice problems in your area please send information to meredith.l.carr@usace.army.mil. Questions and comments are welcome.

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Below is the River Ice Update for 03 June 2011: Alaska

03 June 2011

This will be the final river ice update of the season. Reports indicate that all Alaska rivers are open or mostly open, indicating that the risk of river ice related flooding has ended.

A review of the 2010-11 ice season will be transmitted during the summer. If you have any suggestions for information you would like to see in this review, please let us know.

Map of ice jam locations at <https://rsgis.crrel.usace.army.mil/icejam/> and in EngLink under current events in CorpsMap

If you know of river ice problems in your area please send information to meredith.l.carr@usace.army.mil. Questions and comments are welcome.

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