## **River Ice Guide**

National Weather Service Chicago, IL Adapted from: US Army Corps of Engineers CRREL River Ice Guide (1997)

### Frazil Ice



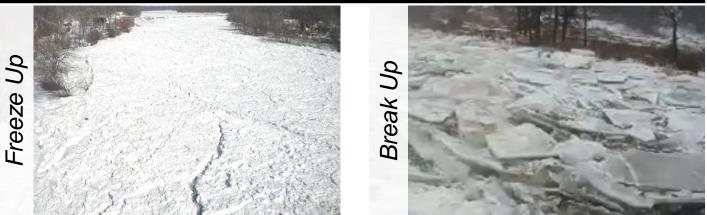
### Sheet Ice



**Border Ice** 



## Ice Jams



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## GLOSSARY

#### Frazil ice

Fine, small, needle-like structures or thin, flat, circular plates of ice suspended in water. In rivers and lakes it is formed in super-cooled, turbulent water.

#### Slush ice

A floating agglomeration of loosely packed frazil ice that remains separate or only slightly frozen together.

#### Pancake ice

Circular, flat pieces composed of frazil and slush ice with a raised rim; the shape and rim are due to repeated collisions.

#### Anchor ice

Submerged ice attached or anchored to the river bed, regardless of the nature of its formation.

#### Sheet ice

A smooth, continuous ice cover formed by freezing in the case of lake ice, or by the accumulation of ice floes into a single layer in the case of river ice.

#### **Candled** ice

Decayed sheet ice that assumes the appearance of thin vertical crystals shaped like candles.

#### Break up jam

Accumulation of broken ice pieces that restrict the flow of water; may contain frazil ice or remnants of freeze up jam.

#### Freeze up jam

Accumulation of frazil that restricts the flow of water; may contain some broken border ice pieces.

#### Shear walls

Ice left along shoreline when a freeze up or break up jam fails and moves downstream.

Image credits (left-to-right, top-to-bottom): USACE CRREL, New Brunswick Ice Manual, USACE CRREL, unknown, unknown, NWS Caribou