Unencapsulated polystyrene foam, blue foam, breaks down for several reasons:

Mammals Disturbance by mink, muskrats, beavers and otters.

Rocks Changing water levels can cause rocks to rub on exposed foam billets.

IceIce moving during wind events or spring break-up dislodges pieces of unprotected foam.WavesRocking motion from waves may cause unprotected foam to rub on rocks or ice.

If the frame of a dock isn't solid, waves could flex the dock and break off bits of foam.

UV light Sunlight causes the outer layer of foam to become brittle and easily broken

It's tough to prevent damage caused by UV light but other factors can be eased.

Mitigation Measures

- 1. Choose a location for winter mooring that's protected from wind and ice movement and in water deep enough rocks won't impact foam if water levels drop.
- 2. Ensure the dock's summer location is in water deep enough to prevent rocks from impacting the foam should water levels drop. The ramp may have to be extended to push the dock into deeper water.
- 3. Install heavy gauge screening on any gaps in the outer skirting. This helps reduce access by mammals and to contain small pieces of foam dislodged by mammals.
- 4. Remove several top decking boards to allow access to the foam billets and then gather pieces of dislodged foam. When securing decking boards use screws to allow future access.
- 5. Swim under the dock and look for exposed foam billets. Fastening a length of dimension lumber (2"x6" minimum) to the framing and along the length of a billet will help protect it from rocks and ice. Doing this underwater isn't easy but it is possible.

The most effective way to retro fit your dock with the measures mentioned above is to flip it upside down. This allows screening to be fastened to the underside where mammals often get in and allows the dimensional lumber to protect exposed billets to be positioned and secured in a sturdy way.

Flipping a dock can be a dangerous process because of the weight of water-soaked framing and billets. It's recommended to hire a contractor to do this. The structural integrity of a dock must be sound enough to withstand flipping, and older docks may not be candidates for this option. Please contact SCA if you'd like to pursue this.