

SWAP Background Information

- Why is talking about spring water safety so important?
 - Spring is when flooding can occur. Flooding occurs more frequently in the spring because as temperatures rise, snow and ice are melting to create more surface water. In addition, there tends to be more rain in the spring season. Because the ground is still frozen, most of this excess water cannot be absorbed and runs off to low lying areas such as ponds, lakes, rivers, streams and ditches. This additional water causes increased currents. Another concern is that the flooding water is very cold, 0°C to 5°C, which is about as cold as the inside of a refrigerator.
 - As the temperatures warm, the ice on bodies of water is also thinning and become unstable and dangerous to walk on. It is especially dangerous to fall through the ice into fast moving water as you may be swept under the ice by the strong current.
 - During the spring thaw, banks become muddy and slippery and can also erode making them unstable and dangerous.
- The safest thing to do in the spring is to STAY AWAY from flooding areas and thinning ice.
- What can you do if you fall into water during the spring thaw?
 - Yell for help — Always do this if you are in trouble. If someone you are with falls through the ice, it is best to call 9-1-1 so that you don't get pulled into the water as well.
 - Climb/walk/run out – Sounds like something that would be worth a try but, in reality, with such strong currents, cold water, and slippery banks, this may be impossible.
 - Swim — Again, something to try but that may be very difficult given the conditions.
 - Grab onto something or someone – You may not have this option as you will be dragged to the
- centre of the water body with strong currents. Also, grabbing onto to someone may cause a larger problem as that person might fall in as well.
- If you fall through the ice, use the air in your clothes to float on your stomach and face towards the shore. Slowly reach forward onto the ice and kick your legs to push yourself onto the ice. While distributing your weight as much as possible by crawling on your stomach or rolling, move away from the open area. Head for shore and obtain medical assistance to stop hypothermia from setting in.
- Hypothermia
 - Hypothermia occurs when the body loses heat faster than it can produce it and the core body temperature drops below what it should be.
 - Heat loss in water occurs 20 times faster than on land meaning that hypothermia can set in within 5-10 minutes of being exposed to cold water. The skin and muscle temperature in the extremities will decrease rapidly resulting in the inability to use hands and feet, shivering will initially occur, it will be difficult to breath, organ temperature will gradually decrease, and unconsciousness may occur.
 - The signs and symptoms of hypothermia also include the following:
 - Mumbles – forgetfulness, confusion, difficulty speaking
 - Stumbles – lack of coordination, muscle stiffening
 - Grumbles – this is a life threatening condition and unconsciousness, slowing of heart rate and breathing, and heart failure may occur.
 - First aid for hypothermia
 - Call 9-1-1 immediately
 - Get the person somewhere warm
 - Huddles with the person to make use of body heat

Key Terms

CONSERVATION AUTHORITY — an inter-municipal environmental protection and advisory agency that works with municipalities, government agencies, special interest groups and the general public within the a watershed.

CURRENT — The force of moving water.

EROSION — The natural process of the loosening of rock or soil by water, wind, and temperature.

FLOOD — The condition that occurs when a body of water overflows and water spills onto the flood plain. This condition can result from increased precipitation, spring thaw conditions (increased precipitation, melting, frozen ground), or blockages.

FLOODPLAIN — The flat land beside a watercourse that periodically becomes covered with water.

FRESHET — A large increase in the amount of water in a watercourse caused by heavy precipitation or melting snow that usually occurs in the spring.

HYPOTHERMIA — A life threatening condition in which the body cannot produce heat faster then it is being lost

as result of exposure to cold water or air. Signs and symptoms can set in within 10 minutes of exposure and can include but are not limited to confusion, mumbling, loss of coordination and muscle strength, loss of consciousness, and blue colouration.

RAIN GUAGE — A piece of equipment that measures the amount of rain fall.

RUN-OFF — The water that is not absorbed by the soil during a precipitation event or the spring thaw that collects in waterways.

STREAM GUAGE — A piece of equipment used to record water levels in waterways.

SURFACE WATER — The water that is found on the surface of the earth. For example, streams, rivers, lakes, ponds, and wetlands.

WATERWAY — A body of water (i.e. stream, river, lake, pond, wetland) that flows into another body of water.

WATERSHED — The area of land that drains into specific body of water (i.e. the Rideau River).