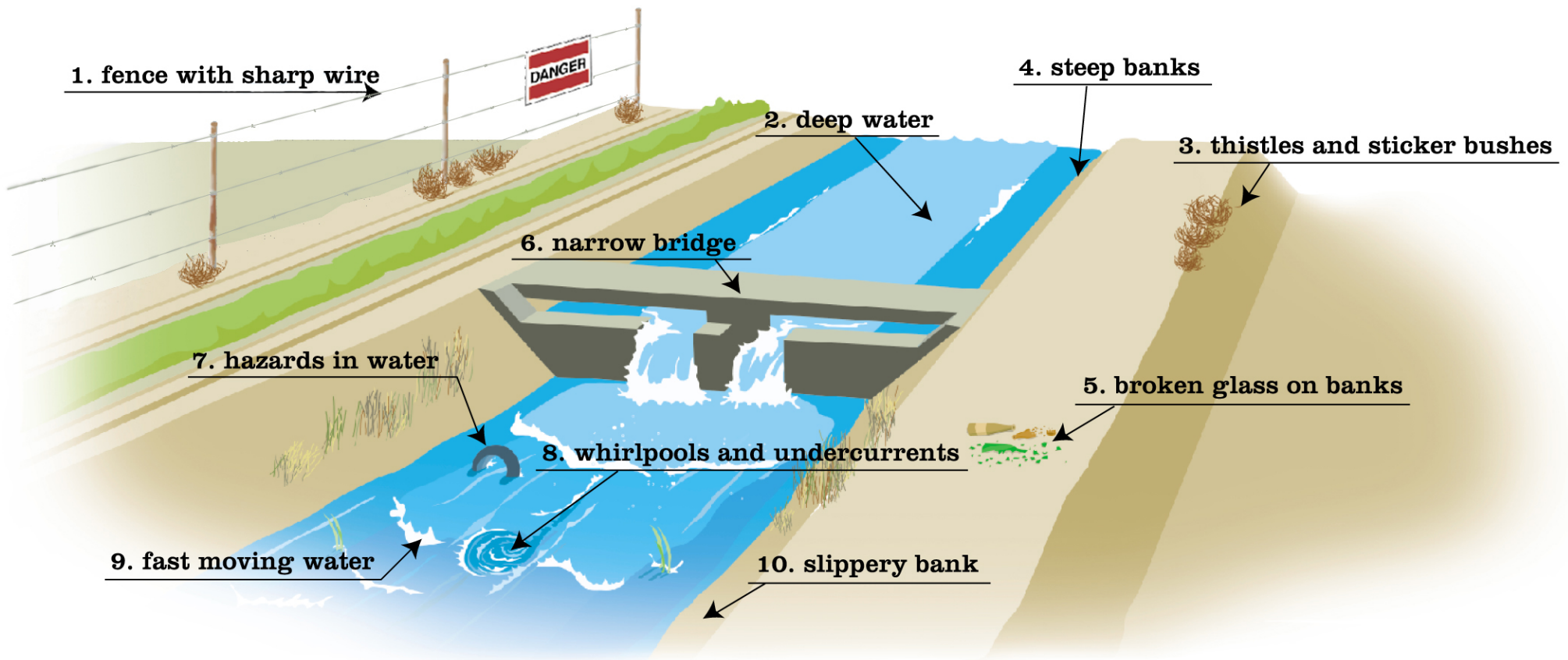


How many dangerous things can you name about canals?



canals are not for play. **stay away.**

SAFETY STRATEGIES

It is important to always be cautious around water. There are two main categories for water hazards: (1) the physical safety hazards of water that may cause drowning, electrocution, bodily harm, etc, and (2) the health hazards of water such as contamination by pollutants.¹ There are many ways to prevent and avoid water hazards. Here are a few to keep in mind:

- Always be aware of your surroundings and watch out for potential hazards
- Try to avoid entering irrigation canals if possible – the water is often fast moving, fairly deep, and the walls of the canals are often slippery²
- Supervise children at all times when near water
- Install proper safety shielding on all irrigation mechanisms
- Always wear proper safety equipment such as a life jacket

¹ "Water Safety 4 Kids" *Farm Safety 4 Just Kids*.
www.fs4jk.org

² "Face Fatal Facts" Department of Labor and Industries Report #47-2-02. May 2002.

SAFETY STRATEGIES..... cont'd

- Avoid low-head dams, it may look harmless but in fact it is very hazardous – for swimmers and boaters
- Irrigation canal water is untreated. Caution should be taken since it may be contaminated by fertilizers, pesticides, livestock wastes, etc.
- Pay close attention to warning signs posted near structures and water bodies.
- Always let someone know where you are working or playing
- Most importantly always be careful!



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WATER SAFETY FOR IRRIGATION CANALS



WATER SAFETY

Each year accidents occur in rural areas – some resulting in fatalities. Most of these mishaps could have been avoided. According to Laurel Aitken, farm safety coordinator with Alberta Agriculture and Food, in 2006 alone twenty Albertans were killed in farm-related injuries.³ Of these twenty, six were water-related fatalities.

WHERE ARE POSSIBLE DROWNING HAZARDS IN RURAL AREAS?

- Irrigation canals and drains
- Structures – spillways, checks, etc.
- Siphons
- Farm ponds or dugouts
- Lagoons
- Wells
- Lakes, reservoirs, rivers and streams
- Water troughs
- Water cisterns

LOW-HEAD DAMS

Most individuals do not realize the serious dangers associated with a low-head dam, which is often referred to as “the drowning machine.”



Main Canal Downstream of
Scope Check Structure

Due to their small size, often low-head dams do not appear to be dangerous, however immediately below the dam torrents of water pouring over the dam create re-circulating currents or hydraulic effects that can submerge a person or vessel. Once caught in the rotating current the victim becomes trapped and it is very difficult to escape. Strong swimmers, people wearing life preservers, and even trained rescue personnel have drowned in low-head dams.

In addition to the re-circulating currents, there are also other dangers associated with low-head dams.

- Debris trapped in the hydraulic may be a hazard to the victim;
- The temperature of the water is often very cold, this decreases survival time.
- Air bubbles mixing in the water decrease the buoyancy by one-third. The victim has a difficult time staying afloat even with a life preserver.⁴

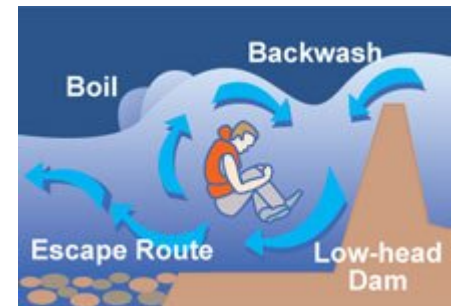


Illustration found @:
http://www.boat-ed.com/tu/course/p3-9_riverdamsnav.htm

³ Aitken, Laurel, “20 Farm Fatalities in Alberta in 2006.” *Agri-News*. (March 12, 2007)
www.agric.gov.ab.ca/agrinews

⁴ Elverum, K.A. and T. Smalley, *The Drowning Machine*. Boat and Water Safety Department of Natural Resources. (2003) www.dnr.state.mn.us/boating