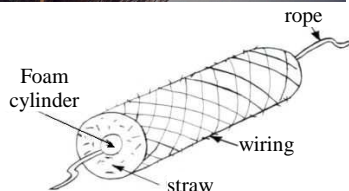
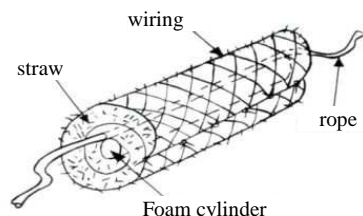


CONTAINMENT IN INLAND WATERS WITH MAKESHIFT FLOATING BOOMS

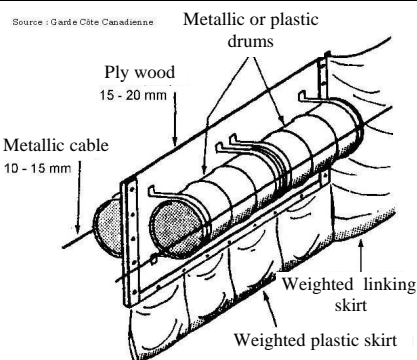
SCOPE

Pollution: all types
Pollutant: fluid to highly viscous
Inland waters



Straw and wire boom, spiral or roll.

Illustrations: Canadian CoastGuards. Photo: Cedre



*Fence boom made of plywood and drums.
 © Canadian CoastGuards*

ACCESSORIES NEEDED

Ordinary booms:

- hydrophobic materials, ideally sorbents: straw, dry fiber plant debris, coprah cakes, kapok, synthetic foam, loose non powder sorbents ...
- grating (hen run wire or plastic) or a fine mesh net (used for catching eels, scaffolding, etc)
- ropes and stakes
- metal wire or staples and clips

Booms with a skirt:

- floats: plastic drums, metal drums, foam, polystyrene...
- wood planks (ideally, plywood board rather than chipboard)
- skirt: plasticised materials
- weights (stones, chains,...)
- stiffeners (metal) and wooden stakes

Other:

- digger
- Placing under tension device

DESCRIPTION/PRINCIPLE

This method consists of makeshift devices to be used for containing floating pollutants and/or polluted waste to avoid soiling banks further downstream. The type of device used changes depending on what is at stake or site conditions, leadtimes and available equipment stockpiles.

- Ordinary oilbooms: floating boom made from hydrophobic sorbent or filter type in a net or a wire netting. The roll of wire netting can be laid flat (width = 1.5 metres) covered with a layer of sorbent material 10 cm thick and then rolled in a spiral; if the wire netting is narrower, it can be made up directly into a tube and filled with loose sorbent. This device will require a great deal of maintenance (keeping the makeshift boom in shape and retrieving recovered oil and oiled debris). In order to prevent oil from escaping through the boom, the pollutant will have to be concentrated with peat-like loose sorbent.
- Skirt booms: a stiff board (plywood) with floats attached (metal or plastic drums, fisherman's buoy/float) and plasticised material folded in two to form a skirt. The boom will need to be weighted (the weights can be inserted in the fold of the skirt or a metal chain can be used).

Booms can be laid in deflection mode (oblique) or positioned in herringbone or chevron configurations depending on the speed of the current. One single river can be boomed with several booms of different types (cf sheet "[POI Protection des chenaux et des étiers par filets et barrières filtrantes](#)", French version).

CONDITIONS OF USE

Pollution: fluid (fresh oil) to viscous pollutants (HFO) and soiled waste.

Substrate: load-bearing embankment.

Site: calm water area, low current speed < 0.5 knot or even less depending on the tensile strength of the boom

IMPACT ON THE ENVIRONMENT

Physical: temporary modification of hydrological conditions possibly some turbulence here and there with perhaps scouring depending on current speed and size of the water course.

Biological: very little (providing soiled waste is recovered).

PERFORMANCE

Yield: construction and deployment times can vary depending on the type of boom and water area/river (width, current, distance). For an ordinary wire netting and straw boom, expect to spend 30 minutes for a team of three to lay a 10 metre section of boom.

Deployment: variable depending on the type of boom (similarly for maintaining it and recovering the oil).

Waste: pollutant, materials used for filtering and various oiled waste.

OBSERVATIONS

- efficient on calm water areas, much less efficient with high speed currents, wind and waves.