

SCOPE

Substrates: fine to coarse sediments (marsh, limited)
Pollution: moderate to heavy
Pollutant: fluid
Sea: tidal



EQUIPMENT NEEDED

Basic equipment:

- Manual tools (shovels etc.)
- Mechanical machinery (farm ploughshare, power shovel)
- Possible water supply (pump)

Extra equipment:

- Effluent recovery system
- Skimming/effluent absorption means
- Storage facilities

DESCRIPTION/PRINCIPLE

Consists of digging drainage trenches on the beach to improve natural drainage. The trenches are oblique and converge at a lower collection point (shore-sealing boom, bund with geotextile, planks, pit etc.). The water entrains the oil trapped in between grains of sand and is recovered at a collection point where it is treated by absorption or pumping. In the case of limited natural drainage, it can be increased by saturating the upper beach (flushing or flooding) in order to encourage the washing of the sediment.

CONDITIONS OF USE

Pollution: moderate to heavy, buried fluid pollutant.

Substrate: fine- to coarse-grain sand.

Site: more favourable when the pollutant re-emerges on the foreshore; accessible to small earthmoving machinery.

IMPACT ON THE ENVIRONMENT

Physical: limited, temporary disturbance (possible formation of quicksand in the trenches).

Biological: little disturbance.

PERFORMANCE

Yield: very variable according to substrate, degree of pollution and natural drainage

Waste: liquid hydrocarbons, fine polluted sediments and oiled sorbents.

OBSERVATIONS

- Low yield; technique generally needs repeated.
- Use of hoses is not necessary on beaches where there is a lot of surface run-off of ground water.