

## FLUSHING

N 12

### SCOPE

Substrate: all  
Pollution: little to very heavy  
Pollutant: all  
Sea: tidal and non-tidal



### EQUIPMENT NEEDED

#### Basic equipment:

- Fire hose or Impact hose
- Transfer pump (approx. 30 m<sup>3</sup>/h; 4 to 8 bars)

#### Extra equipment:

- Direct water supply at sea, or alternatively via tanks
- Recovery: small worksite booms, shore-sealing boom, planks, pump, sorbents

### DESCRIPTION/PRINCIPLE

This technique is used for a number of different purposes:

- to remove surface layer of thick accumulations on various hard surfaces (rocks, quays etc.)
- to dislodge clusters trapped in cavities of rocks, boulders, riprap etc.
- to displace accumulations and effluents on the surface of the beach of water and channel them to a collection point.

### CONDITIONS OF USE

Pollution: freshly deposited oil in thick accumulations, residual clusters and effluents.

Substrate: (displacement) fine sediments, wet to saturated with water; (dislodgement) rocks, boulders, stones.

Site: direct sea water supply available (possibly via channels) or access possible for machinery.

### IMPACT ON THE ENVIRONMENT

Physical: can force the oil into the sediment (if spray is too powerful or misdirected); temporary disturbance.

Biological: can contaminate populations in the underlying foreshore if recovery is not carried out properly.

### PERFORMANCE

Efficiency: varies considerably according to the site, pollutant, degree of pollution (a few tens to a few hundreds of m<sup>2</sup>/h for displacement on the beach, from 1 to 5 m<sup>2</sup>/h in the case of dislodgement).

Minimum workforce required: 5 to 6 hoses per team of 10 people.

Waste: pumpable waste with high oil content; possibly saturated sorbents.

### OBSERVATIONS

- Provide the necessary protective equipment: overalls, oilskins, boots, gloves, head gear, glasses, masks. Users are exposed to a lot of dirt, from pollutant and effluent spray.
- Set up an effluent recovery system beforehand.
- Adapt the pressure used to the nature of the substrate. The same goes for the spraying mode: flat nozzle or solid water jet.
- The spraying angle should be small, especially on sediments, in order to limit erosion (thin layer of sediment) and deep burying of oil as far as possible. Consider carrying out a flooding operation (shingle bar) in parallel.
- Risk of emulsification with certain pollutants (factor which increases viscosity); use hot water hoses in parallel especially on stones.
- Operating a hose for an extended period of time is tiring: rotate users (spraying/monitoring supply, pump and effluent recovery system).