

SCOPE

Substrates: stones and sand
Pollution: light to very heavy
Pollutant: all types
Sea: with or without tides



EQUIPMENT NEEDED

Basic equipment:

- Earthmoving equipment: front-end loader, power shovel
- Manual: shovels etc. or low pressure hoses

Extra equipment:

- Skips and trucks (waste disposal)

DESCRIPTION/PRINCIPLE

This operation is carried out:

- to remove a layer of clean sediments in order to reach a buried layer of pollutant and treat it
- or to temporarily remove a layer of lightly polluted sediments (but sufficiently contaminated to hinder the uses of the beach) in order to:
 - clean them immediately on another part of the beach (surfwashing) or offsite (washing, sand screening)
 - or temporarily store them (in the summer on the upper beach for instance) with a view to treating them at a more suitable later date (deferred autonomous surfwashing for example).

This technique can be implemented in a number of ways: using earthmoving equipment (large volumes), shovels or low pressure hoses (to reach the polluted base of a rock temporarily covered with sediment for example).

CONDITIONS OF USE

Pollution: buried heavy pollution or light or residual pollution temporarily hinder the uses of the beach.

Substrate: fine to very coarse sediments.

Site: accessible to earthmoving equipment (suitable in terms of the load-bearing capacity of the ground).

IMPACT ON THE ENVIRONMENT

Physical: possibility of limited, temporary instability of the balance of the beach (in the case of large volumes).

Biological: possibility of limited disturbance (in the case of large volumes).

PERFORMANCE

Yield and minimum workforce required: variable according to the site, the volume of sediments in question and the means used.

Waste: layer of pollutant mixed with varying quantity of sediment.

OBSERVATIONS

- This process is different from withdrawing layers of sediments as it only involves temporarily removing sediments which remain or will be rapidly returned to the beach.
- Only remove the necessary volumes: carry out an in-depth survey (on the surface and in the depths), inform the operators, assist the drivers.
- Reduce the risks: take advice from experts beforehand to assess, organise and plan the operation (especially in the case of surfwashing).
- Ensure safety on the worksite, especially if using heavy duty machinery.