

PRINCIPLE

Pebble cleanup in a cage made of wood, meshing and geotextile

The 'cage' is a light metal frame with a perforated metal base, on which the stones are washed, and three lateral sides, covered with geotextile, to contain the spray of effluents and oil. All the washing effluents pass through the base and are collected using sorbent material placed in a recovery device set up under the washing cage.

Small stones can be placed in plastic mesh bags (such as oyster bags placed on sorbent material, which are turned over during washing) to stop them from being projected out of the cage, when using hot water pressure washers. A perforated wheelbarrow can also be used.



CONDITIONS OF USE

- ✓ **Pollution:** all types, preferably fresh or unweathered oil
- ✓ **Substrate:** stones
- ✓ **Site:** all sites.

EQUIPMENT

Basic equipment:

- ✓ Cage (structure incorporating wire grids) or perforated wheelbarrow
- ✓ Hot water pressure washers (hot water + rinsing)

Geotextiles, plastic liners

Extra equipment:

Shovels, pitchforks, wheelbarrows (stone collection)

Water supply (pump + tanks)

Effluent recovery system

Non-toxic washing agents (possibly)

PPE: Oilskins, boots, gloves, protective helmet, goggles, mask. Users are exposed to a lot of dirt, containing potentially toxic particles (spray).



- ✓ Collect the polluted stones using forks, shovels and wheelbarrows and place them inside the cage or the perforated wheelbarrow
- ✓ Place small stones in plastic mesh bags (such as oyster bags, which are turned over during washing) to stop them from being projected out of the installation
- ✓ Remove oil by cleaning with hot water pressure washers
- ✓ The use of a washing agent (non-toxic) is not always necessary: first try washing pebbles only with water, then add product if needed
- ✓ In exposed areas, the stones are returned to the lower end or middle of the beach for final natural cleaning. In sheltered areas, they must be cleaned in cages until clean enough to be put back to their original location
- ✓ Scrape extremely heavily polluted sediments beforehand
- ✓ Recover the released oil
- ✓ Rotate users (on the following basis: 1 spraying, 1 monitoring machine and water supply, 1 recovering effluents)
- ✓ Try using hot water without high pressure, which can be a good solution for releasing the oil without 'blasting' it.



- ✓ Don't use washing agents which are not approved
- ✓ Don't let polluted water enter the environment



IMPACT

- ✓ **Physical:** none (do not wash stones from very crumbly shale rocks)
- ✓ **Biological:** possible risk connected to the residual presence of pollutant or the destruction of vegetation on stones at the top of the shingle bar.



PERFORMANCE

Waste: water, oil, saturated sorbents, oiled plastic liners, oiled geotextiles, soiled fine sediment (+ possibly washing agent).

Thermal washing of pebbles in a wheelbarrow protected by geotextile



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