

# Team Van Oord Ltd

## Innovation Briefing Sheet



### Pro-Earth Oil Booms

**Project:** Crayford on Cray and Taplow Mill Leat

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### Summary

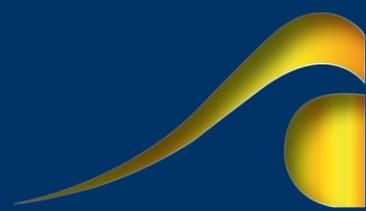
Pro Earth oil booms use an innovative new product from the U.S. (SaveSorb) to contain and absorb hydrocarbons and chemicals. The product is hydrophobic and attracts and traps oils, encapsulating the contaminant within its molecules. The non leaching molecules create a haven for naturally occurring microbes which ingest the contaminant.

This makes the product ideal for floating booms, spill kits and floating barriers and is a significant improvement on traditional spill products that only block or coat themselves in oil, resulting in materials that are difficult to handle and are themselves a potential pollution risk.

The boom pictured has been developed with Team Van Oord to specifically account for high river flows or tidal shifts encountered on many of our projects.

We have directly addressed the issue of pressure building on the front of the containment and absorption boom, which can result in contaminants being dragged below the water and under the boom before resurfacing metres downstream. The boom has a 400mm diameter which sits around 50% below the water line and incorporates a 300mm waterproof drop curtain to capture any oils that are pushed below the boom, forcing them up and into the SaveSorb mixture. We have also developed front and rear skirts to help to ensure that contaminants cannot wash over the boom in inclement weather.

The booms sections are 2400mm long and joined together tightly using easy to attach carabiners. The drop curtains overlap on each section for added protection.



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### Possible Uses / Benefits

- Effective oil/debris barrier in fast flowing rivers
- Boom sections can be easily linked to cater for varying river widths
- Absorbs oil, rather than just trapping it, preventing pollution when dismantling/withdrawing the boom
- Is effective on bio-degradable lubricants.
- Long lasting; it can be deployed for up to 12 months, with the potential to remove and replace individual sections if required.
- Can be dried and re-used on other sites.



Oil Boom at Taplow, showing sections coupled together to span a larger river

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### Other Products

Pro-Earth also offer multiple products using the SaveSorb material. These include:

- Spill kits
- Spill 'granules' in a variety of size bags
- Spill mats (plant nappies) in a variety of sizes
- Land booms
- Floating booms for still/slow flowing water
- 'Continuous berms'; berms filled with SaveSorb which can edge drainage lagoons, ponds etc. covering hundreds of meters.

Team Van Oord are also actively investigating the potential for Pro-Earth products to absorb heavy metals within silt, allowing clean run-off from silt classified as hazardous waste. This could be applied to silt barriers, drainage lagoons and dredged material, greatly reducing the cost of disposal.

**All products are available through the Pro-Earth website:**

<http://www.pro-earth.co.uk/home/4585367181>

### Sustainability

The SaveSorb material is Sphagnum moss harvested in Canada. The harvesting is carefully managed to ensure its sustainability, with only 0.16% of the available habitat harvested annually, and moss accumulating at more than 70 times the rate it is harvested. Harvested bogs are returned to wetlands so the ecological balance of the area is maintained.

The raw product is dried, refined, nourished and pH balanced to give the highly absorbent product that we have today. It has been tested against industry regulation standards in the U.S. and is now entering the U.K. market. Details of the sustainability management and testing data are also available on the Pro-Earth website.





UK & European Authorised Distributor of SaveSorb

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