Waste Not, Want Not: Considering dredged material as a resource and not a waste is a win-win situation

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Waste or resource? The controversy surrounding dredged material has a long history and often causes heated debate. Stakeholders on either side of the issue can be extremely vocal. In Australia each new dredging project seems to bring protests from action groups such as Blue Wedges Coalition, Operation Quarrantine and Save The Bay, whereas in Japan up to 90% of dredged material is used as a resource. In other countries, notably the European Union and the U.S., ever-stricter legislation has prevented more extensive use and dredged material is often "wasted", unnecessarily disposed of at sea or buried at distant locations.

But there is good news. In June 2008, the European Parliament adopted a compromise text for a new EU Waste Framework Directive. The new wording excludes dredged material from the scope of the Directive and at long last brings the EU in line with international law, most notably as stipulated in the London Convention. In terms of this new Directive, about 90% of all dredged material in Europe is now effectively eliminated from the category "waste", leaving the door open to using dredged material as a "resource". Only hazardous materials remain a waste. An estimated 250 million tonnes per year of dredged material will be affected.

That dredged material is a resource and not a waste has long been the standpoint of the private dredging industry. And scientific data supports this. Most dredged material is largely uncontaminated and can be used directly underwater or on land after dewatering. Even in slightly contaminated sediments, contaminants can be stabilised or removed by treatment techniques to make the material suitable for use.

For many years, the private dredging industry has been investing in R&D on the responsible use of dredged materials, and an extensive list of uses has been established. For instance, clean dredged material has been used as a resource at Wallasea in the UK to rebuild seawalls and create wetlands and an estuary big enough to attract large, migratory birds. At Fasivier in Belgium, clean dredged material has been used to rehabilitate a contaminated brownfield making it ready for land re-development. In the Netherlands, dredged material has been used to fill borrow pits formed by the extraction of sand and gravel. This often offers opportunities for the enhancement of the local environment since many pits are quite deep and have an anoxic zone, which limits ecological values. The storage of dredged material in these pits makes the pits shallower, which creates attractive conditions for natural development and can have a positive effect on biodiversity. Natural development can also benefit from the creation of habitats in the layer covering the pit.

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Other uses include road foundations, replacement fill, dikes, mounds, noise and wind barriers, land reclamation, sealing of CDFs (confined disposal facilities), and the capping of disposal sites, landfills and of contaminated sediments. Besides which, using dredged material in these ways, can be cost-effective and efficient, both reducing expensive transport to out-of-the-way disposal sites and conserving precious natural resources.

Clearly regarding dredged materials the old axiom is valid: Waste not, want not.

Now that the legislative battle has been more or less won bringing international law and European law in line with each other, and with common sense, the next big step is overcoming negative public perceptions. In that context actions speak louder than words. The case studies presented in the September 2008 issue of *Terra et Aqua* will broaden your view of what can be done with clean dredged material to create a win-win situation. The September 2008 issue is now available online at www.terra-et-aqua.com. For a print edition contact the IADC Secretariat.

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The current issue is available online at www.terra-et-aqua.com. Photographs are available upon request. Back issues of Terra et Aqua to 1995 are also available at the website.

Terra et Aqua is a technical journal published quarterly in March, June, September and December for professionals and others interested in "maritime solutions for a changing world". The infrastructure projects and the technologies presented aim to inform port authorities, developers, engineers, the offshore industry and government agencies about the state-of-the-art possibilities offered by dredging and maritime construction.