

# FACTS ABOUT

An Information Update from the IADC

# INTERNATIONAL MARITIME CONVENTIONS



## WHY ARE INTERNATIONAL MARITIME CONVENTIONS NECESSARY?

International regulations that are followed by all shipping nations have long been seen as the best way to improve sea-going safety. From the mid-1800s onwards several such treaties were adopted and proposals for a permanent international body to promote maritime safety were suggested by various nations. Still it was only with the establishment of the United Nations after World War II that these suggestions were made concrete. In 1948 an international conference in Switzerland adopted a Convention that established the Inter-Governmental Maritime Consultative Organization (IMCO). Ten years later in 1958 this Convention entered into force and met for the first time the following year. In 1982 the name was changed to International Maritime Organization (IMO).

## WHAT IS THE MISSION OF THE IMO?

As summarised in Article 1(a) of the Convention, the purposes of the IMO are “to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships”, that is, all sea-faring vessels as well as dredging vessels.

## WHAT ARE SOME OF THE INTERNATIONAL CONVENTIONS APPLICABLE TO DREDGING?

Under the auspices of IMO various Conventions have been established. For instance, the disposal of dredged material is now widely regulated by International Conventions. Contracting parties to these conventions are obliged to introduce national legislation that conforms to the International Conventions. The “Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972” (the London Convention for short) was

one of the first global conventions to protect the marine environment from human activities. It has been in force since 1975 and is the most widely applicable international regulatory instrument. In 2017, 87 countries are party to this Convention. The London Protocol which updated LC 72 followed in 1996.

## WHAT IS THE LONDON PROTOCOL?

In 1996, the London Protocol was agreed to in order to further modernise, update the Convention and eventually replace it. The objective of both the London Convention and the Protocol is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. Under the Protocol all dumping is prohibited, except for possibly acceptable wastes on the so-called “reverse list”. The Protocol entered into force in 2006 and in 2017 there were 56 parties to the Protocol 97 LC + LP.

## WHAT IS THE REVERSE LIST?

Amongst the most important innovations brought by the 1996 Protocol is the codification of the “precautionary approach” and the “polluter pays principle”. Reflecting these principles, the Protocol embodies a major structural revision of the Convention—the so-called “reverse list” approach. This list includes the following: 1) dredged material; 2) sewage sludge; 3) fish wastes; 4) vessels and platforms; 5) inert, inorganic geological material (e.g., mining wastes); 6) organic material of natural origin; 7) bulky items primarily comprising iron, steel and concrete; and 8) carbon dioxide streams from carbon dioxide capture processes for sequestration.

## WHAT IS THE PRECAUTIONARY APPROACH OR PRINCIPLE?

The precautionary principle or precautionary approach states that even if there is no scientific consensus that an action or policy is actually harmful, but this action or policy is suspected of having a risk which could cause harm to the

public or the environment, the burden of proof that it is not harmful falls on those taking the action. In this way, policy makers are able to make discretionary decisions in situations where the possibility of harm exists – even when extensive scientific knowledge is lacking.

The principle implies that there is a social responsibility to protect the public from exposure to harm when scientific investigation believes that a plausible, if not wholly proven, risk is present. These protections can be relaxed only if further scientific findings emerge that provide sound evidence that no harm will result. In some legal systems, as in European Union, the application of the precautionary principle has been made a statutory requirement.

### WHAT IS THE ADAPTIVE APPROACH?

Recently a new so-called adaptive approach has been developed and implemented in some EU Member States. The opinion is that this adaptive approach is better suited to cope with uncertainty and the lack of definitive scientific knowledge that often exists when a dredging project begins. It takes into consideration the possible risks and impacts, not only to the environment, but as well to society and the economy if, for instance, a project were to be postponed or cancelled. Its main instruments are adaptive monitoring and adaptive policies. These allow policy makers and project managers to rectify the course of the works as they progress, adjusting to the latest monitoring results and simultaneously building a new body of knowledge.

### WHAT ARE THE GENERIC AND SPECIFIC GUIDELINES THAT PERTAIN TO DREDGING?

“Generic Guidelines” and comprehensive “Specific Guidelines” have been developed for all wastes on the reverse list. These contain step-by-step procedures to evaluate wastes being considered for sea disposal, including: a waste prevention audit; consideration of waste management options; analysis of chemical, physical and biological properties; an action list; the selection of placement sites; assessment of potential effects; monitoring; and permit and permit conditions.

“The Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping” are intended for use by national authorities responsible for regulating the disposal of wastes and embody a mechanism to guide national authorities in evaluating applications for disposing of wastes in a manner consistent with the provisions of the London Convention 1972 or the 1996 Protocol. Annex 2 to the 1996 Protocol emphasises progressively reducing the need to use the sea for waste disposal. The 1996 Protocol also recognises that avoidance of pollution demands rigorous controls on the emission and dispersion of contaminating substances and the use of scientifically based procedures for selecting appropriate options for waste disposal. When applying these Guidelines, uncertainties in relation to assessments of impacts on the marine environment need to be considered and a precautionary approach applied in addressing the uncertainties.

Bear in mind that although these Guidelines do allow that disposing of waste at sea may be acceptable under certain

circumstances, an implicit obligation exists to make further serious attempts to reduce the necessity for disposal at sea.

### WHAT ARE THE IMO GUIDANCES THAT APPLY TO DREDGING AND MARITIME CONSTRUCTION?

Guidances have been developed for the sampling and analysis of dredged material intended for disposal at sea. These provide considerations and good practices for developing sampling plans in order to help users decide how to organise and prioritise their sampling activities to suit their particular goals, experience, budget and technical capabilities.

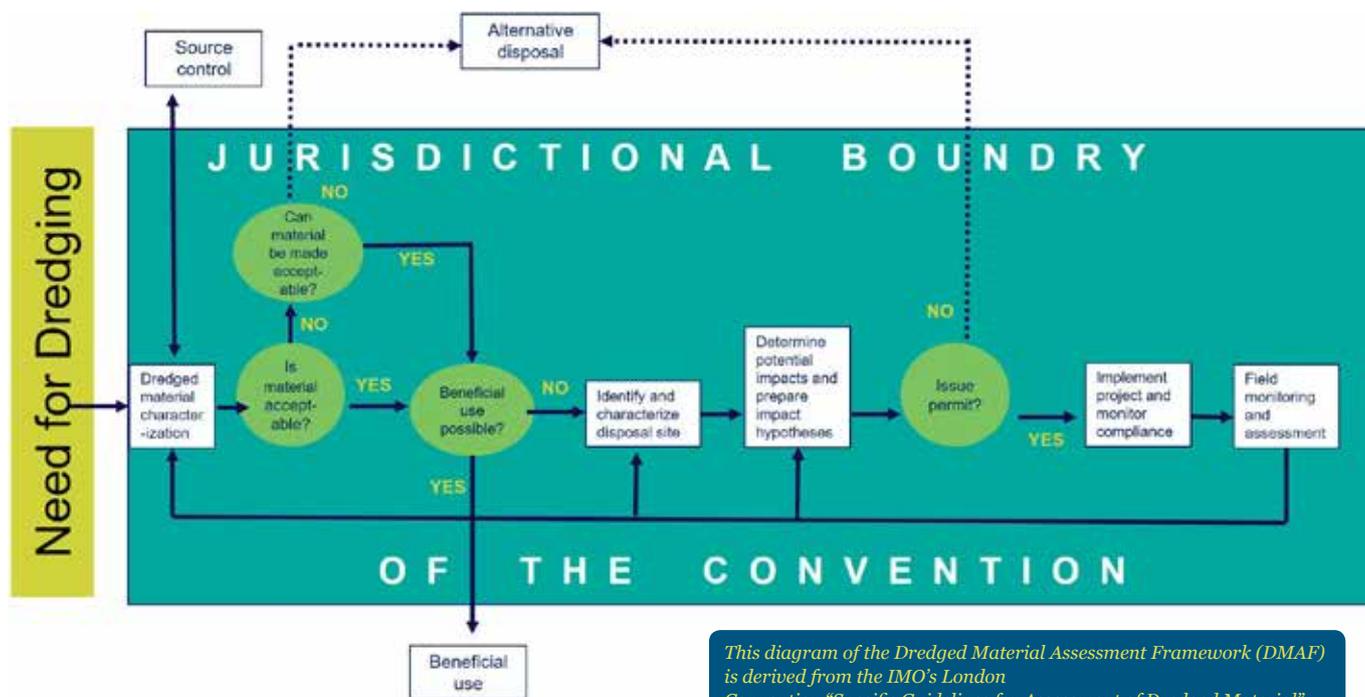
“Guidance for the Development of Action Lists and Action Levels for Dredged Material” was adopted on 31 October 2008 and provides guidance to regulators and policy makers on the selection of Action Lists and the development of Action Levels for dredged material proposed for disposal at sea. An Action List is a set of chemicals of concern, biological responses of concern, or other characteristics that can be used for screening dredged material for their potential effects on human health and the marine environment. Action Levels establish thresholds that provide decision points to determine whether sediments can be disposed of at sea.

### WHAT OTHER CONVENTIONS MAY BE RELEVANT TO DREDGING?

Many of the other Maritime Conventions may be indirectly relevant to dredging as they impact dredging equipment as ships, rather than dredging operations or dredged materials per se. For instance, the “International Convention for the Prevention of Pollution from Ships, 1973”, as modified by the Protocol of 1978 and the Protocol of 1997 (known collectively as MARPOL), addresses in 6 annexes harmful substances, oil, sewage, garbage and air pollution caused by emissions that may be related to climate change.

Also the “International Convention on the Control of Harmful Anti-fouling Systems on Ships” (AFS) was adopted in October 2001 and entered into force in September 2008. Anti-fouling paints are used to coat the underside of a ship to prevent sea life such as algae and molluscs attaching themselves to the hull – thereby slowing down the ship and increasing fuel consumption, but they also are known to leach into surrounding waters causing harm to marine life.

A third convention, the “International Convention for the Control and Management of Ships’ Ballast Water and Sediments” (BWM Convention) was adopted in February 2004 and entered into force 12 months after ratification by 30 States. The Conventions addresses the exchange of the ballast water (which is used to stabilise ships) that is pumped into and released during voyages. This exchange of ballast water as the ship sails into different seas may introduce non-native marine species into the new waters where they can become invasive, often multiplying so quickly that they out-compete native species. Nowadays the convention is also applicable to hopper dredgers



This diagram of the Dredged Material Assessment Framework (DMAF) is derived from the IMO's London Convention "Specific Guidelines for Assessment of Dredged Material".

### WHAT REGIONAL OR LOCAL CONVENTIONS GOVERN MARITIME/DREDGING ACTIVITIES?

On a regional level, a most noteworthy action plan is the United Nations Environment Programme (UNEP) which in 1974 launched a Regional Seas Programme. The UNEP Regional Seas Programme has emerged over the last 35 years as the prime example of how to craft a regional approach to protecting the environment and managing natural resources. The Regional Seas Conventions and Action Plans cover issues ranging from chemical wastes and coastal development to the conservation of marine animals and ecosystems. More than 143 countries participate in 13 Regional Seas programmes established under the auspices of UNEP. Seven are independently run: Black Sea (Bucharest Convention, [www.blacksea-commission.org](http://www.blacksea-commission.org)); North-East Pacific (Antigua Convention); ROPME Sea Area (Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates); Red Sea and Gulf of Aden (Jeddah Convention, [www.persga.org](http://www.persga.org)); South Asian Seas, South-East Pacific Region; and Pacific Region. Six such programmes are directly administered by UNEP ([www.unep.org/regionalseas](http://www.unep.org/regionalseas)): Wider Caribbean (Cartagena Convention, [www.cep.unep.org](http://www.cep.unep.org)); East Asian Seas; Eastern Africa Region (Nairobi Convention); Mediterranean Region (Barcelona Convention); North-West Pacific Region; and Western Africa Region. There are also independent Regional Seas programmes: Arctic Region ([www.pame.is](http://www.pame.is)), Antarctic Region (CCAMLR, [www.ccamlr.org](http://www.ccamlr.org)), Baltic Sea (Helsinki Convention, [www.helcom.fi](http://www.helcom.fi)), Caspian Sea (Tehran Convention, [www.caspianenvironment.org](http://www.caspianenvironment.org)), and the North-East Atlantic Region (OSPAR Convention), which covers the North-East Atlantic and North Sea. The OSPAR Commission is made up of representatives of the Governments of 15 Contracting Parties and the European Commission, representing the European Union.

### WHAT IS THE EUROPEAN UNION WATER FRAMEWORK DIRECTIVE (WFD)?

The European Union working in compliance with IMO regulations has developed several Directives that specifically address dredging issues. One of these is the Water Framework Directive which became European law in 2000. It is a good example of the implementation on a regional basis of important environmental concerns about cleaner rivers, lakes, groundwater and coastal beaches. Its goal is to gradually improve the quality of European waters to a standard which may be considered "good". The WFD introduced a new legislative approach to managing and protecting water, based not on national or political boundaries but on natural geographical and hydrological formations: River basins. It also required coordination of different EU policies and established a precise timetable for action, with 2015 as the target date for getting all European waters into good condition.

### HOW DO DREDGING ORGANISATIONS HELP SHAPE INTERNATIONAL MARITIME POLICY?

Dredging activities certainly have effects on the ecosystem and are therefore rightfully regulated by international treaties or regional and local legislation. Yet the real effects of dredging activities are often misunderstood.

A number of organisations with an interest in dredging participate in the work of various international bodies. Their aim is to ensure that the regulations adopted are based on sound scientific knowledge and available best practices. For example, WODA (World Dredging Association comprising CEDA, WEDA and EADA) and PIANC have official Non-Governmental Observer (NGO) status at the London Convention and Protocol. CEDA also has an official observer status at the OSPAR Convention. At these forums CEDA (also on behalf of WODA) and PIANC actively participate in meetings and relevant working groups to provide independent expert advice to help shape policy development.

Toward the European institutions, EuDA (the European Dredging Association) is the official representative of the European dredging companies. EuDA seeks to provide its members' vision and contribute to an Integrated European Maritime Policy. In the United States, Dredging Contractors of America (DCA) plays a central role in representing the US dredging industry to Federal legislators.

Whilst differing in nature and in their objectives, all these organisations work to ensure that dredged material is treated as a special case because it is a special case. Thanks to this, the image of dredged material has changed. It is now generally recognised that dredged material consists mainly of natural sediments and only a small proportion of the total volume dredged annually is contaminated. As a result what was previously described as dredged 'spoil' is now known as dredged 'material', a term now embedded in the Conventions. And what was original entitled the London Dumping Convention is now officially the London Convention of 1972 (LC 72).

### ARE ALL ASPECTS OF DREDGED MATERIALS REGULATED BY INTERNATIONAL CONVENTIONS?

Although organisations like the IMO and UNEP continue to pursue finding a balance between economic development and environmental safety, not all countries are party to these International Conventions and not all have comprehensive national or local regulations or regulatory agencies. That, of course, does not absolve maritime industries from adhering to inherently careful environmental working methods. In all cases, before embarking on dredging activities, consultants and contractors are advised to become fully informed of the client's and stakeholders' expectations and of specific governmental (national/regional/ international) requirements regarding permits, sediment treatment and placement of dredged material.

### FOR FURTHER READING AND INFORMATION

Bray, R N, editor (2008). Environmental Aspects of Dredging. CEDA-IADC-Taylor and Francis. Leiden, The Netherlands.

[CEDA. www.dredging.org](http://www.dredging.org)

[EuDA. www.european-dredging.eu](http://www.european-dredging.eu)

"Guidance on Assessment of Sediment Quality", Global Investigation of Pollution in the Marine Environment (GIPME) (IOC-UNEP-IMO)

"Guidance for the Development of Action Lists and Action Levels for Dredged Material". (2008). IMO. London Convention and Protocol. [www.londonprotocol.imo.org](http://www.londonprotocol.imo.org)

Mink, Frederik, Dirks, Wouter, van Raalte, Gerard, De Vlieger, Hugo and Russell, Mark (2006). "Impact of European Union Environmental Law on Dredging," Terra et Aqua, Number 104, September.

Oslo-Paris Convention (OSPAR). [www.ospar.org](http://www.ospar.org)

Spadaro, Philip (2011). "Remediation of Contaminated Sediment: A Worldwide Status Survey of Regulation and Technology". Terra et Aqua, nr. 123, June.

The EU Water Framework Directive ([http://ec.europa.eu/environment/water/water-framework/index\\_en.html](http://ec.europa.eu/environment/water/water-framework/index_en.html)) "The Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping". (2006). IMO, London, UK.

[UNEP. http://www.unep.org/regionalseas/](http://www.unep.org/regionalseas/)

The International Maritime Organization (IMO): [www.imo.org](http://www.imo.org)

The IADC Knowledge Center [www.iadc-dredging.com](http://www.iadc-dredging.com)



Facts About is presented by the International Association of Dredging Companies whose members offer the highest quality and professionalism in dredging and maritime construction. The information presented here is part of an on-going effort to support clients and others in understanding the fundamental principles of dredging and maritime construction.

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