

CEDA /IADC PUBLICATION: ENVIRONMENTAL ASPECTS OF DREDGING

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ABSTRACT

Aiming to promote a responsible dialogue about dredging and the environment, the International Association of Dredging Companies (IADC) and the Central Dredging Association (CEDA) produced a series of guides on environmental aspects of dredging. Owing to the great success of the series, it is now being updated. The restructured, re-newed content will be published in one book. This article gives a brief summary of the new publication.

Keywords: State-of-the-art environmental evaluation procedures; environmental effects; mitigation measures; legislation

INTRODUCTION

The environmental aspects of dredging have become of increasing importance. In the past, dredging focussed on nautical, hydraulic and mining applications (e.g. the maintenance of navigation channels, the discharge of water and the extraction of minerals such as sand and tin ore). Nowadays it is becoming clear that dredging has many other functions too. These include making islands and other reclaimed areas, such as may be seen in the Gulf region, and cleaning up the environment using dredging equipment.

The subject of the environmental aspects of dredging goes beyond mere theoretical discussion. This is illustrated by the fact that the major banking organisations and multinational companies refer to environmental matters in their annual reports and attach environmental requirements to projects that they propose financing or promoting.

THE BOOK AND ITS ORIGINS

This book has evolved from the guides making up the CEDA/IADC series on the Environmental Aspects of Dredging. When the guides were originally conceived, they were perceived to have a number of uses:

- to provide a balanced view of the whole subject;
- to lead the reader through the state-of-the-art environmental evaluation process;
- to provide a source of information on dredging and environmental matters; and
- to provide references for more detailed study.

In seeking these objectives the book has amassed much information on the environmental aspects of dredging culled from case histories, research results and practitioners in the field. It promotes particular approaches to environmental evaluation and procedures for carrying them out. It provides the reader with a vast amount of relevant background reading and many sources for further research. It is unbiased and favours neither the promoter of dredging works nor those who are opposed to dredging being carried out.

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It does not, and never set out to, prescribe specific controls for dredging works on a generalised basis. It is not intended to be used in this manner and, in fact, should not be used in this manner. It is intended to be an aid to planners, engineers and environmental scientists when they are making their own individual assessments.

The book commences with a look at the people who become involved in the development of a dredging project and reviews their various perspectives. Chapter 2 promotes a systematic approach to this process, and in so doing attempts to shed more light on this. Those involved in the contractual, planning and legal aspects of starting up dredging programmes may find it particularly useful.

Chapter 3 is the operational control centre of the whole book. It is intended here to give the reader a “blow by blow” account of how to go about characterising the environmental attributes of his/her site, defining the project to be executed, and discovering and ranking the potential benefits and shortcomings of any proposed construction works. This chapter also points the reader to specific locations in the book where more detailed information is laid out.

Chapter 4 is a detailed description of how a project may impact on any particular environmental regime. This is essentially how the finished works will affect the environment over the short and long term. Here, as in other parts of this book, environment is the whole spectrum of natural and man-made regimes and activities.

Chapters 5, 6 and 7 are support chapters. They deal with matters that may be running in parallel within the overall environmental and project development processes. Chapter 5 deals with matters relating to the collection of data and its interpretation. Chapter 6 describes the main dredger types and explores their environmental effects, mitigating measures that may be taken to make them less intrusive and special machines that have been devised to work in sensitive areas. Chapter 7 describes the various things that can be done with dredged material and gives details of the management processes for determining the optimum way of dealing with this material.

Chapter 8 deals with monitoring methods and processes. These may be either to establish baseline conditions on a site or to monitor the impacts of projects or dredging processes on the local environment and apply controls as appropriate.

Finally, Chapter 9 looks to the future and discusses some of the more philosophical aspects of environmental assessment and evaluation

In the Appendices will be found details of typical legislative conditions and controls imposed by international conventions, regional and national agencies around the world, both for the placement of dredged material in the sea and on land. Further appendices cover case histories and general descriptions of environmental regimes.

REFERENCES

CEDA /IADC (2007) *The Environmental Aspects of Dredging*. Taylor and Francis, Leiden, The Netherlands (in preparation). Ed. Bray et al.