

Large Scale Management of Contaminated Dredged Sediments: A Comparison between Europe and North America

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The objective of this presentation is to make a comparison of the management of contaminated sediments in Europe and Northern America. The comparison will be made on practical project examples and experience.

In the Netherlands, there are two large scale confined disposal facilities (CDFs) in operation run by the Government in which contaminated dredged sediments can be disposed. The City of Amsterdam had a long collaboration with a contractor for the operation of a regional processing facility for the management of contaminated dredged sediments from the canals.

In Germany, a large-scale sediment treatment facility operates in the City of Hamburg for the treatment of dredged sediments from the harbor. These treated sediments are beneficially used in the area.

A recent contract award in Antwerp, Belgium provides for the construction and operation for a period of 15 years of a large scale treatment facility for dredged sediments from the local harbor.

Recent developments in the United States of America have implemented large scale treatment of contaminated dredged sediments on a project basis. Some recent examples are the Miami River Maintenance Dredging Project in Florida, The Fox River Cleanup Project in Wisconsin, and the Hudson River Remediation in New York.

The New York / New Jersey harbor tends to stabilize dredged sediments before beneficial using the stabilized sediments.

Contaminated sediment management can consist of large scale disposal of sediments in a CDFs, large scale treatment of sediments, stabilization of the dredged sediments, or a combination of techniques.

Bastiaan Lammers

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Bastiaan Lammers graduated in 1999 from Larenstein International University in Velp, The Netherlands. He obtained a bachelor degree in Hydrology and Water Management.

Mr. Lammers was the project manager on the Miami River 15' Maintenance Dredging Project in Miami, Florida. This project included dredging, sand separation, and mechanical dewatering of approximately 550,000 m³ of contaminated sediment. During the past few years, his focus has shifted from project management to project development. In this position, Mr. Lammers was involved in the start-up of the Fox River Cleanup Project in Green Bay, Wisconsin. This project is one of the largest sediment remediation projects in the world with a total of more than 3 million m³ of PCB contaminated sediments which will be removed from the Fox River and delivered to the project-tailored processing facility. The process consists of screening, sand separation, and mechanical dewatering using membrane filter presses. The project is expected to last 8 years.