



U.S. Army Engineer
Research and Development Center

Dredged Material Recycling for Agronomic Beneficial Uses

Description of Technology

Dredged material can be used alone or blended with various amendments including various organic waste materials, such as yard wastes and biosolids, to create high quality topsoil can be used for landscaping, lawns, parks, athletic fields, golf courses, highways, street improvement, and bagged soil products.

Commercially available biosolid, chemical and biological products can be added as needed to provide specific soil properties for any given use. Lower quality dredged material containing some contamination can be use for more restricted purposes such as cover for landfills, brownfields, Superfund and mining sites.

Benefits

Dredged material confined disposal facilities (CDFs) can be emptied to provide storage capacity required for future navigation dredging.

Dredged material, waste material, and biosolids (processed animal manure or sewage sludge) will be converted into beneficial, safe products.

Significant Accomplishments

Dredged material from numerous locations including both freshwater and saltwater dredging projects has been tested and demonstrated as suitable for topsoil uses when used alone or blended with various amendments.

In collaboration with Auburn University, successful studies were completed demonstrating the use dredged material in soil blends for producing containerized plants for the landscape and nursery industry.

A project was completed to restore CDF capacity by the removal of 45,000 yd³ of dredged material and blending with 10% by volume of leaf litter from the City of Ferrysburg, Michigan.

The dredged material topsoil was used in local landscaping projects and is being sold at \$9.50 yd³ <http://www.glc.org/dredging/case/documents/GrandHavencasestudy.pdf>.

Other successful projects are listed on the USACE/USEPA Beneficial Uses of Dredged Material Website <http://el.erdc.usace.army.mil/dots/budm/budm.cfm>

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