

Florida, USA

# Miami River



## Location

Miami River, Miami FL, USA

## Client

US Army Corps of Engineers, district Jacksonville Weston – Bean Joint Venture

## Contracter

Weston – Bean Joint Venture

## Equipment

mechanical backhoe, transport by barge, mobile processing plant built in standard container frames

## Totals

720,000 CY, 2,000 CY per day contaminated sediments

The project includes the dredging, treatment, beneficial re-use and disposal of sediments dredged in a 5.5 mile stretch of the Miami River. The path of the river is going through a heavy urbanized environment and the river had not been dredged since the thirties of last century. For this reason a range of material types and significant debris are being encountered over this relatively narrow and crowded waterway. The sediments were mainly contaminated with heavy metals. The project approach was to aim on (contaminated) volume reduction by fraction separation and sediment dewatering.

To execute this project Stuyvesant Dredging mobilized one of Boskalis Dolmans mobile processing plants. Sediments are dredged with a mechanical backhoe and transported to the processing plant by barge. At the plant, sediments are unloaded and separated into different (re-usable) fractions. The (contaminated) fines are mechanical dewatered. The plant is equipped with a two-step screening (rotary drum & shaker screen) before sand separation. All material > 3 mm will be screened. Sand separation exists of hydro cyclones, a counter current washer and a sand dewatering screen. The fine sediments (< 63 µm) are dewatered by a series of Belt Filter Presses. For dewatering purposes polymer is added. After treatment separated sediments are directly transported off-site with trucks. No temporary stockpiling is required resulting in a small processing footprint. The sediment treatment results in a tremendous reduction of the (original) disposed volume.



**Boskalis Dolman bv**