The Beneficial Use
Of Dredged Material
From CDFs:
Yes, We Can!
Raw Dredged Material

- Sand, silt or clay particles
- Landside runoff
- Storm events
- Periodic removal required
- Not soil, must be amended before used as soil
- May contain contaminants
Processed Dredged Material

Over 13 million cubic yards placed, and still going strong!
Highway Construction using PDM

- 80,000 cyd dredged material
- 2 monitored berms
- Settlement, strength and workability
- No significant environmental impacts or human health exposure concerns
- $8/cyd cost escalation over conventional materials
- Best if placed immediately; requires remixing if stored
- Heavily impacted by freeze/thaw
Scott’s Top 10 Common Myths and Misconceptions about Dredged Material

1. All dredged material is contaminated.
2. Dredged material is a solid waste.
3. Dredged material does not meet NJDOT specifications.
4. Dredged material can only be used as non-structural fill.
5. NJDOT will not give me contracts if I use dredged material.
6. NJDEP will slow down my permit if I use dredged material.
7. I must have water access to receive dredged material.
8. I will have to amend the material before I can use it.
9. The stuff they take out of the river is “useless spoils”.
10. All dredged material is black mayonnaise.
Dredging Equipment

Backhoe (for rock)

Clamshell (for mud)

Trailing suction hopper

Cutterhead pipeline
Confined Upland Disposal
CONCEPT OF A DREDGED MATERIAL
CONFINED DISPOSAL FACILITY

INFLUENT

PONDING DEPTH

FREEBOARD

AREA FOR SEDIMENTATION

AREA FOR FINE-GRAINED
DREDGED MATERIAL STORAGE

COARSE-GRAINED
DREDGED MATERIAL

WEIR

EFFLUENT
Old Confined Disposal Facilities

Resource for construction materials
AND
Resource for future dredged material management
Tweeter Center
220,000 cyd
Palmyra Cove Beneficial Use Technology Campus
Applications for Palmyra Cove Material

- Most material met NJDOT specifications for grades I-11, I-12, I-13
- Roadway sub-base
- Embankment fill
- Retaining wall backfill
- Pipe trench bedding
- General Earth Fill
Burlington County Resource Recovery Complex
15,000 cyd
Route 29
Blended Topsoil
2900 cyd
Harrison Avenue Landfill
180,000 cyd (pending)
National Park CDF
Riverwinds Golf Course
Cape May Canal CDF “C”
Philadelphia Airport
1,200,000 cyd
Coal Strip Mine, Tamaqua PA
550,000 cyd
Belford Landfill
200,000 cyd
Atlantic Highlands CDF
NJ Turnpike Exit 1
180,000 cyd
Neptune Landfill
100,000 cyd
Separation Facilities
Separation Pilot
Cape May
Bayshore Recycling
Cell A
76.4% Sand
23.6% Silt/Clay
900,000 cyd

Cell B
20.2% Sand
79.8% Silt/Clay
1,400,000 cyd
The Bottom Line

- Dredged material can and has been used across the region in projects ranging from highway construction to mine reclamation.
- Dredged material is readily available.
- The State of NJ encourages the use of dredged material whenever and wherever possible.
- NJDOT-OMR can assist you in using dm in your project.