

ECOLOGICAL RESTORATION THAT HAS NO IMPLICATIONS FOR SEDIMENT BUDGETS, OR FOR ANY SEDIMENT-RELATED PROCESS

RESTORATION
WITH CONSEQUENCES FOR
SEDIMENT-RELATED PROCESSES

RESTORATION ACTIVITIES THAT ADDRESS **EROSION** OR **SEDIMENTATION**, BUT THAT DO NOT UTILIZE DREDGED MATERIAL

ETC.

BENEFICIAL USE
OF DREDGED MATERIAL

WETLANDS RESTORATION USING DREDGED MATERIALS

UPLAND HABITAT ENHANCEMENT USING DREDGED MATERIALS

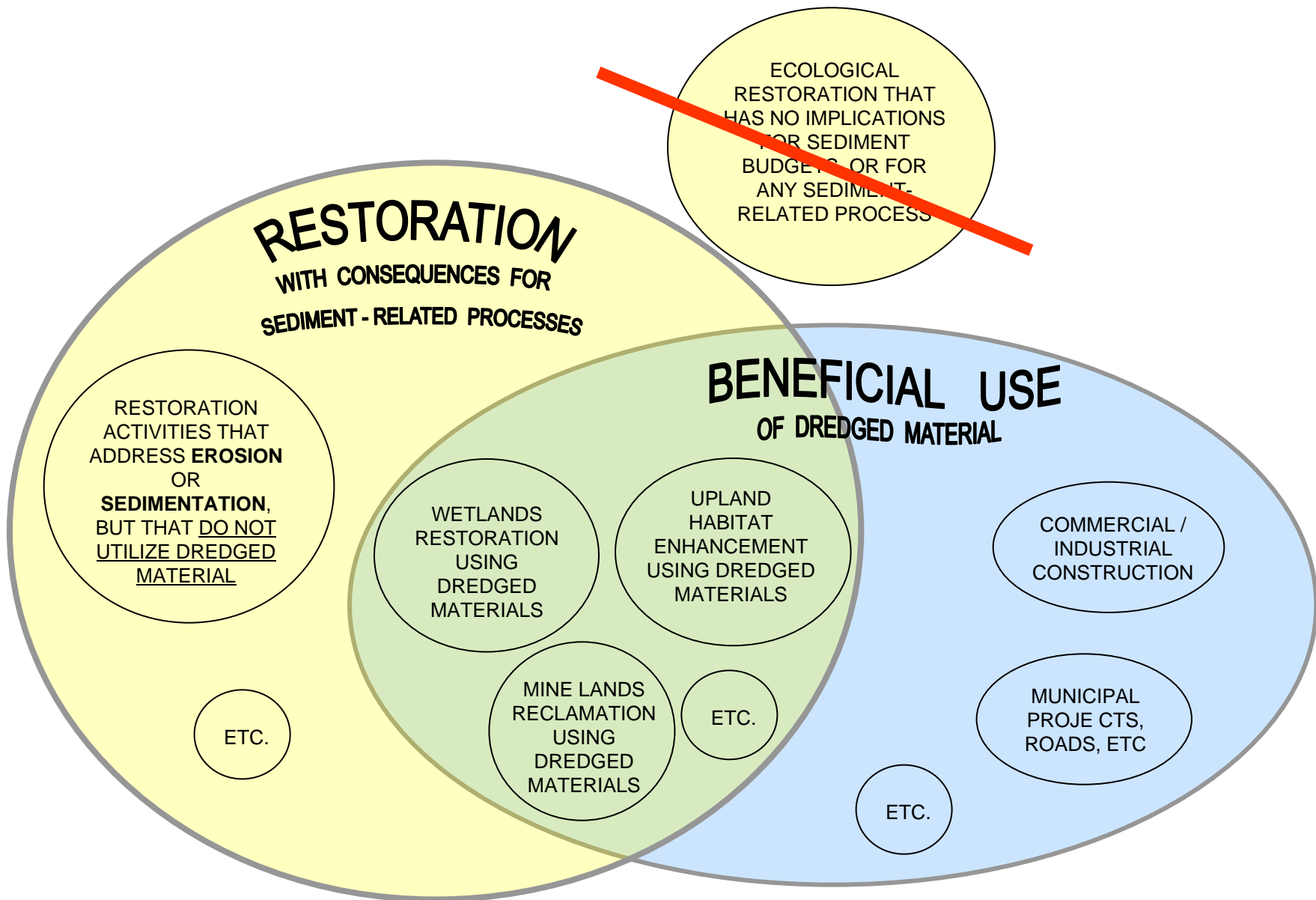
MINE LANDS RECLAMATION USING DREDGED MATERIALS

ETC.

COMMERCIAL / INDUSTRIAL CONSTRUCTION

MUNICIPAL PROJE CTS, ROADS, ETC

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***Categories of
Beneficial Use:***

1. Restoration projects.
2. Filling land for development purposes.
3. Filling land for construction of roads or other public infrastructure.
4. The use of DM as cover at sanitary landfills.
5. others...

***Categories of
Restoration***

1. Tidal wetlands
2. Shoreline enhancement
3. Stream channel stabilization
4. Non-tidal wetlands
5. Upland areas
6. Sub-tidal aquatic sites
7. others...

Beneficial Use, Category 1:
Restoration Projects

Key Issues:

Sediment Quality (contaminants) is the first consideration.

Marsh or shoreline projects may be located in proximity to dredging project.

Wetlands; Shorelines; Upland sites

Subtidal sites (could include borrow holes from previous operations)

Beneficial Use, Category 2:
Filling land for development purposes

Key Issues:

Construction fill.

Capping of brownfield sites for redevelopment.

Amendment of dredge material using pozzolanic material.

Range of sediment types that can be used (from fine-grained to coarse-grained).

Consideration of contaminants in dredged material.

Beneficial Use, Category 3:
Filling land for construction of roads or other public infrastructure

Key Issues:

Roads, Airports, Parks, Dikes and levees.

Consideration of contaminants in dredged material (in most cases, only clean fill is considered suitable for this use).

Means of facilitating the use of dredged material in public works contracts.

Allowing physical access to CDFs for the removal of dredged material.

Beneficial Use, Category 4:
The use of DM as cover at sanitary landfills

Key Issues:

Can be used as daily cover, fill, or final capping material.

Requires agreement of both the organization operating the landfill and the State regulatory agency.

Consideration of dredged material type.

Consideration of dredged material quality. The presence of engineering controls at landfills makes this an attractive use for materials that may not be suitable for other uses.

Consider means of providing incentives to promote this use.

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Restoration, Category 1:
Tidal wetlands

Key Issues

Sediment processes that are important to tidal wetlands;

- Accretion
- Erosion

Trends in tidal wetlands restoration in Delaware Estuary.

Needs and opportunities in tidal wetlands restoration.

Activities that could be done using DM.

Activities that could be done without using DM.

Restoration, Category 2:
Shoreline enhancement

Key Issues:

Beaches and dunes in the Delaware Estuary; processes, status, and trends.

Marsh edges; processes, status, and trends.

Bulkheads and riprap; processes, status, and trends.

Ways to use DM in shoreline work.

Shoreline restoration that does not use DM.

Restoration, Category 3:
Stream channel stabilization

Key Issues:

(Not likely to involve the use of DM.)

Perceptions of sediment oversupply in developing areas.

- Agricultural landscapes
- Urban landscapes

Ways in which sediment supply is being reduced by management, and the likely trend in regulation and restoration.

What is known about transport of sediment from streams to estuary?

Dam removal.

Restoration, Category 4:
Non-tidal wetlands

Key Issues:

(Not likely to involve the use of DM.)

Overview of wetlands protection in regulation.

The likely future trend in wetlands restoration.

Significance of non-tidal wetlands to watershed-scale sediment processes.

Restoration, Category 5:
Upland areas

Key Issues:

Uplands restoration; the reasons for it, and the goals.

Uplands restoration using DM.

Uplands restoration not using DM. (Erosion reduction benefits.)

Special category: Reclamation of mine lands using DM.

Restoration, Category 6:
Sub-tidal aquatic sites

Key Issues:

Filling of deep borrow holes that were created by beach nourishment projects in the past.