York County Dredge Program

From planning to action: building stronger dunes



Pictured: Biddeford

Maine Dredge Team Meeting | York County EMA
October 1, 2026

Why is EMA involved in dredging?

2022

County commissioners purchase the dredge

$1.54M - American Rescue Plan Act funds
Combat erosion, nourish beaches, aid navigation

2024

Winter storms become an emergency disaster

A federal disaster declaration propels EMA into coastal resilience in a larger way.

Now

FEMA can pay for dredge costs

Costs are reimbursable when the dredge is mobilized during storms, so the asset pays for itself in action.



Pictured: York County dredge

January 2024 storms

York County, DR-4764

$110M
in dune damage across York County

$42M
in public infrastructure damage

9
coastal municipalities hit at once

Jan 10	**13.5 ft**	Peak tide at Camp Ellis 0.7 ft below Major Flood Stage
Jan 13	**14.4 ft**	Peak tide at Camp Ellis 0.2 ft **above** Major Flood Stage



Pictured: Wells

Maine's first county-led coastal resilience coordination

Goal: Restore and build dunes to achieve a higher level of protection for every town

Why is this beneficial?

Efficiency
One procurement process instead of separate municipal contracts

Equity
Small towns access the same engineering expertise as larger cities

Sustainability
Permanent county staff, equipment, and institutional relationships

Scale
Projects no individual municipality could finance, permit, or execute alone



Pictured: January 2024 storms

Short term: Category B. Long term: Category G.

The path to a higher level of protection

Category B

Emergency protective measure

- Where we started: FEMA reimburses the work
- Protects against a 5-year storm
- Temporary; buys time

Category G

Fully engineered dunes

- Where we are working with towns now
- Protects against a 100-year storm
- Engineered to the same rigor as buildings, require proof of maintenance

Category B projects so far

Wells, Saco, and Old Orchard Beach, winter 2026



Photo: Wells

Wells	8,150 cy of sand from the harbor, piped about 3/4 mile to the beach off Atlantic Avenue. 100,000 dune grass plants installed.
Saco (Camp Ellis)	1,200 cy of sand deposited on Camp Ellis Beach. City funded 6,000 more cubic yards (about $500,000).
Old Orchard Beach	Sand placement followed by dune grass planting, no dredging. Sand was trucked in. Another upland project is coming up.

Category G projects upcoming

Three phases

1 Engineering

Disaster Recovery:
- 75% FEMA / 15% State / 10% Local

Mitigation Grant:
- 75% FEMA / 25% Local

- Town MOU required
- Anchor QEA is the contractor for county engineering work

2 Construction

- Dune built by placing sand to a designed elevation, width, slope, and grain size with grass planting
- **Town MOUs required**
- **Funding needed**

3 Long-term maintenance

- Periodic renourishment program, with records
- Town maintenance about once a year to stay compliant
- Not covered by Army Corps or other federal replenishment programs
- **Funding needed**

Towns using Category G

Old Orchard Beach | **Saco** | **Biddeford** | **Wells** | **Ogunquit**

Long term: who pays to maintain the dunes?

What FEMA requires

- Proof that engineered dunes are maintained every year
- Monitoring, measurement, and sand replenishment records
- Without records, a town can lose its investment after a storm



Where does the funding come from?

- Local taxes?
- Other state and federal sources?
  - Currently have a Coastal Mitigation Grant from Collins
  - Additional funding from King for dredging equipment

Agreements that make the dredge work

MOUs/intergovernmental agreements lower costs for this work

Contractor	Michel's Construction is the dredge contractor
Town MOUs	Towns do not need to bring in a dredge since the county already has one. 5 MOUs in place for dune engineering work.
Future: Construction & funding	Town MOUs for dune construction work. Agreement with the Army Corps of Engineers to coordinate on dredging, including Camp Ellis Section 111 phase 2.



Photo: Michels Construction operates the dredge at Wells Harbor

Conclusion

Where we were

EMA gets involved during 2024 storm disaster

Where we are

Immediate response with FEMA funding
Category B dunes

Where we are going

Long-term dune resilience, fully engineered
Category G dunes

What we need

Funding for Category G construction
Town & Army Corps MOUs and agreements
What is the long-term funding model?



Photo: Camp Ellis damage after 2024 storms