

US Army Corps of Engineers Philadelphia District

Sandy Program Overview

WEDA Dredging Summit & Expo 2015

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Houston, TX

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US Army Corps of Engineers
BUILDING STRONG.



How to be Happy

- Devoting time to family and Friends
- Appreciating what they have
- Maintaining an optimistic outlook
- Feeling a sense of purpose

- Source: Mayo Clinic

Sandy Disaster Relief Supplemental (Public Law 113-2)

- Signed into law by President Obama on January 29, 2013
- Includes **\$5.35 billion** for the Corps of Engineers Civil Works Program under the following appropriations:
 - Investigations - \$50M
 - Construction - \$3.461B
 - Operations & Maintenance (O&M) - \$821M
 - Flood Control & Coastal Emergencies (FCCE) – \$1.008B
 - General Expenses - \$10M

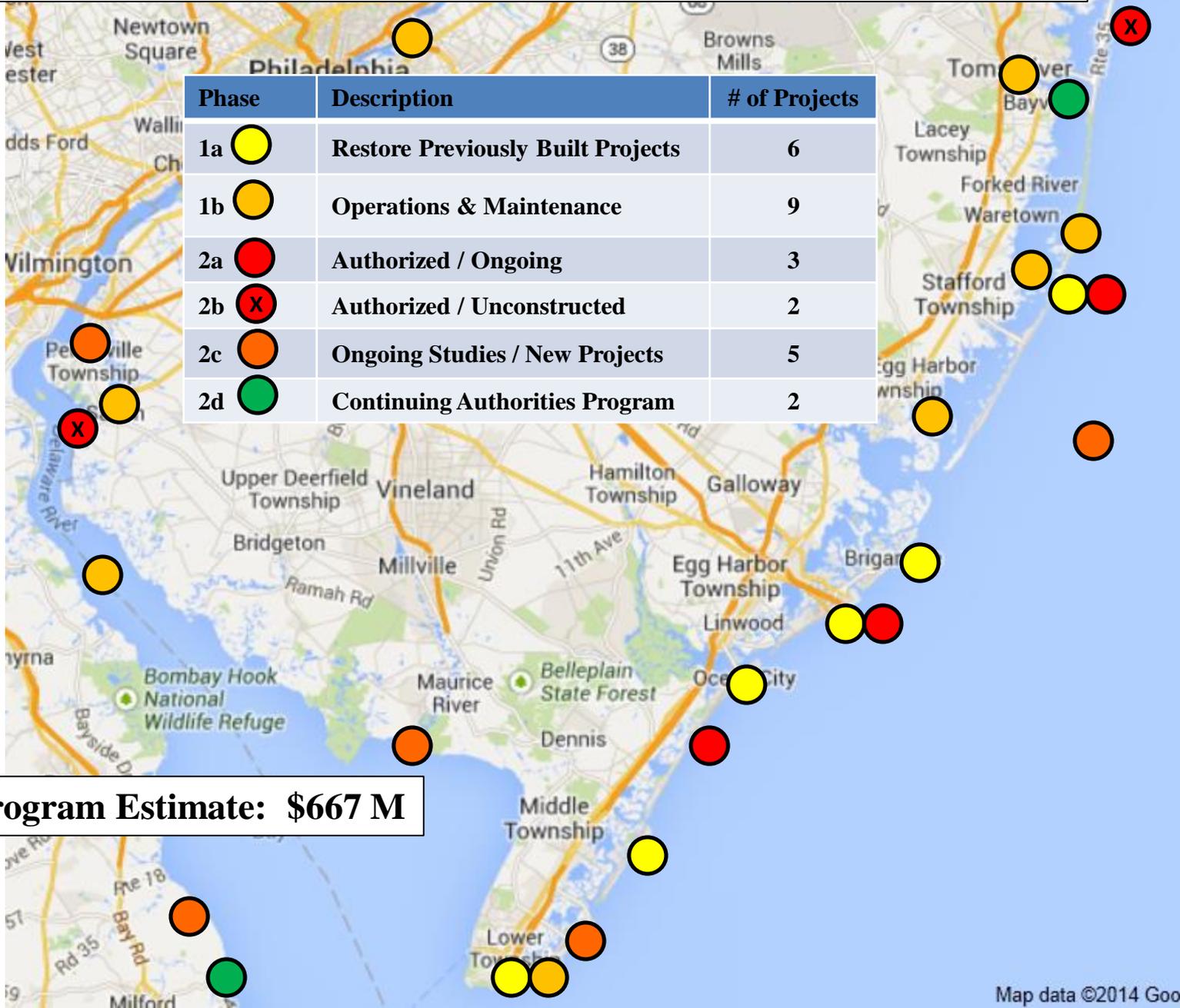
Philadelphia District Recovery Projects Overview

Sandy Program Phases

Phase	Description	# of Projects	Initial Estimate	Current Estimate
1a	FCCE Repair/Restore	11	\$135 m	\$133 m
1b	O&M	12	\$23.9 m	\$45 m
2a	Authorized / Ongoing	3	\$188 m	\$293 m
2b	Authorized / Unconstructed	2	\$93 m	\$180 m
2c	Ongoing Studies / New Projects	5	\$6.0 m (study costs only)	\$7.0 m
2c	Ongoing Studies / New Projects	4	\$TBD (est. construction cost)	TBD
2d	Continuing Authorities Program/Ongoing Projects	2	\$8.5m	\$8.5m
2e	Continuing Authorities Program/New Projects	15	\$0.7m (FID costs only)	\$0.7m

Total Current Program Estimate (41 projects): ~\$667 m

Philadelphia District - Sandy Recovery - NJ



Phase	Description	# of Projects
1a	Restore Previously Built Projects	6
1b	Operations & Maintenance	9
2a	Authorized / Ongoing	3
2b	Authorized / Unconstructed	2
2c	Ongoing Studies / New Projects	5
2d	Continuing Authorities Program	2

Program Estimate: \$667 M

- █ Constructed Projects/Sections
- █ Authorized, Not Constructed
- █ Study/Design Phase

Sandy Recovery Project Phases Philadelphia District (NJ Only)



**Superstorm Sandy Recovery
USACE Coastal Projects - NJ**

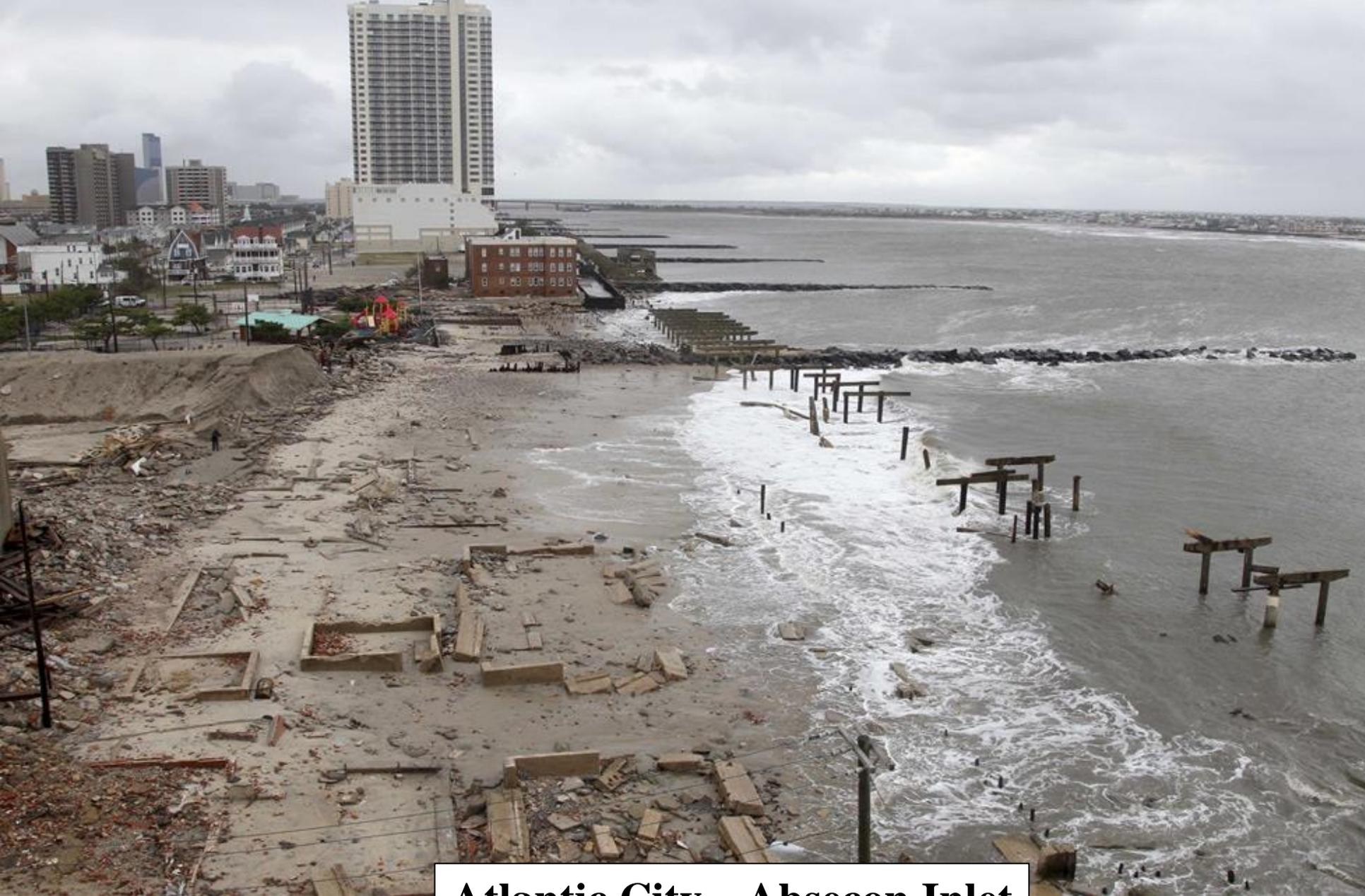
Philadelphia District - Sandy Recovery Phase 1

FCCE – Repair/Restore (NJ) – 7MCY

Project	Quantity
1. Barnegat Inlet to Little Egg Harbor Inlet (LBI), NJ	~3.1m cy sand fill
2. Brigantine Island	~575k cy sand fill
3. Absecon Island, NJ	~1.3m cy sand fill
4. Great Egg Harbor Inlet to Peck Beach (Ocean City), NJ	~ 805k cy sand fill
5. Townsends Inlet to Cape May Inlet, NJ	~820k cy sand fill One seawall repaired
6. Cape May to Lower Twp	~585k cy sand fill



All Completed!

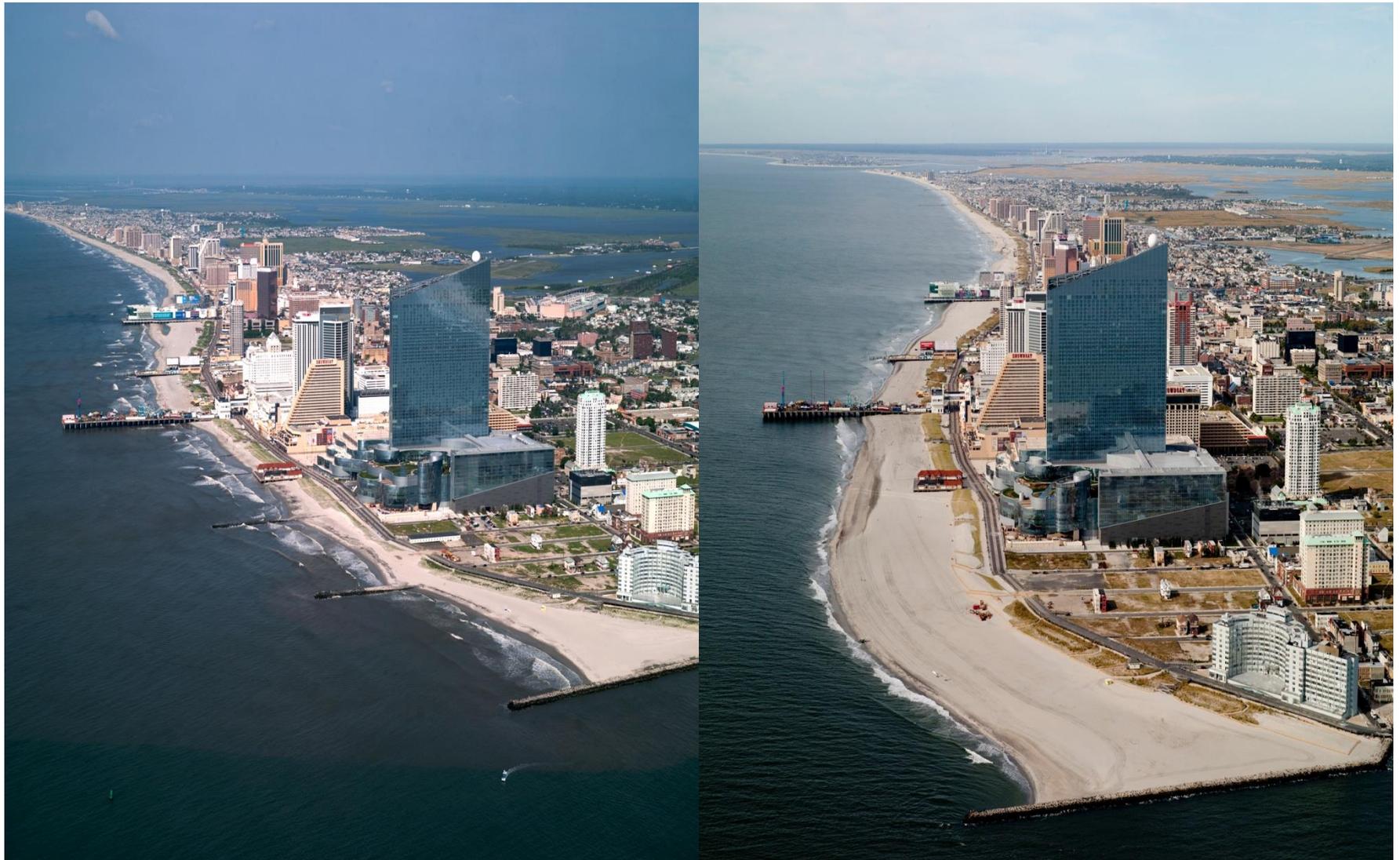


**Atlantic City – Absecon Inlet
Post Sandy - 2012**



**North -Atlantic City
Post Sandy - 2012**

Absecon Island, (Atlantic City), NJ (Before & After Sep 2013)



Brigantine Island, NJ

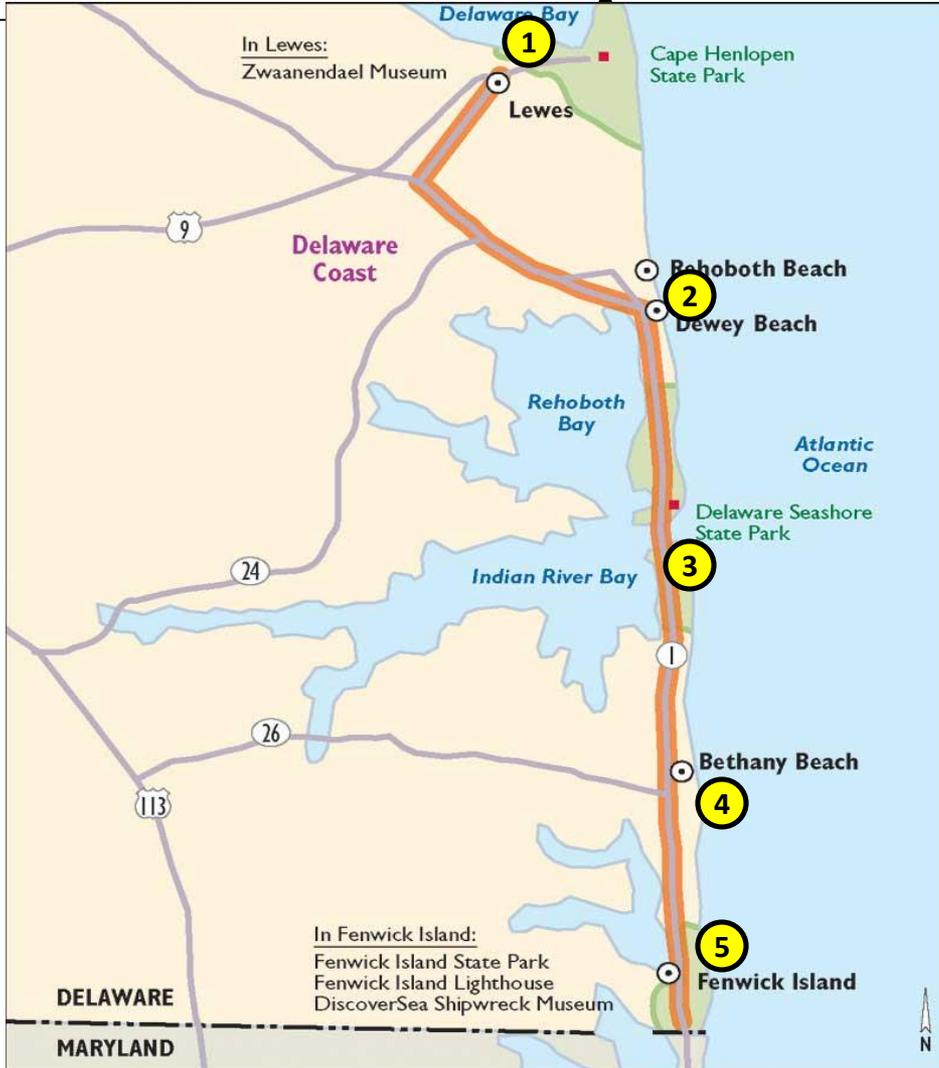


Brigantine, NJ (December 2012)



Brigantine, NJ (February 2013)

Philadelphia District - Sandy Recovery Phase 1 FCCE – Repair/Restore (DE) – 2MCY



Project	Quantity
1. Roosevelt Inlet to Lewes Beach, De	~22k cy sand fill (truckfill)
2. Rehoboth Beach – Dewey Beach, DE	~510k cy sand fill
3. Delaware Coast Protection, DE	~440k cy sand fill
4. Bethany Beach – South Bethany Beach, DE	~540k cy sand fill
5. Fenwick Island, DE	~370k cy sand fill

All Completed!

Hurricane Sandy Repair & Restore - DE



Dewey Beach, DE



Rehoboth Beach, DE



S. Bethany Beach, DE

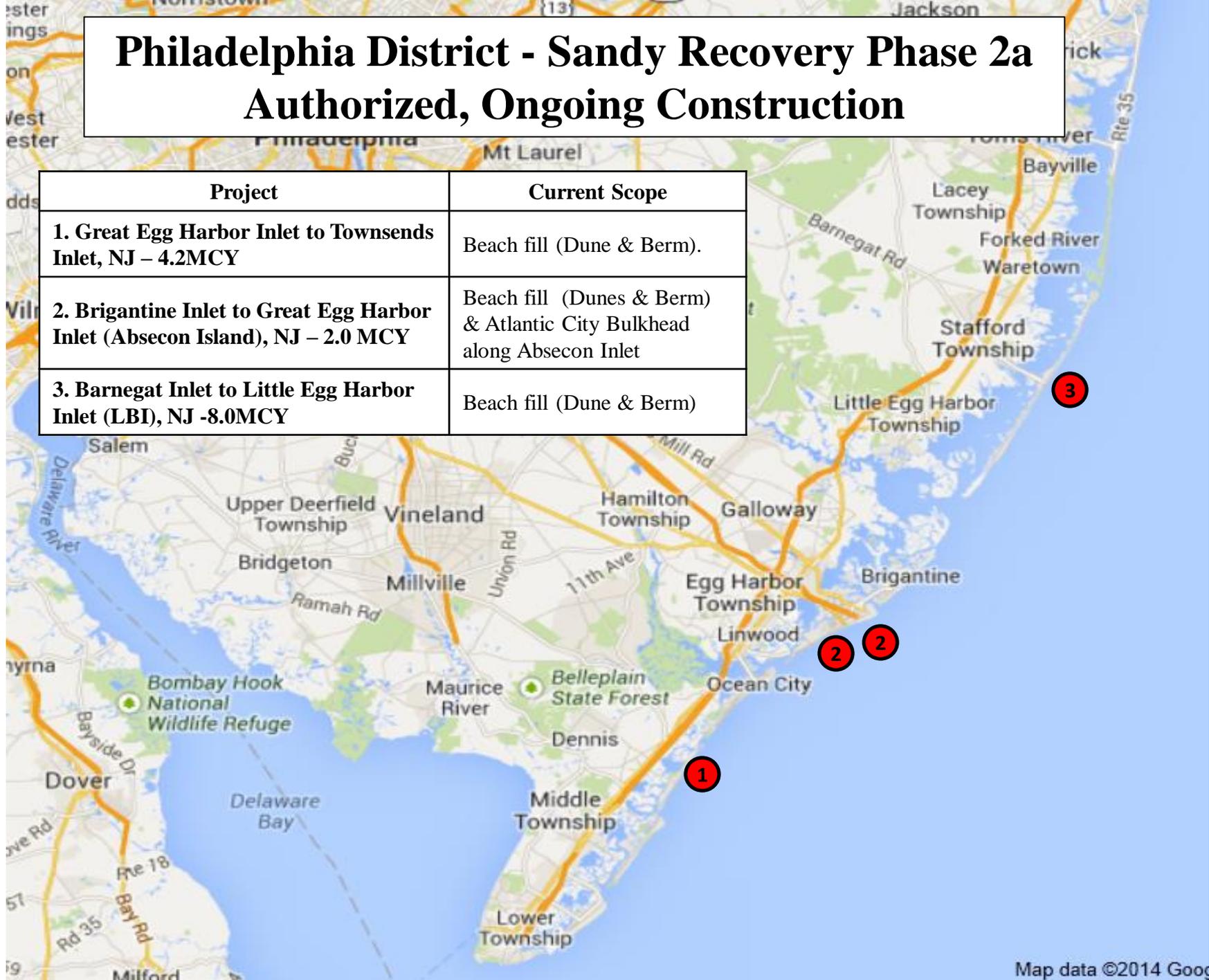


Indian River Inlet, DE

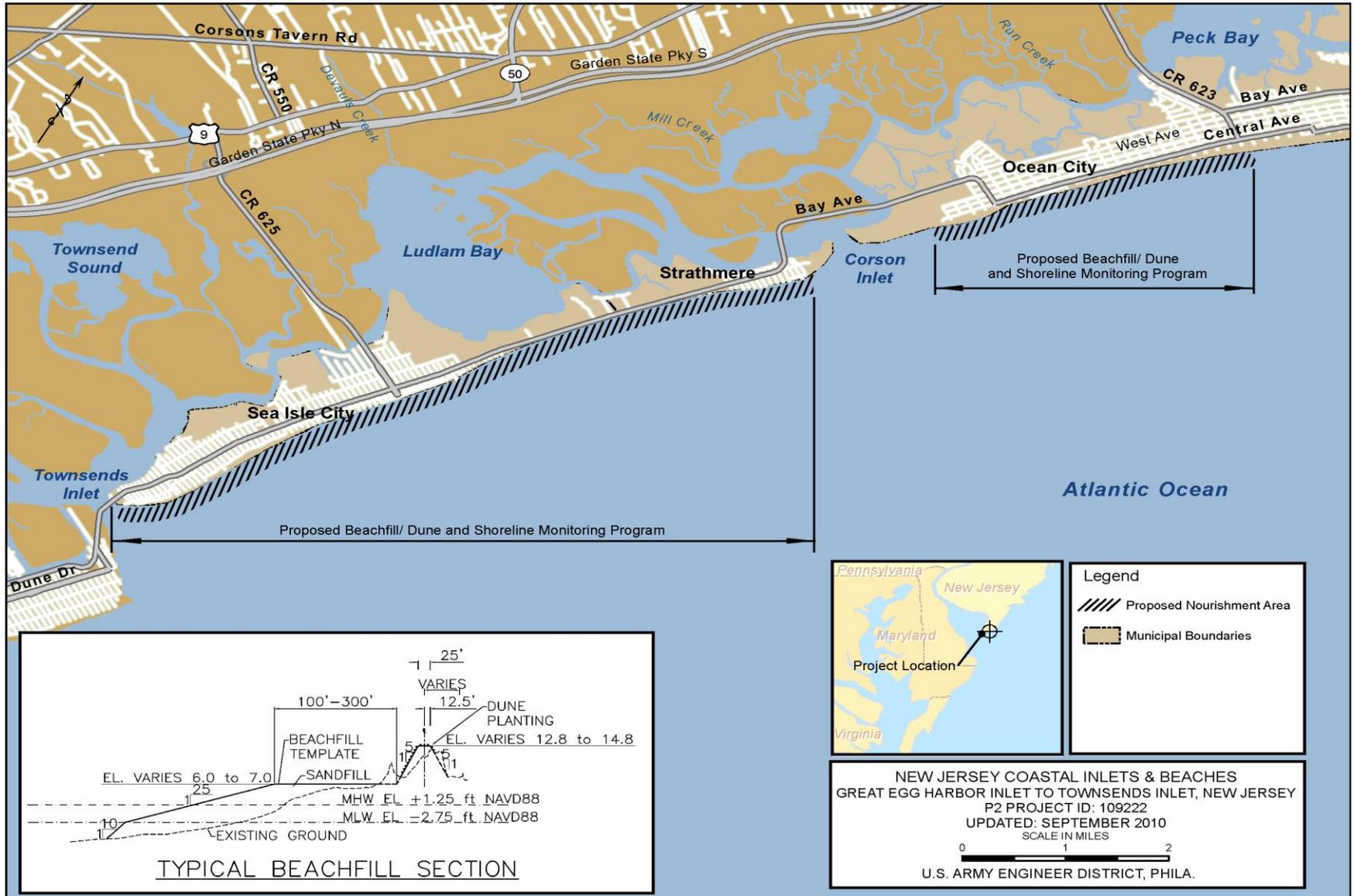
Philadelphia District - Sandy Recovery Phase 2a

Authorized, Ongoing Construction

Project	Current Scope
1. Great Egg Harbor Inlet to Townsends Inlet, NJ – 4.2MCY	Beach fill (Dune & Berm).
2. Brigantine Inlet to Great Egg Harbor Inlet (Absecon Island), NJ – 2.0 MCY	Beach fill (Dunes & Berm) & Atlantic City Bulkhead along Absecon Inlet
3. Barnegat Inlet to Little Egg Harbor Inlet (LBI), NJ -8.0MCY	Beach fill (Dune & Berm)



Great Egg Harbor Inlet to Townsends Inlet, NJ



Great Egg Harbor Inlet to Townsends Inlet, NJ



Strathmere, NJ

Common Name / Location	Southern Ocean City, Upper Twp. (Strathmere) & Sea Isle City
Project Name	Great Egg Harbor Inlet to Townsends Inlet, NJ
Authorization	WRDA 2007
Scope	Beach fill including berm and dune.
Sponsors	NJDEP
CWE (Cost Share)	\$70.6M (HSLRR) (100% Federal)
Project Status At Landfall	Not constructed.
Hurricane Sandy Impacts	Dune breached, significant flooding in Sea Isle City. Severe berm and dune erosion.

Scope of Work	Coastal Storm Damage Reduction
Quantity:	4,173,000
Material Type:	Sand
Placement Areas:	14,000 feet of Atlantic coast shoreline in Ocean City, NJ from 34th to 59th Streets, and 6.7 miles in Upper Township (Strathmere) and Sea Isle City, NJ from Corson's Inlet (Strathmere) to Pleasure Ave (SIC)
Borrow Area:	2 miles offshore of Corson's Inlet
Type of Equipment:	Hopper
Environmental Windows:	Entire project is subject to piping plover window (1 MAR - 15 AUG); work can occur with monitors within this window except for beaches within 1000 meters of the known nesting areas, i.e. Corson's Inlet in Strathmere and Townsends Inlet in Sea Isle City
Awarded	10 Nov 2014 (A)
NTP	21 Nov 2014 (A)
Dredging & Placement	Ongoing thru Jan 2016
Issues	None

Brigantine Inlet to Great Egg Harbor Inlet, NJ Absecon Island



Brigantine Inlet to Great Egg Harbor Inlet, NJ Absecon Island

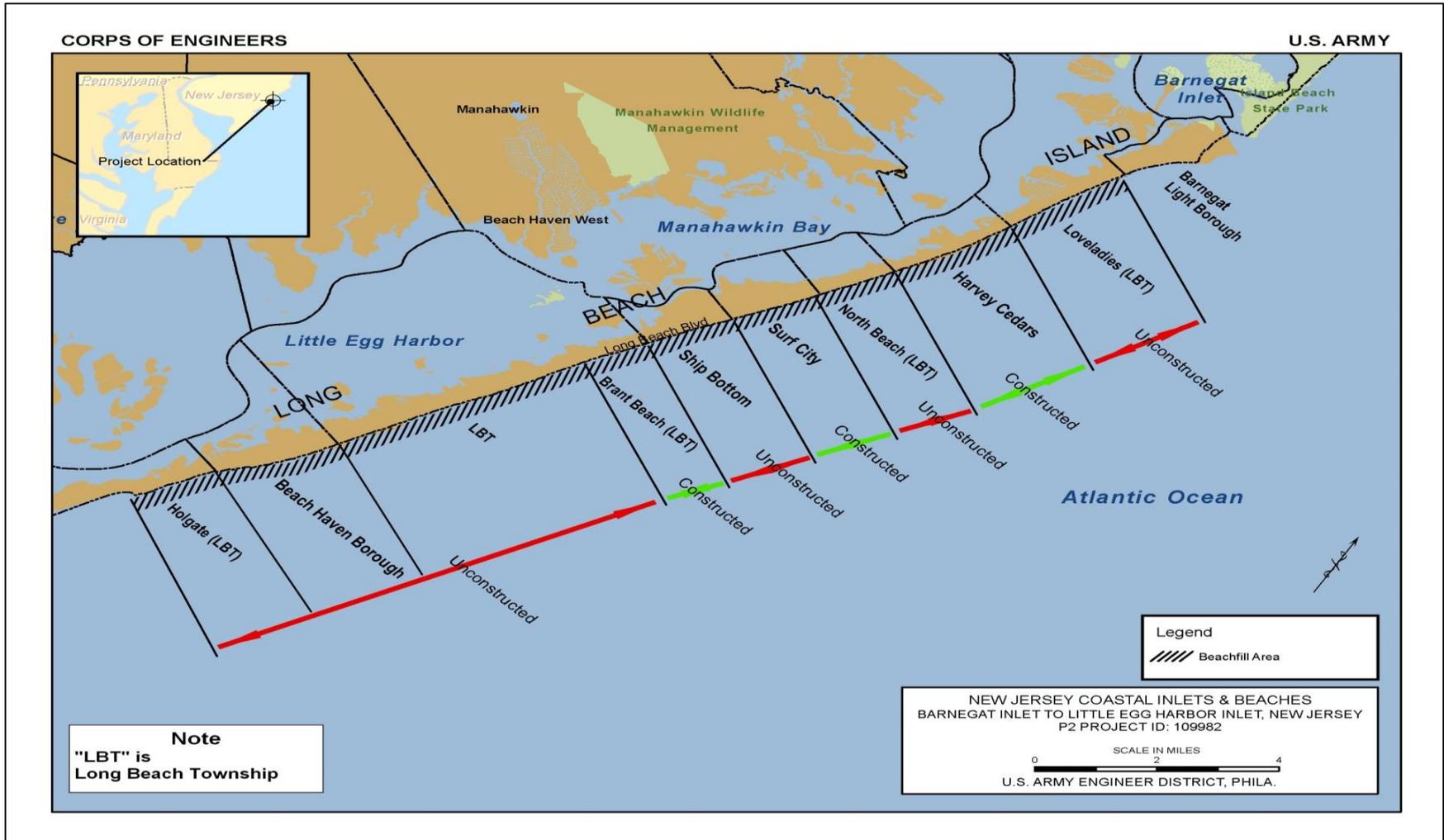


Ventnor, NJ

Common Name / Location	Absecon Island, NJ (Map ID 13)
Project Name	Brigantine Inlet to Great Egg Harbor Inlet (Absecon Island), NJ
Authorization	WRDA 1996
Scope	3 miles of berm and dune in Margate and Longport, NJ; bulkhead in Atlantic City, NJ
Sponsors	NJDEP
CWE (Cost Share)	\$72.95M (100% Federal)
Project Status At Landfall	Partially constructed (5 of 8 miles completed).
Hurricane Sandy Impacts	Severe berm and dune erosion. Approx. 1.3 M CY of sand placed to repair and restore completed portions. 8,000 buildings reportedly suffered damage primarily from bay side flooding.

Scope of Work	Coastal Storm Damage Reduction
Quantity:	2,000,000
Material Type:	Sand
Placement Areas:	Margate and Longport
Borrow Area:	Offshore Area H
Type of Equipment:	Hopper and/or Hydraulic Cutterhead
Environmental Windows:	None
Sch. Advertisement Date:	4 th Q FY15 (S)
Sch. Bid Opening Date:	4 th Q FY15 (S)
Sch. Start Date: (NTP)	1 st Q FY16 (S)
Issues:	Sponsor acquiring necessary real estate

Barnegat Inlet to Little Egg Harbor Inlet, NJ Long Beach Island



Barnegat Inlet to Little Egg Harbor Inlet, NJ

Long Beach Island



Beach Haven, NJ

Common Name / Location	Long Beach Island (LBI), NJ (Map ID 12)
Project Name	Barnegat Inlet to Little Egg Harbor Inlet, NJ
Authorization	WRDA 2000, Section 101(a)(1)
Scope	13 miles of berm and dune.
Sponsors	NJDEP
CWE (Cost Share)	\$149.3M (100% Federal)
Project Status At Landfall	Partially constructed (4 of 17 miles completed).
Hurricane Sandy Impacts	Severe berm and dune erosion. Catastrophic damage to beaches and communities and infrastructure. Approx. 2.9 M CY of sand placed to repair & restore completed portions.

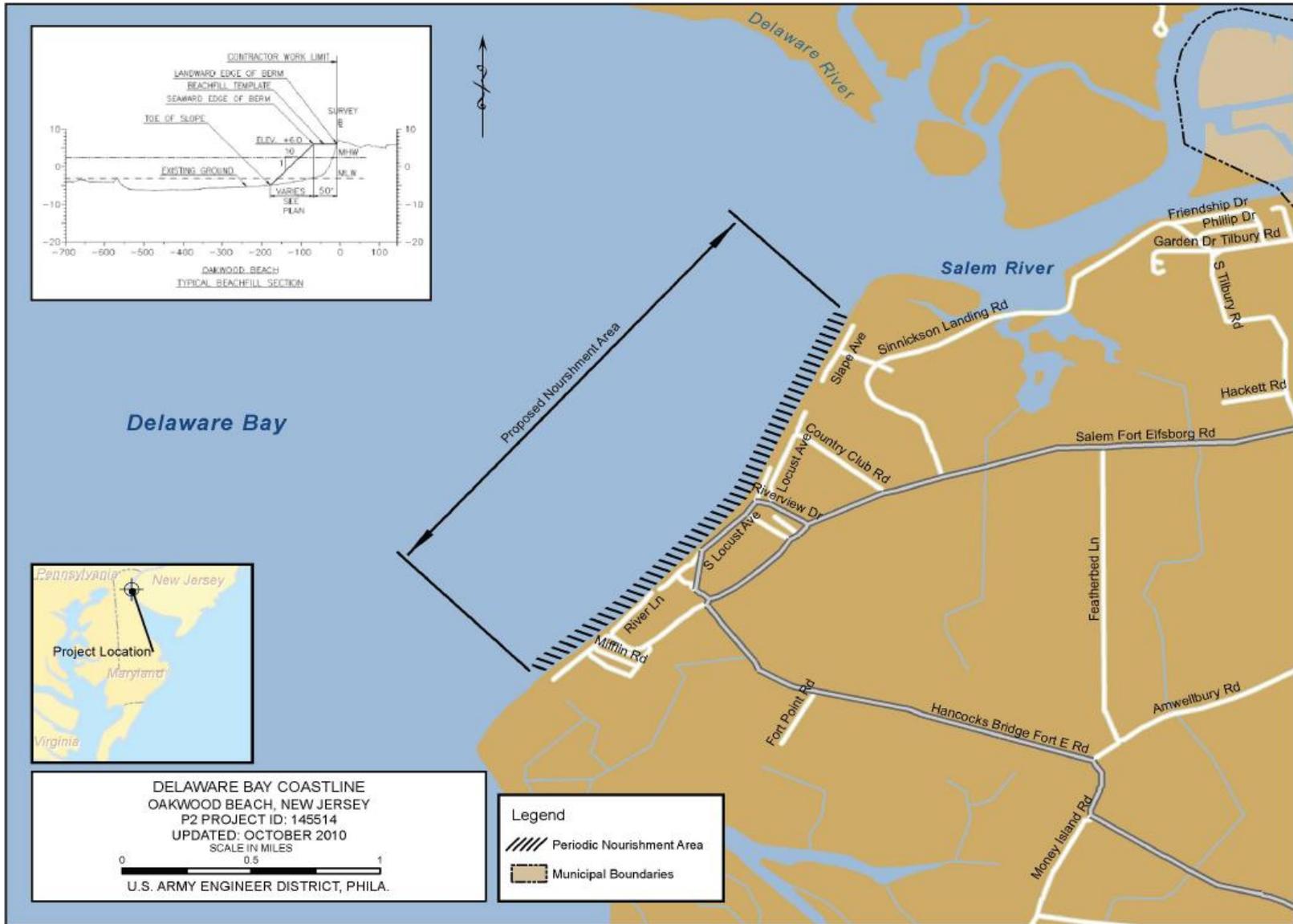
Scope of Work	Coastal Storm Damage Reduction
Quantity:	8,000,000
Material Type:	Sand
Placement Areas:	Long Beach Township, Ship Bottom Borough, and Beach Haven Borough
Borrow Area:	Offshore Areas D1 & D2
Type of Equipment:	Hopper and/or Hydraulic Cutterhead
Environmental Windows:	None
Awarded	5 Dec 15 (A)
NTP	19 Dec 2015 (A)
Dredging & Placement	Now thru April 2016
Issues:	Some portions suspended while sponsor acquires necessary real estate

Philadelphia District-Sandy Recovery Phase 2b Authorized But Unconstructed (ABU)

Project	Current Scope
1. Oakwood Beach (Elsinboro Twp), NJ	Beachfill (Berm only)
2. Manasquan Inlet to Barnegat Inlet , NJ	Beachfill (Dune & Berm)



Oakwood Beach, NJ



Oakwood Beach, NJ



Common Name / Location	Oakwood Beach, NJ (Map ID 14)
Project Name	Delaware Bay Coastline, Oakwood Beach, NJ
Authorization	WRDA 1999 Section 101 (b) (5)
Scope	Construction of approx. 2 miles of beach fill and berm.
Sponsors	NJDEP
CWE (Cost Share)	\$12.6M (65% Federal / 35% non-Federal)
Project Status At Landfall	Not constructed.
Hurricane Sandy Impacts	Severe berm erosion and damage to bulkheads.

Scope of Work	Coastal Storm Damage Reduction
Quantity:	346,000
Material Type:	Sand
Placement Areas:	9,000 feet of Delaware River shoreline in Elsinboro Twp, Salem Co, NJ
Borrow Area:	Reedy Island range of Delaware River
Type of Equipment:	Cutterhead
Environmental Windows:	Dredging operations can only occur between 1 NOV 2014 to 1 MAR 2015, all other operations (mob/demob, beach and outfall work) are allowed outside of this window
Award	18 Sep 2014 (A)
NTP	3 Oct 2014 (A)
Pumping & Placement	12 Nov 2014 (A)
Sand Placement Complete	22 Dec 2014 (A)
Issues	None

Oakwood Beach, NJ (Before & After Jan 2015)



Manasquan Inlet to Barnegat Inlet, NJ



BEFORE



AFTER



**Mantoloking, NJ
Before/After - Sandy**

Manasquan Inlet to Barnegat Inlet, NJ



Common Name / Location	Manasquan Inlet to Barnegat Inlet, NJ (Map ID 16)
Project Name	Manasquan Inlet to Barnegat Inlet, NJ
Authorization	WRDA 2007
Scope	Construction of almost 15 miles of beach fill including berms and dunes.
Sponsors	NJDEP
CWE (Cost Share)	\$167.1M (HSLRR) (65% Federal/35% sponsor)
Project Status At Landfall	Not constructed.
Hurricane Sandy Impacts	Significant damage to beaches. Communities significantly damaged. Significant damage to piers, boardwalks, amusements, residential and commercial properties.

Scope of Work	Coastal Storm Damage Reduction
Quantity:	10,800,000
Material Type:	Sand
Placement Areas:	All municipalities between Manasquan Inlet and Island Beach State Park: 14 miles
Borrow Area:	Various Offshore Areas
Type of Equipment:	Hopper and/or Hydraulic Cutterhead
Environmental Windows:	None
Sch. Advertisement Date:	1 th Q FY16 (S)
Sch. Bid Opening Date:	1 th Q FY16 (S)
Sch. Start Date: (NTP)	2nd Q FY16 (S)
Issues:	Sponsor acquiring necessary real estate

Summary

- FCCE @ 9MCY (\$133M) – Complete
 - 2MCY in DE; 7MCY in NJ
- ABU @ 25MCY (\$480M) – Ongoing

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