#### Oct 2012 Sandy







### South Shore of Staten Island, New York Winter 2024



#### **Project Area Facts**

- Flood-prone, high risk, low-lying
- Low-capacity storm sewers
- Nearly 7,300 structures
- Over 30,000 people
- Critical infrastructure:
- Oakwood Wastewater Treatment Plant
- Staten Island Hospital
- Fire/police stations
- Schools/senior centers

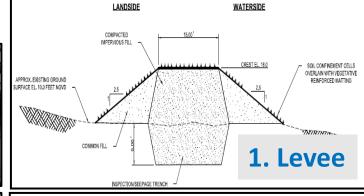
#### **Hurricane Sandy Facts**

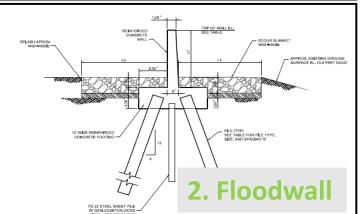
- Water levels peaked at +12.5 ft NAVD
- Flooding depths over 10 ft.
- · 4 ft higher than prior record
- 23 total Staten Island deaths
- 43 total in New York City
- 80% structures damaged in project area
- Over \$1B in Sandy damages

## Dec '92 Nor'easter





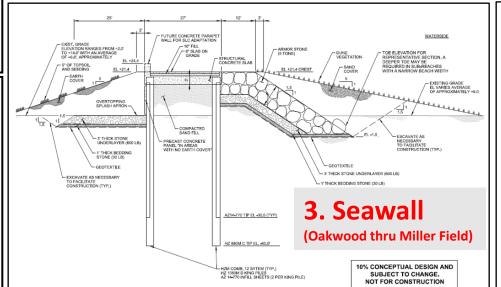


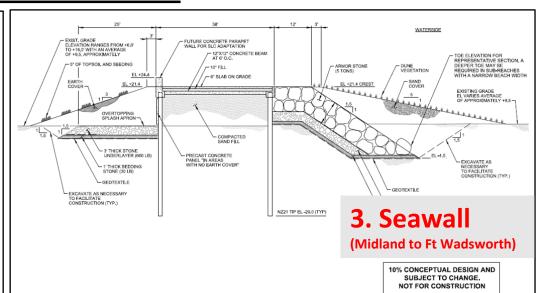


# Source: FEMA MOTF Hurricane Sandy Impact Analysis



#### **Typical Project Cross-Sections**





Tide Gate

#### **Project Renderings (Before & After)**



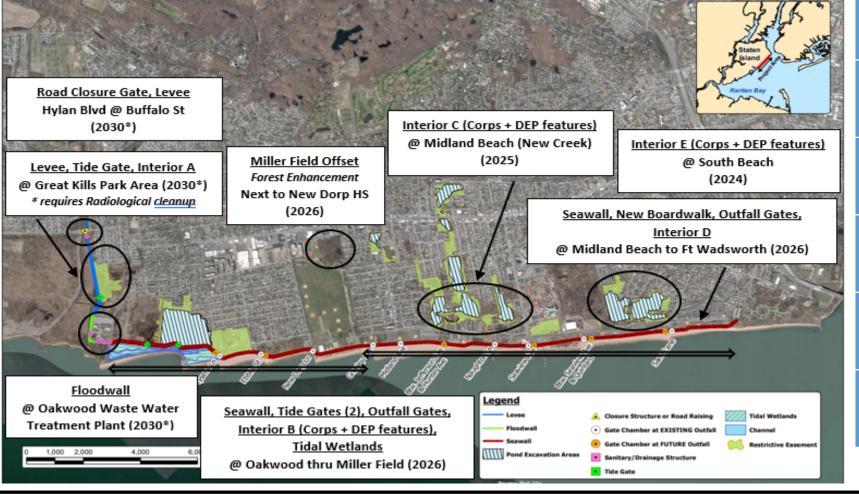




Staten-Island/

- ✓ ASA(CW) approval of Feasibility Report, EIS, ROD, Director's Report (Dec 2016)
- ✓ Project Partnership Agreement executed (Feb 2019); Corps, NYS (Sponsor), NYC (party)
- Project originally cost-shared at 65% Fed, 35% Non-Fed (70% NYS, 30% NYC); WRDA 2022 amends cost-sharing, with original estimate (\$615M) cost-shared 65% Fed, 35% non-Fed, and all costs ABOVE PPA estimate to be cost-shared 90% Fed, 10% Non-Fed
- Validation Report completed Nov 2023 to document required project design refinements, updated total project cost, economics & environmental impacts assessment; Chief's Report pending 2024
- ✓ PPA Amendment to be executed in 2024, to include Chief's Report, updated costs, new cost-sharing
- ✓ HTRW removal at Great Kills Park reach (levee area) is required by non-Federal parties.
- ✓ Project Operation & Maintenance is a Sponsor (NYS) 100% responsibility & cost
- ✓ Project is designed to be adapted in future to address potential sea level rise, if required
- ✓ **Significant coordination underway**: Corps, NYS, Governor, NYC, Mayor, City Parks, City DEP, City DOT, Borough President, National Park Service, FEMA, various Congressional and local interests
- All construction contract designs are currently underway, including schedule updates

#### **Anticipated Construction Contract Breakouts**



#### **Estimated Total Project Cost (updated)**

Federal cost-share \$1.944 Billion

Non-Federal cost-share \$387 Million

Annual Operation & Annual Operation & Annual Operation & Costs (Non-Fed)

#### **Estimated Construction START Schedules**

Interior E, with DEP features  @ South Beach	Spring 2024
Interior C, with DEP features  @ New Creek	2025
Miller Field Offset	2026
Seawall, Interior D Midland to Ft. Wadsworth	2026
Seawall, Interior B, Wetlands Oakwood thru Miller Field	2026
Levee, Interior A  @ Great Kills Park Requires HTRW cleanup	2030
Floodwall @ Oakwood WWTP	2030
Road Closure Gate, Levee @ Hylan Blvd	2030