

**DRAFT**

**2026 BEACH  
MANAGEMENT PLAN**

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158

# 159 INTRODUCTION

160 The Town of Falmouth’s beaches are a defining feature for many reasons, including their  
161 natural beauty, recreational opportunities, economic benefits, and vulnerability to climate  
162 change and other human stressors. Given their importance, the Town developed this  
163 beach management plan to formalize protocols, responsibilities, procedures, and goals as  
164 it seeks to balance public recreational enjoyment of the beaches with stewardship of the  
165 natural resources. To that end, this plan captures existing conditions, shoreline and  
166 anthropogenic changes to beaches, and recommends actions to ensure the continued  
167 health and enjoyment of these special places. Building on the 2008 Beach Management  
168 Plan, this document also includes the specific actions and timelines, identified here as  
169 “protocols”, of the many entities responsible for managing the beaches.

## 170 Goals

171 The goals of the Beach Management Plan are to preserve and enhance the natural and  
172 recreational functions of the Town of Falmouth public beaches and to guide future coastal  
173 zone management decisions by balancing the needs of all stakeholders. To achieve these  
174 goals, the following objectives were identified for the Beach Management Plan in 2008:

- 175 1. Develop an inventory of natural and anthropogenic resources, historical evolution,  
176 and existing coastal processes at each public beach site that will serve as a  
177 reference document for coastal managers.
  - 178 ○ Since the adoption of the 2008 plan, the Town has identified natural  
179 resources and infrastructure related to public beaches. These resources  
180 have been included in the development of this updated plan.
- 181 2. Develop a management program that is consistent with federal, state, and local  
182 laws and regulations for the various potential uses of the beaches.
  - 183 ○ Both the 2008 beach management plan and this updated plan have taken  
184 into account the requirements of federal, state, and local laws.
- 185 3. Define short- and long-term components of a beach restoration and management  
186 program, including post-storm response activities.
  - 187 ○ Beach restoration and management protocols have been adapted from the  
188 2008 plan and are presented in this updated draft.
- 189 4. Develop short- and long-term recommendations for infrastructure maintenance  
190 and improvement. Identify planning activities that will facilitate improved  
191 management of the beaches.

- 192           ○ New protocols and existing organizational structures are presented in this  
193           updated plan, based on the 2008 recommendations.
- 194   5. Provide a document that serves as the basis for a Notice of Intent application to the  
195   Falmouth Conservation Commission for ongoing management of wetland resource  
196   areas protected by the Massachusetts Wetlands Protection Act Regulations (310  
197   CMR 10.00) and the Falmouth Wetlands Regulations (FWR 10.00).

198



199

200

Figure 1: Beach location overview.

201

## METHODS

202

This beach management plan integrates information from the following sources:

## 203 Interviews

204 The project team interviewed ten municipal staff as part of the beach management  
205 planning process. Interviews focused on understanding protocols and identifying needs for  
206 each beach as well as for overall management. Staff interviewed included:

- 207 • Beach Superintendent
- 208 • Assistant Beach Superintendent
- 209 • Coastal Resilience Specialist
- 210 • DPW Director
- 211 • DPW Highway Superintendent
- 212 • Town Engineer
- 213 • Beach Foreman
- 214 • Conservation Administrator
- 215 • Harbormaster
- 216 • Sustainability Specialist

217 In addition to interviews, the project team met in-person with the Beach Committee at  
218 their regularly scheduled meeting in December 2025 to address concerns and  
219 opportunities for Falmouth public beaches.

## 220 Site Visits

221 The project team conducted site visits to each beach over the course of two days in  
222 November 2025 (Figure 1). Site visits included inventory of amenities, and reviewing  
223 anthropogenic features at each beach (e.g., seawalls, groins, parking lots, infrastructure).  
224 Due to the off-season timing of the visits, municipal staff supplemented site visit data by  
225 providing information about infrastructure in storage (e.g., lifeguard chairs) and seasonal  
226 services (e.g., parking attendants).

## 227 Review and Analysis of Existing Resources

### 228 Document Review

229 The project team reviewed a number of existing reports, plans, and other resources to  
230 inform this plan. Those included:

- 231 • MVP Workshop Findings Final Report,  
232 <https://www.falmouthma.gov/1055/Municipal-Vulnerability-Program-MVP>
- 233 • Falmouth Climate Change Vulnerability Assessment,  
234 <https://www.falmouthma.gov/1053/Falmouth-Climate-Change-Vulnerability-As>

- 235 • Coastal Resilience Planning Surf Drive Area,  
236 <https://www.falmouthma.gov/1052/Coastal-Resilience-Planning-Surf-Drive-A>
- 237 • Coastal Resources Working Group Studies: The Future of Buzzards Bay Shore, The  
238 Future of Falmouth South Shore <https://www.falmouthma.gov/1261/Coastal-Resources-Working-Group>
- 239
- 240 • Falmouth Multi-Hazard Mitigation Plan, 2022,  
241 <https://www.falmouthma.gov/1262/Falmouth-Multi-Hazard-Mitigation-Plan>
- 242 • Coastal Resiliency Action Committee Final Report,  
243 <https://www.falmouthma.gov/1263/Coastal-Resiliency-Action-Committee-Fina>
- 244 • Chapoquoit Beach Project, Beach Restoration Feasibility Study,  
245 <https://www.falmouthma.gov/DocumentCenter/View/31/Chapoquoit-Beach-Project-Chapoquoit-Beach-Restoration---Feasibility-Study-June-1-2016-PDF>
- 246
- 247 • Recent Beach Committee Minutes,  
248 <https://www.falmouthma.gov/AgendaCenter/Beach-Department-62>
- 249 • Hazard Mitigation Planning Survey,  
250 <https://www.falmouthma.gov/DocumentCenter/View/910/Hazard-Mitigation-Planning---Survey-Results-PDF?bidId=>
- 251

## 252 Mapping and Spatial Analysis

253 The data analysis is based on several elements, including aerial imagery, digital elevation  
254 models, and other available data sources. Town profile data and surveys were also used  
255 when available.

256 **Aerial imagery** dating from 2008-2025 informed wet/dry shoreline interpretation and  
257 delineation and anthropogenic changes (sand fence, building relocation, revetment, dune  
258 creation, etc.) since 2008. Aerial imagery used to map and analyze conditions in the  
259 project area include:

- 260 • Nearmap (commercial, subscription based) provides high resolution (up to 3  
261 inches) orthorectified images from 2016 to 2025. Coverage timing for Falmouth is  
262 typically in late March to early April.
- 263 • USGS published orthorectified imagery of the State of Massachusetts in April 2009  
264 and May 2014. It is relatively high resolution (appx. 1ft) and covers the entire project  
265 area.
- 266 • United States Department of Agriculture Farm Service Agency Aerial Photography  
267 Field Office (USDA-FSA-APFO) publishes aerial images every 2 years through the  
268 National Agriculture Imagery Program (NAIP). This gives the coarsest resolution  
269 imagery (~3ft) but goes back the furthest in time. NAIP images are obtained in  
270 July/August for the project area.

271 **Digital elevation models (DEMs)** were used to assess beach elevation change and  
272 possible dune migration. A total of 55 profiles were taken from the different beaches to  
273 identify elevation change. DEMs were available from various sources for the project area.  
274 Notably, Light Detection and Ranging (LiDAR) was taken post Hurricane Sandy (2013 –  
275 2014) to assess impact, along with other routine LiDAR collection. Publicly available LiDAR  
276 DEMs in the project area are as follows:

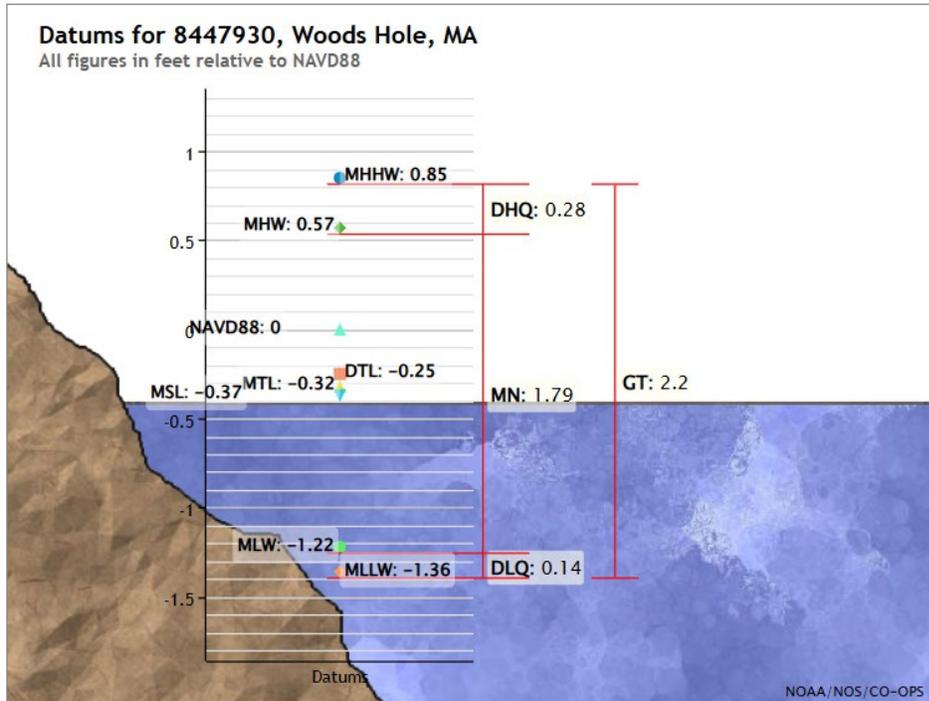
- 277 • 2005 – 2007 US Army Corps of Engineers (USACE) Topo/bathy\* LiDAR
- 278 • 2010 USACE Topo/bathy\* LiDAR
- 279 • 2011 USGS Topographic LiDAR
- 280 • 2013 – 2014 Post-Sandy USGS LiDAR
- 281 • 2018 USACE Topo/bathy\* LiDAR
- 282 • 2021 USGS LiDAR

283 \*Note that “topo/bathy”, or topobathymetric LiDAR involves measuring land, water, and  
284 submerged land at the same time.

285 Other data sources were reviewed for this plan but were not included due to insufficient  
286 temporal or spatial resolution. Those include:

- 287 • NOAA Continuously Updated Shoreline Product (CUSP). In the project area, CUSP  
288 was last updated in 2009.
- 289 • While satellite imagery from Landsat 7 and older are publicly available, the  
290 resolution of the images was deemed insufficient for the purpose of the project.

291 **Tidal datum** of the project area is shown in Figure 2 referenced to ft, NAVD88. The DEMs  
292 are referenced to NGVD29, requiring a vertical datum transformation to assess MHHW and  
293 MLLW position within the beach profile. Using VDatum (NOAA,  
294 <https://www.vdatum.noaa.gov/>), 0ft NAVD88 = 1.089ft NGVD29 was determined and used  
295 throughout this memo.



296

297 *Figure 2: Tidal Datum from NOAA, in ft, NAVD88.*

298 **Flood Hazard Data**

299 The Federal Emergency Management Agency produces Flood Insurance Rate Maps (FIRMs)  
 300 that identify areas prone to flooding, including those with a 1% or greater chance of  
 301 flooding each year, known as “special flood hazard areas”, and those with additional risks  
 302 associated with storm waves (the V and VE zones). These maps have been produced for  
 303 each beach and can be consulted to identify areas and assets likely to flood in the coming  
 304 years.

305 In addition to the FEMA FIRMs, a state-wide model (the Massachusetts Coastal Flood Risk  
 306 Model (MC-FRM)) of future storm surge and sea level rise is available for the years 2030,  
 307 2050, and 2070. In the event of a 1% storm (*i.e.*, a storm with a 1% chance of happening in  
 308 any given year) this model shows significant flooding at each beach, similar to the FEMA  
 309 maps. These MC-FRM maps were not reproduced as part of this project, but an online  
 310 viewer is available at:

311 [https://experience.arcgis.com/experience/23d861b79aed450eb8972013dd28579b/page/](https://experience.arcgis.com/experience/23d861b79aed450eb8972013dd28579b/page/MA-Coast-Flood-Risk-Model)  
 312 MA-Coast-Flood-Risk-Model.

313 **Survey**

314 An online survey, programmed using Qualtrics, was used to gather public input on each  
 315 beach and on beach management town wide. Open for the month of November, more than

316 700 people answered questions about how often they visit each beach, how they use the  
317 beaches, and what they like and dislike about the beaches. The questions included open-  
318 ended, multiple choice, and Likert scale formats to gather both quantitative and qualitative  
319 data. Analyzed using Excel, this information helped inform the beach descriptions as well  
320 as the recommendations found in this plan.

## 321 BEACH INVENTORY: NATURAL FEATURES, 322 COASTAL PROCESSES, ANTHROPOGENIC 323 FEATURES, AND PUBLIC SERVICES

### 324 Megansett Beach

325 Megansett Beach is located at the northern end of County Road in the village of North  
326 Falmouth on the western edge of Town. Megansett Harbor is located to the west and to the  
327 north of the beach, with a mooring basin located in the northern section of the harbor.  
328 Residential property is located to the south. The Megansett Beach Yacht Club is located to  
329 the east across County Road.

330 While the beach is relatively compact compared to others in Town, the flat elevation and  
331 smaller size help to make access manageable and kid-friendly. Visitors often walk to the  
332 beach from the adjacent neighborhood. Survey responses highlighted peoples' interest in  
333 sitting on the beach, enjoying the view, swimming and jumping off the dock, walking, and  
334 kayaking/paddleboarding. A small number of people fish here, use the area to wind/kite  
335 surf, or primarily visit to access their boats in the harbor. Comments indicated that people  
336 appreciate the quieter atmosphere this beach provides compared to some other beaches  
337 in town.



338

339 *Figure 3: Megansett Beach.*

### 340 **Natural Features and Processes**

341 Megansett Beach is situated along Megansett Harbor on the northern shoreline and along  
342 Buzzards Bay on the western shoreline. The beach system spans approximately 1,000 feet  
343 and is composed of Coastal Beach and Coastal Dune resources areas (Appendix A). Since  
344 2008, the shoreline at Megansett beach has remained largely stable (Figure 3 and Figure 4).  
345 As noted in the previous BMP, the groin has the greatest influence on shoreline change for  
346 this beach. The shoreline advanced (accreted) to the east of the breakwater at 2.5 ~ 3 ft/yr.  
347 Due to armoring, the shoreline is stable from the parking lot eastward. To the south of the  
348 breakwater, shoreline change is statistically insignificant and remains stable. Figure 3  
349 presents an overview of the shorelines used for this analysis. The QGIS Shoreline Change  
350 Analysis Tool (QSCAT) was used to analyze shoreline change. QSCAT was developed by  
351 University of the Philippines as a QGIS equivalent to DSAS, a USGS developed shoreline  
352 analysis toolbox (QSCAT, 2024). Figure 4 presents the blocked averages resulting from the  
353 QSCAT shoreline analysis.



354

355 *Figure 4: Shoreline Change from 2009 to 2025 – Megansett Beach.*

356 QSCAT blocked averages are presented as erosional, stable, or accretional for this  
 357 analysis. Megansett Beach is characterized as stable to accretional for the study period.

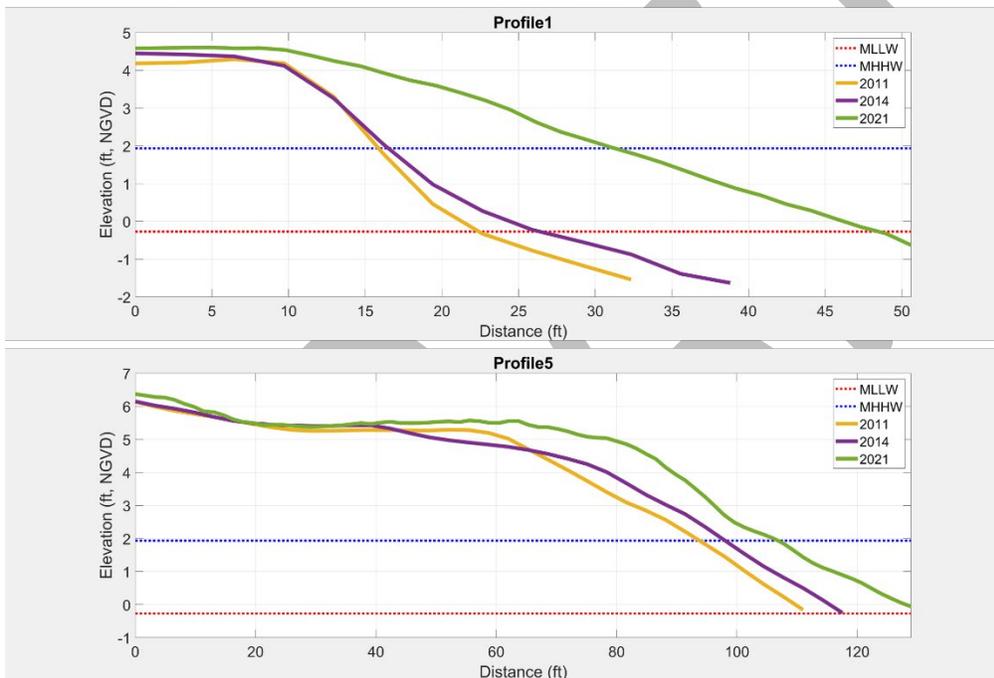
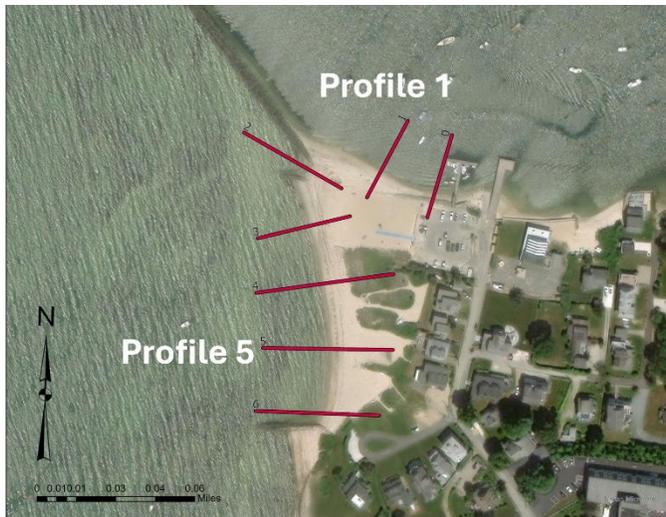
358 The time period for the QSCAT analysis spans all digitized shorelines from 2008 to 2025 (18  
 359 years).



360

361 *Figure 5: Erosion/Accretion Pattern at Megansett Beach.*

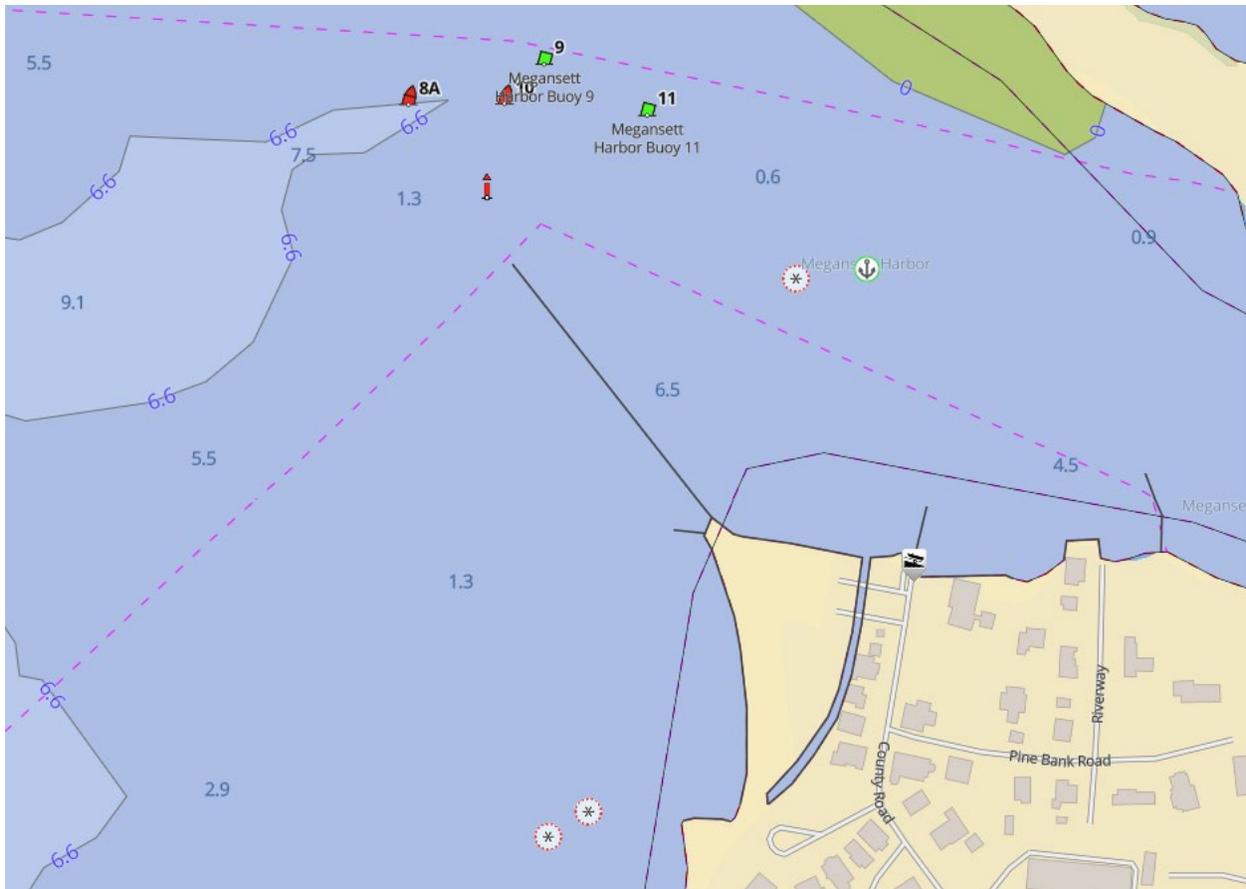
362 The same stable/accretional pattern can be observed from DEM data, shown in Figure 5 in  
 363 select profiles. Available DEM data for this area includes the years 2011, 2014, and 2021.  
 364 Seven (7) profile transects were extracted for analysis. This DEM dataset provides a  
 365 valuable baseline that can be used for comparison with more recent survey data  
 366 collections. Available DEM data generally extends to mean low water or slightly deeper.  
 367 Survey data extending farther offshore into deeper water is recommended to assess cross-  
 368 shore sediment transport trends.



369

370 *Figure 6: Profiles from DEMs, Megansett Beach.*

371 Figure 7 presents a navigation chart overview of the Megansett Beach area. Shallow areas  
 372 extend over 500 feet to the west-facing shoreline while a deeper harbor area is located just  
 373 offshore to the north-facing shoreline.



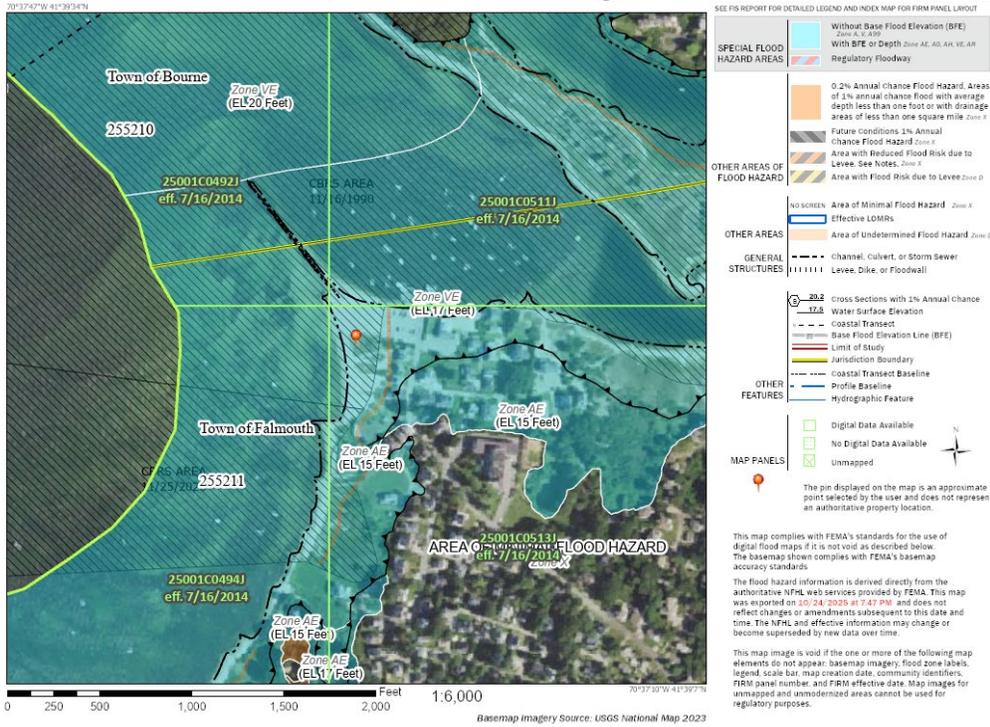
374

375 *Figure 7: Navigation Chart Excerpt of Megansett Beach (Depths in Feet MLW)*

376 Figure 8 shows the current effective FIRM at Megansett Beach, at Zone VE, 17 ft base flood  
 377 elevation (BFE). Historical FIRM is unavailable for this beach at the time of research. The  
 378 FIRM shows 100-year storm surge and wave effects.

379 Under 100-year storm surge conditions, all beach areas in VE zones (where wave heights  
 380 are greater than 3 feet) will be inundated. The beach systems studied in this analysis  
 381 generally feature narrow upper beach areas and will experience significant erosion during  
 382 a 100-yr storm event. The dune systems are also generally narrow and will experience  
 383 significant erosion (or even complete dune removal) during a 100-yr storm event.

National Flood Hazard Layer FIRMette



384

385 *Figure 8: FEMA FIRMette of Megansett Beach. Effective 07. 16. 2014.*

386 **Anthropogenic Features**

387 Anthropogenic features analyzed in this study include wind fence, building relocation,  
 388 revetment, dune creation, beach nourishment, rock revetments, groins, breakwaters,  
 389 seawalls, etc. Note that several existing anthropogenic features occur in this area and  
 390 include groins, docks/piers, and a boat ramp.

391 A large stone jetty extends northwest into the harbor and creates the boundary for the  
 392 mooring basin. The Megansett Harbor Landing is adjacent to the beach parking lot and the  
 393 yacht club. This boat ramp is a designated access point created by the MA Office of Fishing  
 394 and Boating Access (OFBA) in coordination with the Town of Falmouth.

395 There is a paved parking lot, with a concrete storage vault located in the southeast corner  
 396 of the parking area. Two sections of wooden snow fence separate the beach from the  
 397 parking lot and serve as a barrier to windblown sand.



398  
399 *Figure 9: Dock (upper left), boat ramp (upper right), rock revetment (lower left), and jetty (lower right) at Megansett Beach.*

## 400 Public Services and Amenities

401 Parking is available by sticker only, and the lot is open 24 hours per day, seven days a  
402 week. There are 45 parking spaces available including handicapped parking spots. Boat  
403 trailers are prohibited from Memorial Day to Labor Day. The parking area is staffed by one  
404 attendant from 9:00 a.m. to 4:45 p.m. during the on-season to check beach stickers and  
405 direct traffic.



406

407 *Figure 10: Section of the parking lot at Megansett Beach.*

408 The beach is staffed by two lifeguards at one stand from 9:00 a.m. to 5:00 p.m. during the  
409 on-season.

410 There are two portable restrooms, a connection for a seasonal shower tower, and a water  
411 refill station. There are XX trash bins and XX recycling bins in the parking areas during the  
412 summer, with one trash bin remaining in the winter. One Mutt Mitt station is also provided  
413 at the beach entrance from the parking area. There is one bike rack, and an ADA mobility

414 mat provides access onto the beach from the parking lot during the summer.



415  
416 *Figure 11: Amenities at Megansett Beach.*

417

## 418 Old Silver Beach

419 Old Silver Beach is located on Quaker Road in North Falmouth. The beach is divided into  
420 two sections: Reserved (for residents only) to the north and Public (open to all) to the  
421 south. Buzzards Bay is located to the west of both beaches. The beaches are separated by  
422 the Herring River inlet but are composed of coastal resource areas that include Barrier  
423 Beach, Coastal Beach, Coastal Dune, and Banks of or Land Under Fish Runs. To the north  
424 of Old Silver Beach-Reserved is the Sea Crest Beach Resort property, and to the east  
425 across Quaker Road is the Herring River Marsh and tidal estuary system. To the south of

426 Old Silver Beach-Public are residential, private properties, and to the east are a small pond  
427 and other residential, private properties across Quaker Road.

428 Both sections of Old Silver Beach are popular summer destinations with residents and  
429 visitors alike, especially those with children. The beach offers excellent views of Buzzards  
430 Bay, including the Cleveland Ledge Lighthouse. Survey respondents noted that favorite  
431 activities include sitting, swimming, and walking. A small number (n=11) of people  
432 reported that they fish, kayak/paddleboard, and wind/kite surf here. While people  
433 identified challenges with overcrowding, parking, and water quality, they also highlighted  
434 the good amenities provided at this beach.



435

436 *Figure 12: Old Silver Beach (Reserved).*



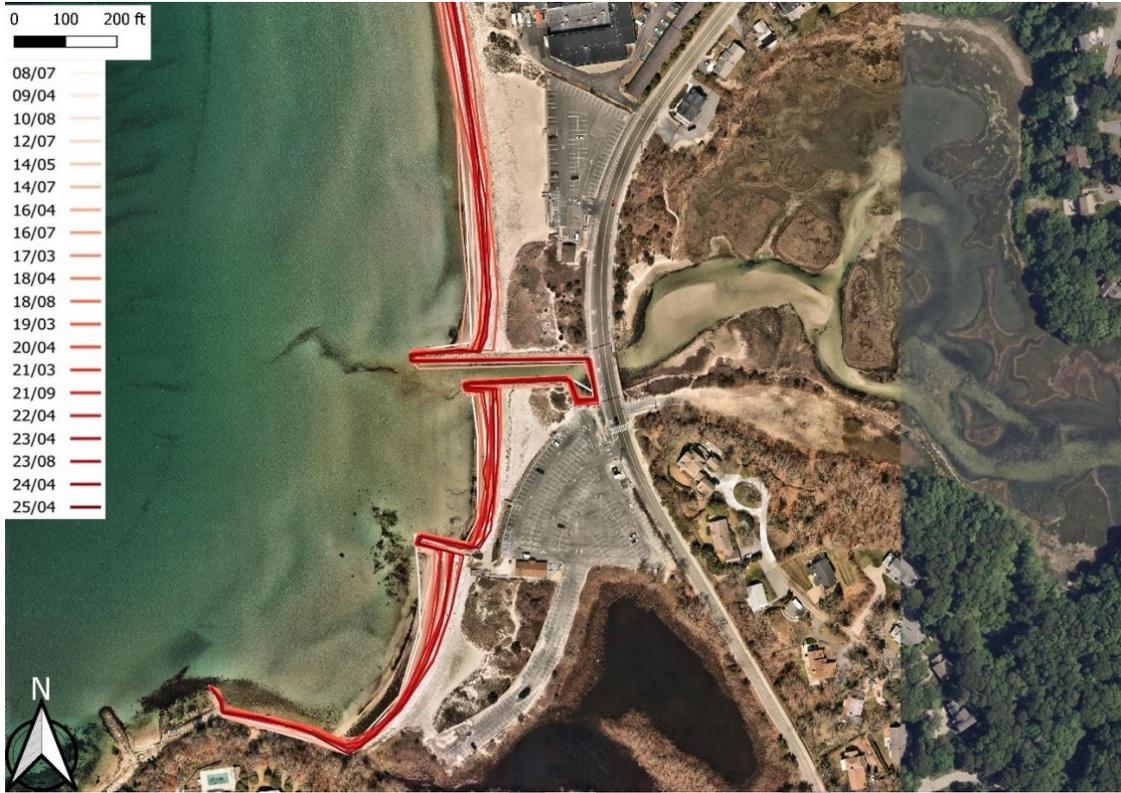
437

438 *Figure 13: Old Silver Beach (Public).*

### 439 **Natural Features and Processes**

440 Old Silver Beach is a west-facing beach (overlooking Buzzards Bay) that spans  
441 approximately 5,000 feet and has several existing anthropogenic features (groins, jettied  
442 inlet). Between 2008 and 2025, Old Silver Beach had an erosion rate of 1 ~ 2 ft/yr in areas  
443 that are not armored (Figure 14 and Figure 15). However, if only shorelines from 2016 to  
444 2025 are considered in the analysis, Old Silver Beach is stable and does not show  
445 statistically significant shoreline change. Based on available DEM elevation data (Figure  
446 16), Old Silver beach was stable between 2007 to 2011 as well. Erosion appears to driven  
447 by weather events on an episodic basis, with periods of stability in between.

448 Figure 14 presents the digitized shorelines used for this analysis while Figure 15 presents  
449 blocked average QSCAT results.



450

451

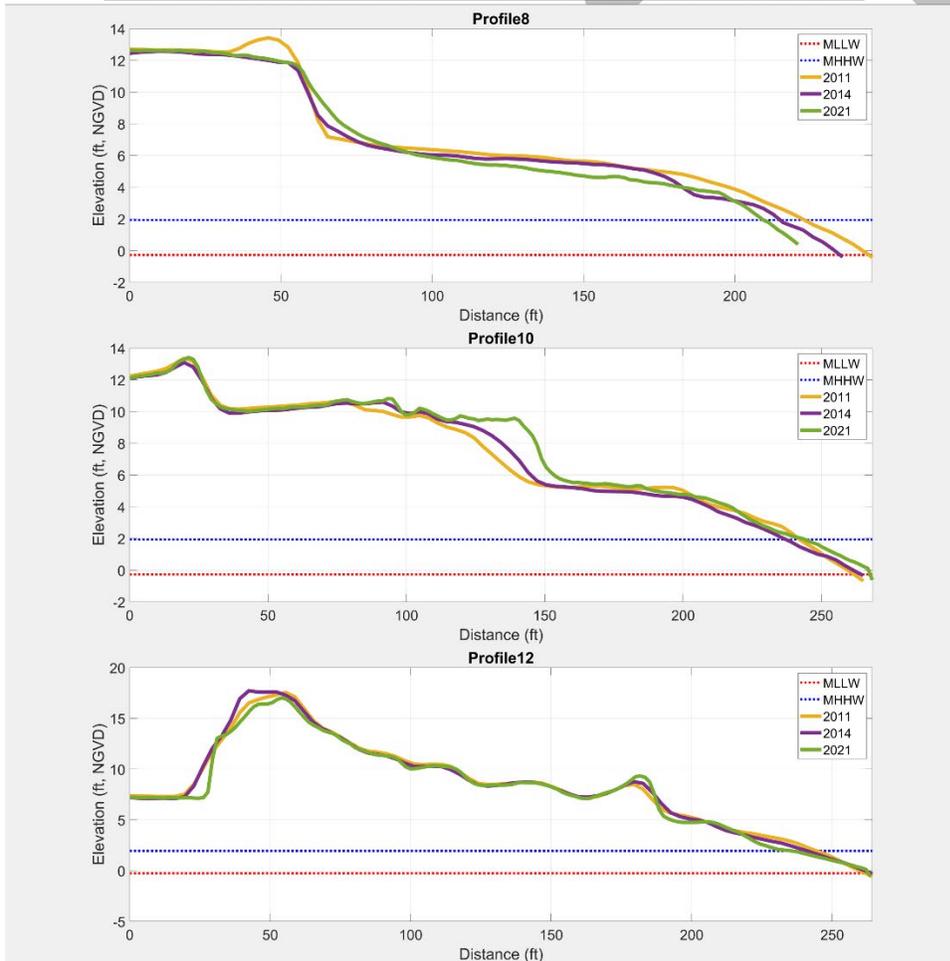
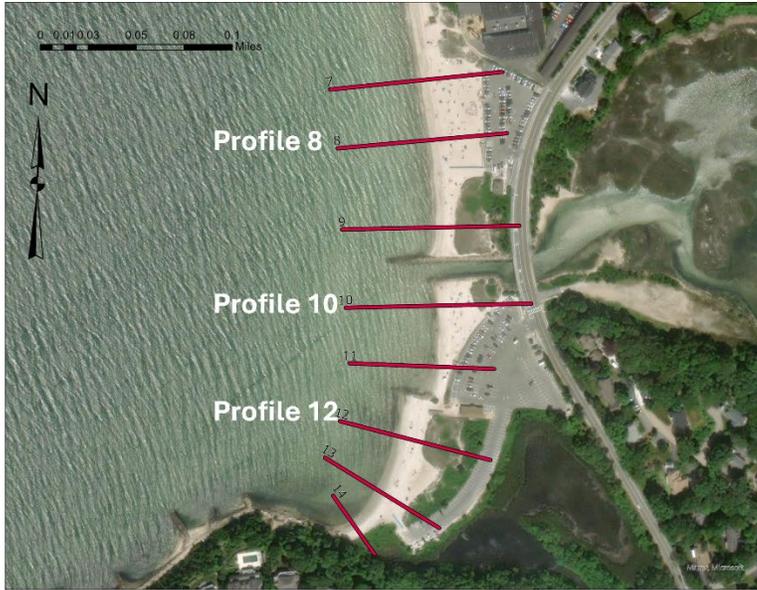
Figure 14: Shoreline Change from 2008 to 2025 – Old Silver Beach.

DRAFT



452

453 *Figure 15: Erosion/Accretion Pattern at Old Silver Beach.*



454

455 *Figure 16: Profiles from DEMs, Old Silver Beach.*

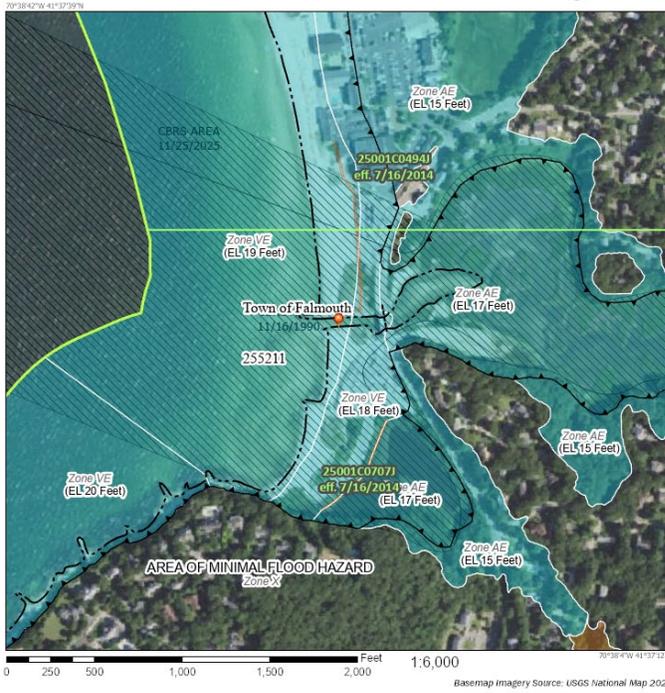
456 Figure 17 below presents a navigation chart excerpt of Old Silver Beach (depths in feet  
457 MLW). The nearshore transitions to deeper water (~20 foot depths) over ~1,000 feet.



458  
459 *Figure 17: Navigation Chart Excerpt of Old Silver Beach (Depths in Feet, MLW).*

460 Figure 18 shows the current effective FIRM at Old Silver Beach (Zone VE, 18 ft BFE).  
461 Historical FIRMette of the area (1992) is shown in Figure 19 (Zone V15, 18ft BFE).

National Flood Hazard Layer FIRMette



**Legend**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone X
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee, see Notes, Zone X
- Area with Flood Risk due to Levee Zone X

**OTHER AREAS**

- No SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone X

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**

- Digital Data Available
- No Digital Data Available
- Unmapped

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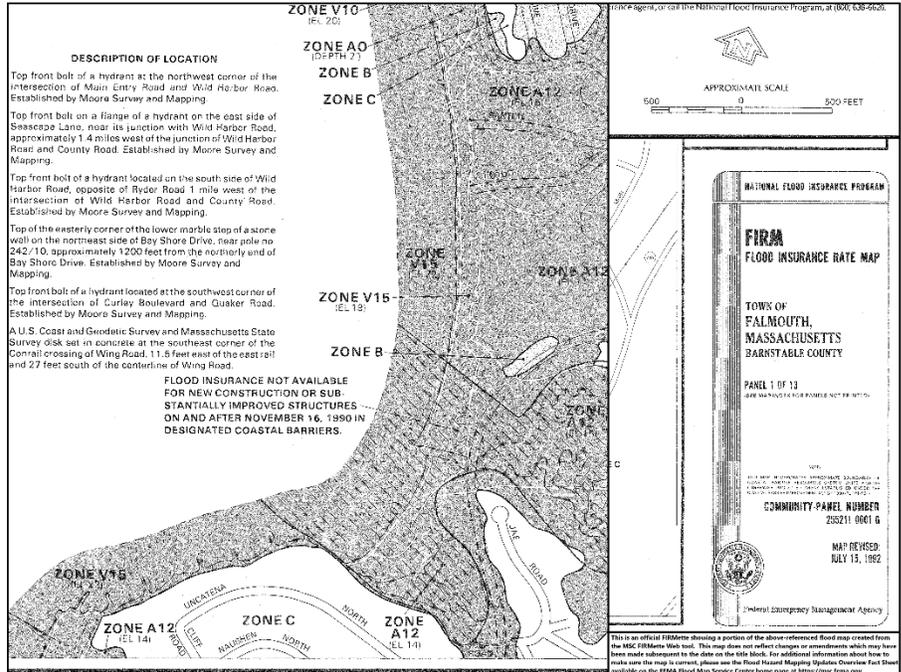
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462

463 Figure 18: FEMA FIRMette of Old Silver Beach, Effective 07. 16. 2014.



464

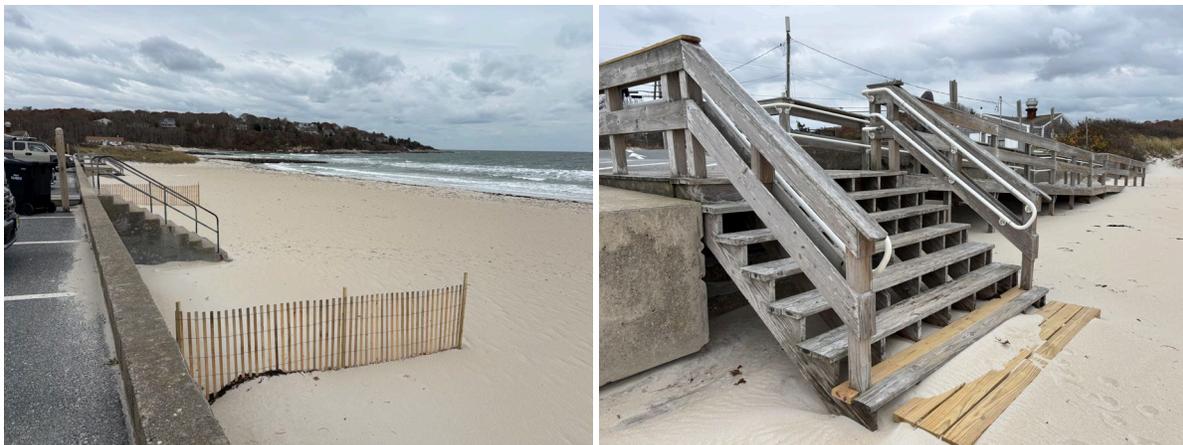
465 Figure 19: Previous FEMA FIRMette of Old Silver Beach, 1992.

466

467 **Anthropogenic Features**

468 Old Silver Beach was nourished with beach compatible sediment and regraded in 2021  
469 and 2023 (based on aerial analysis). The beach front is populated by a series of groins.  
470 Jetties at the mouth of the Herring River maintain tidal flow.

471 Old Silver Beach-Reserved includes a paved parking lot, concession building, and seawall  
472 along the length of the parking area. There is one set of concrete stairs with a metal railing  
473 at the northern end of the parking lot. There is another set of wooden stairs and wooden  
474 ramp with metal railings located near the concession building at the southern end of the  
475 Reserved parking area, with a wider, paved ramp directly adjacent to the structure that  
476 also provides beach access. A concrete storage vault is located on the beach adjacent to  
477 the wooden stairs and abutting the seawall. The beach includes sand fencing extending  
478 perpendicularly onto the beach from the seawall, and also abutting the dunes near the Sea  
479 Crest Beach Resort. There is also split rail fencing along the edge of the parking lot  
480 adjacent to Quaker Road.



481  
482 *Figure 20: Sand fencing and concrete stairs (left) and wooden stairs and ramp (right) at Old Silver Beach (Reserved).*



483

484 *Figure 21: Concession building and bathhouse (left) and boat ramp (right) at Old Silver Beach (Reserved).*

485 Old Silver Beach-Public includes a larger paved parking lot adjacent to the beach and a  
 486 natural surface Annex parking lot across Quaker Road with a total of 478 spaces including  
 487 handicap parking. A concession/bathhouse building is located in the main parking area.  
 488 There are two sets of concrete stairs that provide access from the parking lot to the beach.  
 489 A wooden ramp and viewing platform extend onto the beach from the area adjacent to the  
 490 concession building. Similar to the Reserved portion of Old Silver Beach, there is sand  
 491 fencing that extends perpendicularly onto the beach from the seawall, and also abuts the  
 492 dunes. There is also split rail fencing along the edge of the parking lot adjacent to Quaker  
 493 Road.



494

495 *Figure 22: Wooden ramp and viewing platform (left) and concrete stairs (right) at Old Silver Beach (Public).*



496

497 *Figure 23: Concession and bathhouse at Old Silver Beach (Public).*

## 498 Public Services and Amenities

### 499 Old Silver Beach-Reserved

500 Parking at Old Silver Beach-Reserved is available by sticker only. The lot is staffed with X  
501 parking attendants from 9:00 a.m. to 7:30 p.m. during the on-season to check beach  
502 stickers and direct traffic. There are 86 parking spaces including handicap spaces.

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503

504 *Figure 24: Parking lot at Old Silver Beach (Reserved).*

505 The beach is staffed by XX lifeguards at XX stands from 9:00 a.m. to 5:00 p.m. during the  
506 on-season.

507 There are restrooms and showers available at the concession/bathhouse building and a  
508 water refill station. There are XX trash bins and XX recycling bins in the parking area during  
509 the summer, and one remaining trash bin in the winter. One Mutt Mitt station is also  
510 provided near the building. There is one bike rack, and an ADA mobility mat provides  
511 access onto the beach from the parking lot during the summer.

512



513

514 *Figure 25: Amenities at Old Silver Beach (Reserved).*

515 Old Silver Beach-Public

516 Parking at Old Silver Beach-Public in the main lot and annex lot is open to the general  
517 public with a daily pass. The lots are staffed with XX parking attendants from 9:00 a.m. to  
518 4:30 p.m. during the on-season to check day passes, accept payment, and direct traffic.  
519 There are approximately 370 spaces available in the main lot and 108 spaces available in  
520 the annex lot. Both lots also have handicap parking spaces available. A dedicated  
521 turning/standby lane on Quaker Road directs traffic to these lots.



522

523 *Figure 26: Main parking lot (left) and annex parking lot (right) at Old Silver Beach (Public).*

524 The beach is staffed by XX lifeguards at XX stands from 9:00 a.m. to 5:00 p.m. during the  
525 on-season.

526 There are restrooms and showers available at the concession/bathhouse building and a  
527 water refill station. There are XX trash bins and XX recycling bins in the parking area during  
528 the summer, with one bin remaining in the winter for trash. One Mutt Mitt station is also  
529 provided near the building. There is one bike rack in the main parking lot.



530

531 *Figure 27: Amenities at Old Silver Beach (Public).*

532 **Chapoquoit Beach**

533 Chapoquoit Beach is located on Chapoquoit Road in West Falmouth. To the west of the  
534 beach is Buzzards Bay and to the east are Chapoquoit Road and West Falmouth Harbor.  
535 Bowerman’s Beach Club is located to the south.

536 Chapoquoit Beach is known as “Chappy” by local beachgoers. Despite limited beach area  
537 at high tide and congested parking, it remains a popular beach especially for families and  
538 kiteboarders due to shallow water and a more secluded location. Survey respondents  
539 reported enjoying the view (especially sunsets), swimming (especially in the waves),  
540 walking, and sitting on the beach. A small number of people noted that they fish,  
541 kayak/paddleboard, and wind/kite surf here.



542

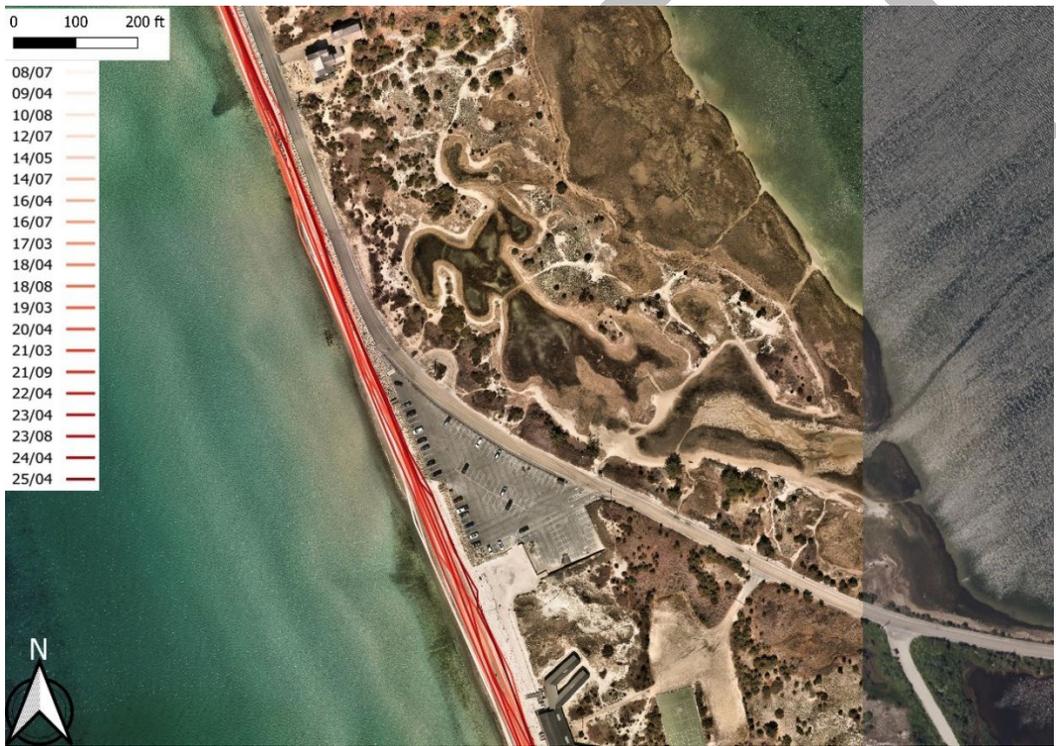
543 *Figure 28: Chapoquoit Beach.*

544 **Natural Features and Processes**

545 Chapoquoit Beach is a west-facing beach along Buzzards Bay, spans approximately 1,500  
546 feet and features a long rock revetment along the northern reach where the upper beach is  
547 very narrow.

548 Chapoquoit Beach is armored to the north and the shoreline is stable, although little upper  
549 dry beach exists. In areas that are not protected by the rock revetment, the beach is  
550 eroding at approximately -2 ft/yr (Figure 14 and Figure 15). Resource areas present on site  
551 include Barrier Beach, Coastal Beach and Coastal Dune. Landward of the parking lot is an  
552 extensive Salt Marsh.

553 Figure 29 presents the shorelines used for this beach while Figure 30 presents the blocked  
554 average QSCAT results.



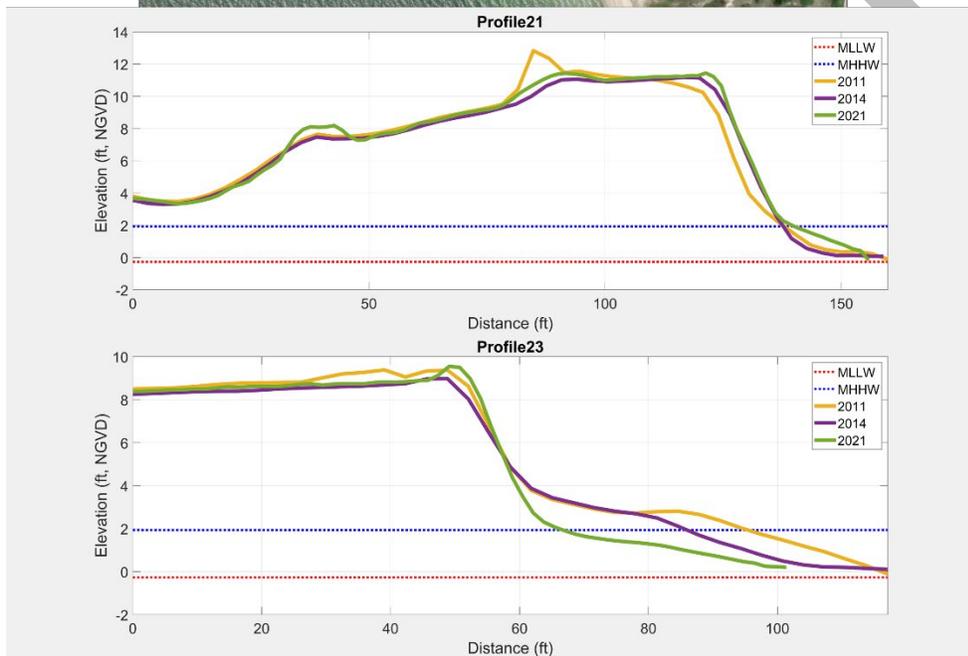
555  
556 *Figure 29: Shoreline Change from 2008 to 2025 – Chapoquoit Beach.*



557

558 *Figure 30: Erosion/Accretion shoreline change pattern at Chapoquoit Beach.*

559 DEM data is shown in Figure 31. In Figure 31, Profile 21 (rock revetment) shows a typical  
 560 armored shoreline that shows little to no change in elevation. However, note that DEM data  
 561 only extends to approximate mean low water (MLW) and some deflation of the beach  
 562 profile seaward of MLW is anticipated as this is a classic nearshore response to  
 563 alongshore armoring at/near the MHW line. Profile 23 shows DEM profile erosion of the  
 564 beach up to the revetment that borders the parking lot.



565

566 *Figure 31: Profiles from DEMs, Chapoquoit Beach.*

567 Figure 32 presents a navigation chart excerpt of the Chapoquoit Beach nearshore. The  
 568 beach profile in the nearshore (beyond MLW) gradually transitions to deeper water over  
 569 several hundred feet.



570

571 *Figure 32: Chapoquoit Beach Navigation Chart Excerpt (Depths in Feet MLW).*

572 Figure 33 shows the current effective FIRM at Chapoquoit Beach (Zone VE, 21 ft BFE).

573 Historical FIRMette of the area (1993) is shown in Figure 34 (Zone V15, 22ft BFE).

National Flood Hazard Layer FIRMette



**Legend**

SEE FIR REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIR PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone A, B, B99
- With BFE or Depth Zone AE, AD, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard: Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. Zone X
- Future Conditions 1% Annual Chance Flood Hazard. Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee. Zone D

**OTHER AREAS**

- Area of Minimal Flood Hazard. Zone X
- Effective LOMRIs
- Area of Undetermined Flood Hazard. Zone D

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transsect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transsect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**

- Digital Data Available
- No Digital Data Available
- Unmapped

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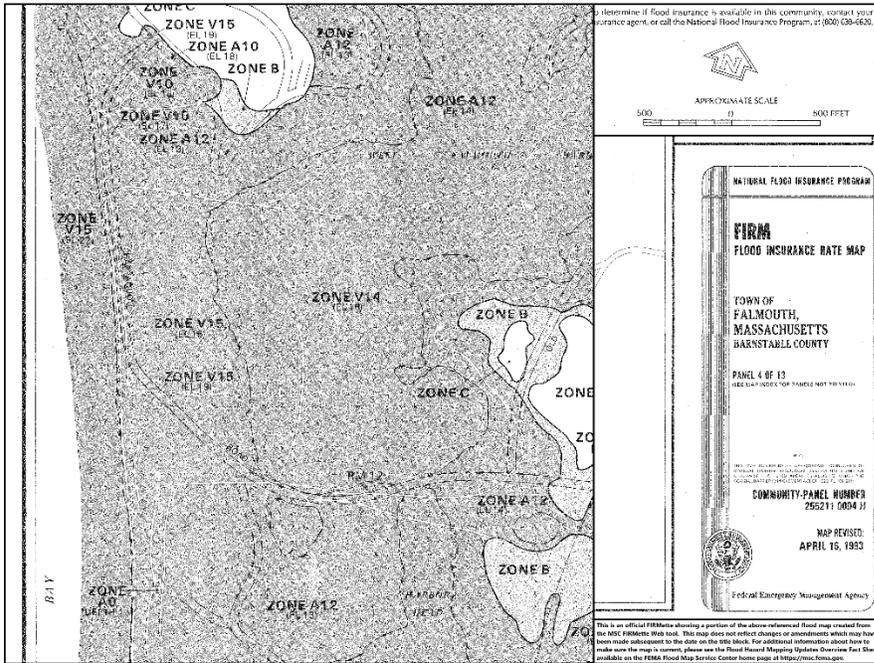
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574

575 Figure 33: FEMA FIRMette of Chapoquit Beach, Effective 07. 16. 2014.



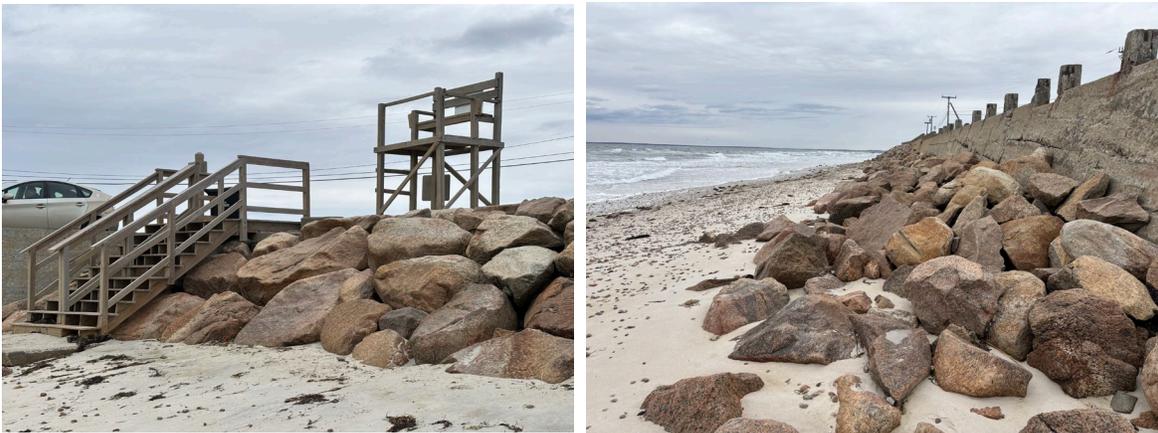
576

577 Figure 34: Historic FIRMette of Chapoquit Beach, 1993.

578

## 579 Anthropogenic Features

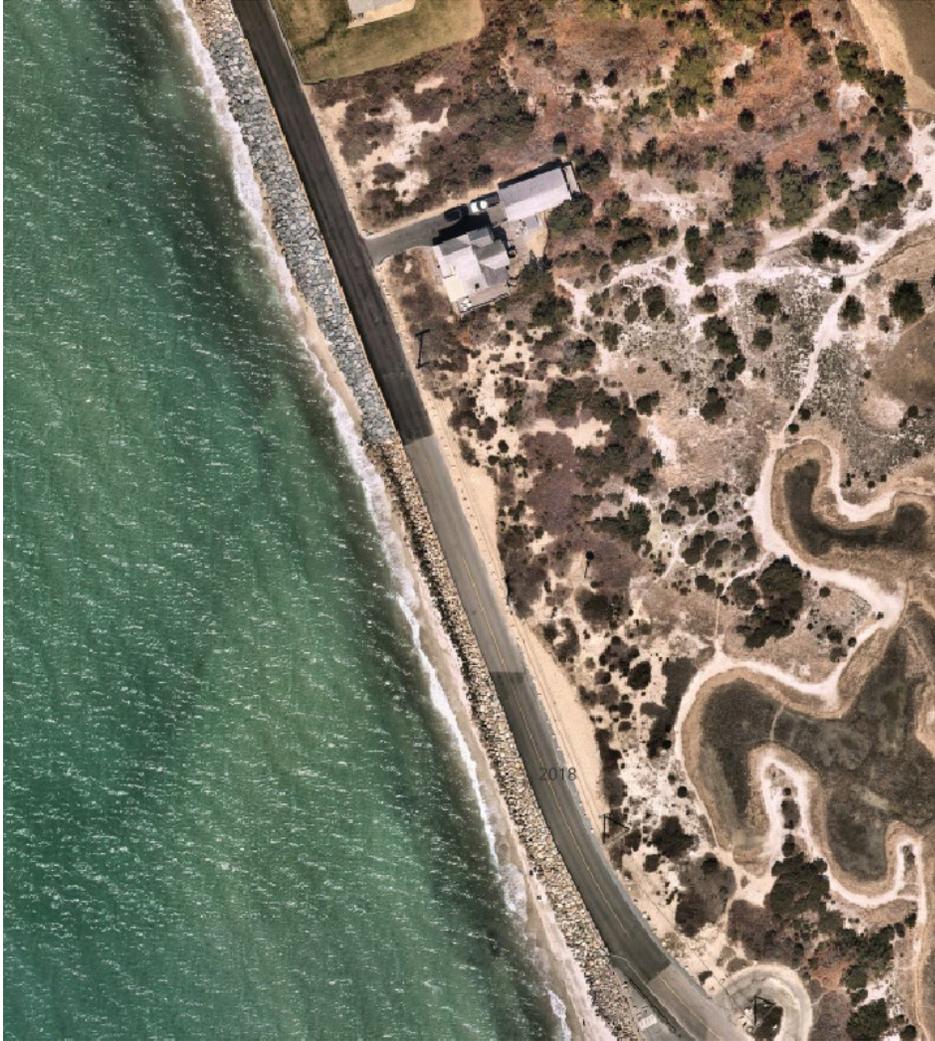
580 The beach area includes a paved parking lot, seawall along the length of the parking area  
581 and stone revetment in the northern portion of the parking area and along Chapoquoit  
582 Road. The beach also features a set of wooden stairs at the northern end of the parking  
583 area. In the southern end of the parking area, wooden retaining walls contain the dunes  
584 and limit windblown sand. A break in these wooden walls allows direct walking access  
585 from the parking lot onto the beach. Sand fencing is located near this entrance. A concrete  
586 storage vault is also located at the southern end of the parking lot adjacent to this access  
587 point.



588

589 *Figure 35: Wooden stairs (left) and stone revetment (right) at Chapoquoit Beach.*

590 Sections of beach along Chapoquoit Road north of the parking lot have eroded since 2008  
591 causing voids under the roadway. New bulkheading, revetments, and repaving occurred in  
592 2018 and 2021 (Figure 36). Larger rock for the revetment was used compared to the  
593 preexisting revetment.



594

595 *Figure 36: New Revetment Sections, Chapoquoit Beach.*

596 A seasonal sand fence is typically installed to the south of the parking lot between the rock  
597 revetment and the dunes. Configuration varies from year to year. Figure 37 presents an  
598 example layout of sand fencing.



599

600 *Figure 37: Sand Fence at Chapoquoit Beach.*

601

## 602 **Public Services and Amenities**

603 Parking is available by sticker only. The parking lot is staffed by XX attendants from 9:00  
604 a.m. to 7:30 p.m. during the on-season to check beach stickers and direct traffic. There are  
605 107 parking spaces available, which includes handicap parking as well.



606

607 *Figure 38: Parking lot at Chapoquoit Beach.*

608 The beach is staffed by XX lifeguards at XX stands from 9:00 a.m. to 5:00 p.m. during the  
609 on-season.

610 There are XX portable restrooms, a connection for a seasonal shower tower, and a water  
611 refill station. There are XX trash bins and XX recycling bins in the parking areas during the  
612 summer, with one trash bin remaining in the winter. One Mutt Mitt station is also provided  
613 at the beach entrance from the parking area. There is one bike rack, and an ADA mobility  
614 mat provides access onto the beach from the parking lot during the summer.



615  
616 *Figure 39: Amenities at Chapoquoit Beach.*

## 617 Wood Neck Beach

618 Wood Neck Beach is located at the end of Wood Neck Road in the village of Sippewissett.  
619 To the west of the beach is Buzzards Bay and to the east is the Little Sippewissett Marsh  
620 and tidal creek system. Residential private properties are located to the north and south of  
621 the beach area.

622 The geography and natural features of Wood Neck Beach create a unique landscape and  
623 ecosystem, with a rockier beach on one side of the parking area and sand, marsh areas,

624 and shallow inlets on the other. This area is popular due to its distinctive habitat and  
625 natural resources to explore in addition to the ocean beach. Survey responses highlighted  
626 that people enjoy the views, sitting on the beach, swimming, and walking. Smaller  
627 numbers of people reported that the fish or kayak/paddleboard from the beach. Several  
628 people commented that this is a great beach for children because of the crabbing and the  
629 floating in the current to/from the marsh. Downsides reported by survey participants  
630 include the rocky nature of the beach, smells, and parking challenges, including the  
631 condition of the lot.



632  
633 *Figure 40: Wood Neck Beach (Buzzards Bay side).*



634  
635 *Figure 41: Wood Neck Beach (marsh side).*

### 636 Natural Features and Processes

637 Wood Neck Beach is a west-facing beach, spanning approximately 1,800 feet and includes  
638 rock groins and a small inlet connecting to Little Sippewissett Marsh. Wood Neck Beach is  
639 a Barrier Beach that provides important habitat for nesting shorebirds and protects the

640 Little Sippewissett Marsh on its landward side. The Woodneck Beach area is composed of  
641 resource areas including Coastal Beach, Coastal Dune, Salt Marsh, and Land Subject to  
642 Coastal Storm Flowage (LSCSF). Beach of the presence of groins to the south, Woodneck  
643 does not receive adequate sediment via natural longshore transportation. Instead, wave  
644 energy here has created a steeper beach and dune profile as larger, more permeable  
645 sediments including gravel and cobble are pushed to high elevations as finer sediments  
646 are lost.

647 Wood Neck beach is affected by inlet dynamics, which is armored/revetted on the  
648 northern bank to prevent further migration. The southern bank, however, is not armored  
649 and has been much more dynamic over the years (Figure 42 and Figure 43). Figure 42  
650 presents shorelines used for the analysis and Figure 43 presents blocked average QSCAT  
651 results.

652 The combined effects of inlet migration with partial armoring, over the years, however, are  
653 net stable with statistically insignificant retreat. To the south of the inlet the shoreline is  
654 mostly stable.



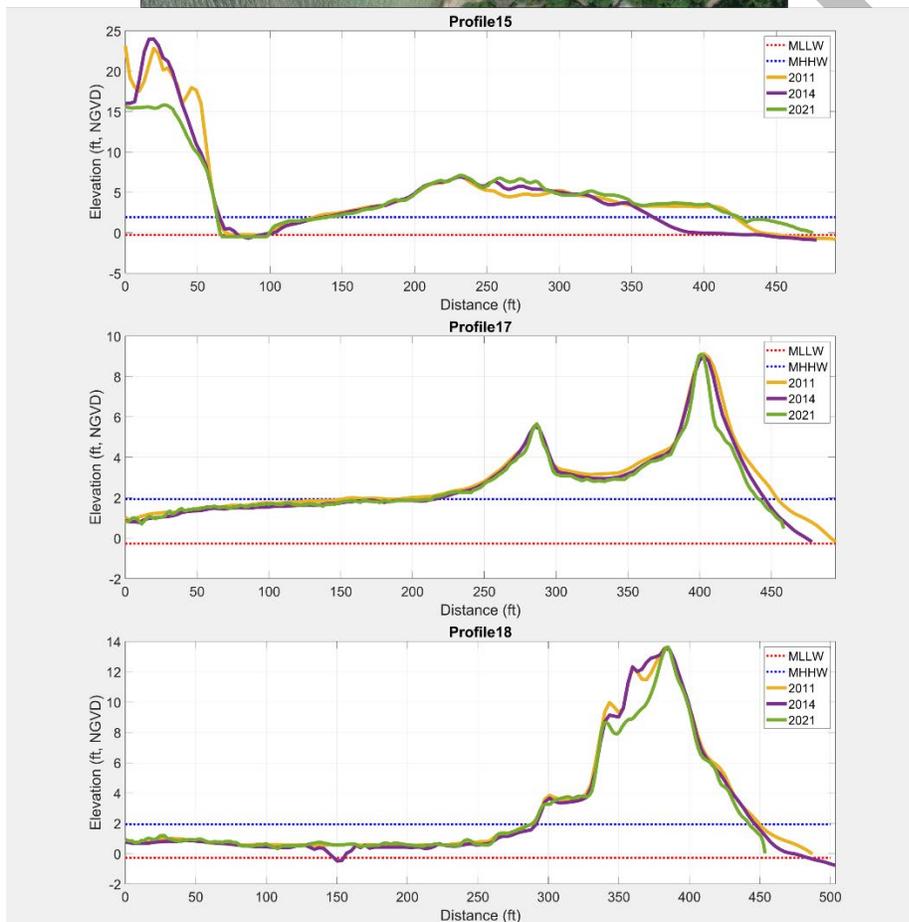
655  
656 *Figure 42: Shoreline Change from 2008 to 2025 – Wood Neck Beach.*



657

658 *Figure 43: Erosion/Accretion Pattern at Wood Neck Beach.*

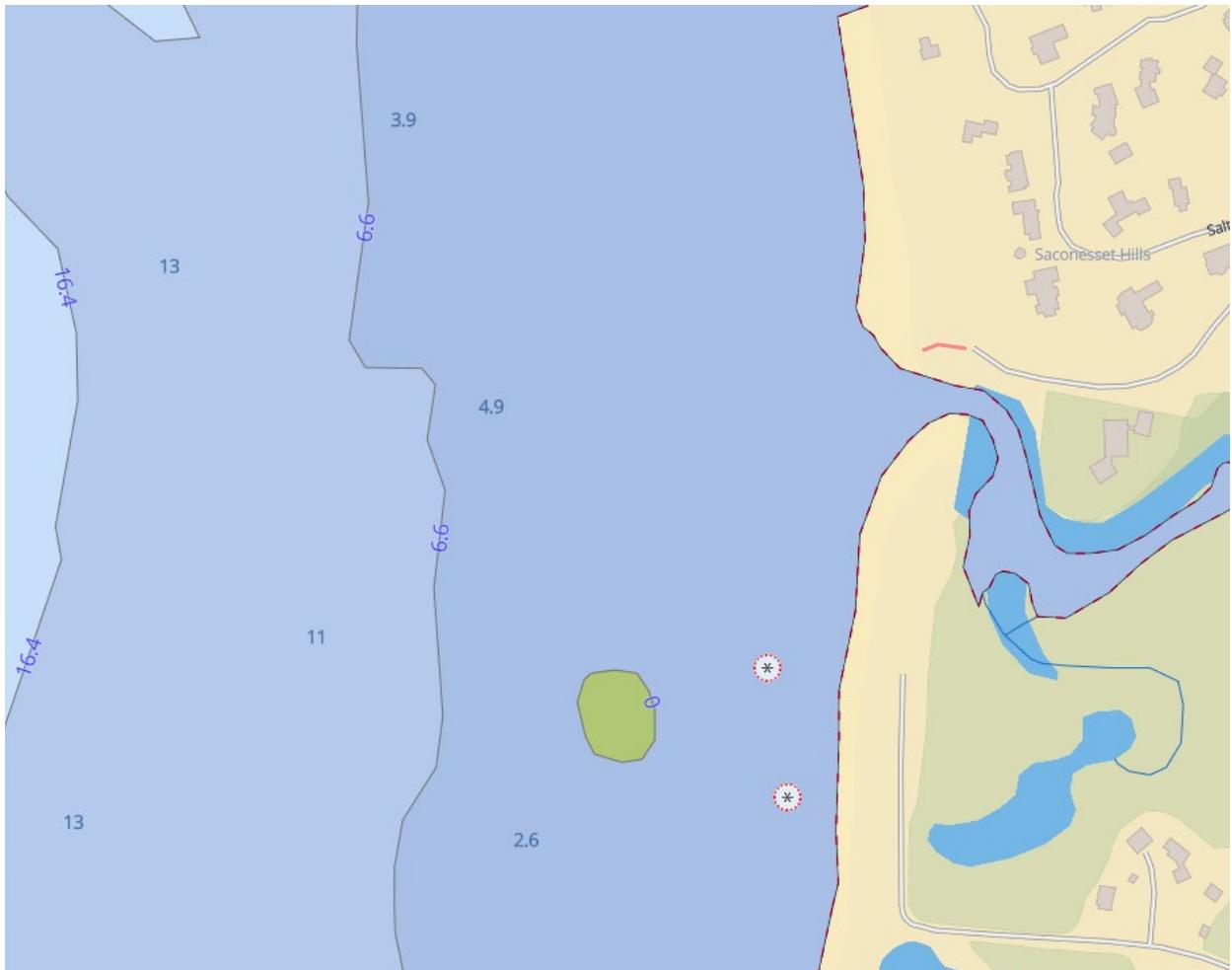
659 As expected, DEM data shows trends similar to the shoreline analysis. The section of  
 660 beach in front of the parking lot is eroding at 2 ft/yr, steepening the slope of the dune  
 661 (Figure 44, Profile 17). Note that DEM data derived from LiDAR only extends to approximate  
 662 MLW.



663

664 *Figure 44: Profiles from DEMs, Wood Neck Beach.*

665 Figure 45 presents a navigation chart excerpt to show the nearshore area of Wood Neck  
 666 Beach (depths in feet MLW). Depths transition gradually to ~16 feet over approximately  
 667 2,000 feet.



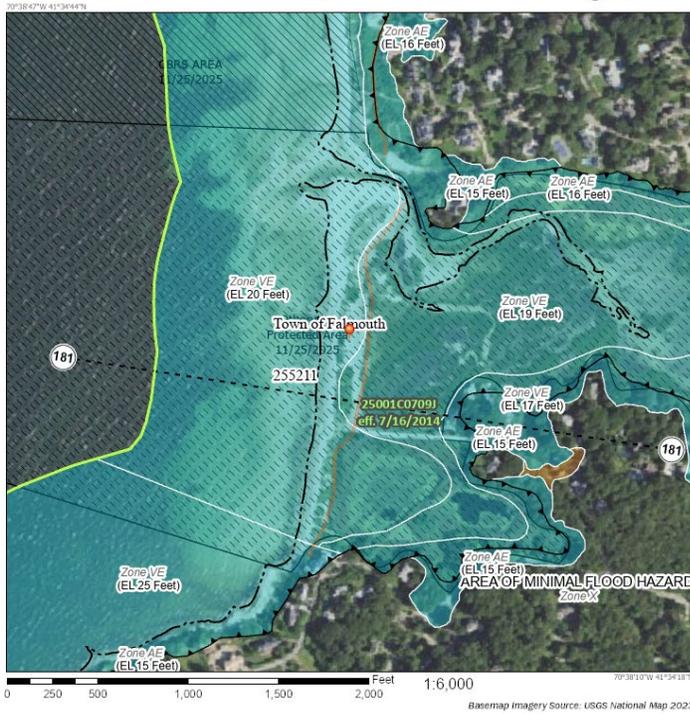
668

669 *Figure 45: Wood Neck Beach Navigation Chart Excerpt of the Nearshore.*

670 Figure 46 shows the current effective FIRM at Wood Neck Beach (Zone VE, 20 ft BFE).

671 Historical FIRMette of the area (1993) is shown in Figure 47 (Zone V15, 22ft BFE).

National Flood Hazard Layer FIRMette



**Legend**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone A, X, VE
- With BFE or Depth Zone AE, AD, AH, VE, AH
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard. Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. Zone X
- Future Conditions 1% Annual Chance Flood Hazard. Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee. Zone D

**OTHER AREAS**

- Area of Minimal Flood Hazard. Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard. Zone D

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Digital Data Available
- No Digital Data Available
- Unmapped

**MAP PANELS**

- The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

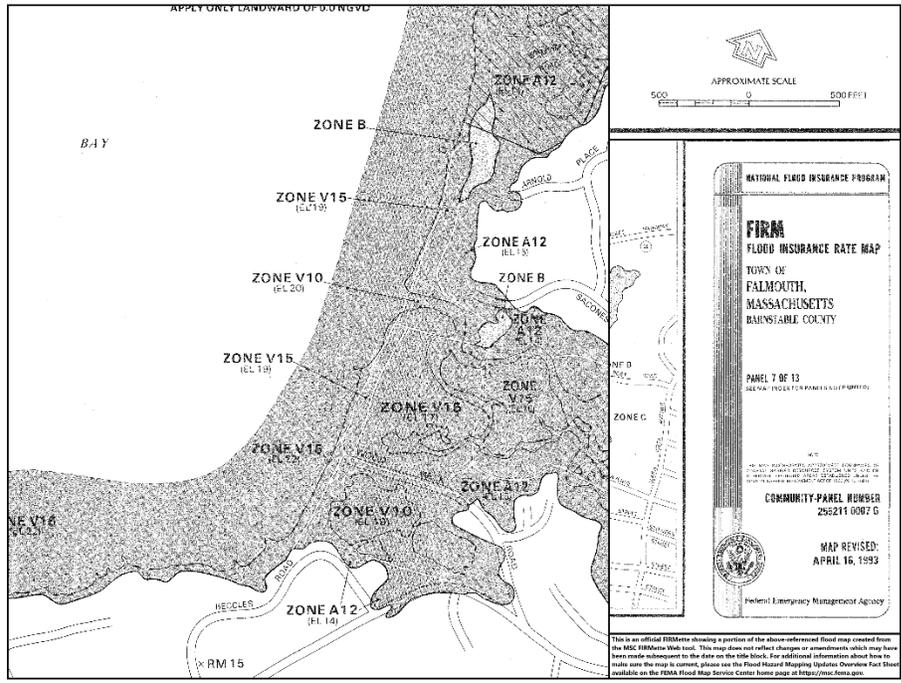
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672

673 Figure 46: FEMA FIRMette of Wood Neck Beach. Effective 07. 16. 2014.



674

675 Figure 47: Historical FIRMette of Wood Neck Beach, 1993.

676 **Anthropogenic Features**

677 The beach area includes a natural surface parking lot, with several sand pathways  
678 extending from the parking lot to the beach. Sand fencing is installed to maintain the dunes  
679 and delineate the access paths.

680 No anthropogenic changes are noted at Wood Neck beach from 2008 to 2025. As  
681 previously discussed, rock groins are existing and the northern inlet creek shoreline is  
682 revetted.



683  
684 *Figure 48: Sand fencing at Wood Neck Beach.*

685 **Public Services and Amenities**

686 Parking is available by sticker only. The parking lot is staff by XX attendants from 9:00 a.m.  
687 to 4:45 p.m. during the on-season to check beach stickers and direct traffic. There are 73  
688 spaces available including handicap parking.



689

690 *Figure 49: Parking lot at Wood Neck Beach.*

691 The beach is staffed by XX lifeguards at XX stands from 9:00 a.m. to 5:00 p.m. during the  
692 on-season.

693 There are XX portable restrooms, a connection for a seasonal shower tower, and a water  
694 refill station. There are XX trash bins and XX recycling bin in the parking areas during the  
695 summer, with one trash bin left in the winter. One Mutt Mitt station is also provided at the  
696 pathway entrance at the northern end of the parking area. There are two bike racks.



697

698 *Figure 50: Amenities at Wood Neck Beach.*

## 699 Surf Drive Beach – East and West

700 Surf Drive Beach, on the south side of Town, is highly valued for its views. People  
 701 appreciate the bathhouse and lifeguards and enjoy the fact that children can play in the  
 702 protected waters of the “cove”. People also noted that the bathhouse is in poor condition,  
 703 and that the beach is rocky and sometimes covered in seaweed, making it unpleasant to  
 704 swim.

705 Surf Drive is the closet public beach to Falmouth town center. The Surf Drive roadway is  
 706 directly north of the beach and lined with privately owned properties. To the west of the  
 707 Town owned beach, there are seasonal beach homes, and to the east are additional  
 708 privately-owned parcels. Salt Pond is also north of Surf Drive Beach and abuts the parking  
 709 lot at Mill Road.

## 710 Natural Features and Coastal Processes

711 Surf Drive Beach is a south-facing beach that overlooks Vineyard Sound. Surf Drive  
 712 Beach is divided into an east beach and a west beach. Surf Drive West includes a jettied  
 713 inlet (“Fish Run”) that connects to a small salt pond and spans approximately 1,500  
 714 feet. Resource areas along Surf Drive include Coastal Dune, Coastal Beach, Banks of or  
 715 Land under Fish Runs, and Land Subject to Coastal Storm Flowage (LSCSF). The Coastal  
 716 Dunes along Surf Drive are characterized by a low elevation crest vegetated by *Rosa*  
 717 *Rugosa* and *Ammophila*. The dunes are frequently nourished with beneficial reuse spoils  
 718 from the Fresh River inlet when it is dredged using a land-based excavator several times  
 719 per year.

720 Surf Drive Beach is also mostly stable based on QSCAT shoreline analysis (for both east  
 721 and west beaches). Figure 51 presents the shorelines used for the analysis for the

722 west beach and Figure 52 presents the blocked average results. The eastern bank of the  
 723 inlet (Fish Run) is accretional at 2.5 ft/yr. The net sediment transport direction is from east  
 724 to west although seasonal shifts in net transport direction do occur.



725  
 726 *Figure 51: Shoreline change from 2008 to 2025 – Surf Drive Beach West.*

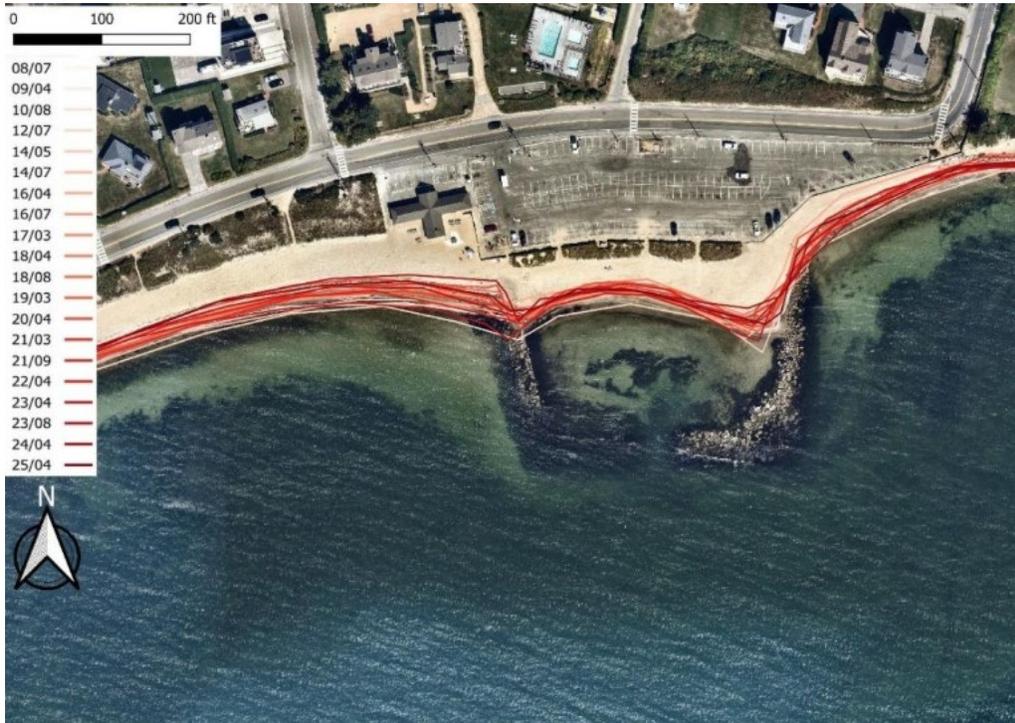


728  
 729 *Figure 52: Erosion/accretion pattern at Surf Drive Beach West.*

730 Surf Beach East spans approximately 1,000 feet of shoreline and includes a swimming  
 731 area protected by a groin and groin/breakwater. Figure 53 presents the shorelines used  
 732 for the Surf Beach East shoreline change analysis. Figure 54 presents the block

733 average QSCAT results. The shoreline in this area is net stable with slight accretional  
734 signals immediately adjacent to the eastern groin/breakwater.

735 In review of the profiles extracted from available DEMs (Figure 55), the dunes that border  
736 the parking lot were also stable over the years. One exception is at the western end of the  
737 beach, where the dune was 3 feet higher in 2010 and 2018 compared to the other years  
738 (Profile 28).

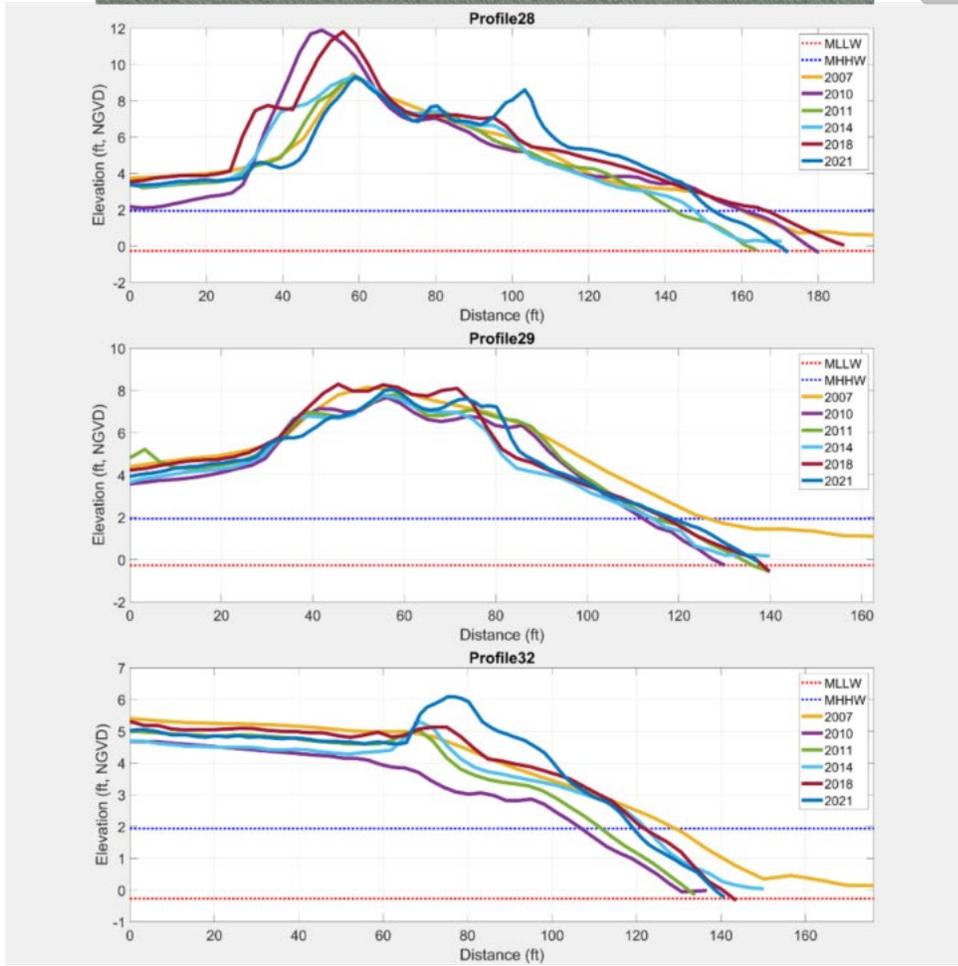
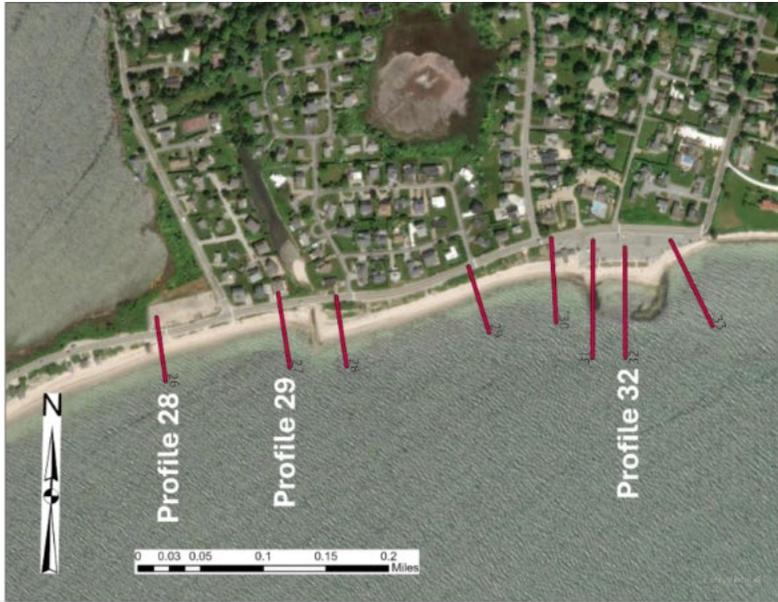


739  
740 *Figure 53: Shoreline change from 2008 to 2025 – Surf Drive Beach East.*



Figure 54: Erosion/accretion pattern at Surf Drive Beach East.

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743

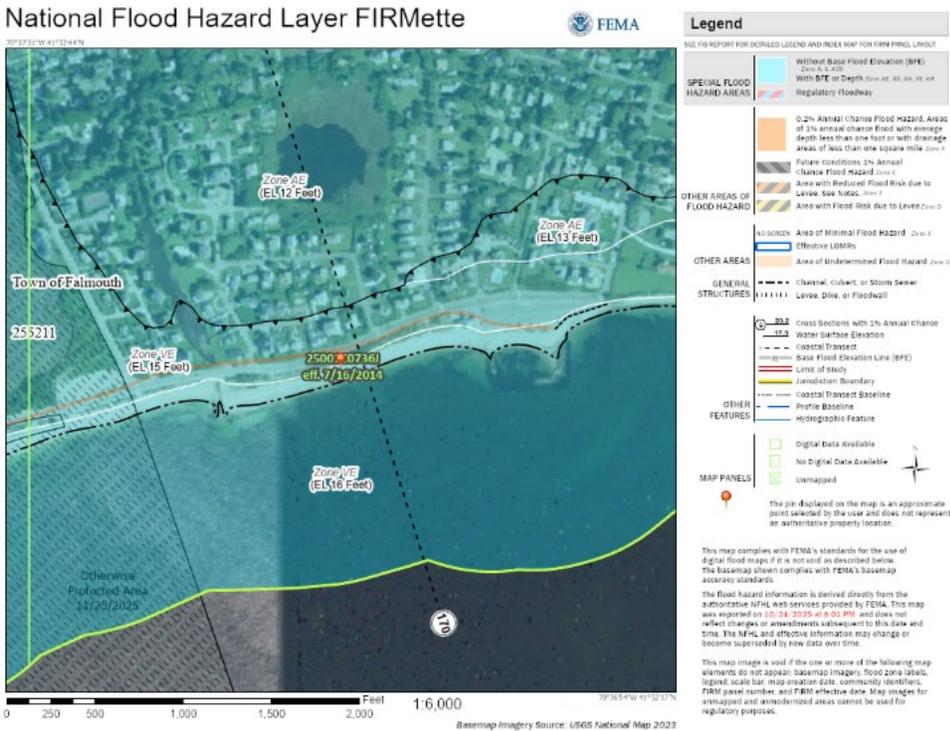
744 Figure 55: Profiles from DEMs, Surf Drive Beach.

745 Figure 56 presents a navigation chart excerpt for the Surf Drive Beach nearshore. The  
 746 nearshore transitions to ~10 feet of water over ~1,000 feet.

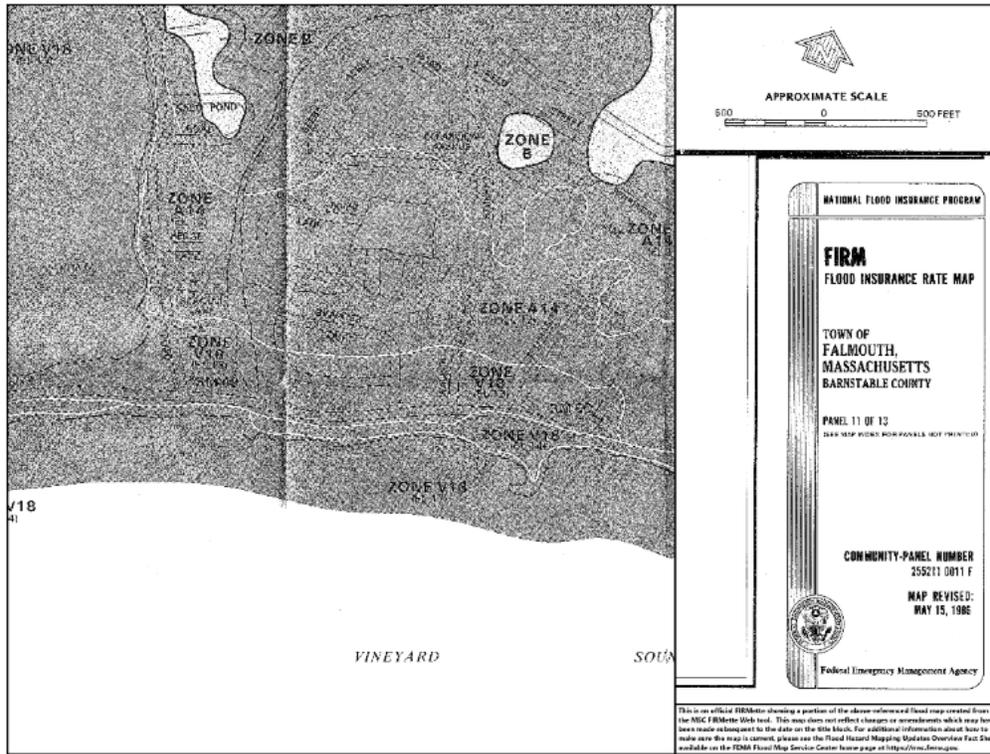


747  
 748 Figure 56: Surf Drive Beach navigation chart excerpt showing nearshore conditions.

749 Figure 57 shows the current effective FIRM at Surf Drive Beach (Zone VE, 16 ft BFE).  
 750 Historical FIRMette of the area (1986) is shown in Figure 58 (Zone V18, 14 ft BFE).



751  
 752 Figure 57: FEMA FIRMette of Surf Drive Beach. Effective 07.16.2014.



753

754 *Figure 58: Historical FIRMette of Surf Drive Beach, 1986.*

755 **Anthropogenic Features**

756 The Ellen T. Mitchell Bathhouse is located at 56 Surf Drive in the paved parking lot. The  
 757 building's bathhouse and concession are connected to the Town's municipal sewer  
 758 system, and components associated with this system are located behind a fenced area at  
 759 the north end of the parking lot. As noted in the 2008 plan, a wooden retaining wall  
 760 contains the dune closest to the Mitchell bathhouse. A concrete storage vault holding  
 761 lifeguard equipment is located at the Mill Road parking lot.

762

763

764



765 *Figure 59: The Ellen T. Mitchell Bathhouse (top left) and picnic tables (top right). A dune access path along Surf*  
766 *Drive (bottom).*

767 To the west of the fish run a section of sand fence was present until 2021, removed,  
768 reinstalled by 2022, removed in 2024, and reinstalled by 2025 (based on aerial inspection).  
769 The sand fence appears to impact vegetation growth on the dune, as can be seen in Figure  
770 60. The background image shows aerial image from 2024, when the sand fence was  
771 removed. The section of dune has no vegetation visible. The inserted image on the bottom  
772 right is from 2025, where the sand fence is installed. Patches of vegetation are starting to  
773 fill out once again.

774



775

776 *Figure 60: Surf Drive Beach aerial from 2025, sand fence removed. Insert – Aerial from 2025, with sand fence.*

777 The parking lot fence has undergone modifications in 2021, which is shown in Figure 61.

778 Beach access points have been added (red arrows) along the fence.

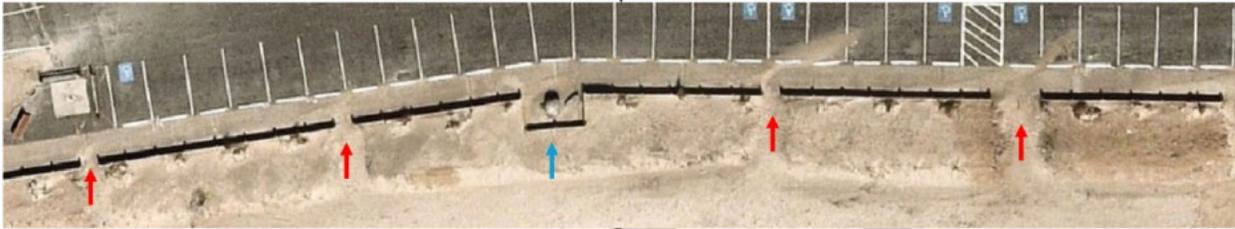
779 The notch for utilities has been expanded into a square shape from the previous triangle  
780 (blue arrow). Since then, vegetation has established on the dune. While the exact current  
781 elevation of the dune is unknown, the dune appears to have expanded its  
782 footprint compared to 2021.

783 Surf Drive Beach was graded and nourished in 2020 and nourished again in 2023. Sediment  
784 quantities are unknown.

2020



2021



2025



785

786 *Figure 61: Surf Drive Beach Parking Lot Alteration, 2020 to 2025.*

### 787 Public Services and Amenities

788 Surf Drive is open to the public through beach sticker purchases and a gate fee for day  
 789 visitors. The main parking lot at 56 Surf Drive provides 147 spaces. The natural surface  
 790 parking area at Mill Road provides an additional 60 spaces. Handicap parking is available  
 791 at both lots. During the summer season, both parking lots are open from 9:00 a.m. to 9:00  
 792 p.m. and staffed with one parking attendant at each to check beach stickers, collect day  
 793 fees, and direct traffic. Beach Department clerks are at the office daily in the summer to  
 794 manage front desk operations. Survey responses suggest that parking for Surf Drive during  
 795 the summer season can be a challenge but is more available than at some of the other  
 796 beaches. Six lifeguards are on duty from 9:00 a.m. to 5:00 p.m. during the season at  
 797 several locations along the beach (from main lot to Mill Rd).

798 Additional amenities include bike racks, Mutt Mitt dog waste stations, and two portable  
 799 restrooms at Mill Road. One recycling bin and seven trash cans are provided and serviced  
 800 daily during the on-season. One trash can remain at each lot in the off-season.



802 *Figure 62: Natural surface parking area at Mill Rd. (top left) and signage to restrict walking over the dune (top*  
 803 *right). Mutt Mitt stations (bottom left) and metal bike racks at 56 Surf Drive (bottom right).*

804 The Mitchell Bathhouse houses offices for the Beach Department, beach equipment,  
 805 cleaning and first aid supplies, and additional supplies from other Town beaches in the off-  
 806 season. Food concession services are provided by a private vendor that operates under a  
 807 seasonal contract issued by the Beach Committee. Historically, food concessions have  
 808 operated out of the building, but, in 2025 a vote at Town Meeting was passed to make all  
 809 food concession mobile through food truck vendors. This change will begin in the 2026  
 810 season.

811 **Falmouth Heights Beach**

812 Falmouth Heights is a public beach on Grand Ave on the south side of Town. This is an  
813 active area with two restaurants, one located north of the beach, and another located in  
814 the Casino Wharf condominium complex at the west end of the beach. There is also a  
815 public ballpark to the north and additional privately owned properties to the north and  
816 east. People especially value this beach for its views, access to restaurants, clean, soft  
817 sand, and the opportunities to swim and walk. While some survey responses highlighted  
818 the fun and exciting nature of this beach, others noted it was very crowded and loud  
819 compared to other beaches in Town.

820 **Natural Features and Coastal Processes**

821 Falmouth Heights Beach is a south-facing beach overlooking Vineyard Sound and spans  
822 approximately 2,000 feet. Falmouth Heights Beach is composed of a Coastal Beach and  
823 Land Subject to Coastal Storm Flowage (LSCSF) that ends in a continuous sea wall at its  
824 landward extent. The seawall extends for 0.2 miles between Central Park Court and  
825 Darmouth Ave with no statistically significant erosion or accretion. Figure 63 presents  
826 shorelines used for the analysis and Figure 64 presents block average QSCAT results.



827

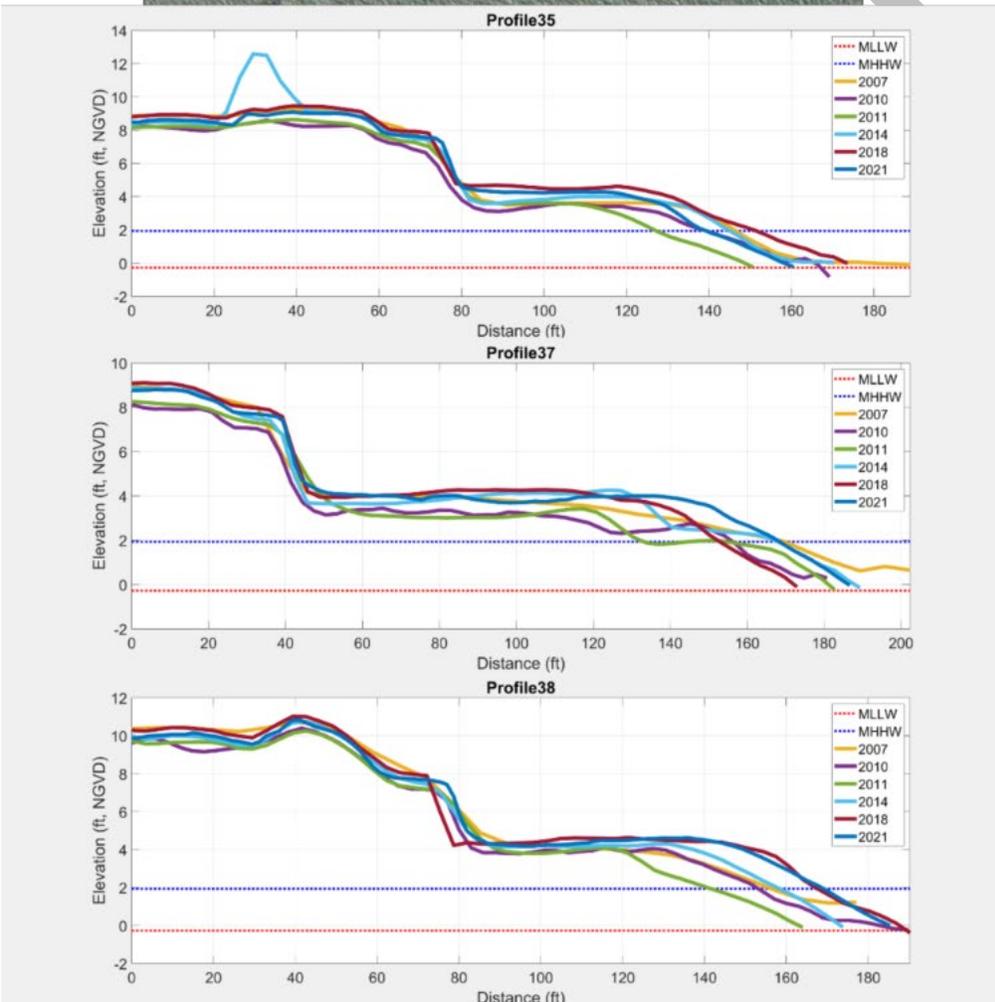
828 *Figure 63: Shoreline change from 2008 to 2025 – Falmouth Heights Beach.*



829

830 *Figure 64: Erosion/accretion patterns at Falmouth Heights Beach.*

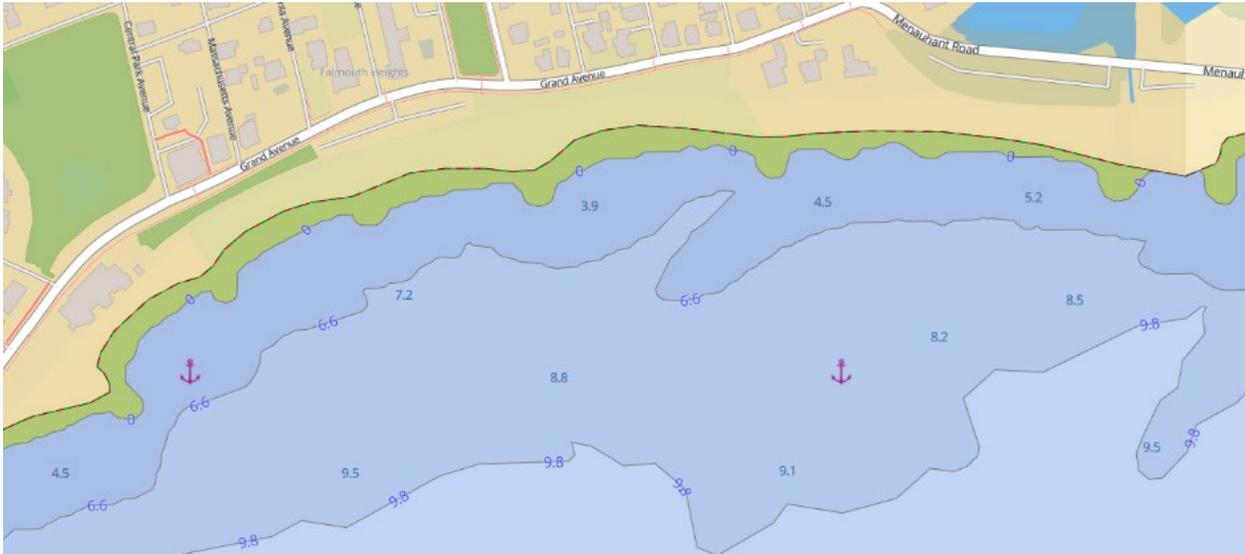
831 Sediment has accumulated on the western side of the groins, suggesting easterly  
832 sediment transport patterns. The dune elevations are also stable over the years (Figure  
833 65) based on available DEM data.



834

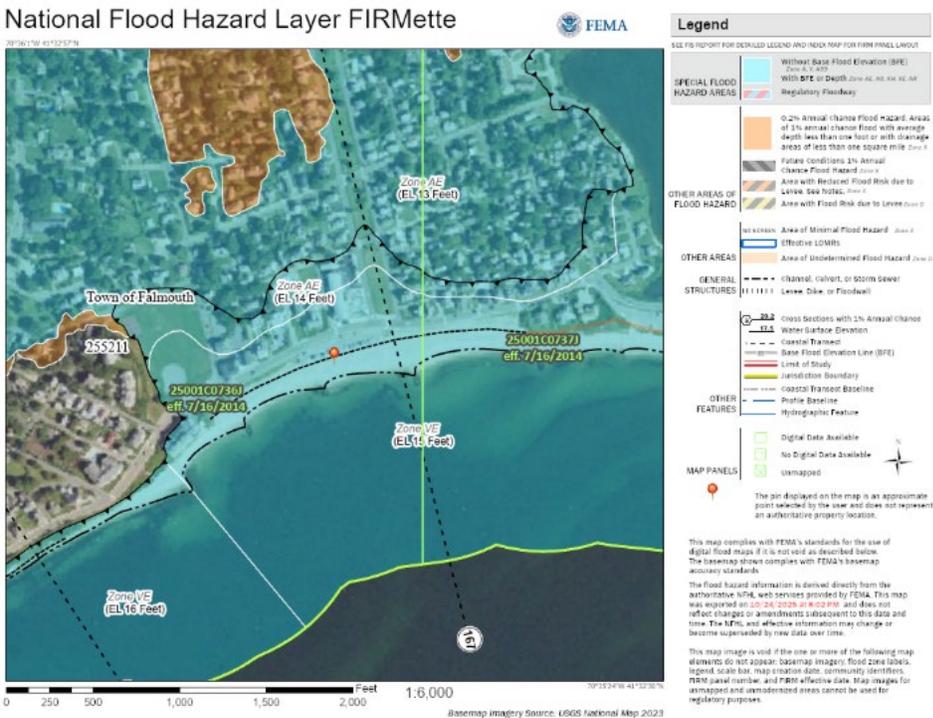
835 *Figure 65: Profile from DEMs, Falmouth Heights Beach.*

836 Figure 66 presents a navigation chart excerpt showing the Falmouth Heights Beach  
 837 nearshore. The nearshore transitions to ~10 feet of water over ~1,000 feet.

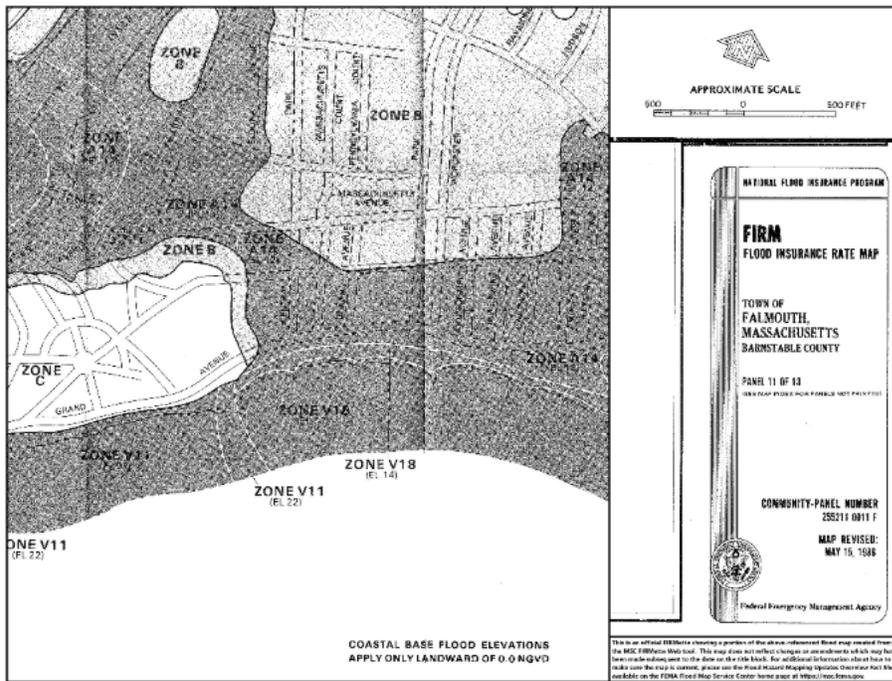


838  
 839 Figure 66: Navigation chart excerpt for the Falmouth Heights Beach nearshore.

840 Figure 67 shows the current effective FIRM at Surf Drive Beach (Zone VE, 15 ft BFE).  
 841 Historical FIRMette of the area (1986) is shown in Figure 68 (Zone V18, 14 ft BFE).



842  
 843 Figure 67: FEMA FIRMette of Falmouth Heights Beach. Effective 07. 16. 2014.



844

845 *Figure 68: Historical FIRMette of Falmouth Heights Beach, 1986.*

846 **Anthropogenic Features**

847 A paved parking lot is present at this beach with split rail fencing along the edges of the lot  
 848 area. There is a concrete seawall that extends the length of this beach, with a sidewalk on  
 849 the landward side of the wall. Along the seawall, there are eight concrete stairways with  
 850 rails and a wooden ramp with metal rails from the parking lot. A concrete storage vault for  
 851 lifeguard equipment is in the beach parking lot.

852 Falmouth Heights Beach is seasonally re-graded to redistribute winter sand buildup along  
 853 the seawall. Existing structures along Falmouth Heights Beach include several groins.



854

855 *Figure 69: Falmouth Heights seawall and paved parking area.*

856



857 *Figure 70: Handicap access ramp and concrete stair access to beach.*

## 858 Public Services and Amenities

859 Parking at Falmouth Heights is available by sticker only. The paved parking lot provides  
860 space for 60 vehicles, including clearly marked handicap spaces, and is open during the

861 on-season from 9:00 a.m. to 9:00 p.m. During the on-season, daily from 9:00 a.m. to 5:00  
862 p.m. the parking lot is staffed by one parking attendant and six lifeguards. Survey  
863 responses indicate that parking is a challenge during the summer season.

864 There are two portable restrooms, one seasonal shower tower, and X bike racks in the  
865 parking area. A mobile food concession is also stationed at the beach parking lot on a daily  
866 basis in the summer. Eight trash receptacles are provided in the parking lot/along the  
867 sidewalk, and a ninth is provided for recycling. One trash bin is left in the parking area  
868 during the winter months. There are three Mutt Mitt stations with dog bags.



869 *Figure 71: Concrete storage vault for rescue equipment in parking lot (left). Bike rack and shower tower hook*  
870 *up (right).*

871

## 872 Bristol Beach

873 Bristol Beach is located on Menauhant Road on the south side of Town immediately east of  
874 Falmouth Heights Beach. According to survey results, people primarily enjoy the beach for  
875 its view and neighborhood feel and visit the beach for activities such as sitting, swimming,  
876 and walking. People also noted that the beach is small (and continuing to erode), rocky,  
877 and can get crowded during the summer months.

878 The Little Pond estuary system is north of the beach, and the beach is divided by the inlet  
879 to the pond. Privately-owned properties abut the east and west ends of Bristol Beach and  
880 line the Little Pond estuary on both sides. The Little Pond inner and outer channels are  
881 permitted for dredging, and Bristol Beach is permitted for nourishment under the Town's  
882 10-Year Comprehensive Dredge Permit. Dredge spoils from the Little Pond inlet have been  
883 added to Bristol Beach for nourishment in past years.



884 *Figure 72: Bristol Beach East (top left) and West (top right).*

### 885 *Natural Features and Coastal Processes*

886 Bristol Beach is south-facing and spans approximately 1,100 feet. Bristol beach includes a  
887 jettied inlet, several rock groins and a rock revetment to the east. Coastal Dunes at Bristol  
888 Beach are vegetated with *Ammophila*. Along the parking lot, the landward extent of the  
889 dune rests against a wooden retaining wall. Other resource areas include Coastal Beach,  
890 Barrier Beach, and Land Subject to Coastal Storm Flowage (LSCSF).

891 Figure 73 presents shorelines used in the analysis and Figure 74 presents block  
892 average QSCAT results. Bristol beach is stable overall, except to the west of the inlet which  
893 is retreating at a rate of -1.5 ft/yr. This appears to be due to slowing eastward  
894 longshore sediment transport, as beach section immediately updrift (east) to the section  
895 of erosion shows statistically insignificant accretion (<1ft/yr).

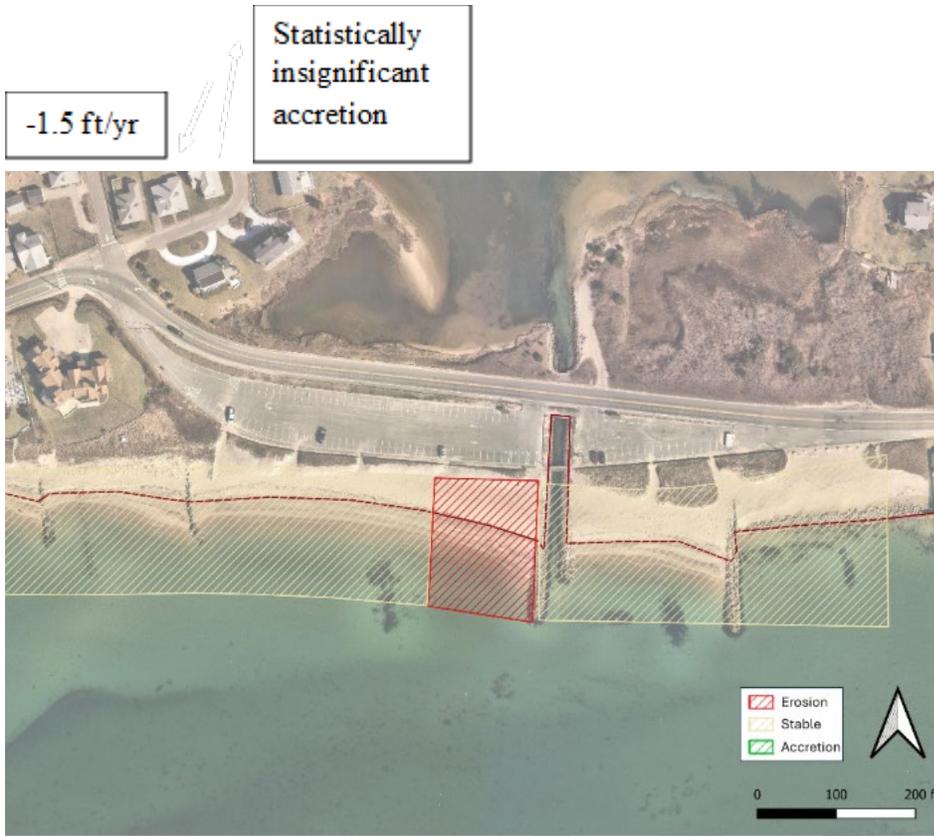


896

897 *Figure 73 :Shoreline change from 2008 to 2025 – Bristol Beach.*

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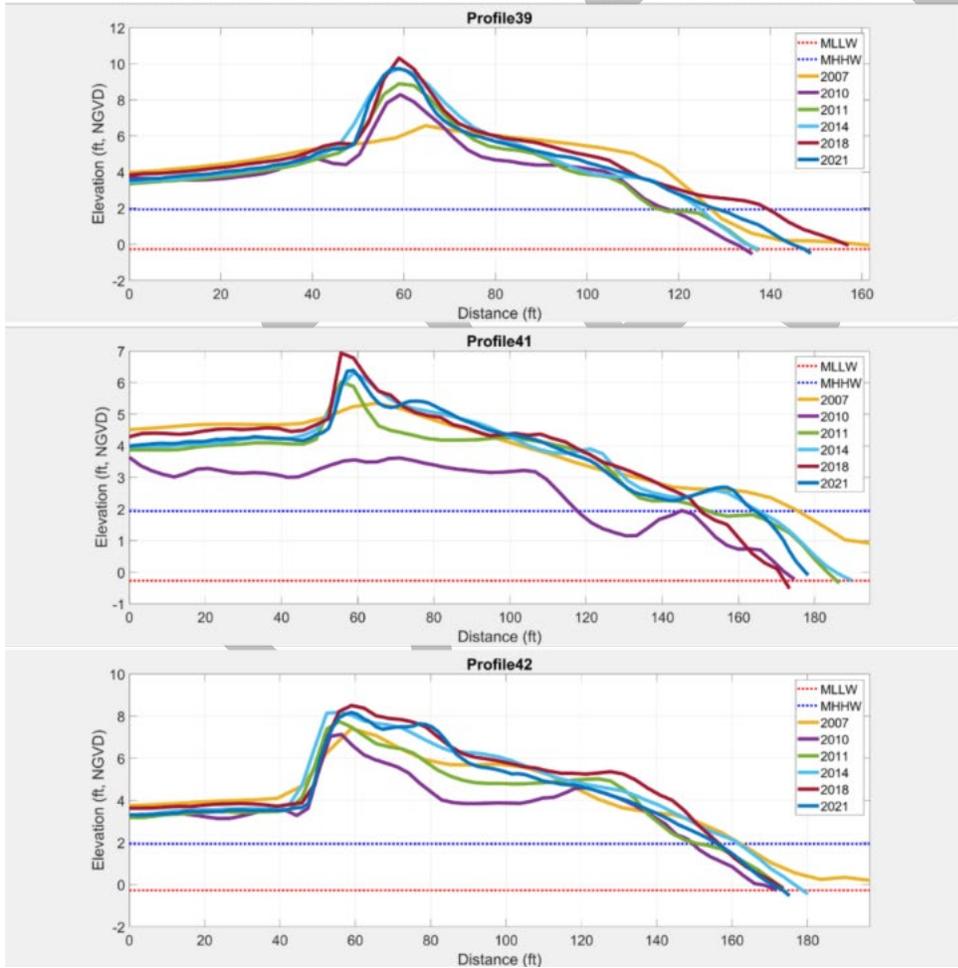
898



899

900 *Figure 74: Erosion/accretion pattern at Bristol Beach.*

901 Figure 75 presents extracted DEM profiles for Bristol Beach. Dunes have grown in height  
902 since 2010. It appears that Bristol beach is stable to slightly accretional overall.



903

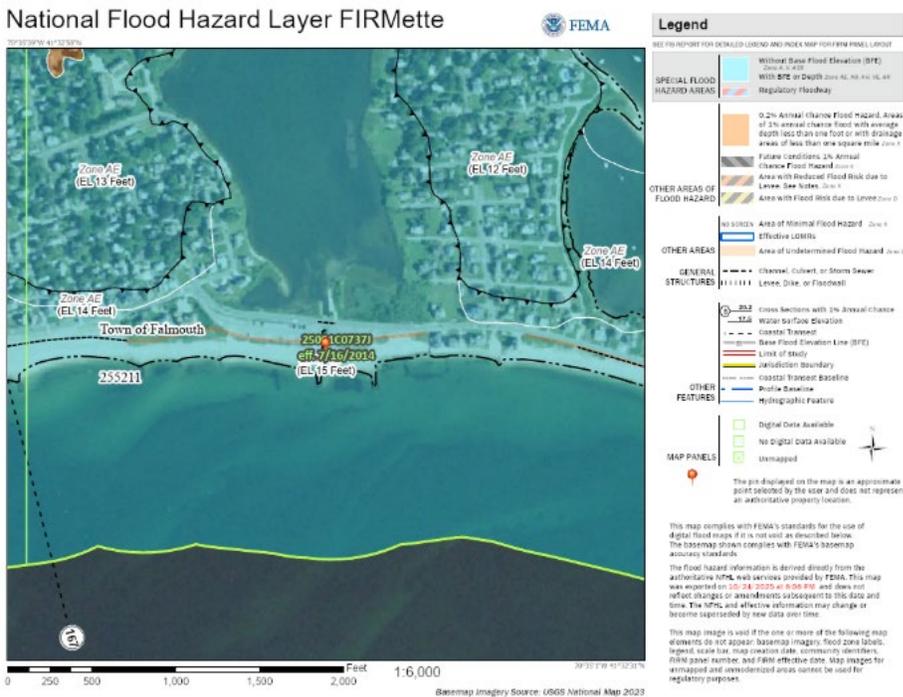
904 *Figure 75: Profile from DEMs, Bristol Beach.*

905 Figure 76 presents a navigation chart excerpt showing the Bristol Beach nearshore. The  
 906 nearshore transitions to ~10 feet of water over ~1,000 feet.



907  
 908 *Figure 76: Navigation chart excerpt showing Bristol Beach nearshore.*

909 Figure 77 shows the current effective FIRM at Bristol Beach (Zone VE, 15 ft BFE).  
 910 Historical FIRMette of the area (1986) is shown in Figure 78 (Zone V18, 14 ft BFE).



911





928 *Figure 79: Seawall at Bristol Beach – East (top left) and tidal inlet to Little Pond estuary (top right). At Bristol Beach – West,*  
929 *a wooden retaining wall along the dunes (bottom left) and paved parking lot.*

930 The section of shoreline immediately west of the inlet was renourished in 2024, as can be  
931 seen in Figure 80. At the eastern end of the parking lot, a rectangular structure fronting the  
932 dunes was removed in 2020 (Figure 81). Since then, the dune vegetation has slowly grown  
933 into the spot that was previously occupied by the structure



934

935 *Figure 80: Bristol Beach renourishment, 2024.*

2019

2025



936

937 *Figure 81: Dune at Bristol Beach parking lot East.*

938 **Public Services and Amenities**

939 Bristol Beach requires beach stickers for vehicle access. The west lot has 94 spaces  
 940 available while the east lot has 22 spaces, with designated handicap parking in each.  
 941 parking attendants. The parking lots remain open from 9:00 a.m. to 9:00 p.m. during the  
 942 summer and are staffed with parking attendants (until 5:00 p.m.). The beach is staffed with  
 943 three lifeguards from 9:00 a.m. to 5:00 p.m. At the east lot there are two portable  
 944 restrooms, a shower tower, and water refill station. Three trash bins and one recycling bin,

945 located in the parking lots, are provided and serviced daily in the summer, with one trash  
946 bin remaining in the winter. There are also two Mutt Mitt stations for dog waste.

947 *Figure 82: Dune access path to Bristol Beach ( left) and signage for information on marine mammal rescue by*



948 *International Fund for Animal Welfare (IFAW) (right).*

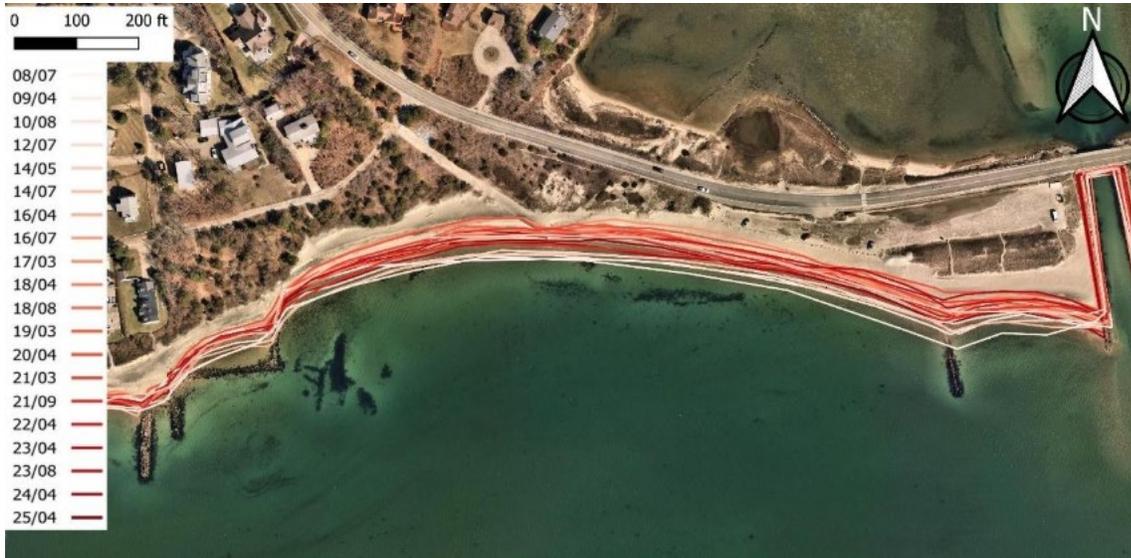
## 949 Menauhant Beach- East and West

950 Menauhant East and West beaches are located on Menauhant Road on the south side of  
951 Town in East Falmouth. Survey responses highlighted the beach for the views and the  
952 ability to swim, walk, sit on, and fish from the beach. A small number of people also noted  
953 this beach is good for kayaking and paddleboarding. A few people said they use this beach  
954 to access clamming in the pond. People also noted that this beach is very rocky, and that  
955 both parking and the beach itself are getting smaller.

## 956 Natural Features and Processes

957 Menauhant East and West are classified as Barrier beaches, separated by the 45 ft wide  
958 inlet that forms the entrance to Bourne's Pond. Coastal Dunes on both the east and west  
959 side receive nourishment from dune compatible dredge spoils. West of the west side  
960 parking lot, the dune crest drops to a low elevation that increases susceptibility to storm  
961 surge events and wave overtopping especially during SE storms. Dune volume on the east  
962 side benefits from more longshore sediment transport and also receives beneficial reuse  
963 sediments. Resource areas at Menauhant Beach also include Coastal Beach, Land Subject  
964 to Coastal Storm Flowage (LSCSF), and the bugger zone to Salt Marsh.

965 This inlet is dredged to maintain navigable depths, with the dredged material being  
966 deposited onto the East and West beaches. The effects of this can be seen in the  
967 accretional signal (5 ft/yr) on the beach immediately to the east of the inlet. Some  
968 nourishment material has also been placed on the West beach (downdrift of the  
969 inlet). Figure 83 presents the shorelines used for the QSCAT analysis on the West  
970 beach. Figure 84 presents blocked average QSCAT West beach results. The West beach is  
971 characterized as stable which appears at least partially due to nourishment activity.



972

973 *Figure 83: Shoreline change from 2008 to 2025 – Menauhant Beach West*



974

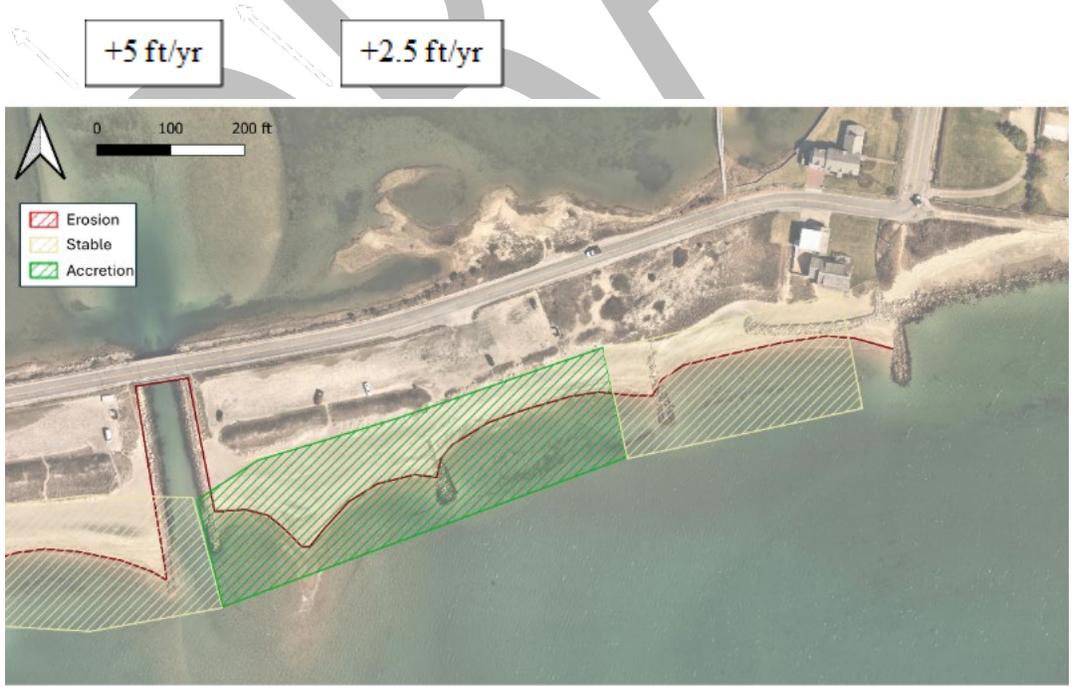
975 *Figure 84: Erosion/accretion pattern at Menauhant Beach West.*

976 Figure 85 presents the shorelines used for the QSCAT analysis while Figure 86 presents  
977 block average result for the East beach. The shore to the east shows signs of accretion at  
978 2.5 ft/yr, which also appears to be the result of the dredge spoil deposit. Further eastward  
979 sections of the beach are stable and do not show statistically significant erosion or  
980 accretion.



981

982 *Figure 85: Shoreline change from 2008 to 2025 – Menauhant Beach East*



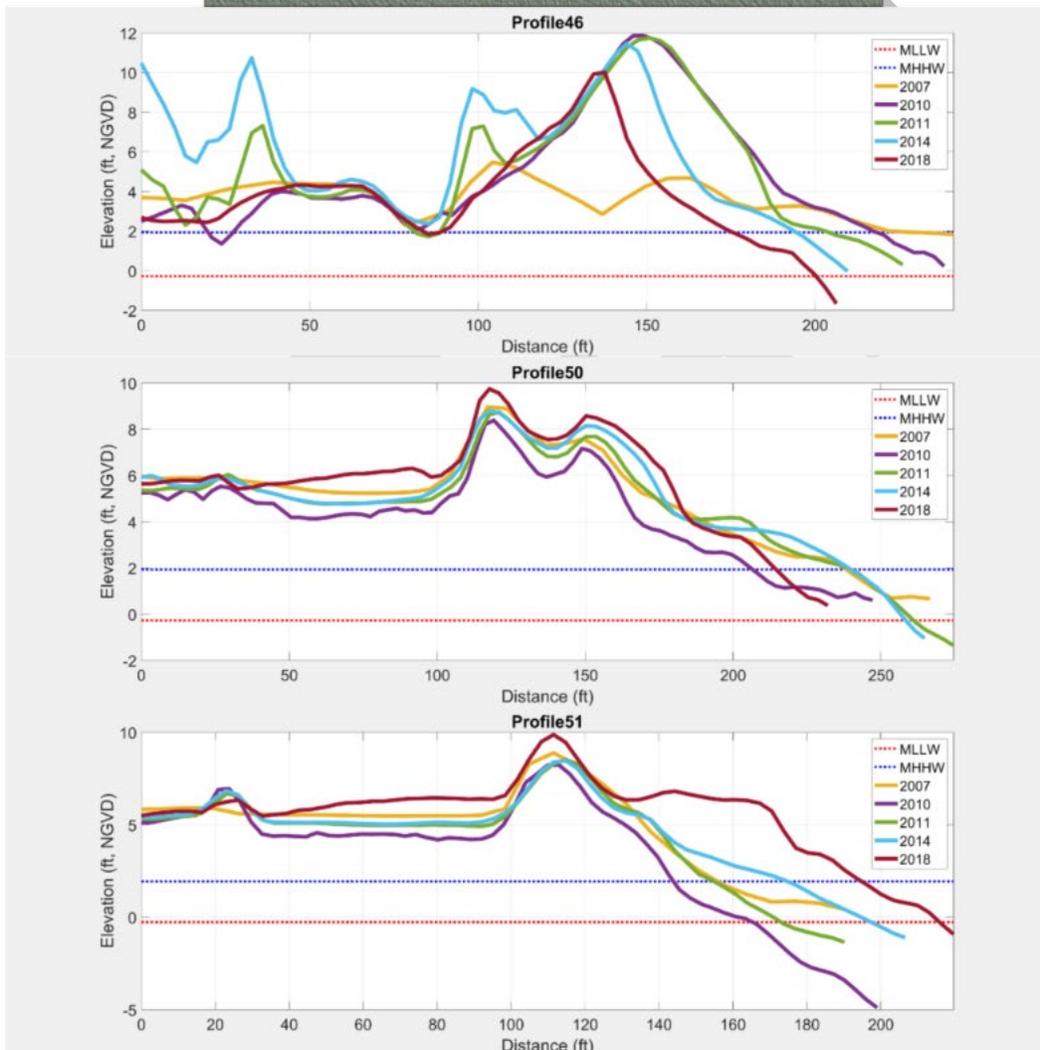
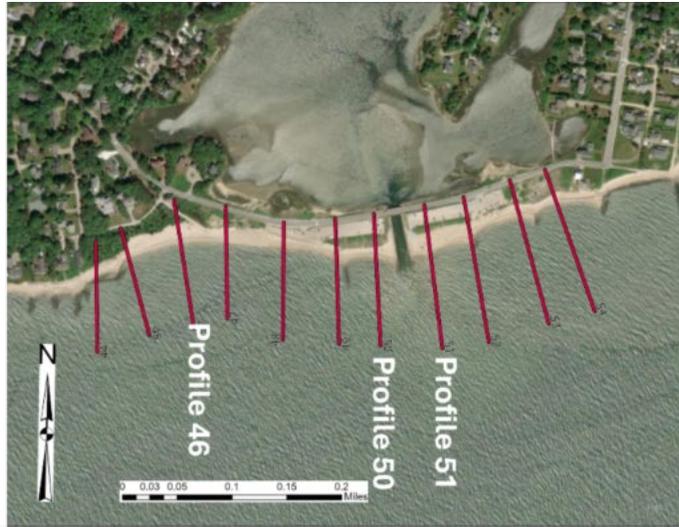
983

984

985 *Figure 86: Erosion/accretion pattern at Menauhant Beach East.*

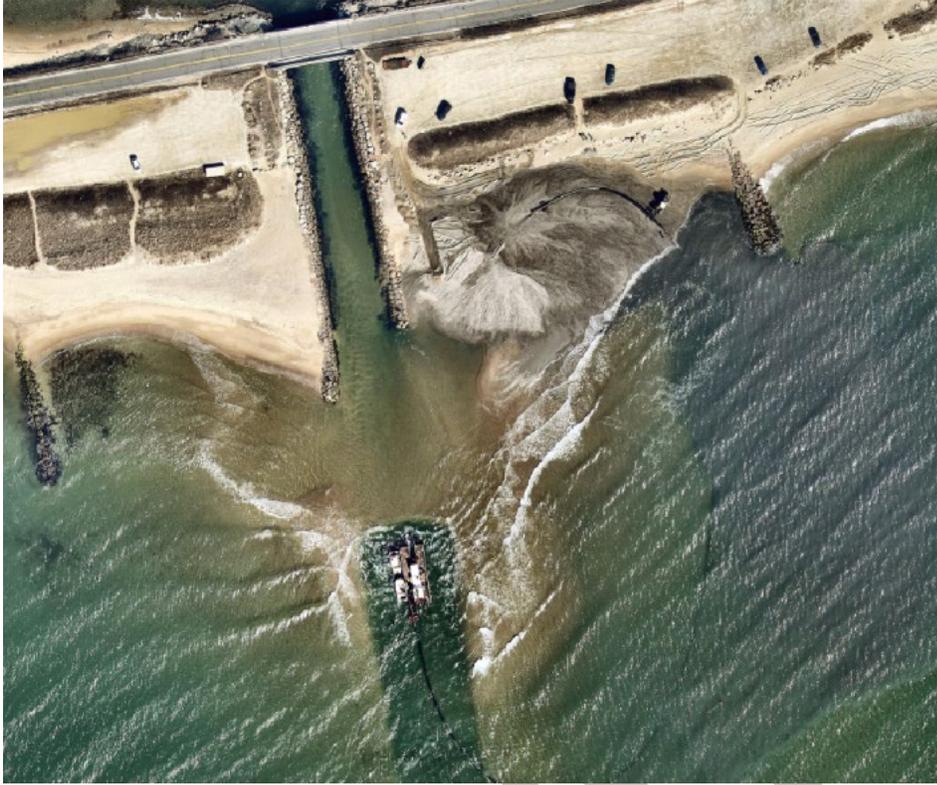
986 Figure 87 presents extracted DEM profiles along Menauhant Beach East and West.  
987 Significant accretion is noted at Profile 51 for the 2018 profile, noting that nourishment  
988 activity related to inlet maintenance activity occurs sporadically along this  
989 shoreline. Figure 88 presents an aerial during dredging of Bournes Pond Inlet.  
990

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991

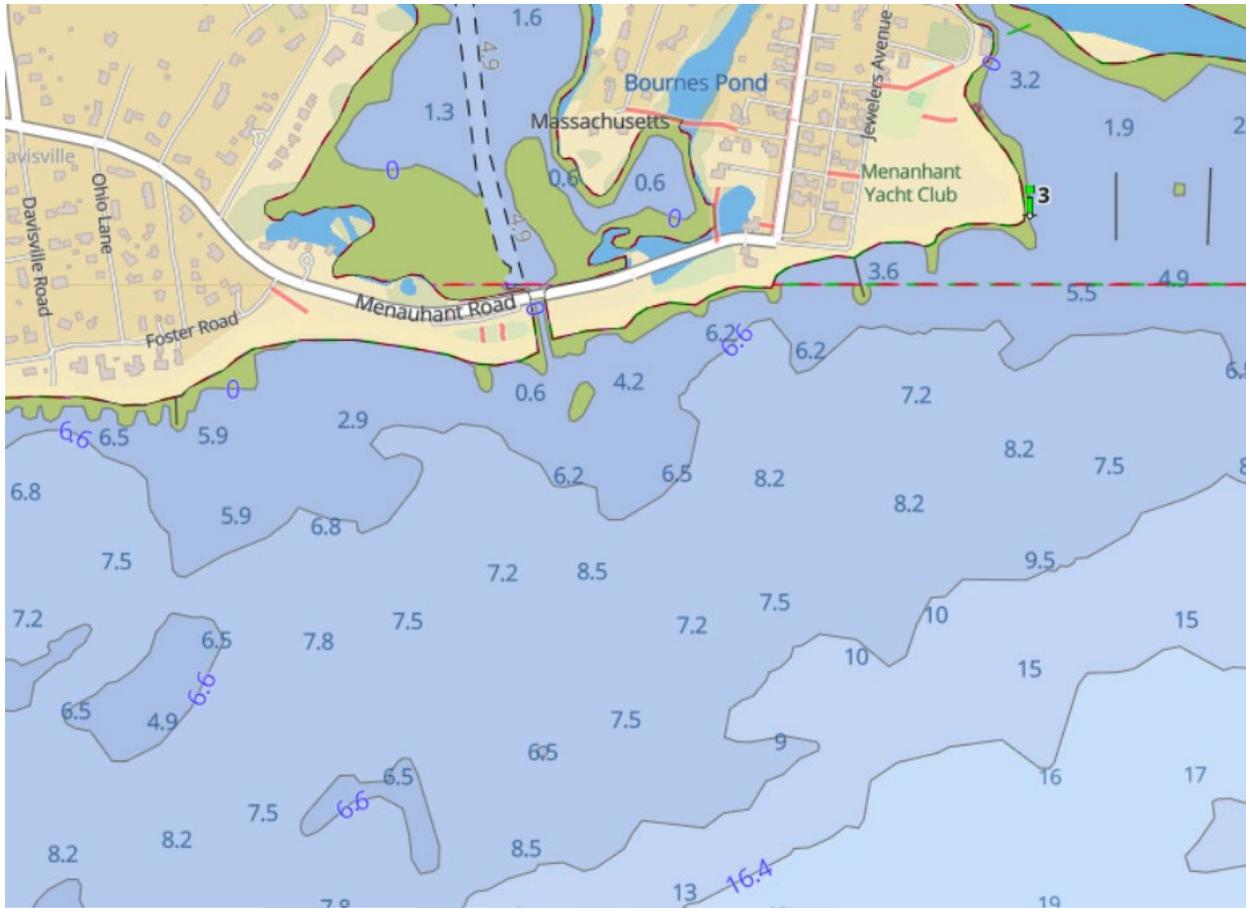
992 *Figure 87: Profiles from DEMs, Menauhant Beach.*



993

994 *Figure 88: Nearthmap Imagery from 03. 27. 2019, showing inlet dredge operations at Bourne's Pond Inlet with nourishment*  
995 *on Menauhant Beach.*

996 Figure 89 presents a navigation chart excerpt of the Menauhant Beach nearshore. Depths  
997 transition to ~10 feet deep over ~2,000 feet.



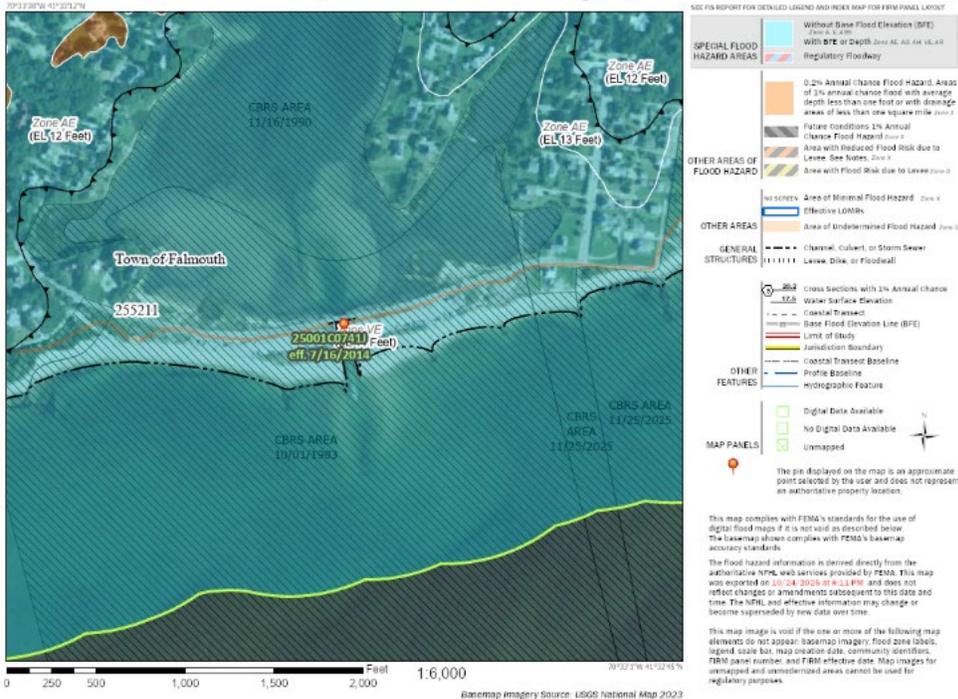
998

999 *Figure 89: Navigation chart excerpt of the Menauhant Beach nearshore.*

1000 Figure 90 shows the current effective FIRM at Menauhant Beach (Zone VE, 14 ft BFE).

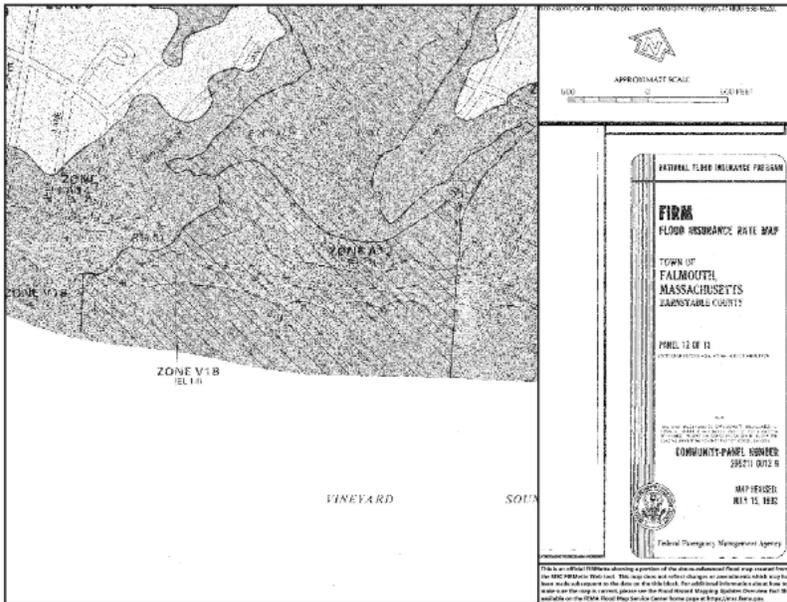
1001 Historical FIRMette of the area (1992) is shown in Figure 91 (Zone V18, 14 ft BFE).

National Flood Hazard Layer FIRMette



1002

1003 Figure 90: FEMA FIRMette of Menauhant Beach. Effective 07. 16. 2014.



1004

1005 Figure 91: Historical FIRMette of Menauhant Beach, 1992.

1006

1007 **Anthropogenic Features**

1008 There are two natural surface parking areas at Menauhant West and East. The beach  
1009 contains two stone jetties, with an additional stone groin and rip rap structures at  
1010 Menauhant West, and two stone groins at Menauhant East. Split rail fencing lines the edge  
1011 of the parking lot adjacent to Menauhant Road. A concrete storage vault is located in the  
1012 parking area of Menauhant West.



1013 *Figure 92: Menauhant Beach East (top right) and West (top right). Natural surface parking lot at East (bottom left) and*  
1014 *equipment tomb at parking lot West (bottom right).*

1015 Menauhant West was nourished in 2023, 2024 (completed in January 2025). Sediment  
1016 piles from that year can be seen staged in the parking lot in Figure 94. The Town of  
1017 Falmouth sponsored the Eel River Entrance Channel dredging and beneficial use  
1018 placement on Menauhant Beach. Figure 93 presents a post-project overview of beach

1019 placement that was sent to regulatory agencies. Approximately 5,000 cubic yards  
1020 (cy) was placed.



1021  
1022 *Figure 93: 2024 Menauhant Beach nourishment (Beneficial Use of Dredged Material) from Eel River Entrance Channel.*

1023 Also in 2024, the Town attempted to re-establish a section of vegetated dune (red  
1024 arrow) along the western edge of the parking lot (Figure 94).

1025 In 2025, dune is no longer present and boulders were placed to edge the parking area. A  
1026 sand pile is visible (red arrow) which was distributed along the beach (Figure 94).

2024



2025



1027

1028 *Figure 94: Menauhant Beach West, renourishment.*

### 1029 **Public Services and Amenities**

1030 Menauhant West and East are open to visitors with beach stickers and the general public  
1031 with a daily pass. The west and east lots have 73 and 85 parking spaces respectively. There  
1032 is additional handicap parking in a small, secluded lot at Menauhant West. The West lot is  
1033 open from 9:00 a.m. to 9:00 p.m. while the East lot is open 24 hours a day for use by  
1034 commercial and recreational fishermen. Each parking area is staffed with one to two  
1035 attendants during the on-season to check for stickers and accept payment for daily  
1036 passes. The beach is staffed by four to six lifeguards during the summer from 9:00 a.m. to  
1037 5:00 p.m. There are X portable restrooms provided at each lot, a connection for a seasonal  
1038 shower tower at Menauhant East, and a water refill station and bike rack at Menauhant  
1039 West. There are X trash bins and one recycling bin in the parking areas during the summer,  
1040 with two remaining during the winter. Three Mutt Mitt stations are also present near both  
1041 parking areas.



1042 *Figure 95: Dune access at Menauhant West (top). Portable restroom (bottom left) and shower tower connection at*  
1043 *Menauhant East (bottom right).*

1044

1045

1046

# 1047 MANAGEMENT STRUCTURE OF FALMOUTH 1048 PUBLIC BEACHES

## 1049 Department Roles/Responsibilities

1050 Falmouth’s public beaches are managed by the Falmouth Beach Department in  
1051 cooperation with the Department of Public Works (DPW), Marine Environmental Services  
1052 (MES), and the Conservation Department. As with many municipalities, overlapping  
1053 jurisdictions and varied departmental abilities lend themselves to a management structure  
1054 more fluid than rigid and one that embraces flexibility. The following sections aim to define  
1055 the roles and responsibilities of these entities.

### 1056 Beach Department

1057 The Beach Department is responsible for maintaining and staffing ten beaches in Falmouth  
1058 and coordinating the sale of resident and non-resident beach stickers. The department  
1059 also provides swimming lessons for children 4 years old and up, and conducts a lifeguard  
1060 training class for children 15 years and older.

1061 The Town of Falmouth also has a Beach Committee, which consists of Town residents and  
1062 acts as an advisory committee to the Beach Department and other entities in Town to  
1063 support beach management.

### 1064 Department of Public Works

1065 The Department of Public Works is responsible for Engineering, Water Systems,  
1066 Wastewater Systems, Highways, Bridges, Parks, Solid Waste / Recycling, Snow & Ice  
1067 Control, Facility Management, Fleet Services and Beach Maintenance. Specifically, the  
1068 Highway Division is responsible for maintenance of the ten public beaches including pre-  
1069 season work, installing lifeguard chairs, trash receptacles, swim buoy, and signage, beach  
1070 raking, and parking lot maintenance, and lock up.

### 1071 Conservation Commission

1072 The Conservation Commission is responsible for implementing the goals of the  
1073 Massachusetts Wetlands Protection Act and the Falmouth Wetlands Regulations. For  
1074 beach management, this includes regulating management and maintenance activities that  
1075 affect natural resource areas and animals such as dredging, beach nourishment, and  
1076 enforcing shorebird time of year restrictions.

1077

## 1078 Public Beach Revenue, Expenses, and Grants

1079 Funding is imperative in order to ensure safe, clean, accessible, resilient, and well-  
1080 managed beaches.

### 1081 Revenue

1082 Between fiscal years (FY) 2014-2025, the Beach Department saw annual revenue between  
1083 \$907,739.15 (FY 2015) and \$1,469,788.01 (FY 2025), as shown in Table 2. The average  
1084 annual revenue during this period was approximately \$1,139,430. Each year, the sale of  
1085 beach stickers—including resident, non-resident seasonal, and weekly/multi-week  
1086 passes—makes up about 50% of the revenue. Daily parking fees make up between 37%  
1087 and 47% of the annual revenue. Beach sticker and day pass prices for the 2025 season vary  
1088 based on location and/or type of pass. The rates are shown in Figure 96 and Figure 97. If  
1089 purchased online, an additional transaction fee applies.

1090 Smaller sources of funding include swimming lessons, lifeguard training, rentals/leases,  
1091 and donations.

### 1092 Grants

1093 The Town of Falmouth successfully secured more than \$430,000 in state resilience grant  
1094 funds, since 2016, for a number of projects including<sup>1</sup>:

- 1095 • Design and Permitting for Restoration at Chapoquoit Beach through Beneficial  
1096 Reuse of Dredged Materials (CZM Coastal Resilience Grant FY 2016). \$81,767. “The  
1097 town designed a beach restoration project for a critically eroded section of  
1098 Chapoquoit Beach and initiated coordination with the U.S. Army Corps of Engineers  
1099 to receive sand dredged from the Cape Cod Canal for future beach restoration  
1100 projects.”
- 1101 • Assessment of Shoreline Stabilization Alternatives for Menauhant Beach (CZM  
1102 Coastal Resilience Grant FY 2018). \$124,695. “Falmouth evaluated engineering  
1103 alternatives to increase protection of Menauhant Beach and associated roadway  
1104 infrastructure located west of the Bournes Pond Inlet to address flooding, erosion,  
1105 and sea level rise concerns.”
- 1106 • Coastal Resiliency Planning for the Surf Drive Area (EEA Municipal Vulnerability  
1107 Preparedness Action Grant FY 2019). \$74,787. “The Town will develop a

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<sup>1</sup> All information in this list comes from the MA Executive Office of Energy and Environmental Affairs Climate Grant Viewer. Online at:

[https://experience.arcgis.com/experience/fd26505b82bc49b1bac525dc95a2a50a/page/All-Grants#data\\_s=id%3AdataSource\\_7-190ef95f413-layer-9%3A159](https://experience.arcgis.com/experience/fd26505b82bc49b1bac525dc95a2a50a/page/All-Grants#data_s=id%3AdataSource_7-190ef95f413-layer-9%3A159).

1108 management approach for reducing vulnerability to natural hazards and enhancing  
1109 coastal resiliency along the Shining Sea Bike Path and Surf Drive between Trunk  
1110 River and Shore Street. The study will consist of three main components: identify  
1111 vulnerabilities and threshold, develop a conceptual phased management  
1112 approach, and public outreach.”

- 1113 • Feasibility of Beach and Dune Nourishment to Build Resiliency for Surf Drive (CZM  
1114 Coastal Resilience Grant FY 2025). \$153,466. “The Town of Falmouth will evaluate  
1115 the performance and longevity of different beach and dune nourishment designs  
1116 under a variety of storm conditions for the Surf Drive area between Shore Road and  
1117 Trunk River. The project will develop a decision support matrix that will guide the  
1118 town to select a preferred nourishment alternative that considers storm protection  
1119 provided to Surf Drive and associated infrastructure, permissibility, potential  
1120 impacts to wetland resources, abutter impacts, and estimated costs for  
1121 implementation. The project also includes a robust public education program that  
1122 builds on a 2019 MVP study for the project area. The public outreach efforts will  
1123 help manage expectations that beach and dune nourishment is being considered to  
1124 address near- and intermediate-term coastal risks and build support for  
1125 management actions that are needed to provide longer term resiliency.”

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Sticker	Price
Replacement (w/ return of issued sticker)	\$10
Resident/Taxpayer - purchased online before April 15	\$40
Resident/Taxpayer - purchased online after April 15	\$45
Resident/Taxpayer - purchased by mail or in-person	\$50
Employee Non-Resident	\$45
Seasonal Non-Resident (In-Town)	\$275
Seasonal Non-Resident (Out-of-Town: Bourne, Sandwich, Mashpee)	\$375
One-Week (non-resident)	\$80
Two-Week (non-resident)	\$130
Three-Week (non-resident)	\$175
Four-Week (non-resident)	\$225
Military & Timesharing/Interval Ownership *with proof from timeshare; see rules for stickers re: military eligibility	\$45

1130

1131 *Figure 96: Beach sticker prices for the 2025 beach season<sup>2</sup>*

### Daily Parking Fees

Beach	Fee
Menauhant Beach - East	\$20 (cash/card)
Old Silver Beach	\$30 (cash/card)
Surf Drive Beach	\$20 (cash/card)
Surf Drive Extension (Mill Rd.)	\$20 (cash/card)

1132

1133 *Figure 97: Daily parking fees for the 2025 beach season<sup>3</sup>*

### Expenses

1135 Beach-related expenses are shared across a number of municipal departments. The  
 1136 Department of Public Works Highway Division’s beach-related budget for FY26 includes  
 1137 \$140,700 in salary/wages; \$10,000 for supplies such as tools, lumber, and paint’ and  
 1138 \$100,000 for outside contractors/professional services including beach grooming and  
 1139 portable restrooms.

1140 In addition to the expenses described above, the town’s FY 2026 Capitol Plan includes  
 1141 several requests for beach-related expenses including beach nourishment projects, a

<sup>2</sup> Town of Falmouth. No Date. Beach Parking Stickers Online Information.  
<https://www.falmouthma.gov/152/Beach-Parking-Stickers>

<sup>3</sup> *Ibid.*

1142 beach office facility, electronic messaging sign boards, a new truck, and accessibility  
1143 mats.

1144 The Facilities budget for beach-related work is approximately \$20,000/year and includes  
1145 repairs (approximately \$16,000/year) and custodial supplies (approximately \$4,000/year)  
1146 at Surf Drive and the reserved and public sides of Old Silver Beach.

1147 The Beach Department’s expenses include personnel (consisting of salaries and  
1148 temporary wages), operational expenses (consisting of expenses such as electricity,  
1149 printing, telephones, advertising, security systems, office supplies, medical supplies,  
1150 safety equipment, an auto allowance, staff development, and beach nourishment), and  
1151 Town-meeting funded items such as lifeguard chairs, message boards, a surf rake, beach  
1152 profile surveys, handicap mats, and security cameras.

1153 Expenses for fiscal years 2020-2024 ranged from a high of \$1,006,674 in fiscal year 2023 to  
1154 a low of \$612,683 in fiscal year 2022, as shown in Table 1. Salary is consistently the largest  
1155 expense.

1156 *Table 1: Beach Department expenses for fiscal years 2020-2024.*

	FY 20	FY 21	FY22	FY23	FY24
Personnel	\$591,043.54	\$657,992.72	\$550,147.56	\$797,548.08	\$865,271.15
Operations*	\$82,529.52	\$49,780.05	\$62,535.52	\$89,414.22	\$123,246.64
Town- Meeting Articles	\$18,825.71	\$9,827.90	\$0.00	\$119,711.76	\$12,000.00
Totals	\$692,398.77	\$717,600.67	\$612,683.08	\$1,006,674.06	\$1,000,517.79

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Table 2: Actual Revenue for Fiscal Years 2014-2025.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beach Use Charges (Sticker)	530,486	438,781	502,075	542,278	558,465	587,552	577,035	567,706	610,192	686,172	778,481	818,140
Beach Use Charges (Gate)	367,006	388,103	443,445	447,526	398,807	413,487	433,722	438,045	425,002	670,100	590,640	593,540
Swim Lessons	12,030	9,805	11,300	10,580	10,840	12,380	4,680	0	8,270	5,230	1,315	1,535
Lifeguard Training	0	0	0	0	0	0	0	0	0	2,400	2,200	1,575
Rentals/Leases	71,480	71,050	80,544	77,656	80,737	74,267	58,284	40,349	60,792	52,073	54,573	56,573
Road Race Revenue	0	0	0	0	0	0	0	0	0	0	4,545	0
Handicap Beach Access Mats	625	0	0	0	0	0	0	0	0	0	0	0
Barnstable County Land Management	0	4,500	0	0	0	0	0	0	0	0	0	0
Access Mats	0	0	4,000	0	0	0	0	0	0	0	0	0
Bristol Beach Dune Wall	0	0	2,645	0	0	0	0	0	0	0	0	-292
Donations - Beach Commission	8,524	3,467	2,799	1,900	1,850	2,400	5,564	1,723	3,133	9,048	3,290	6,508
Donations - Menauhant Beach	1,100	750	0	0	0	0	0	0	0	0	0	-1,475

Notes: (1) Data for this table were provided by the Beach Department. (2) Fiscal year is July 1-June 30 .

# BEACH MANAGEMENT PROTOCOLS

## Protocols by Season

The following section includes the operational protocols that are reoccurring and/or ongoing within a season.

### Beach Department

#### *May-September*

1. Bathroom facility upkeep
2. Enforce Animal Control Bylaw
3. Manage social media and news flash alerts for parking lot fill
4. Attend meetings with DPW

#### *June-August*

1. Coordinate schedules for beachgoer facing staffing
2. Fee accounting from beach sticker purchases and pay by day tickets
3. Securing beach parking lot gates

#### *September-May*

1. Attend monthly Beach Committee meetings
2. Pay electrical bills for Surf Drive, Old Silver and Falmouth Heights monthly for entire off-season

### DPW, Marine and Environmental Services (MES), and Conservation Commission

The following are ongoing seasonal activities led by the DPW Highway Division and in coordination with the Beach Department, MES, Conservation Commission, and Coastal Resilience as needed.

#### *January -May*

1. Parking area maintenance and upgrades
2. Repair and maintain existing fencing
3. Maintain signage on public beaches
4. Install signage prohibiting activity within Coastal Dune
5. Maintain beach accessible wheelchairs
6. Enforce Animal Control Bylaw

### *June-August*

1. Manage sand in beach parking lots and paved walking paths/access points to beach, and clean litter in paved beach parking lots.
2. Vegetation management (including poison ivy) in roadway layout, sidewalks, and parking areas.
3. Inspect and clean parking lot catch basins at public beach sites. Maintain signage on public beaches.
4. In the event of a named storm, seasonal infrastructure (i.e. lifeguard towers) will be removed from beaches to minimize damage.
5. Maintain unauthorized dune access path closures
6. Beach raking at town beaches in compliance with shorebird protection guidelines.
7. Repair/remove Mut Mitts that are no longer functioning.

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### September- December

1. Conduct dune restoration programs at public beaches and plant bare areas with *Ammophila breviligulata* in collaboration with Coastal Resilience Specialist and Conservation Commission.
2. Maintain signage on public beaches
3. Repair and refurbish lifeguard towers and sunshades
4. Evaluate the efficacy of snow fencing

### Protocols by Month

1. Coordinate with HR to get new employee postings up
  - a. Department: Beach Department Supervisors
  - b. Month: January
2. Contact staff from previous summer to determine if any will be returning.
  - a. Department: Beach Department
  - b. Month: January
3. Coordinate annual nourishment and dredging efforts
  - a. Department: DPW Highway, Coastal Resilience, MES, Conservation Commission
  - b. Month: January
4. Post Beach Department job openings on Town website
  - c. Department: Beach Department
  - d. Month: January/February
2. Secure date for lifeguard tryouts at Wareham YMCA pool.
  - a. Department: Beach Department
  - b. Month: February
3. Dredging operations and beach nourishment take place under the Comprehensive Dredge Permit. See Appendix X: Comprehensive Dredge Permit for further details and Time of Year restrictions. DPW and Coastal Resilience coordinates with dredge operator and with MAS CWP.
  - a. Department: DPW Highway, Coastal Resilience, MES, Conservation Commission
  - b. Month: March
3. Beach Department operating budget approval at Town Meeting
  - a. Beach Department
  - b. April
4. Conduct interviews with prospective employees
  - a. Department: Beach Department
  - b. Month: April

4. Coordinate with Harbormaster to put buoys out at all beaches to mark swim areas
  - a. Department: Beach Department, MES, DPW Highway
  - b. April-June
5. Host lifeguard tryouts
  - a. Department: Beach Department
  - b. Month: May
6. Finalize staffing in Beach Department to clear payroll
  - a. Department: Beach Department
  - b. Month: May
7. Turn on water in Mitchell bathhouse.
  - a. Department: DPW Facilities
  - b. Month: May
8. Install ADA accessibility mats on town beaches including Menauhant, Old Silver, Surf Drive, and Chapoquuit.
  - a. Department: DPW/Highway
  - b. Month: May
9. Remove boards from Mitchell bathhouse windows
  - a. Department: DPW Highway
  - b. Month: May
10. Select board to review donation from Old Stone Dock Assoc.
  - a. Beach Department
  - b. Month: May
11. Install lifeguard chairs at town beaches
  - a. Department: Beach Department, DPW Highway
  - b. Month: May
12. Submit capital project proposals and budgets.
  - a. Department: Beach Department
  - b. Month: July/August
13. Remove lifeguard chairs and store at DPW beach shed
  - a. Department: Beach Department, DPW Highway
  - b. Month: August/September
14. Remove swim buoys
  - a. Department: Beach Department, MES, DPW Highway
  - b. Month: September
15. Put up wood boards at beach access points
  - a. Department: DPW Highway
  - b. Month: October
16. Attend Town Meeting for vote on capital projects.

- a. Department: Beach Department
  - b. Month: November
- 17. Submit changes for fee hearing
  - a. Department: Beach Superintendent/Assistant Superintendent
  - b. Month: TBD
- 18. Order uniforms for beach staff
  - a. Department: Beach Department
  - b. Month: May
- 19. Submit Annual Town Report for prior fiscal year
  - a. Department: Beach Department
  - b. Month: TBD
- 20. Submit draft Beach Department operating budget for next fiscal year
  - a. Department: Beach Department
  - b. Month: TBD
- 21. Plan and reserve space for beach staff orientation
  - a. Department: Beach Department
  - b. Month: May
- 22. Coordinate mandatory workdays for heavy workload
  - a. Department: Beach Department
  - b. Month: TBD
- 23. Coordinate security system and fire alarm inspections for Surf Drive and Old Silver buildings
  - a. Department: Beach Department, DPW Facilities
  - b. Month: TBD
- 24. Organize cleaners for Surf Drive and Old Silver buildings
  - a. Department: Beach Department
  - b. Month: TBD
- 25. Install temporary winter sand fencing at strategic locations to minimize loss of sand due to aeolian activity and to maximize dune restoration. Locations include Old Silver Beach Reserved (ramp area) & Public (end of “Chute), Chapoquoit Beach (“L” area), Surf Drive Beach (west of bathhouse), Falmouth Heights Beach (east end), and Bristol Beach (dune crossovers adjacent to both sides of the Little Pond channel).
  - a. Department: DPW Highway, Coastal Resilience, Conservation Commission
  - b. Month: TBD
- 26. Remove sand fencing
  - a. Department: DPW Highway
  - b. Month: March

27. Regrade windblown sand from backshore areas of the beach walkways and stairs
  - a. Department: DPW Highway, Conservation Commission
  - b. Month: TBD
28. Close unauthorized dune access
  - a. Department: DPW Highway
  - b. Month: TBD

## RECOMMENDATIONS

1. In recognition of coastal flooding impacts and erosion, the Town should continue efforts to increase the resilience of public beaches
  - a. Maximize the use of beneficial reuse sediments as permitted under the 10-Year Comprehensive Dredge Permit for the nourishment of public beaches.
  - b. Explore alternative nourishment sources for future use.
  - c. Plan for the adaptation or retreat of public beach infrastructure.
  - d. Continue dune restoration programs at Surf Drive Beach, Bristol Beach, and Menauhant Beach - West & East to improve the ability of the Coastal Dunes to provide storm damage protection and flood control.
    - i. Facilitate the use of compatible sand sources generated from local dredging projects, both private and public, for restoration of dunes at the public beaches. Applicants for private dredging projects should be made aware of beneficial reuse options on the town beaches during the Conservation Commission review and permitting process. Dredge quantities and sediment analyses should be made available to the Beach Department to determine suitability as beneficial reuse. Acceptance of compatible dredge sediments should be confirmed through a letter to the applicant, with a copy to the Conservation Commission.
    - ii. Maximize the dune profile at each of the above referenced beaches by increasing the height and width. The ideal dune design would meet FEMA's 540 sq ft rule for protection during a 100-yr storm event (44 CFR 65.11); however, not all of the dune and beach systems provide sufficient area to create such a dune.
    - iii. Vegetate all dune restoration areas with beach grass and protect with sand fencing.

Responsible Parties: Coastal Resilience, DPW (Highways Division), Beach Department, Conservation Commission

Timing: On-going

Priority: High

2. Develop and implement food vendor protocols at public beaches. Vendors must operate in accordance with the state and Town's Board of Health regulations for mobile food vendors and obtain a mobile food establishment must obtain a mobile food server permit from the Board of Health. The following should be considered for additional protocols:
  - a. When a Town entity has determined that the food vendor has violated the provisions of this management plan, the Town may issue a written notice directing all temporary food service vendors to cease operations until the violation(s) are corrected as determined by the Town.
  - b. Requirement of biodegradable food and beverage containers by food vendors
  - c. Gray water & grease disposal
  - d. Re-fueling

Responsible Parties: Beach Department, DPW, Conservation Commission

Timing: 2026-2027

Priority: High

3. Review the beach management plan on a periodic basis to assess protocols and progress towards goals and recommendations.

Responsible Parties: Beach Department, Coastal Resilience, DPW Highway

Timing: Every 2 years

Priority: Moderate

4. Identify state and federal funding opportunities for coastal resilience project.

Responsible Parties: Coastal Resilience

Timing: Annually

Priority: Moderate

5. Implement an address system for beach identification on staffed beaches to aid in effective emergency response.
  - a. Address signs at beach entrances

- b. Addresses posted on lifeguard towers

Responsible Parties: DPW Engineering, Beach Department, Coastal Resilience, Fire and Rescue

Timing: 2026-2027

Priority: High

- 6. Enhance communication and coordination between Beach Department and Beach Foreman crew.
  - a. Conduct a meeting with Beach Department staff and Beach Foreman crew members at the start of each season to review roles and responsibilities, communication channels, and equipment handling.
  - b. Review budget items and chain of command within each department (Beach and DPW) to streamline addressing issues that arise at the beaches during the season.

Responsible Parties: Beach Department, DPW Highway

Timing: Annually

Priority: High

- 7. Enhance communication and coordination between DPW, Beach Foreman crew and the Conservation Commission.
  - a. Conservation Commission needs to be notified of any beach activities prior to action during shorebird time of year restrictions.
  - b. Conduct meetings between DPW, Beach Foreman, and Conservation Commission at start of the season to discuss beach maintenance activities occurring throughout the summer and determine if monitoring is needed.
  - c. Develop and formulize a procedure for approval of new activities, outside of regular maintenance, that may come up during the on-season to ensure they are aligned with shorebird time-of-year restrictions.

Responsible Parties: Conservation Commission, DPW Highway, Coastal Resilience

Timing: Annually

Priority: High

- 8. Conduct an inventory and assess conditions to determine necessary repairs and/or replacement of
  - a. Lifeguard stations
  - b. Lifesaving equipment stored in concrete storage vaults

c. Beach access wheelchairs

Responsible Parties: DPW Highway, Beach Department

Timing: Annually

Priority: TBD

9. To increase efficacy and efficiency of the floating wheelchair program, develop and implement a system in-season for beach staff to log wheelchairs in and out when they are accessed from DPW beach shed, noting date of use and any damage following use. Develop a list of potential damages that could be repaired on-site at beaches based on existing tools and equipment from DPW.

Responsible Parties: DPW Highway, Beach Department

Timing: 2026-2027

Priority: TBD

10. There is no line item in budget for repairing and/or replacing beach wheelchairs that are damaged. Seek funding through grant programs that support ADA accessibility programs and when feasible Town funds to replace wheelchairs damaged beyond repair.

Responsible Parties: Beach Department, DPW Highway, Coastal Resilience

Timing: TBD

Priority: TBD

11. Increase staffing capacity at this location at Menauhant East and West to enhance safety. At Menauhant Beach East and West, it not possible to see the entire beach from the head lifeguard stand and the East lot remains open for 24 hours so beach staff duties are increased at this location.

Responsible Parties: Beach Department, Select Board

Timing: TBD

Priority: TBD

12. Wood Neck is a concern managerially as parking lot regularly floods, and there is spotty cell reception for emergencies. Purchase satellite phone/radio for beach staff at this location to enhance communication and coordination in event of emergency.

Responsible Parties: Beach Department, Select Board

Timing: TBD

Priority: TBD

13. The Beach Department offices are housed at the Mithcell Bathhouse which is subject to coastal storms and impacts of climate change. Conduct a feasibility study for removal and/or resilience modification of Mitchell Bath House. Assess sites for relocation of the Beach Department offices to ensure a plan is in place to maintain operations in the event of damage or loss of the building.

Responsible Parties: Beach Department, Coastal Resilience, Select Board

Timing: TBD

Priority: Moderate

14. Develop and formalize protocols for:

- a. Shark sighting protocol
- b. Marine mammal stranding and disposal

Responsible Parties: Beach Department, DPW Highway, MES, Police, Fire and Rescue

Timing: TBD

Priority: Moderate

15. To maintain a history of work and storm response at each beach to guide future restoration and management decisions, establish a record keeping system for beach/dune restoration and inlet dredging activities, as well as storm damages at each beach. The Coastal Resilience office will be the lead for maintaining and updating records.

- a. For all beach nourishment and/or dune restoration work, document dates of work, location, volume, elevation and slope of fill, as well as source and quality of sediment. Document each activity with photographs.
- b. Share logs with Conservation Commission and coordinate plans for beach nourishment and dune restoration activities with Conservation Commission.

- c. Maintain records for dredging work at inlets located adjacent to the public beaches, that include dates and location of work, volume and quality of material dredged, placement location(s), and dredging/placement methodology.
- d. Document all storms and associated beach impacts, by recording date and duration of storm, beach sites impacted, extent of erosion, and impacts to infrastructure. Flag high marks as soon after major storm events as possible at all impacted beach sites. Survey and record the location and elevation of the high-water flags.
- e. The Massachusetts Coastal Hazards Commission (CHC) provided a similar recommendation (#5) for the state-wide collection of post-storm event data (Coastal Hazards Commission, 2007). As such, the Coastal Resilience office should coordinate with Massachusetts CZM to facilitate data sharing and to periodically update data collection techniques.

Responsible Parties: Coastal Resilience, Beach Department, DPW (Engineering Division), Waterways Committee, Conservation Commission, Natural Resources

Timing: Annually, and post-storm

Priority: High

16. Develop pre- and post-storm response plans for Falmouth public beaches to minimize risks of storm damage to wetland resources and public/private infrastructure, and to avoid adverse impacts to resources during post-storm clean-up.
  - a. Identify specific activities that must be performed in advance of an upcoming hurricane or major storm, such as closing bathhouse/concession buildings, removing all unsecured items from the beach and parking areas, etc.
  - b. Identify responsible parties for all pre-storm activities.
  - c. Develop a chain of command list with contact information for all pre- and post-storm activities. Points of contact should be included for local, state, and federal emergency management officials, utility suppliers for electricity and gas, local materials haulers, heavy equipment contractors, and tree trimming specialists. Update points of contact as necessary.
  - d. Replace all clean sand overwashed from the public beaches to the roadways back to the beaches. All sandy material should be used to restore the dunes or the beach above the high water line.

Responsible Parties: Coastal Resilience. Beach Department, DPW (Facilities Maintenance, Highway Division), Fire Department, Police Department, Emergency Preparedness Department, Conservation Commission

Timing: 2026-2027

Priority: High

17. Develop long-range plans to eliminate direct discharge of stormwater onto Falmouth Heights Beach to protect public health and surface water bodies from pollutants introduced through surface runoff.
  - a. Develop long-range plans to eliminate direct discharge of stormwater onto Falmouth Heights Beach to protect public health and surface water bodies from pollutants introduced through surface runoff.
  - b. Continue to work under the NPDES program to improve existing storm water management practices that impact Falmouth Heights Beach.
  - c. Identify the boundaries of the storm water drainage system that currently feeds into the Falmouth Heights Beach discharge points. Encourage low impact development practices within this drainage basin that infiltrate storm water back to the groundwater, and remove it from the municipal storm water drainage system.
  - d. Evaluate potential locations and designs for shallow infiltration structures that could be installed to intercept storm water currently discharged as a point source to Falmouth Heights Beach. Potential locations may include the Heights ballfield, esplanade area along Worcester Ct., or grassy areas between the seawall and Grand Ave.

Responsible Parties: Town Manager, Board of Selectmen, DPW (Engineering Division, Highway Division), Beach Department, Conservation Commission

Timing: 2026-2030

Priority: Moderate

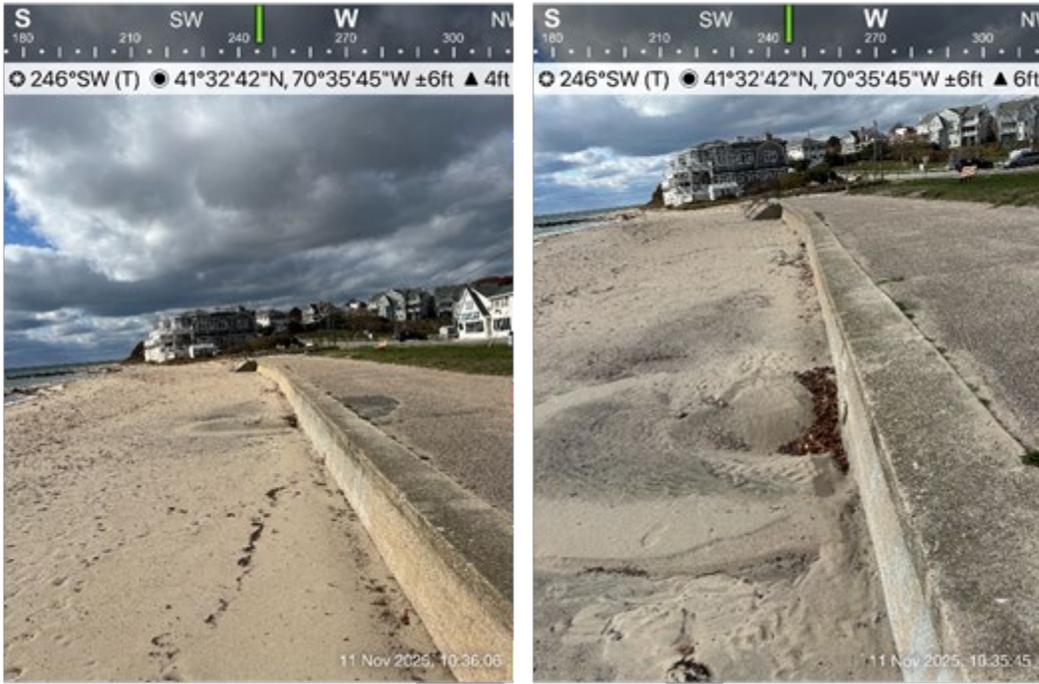


Figure 98: Sand Erosion at Storm Water Discharge Locations, Falmouth Heights Beach

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18. Conduct bi-annual beach profile and photographic surveys at all public beaches to quantify long-term and seasonal changes in beach profile and shoreline location, and to identify when beach nourishment and dune restoration are needed.
- a. Survey beach profiles bi-annually in the late winter (Mar. to Apr.) and early fall (Sep. to Oct.).
  - b. Utilize traditional or aerial survey equipment to collect horizontal (x,y) and vertical (z) positions along each beach profile. Collect information regarding position of high and low water during the surveys, as well as breaks in slope, type of resource area, extent of vegetation.
  - c. Maintain the survey data in a GIS database.
  - d. Compare successive surveys to evaluate changes in elevation, volume, and shoreline position. Review beach profile data on an annual basis to identify areas where beach width is consistently narrowing, or where dune width/height are compromised. Establish these areas as priority sites for beach nourishment and dune restoration.
  - e. If traditional survey is utilized, establish 2-4 sites at each beach for the collection of photographs that can be used to document visual changes. Collect the photography bi-annually along with the beach profile data. Document the dates and tide levels during the photography and maintain in a binder or electronic database.
  - f. Survey transects are recommended to extend farther offshore to the “Depth of Closure” where significant sediment movement stops. These surveys typically require a hydro/bathymetric data collection element and are more expensive than wading-depth surveys. Annual surveys to “Depth of Closure” are recommended while post-storm and any 6-month surveys can be terminated at wading depth (ideally at or near low tide).
  - g. Submit beach profiles to Conservation Commission when nourishment of any kind is needed or proposed prior to nourishment activities.

Responsible Parties: Coastal Resilience, DPW (Engineering Division), Beach Department, Geographic Information Department

Timing: Bi-annually

Priority: High

19. Conduct condition surveys of all waterfront engineering structures at public beaches with coastal engineering consultant to identify damaged or deteriorating structures in need of repair.
- Perform baseline inspections of the waterfront structures in accordance with standard industry practice (e.g. ASCE Waterfront Facilities Inspection and Assessment, MOP 130).
  - Notify Conservation Commission of proposed repairs and/or routine maintenance tasks prior to implementation. Additional permitting may be required for task depending on the scope of work.
  - Perform recommended repairs/maintenance to the structures based on inspection findings.
  - Reinspect waterfront structures every two years, following major storm events, and/or as recommended based on previous inspections.

Responsibility: DPW (Engineering Division), Coastal Resilience, Conservation Commission

Timing: Biannually

Priority: Moderate

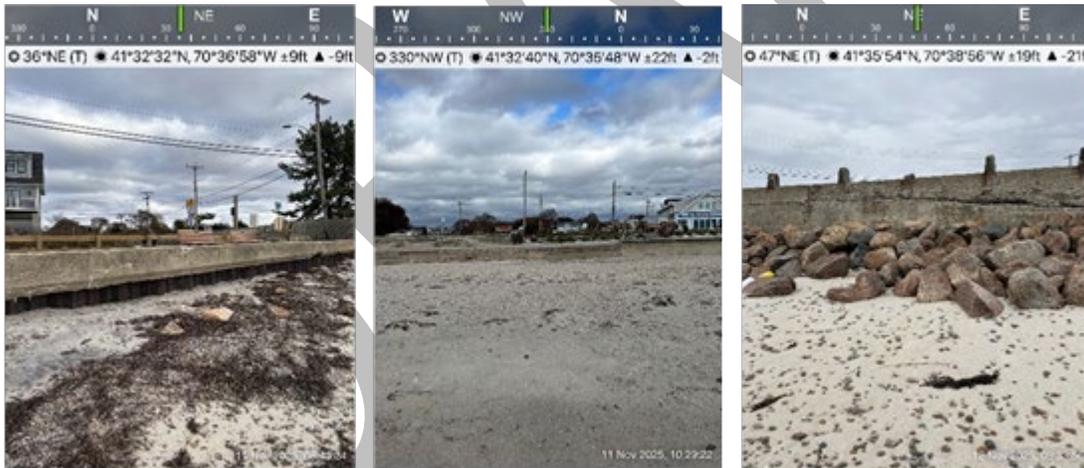


Figure 99: Seawalls at Surf Ave Beach (left), Falmouth Heights Beach (center), and Chapoquoit Beach (right)

20. Repair existing sand fencing, split rail fencing, wind fencing, and guard rail fencing as needed to maintain fencing for public safety and protection of the resource areas.
- Conduct an inventory of damaged fencing in March or April.
  - Repair and/or replace fencing as needed. All work in the Coastal Dune and Coastal Beach areas should be performed by hand, and should avoid disturbance of existing vegetation.
  - Notify Conservation Commission of when proposed repairs will take place to determine if coordination is required during shore bird time of year restrictions.
  - Dispose of old fencing in an approved off-site location.

Responsible Parties: DPW (Highways Division, Facilities Maintenance), Beach Department

Timing: Annually - Spring or Fall

Priority: High

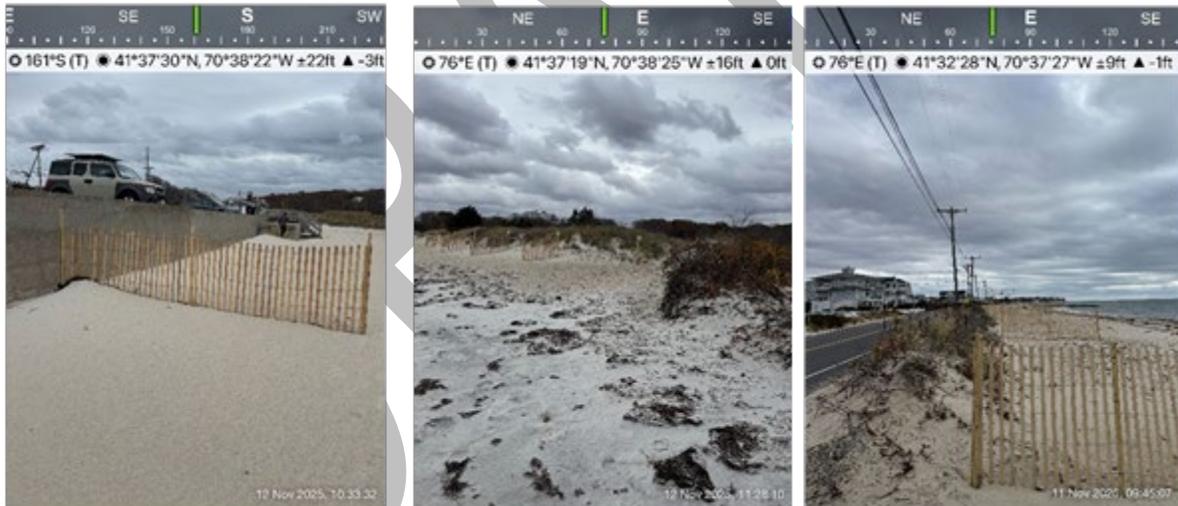


Figure 100: Snow Fence at Falmouth Heights Beach (left), Old Silver Beach (center), and Surf Ave Beach (right)

21. Install sand fencing and/or symbolic fencing around Coastal Dunes to promote sand accumulation and dune growth, and to minimize disturbance of the dunes by foot traffic.

- a. Install new sand fencing and repair existing sand fencing around the seaward sides of all Coastal Dunes and along the edges of all dune access paths where such fencing does not presently exist. This type of fencing should be installed at all beaches, except Falmouth Heights where dunes are not present.
- b. The sand fencing should be attached to wooden posts installed about 10 ft apart. The posts could be installed using a rubber-tired backhoe with an auger attachment in locations where access will not disturb the dunes, and should be installed by hand in all other locations. The fencing should be stapled and/or wired to the posts by hand. The sand fencing should be no taller than 3 ft high.
- c. The sand fencing should be inspected annually and after storm events to repair and maintain damaged fencing.
- d. Temporary symbolic fencing should be installed along the road side of Coastal Dunes that are susceptible to heavy foot traffic during special events (July 4th fireworks, Falmouth Road Race, etc.).
- e. Symbolic fencing should be installed using wooden or metal stakes driven by hand and connected with string and delineated by fluorescent surveyor tape. All symbolic fencing should be removed after the events are complete.
- f. Notify Conservation Commission of fencing plans including where and when fencing will be installed. If work takes place during the shorebird time of year restrictions, coordination will be required.

Responsible Parties: DPW (Facilities Maintenance), Beach Department, Conservation Commission

Timing: Annually and as needed

Priority: High

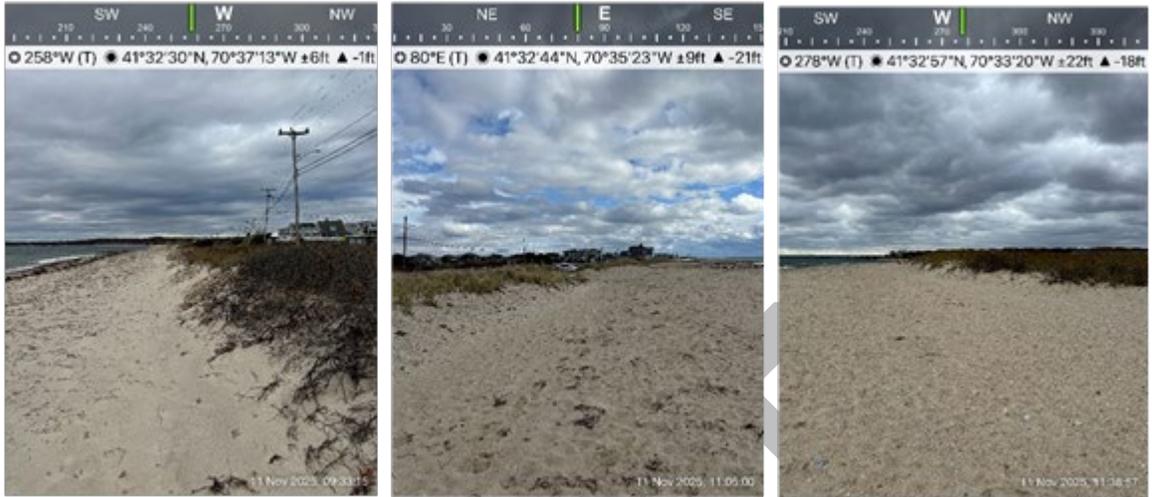


Figure 101: Examples of Frontal Dune Erosion at Surf Ave Beach (left), Bristol Beach (center), and Menauhant Beach (right)

DRAFT

22. Develop short- to intermediate-range plans for beach nourishment programs at Chapoquoit Beach, Old Silver, and Menauhant Beach- West & East, to increase the ability of the beaches to provide storm buffers, flood control, sediment to adjacent beaches, to mitigate on-going erosion, and to enhance the recreational resource.
- a. Identify suitable sources of sand for beach nourishment programs, including sand from channel and harbor dredging, offshore dredging, and upland sources.
  - b. Explore opportunities for cooperation with other municipalities, private stakeholders, and state and federal agencies for the implementation of largescale nourishment projects.
  - c. Establish coordination with the US Army Corps of Engineers (USACE) regarding potential for beneficial reuse of sediment dredging activities, including the USACE's DAMOS Program (currently, only Menahaunt Beach is marked as a disposal location). Request early notification by the US Army Corps of Engineers of future dredging so that the necessary agreements for beneficial reuse can be developed.
  - d. Focus nourishment activities in the following areas: Chapoquoit Beach - entire public beach; Old Silver Beach - entire public beach; Menauhant Beach West - western end of beach from Haddad parcel to groin; Menauhant Beach East - first groin compartment adjacent to jetties.
  - e. Identify potential funding sources for large-scale beach nourishment projects.

Responsible Parties: Town Manager, Board of Selectmen, Beach Department, DPW (Highways Division, Engineering Division), Conservation Commission

Timing: 2026-2030

Priority: High

23. Utilize sand dredged from Fresh River and Little Pond inlets following storm events as beach nourishment on nearby south shore beaches to minimize shoaling, facilitate sediment bypassing, and mitigate on-going beach erosion.
- a. The dewatering area for sand dredged from the Fresh River inlet should be on the beach west of the inlet and above the high water line. Dredged sand should be left in the stockpile area only as long as it takes to dewater.

- b. As soon as the Fresh River material is dewatered, it should be spread across the public beach area west of the inlet, between the dune and the high water line. During times when the beach width west of the Fresh River inlet extends to a point near the end of the jetty (ie., jetty is filled to entrapment), the dredged sand should be placed at the western end of the beach, or used to nourish the beach at the end of Shore St. (east of the "kiddie pool").
- c. The dewatering area for sand dredged from the Little Pond inlet can be either side of the inlet; however the stockpile area should always be above the high water line. Dredged sand should be left in the stockpile area only as long as it takes to dewater.
- d. As soon as the Little Pond material is dewatered, it should be used to restore the dunes. Once a suitable dune profile is achieved, all remaining dredged material should be used to restore dunes at Menauhant Beach - West & East.

Responsible Parties: DPW (Engineering Division, Highways Division), Beach Department, Conservation Commission

Timing: On-going; as needed

Priority: High

24. Utilize sand dredged from the inlets to Bournes Pond and Green Pond, and Eel River as beach nourishment and dune restoration at Menauhant Beach - West & East. To minimize shoaling, facilitate sediment bypassing, and mitigate on-going beach erosion.
- a. All material dredged by the town from these locations should be used to nourish eroding beaches and build dunes at Menauhant Beach - West & East.
  - b. Maintain active permits for continued dredging of these areas, with reference to Menauhant Beach - West & East as the beneficial reuse sites.
  - c. Develop engineering plans for a beach nourishment template that will maximize the lifetime of the nourishment, and minimize shoaling at the entrance to Bournes Pond.
  - d. Dredging and/or beach nourishment (below spring high tide) at Menauhant Beach - West & East should not be performed during the period May 1 to August 1 in order to protect spawning Horseshoe Crabs.

Responsible Parties: Waterways Committee, Beach Department, Conservation Commission

Timing: On-going

Priority: High

25. Reorient the angle of dune access paths and install at grade decking or elevated walkways to minimize risks from storm damage and flooding.
- a. Dune access paths should be reoriented so that they are not perpendicular to the shoreline.
  - b. During the process of reorienting the paths, the old pathways should be filled with dune compatible sand and revegetated.
  - c. Paths that receive the greatest use should be protected with decking placed at grade. The decking should be used seasonally to protect the access paths from scour, and removed during the winter season. The decking should start at the edge of the parking lot or dune and extend several feet beyond the toe of the dune. Alternately, elevated walkways can be used; however, these are generally more costly and may require maintenance following storms.
  - d. Develop plans for any proposed work on access paths. Additional permitting may be required depending on the scope of work. Plans will need to be reviewed by and work will need to be done in coordination with the Conservation Commission to ensure proposed work follows Falmouth Wetland Regulations.

Responsible Parties: DPW (Facilities Maintenance, Highway Division), Beach Department, Conservation Commission

Timing: 2026-2030

Priority: Moderate



Figure 102: Example Perpendicular Dune Cross-Over at Bristol Beach

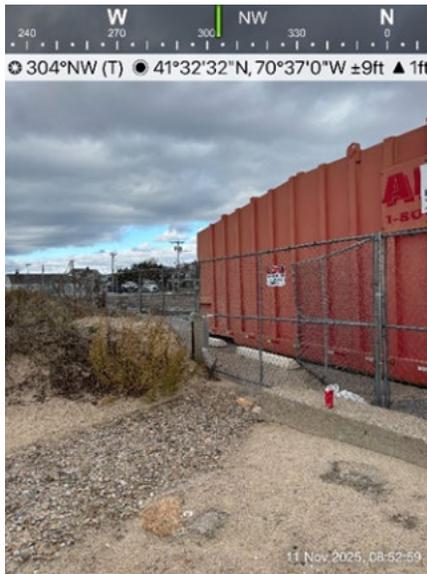
DRAFT

26. Limit surface stormwater runoff from parking lot onto the beach at Surf Ave to reduce erosion and scour.
- a. Regrade access path between easternmost dune and beginning of buried seawall to divert surface runoff onto beach.
  - b. Notify Conservation Commission of proposed work to ensure it aligns with regulations and time of year restrictions.

Responsible Parties: DPW (Facilities Maintenance, Highway Division), Conservation Commission

Timing: 2026-2030

Priority: Moderate



*Figure 103: Area of Runoff Induced Beach Erosion at Surf Ave Beach Educational marine debris/litter signs (e.g., like the water quality and marine life signs at some beaches)*

27. Upgrade existing wastewater disposal system as Old Silver Beach

Responsible Parties: DPW (Facilities Maintenance, Highway, Engineering), Coastal Resilience, Conservation Commission, Select Board

Timing: TBD

Priority: TBD

28. Increase staff capacity for seasonal custodian at Old Silver Beach

Responsible Parties: Beach Department, Select Board

Timing: TBD

Priority: TBD

29. Replace handrails on beach access stairs with corrosion resistant materials.

Responsible Parties: DPW (Facilities Maintenance, Highway), Coastal Resilience, Conservation Commission, Select Board

Timing: TBD

Priority: TBD

30. Replace and maintain wooden retaining walls at Old Silver and Bristol Beach.

Responsible Parties: DPW (Facilities Maintenance, Highway, Engineering), Coastal Resilience, Conservation Commission, Select Board

Timing: TBD

Priority: TBD

31. Relocate or redesign the access ramp at Old Silver Beach outside Coastal Dune.

Responsible Parties: DPW (Highway, Engineering), Coastal Resilience, Conservation Commission, Select Board

Timing: TBD

Priority: TBD

32. Install seasonal shower towers at Mill Road.

Responsible Parties: Beach Department, DPW (Facilities Maintenance, Highway), Conservation Commission, Select Board

Timing: TBD

Priority: TBD

33. Relocate existing municipal water line at Menauhant Beach (West) outside Coastal Beach resource area

Responsible Parties: Coastal Resilience, DPW (Facilities Maintenance, Highway), Conservation Commission, Select Board

Timing: TBD

Priority: TBD

## ENVIRONMENTAL STATUTES AND REGULATIONS

An overview of the primary environmental statutes and regulations applicable to beach maintenance and management activities on the Town of Falmouth public beaches is provided below.

Agency: Falmouth Conservation Commission

Activities Subject to Regulation: Any activity within a resource area, or within 100 feet of a resource area, that will remove, fill, dredge, build upon, degrade, or otherwise alter an area subject to protection under the bylaw.

Regulations: FWR 10.00

Application: Notice of Intent

Permit: Order of Conditions

Agency: Massachusetts Department of Environmental Protection - Wetlands

Activities Subject to Regulation: Any activity within a resource area, or within 100 feet of a resource area, that will remove, fill, dredge, or alter an area subject to regulation under M.G.L. c. 131, § 40.

Regulations: 310 CMR 10.00

Application: Notice of Intent (filed jointly with Falmouth Conservation Commission)

Permit: Order of Conditions (issued jointly by Falmouth Conservation Commission)

Agency: Massachusetts Division of Fisheries and Wildlife

Activities Subject to Regulation: Any activity within sites mapped as Estimated or Priority Habitat.

Regulations: 321 CMR 10.00

Application: MESA Project Review

Permit: MESA Project Review Decision

Agency: Massachusetts Environmental Policy Act Unit (MEPA)

Activities Subject to Regulation: Projects that exceed review thresholds listed in 301 CMR 11.03

Regulations: 301 CMR 11.00 - 12.00.

Application: Environmental Notification Form (ENF) or Environmental Impact Report (EIR)

Permit: Certificate from the Secretary of Energy and Environmental Affairs

Agency: Massachusetts Department of Environmental Protection - Waterways

Activities Subject to Regulation: In general, any activities that require work below the mean high water line or in Commonwealth Tidelands.

Regulations: 310 CMR 9.00

Application: Chapter 91 License or Permit application

Permit: Chapter 91 License or Permit

Agency: Massachusetts Department of Environmental Protection - Water Quality

Activities Subject to Regulation: Activities that involve the discharge of dredged or fill material, dredging, and dredged material disposal activities in waters of the Commonwealth.

Regulations: 314 CMR 9.00

Application: Water Quality application

Permit: Water Quality Certificate

Agency: US Army Corps of Engineers

Activities Subject to Regulation: In general, any activities that require work below the extreme high water line.

Regulations: 33 CFR 320-331, 40 CFR Part 230

Application: Programmatic General Permit or Individual Permit applications

Permit: Programmatic General Permit or Individual Permit

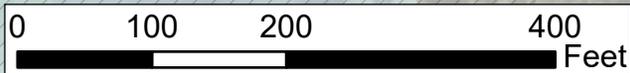


# Megansett Harbor

# Megansett Harbor

### Legend

Access Path	Access Stairs
Handicap Parking	Buildings
Shower	Structure (Jetty, Groin, Revetment)
Trash can	Handicapp Access Mats
Portable Restroom	Parking
Equipment Storage	Access Ramp
End of Beach Marker	Coastal Vegetated Dune
Lifeguard Stand	Priority/Est. Habitat
Parking Attendant Booth	BARRIER BEACH
Swim Area Buoy	COASTAL BEACH
Roads	ROCKY INTERTIDAL SHORE
Rail Fence	SALT MARSH
Retaining Wall	SHALLOW MARSH MEADOW OR FEN
Seawall	SWAMP
Wind Fence	TIDAL FLAT
Chain link fence	
Sand Fence	
Beach Profiles	



Concrete Pad  
Gangway  
Access Pier  
Floating Docks  
Boat Ramp  
Pier

MG1

Wet-Dry Line

COUNTY ROAD

PINE BANK ROAD

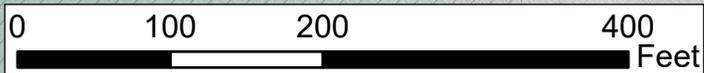
RIVER WAY

**Map 1**  
**Existing Conditions**  
Megansett Beach  
Town of Falmouth  
North Falmouth, MA



Buzzards Bay

- Legend**
- |                         |                                     |
|-------------------------|-------------------------------------|
| Access Path             | Access Stairs                       |
| Handicap Parking        | Buildings                           |
| Shower                  | Structure (Jetty, Groin, Revetment) |
| Trash can               | Handicapp Access Mats               |
| Portable Restroom       | Parking                             |
| Equipment Storage       | Access Ramp                         |
| End of Beach Marker     | Coastal Vegetated Dune              |
| Lifeguard Stand         | Priority/Est. Habitat               |
| Parking Attendant Booth | BARRIER BEACH                       |
| Swim Area Buoy          | COASTAL BEACH                       |
| Roads                   | ROCKY INTERTIDAL SHORE              |
| Rail Fence              | SALT MARSH                          |
| Retaining Wall          | SHALLOW MARSH MEADOW OR FEN         |
| Seawall                 | SWAMP                               |
| Wind Fence              | TIDAL FLAT                          |
| Chain link fence        |                                     |
| Sand Fence              |                                     |
| Beach Profiles          |                                     |



**Map 2**  
**Existing Conditions**  
Old Silver Beach - Reserved  
Town of Falmouth  
Falmouth, MA



Buzzards Bay

Herring River

Overflow Parking

QUAKER ROAD

JAE ROAD

**Legend**

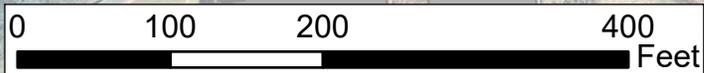
Access Path	Access Stairs
Handicap Parking	Buildings
Shower	Structure (Jetty, Groin, Revetment)
Trash can	Handicapp Access Mats
Portable Restroom	Parking
Equipment Storage	Access Ramp
End of Beach Marker	Coastal Vegetated Dune
Lifeguard Stand	Priority/Est. Habitat
Parking Attendant Booth	BARRIER BEACH
Swim Area Buoy	COASTAL BEACH
Roads	ROCKY INTERTIDAL SHORE
Rail Fence	SALT MARSH
Retaining Wall	SHALLOW MARSH MEADOW OR FEN
Seawall	SWAMP
Wind Fence	TIDAL FLAT
Chain link fence	
Sand Fence	
Beach Profiles	

Concrete Path

Wet Dry Line

OS3

OS4



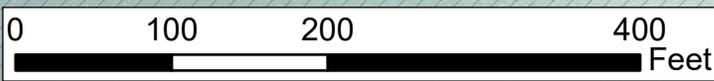
**Map 3**  
**Existing Conditions**  
 Old Silver Beach - Public  
 Town of Falmouth  
 Falmouth, MA



Buzzards Bay

**Legend**

Access Path	Access Stairs
Handicap Parking	Buildings
Shower	Structure (Jetty, Groin, Revetment)
Trash can	Handicapp Access Mats
Portable Restroom	Parking
Equipment Storage	Access Ramp
End of Beach Marker	Coastal Vegetated Dune
Lifeguard Stand	Priority/Est. Habitat
Parking Attendant Booth	BARRIER BEACH
Swim Area Buoy	COASTAL BEACH
Roads	ROCKY INTERTIDAL SHORE
Rail Fence	SALT MARSH
Retaining Wall	SHALLOW MARSH MEADOW OR FEN
Seawall	SWAMP
Wind Fence	TIDAL FLAT
Chain link fence	
Sand Fence	
Beach Profiles	



**Map 4**  
**Existing Conditions**  
Chapoquoit Beach  
Town of Falmouth  
West Falmouth, MA



Buzzards Bay

Little Sippewissett Marsh

SACONESSET ROAD

Wet-Dry Line

WN3

WN2

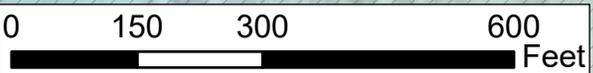
WN1

WOOD NECK ROAD

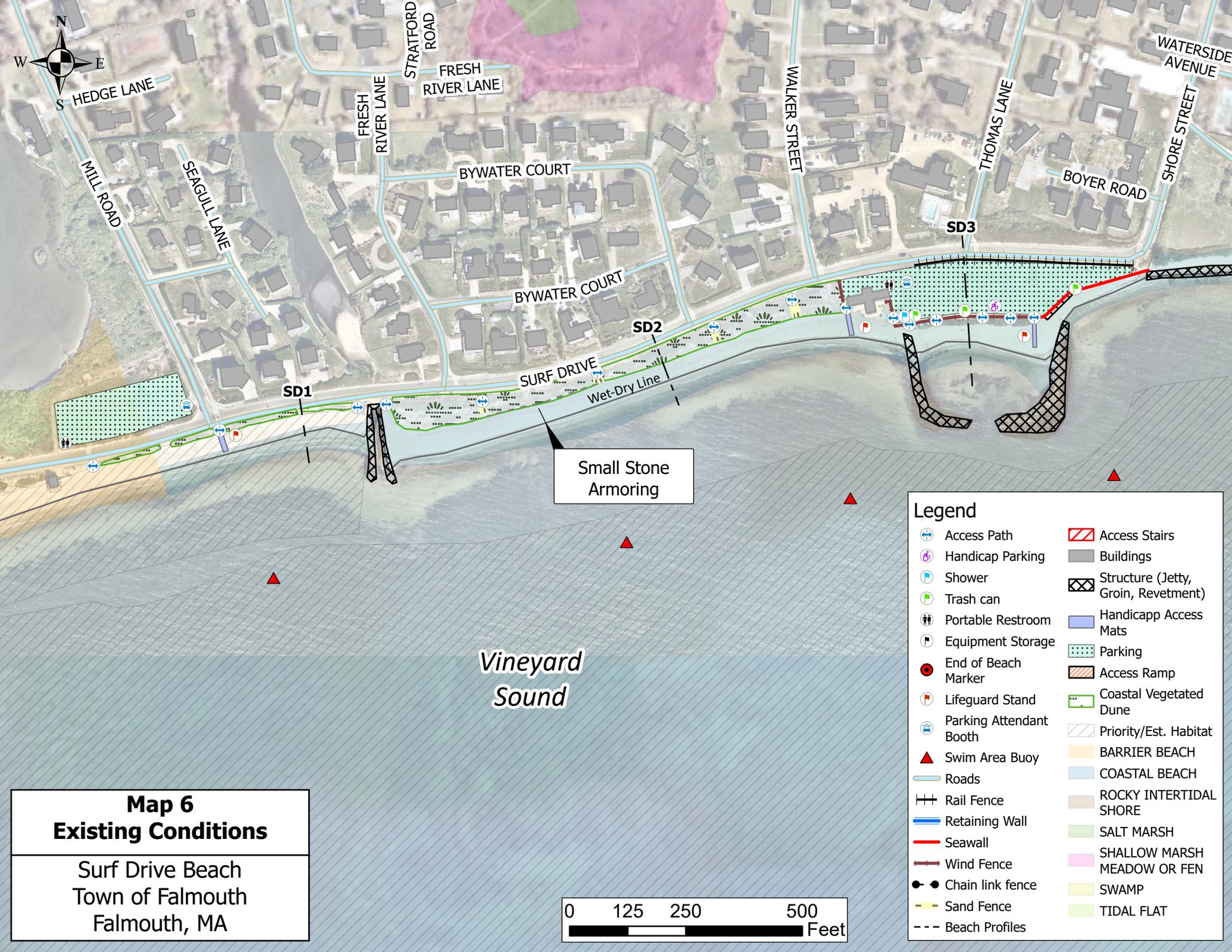
MAKER LANE

BECCLES ROAD

- Legend**
- |                         |                                     |
|-------------------------|-------------------------------------|
| Access Path             | Access Stairs                       |
| Handicap Parking        | Buildings                           |
| Shower                  | Structure (Jetty, Groin, Revetment) |
| Trash can               | Handicapp Access Mats               |
| Portable Restroom       | Parking                             |
| Equipment Storage       | Access Ramp                         |
| End of Beach Marker     | Coastal Vegetated Dune              |
| Lifeguard Stand         | Priority/Est. Habitat               |
| Parking Attendant Booth | BARRIER BEACH                       |
| Swim Area Buoy          | COASTAL BEACH                       |
| Roads                   | ROCKY INTERTIDAL SHORE              |
| Rail Fence              | SALT MARSH                          |
| Retaining Wall          | SHALLOW MARSH MEADOW OR FEN         |
| Seawall                 | SWAMP                               |
| Wind Fence              | TIDAL FLAT                          |
| Chain link fence        |                                     |
| Sand Fence              |                                     |
| Beach Profiles          |                                     |



**Map 5**  
**Existing Conditions**  
Wood Neck Beach  
Town of Falmouth  
Falmouth, MA



Small Stone Armoring

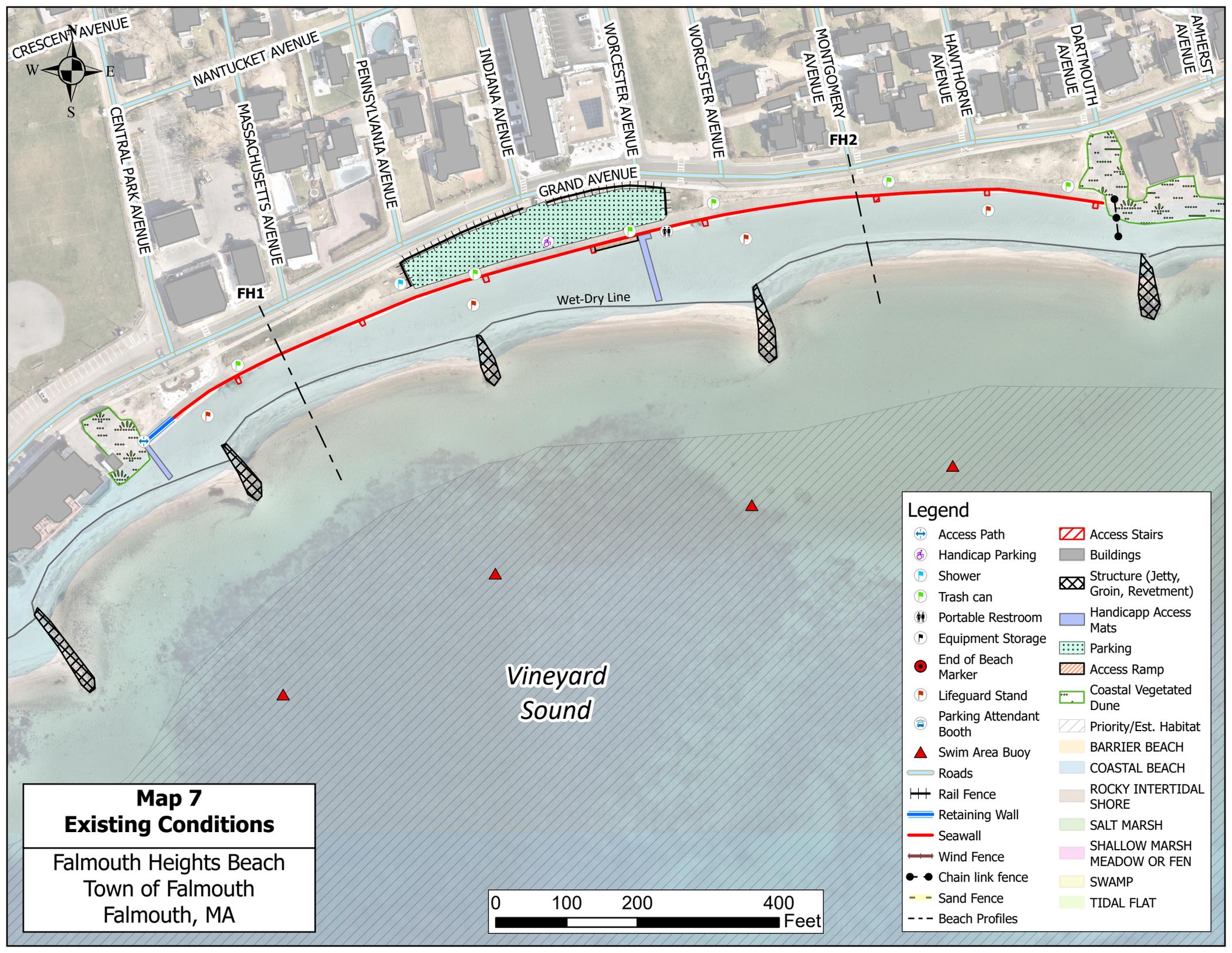
Vineyard Sound

**Map 6**  
**Existing Conditions**  
 Surf Drive Beach  
 Town of Falmouth  
 Falmouth, MA



**Legend**

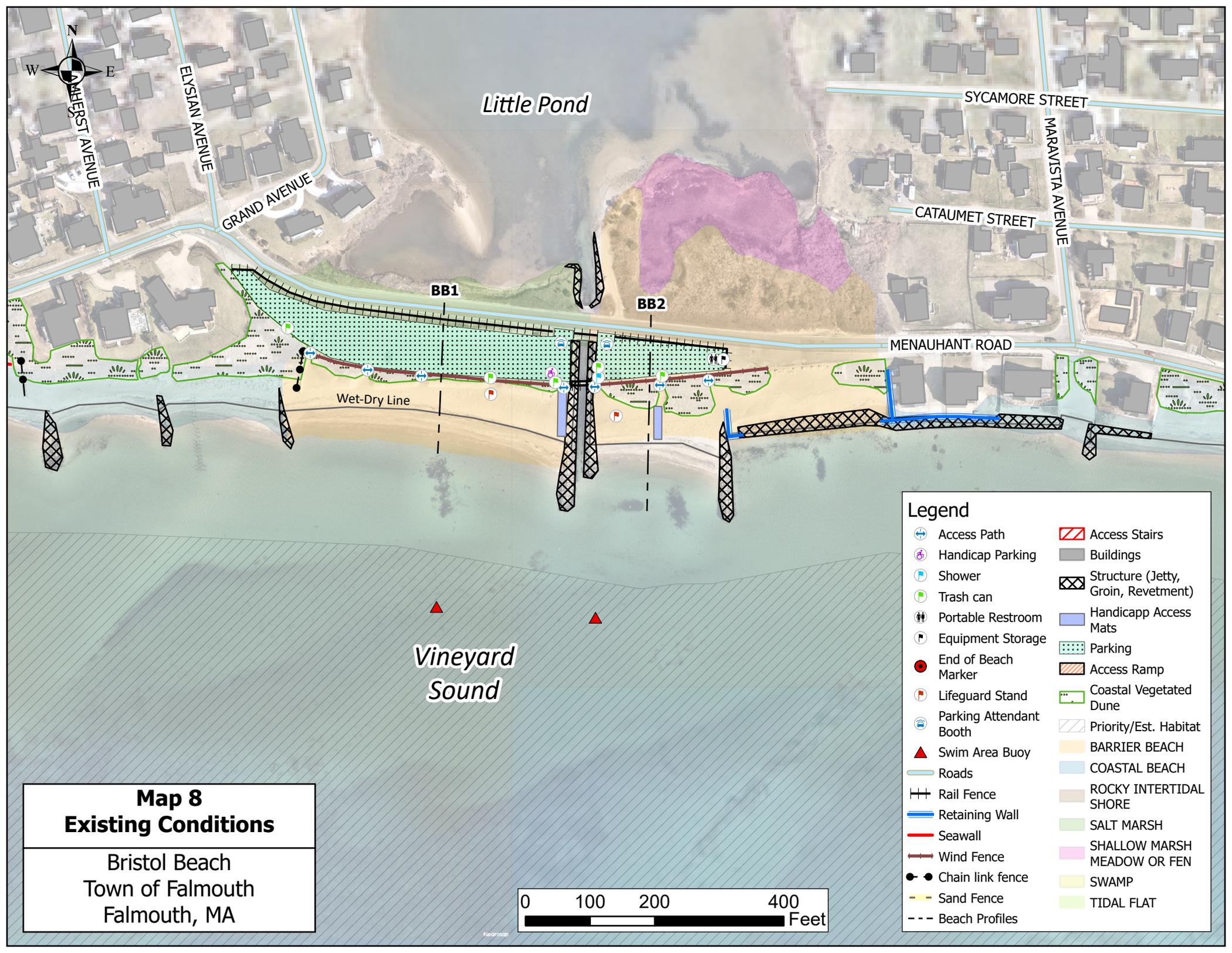
Access Path	Access Stairs
Handicap Parking	Buildings
Shower	Structure (Jetty, Groin, Revetment)
Trash can	Handicapp Access Mats
Portable Restroom	Parking
Equipment Storage	Access Ramp
End of Beach Marker	Coastal Vegetated Dune
Lifeguard Stand	Priority/Est. Habitat
Parking Attendant Booth	BARRIER BEACH
Swim Area Buoy	COASTAL BEACH
Roads	ROCKY INTERTIDAL SHORE
Rail Fence	SALT MARSH
Retaining Wall	SHALLOW MARSH MEADOW OR FEN
Seawall	SWAMP
Wind Fence	TIDAL FLAT
Chain link fence	Beach Profiles
Sand Fence	



**Map 7**  
**Existing Conditions**  
 Falmouth Heights Beach  
 Town of Falmouth  
 Falmouth, MA



- Legend**
- Access Path
  - Handicap Parking
  - Shower
  - Trash can
  - Portable Restroom
  - Equipment Storage
  - End of Beach Marker
  - Lifeguard Stand
  - Parking Attendant Booth
  - Swim Area Buoy
  - Roads
  - Rail Fence
  - Retaining Wall
  - Seawall
  - Wind Fence
  - Chain link fence
  - Sand Fence
  - Beach Profiles
  - Access Stairs
  - Buildings
  - Structure (Jetty, Groin, Revetment)
  - Handicapp Access Mats
  - Parking
  - Access Ramp
  - Coastal Vegetated Dune
  - Priority/Est. Habitat
  - BARRIER BEACH
  - COASTAL BEACH
  - ROCKY INTERTIDAL SHORE
  - SALT MARSH
  - SHALLOW MARSH MEADOW OR FEN
  - SWAMP
  - TIDAL FLAT



Little Pond

SYCAMORE STREET

ELYSIAN AVENUE

MARAVISTA AVENUE

GRAND AVENUE

CATAUMET STREET

BB1

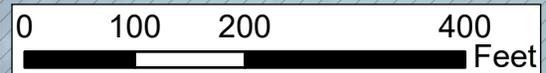
BB2

MENAUHANT ROAD

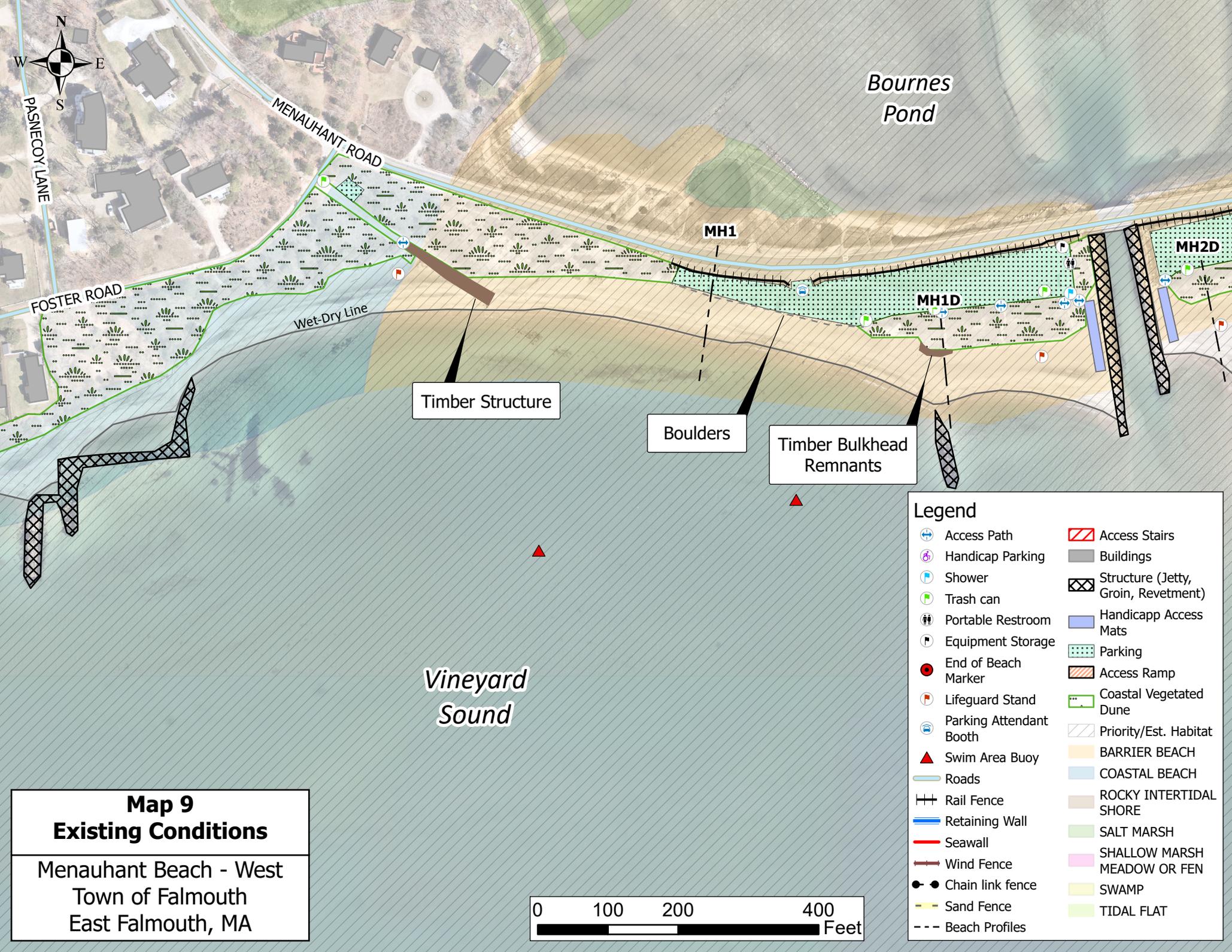
Wet-Dry Line

Vineyard Sound

**Map 8**  
**Existing Conditions**  
 Bristol Beach  
 Town of Falmouth  
 Falmouth, MA



Legend			
	Access Path		Access Stairs
	Handicap Parking		Buildings
	Shower		Structure (Jetty, Groin, Revetment)
	Trash can		Handicapp Access Mats
	Portable Restroom		Parking
	Equipment Storage		Access Ramp
	End of Beach Marker		Coastal Vegetated Dune
	Lifeguard Stand		Priority/Est. Habitat
	Parking Attendant Booth		BARRIER BEACH
	Swim Area Buoy		COASTAL BEACH
	Roads		ROCKY INTERTIDAL SHORE
	Rail Fence		SALT MARSH
	Retaining Wall		SHALLOW MARSH MEADOW OR FEN
	Seawall		SWAMP
	Wind Fence		TIDAL FLAT
	Chain link fence		Beach Profiles
	Sand Fence		



Timber Structure

Boulders

Timber Bulkhead Remnants

Wet-Dry Line

Bournes Pond

Vineyard Sound

MH1

MH1D

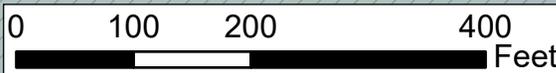
MH2D

PASINECOY LANE

MENAUHANT ROAD

FOSTER ROAD

**Map 9**  
**Existing Conditions**  
 Menauhant Beach - West  
 Town of Falmouth  
 East Falmouth, MA



Legend			
	Access Path		Access Stairs
	Handicap Parking		Buildings
	Shower		Structure (Jetty, Groin, Revetment)
	Trash can		Handicapp Access Mats
	Portable Restroom		Parking
	Equipment Storage		Access Ramp
	End of Beach Marker		Coastal Vegetated Dune
	Lifeguard Stand		Priority/Est. Habitat
	Parking Attendant Booth		BARRIER BEACH
	Swim Area Buoy		COASTAL BEACH
	Roads		ROCKY INTERTIDAL SHORE
	Rail Fence		SALT MARSH
	Retaining Wall		SHALLOW MARSH MEADOW OR FEN
	Seawall		SWAMP
	Wind Fence		TIDAL FLAT
	Chain link fence		Beach Profiles
	Sand Fence		



Bournes Pond

CUMMINGS STREET

ATLANTIC AVENUE

JEWELERS AVENUE

CENTRAL AVENUE

MENAUHANT ROAD

WASHBURN ROAD

MH2

MH2D

MH1D

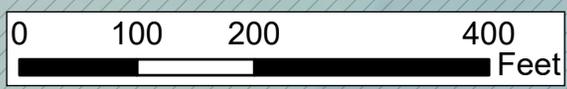
Wet-Dry Line

Timber Bulkhead Remnants

Vineyard Sound

### Map 10 Existing Conditions

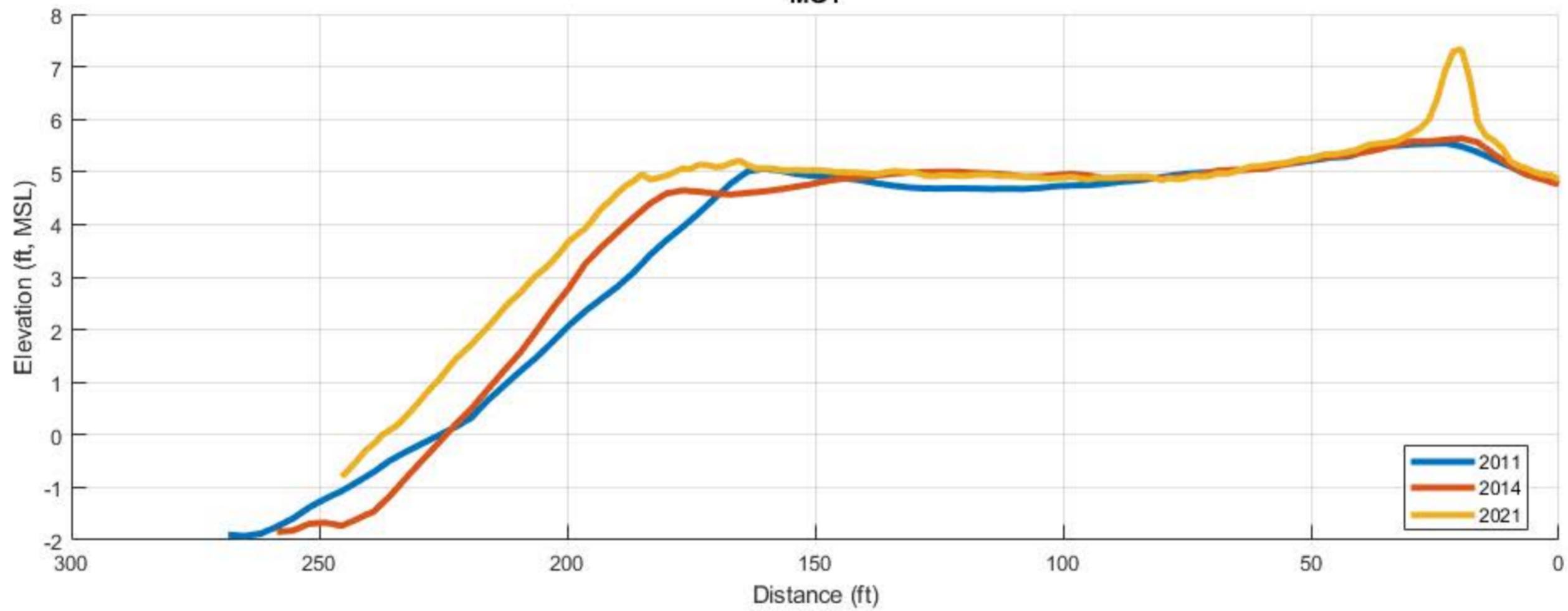
Menauhant Beach - East  
Town of Falmouth  
East Falmouth, MA



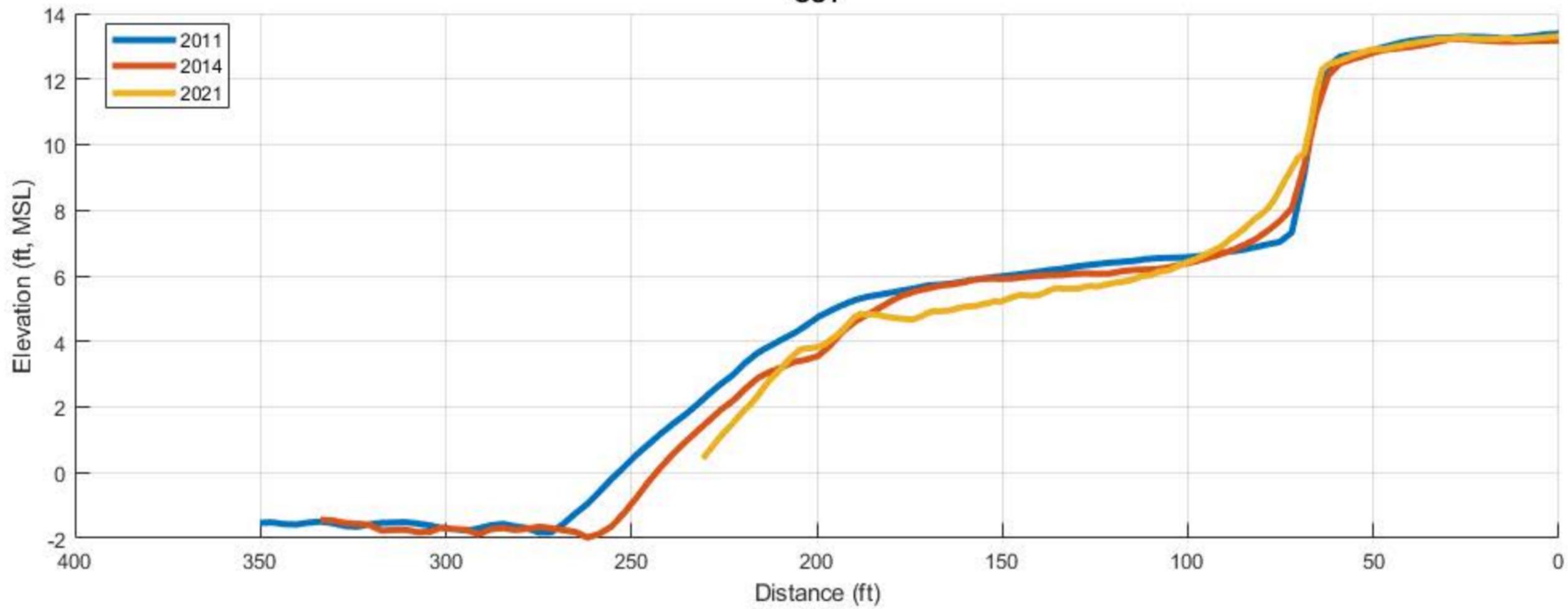
#### Legend

Access Path	Access Stairs
Handicap Parking	Buildings
Shower	Structure (Jetty, Groin, Revetment)
Trash can	Handicapp Access Mats
Portable Restroom	Parking
Equipment Storage	Access Ramp
End of Beach Marker	Coastal Vegetated Dune
Lifeguard Stand	Priority/Est. Habitat
Parking Attendant Booth	BARRIER BEACH
Swim Area Buoy	COASTAL BEACH
Roads	ROCKY INTERTIDAL SHORE
Rail Fence	SALT MARSH
Retaining Wall	SHALLOW MARSH MEADOW OR FEN
Seawall	SWAMP
Wind Fence	TIDAL FLAT
Chain link fence	Beach Profiles
Sand Fence	

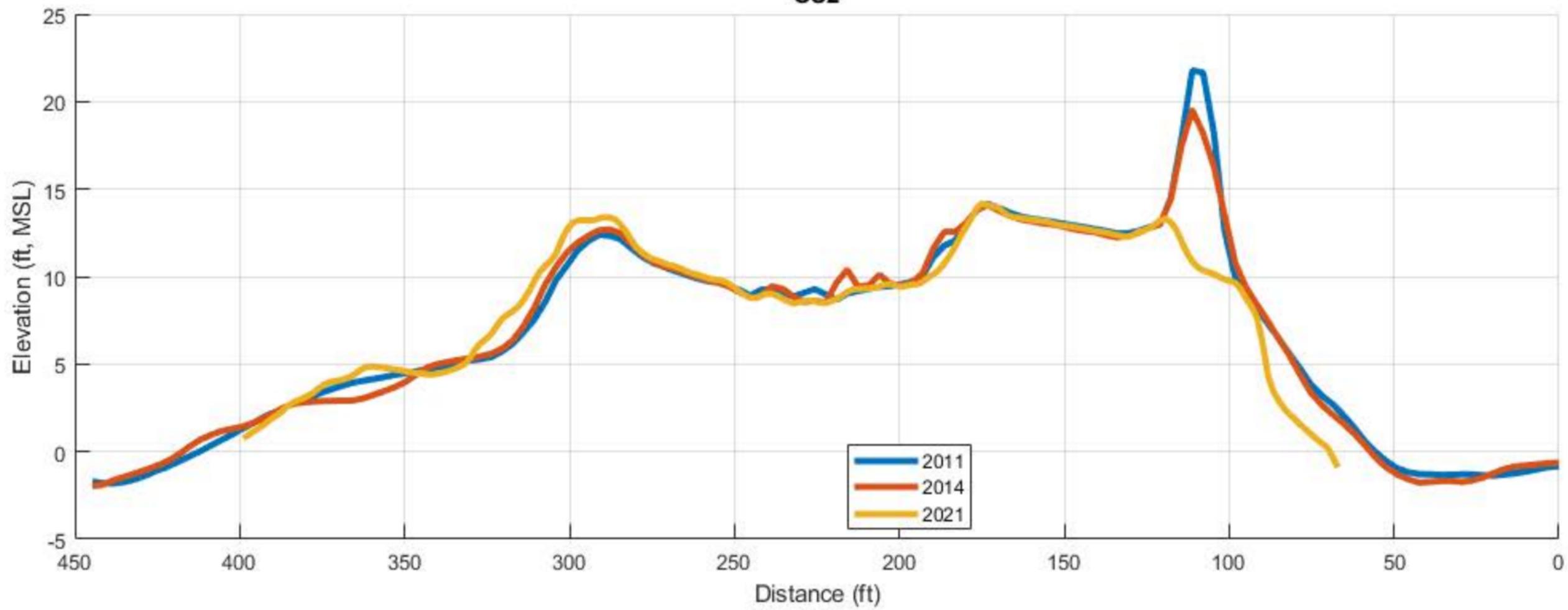
# MG1



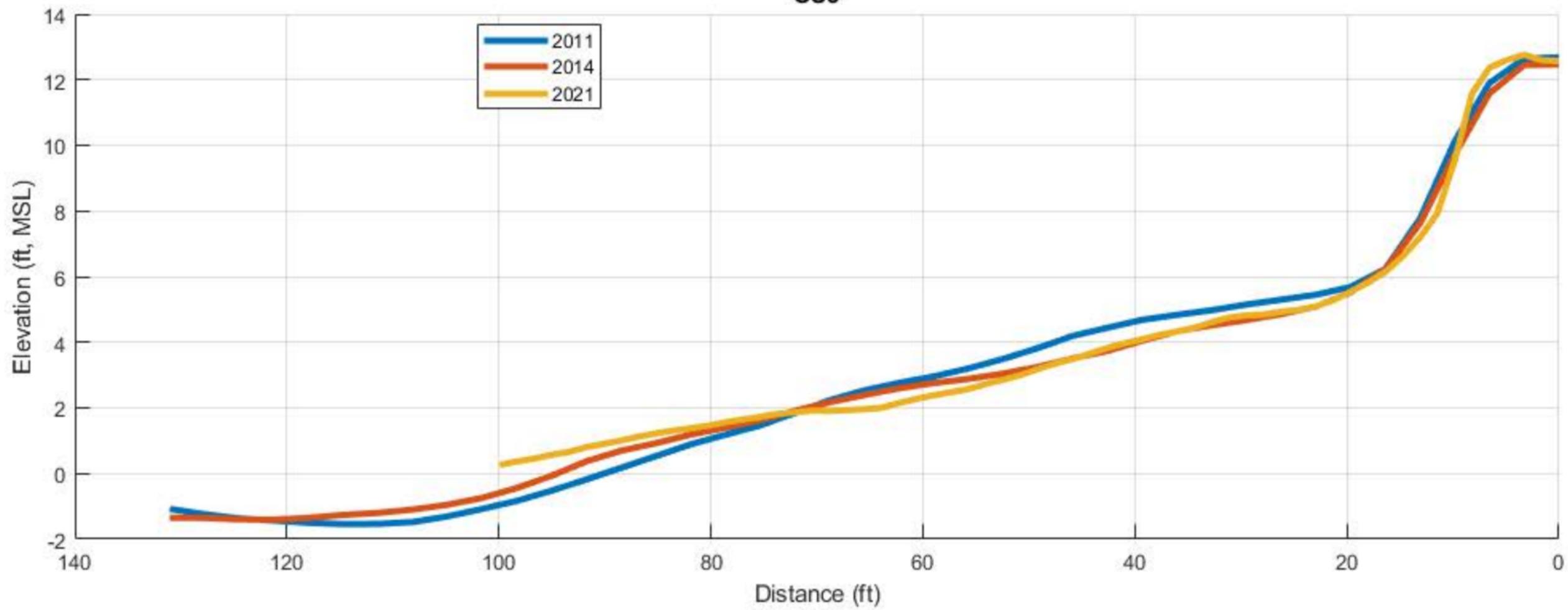
## OS1



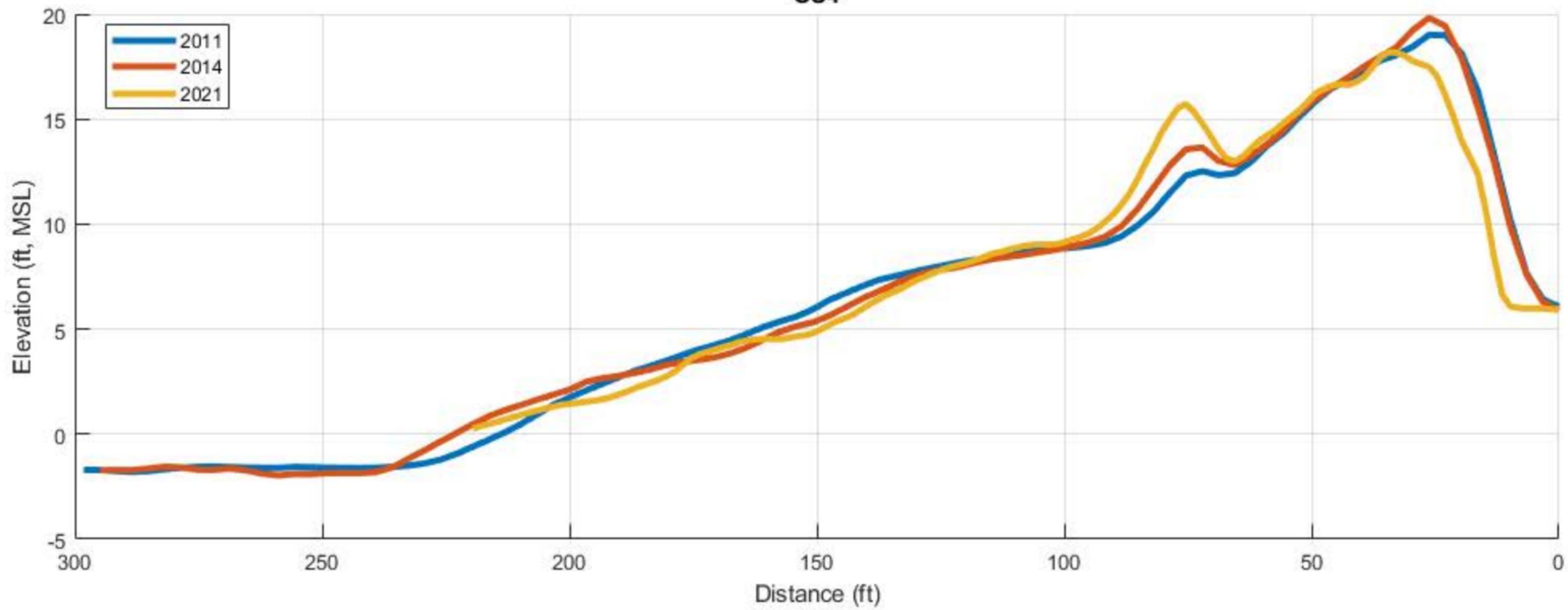
# OS2



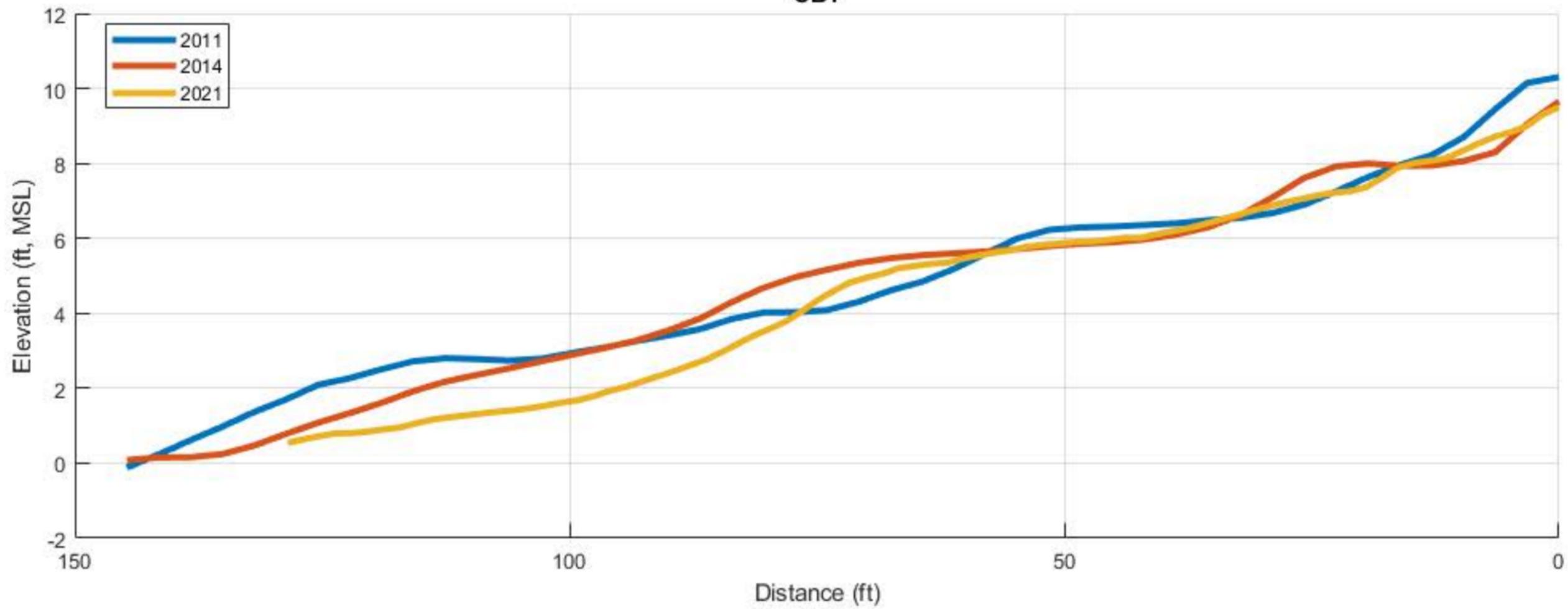
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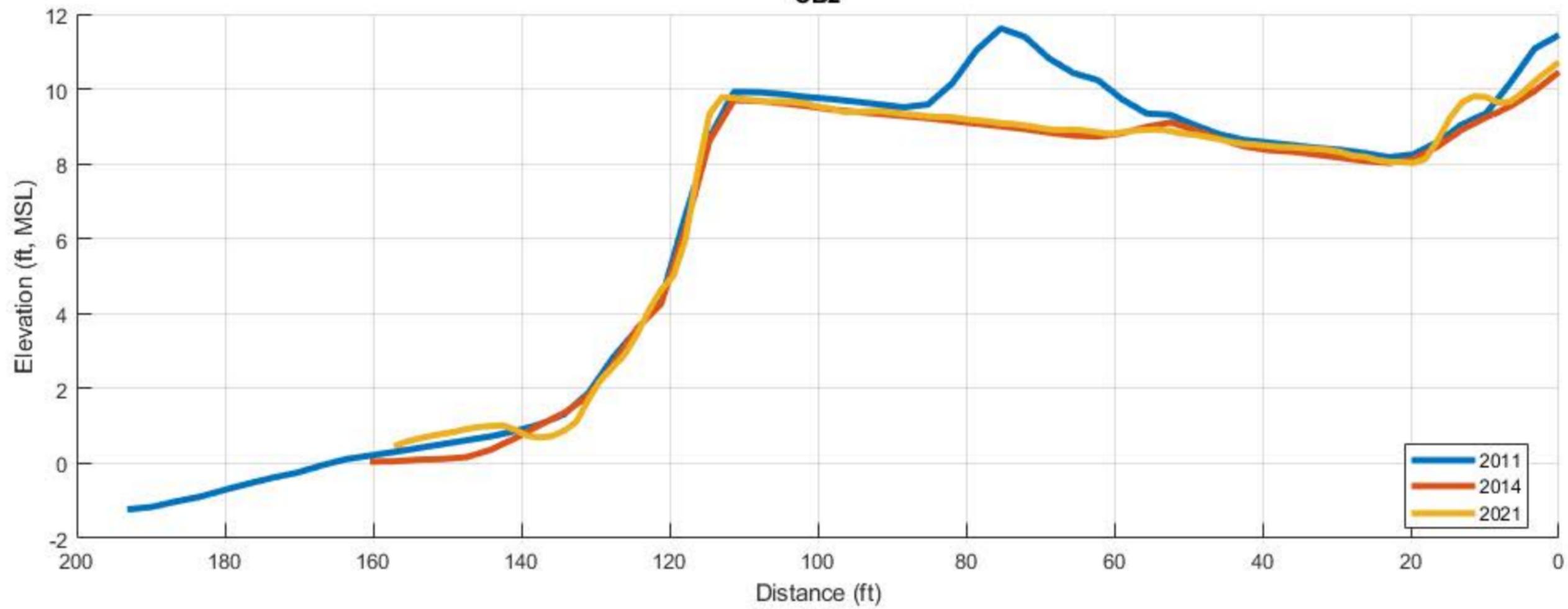
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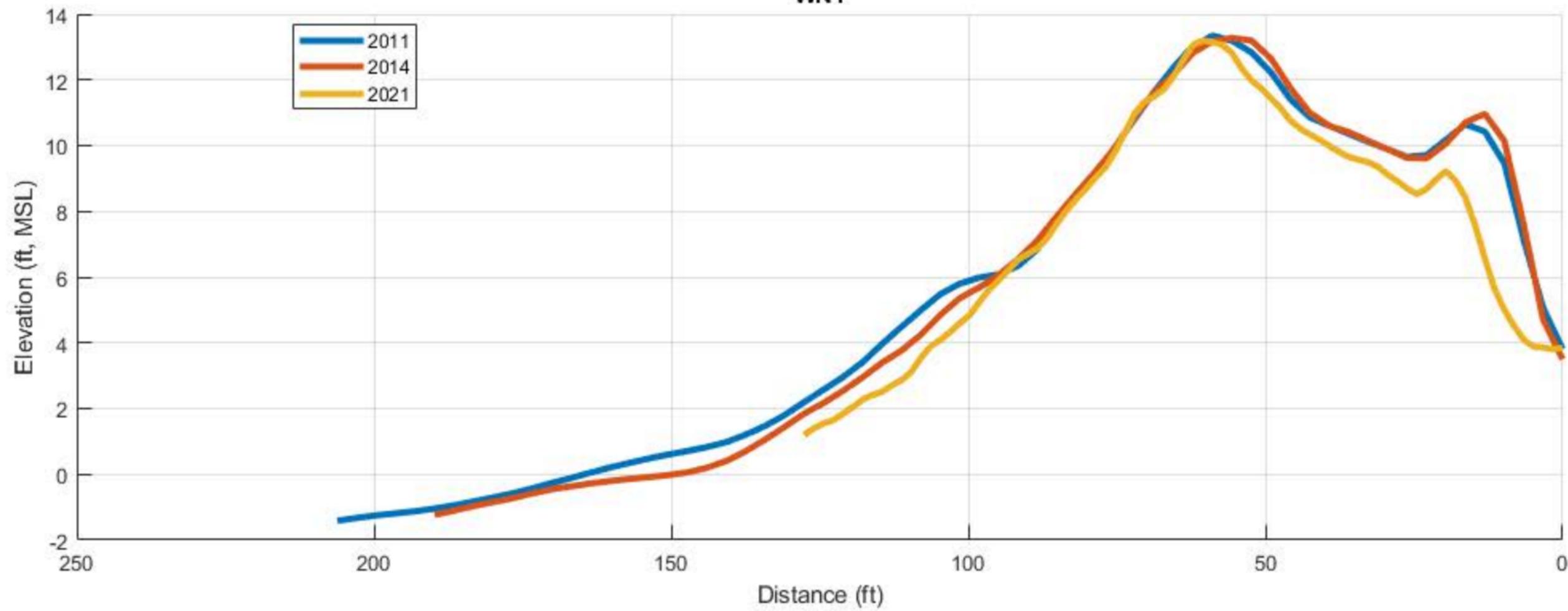
# CB1



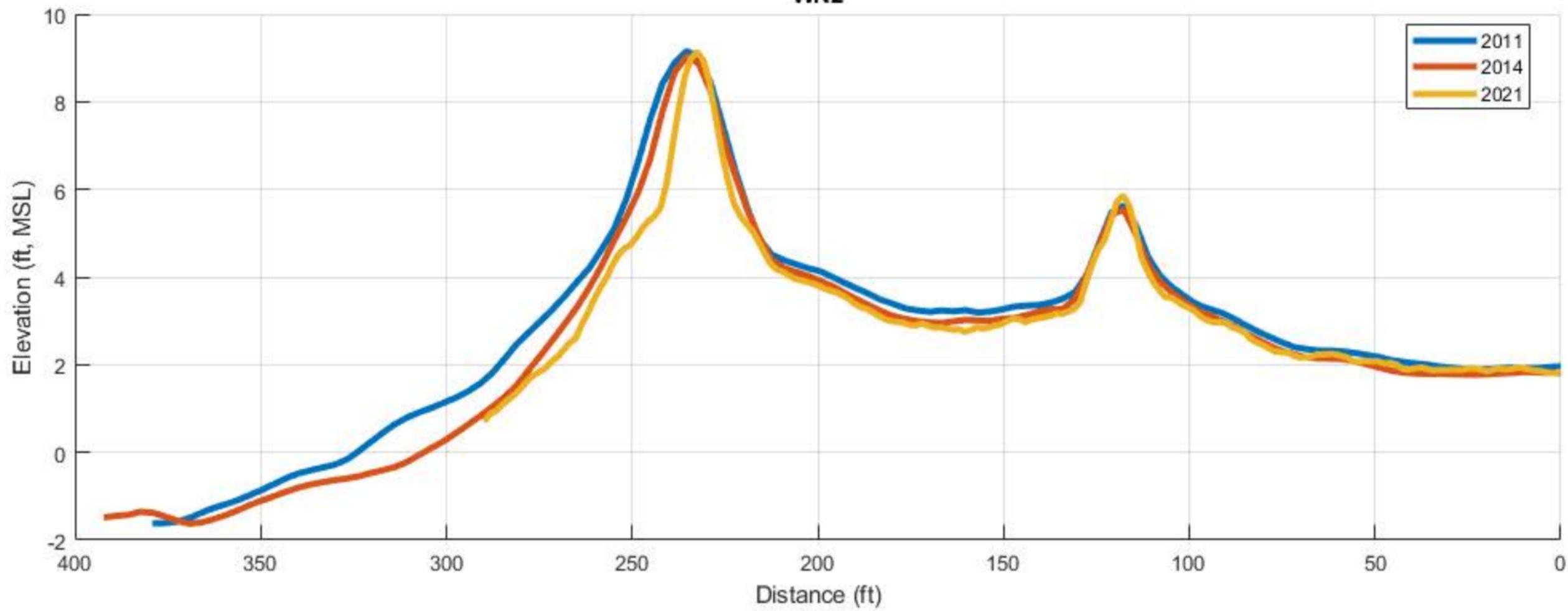
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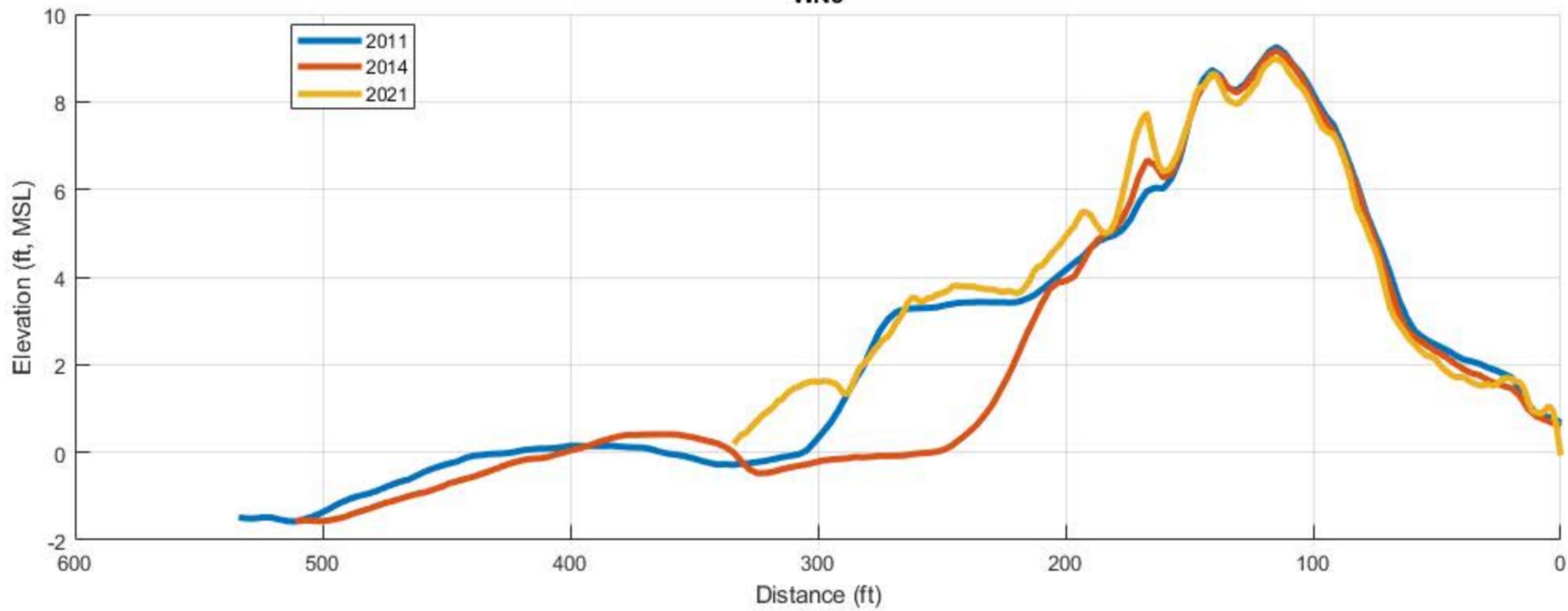
# WN1



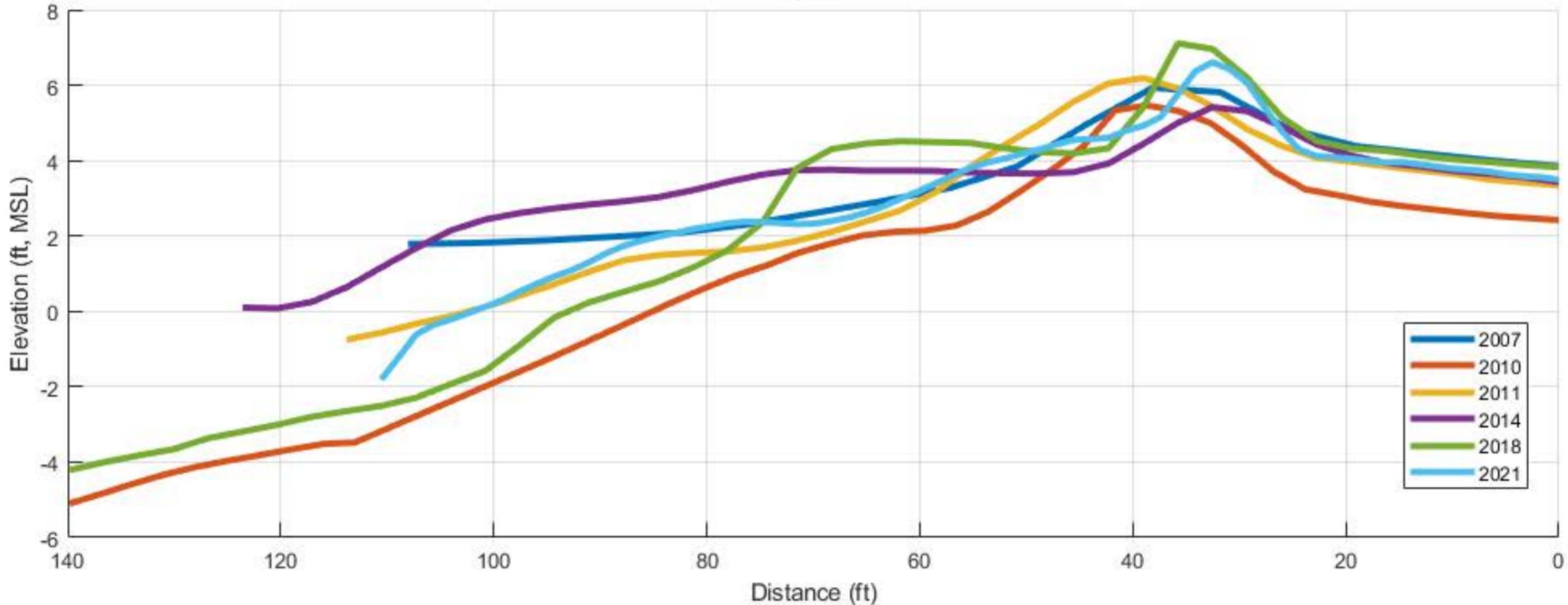
# WN2



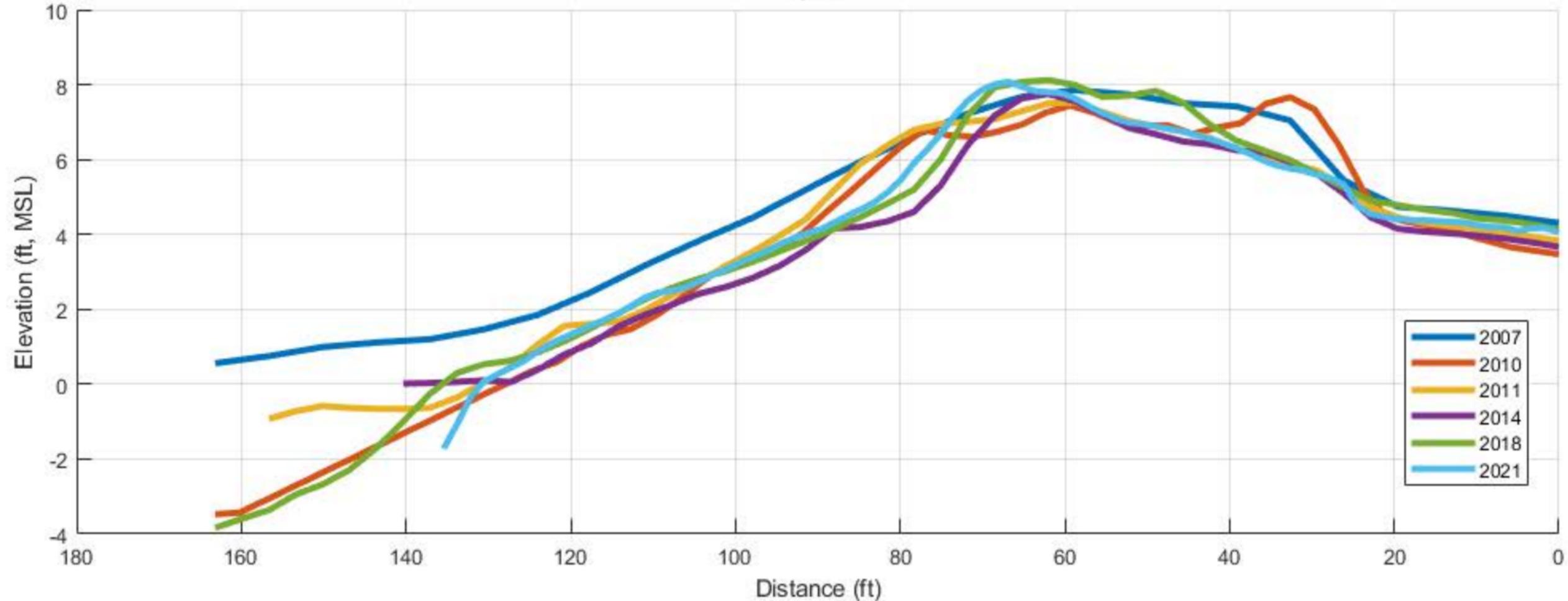
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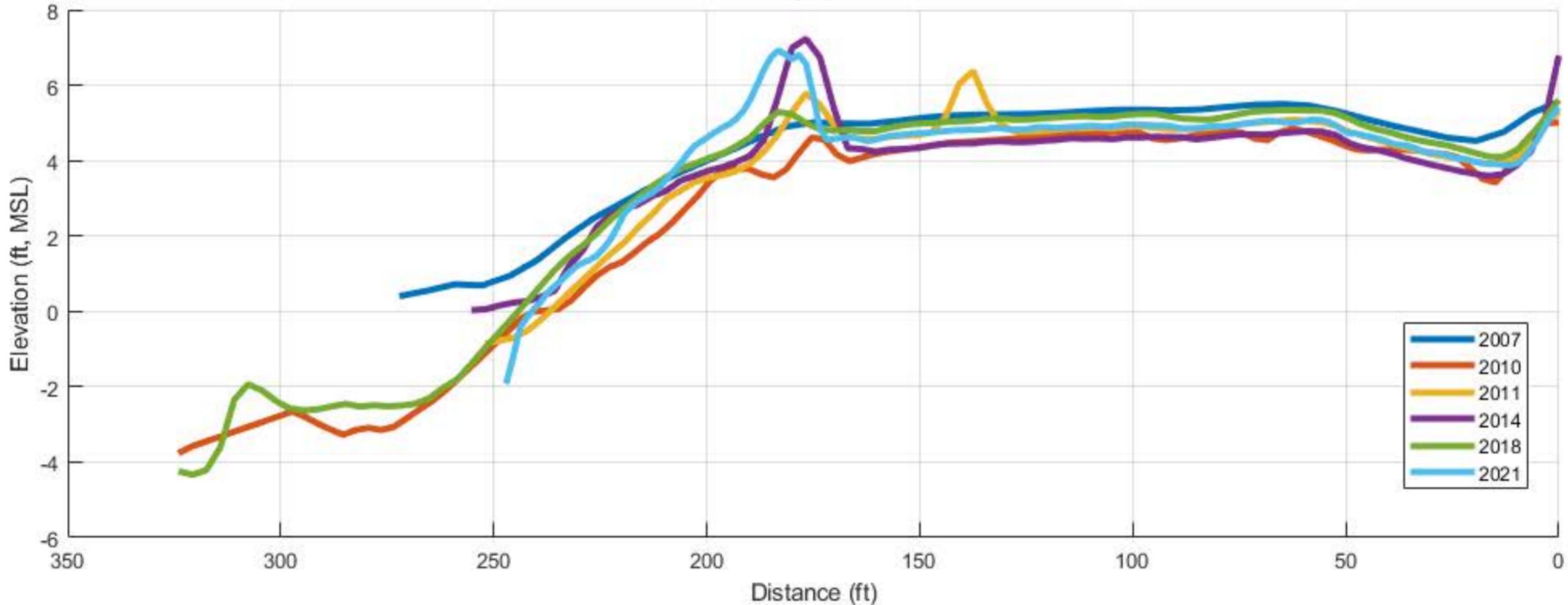
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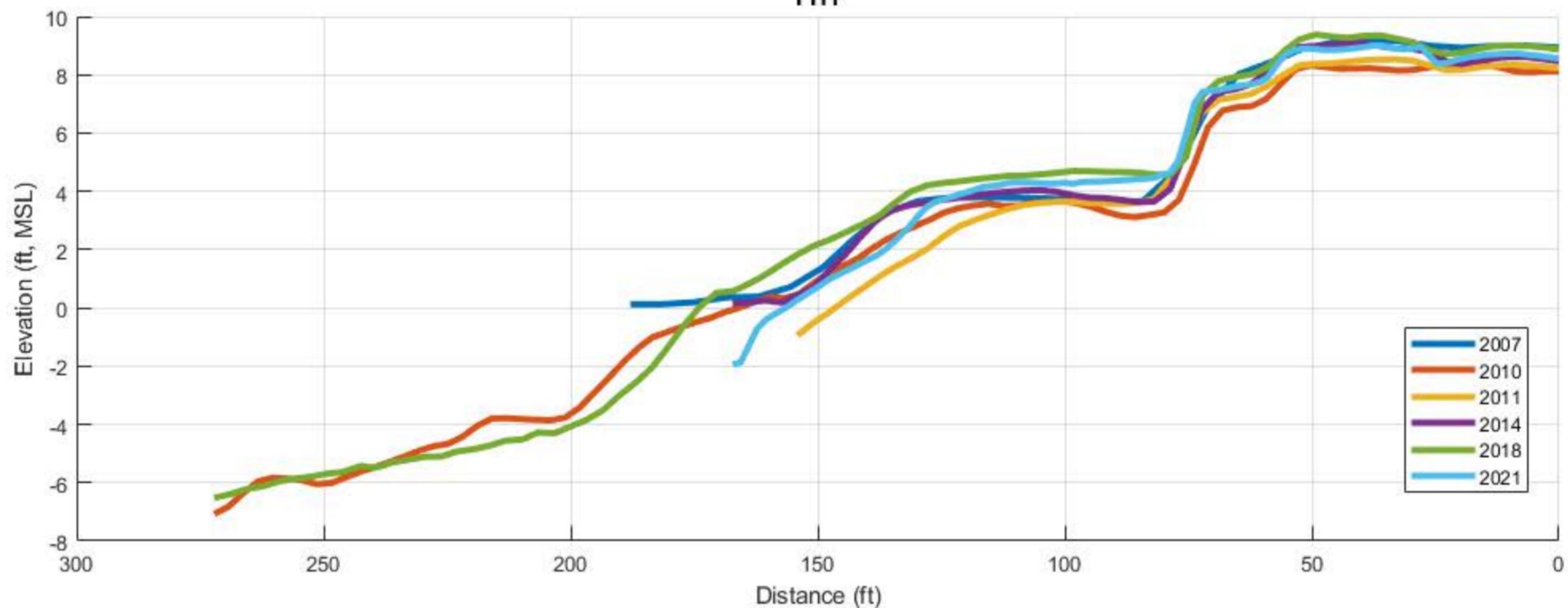
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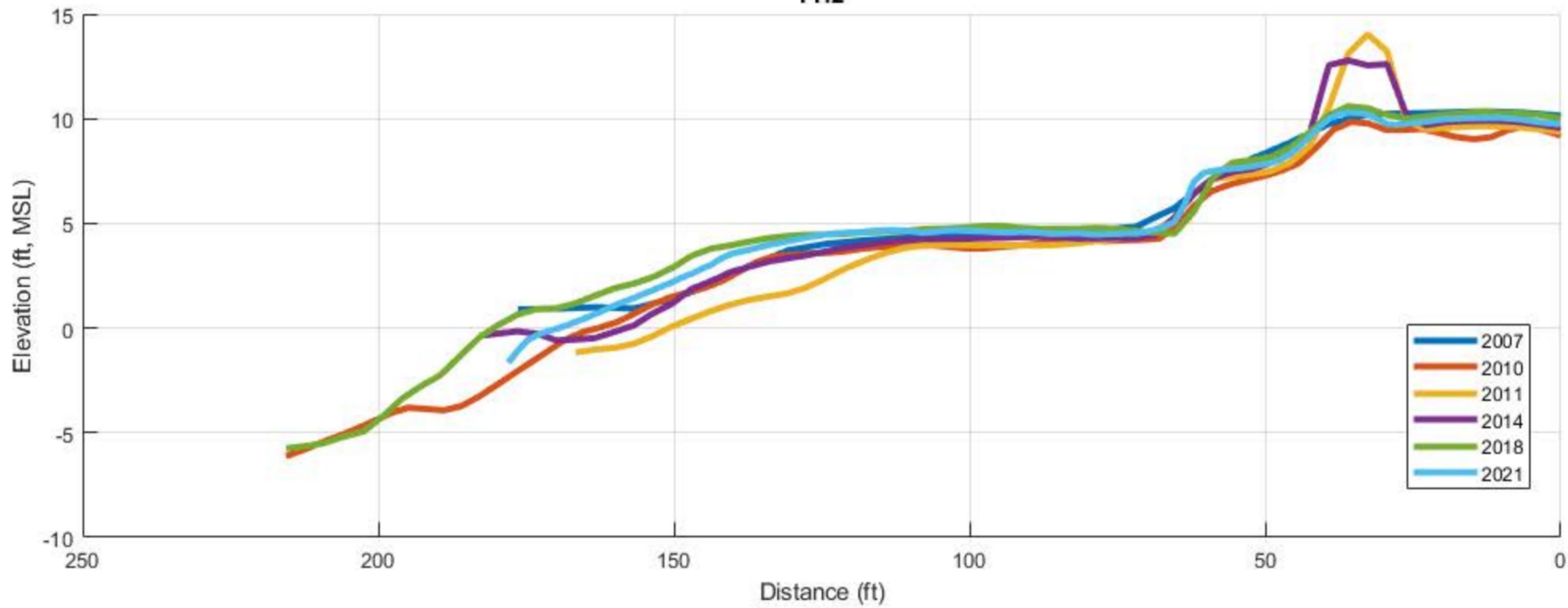
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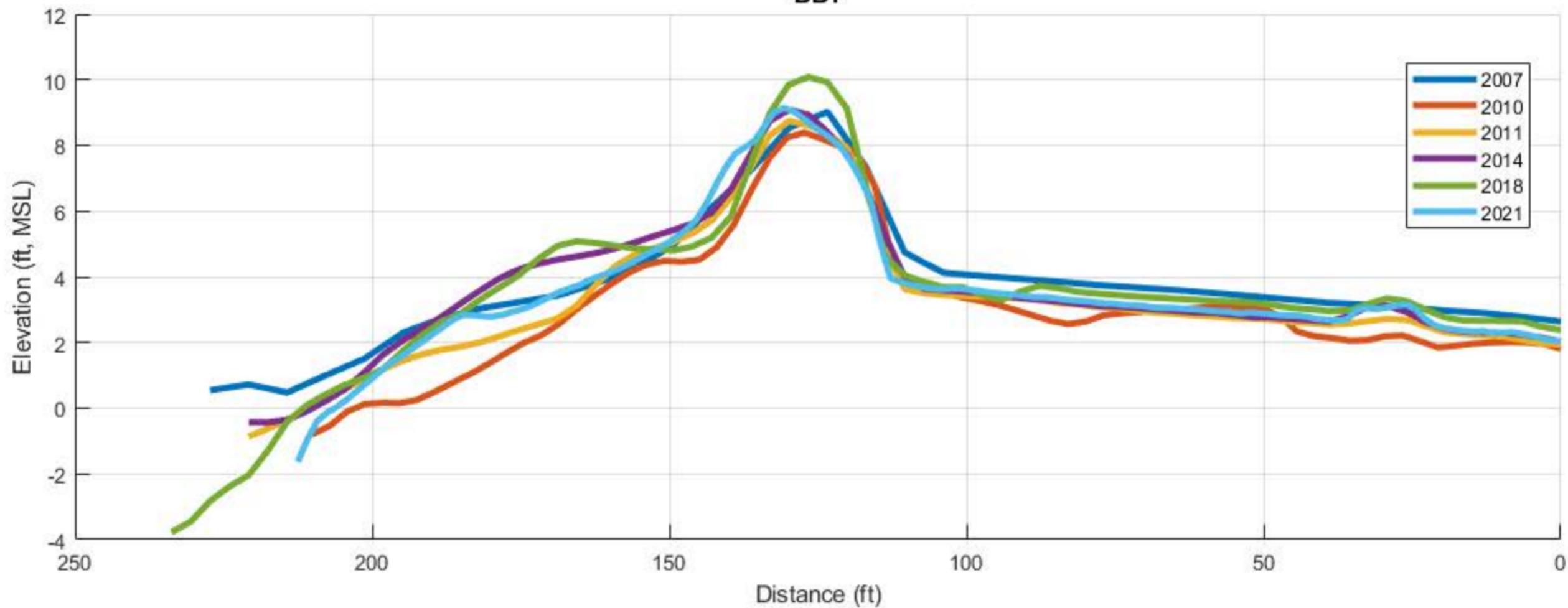
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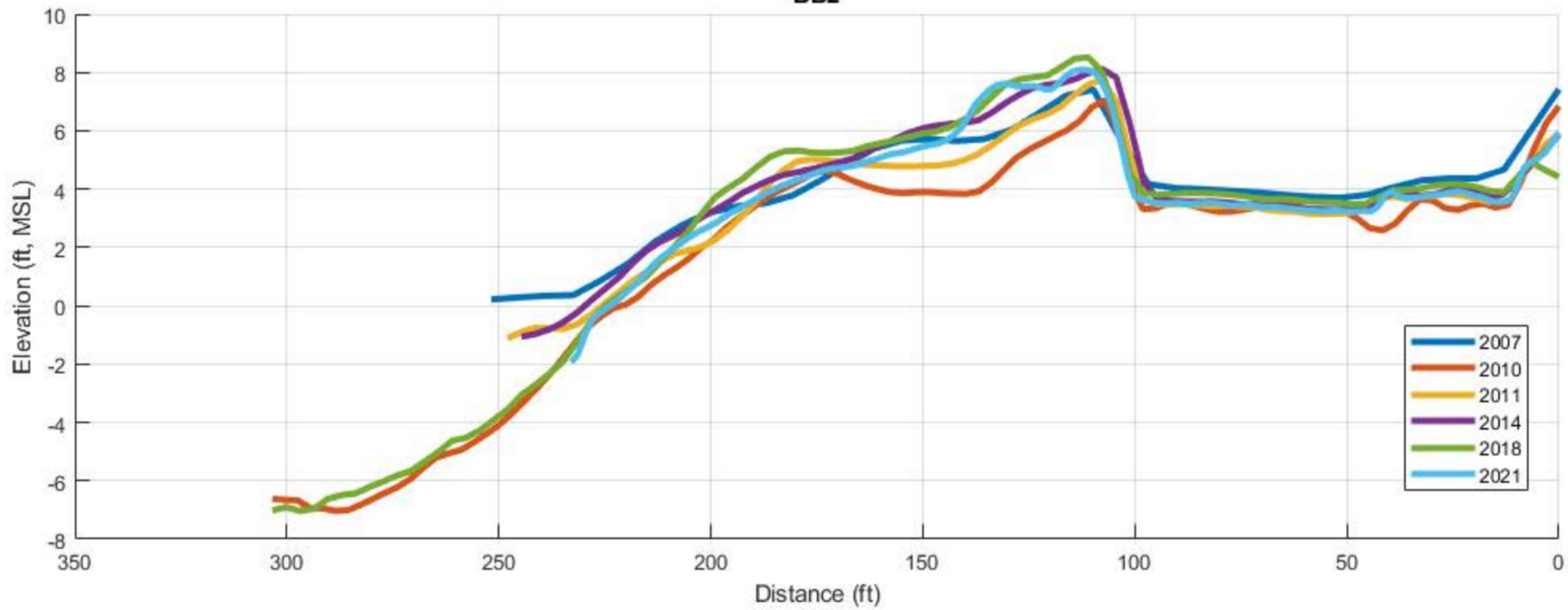


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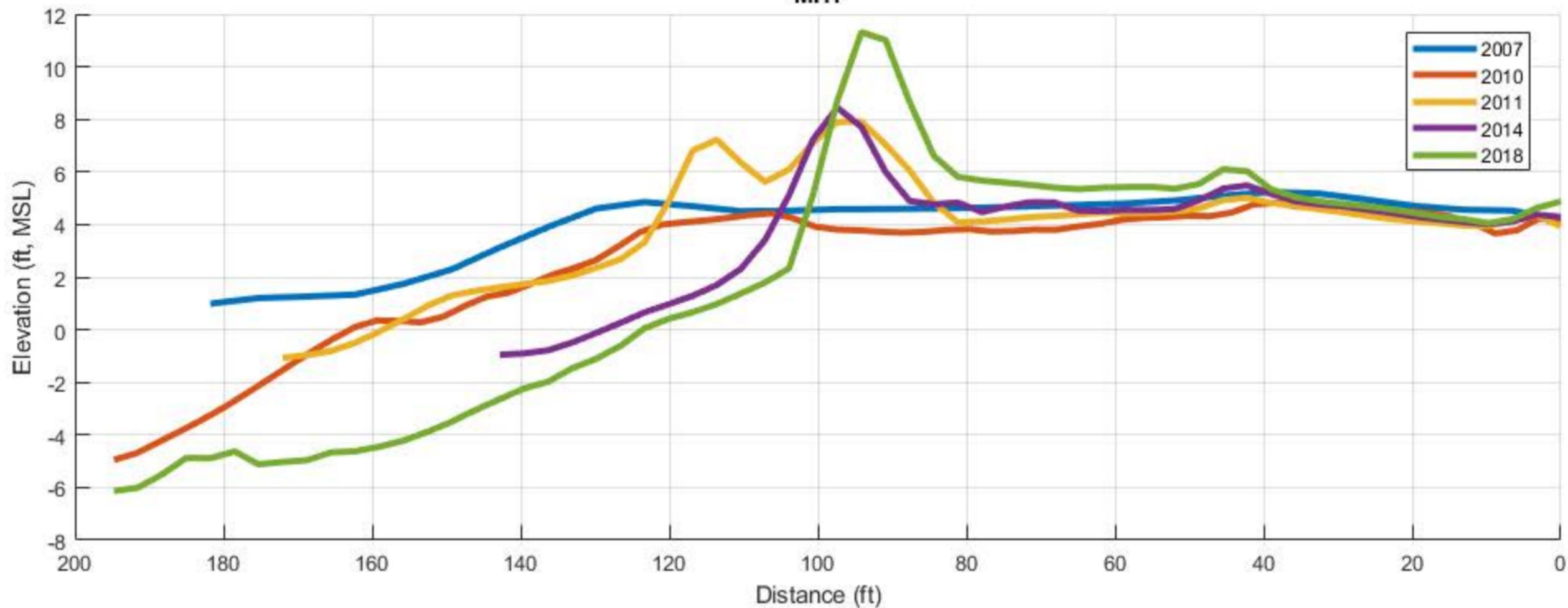


# BB1

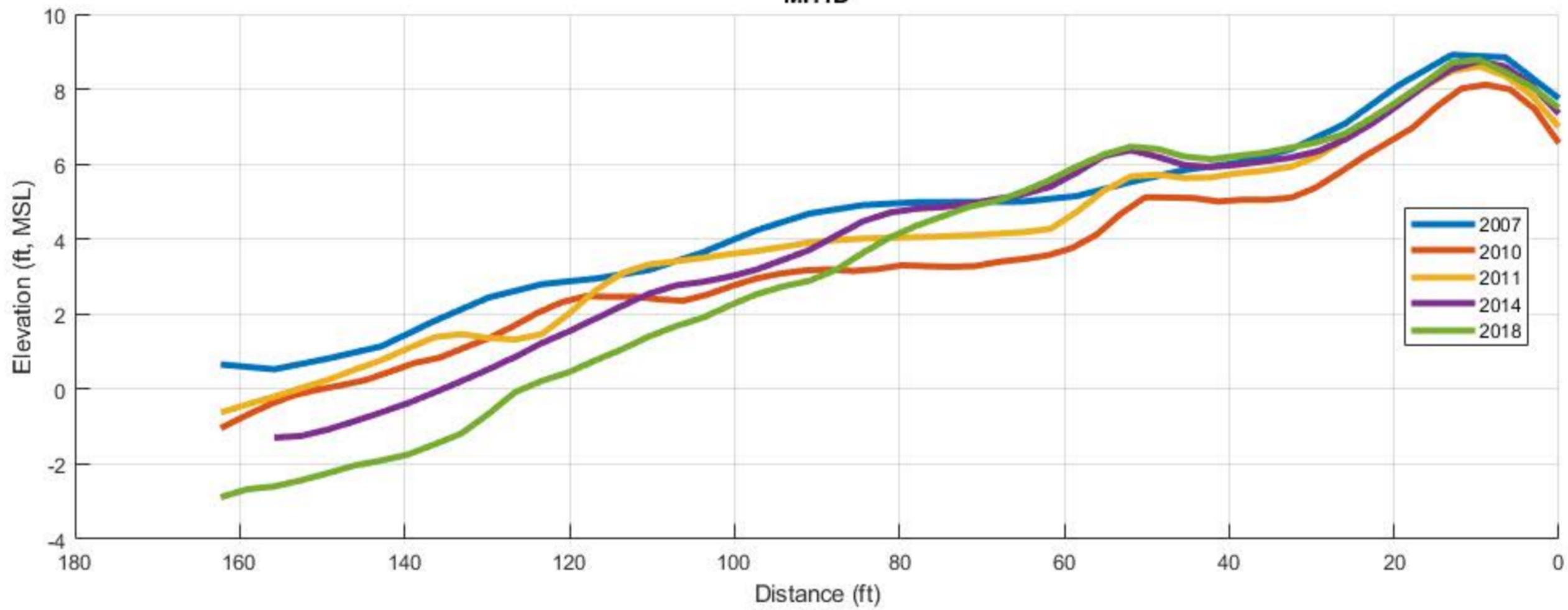


**BB2**

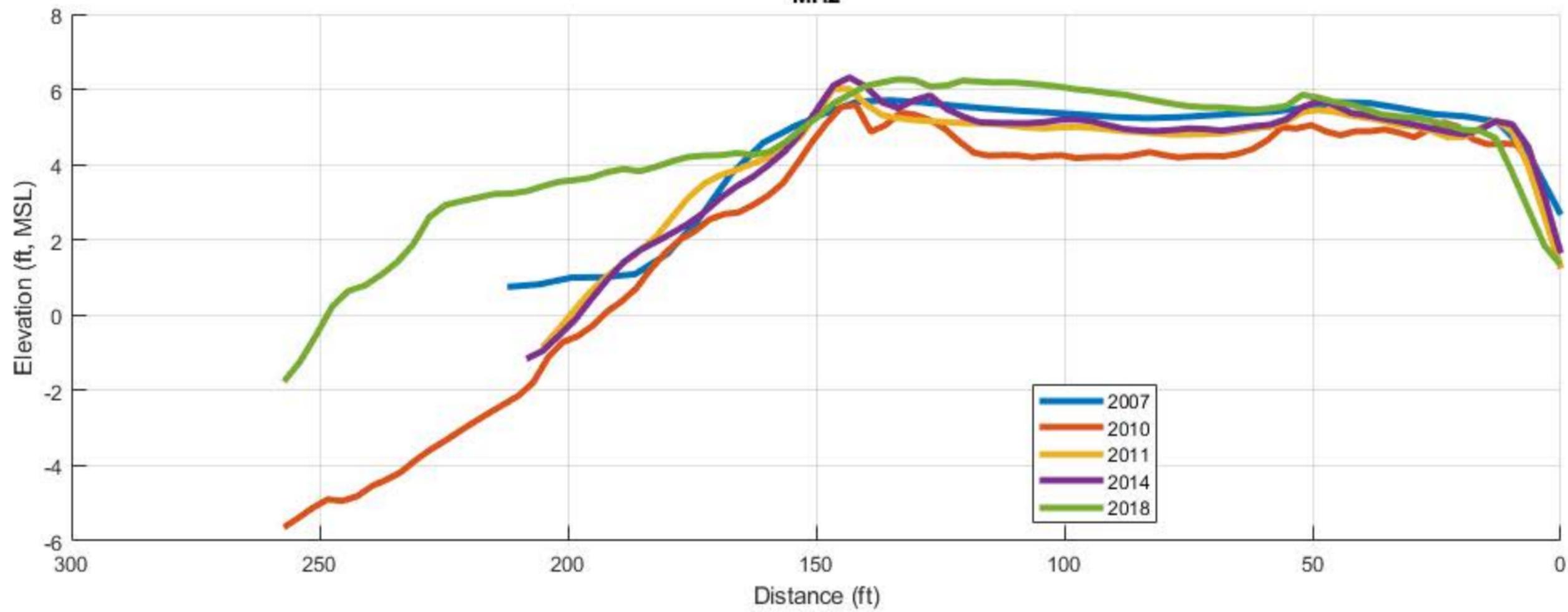
# MH1



# MH1D



# MH2



# MH2D

