

# FLOOD INSURANCE STUDY

## FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 5 OF 5



### MARTIN COUNTY, FLORIDA AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
JUPITER ISLAND, TOWN OF	120162
MARTIN COUNTY, UNINCORPORATED AREAS	120161
OCEAN BREEZE, TOWN OF	120163
SEWALL'S POINT, TOWN OF	120164
STUART, CITY OF	120165



# FEMA

**REVISED:**

**FEBRUARY 19, 2020**

FLOOD INSURANCE STUDY NUMBER  
12085CV005C

Version Number 2.3.3.2

# TABLE OF CONTENTS

## Volume 1

	<u>Page</u>
<b>SECTION 1.0 – INTRODUCTION</b>	<b>1</b>
1.1 The National Flood Insurance Program	1
1.2 Purpose of this Flood Insurance Study Report	2
1.3 Jurisdictions Included in the Flood Insurance Study Project	2
1.4 Considerations for using this Flood Insurance Study Report	4
<b>SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS</b>	<b>15</b>
2.1 Floodplain Boundaries	15
2.2 Floodways	21
2.3 Base Flood Elevations	22
2.4 Non-Encroachment Zones	22
2.5 Coastal Flood Hazard Areas	22
2.5.1 Water Elevations and the Effects of Waves	22
2.5.2 Floodplain Boundaries and BFEs for Coastal Areas	24
2.5.3 Coastal High Hazard Areas	25
2.5.4 Limit of Moderate Wave Action	26
<b>SECTION 3.0 – INSURANCE APPLICATIONS</b>	<b>27</b>
3.1 National Flood Insurance Program Insurance Zones	27
<b>SECTION 4.0 – AREA STUDIED</b>	<b>27</b>
4.1 Basin Description	27
4.2 Principal Flood Problems	28
4.3 Non-Levee Flood Protection Measures	29
4.4 Levees	30
<b>SECTION 5.0 – ENGINEERING METHODS</b>	<b>32</b>
5.1 Hydrologic Analyses	32
5.2 Hydraulic Analyses	39
5.3 Coastal Analyses	44
5.3.1 Total Stillwater Elevations	45
5.3.2 Waves	53
5.3.3 Coastal Erosion	53
5.3.4 Wave Hazard Analyses	53
5.4 Alluvial Fan Analyses	79
	<u>Figures</u>
	<u>Page</u>
Figure 1: FIRM Index	7
Figure 2: FIRM Notes to Users	8
Figure 3: Map Legend for FIRM	11

Figure 4: Floodway Schematic	21
Figure 5: Wave Runup Transect Schematic	24
Figure 6: Coastal Transect Schematic	26
Figure 7: HDD Failure Rate (Events per Year) for Various Lake Okeechobee Lake Levels	35
Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas	46
Figure 9: Transect Location Map	73

## Tables

	<u>Page</u>
Table 1: Listing of NFIP Jurisdictions	2
Table 2: Flooding Sources Included in this FIS Report	17
Table 3: Flood Zone Designations by Community	27
Table 4: Basin Characteristics	27
Table 5: Principal Flood Problems	28
Table 6: Historic Flooding Elevations	29
Table 7: Non-Levee Flood Protection Measures	29
Table 8: Levees	31
Table 9: Summary of Discharges	33
Table 10: Summary of Non-Coastal Stillwater Elevations	38
Table 11: Stream Gage Information used to Determine Discharges	39
Table 12: Summary of Hydrologic and Hydraulic Analyses	40
Table 13: Roughness Coefficients	44
Table 14: Summary of Coastal Analyses	44
Table 15: Tide Gage Analysis Specifics	52
Table 16: Coastal Transect Parameters	55
Table 17: Summary of Alluvial Fan Analyses	79
Table 18: Results of Alluvial Fan Analyses	79

## Volume 2

	<u>Page</u>
<b>SECTION 6.0 – MAPPING METHODS</b>	<b>80</b>
6.1 Vertical and Horizontal Control	80
6.2 Base Map	80
6.3 Floodplain and Floodway Delineation	81
6.4 Coastal Flood Hazard Mapping	91
6.5 FIRM Revisions	97
6.5.1 Letters of Map Amendment	98
6.5.2 Letters of Map Revision Based on Fill	98
6.5.3 Letters of Map Revision	98
6.5.4 Physical Map Revisions	99
6.5.5 Contracted Restudies	99
6.5.6 Community Map History	99

<b>SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION</b>	<b>101</b>
7.1 Contracted Studies	101
7.2 Community Meetings	104
<b>SECTION 8.0 – ADDITIONAL INFORMATION</b>	<b>107</b>
<b>SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES</b>	<b>108</b>

Tables

	<u>Page</u>
Table 19: Countywide Vertical Datum Conversion	80
Table 20: Stream-Based Vertical Datum Conversion	80
Table 21: Base Map Sources	81
Table 22: Summary of Topographic Elevation Data used in Mapping	82
Table 23: Floodway Data	84
Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams	91
Table 25: Summary of Coastal Transect Mapping Considerations	92
Table 26: Incorporated Letters of Map Change	99
Table 27: Community Map History	101
Table 28: Summary of Contracted Studies Included in this FIS Report	101
Table 29: Community Meetings	105
Table 30: Map Repositories	107
Table 31: Additional Information	108
Table 32: Bibliography and References	109

Exhibits

Flood Profiles	<u>Panel</u>
Bessey Creek	01-02 P
Coral Gardens Canal	03-04 P
Danforth Creek	05-09 P
East Fork Creek	10-11 P
Fern Creek	12-13 P
Loxahatchee River	14 P
Manatee Creek	15-16 P
Roebuck Creek	17-20 P
Rowland Canal	21-23 P
South Fork St. Lucie River	24-25 P
Unnamed Tributary 1 to Roebuck Creek	26 P
Warner Creek	27-29 P

Exhibits

Transect Profiles	<u>Panel</u>
Transect 1	1 T
Transect 2	2-3 T
Transect 3	4-5 T
Transect 4	6-7 T
Transect 5	8-9 T
Transect 6	10 T
Transect 7	11-12 T
Transect 8	13-14 T
Transect 9	15 T
Transect 10	16-17 T
Transect 11	18-19 T
Transect 12	20-21 T
Transect 13	22-23 T
Transect 14	24 T
Transect 15	25-26 T
Transect 16	27 T
Transect 17	28-30 T

**Volume 3**

Exhibits

Transect Profiles	<u>Panel</u>
Transect 18	31 T
Transect 19	32 T
Transect 20	33-34 T
Transect 21	35-36 T
Transect 22	37-38 T
Transect 23	39-40 T
Transect 24	41-42 T
Transect 25	43-44 T
Transect 26	45-47 T
Transect 27	48-49 T
Transect 28	50-51 T
Transect 29	52-53 T
Transect 30	54-55 T
Transect 31	56-57 T
Transect 32	58-59 T
Transect 33	60-61 T
Transect 34	62-63 T
Transect 35	64-65 T
Transect 36	66-67 T
Transect 37	68-69 T
Transect 38	70-71 T
Transect 39	72-73 T
Transect 40	74-75 T
Transect 41	76-77 T

Transect 42	78-79 T
Transect 43	80-81 T
Transect 44	82-83 T
Transect 45	84-85 T
Transect 46	86-87 T
Transect 47	88-89 T
Transect 48	90-91 T
Transect 49	92-93 T
Transect 50	94-95 T
Transect 51	96-97 T
Transect 52	98-99 T
Transect 53	100-101 T
Transect 54	102-103 T
Transect 55	104-105 T
Transect 56	106-107 T
Transect 57	108-109 T
Transect 58	110-111 T

**Volume 4**  
Exhibits

Transect Profiles	<u>Panel</u>
Transect 59	112-113 T
Transect 60	114-115 T
Transect 61	116-117 T
Transect 62	118-119 T
Transect 63	120-121 T
Transect 64	122-123 T
Transect 65	124-125 T
Transect 66	126-127 T
Transect 67	128-130 T
Transect 68	131-132 T
Transect 69	133-134 T
Transect 70	135-137 T
Transect 71	138-140 T
Transect 72	141-143 T
Transect 73	144 T
Transect 74	145 T
Transect 75	146-148 T
Transect 76	149-151 T
Transect 77	152 T
Transect 78	153 T
Transect 79	154-156 T
Transect 80	157-158 T
Transect 81	159-160 T
Transect 82	162-164 T
Transect 83	165-166 T
Transect 84	167-169 T
Transect 85	170-172 T

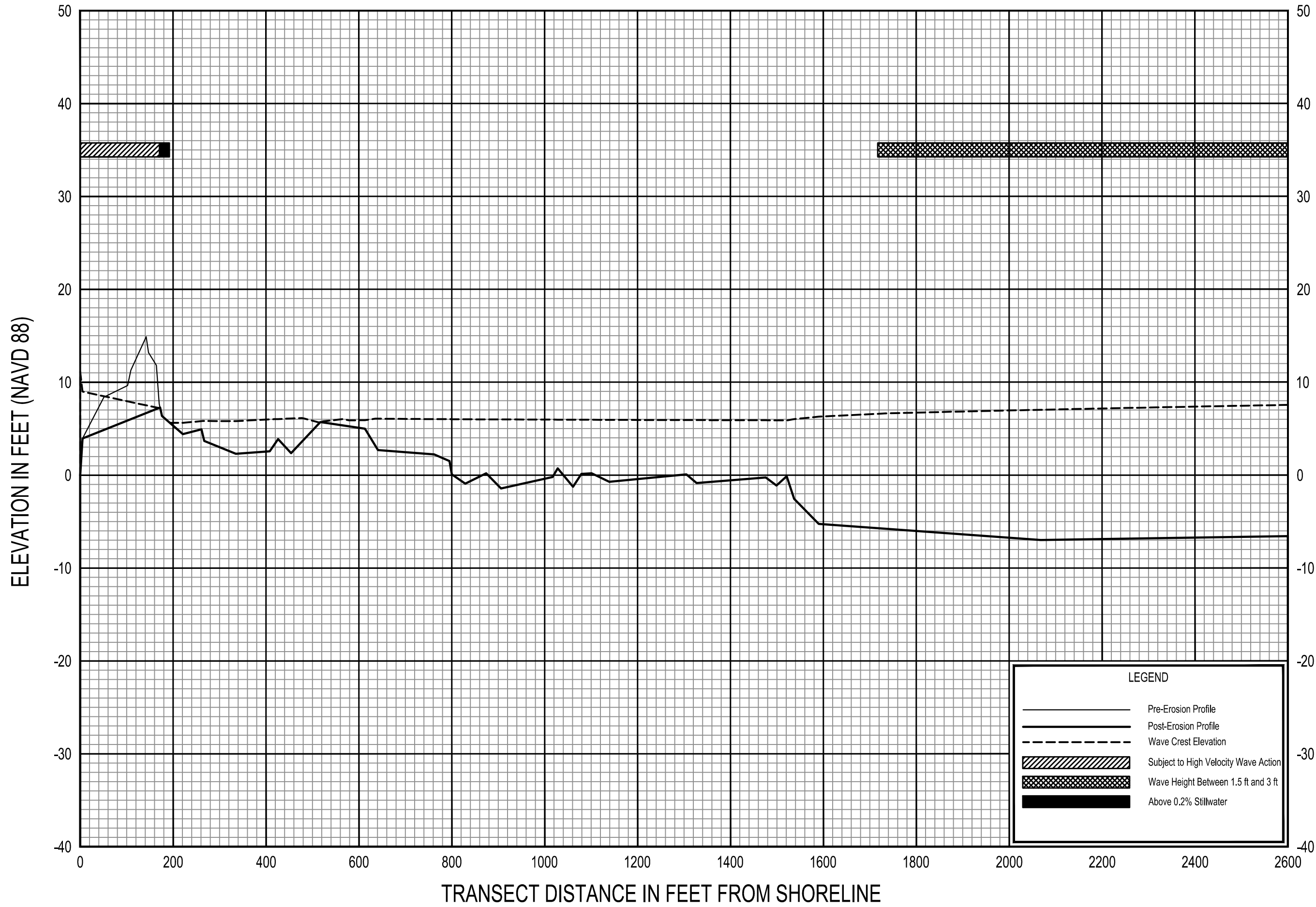
Transect 86	173-175 T
Transect 87	176-178 T
Transect 88	179-181 T
Transect 89	182-184 T
Transect 90	185-187 T
Transect 91	188-190 T
Transect 92	191-193 T

**Volume 5**  
Exhibits

Transect Profiles	<u>Panel</u>
Transect 93	194-196 T
Transect 94	197-199 T
Transect 95	200-202 T
Transect 96	203-205 T
Transect 97	206-208 T
Transect 98	209 T
Transect 99	210 T
Transect 100	211 T
Transect 101	212 T
Transect 102	213 T
Transect 103	214-215 T
Transect 104	216-217 T
Transect 105	218 T
Transect 106	219-220 T
Transect 107	221 T
Transect 108	222 T
Transect 109	223 T
Transect 110	224 T
Transect 111	225 T
Transect 112	226 T
Transect 113	227 T
Transect 114	228 T
Transect 115	229 T
Transect 116	230 T
Transect 117	231 T
Transect 118	232 T
Transect 119	233 T
Transect 120	234 T
Transect 121	235-236 T

**Published Separately**

Flood Insurance Rate Map (FIRM)

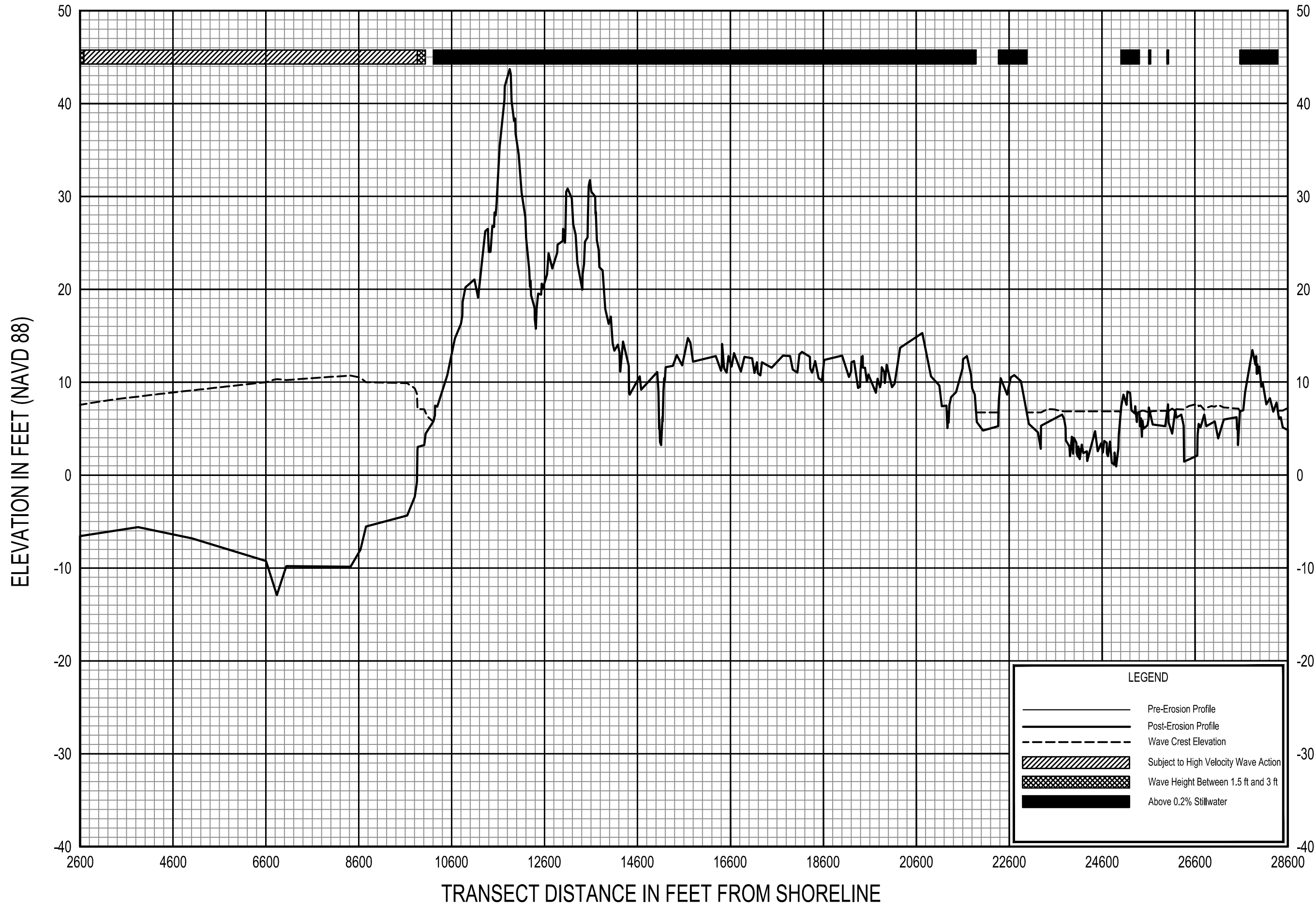


0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 93

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS



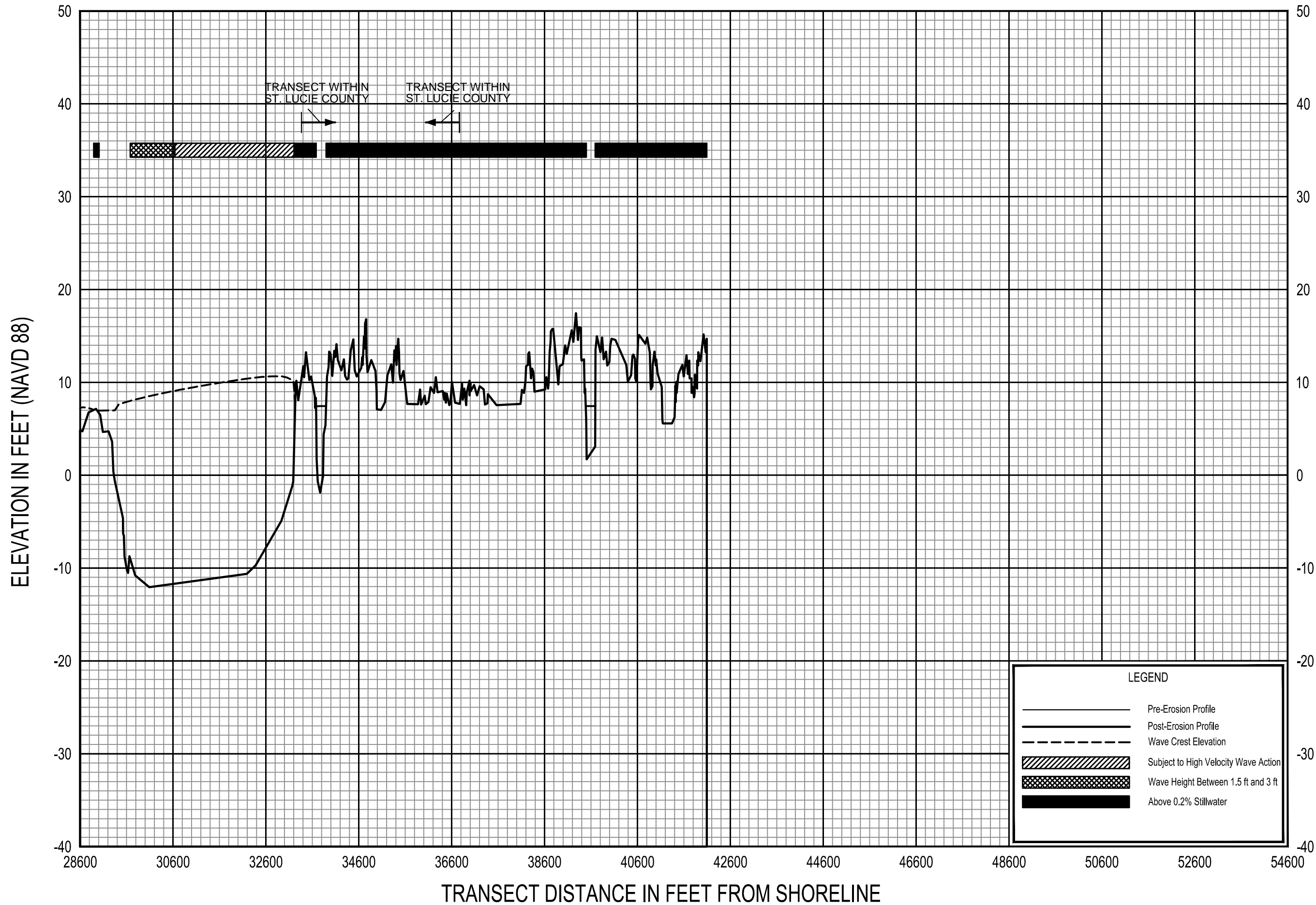


0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 93

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS

195 T

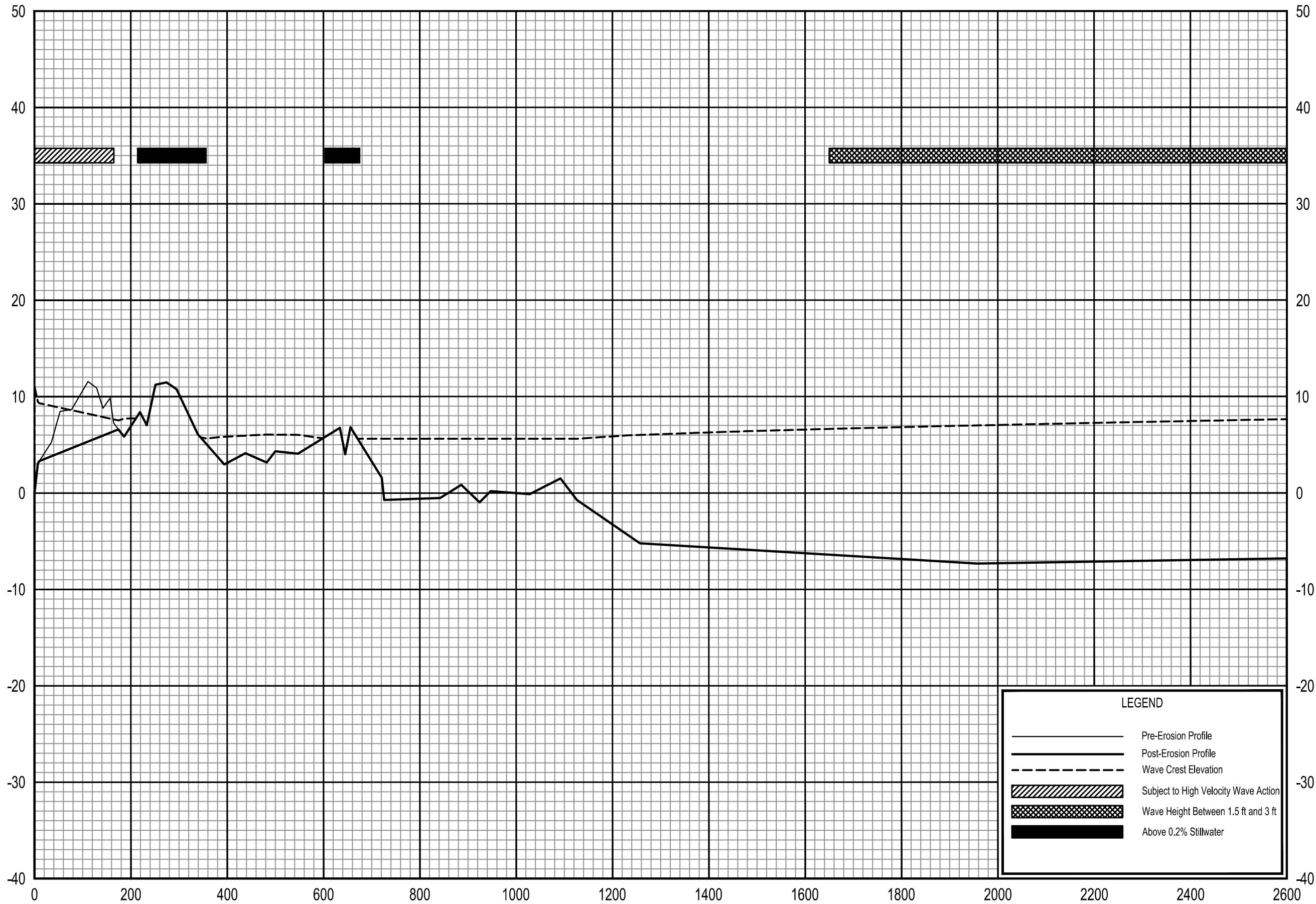


0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 93

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



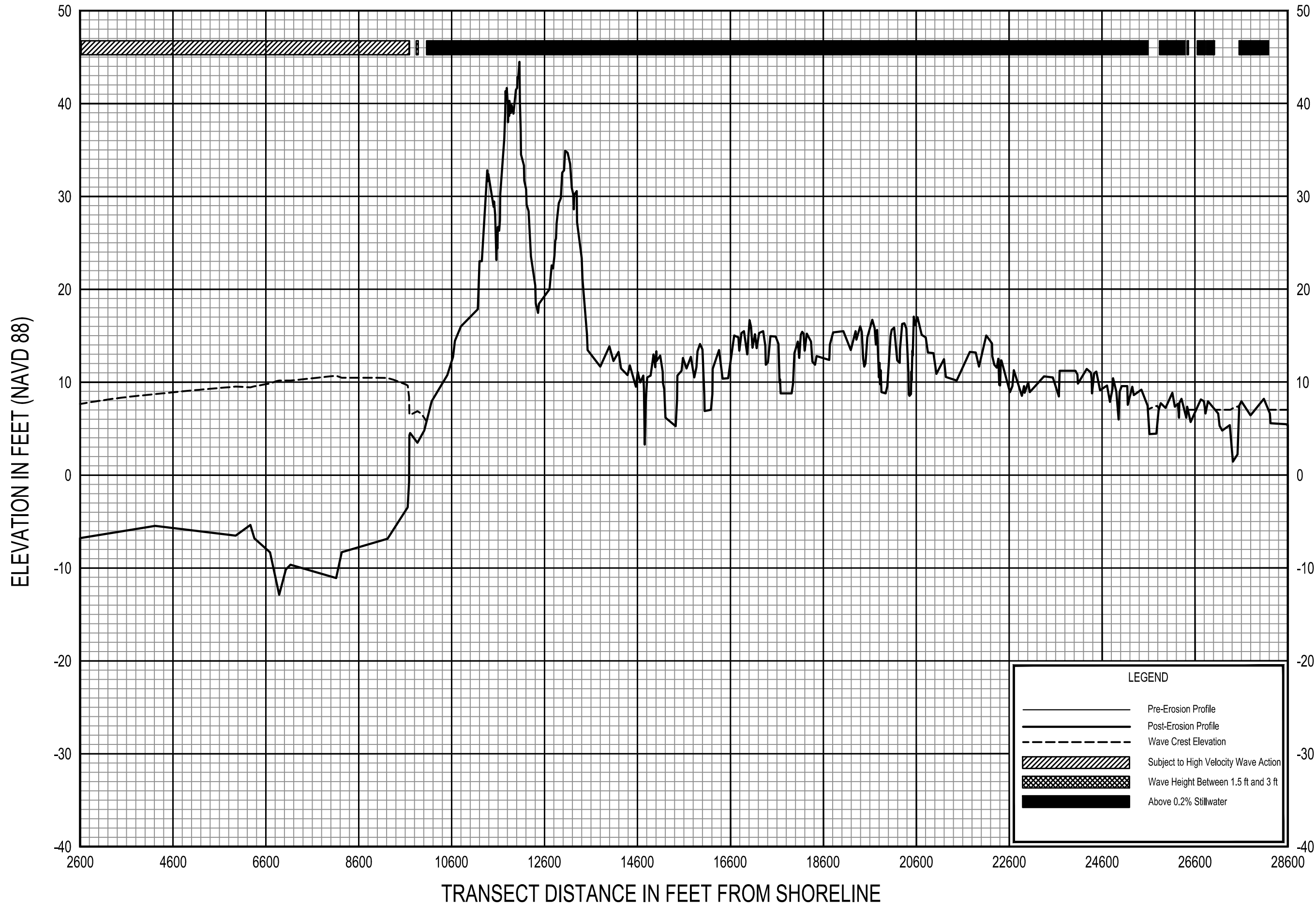
**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 94

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS



0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 94

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS

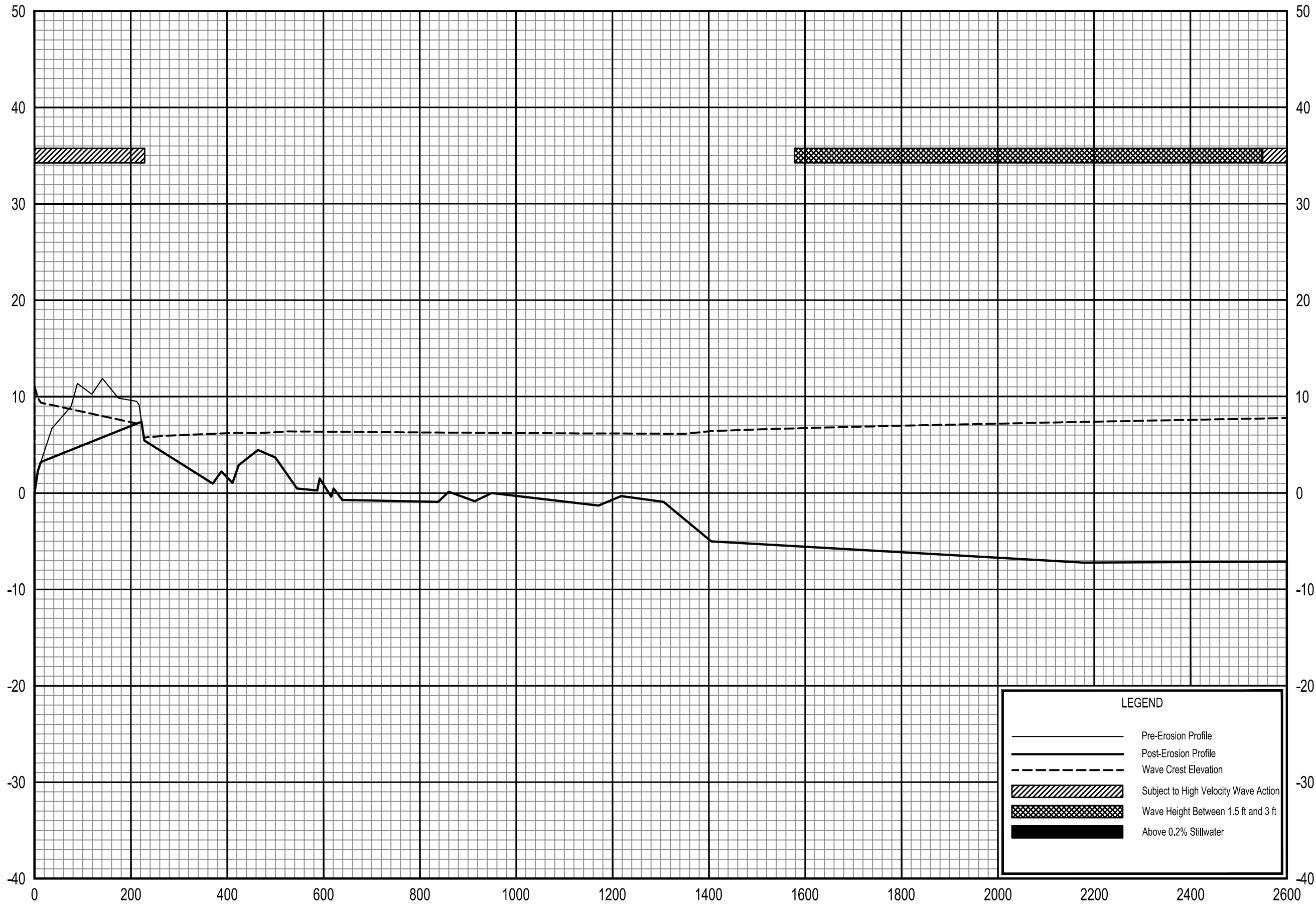


0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 94

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



**LEGEND**

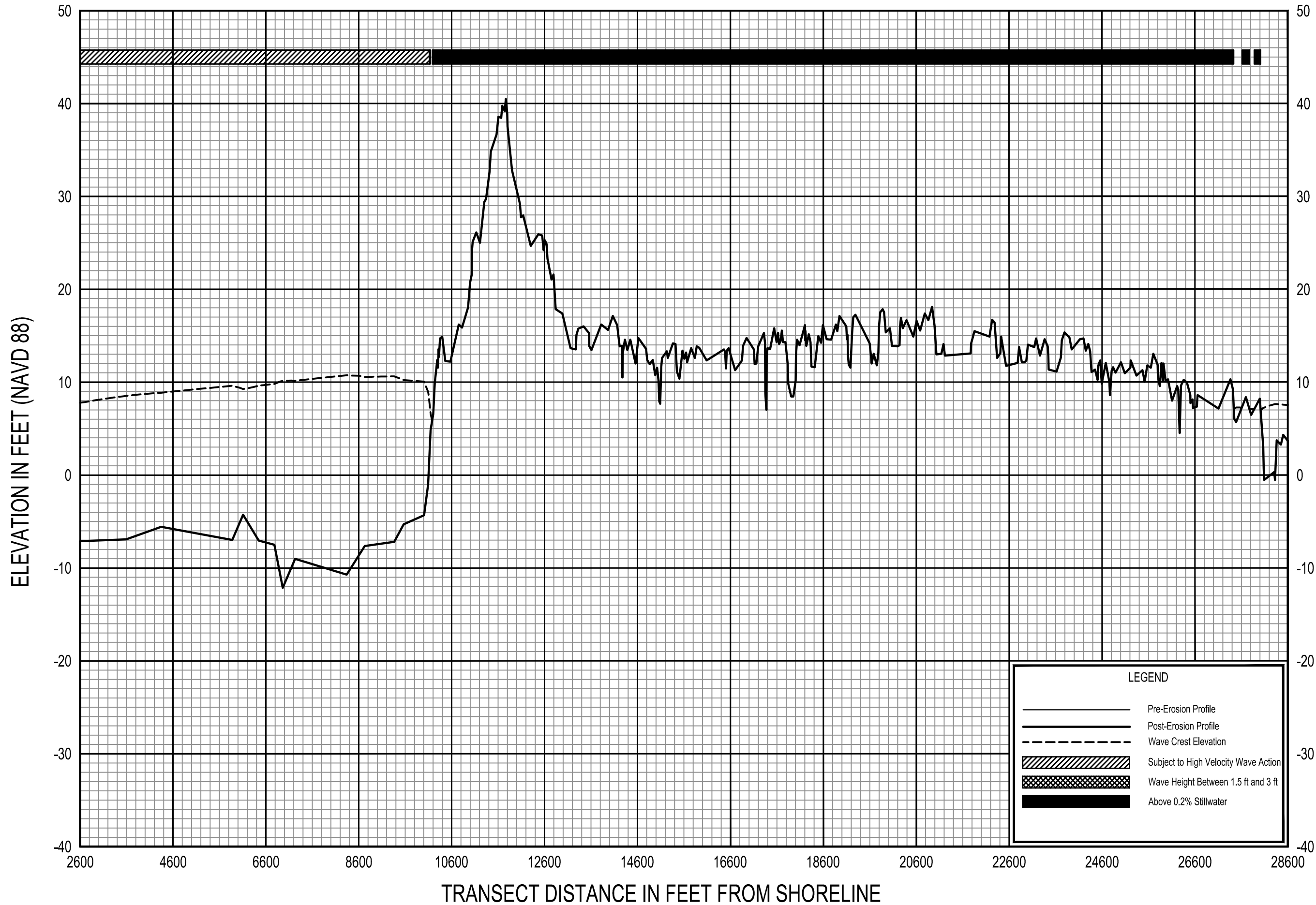
- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 95

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

**200 T**



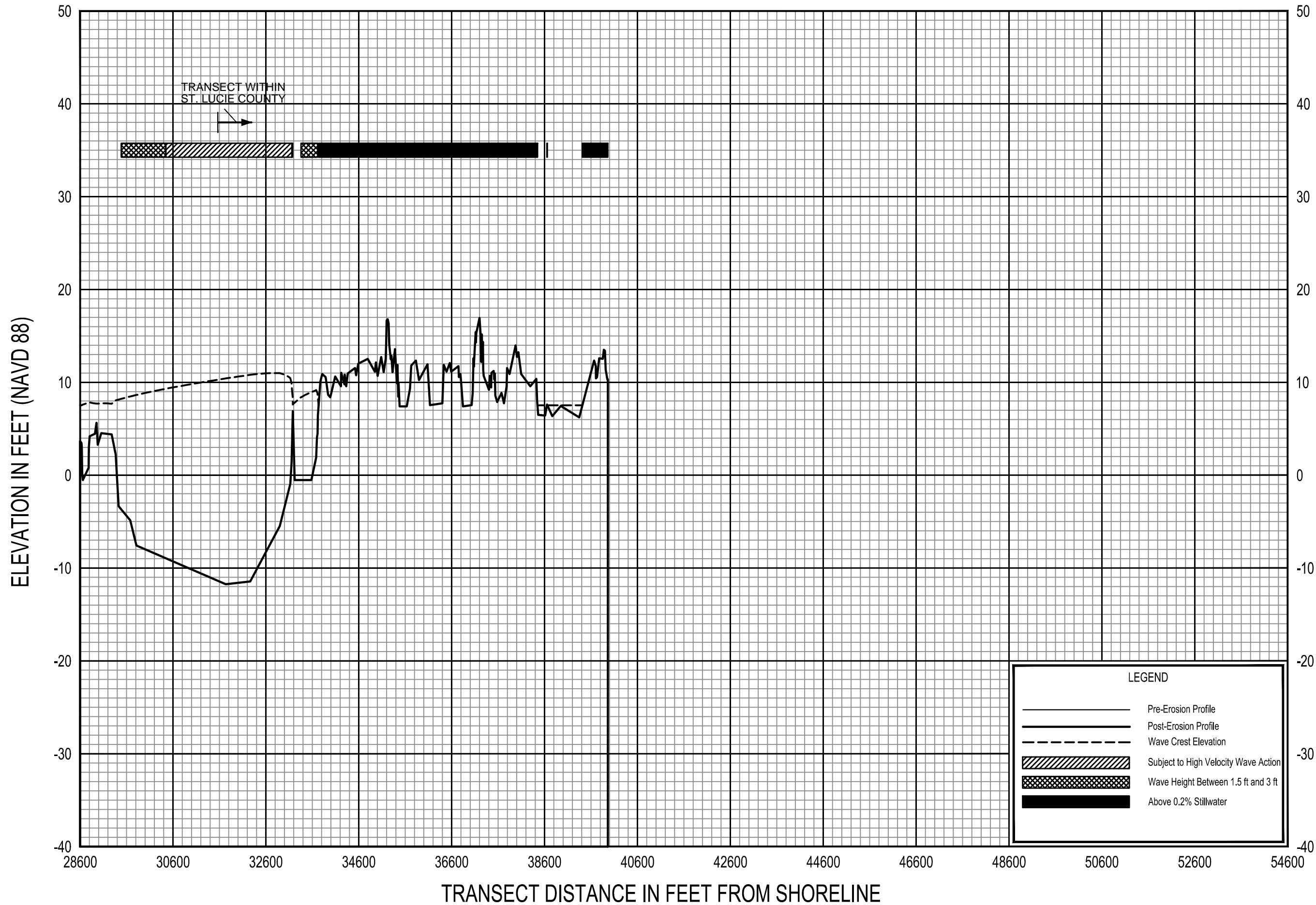
**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 95

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- · · Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

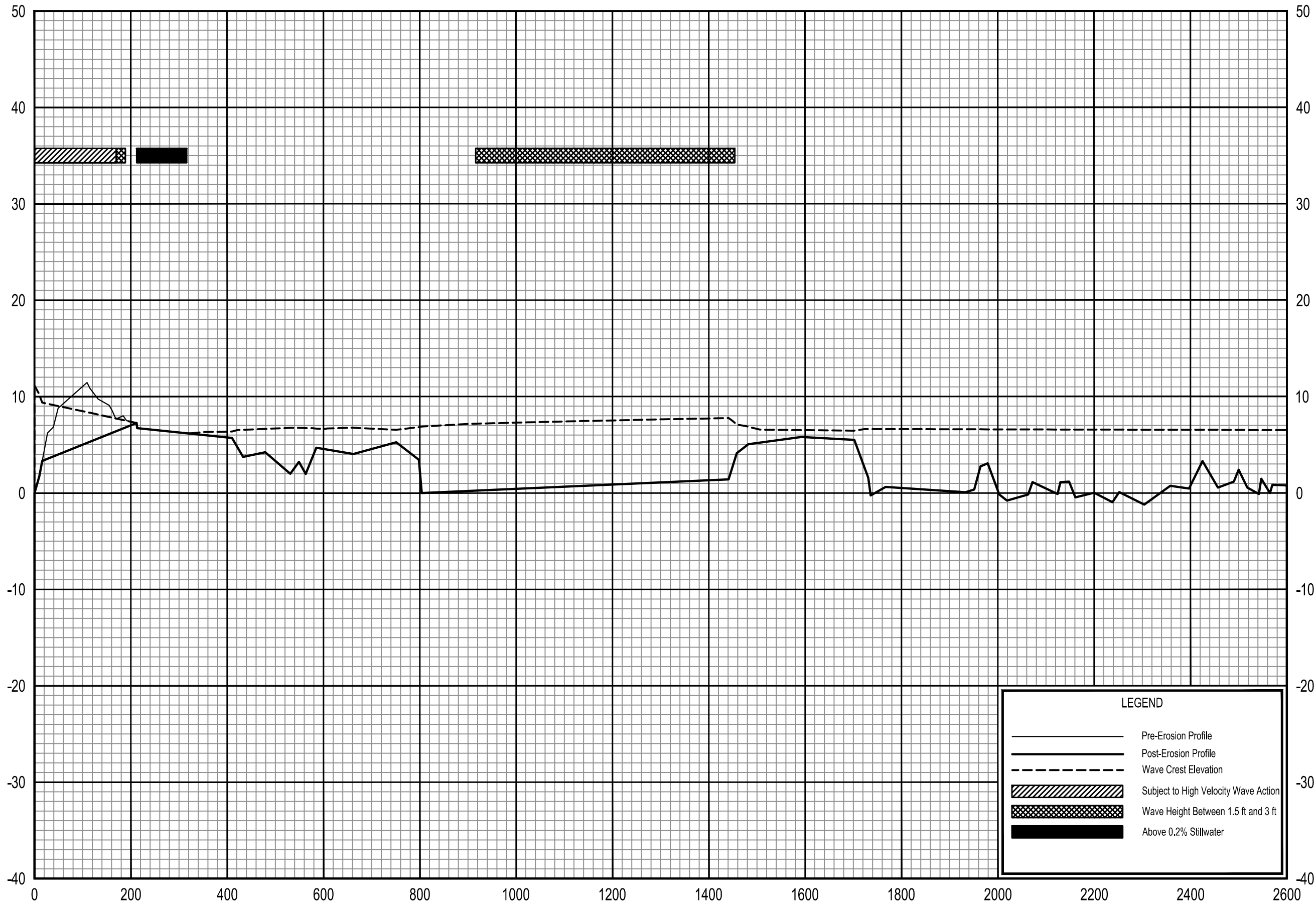
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 95

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS



ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 96

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

203 T



ELEVATION IN FEET (NAVD 88)

TRANSECT DISTANCE IN FEET FROM SHORELINE

**LEGEND**

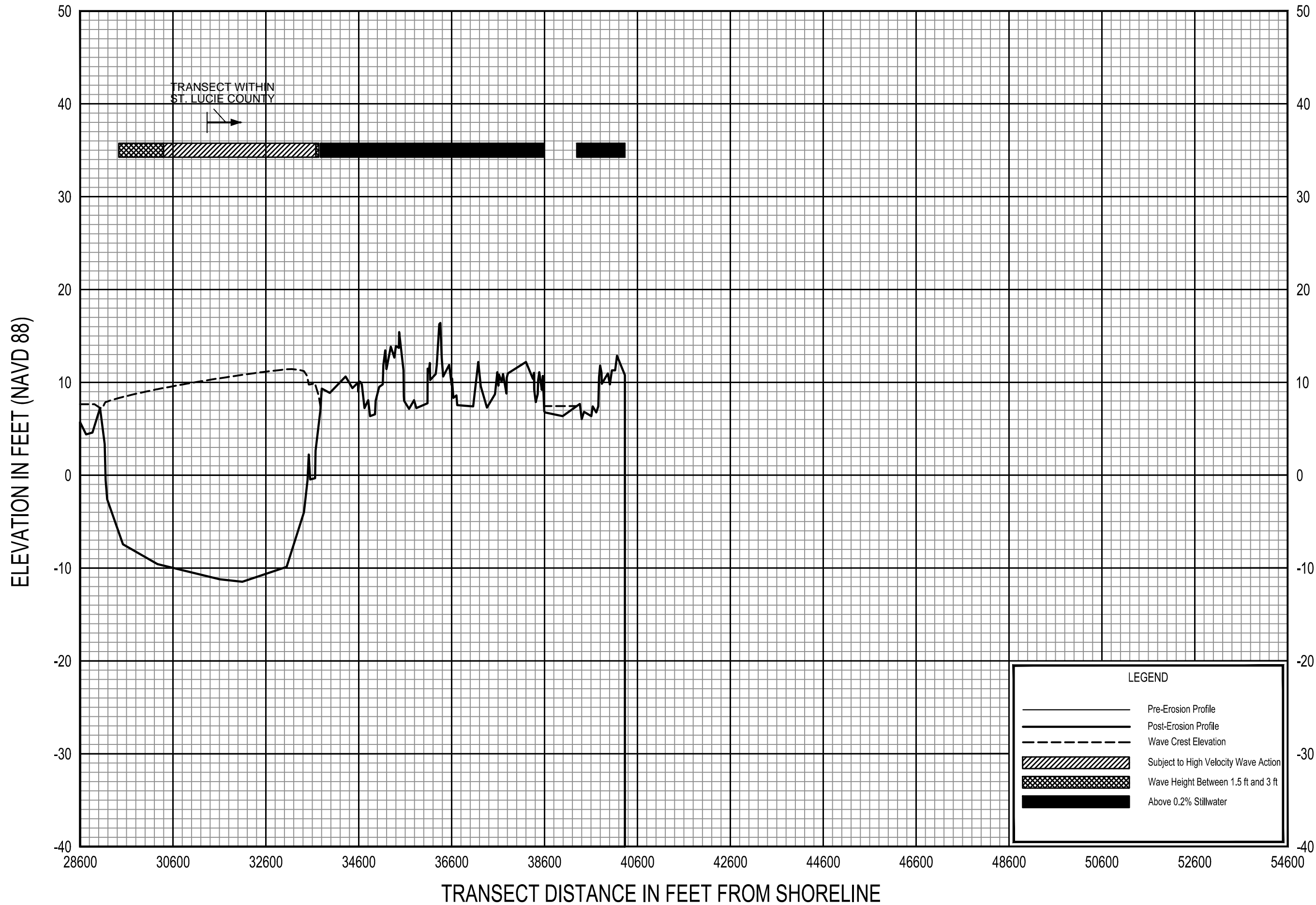
- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 96

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS

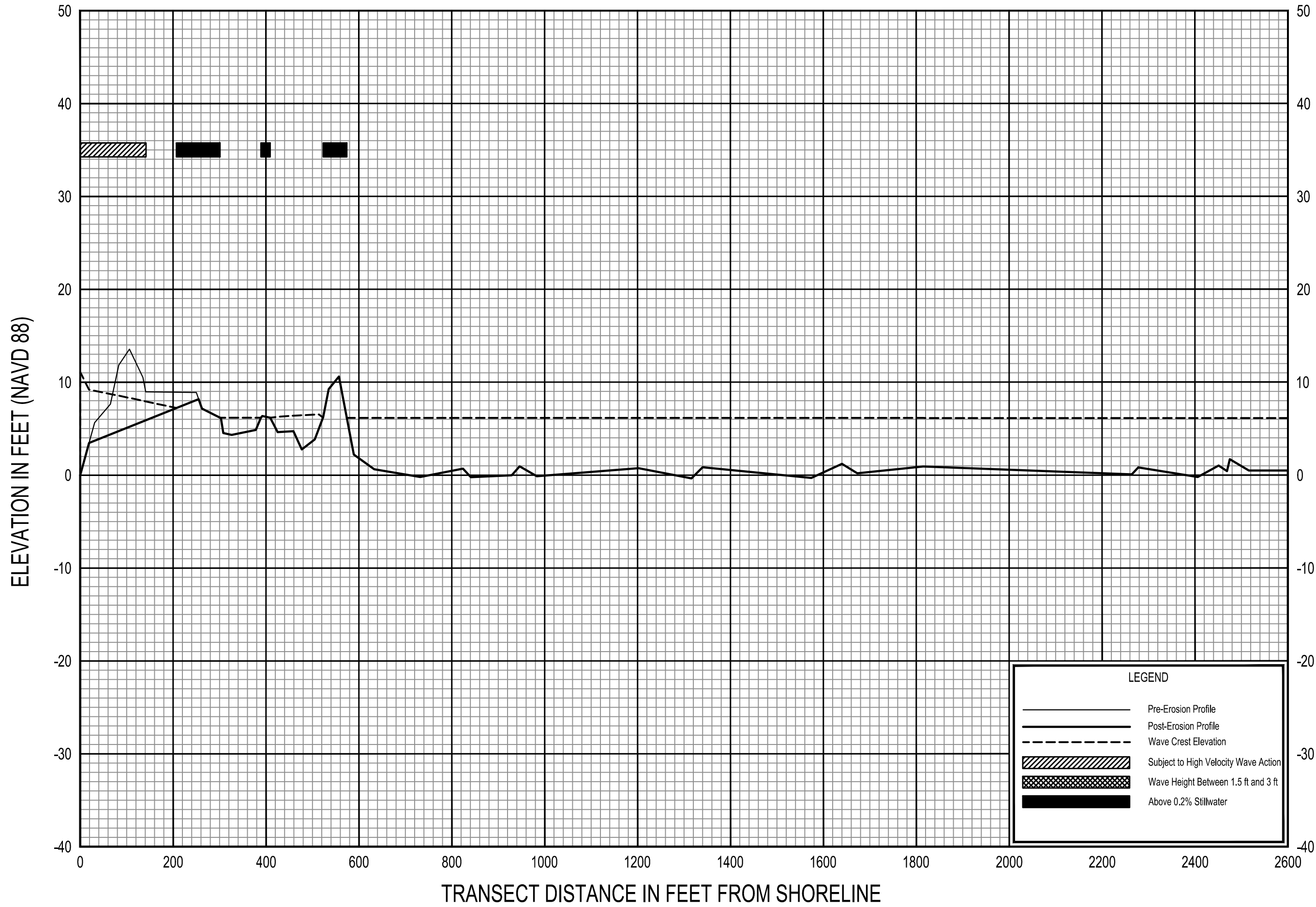
204 T



0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 96

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS



ELEVATION IN FEET (NAVD 88)

TRANSECT DISTANCE IN FEET FROM SHORELINE

**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

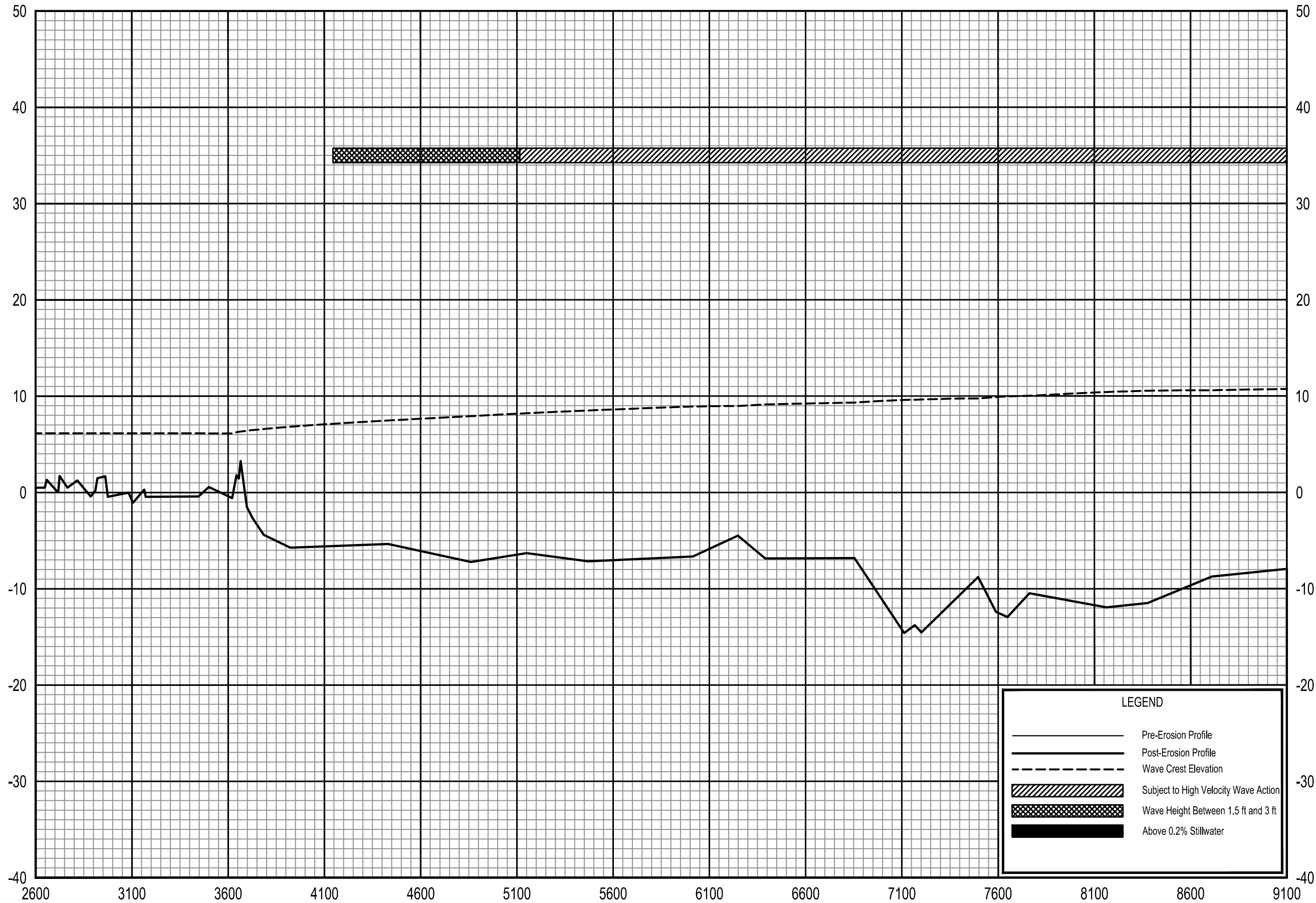
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 97

FEDERAL EMERGENCY MANAGEMENT AGENCY  
 MARTIN COUNTY, FL  
 AND INCORPORATED AREAS

206 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- Wave Crest Elevation
- Subject to High Velocity Wave Action
- Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

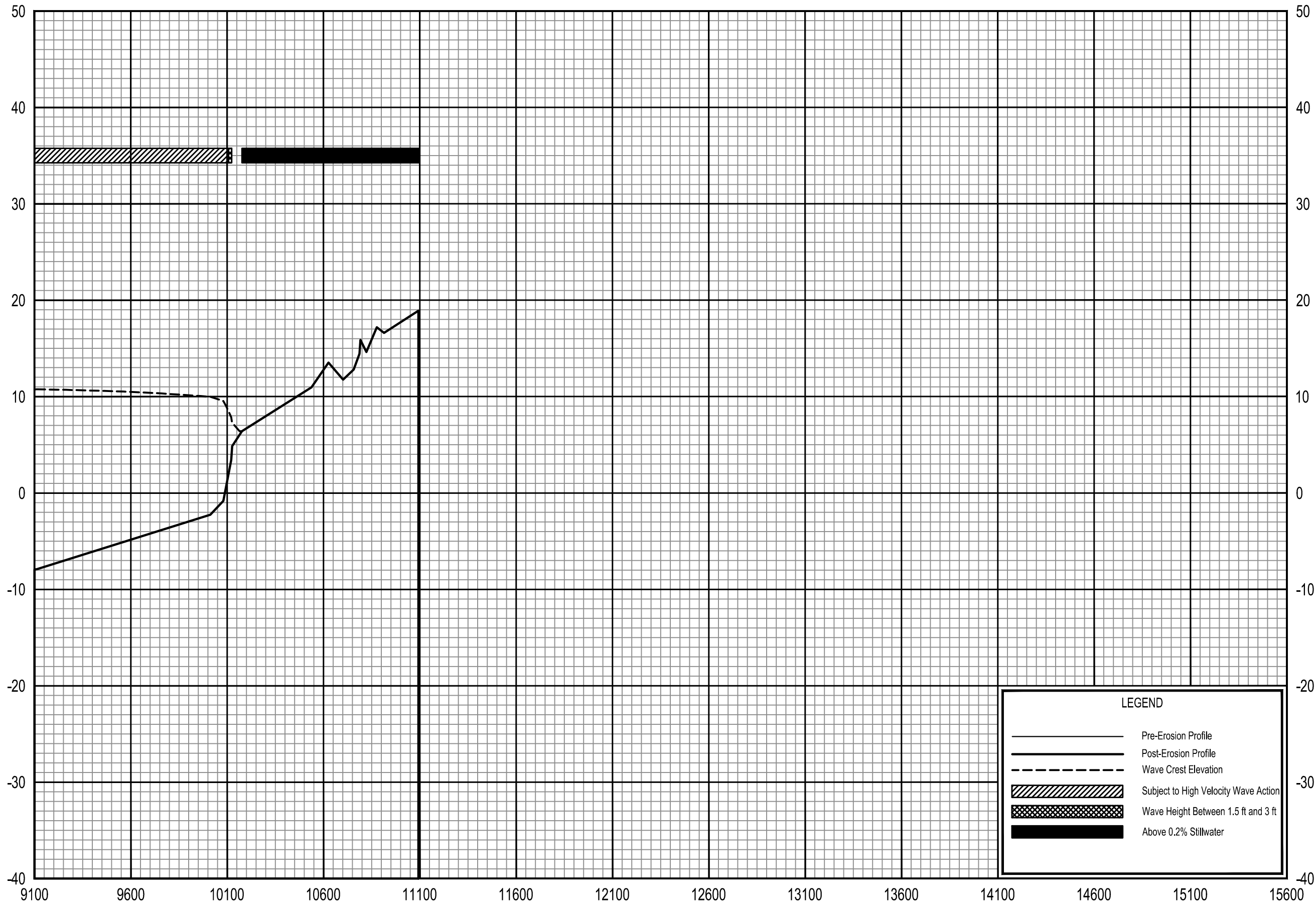
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 97

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

207 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

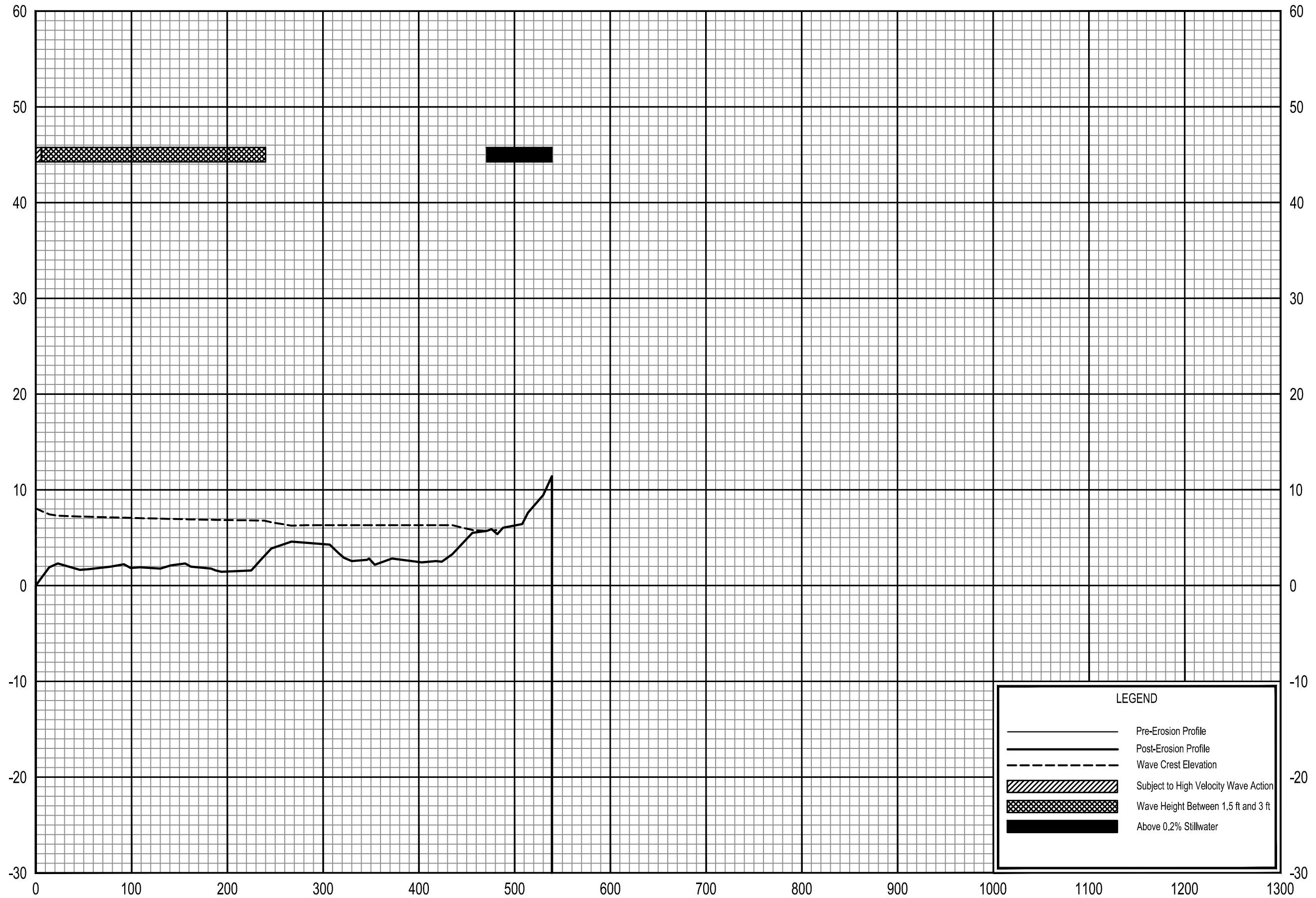
- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 97

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

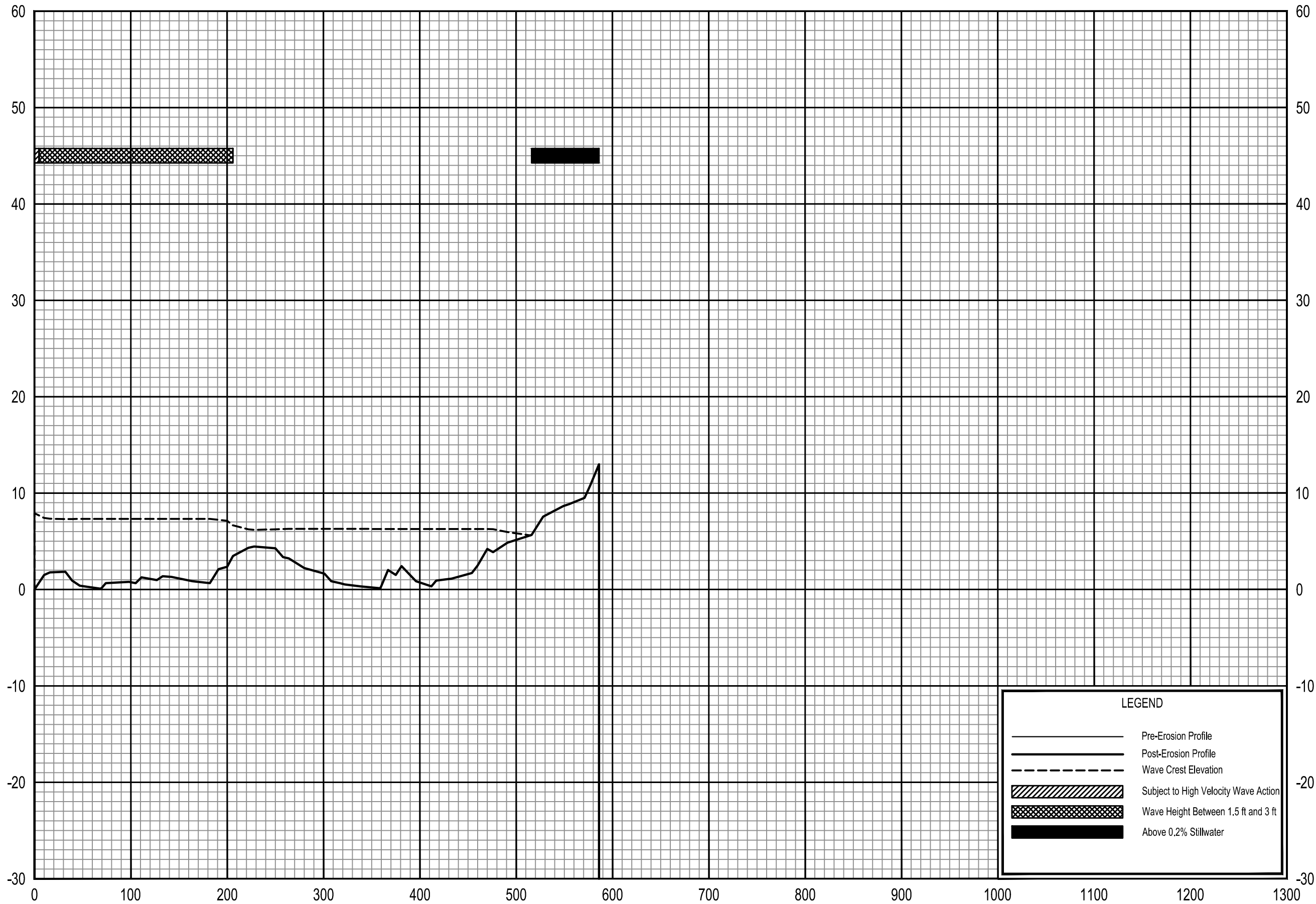
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 98

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

209 T

ELEVATION IN FEET (NAVD 88)



LEGEND

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

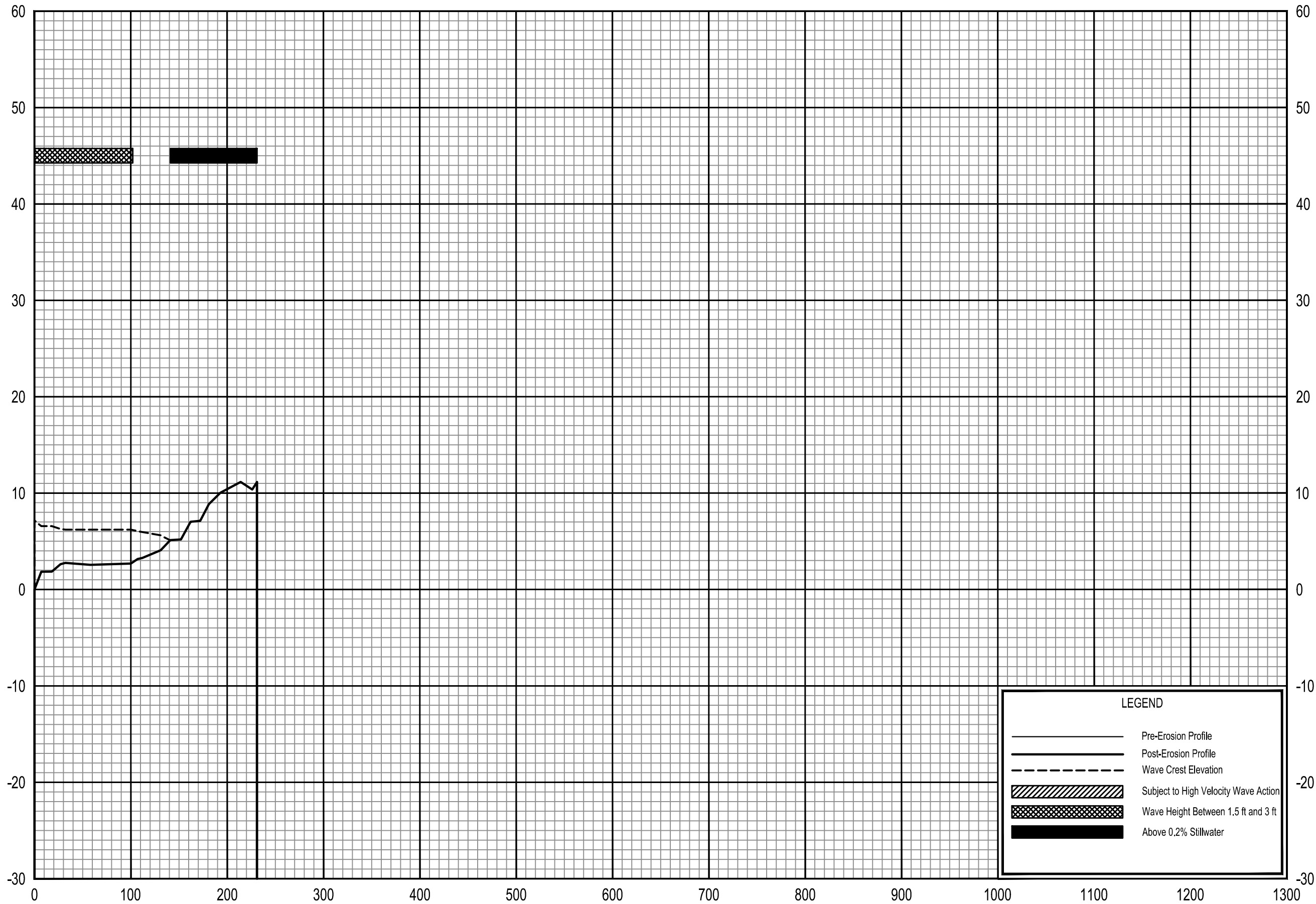
TRANSECT 99

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

210 T



ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

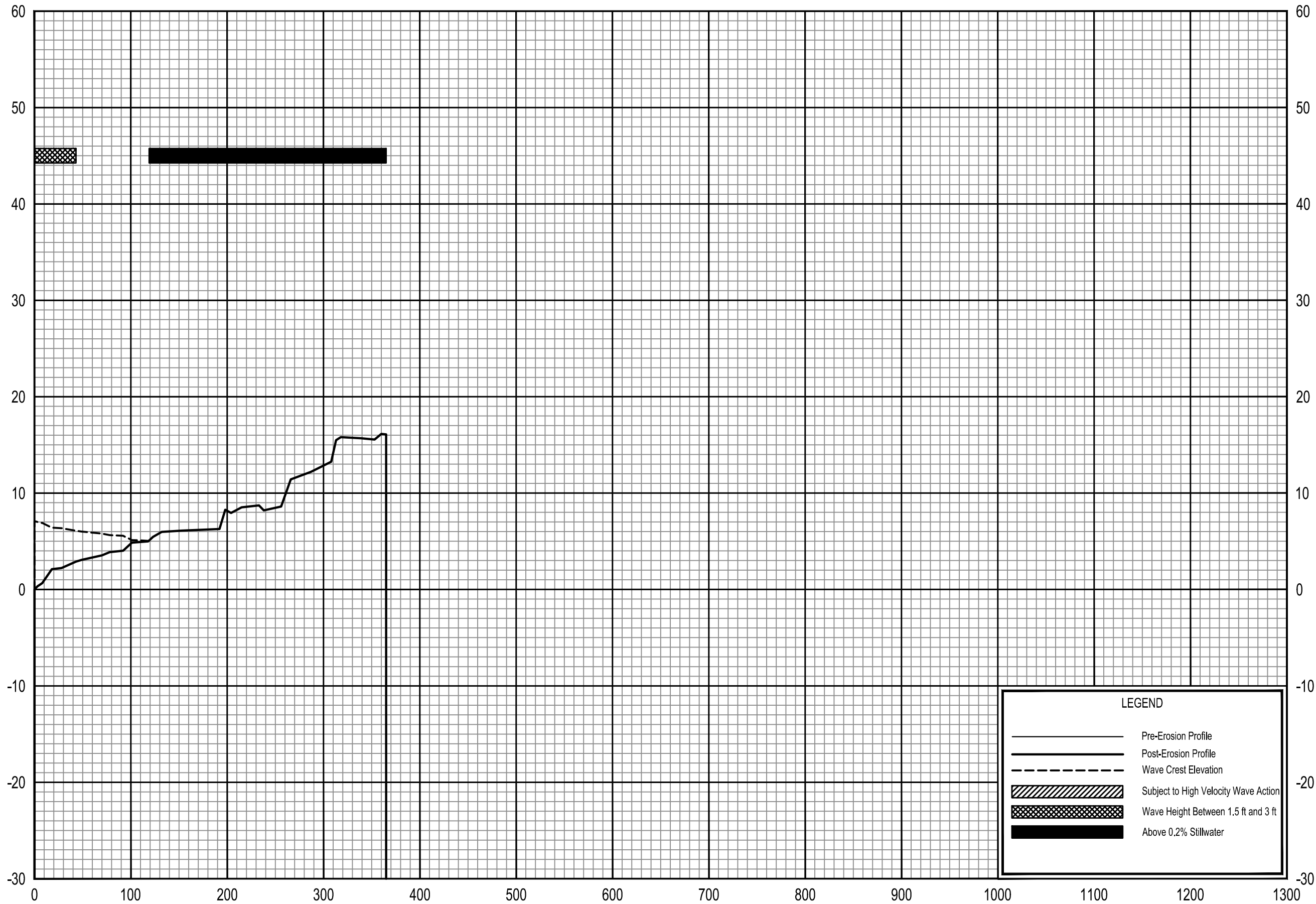
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 100

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

211 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

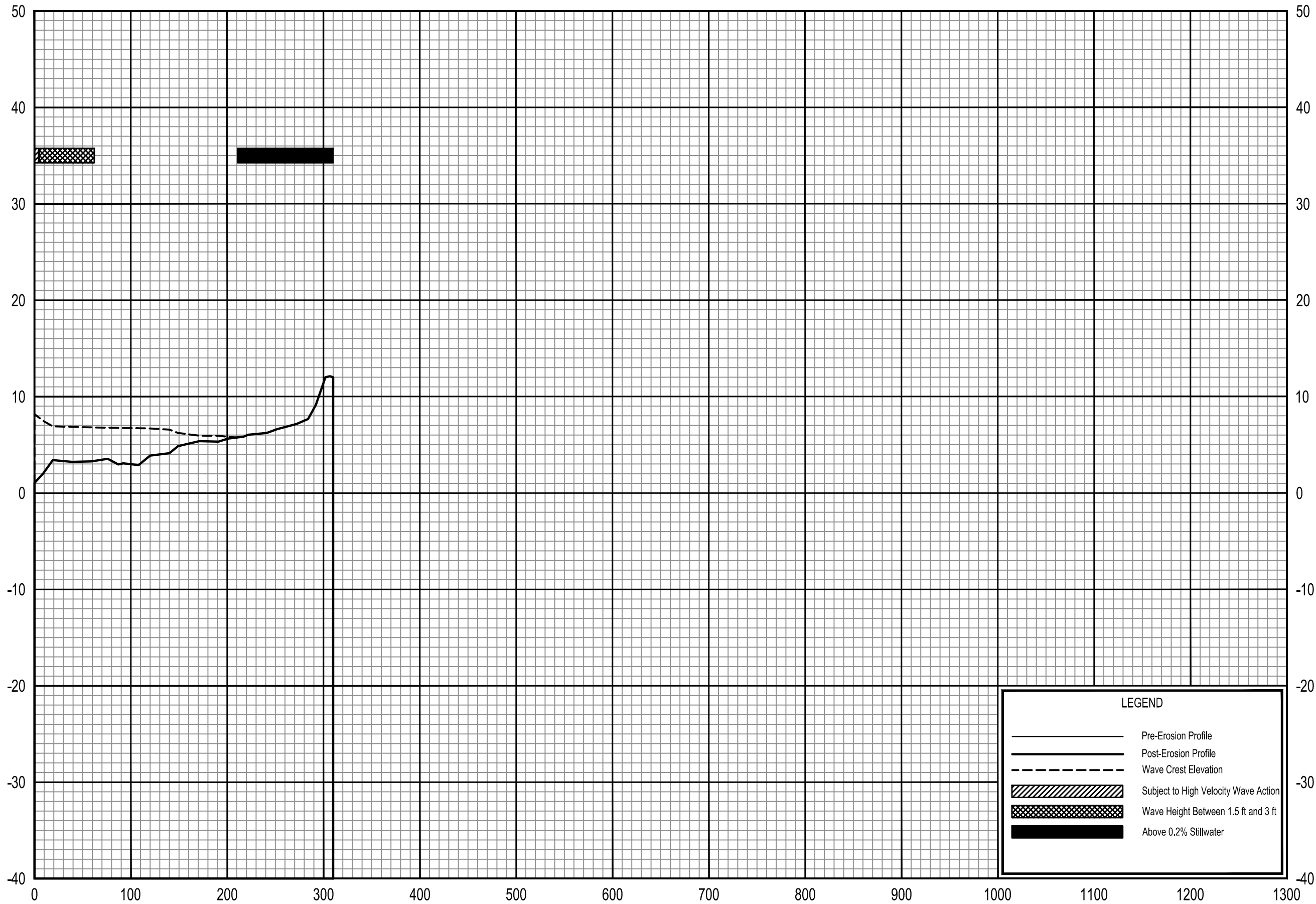
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 101

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

212 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

TRANSECT DISTANCE IN FEET FROM SHORELINE

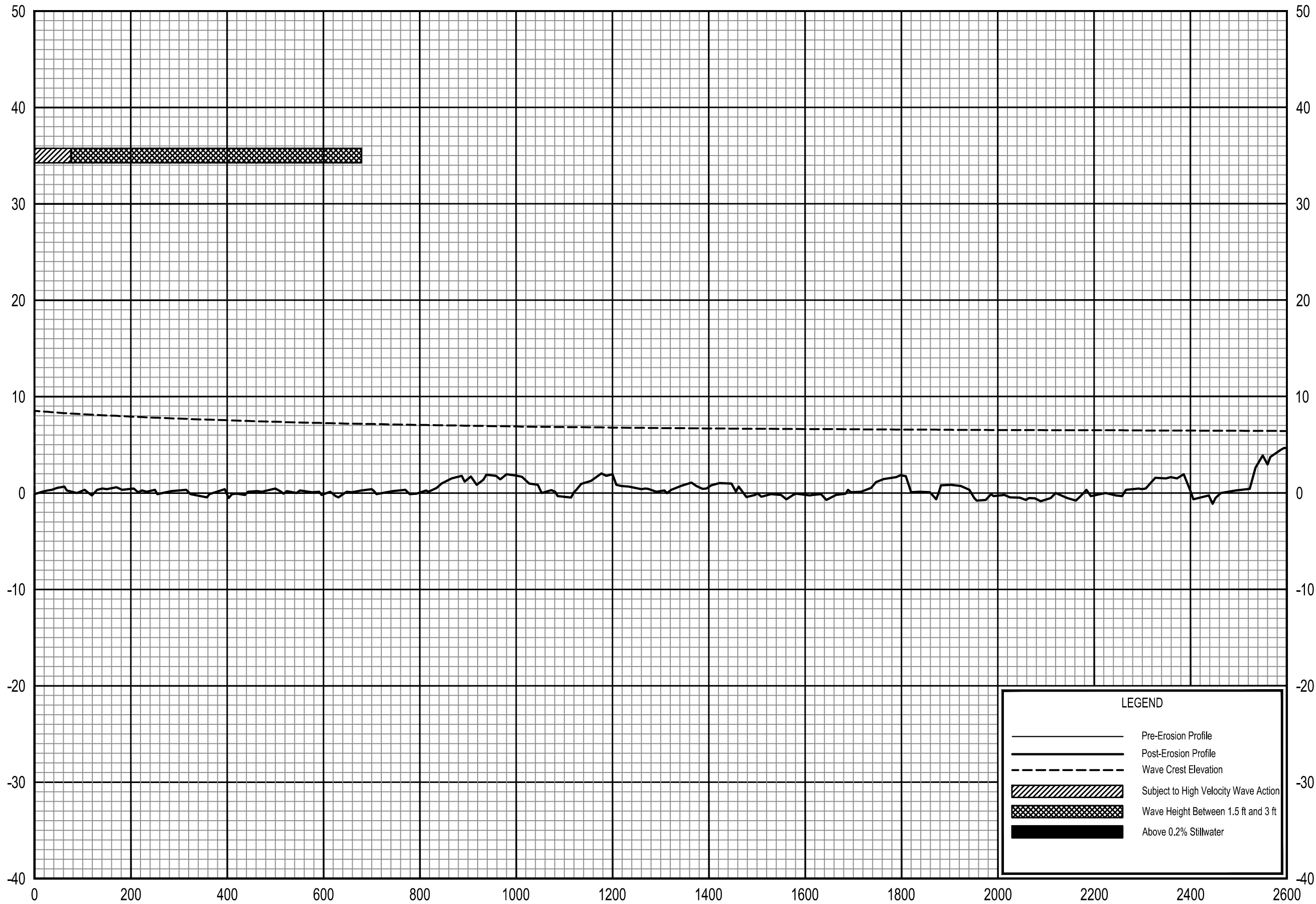
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 102

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

213 T

ELEVATION IN FEET (NAVD 88)



LEGEND

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

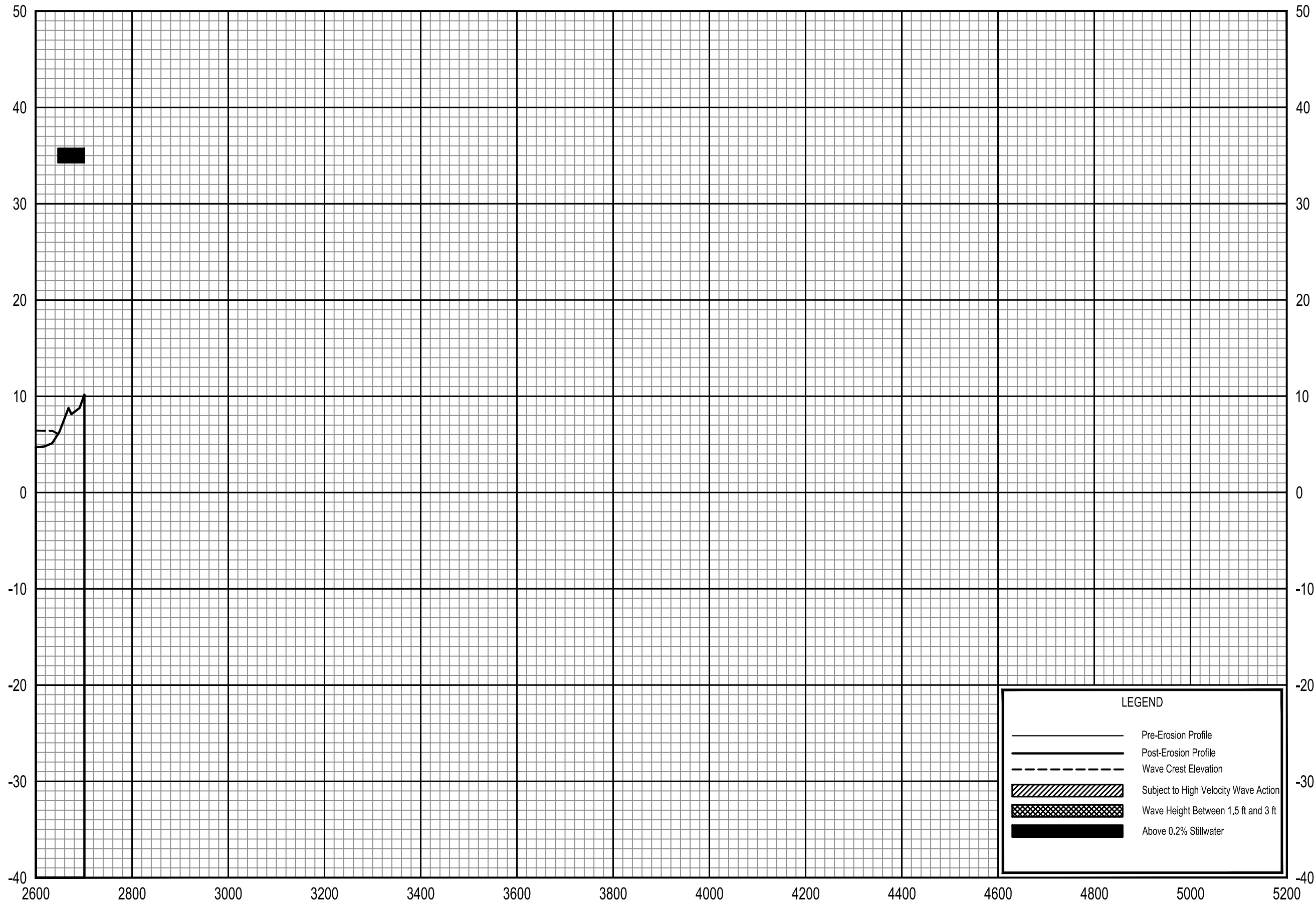
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 103

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

214 T

ELEVATION IN FEET (NAVD 88)



TRANSECT DISTANCE IN FEET FROM SHORELINE

LEGEND

- Pre-Erosion Profile
- Post-Erosion Profile
- Wave Crest Elevation
- Subject to High Velocity Wave Action
- Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

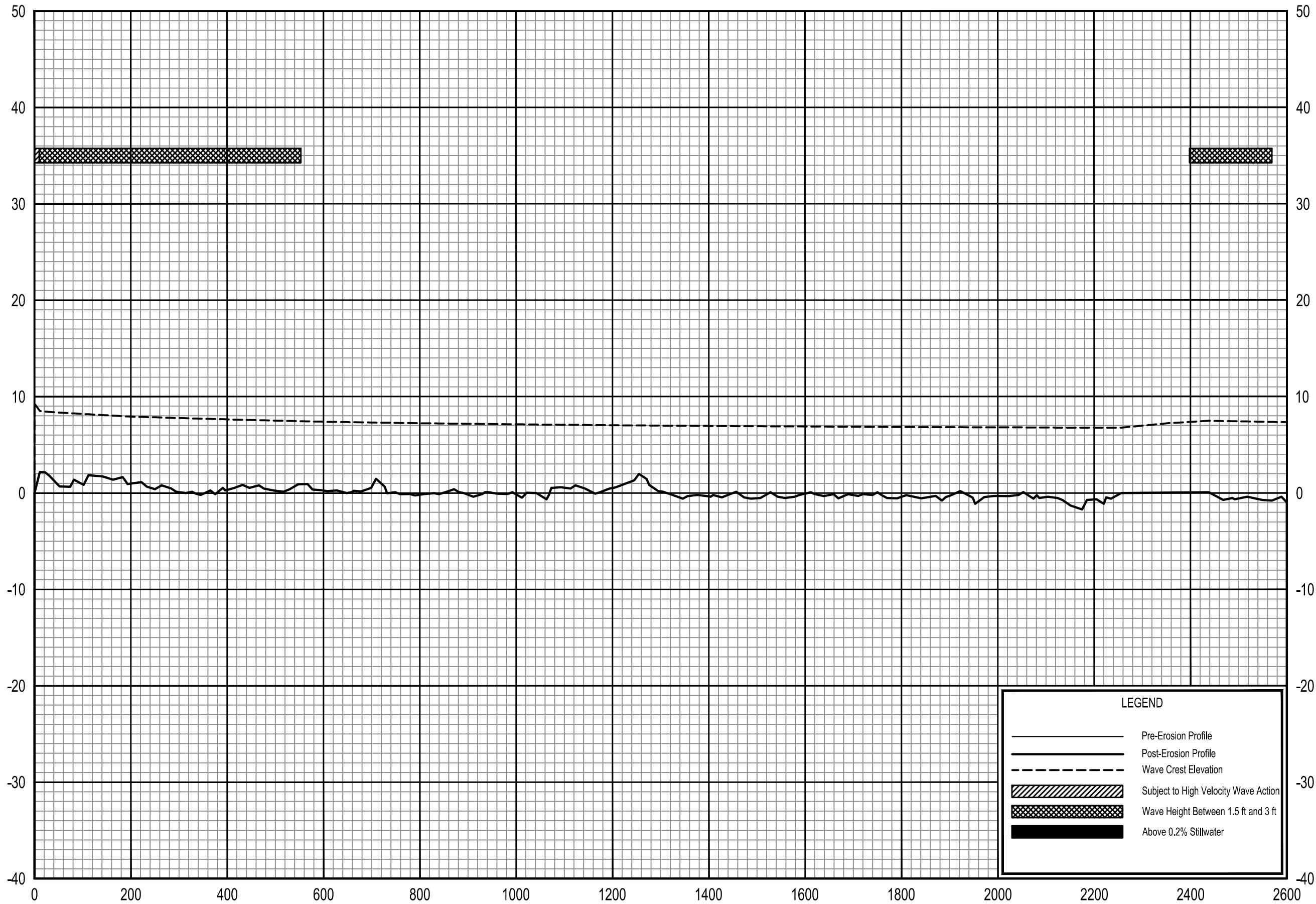
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 103

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

215 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

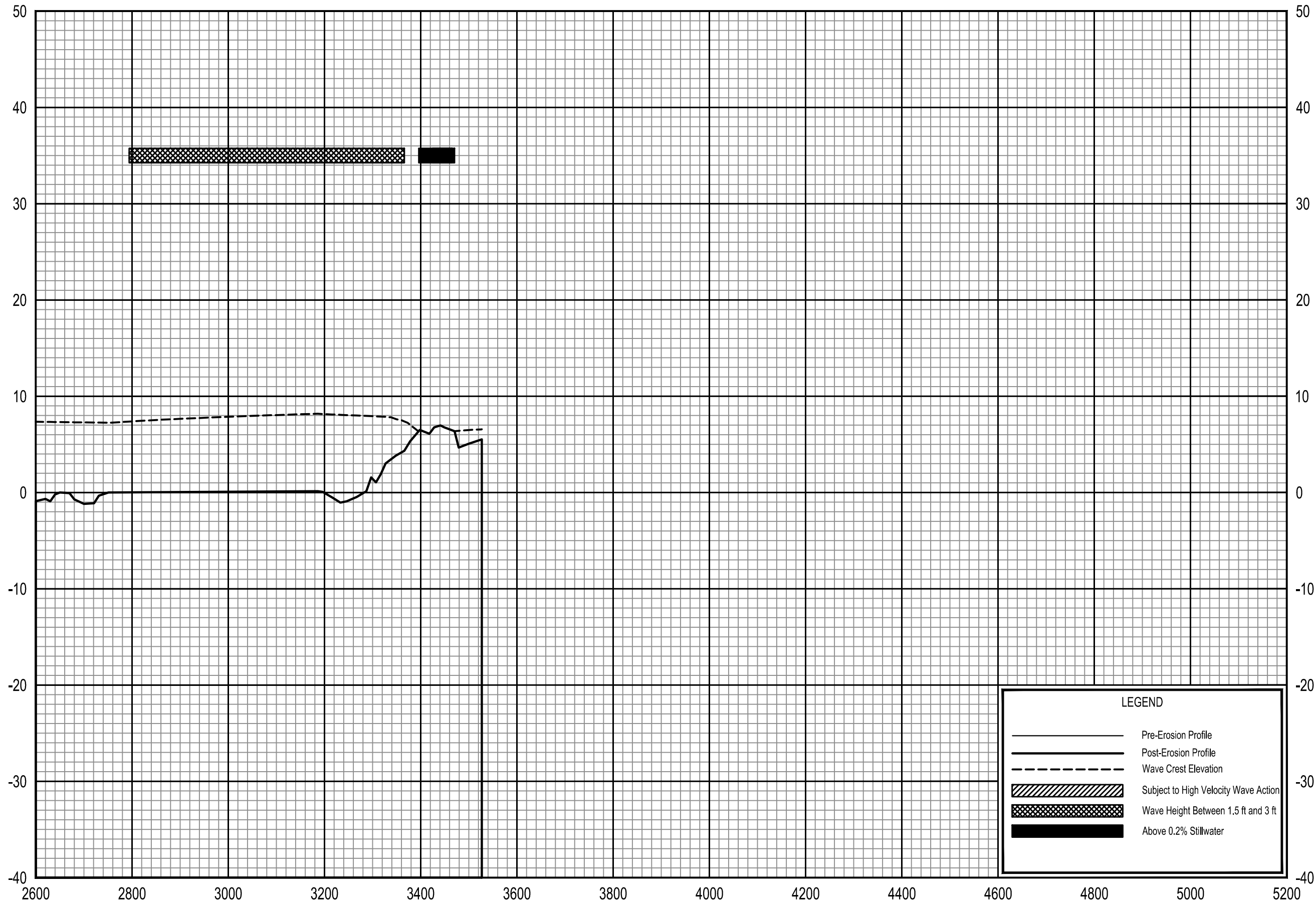
- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 104

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

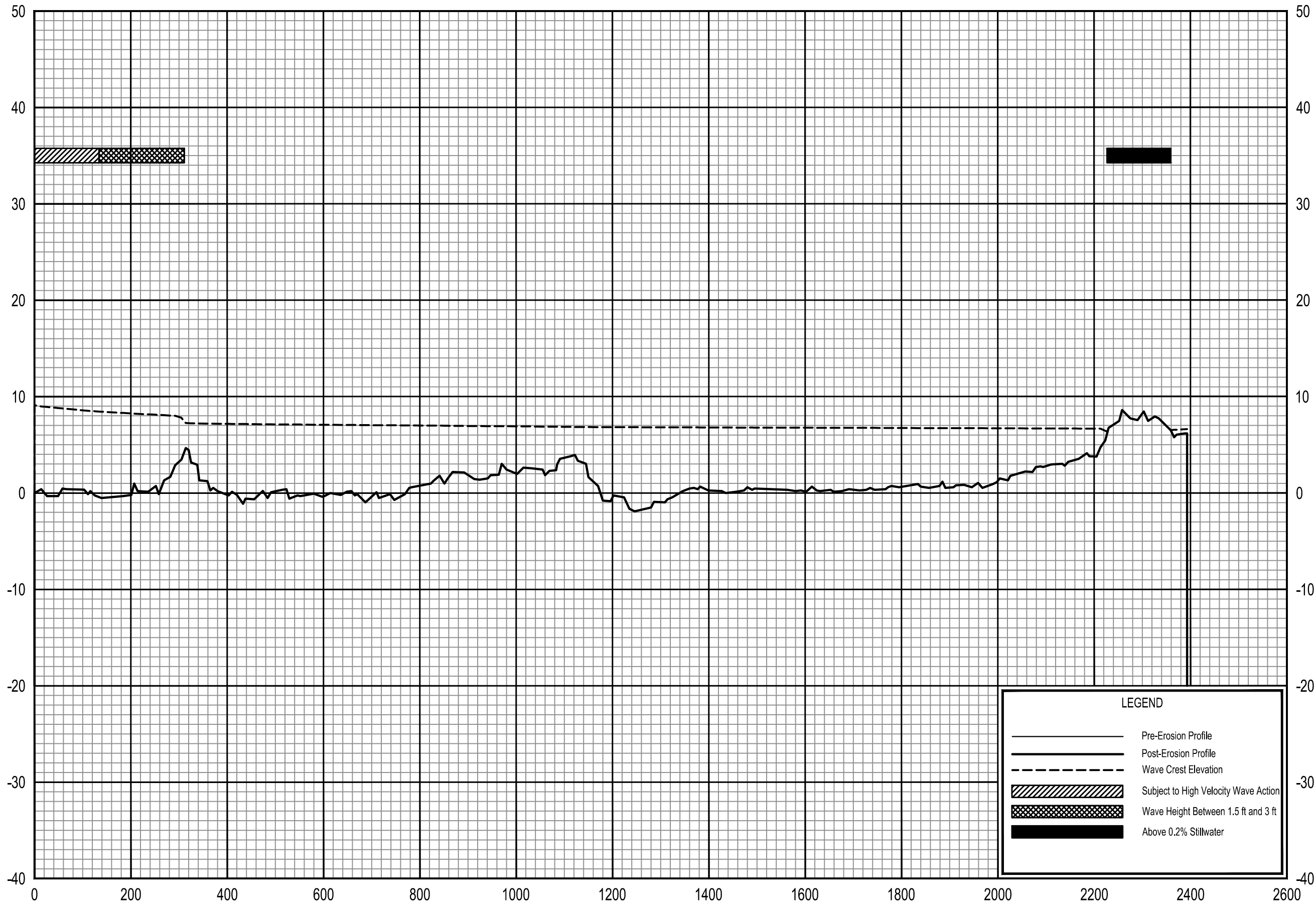
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 104

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

217 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

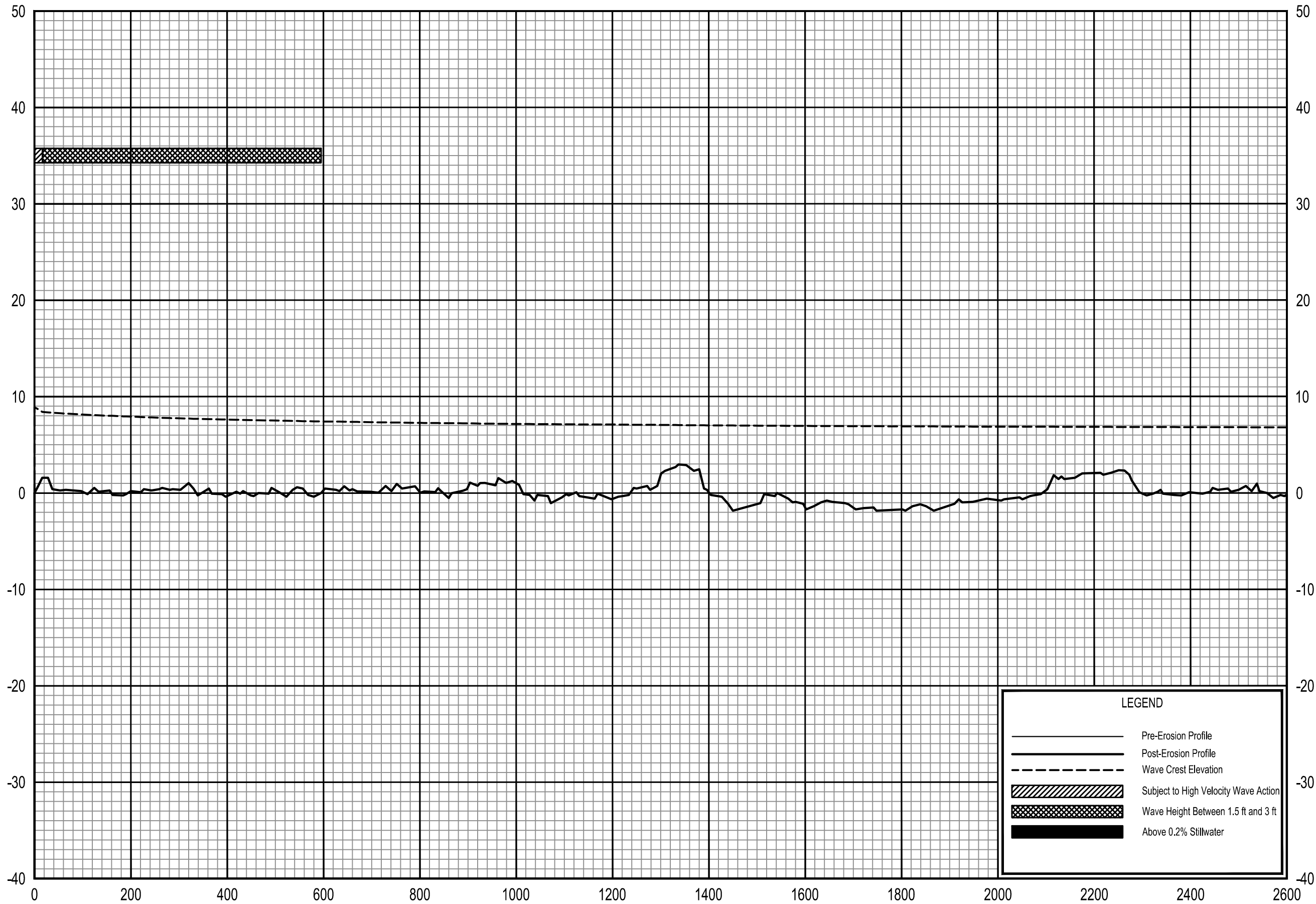
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 105

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS



ELEVATION IN FEET (NAVD 88)



**LEGEND**

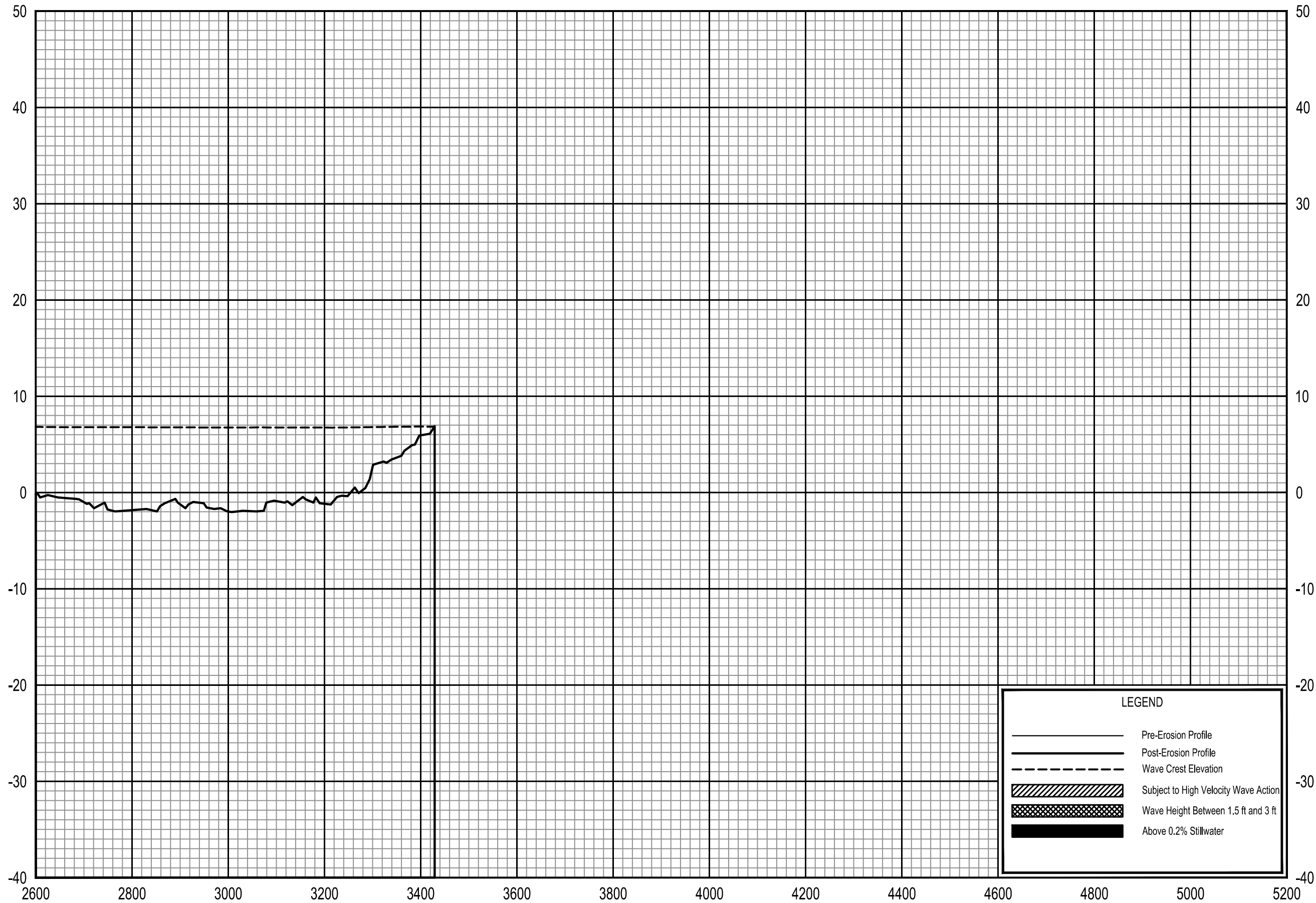
- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 106

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

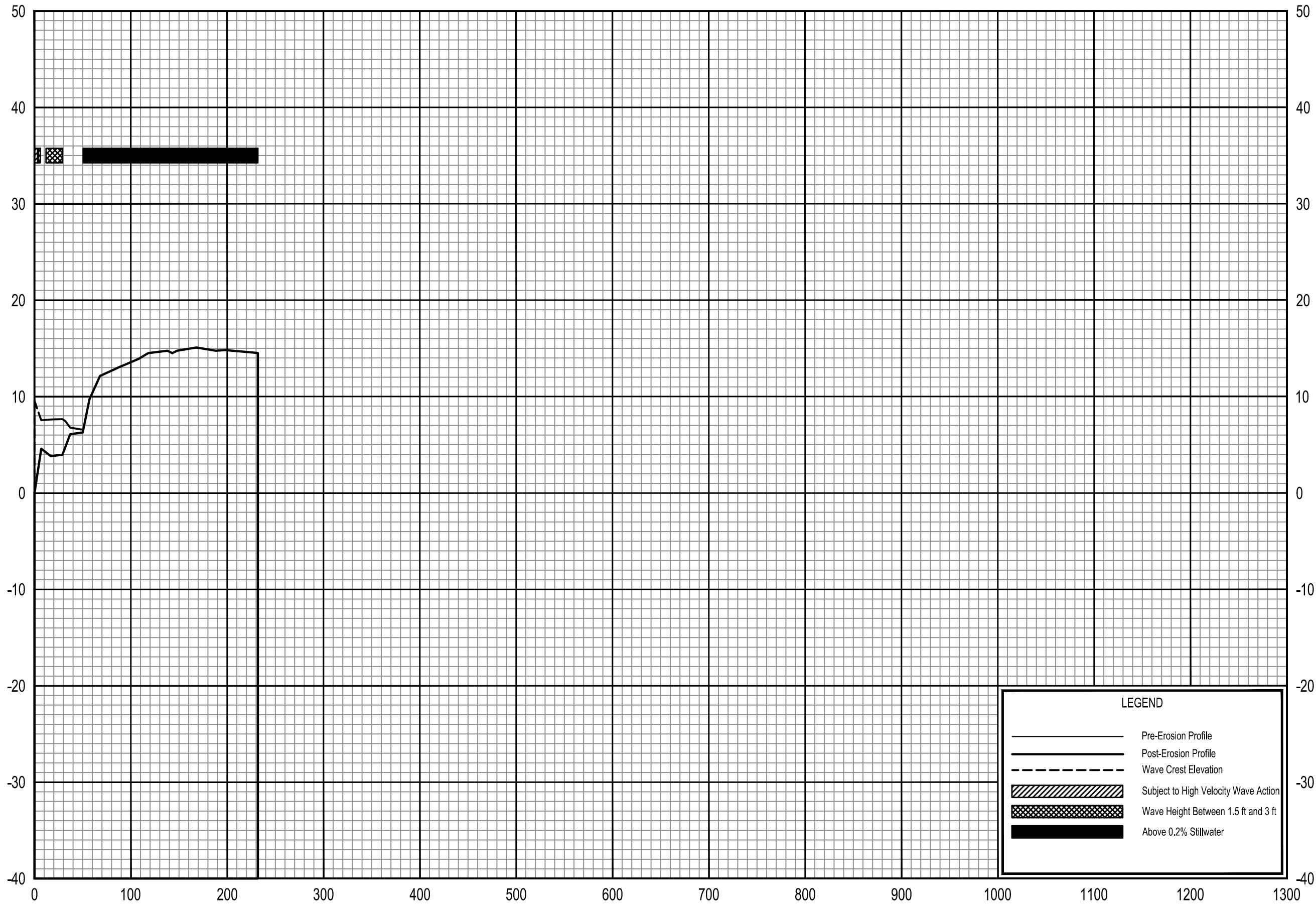
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 106

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

220 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

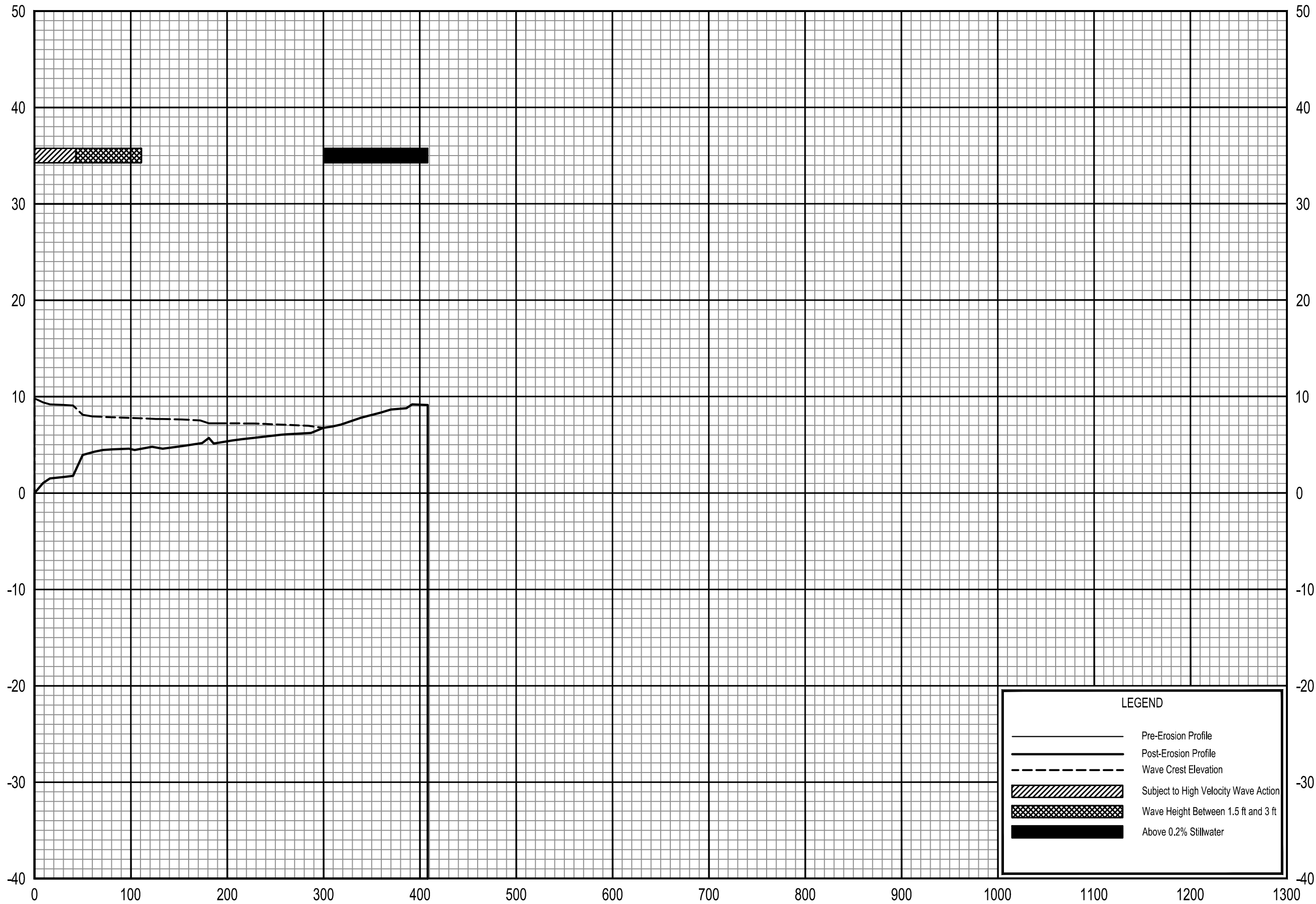
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 107

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

221 T

ELEVATION IN FEET (NAVD 88)



TRANSECT DISTANCE IN FEET FROM SHORELINE

**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

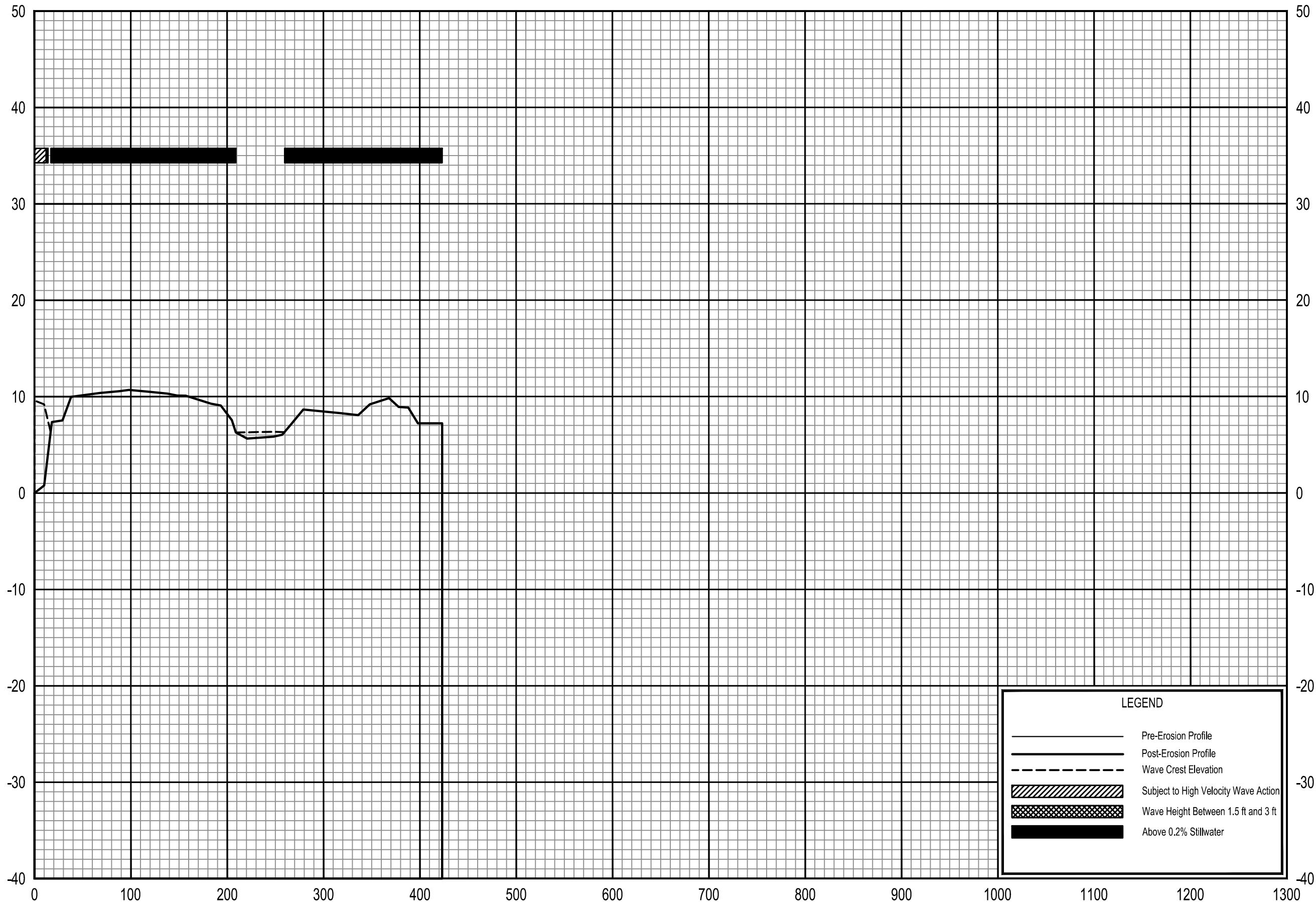
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 108

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

222 T

ELEVATION IN FEET (NAVD 88)



LEGEND

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

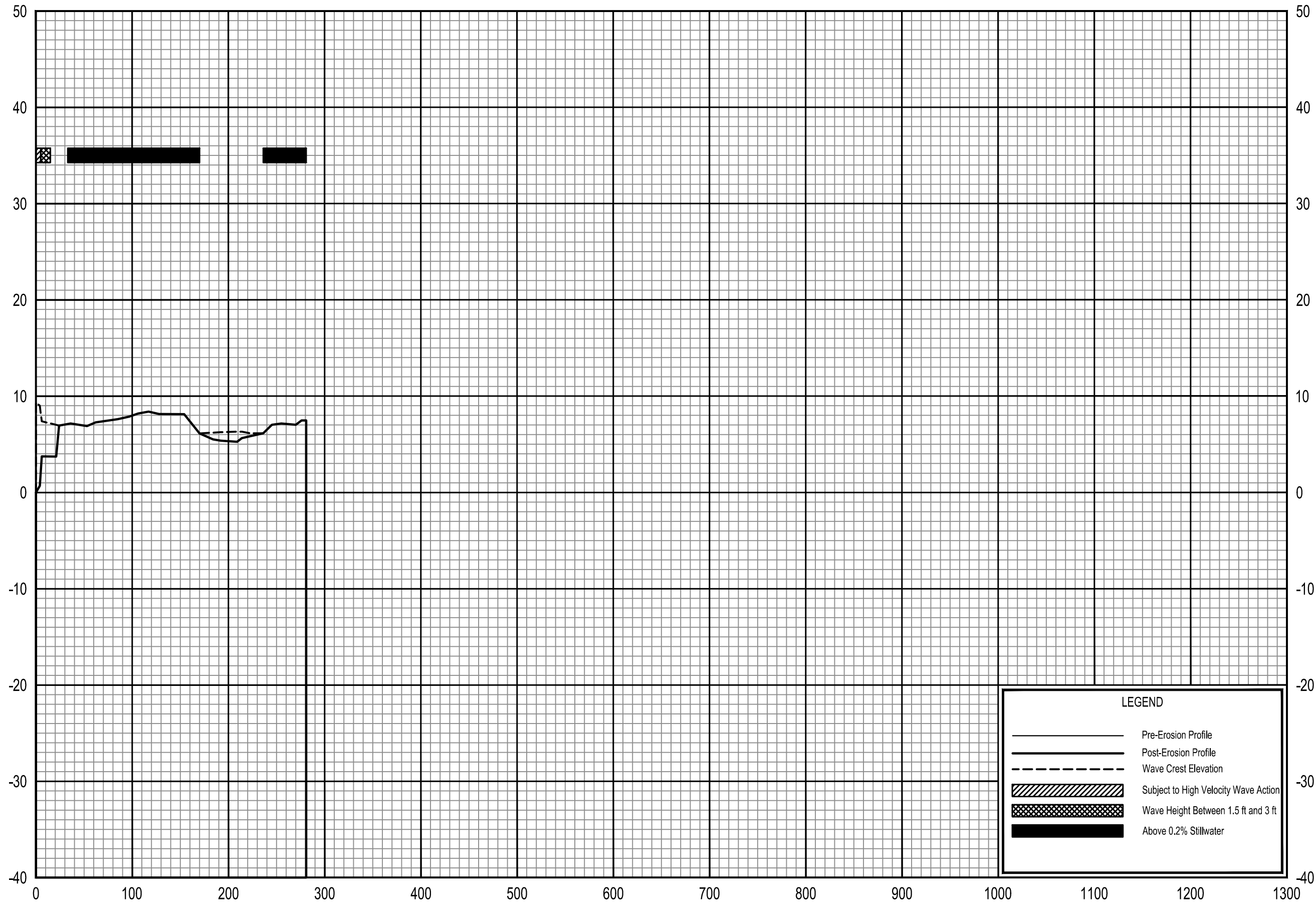
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 109

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

223 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

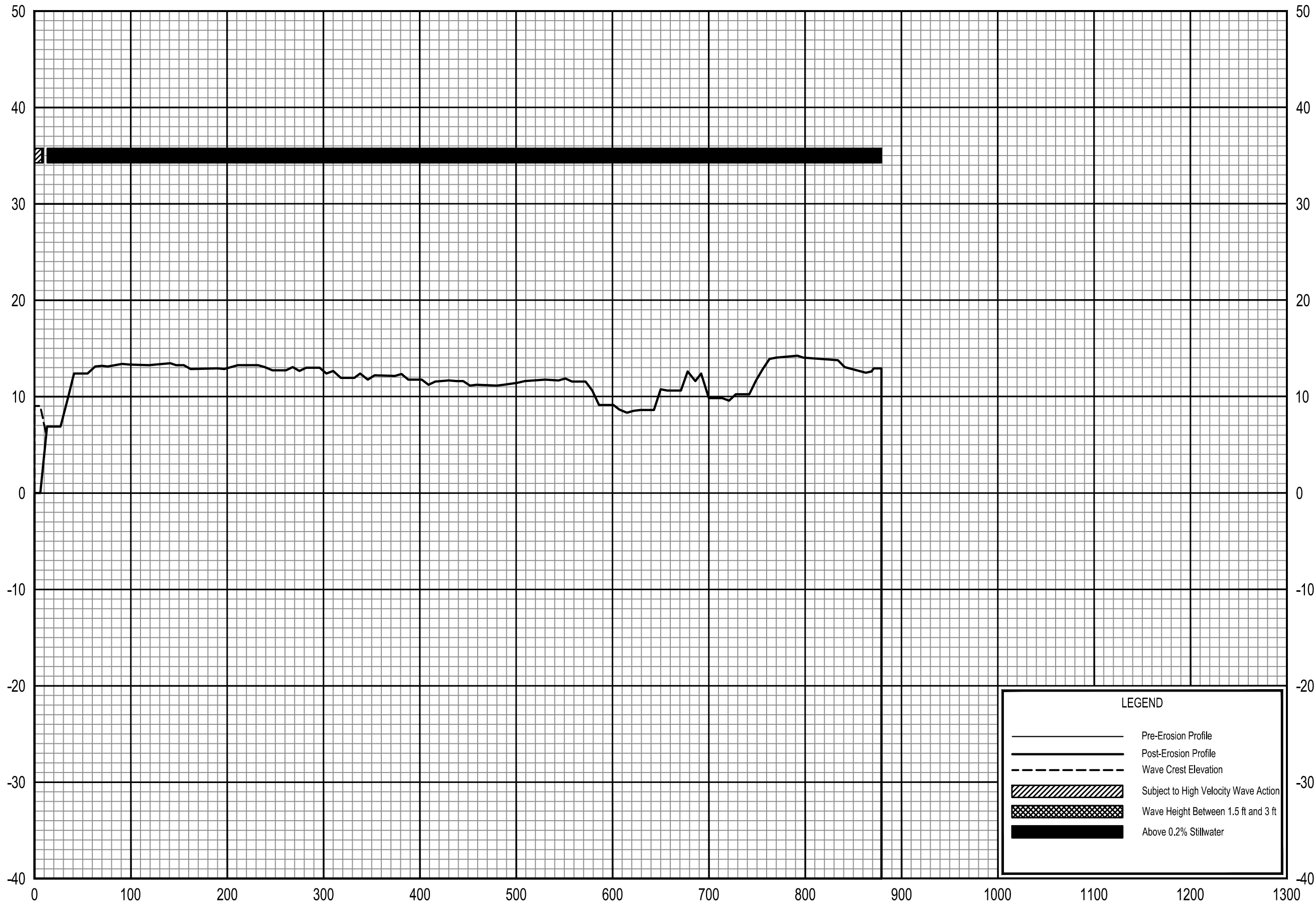
- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 110

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



LEGEND

- Pre-Erosion Profile
- Post-Erosion Profile
- Wave Crest Elevation
- Subject to High Velocity Wave Action
- Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

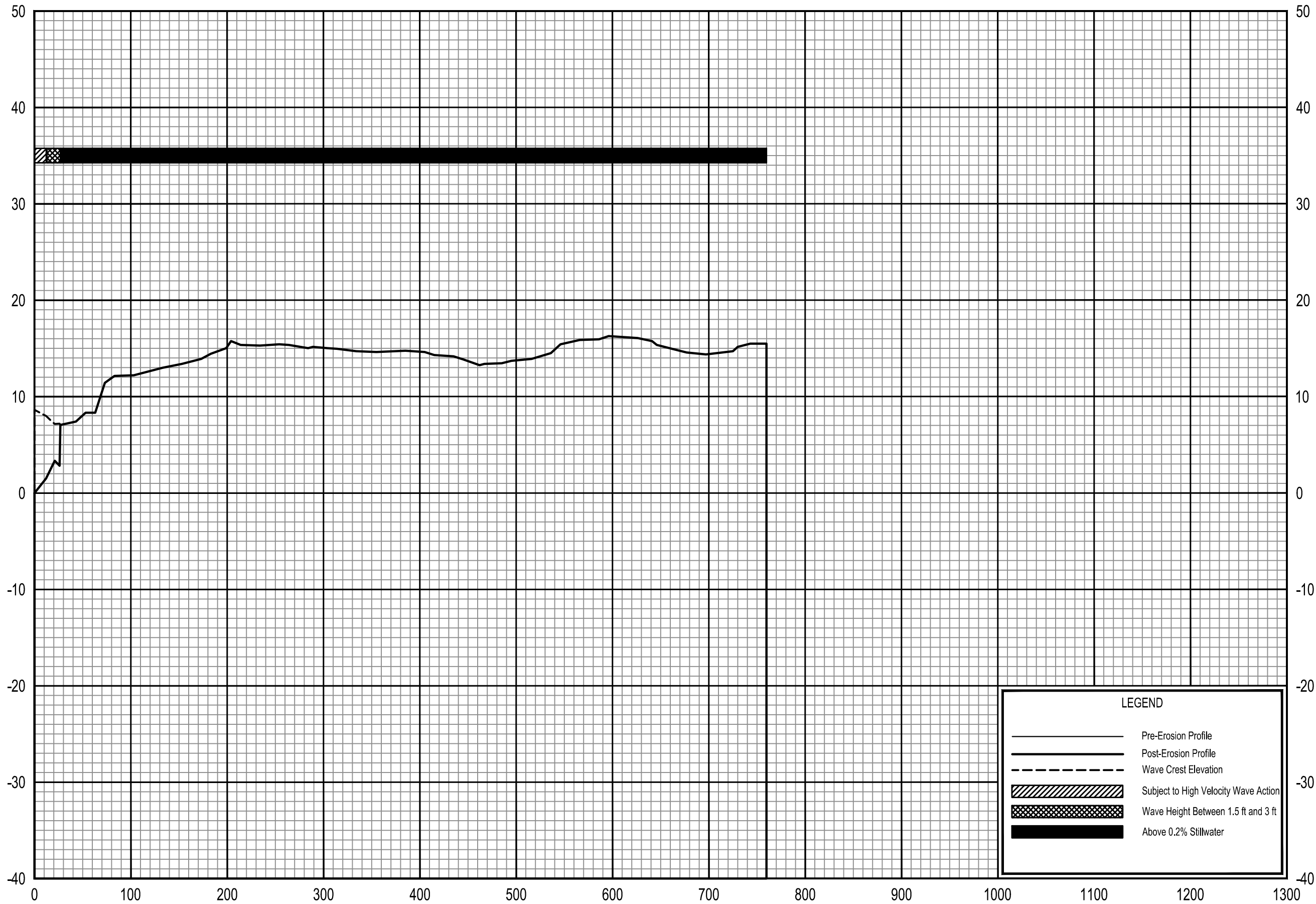
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 111

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

225 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

TRANSECT DISTANCE IN FEET FROM SHORELINE

0.2% ANNUAL CHANCE WAVE ENVELOPE

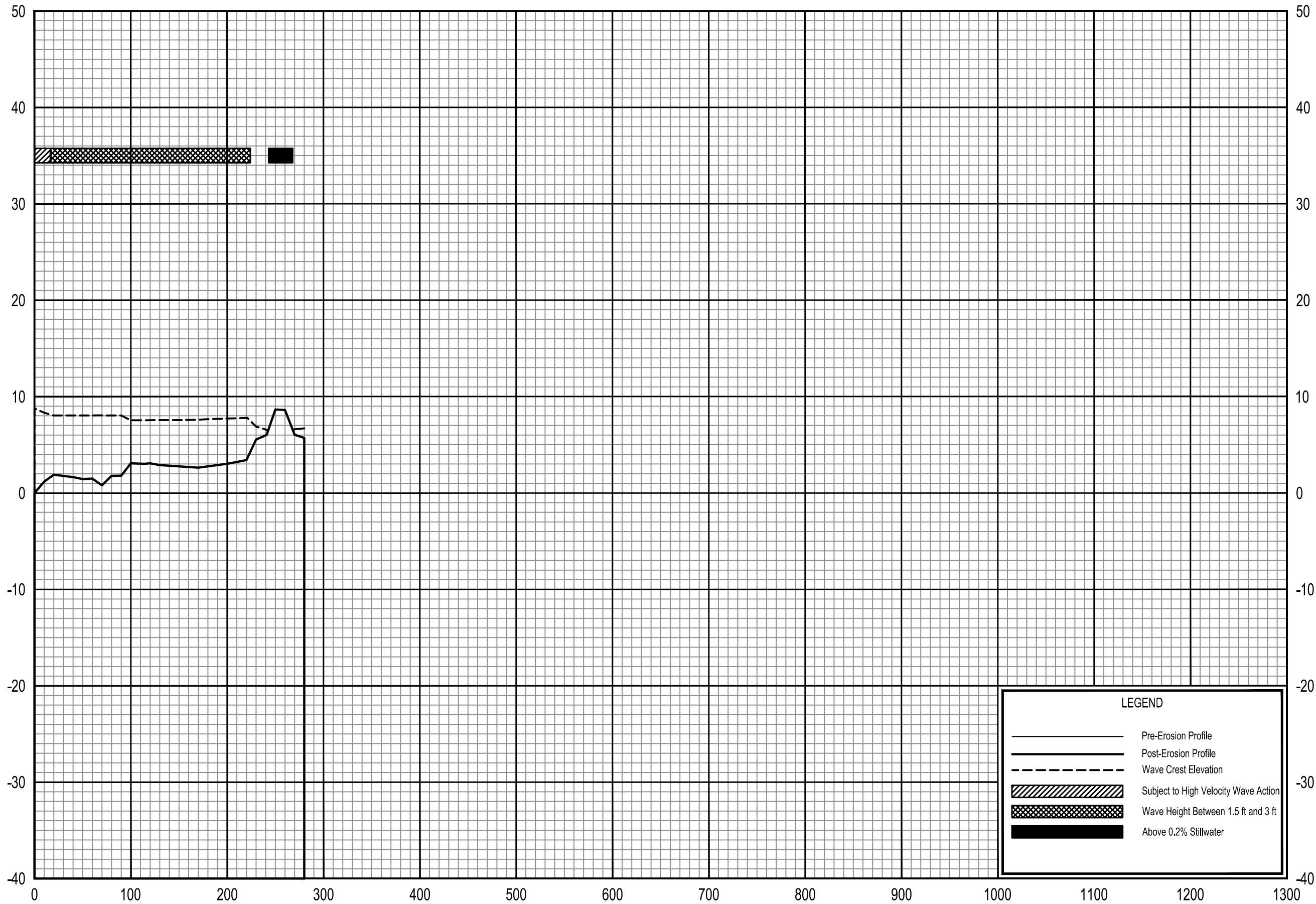
TRANSECT 112

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

226 T



ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

TRANSECT DISTANCE IN FEET FROM SHORELINE

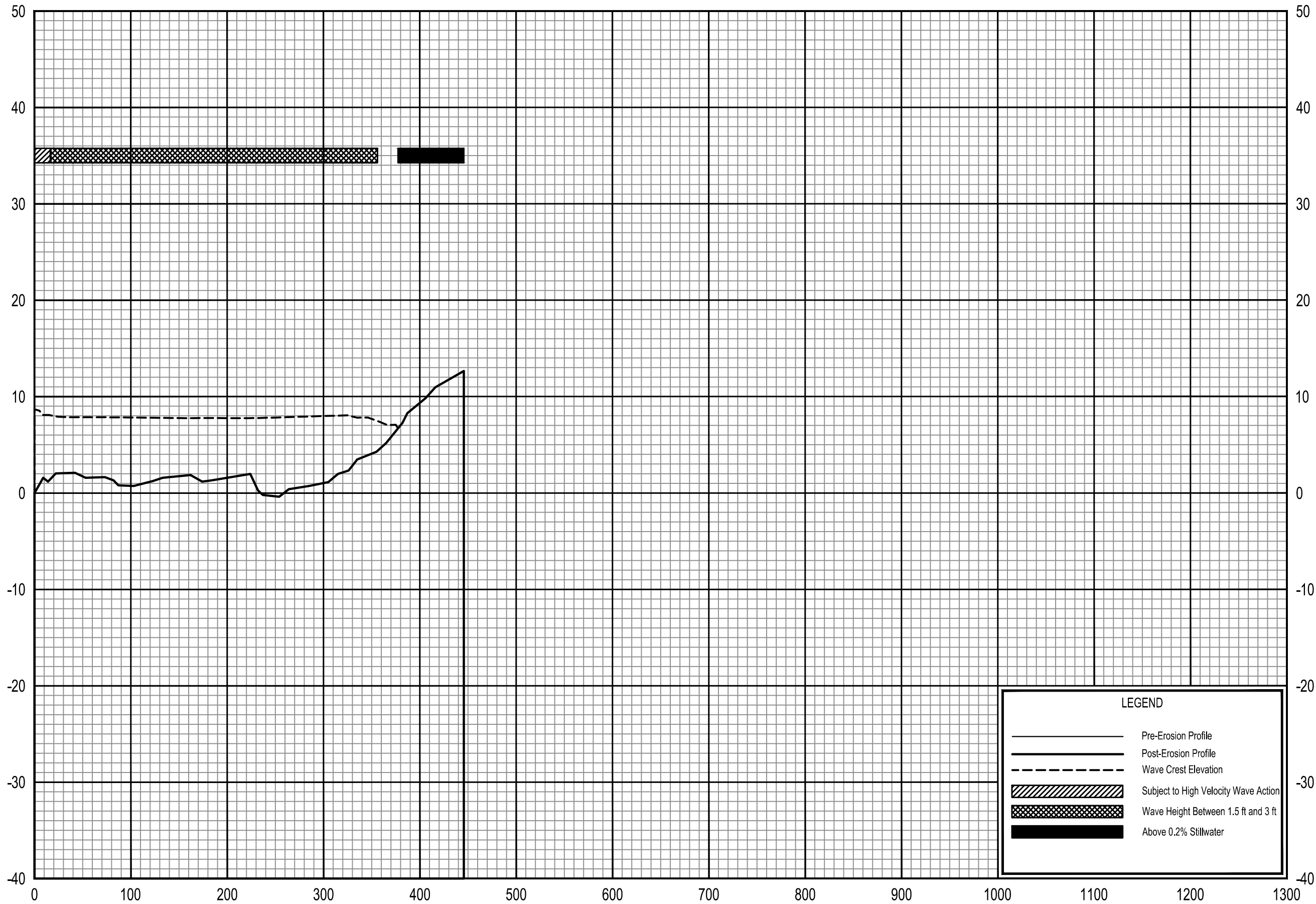
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 113

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

227 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

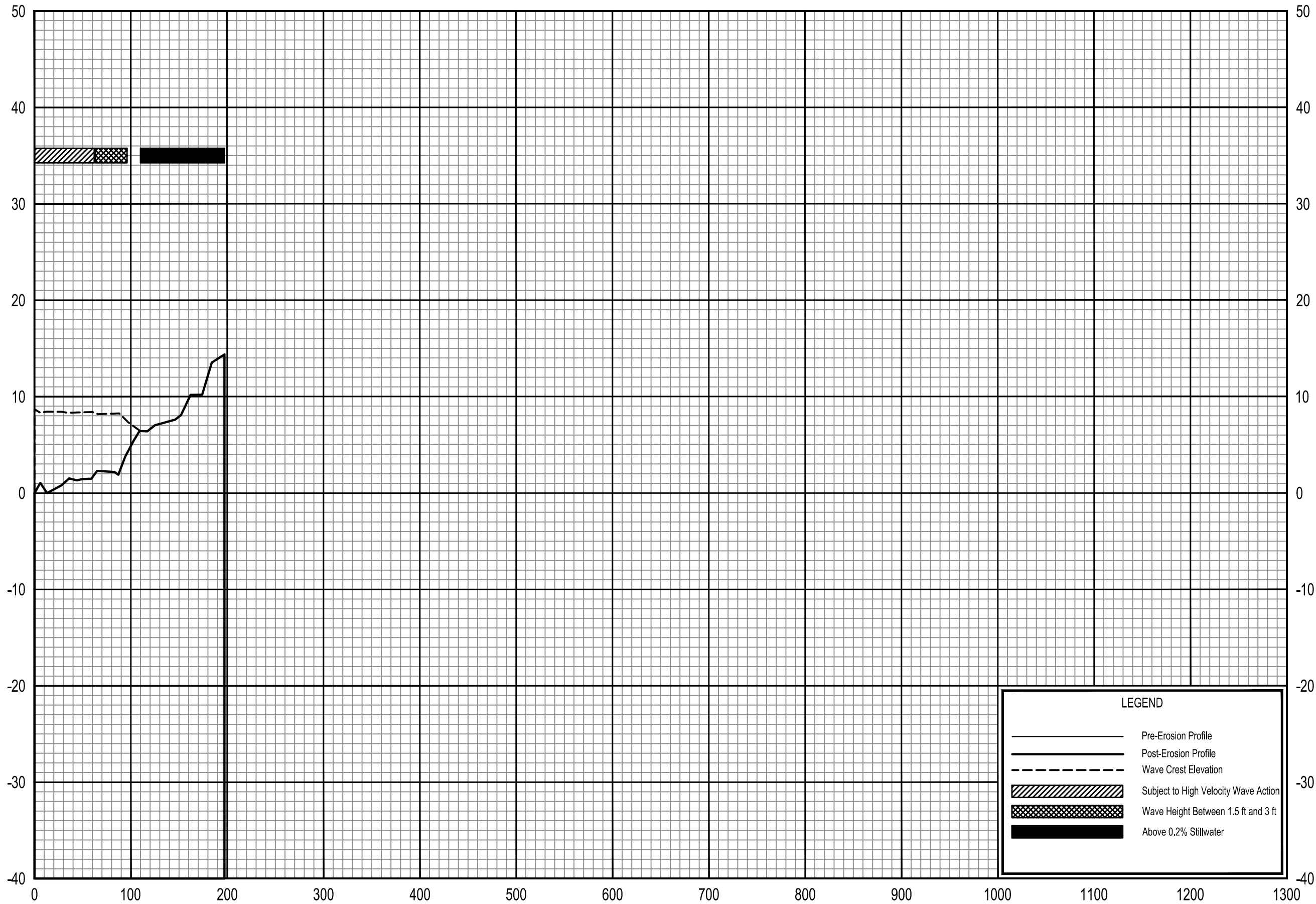
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 114

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

228 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

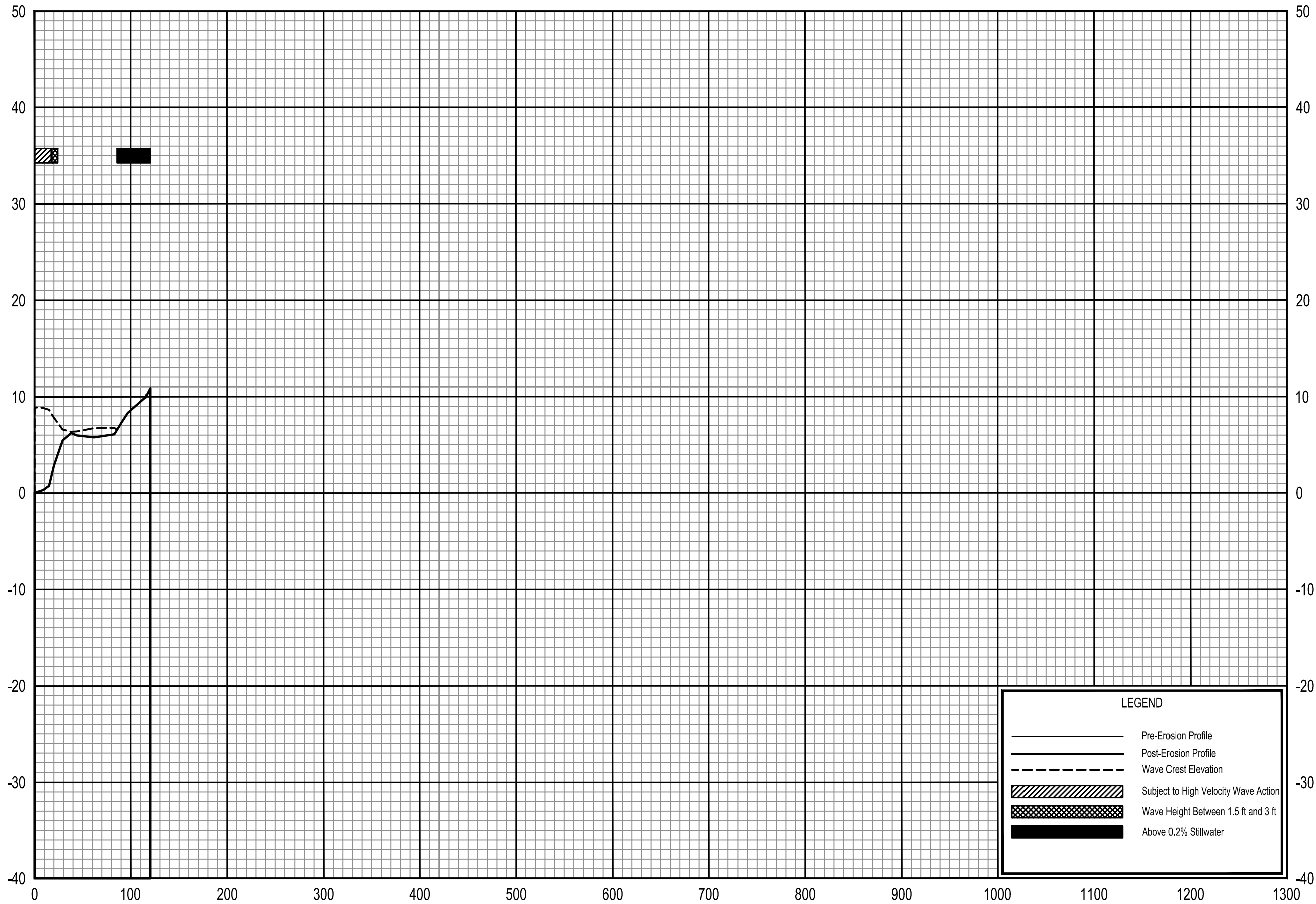
- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 115

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

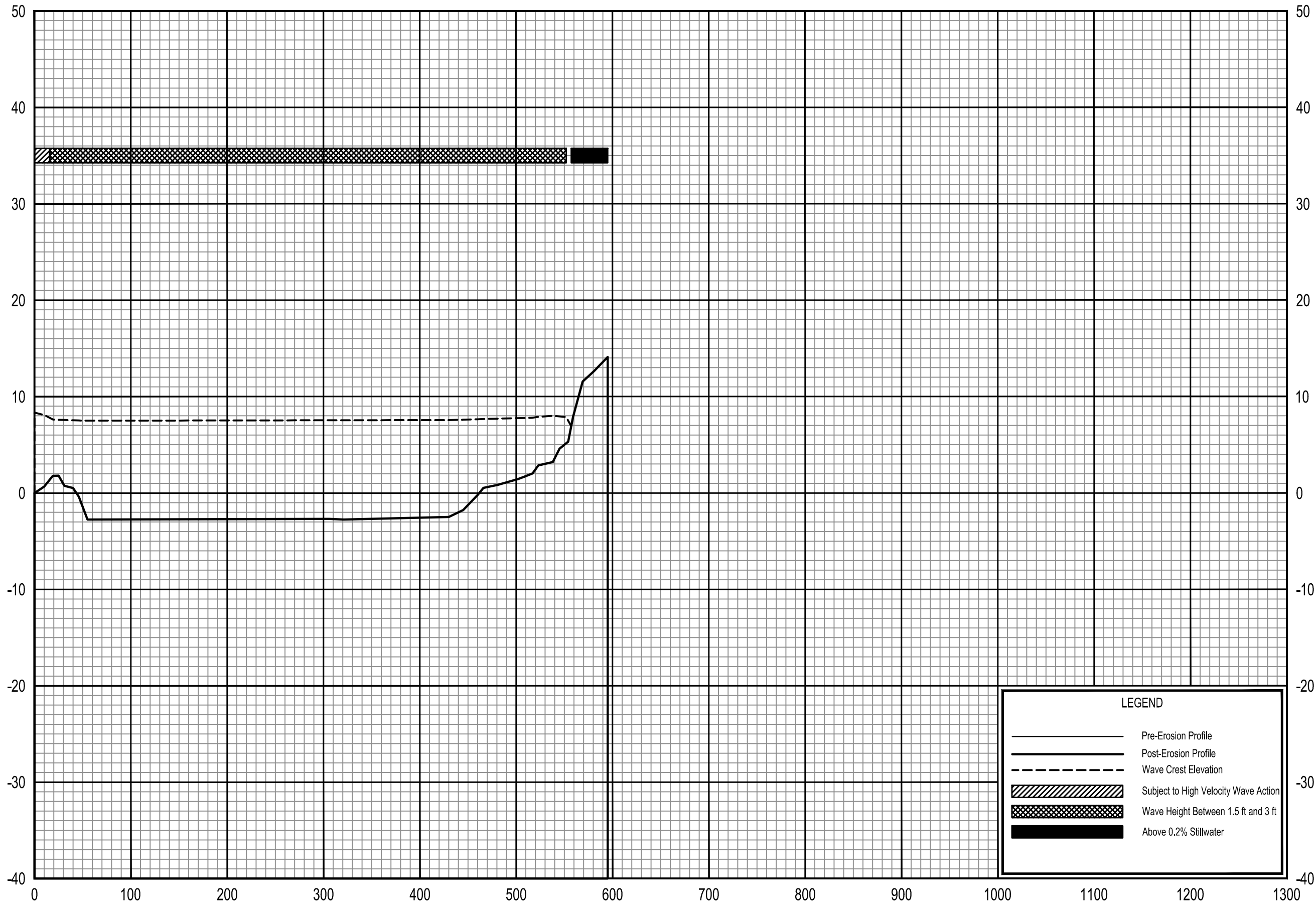
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 116

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

230 T

ELEVATION IN FEET (NAVD 88)



TRANSECT DISTANCE IN FEET FROM SHORELINE

**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

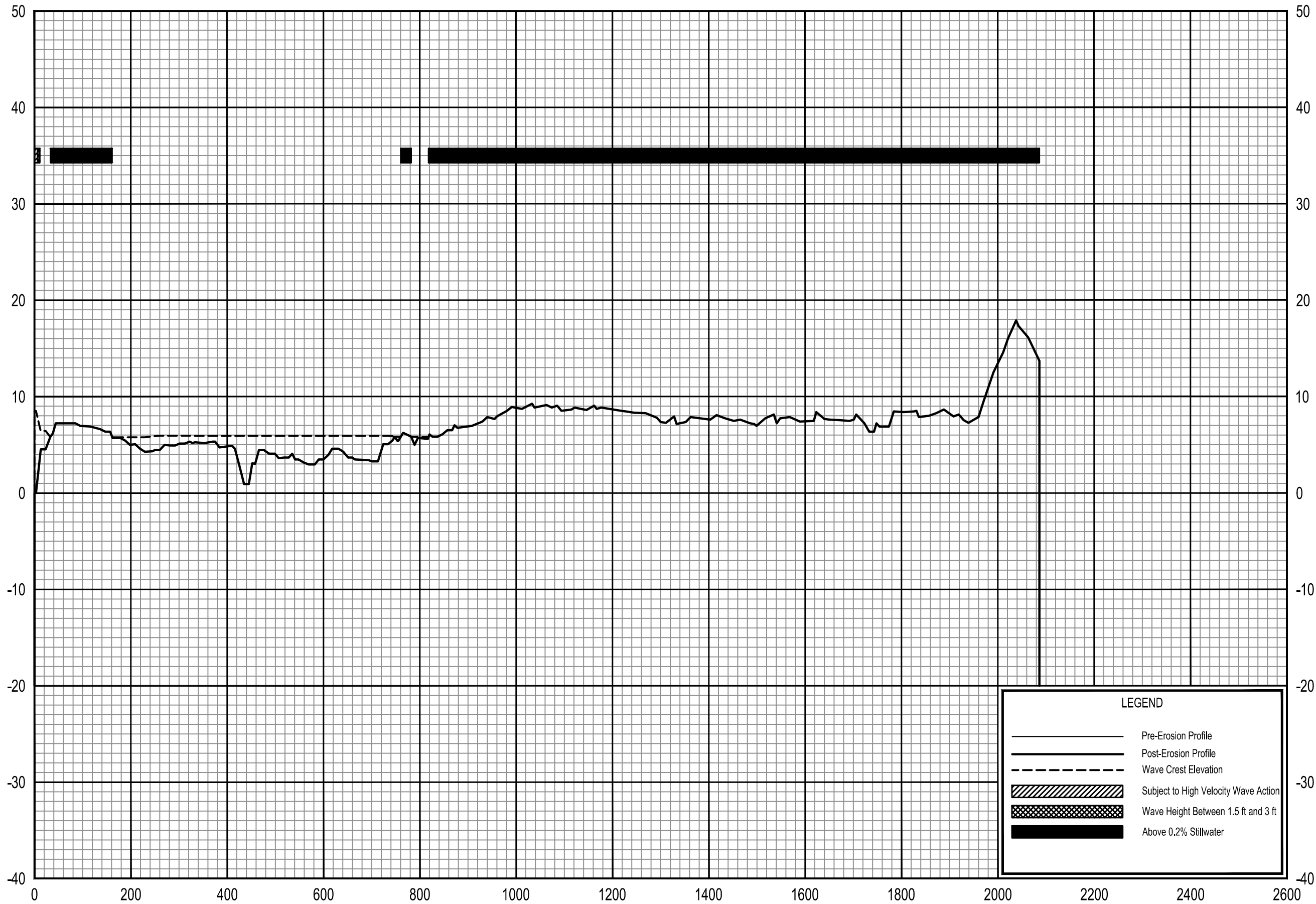
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 117

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

231 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

TRANSECT DISTANCE IN FEET FROM SHORELINE

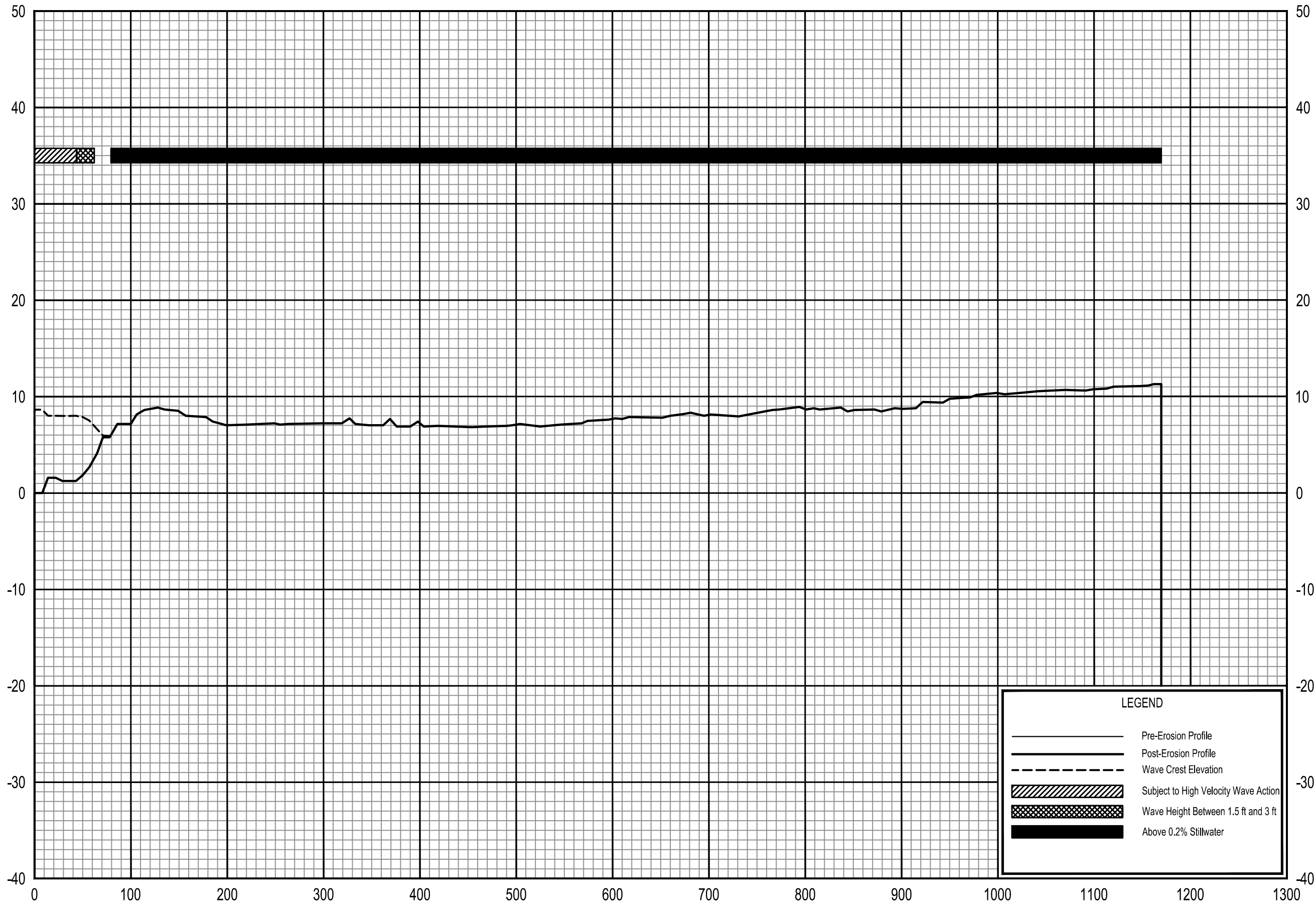
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 118

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

232 T

ELEVATION IN FEET (NAVD 88)



**LEGEND**

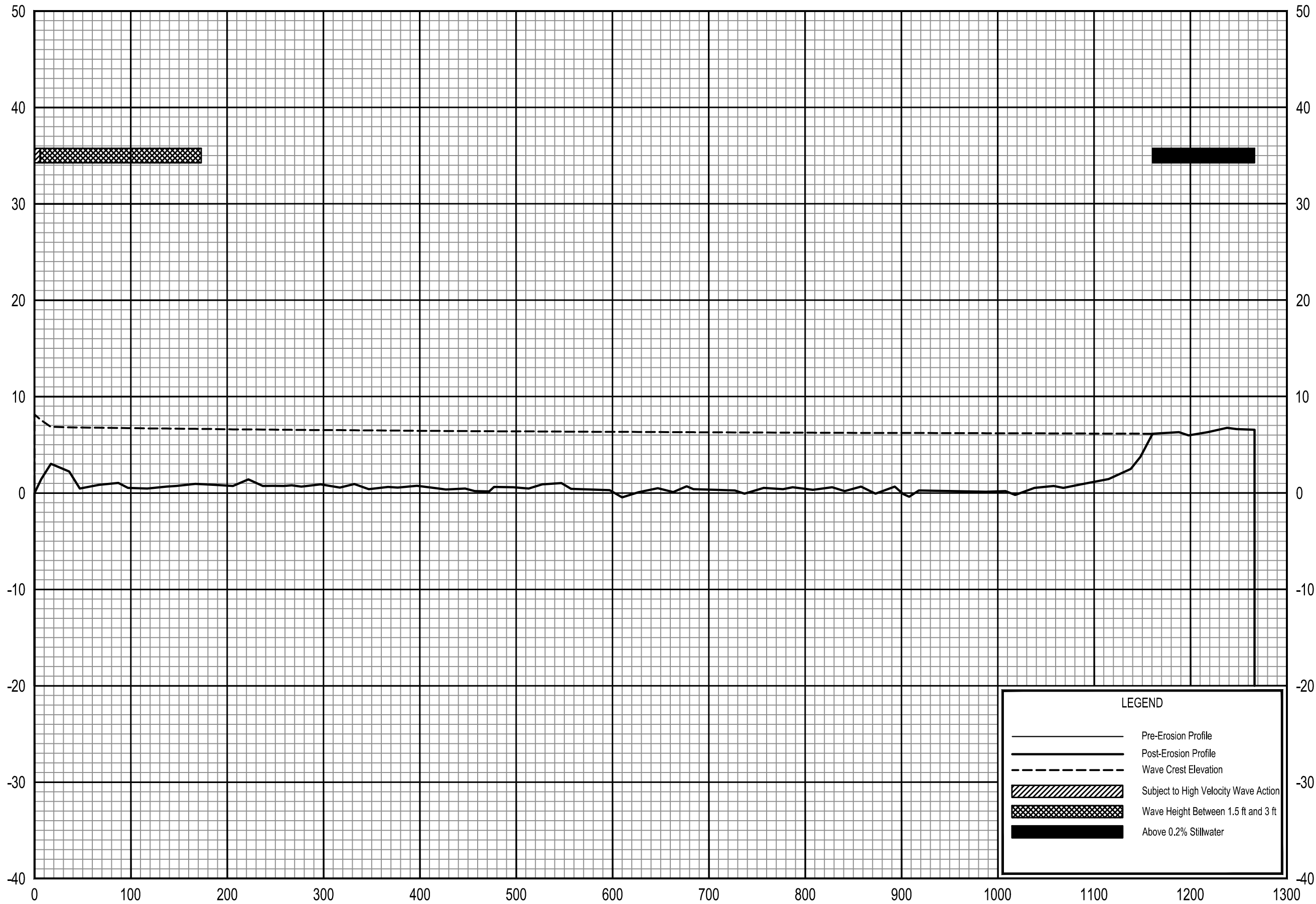
- Pre-Erosion Profile
- - - Post-Erosion Profile
- · · Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 119

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



LEGEND

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

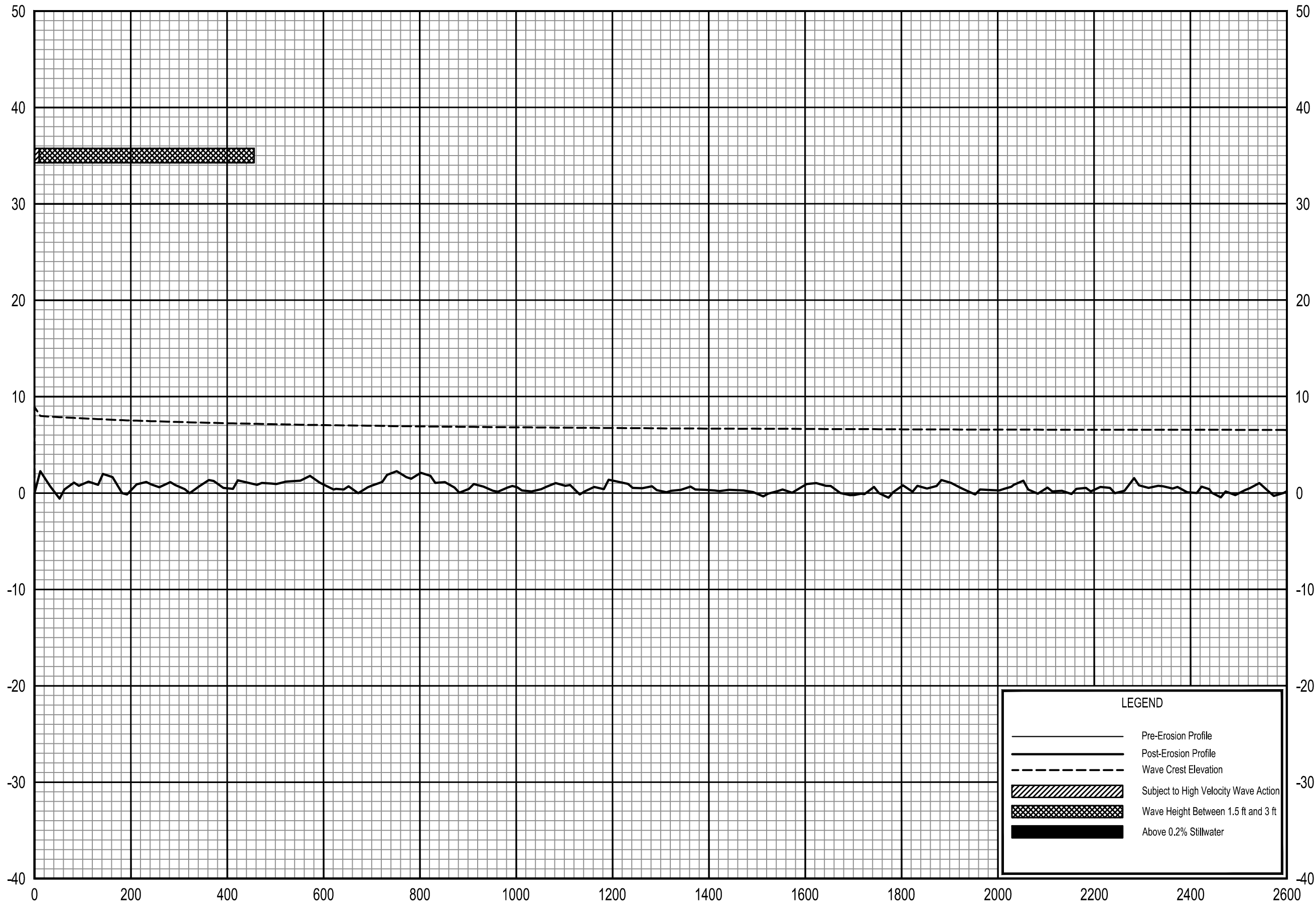
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 120

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS



ELEVATION IN FEET (NAVD 88)



**LEGEND**

- Pre-Erosion Profile
- Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

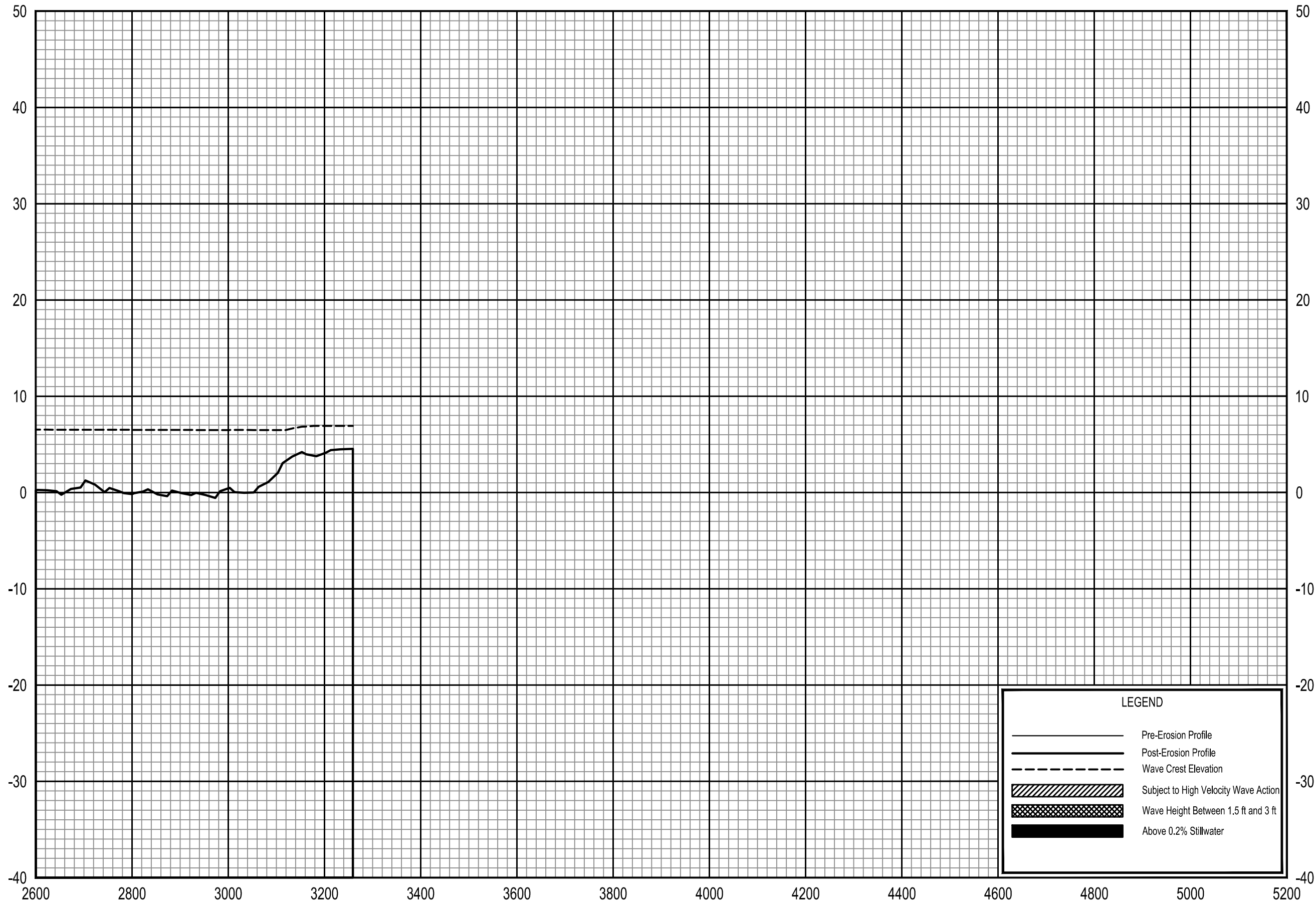
0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 121

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS

235 T

ELEVATION IN FEET (NAVD 88)



TRANSECT DISTANCE IN FEET FROM SHORELINE

**LEGEND**

- Pre-Erosion Profile
- - - Post-Erosion Profile
- - - Wave Crest Elevation
- ▨ Subject to High Velocity Wave Action
- ▩ Wave Height Between 1.5 ft and 3 ft
- Above 0.2% Stillwater

0.2% ANNUAL CHANCE WAVE ENVELOPE

TRANSECT 121

FEDERAL EMERGENCY MANAGEMENT AGENCY  
MARTIN COUNTY, FL  
AND INCORPORATED AREAS