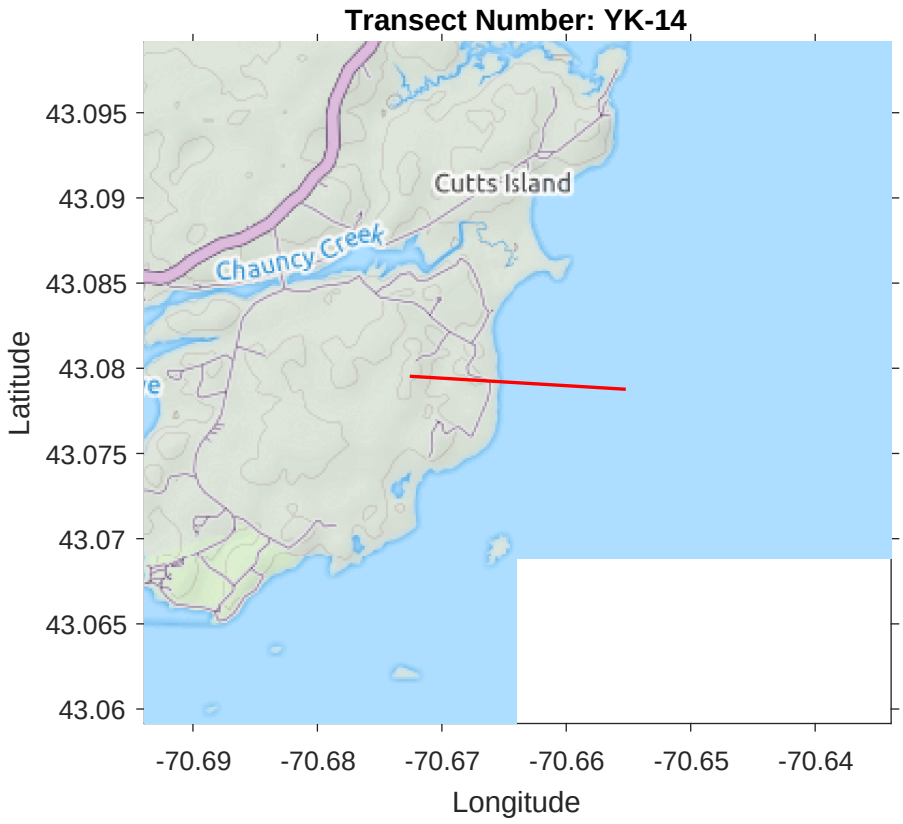
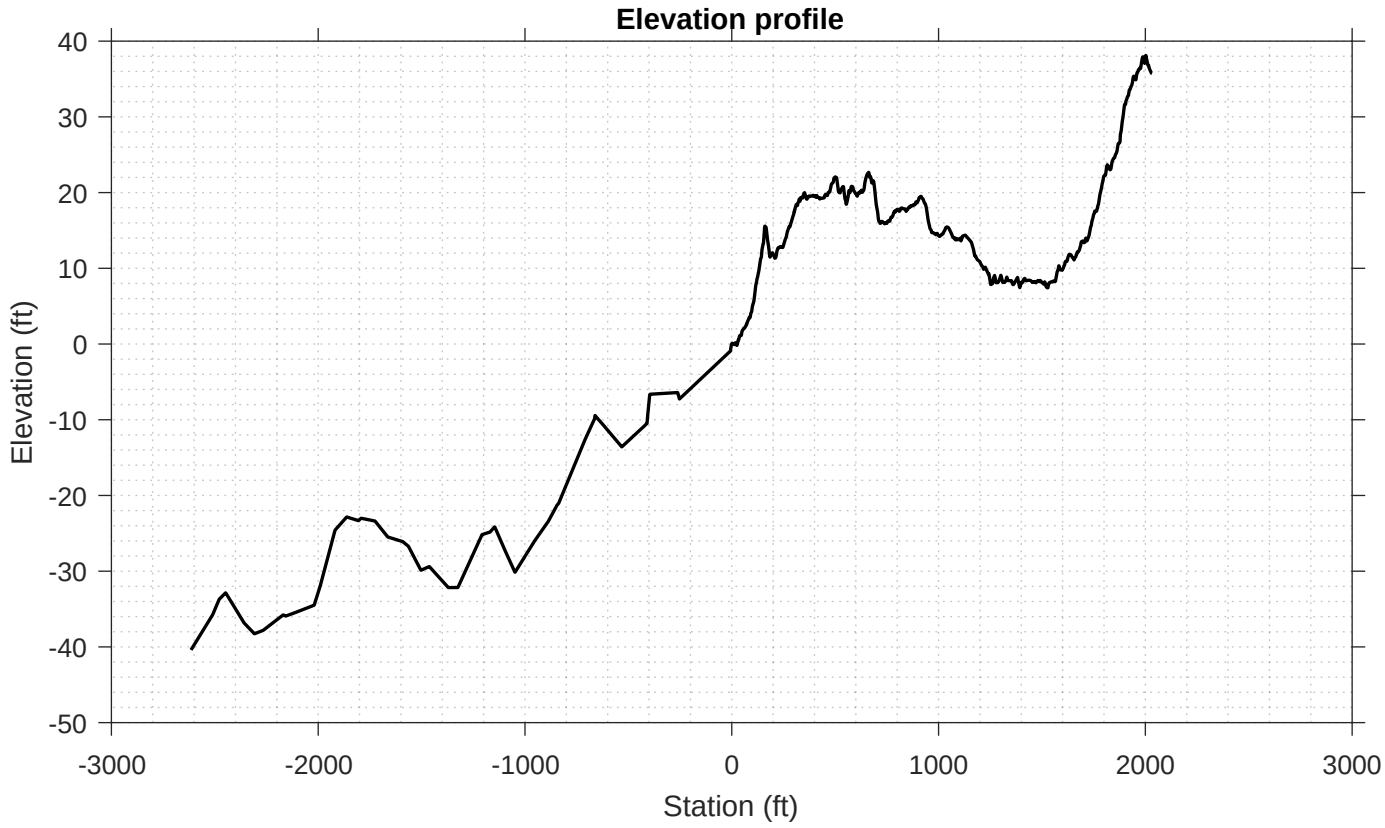

Transect Number: YK-14
Cutts Island
Chauncy Creek
43.095
43.09
43.085
43.08
43.075
43.07
43.065
43.06
Latitude
-70.69
-70.68
-70.67
-70.66
-70.65
-70.64
Longitude


Elevation profile
40
30
20
10
0
-10
-20
-30
-40
-50
Elevation (ft)
-3000
-2000
-1000
0
1000
2000
3000
Station (ft)

DATA LOG FOR TRANSECT ID: YK-14

PART 1: USER INPUT

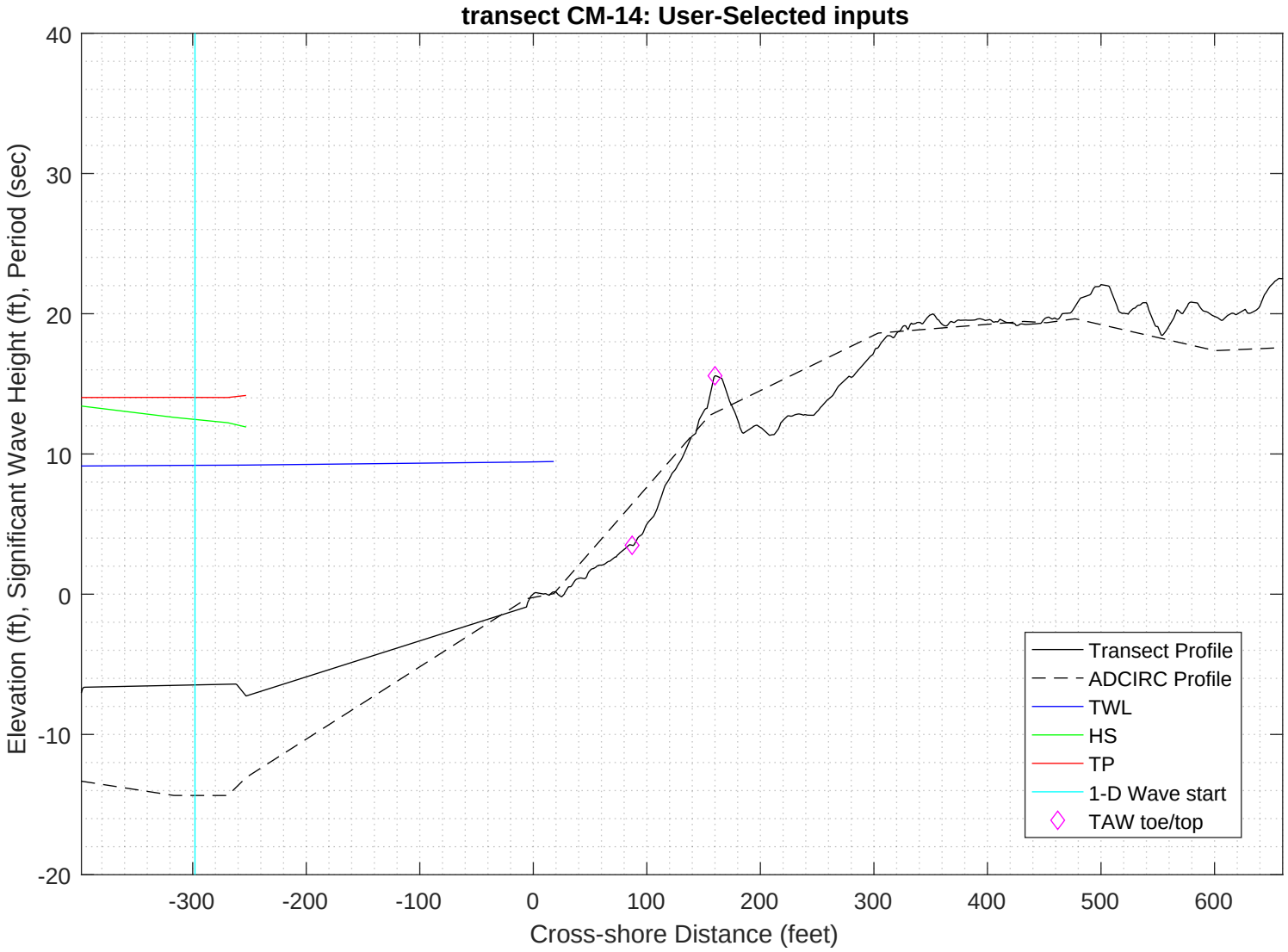
SWAN 1-D / WHAFIS input

station: -298 ft
LON: -70.6639 deg E
LAT: 43.0792 deg N
Bottom ELEV: -6.4683 ft-NAVD88
TWL: 9.19 ft-NAVD88
HS: 12.4602 ft
TP: 14.0317 sec
Wave Direction bin: 180 deg CCW from East (90 deg sector)
Transect Direction: 177.4837 deg CCW from East

TAW/RUNUP input

toe sta: 87 ft
toe elev: 3.4902 ft-NAVD88
top sta: 160 ft
top elev: 15.5739 ft-NAVD88
*Wave and water level conditions at toe to be calculated in SWAN 1-D*

PART 1 COMPLETE


transect CM-14: User-Selected inputs
Elevation (ft), Significant Wave Height (ft), Period (sec)
Cross-shore Distance (feet)
40
30
20
10
0
-10
-20
-300
-200
-100
0
100
200
300
400
500
600
Transect Profile
ADCIRC Profile
TWL
HS
TP
1-D Wave start
TAW toe/top

PART 2: SWAN 1-D

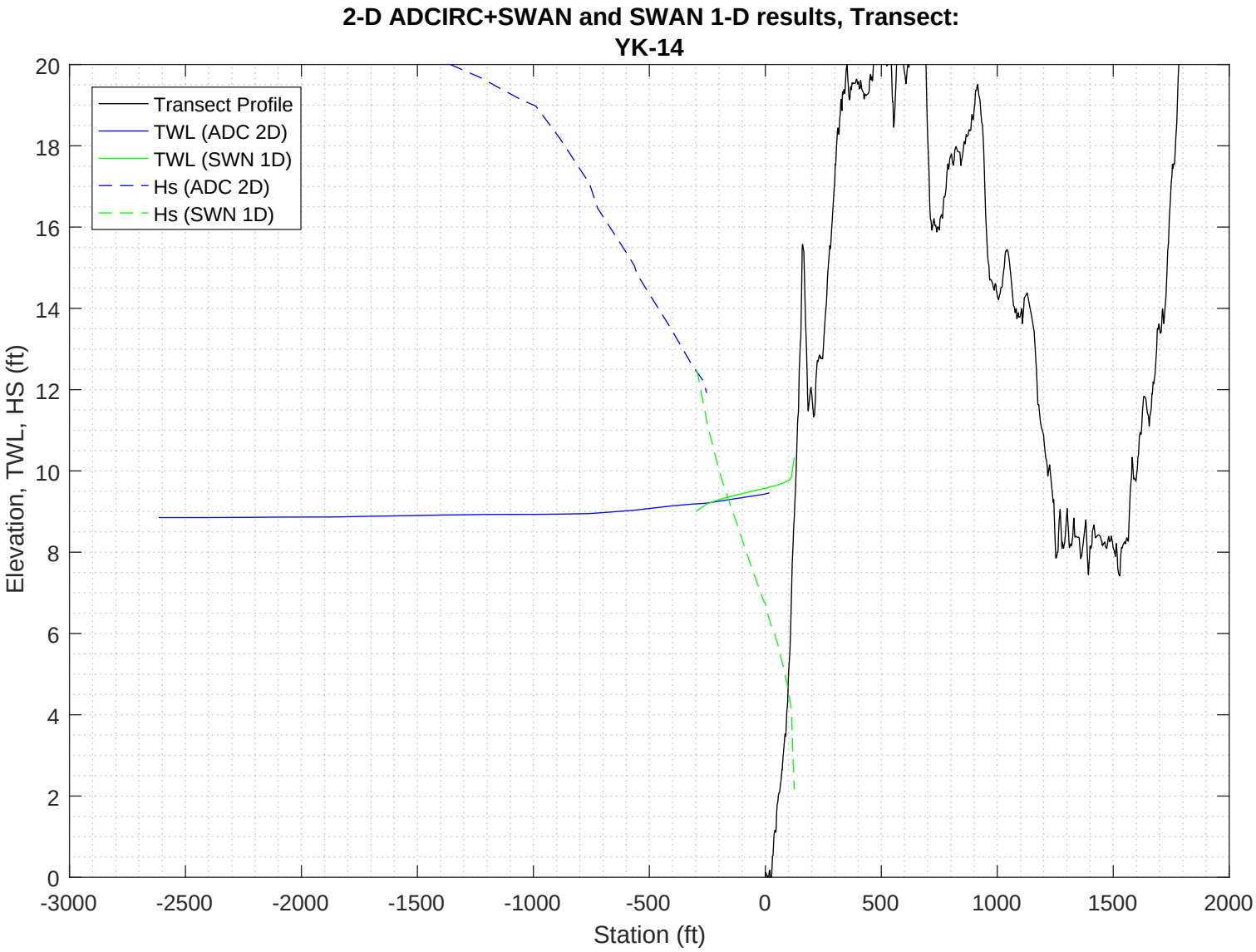
swan input grid name: 2_swan/gridfiles/YK-14zmeters_xmeters.grd
swan file name:       2_swan/swanfiles/YK-14.swn
swan output name:     2_swan/swanfiles/YK-14.dat

Boundary Conditions:
    TWL- 2.8011 meters
    HS-  3.7979 meters
    PER- 14.0317 seconds

Batch File: 2_swan/swanfiles/runswan.dat

SWAN maximum additional wave setup: 1.1359 feet
SWAN output at toe:
    SETUP- 0.5381 feet
    HS-    4.9688 feet
    PER-   13.8709 seconds

PART 2 COMPLETE


2-D ADCIRC+SWAN and SWAN 1-D results, Transect:
YK-14
Transect Profile
TWL (ADC 2D)
TWL (SWN 1D)
Hs (ADC 2D)
Hs (SWN 1D)
Elevation, TWL, HS (ft)
Station (ft)
20
18
16
14
12
10
8
6
4
2
0
-3000
-2500
-2000
-1500
-1000
-500
0
500
1000
1500
2000

1

Execution started at 20200206.151504

---
SWAN
SIMULATION OF WAVES IN NEAR SHORE AREAS
VERSION NUMBER 41.20A
---

```
PROJECT '2018FemaAppeal' '1'
   '100-year Wind and Wave conditions'
! -- SET commands ------------------------------------------------------
 SET DEPMIN=0.01 MAXMES=999 MAXERR=3 PWTAIL=4
 SET LEVEL 0
 SET CARTESIAN
! -- MODE commands -----------------------------------------------------
 MODE STATIONARY ONED
!-- COORDINATES commands-----------------------------------------------
COORDINATES CART
!
!  --  computational (CGRID) grid commands --------------------------------------
!                                  xlenc=length of grid in meters
!  mxc = number of mesh cells (one less than number of grid points)
!CGRID REGular [xpc]  [ypc]  [alpc]  [xlenc]   [ylenc]  [mxc]  [myc] &
!      [ CIRcle|SECtor[dir1] [dir2] ] [mdc] [flow] [fhigh] [msc]
 CGRID REGULAR   0      0       0      129       0.   129     0    &
       CIRCLE                          36    0.03    0.8     30
Resolution in sigma-space: df/f =  0.1157
! -- READgrid ---- not used in 1-D mode ----------------------------------
! -- INPgrid commands  -------------------------------------------------------
!INPgrid BOTtom REGular [xpinp] [ypinp] [alpinp] [mxinp] [myinp] [dxinp] [dyinp]
!
 INPGRID BOTTOM REGULAR    0       0        0      129   0      1       1
!READinp BOTtom [fac]  'fname1'  [idla]  [nhedf]  [FREe|FORmat[form]|UNFormatted]
 READ    BOTTOM   -1. '../gridfiles/YK-14zmeters_xmeters.grd'    1      0       FREE
!-------------------------------------------------------------------------
! -- WIND [vel] [dir]
WIND      25.1  0
! -- BOUnd SHAPespec
BOUND SHAPE JONSWAP 3.3  PEAK DSPR POWER
! -- BOUndspec
! BOU SIDE W CCW CON FILE 'swanspec.txt' 1
BOUN SIDE W CCW CONSTANT PAR   3.7979     14.0317     0  2
!-- BOUndnest1  - optional for boundary from parent run
!-- BOUndnest2
!-- BOUndnest3
!-- INITial -- usest to specify initial values
!
!---------------- P H Y S I C S ------------------------
!-- GEN1 [cf10] [cf20] [cf30] [cf40] [edm1pm] [cdrag] [umin] [cfpm]
!-- GEN2 [cf10] [cf20] [cf30] [cf40] [cf50] [cf60] [edm1pm] [cdrag] [umin] [cfpm]
```

```
    GEN3 KOMEN
!   whitecapping ( on by default)
!-- WCAPping KOMen [cds2] [stpm] [powst] [delta] [powk]
    WCAP KOM
!   quadruplet wave interactions
!-- QUADrupl [iquad] [lambda] [Cn14] [Csh1] [Csh2]
! -- BREaking CONstant [alpha] [gamma]
     BREAK    CON       1.      0.73
!-- FRICtion JONswap CONstant [cfjon]
    FRIC     JONSWAP CON       0.038
!-- TRIad [itriad] [trfac] [cutfr]   [a]  [b]  [urcrit] [urslim]
! TRIAD        1      0.65    2.5    0.95 -0.75  0.2       0.01
  TRIAD
!-- VEGEtation [height] [diamtr] [nstems] [drag]
!-- MUD [layer] [rhom] [viscm]
!- LIMiter [ursell] [qb] deactivates quadruplets with Ursell number exceeds ursell
!-- OBSTacle -- not in 1-D
!-- SETUP [supcor]
   SETUP    0
!
! ----------------- N U M E R I C S ------------------------------
!
!-- PROP  can use BBST or GSE instead of default
! -- NUMeric -- lots of options
!     NUM ACCUR npnts=100. stat 30
     NUMeric STOPC
!
! -------------------O U T P U T ------------------------------
!
!OUTPut OPTIons "comment' (TABLE [field]) (BLOck [ndec] [len]) (SPEC [ndec])
 OUTPUT OPTIONS '%' TABLE 16
 $BLOCK 9 1000 SPEC 8
!CURve 'sname' [xp1] [yp1] <[int]   [xp]   [yp] >
 CURVE 'curve' 0     0      129  129    0
!TABLe 'sname' < HEADer|NOHEADer|INDexed > 'fname' <output parameters> (output time)
 Table 'curve'   HEADER 'YK-14.dat' XP YP HSIGN TPS RTP TMM10 DIR &
 DSPR DEPTH SETUP
!QUANTITY XP hexp=99999
!
!-----------------------------------------------
 COMPUTE STATIONARY
------------------------------------------------------------------
                  COMPUTATIONAL PART OF SWAN
------------------------------------------------------------------
 One-dimensional mode of SWAN is activated
 Gridresolution       : MXC             130 MYC              1
                      : MCGRD           131
                      : MSC              31 MDC             36
                      : MTC               1
                      : NSTATC            0 ITERMX          50
 Propagation flags    : ITFRE             1 IREFR            1
 Source term flags    : IBOT              1 ISURF            1
                      : IWCAP             1 IWIND            3
                      : ITRIAD            1 IQUAD            2
                      : IVEG              0 ITURBV           0
```

```
                     : IMUD              0
Spatial step         : DX       0.1000E+01 DY      0.1000E+01
Spectral bin         : df/f     0.1157E+00 DDIR    0.1000E+02
Physical constants   : GRAV     0.9810E+01 RHO     0.1025E+04
Wind input           : WSPEED   0.2510E+02 DIR     0.0000E+00
Tail parameters      : E(f)     0.4000E+01 E(k)    0.2500E+01
                     : A(f)     0.5000E+01 A(k)    0.3000E+01
Accuracy parameters  : DREL     0.1000E-01 NPNTS   0.9950E+02
                     : DHABS    0.0000E+00 CURVAT  0.5000E-02
                     : GRWMX    0.1000E+00
Drying/flooding      : LEVEL    0.0000E+00 DEPMIN  0.1000E-01
The Cartesian convention for wind and wave directions is used
Scheme for geographic propagation is SORDUP
Scheme geogr. space  : PROPSC            2 ICMAX           7
Scheme spectral space: CSS      0.5000E+00 CDD     0.5000E+00
Current is off
Quadruplets          : IQUAD             2
                     : LAMBDA   0.2500E+00 CNL4    0.3000E+08
                     : CSH1     0.5500E+01 CSH2    0.8330E+00
                     : CSH3    -0.1250E+01
Maximum Ursell nr for Snl4 :    0.1000E+02
Triads               : ITRIAD            1 TRFAC   0.8000E+00
                     : CUTFR    0.2500E+01 URCRI   0.2000E+00
Minimum Ursell nr for Snl3 :    0.1000E-01
JONSWAP (‘73)        : GAMMA    0.3800E-01
Vegetation is off
Turbulence is off
Fluid mud is off
W-cap Komen (‘84)    : EMPCOF (CDS2):   0.2360E-04
W-cap Komen (‘84)    : APM (STPM)   :   0.3020E-02
W-cap Komen (‘84)    : POWST        :   0.2000E+01
W-cap Komen (‘84)    : DELTA        :   0.1000E+01
W-cap Komen (‘84)    : POWK         :   0.1000E+01
Wind drag is fit
Snyder/Komen wind input
Battjes&Janssen (‘78): ALPHA    0.1000E+01 GAMMA   0.7300E+00
Set-up               : SUPCOR   0.0000E+00
Diffraction is off
Janssen (‘89,‘90)    : ALPHA    0.1000E-01 KAPPA   0.4100E+00
Janssen (‘89,‘90)    : RHOA     0.1280E+01 RHOW    0.1025E+04

1st and 2nd gen. wind: CF10     0.1880E+03 CF20    0.5900E+00
                     : CF30     0.1200E+00 CF40    0.2500E+03
                     : CF50     0.2300E-02 CF60   -0.2230E+00
                     : CF70     0.0000E+00 CF80   -0.5600E+00
                     : RHOAW    0.1249E-02 EDMLPM  0.3600E-02
                     : CDRAG    0.1230E-02 UMIN    0.1000E+01
                     : LIM_PM   0.1300E+00

 ---------------------------------------------------------------
 First guess by 2nd generation model flags for first iteration:
 ITER       1 GRWMX      0.1000E+23 ALFA       0.0000E+00
 IWIND      2 IWCAP      0 IQUAD      0
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    1; sweep 1
iteration    1; sweep 2
iteration    1; sweep 3
iteration    1; sweep 4
not possible to compute, first iteration

 ---------------------------------------------------------------
 Options given by user are activated for proceeding calculation:
 ITER       2 GRWMX      0.1000E+00 ALFA       0.0000E+00
 IWIND      3 IWCAP      1 IQUAD      2
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    2; sweep 1
iteration    2; sweep 2
iteration    2; sweep 3
iteration    2; sweep 4
accuracy OK in   8.47 % of wet grid points ( 99.50 % required)

iteration    3; sweep 1
iteration    3; sweep 2
iteration    3; sweep 3
iteration    3; sweep 4
accuracy OK in   0.77 % of wet grid points ( 99.50 % required)

iteration    4; sweep 1
iteration    4; sweep 2
iteration    4; sweep 3
iteration    4; sweep 4
accuracy OK in  13.08 % of wet grid points ( 99.50 % required)

iteration    5; sweep 1
iteration    5; sweep 2
iteration    5; sweep 3
iteration    5; sweep 4
accuracy OK in  29.24 % of wet grid points ( 99.50 % required)

iteration    6; sweep 1
iteration    6; sweep 2
iteration    6; sweep 3
```

```
iteration    6; sweep 4
accuracy OK in  81.54 % of wet grid points ( 99.50 % required)

iteration    7; sweep 1
iteration    7; sweep 2
iteration    7; sweep 3
iteration    7; sweep 4
accuracy OK in  98.47 % of wet grid points ( 99.50 % required)

iteration    8; sweep 1
iteration    8; sweep 2
iteration    8; sweep 3
iteration    8; sweep 4
accuracy OK in  98.47 % of wet grid points ( 99.50 % required)

iteration    9; sweep 1
iteration    9; sweep 2
iteration    9; sweep 3
iteration    9; sweep 4
accuracy OK in  98.47 % of wet grid points ( 99.50 % required)

iteration   10; sweep 1
iteration   10; sweep 2
iteration   10; sweep 3
iteration   10; sweep 4
accuracy OK in  99.24 % of wet grid points ( 99.50 % required)

iteration   11; sweep 1
iteration   11; sweep 2
iteration   11; sweep 3
iteration   11; sweep 4
accuracy OK in 100.00 % of wet grid points ( 99.50 % required)


STOP
```

%
%
% Run:1  Table:curve  SWAN version:41.20A
%
%  Xp  Yp  Hsig  TPsmoo  RTpeak  Tm_10  Dir  Dspr  Depth  Setup
%  [m]  [m]  [m]  [sec]  [sec]  [sec]  [degr]  [degr]  [m]  [m]
%

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0. | 0. | 3.80981 | 13.8195 | 13.8874 | 12.6704 | 0.001 | 31.5736 | 4.7134 | -0.056649 |
| 1. | 0. | 3.79277 | 13.8284 | 13.8874 | 12.2051 | 0.001 | 31.5408 | 4.7175 | -0.052457 |
| 2. | 0. | 3.77092 | 13.8362 | 13.8874 | 11.8315 | 0.001 | 31.4855 | 4.7218 | -0.048233 |
| 3. | 0. | 3.74526 | 13.8422 | 13.8874 | 11.5431 | 0.001 | 31.4165 | 4.7260 | -0.044008 |
| 4. | 0. | 3.71604 | 13.8467 | 13.8874 | 11.3234 | 0.001 | 31.3120 | 4.7302 | -0.039821 |
| 5. | 0. | 3.68621 | 13.8500 | 13.8874 | 11.1544 | 0.001 | 31.1993 | 4.7241 | -0.035915 |
| 6. | 0. | 3.65436 | 13.8524 | 13.8874 | 11.0208 | 0.001 | 31.1159 | 4.7281 | -0.031907 |
| 7. | 0. | 3.62234 | 13.8542 | 13.8874 | 10.9138 | 0.001 | 31.0456 | 4.7320 | -0.028035 |
| 8. | 0. | 3.59438 | 13.8553 | 13.8874 | 10.7960 | 0.001 | 31.0001 | 4.7357 | -0.024265 |
| 9. | 0. | 3.56721 | 13.8559 | 13.8874 | 10.6864 | 0.001 | 30.9610 | 4.7394 | -0.020598 |
| 10. | 0. | 3.53731 | 13.8560 | 13.8874 | 10.5992 | 359.990 | 30.9385 | 4.7431 | -0.016855 |
| 11. | 0. | 3.51019 | 13.8557 | 13.8874 | 10.5264 | 359.967 | 31.1074 | 4.7468 | -0.013236 |
| 12. | 0. | 3.47842 | 13.8551 | 13.8874 | 10.4593 | 359.918 | 31.5363 | 4.8315 | -0.008464 |
| 13. | 0. | 3.44632 | 13.8542 | 13.8874 | 10.3993 | 359.867 | 31.9115 | 4.9362 | -0.003813 |
| 14. | 0. | 3.41378 | 13.8532 | 13.8874 | 10.3500 | 359.820 | 31.9342 | 5.0100 | 0.000000 |
| 15. | 0. | 3.38906 | 13.8522 | 13.8874 | 10.3158 | 359.774 | 31.7225 | 4.9821 | 0.002094 |
| 16. | 0. | 3.36588 | 13.8511 | 13.8874 | 10.2773 | 359.763 | 31.4676 | 4.9540 | 0.004018 |
| 17. | 0. | 3.34209 | 13.8500 | 13.8874 | 10.2387 | 359.763 | 31.1950 | 4.9360 | 0.006018 |
| 18. | 0. | 3.31976 | 13.8489 | 13.8874 | 10.2033 | 359.767 | 30.9266 | 4.9078 | 0.007822 |
| 19. | 0. | 3.29670 | 13.8477 | 13.8874 | 10.1694 | 359.771 | 30.6712 | 4.8897 | 0.009742 |
| 20. | 0. | 3.27445 | 13.8466 | 13.8874 | 10.1296 | 359.747 | 30.4503 | 4.8617 | 0.011742 |
| 21. | 0. | 3.25496 | 13.8457 | 13.8874 | 10.0721 | 359.751 | 30.2356 | 4.8437 | 0.013746 |
| 22. | 0. | 3.23706 | 13.8449 | 13.8874 | 10.0139 | 359.761 | 30.0174 | 4.8156 | 0.015559 |
| 23. | 0. | 3.21256 | 13.8443 | 13.8874 | 9.9857 | 359.768 | 29.8544 | 4.7877 | 0.017707 |
| 24. | 0. | 3.18599 | 13.8437 | 13.8874 | 9.9638 | 359.774 | 29.6974 | 4.7700 | 0.020010 |
| 25. | 0. | 3.16470 | 13.8434 | 13.8874 | 9.9280 | 359.759 | 29.5321 | 4.7419 | 0.021924 |
| 26. | 0. | 3.14195 | 13.8431 | 13.8874 | 9.8951 | 359.703 | 29.3646 | 4.7240 | 0.023967 |
| 27. | 0. | 3.12059 | 13.8429 | 13.8874 | 9.8643 | 359.648 | 29.1975 | 4.6958 | 0.025819 |
| 28. | 0. | 3.09844 | 13.8429 | 13.8874 | 9.8334 | 359.595 | 29.0331 | 4.6778 | 0.027781 |
| 29. | 0. | 3.07716 | 13.8428 | 13.8874 | 9.8056 | 359.546 | 28.8565 | 4.6496 | 0.029571 |
| 30. | 0. | 3.05608 | 13.8429 | 13.8874 | 9.7792 | 359.500 | 28.6903 | 4.6213 | 0.031343 |
| 31. | 0. | 3.03421 | 13.8430 | 13.8874 | 9.7528 | 359.457 | 28.5298 | 4.6032 | 0.033232 |
| 32. | 0. | 3.01555 | 13.8431 | 13.8874 | 9.7203 | 359.452 | 28.3689 | 4.5748 | 0.034849 |
| 33. | 0. | 2.99653 | 13.8432 | 13.8874 | 9.6854 | 359.460 | 28.2103 | 4.5566 | 0.036562 |
| 34. | 0. | 2.97857 | 13.8434 | 13.8874 | 9.6532 | 359.471 | 28.0527 | 4.5281 | 0.038112 |
| 35. | 0. | 2.95961 | 13.8436 | 13.8874 | 9.6213 | 359.482 | 27.8981 | 4.5098 | 0.039792 |
| 36. | 0. | 2.94254 | 13.8438 | 13.8874 | 9.5857 | 359.496 | 27.7469 | 4.4813 | 0.041325 |
| 37. | 0. | 2.92486 | 13.8440 | 13.8874 | 9.5475 | 359.513 | 27.5997 | 4.4630 | 0.042985 |
| 38. | 0. | 2.90858 | 13.8443 | 13.8874 | 9.5093 | 359.546 | 27.4412 | 4.4345 | 0.044458 |
| 39. | 0. | 2.89231 | 13.8446 | 13.8874 | 9.4722 | 359.580 | 27.2909 | 4.4059 | 0.045927 |
| 40. | 0. | 2.87493 | 13.8450 | 13.8874 | 9.4356 | 359.615 | 27.1467 | 4.3875 | 0.047537 |
| 41. | 0. | 2.85846 | 13.8453 | 13.8874 | 9.4020 | 359.659 | 27.0088 | 4.3590 | 0.048997 |
| 42. | 0. | 2.84116 | 13.8457 | 13.8874 | 9.3675 | 359.707 | 26.8747 | 4.3406 | 0.050580 |
| 43. | 0. | 2.82466 | 13.8461 | 13.8874 | 9.3366 | 359.756 | 26.7458 | 4.3120 | 0.052021 |
| 44. | 0. | 2.80717 | 13.8465 | 13.8874 | 9.3053 | 359.807 | 26.6216 | 4.2936 | 0.053597 |
| 45. | 0. | 2.79086 | 13.8470 | 13.8874 | 9.2751 | 359.865 | 26.4866 | 4.2650 | 0.055000 |
| 46. | 0. | 2.77504 | 13.8474 | 13.8874 | 9.2436 | 359.931 | 26.3578 | 4.2364 | 0.056380 |
| 47. | 0. | 2.75842 | 13.8478 | 13.8874 | 9.2109 | 0.003 | 26.2357 | 4.2179 | 0.057892 |
| 48. | 0. | 2.74263 | 13.8483 | 13.8874 | 9.1814 | 0.074 | 26.1143 | 4.1893 | 0.059259 |
| 49. | 0. | 2.72577 | 13.8487 | 13.8874 | 9.1516 | 0.144 | 25.9943 | 4.1708 | 0.060767 |
| 50. | 0. | 2.70975 | 13.8492 | 13.8874 | 9.1249 | 0.213 | 25.8739 | 4.1421 | 0.062127 |
| 51. | 0. | 2.69272 | 13.8496 | 13.8874 | 9.0978 | 0.280 | 25.7545 | 4.1236 | 0.063624 |
| 52. | 0. | 2.67645 | 13.8500 | 13.8874 | 9.0737 | 0.347 | 25.6242 | 4.0950 | 0.064971 |
| 53. | 0. | 2.66019 | 13.8505 | 13.8874 | 9.0500 | 0.414 | 25.5014 | 4.0663 | 0.066327 |
| 54. | 0. | 2.64306 | 13.8509 | 13.8874 | 9.0247 | 0.476 | 25.3826 | 4.0478 | 0.067829 |
| 55. | 0. | 2.62683 | 13.8513 | 13.8874 | 9.0022 | 0.537 | 25.2641 | 4.0192 | 0.069183 |
| 56. | 0. | 2.60951 | 13.8518 | 13.8874 | 8.9794 | 0.594 | 25.1473 | 4.0007 | 0.070683 |
| 57. | 0. | 2.59291 | 13.8522 | 13.8874 | 8.9605 | 0.647 | 25.0304 | 3.9720 | 0.072040 |

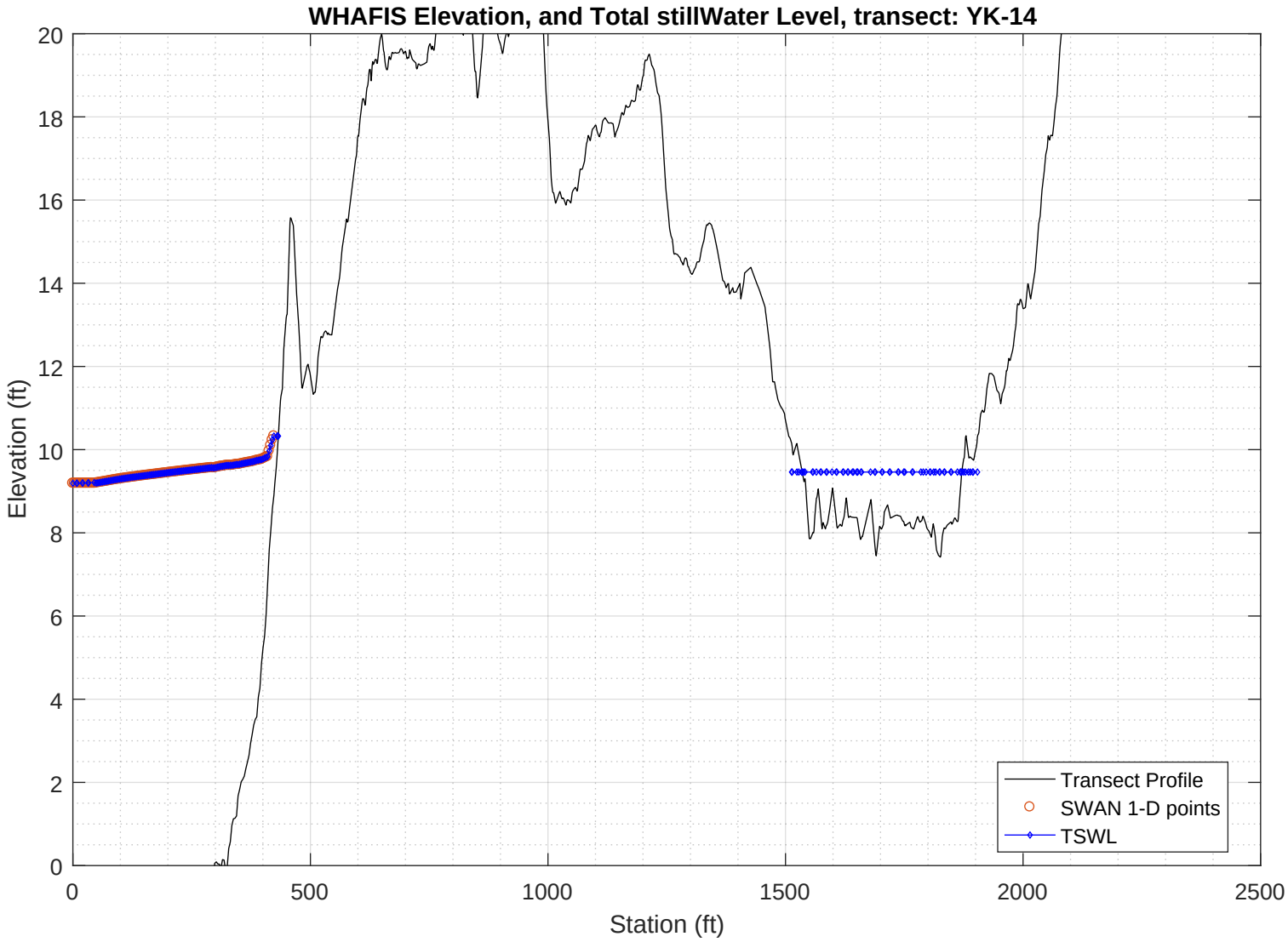
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 58. | 0. | 2.57520 | 13.8526 | 13.8874 | 8.9415 | 0.697 | 24.9151 | 3.9535 | 0.073543 |
| 59. | 0. | 2.55823 | 13.8530 | 13.8874 | 8.9258 | 0.745 | 24.7892 | 3.9249 | 0.074894 |
| 60. | 0. | 2.54126 | 13.8534 | 13.8874 | 8.9110 | 0.793 | 24.6701 | 3.8962 | 0.076249 |
| 61. | 0. | 2.52337 | 13.8538 | 13.8874 | 8.8952 | 0.839 | 24.5546 | 3.8777 | 0.077745 |
| 62. | 0. | 2.50644 | 13.8542 | 13.8874 | 8.8821 | 0.883 | 24.4392 | 3.8491 | 0.079089 |
| 63. | 0. | 2.48863 | 13.8546 | 13.8874 | 8.8679 | 0.925 | 24.3253 | 3.8306 | 0.080569 |
| 64. | 0. | 2.47186 | 13.8550 | 13.8874 | 8.8560 | 0.967 | 24.2101 | 3.8019 | 0.081893 |
| 65. | 0. | 2.45433 | 13.8554 | 13.8874 | 8.8422 | 1.007 | 24.0951 | 3.7833 | 0.083347 |
| 66. | 0. | 2.43780 | 13.8557 | 13.8874 | 8.8304 | 1.047 | 23.9683 | 3.7546 | 0.084642 |
| 67. | 0. | 2.42131 | 13.8561 | 13.8874 | 8.8191 | 1.087 | 23.8481 | 3.7259 | 0.085940 |
| 68. | 0. | 2.40401 | 13.8565 | 13.8874 | 8.8061 | 1.126 | 23.7316 | 3.7074 | 0.087374 |
| 69. | 0. | 2.38773 | 13.8568 | 13.8874 | 8.7954 | 1.165 | 23.6155 | 3.6787 | 0.088657 |
| 70. | 0. | 2.37068 | 13.8572 | 13.8874 | 8.7829 | 1.202 | 23.5007 | 3.6601 | 0.090073 |
| 71. | 0. | 2.35462 | 13.8575 | 13.8874 | 8.7727 | 1.238 | 23.3857 | 3.6313 | 0.091338 |
| 72. | 0. | 2.33773 | 13.8579 | 13.8874 | 8.7608 | 1.274 | 23.2722 | 3.6127 | 0.092738 |
| 73. | 0. | 2.32173 | 13.8582 | 13.8874 | 8.7513 | 1.307 | 23.1499 | 3.5840 | 0.093990 |
| 74. | 0. | 2.30576 | 13.8585 | 13.8874 | 8.7422 | 1.341 | 23.0360 | 3.5552 | 0.095248 |
| 75. | 0. | 2.28896 | 13.8588 | 13.8874 | 8.7313 | 1.374 | 22.9266 | 3.5366 | 0.096645 |
| 76. | 0. | 2.27315 | 13.8591 | 13.8874 | 8.7228 | 1.407 | 22.8184 | 3.5079 | 0.097894 |
| 77. | 0. | 2.25667 | 13.8594 | 13.8874 | 8.7117 | 1.442 | 22.7115 | 3.4893 | 0.099273 |
| 78. | 0. | 2.24121 | 13.8597 | 13.8874 | 8.7026 | 1.477 | 22.6046 | 3.4605 | 0.100501 |
| 79. | 0. | 2.22488 | 13.8600 | 13.8874 | 8.6918 | 1.512 | 22.4991 | 3.4419 | 0.101869 |
| 80. | 0. | 2.20943 | 13.8603 | 13.8874 | 8.6835 | 1.545 | 22.3835 | 3.4131 | 0.103089 |
| 81. | 0. | 2.19395 | 13.8606 | 13.8874 | 8.6756 | 1.577 | 22.2742 | 3.3843 | 0.104318 |
| 82. | 0. | 2.17757 | 13.8609 | 13.8874 | 8.6660 | 1.609 | 22.1685 | 3.3657 | 0.105691 |
| 83. | 0. | 2.16217 | 13.8611 | 13.8874 | 8.6590 | 1.639 | 22.0630 | 3.3369 | 0.106916 |
| 84. | 0. | 2.14586 | 13.8614 | 13.8874 | 8.6502 | 1.668 | 21.9592 | 3.3183 | 0.108283 |
| 85. | 0. | 2.13053 | 13.8617 | 13.8874 | 8.6440 | 1.697 | 21.8549 | 3.2895 | 0.109501 |
| 86. | 0. | 2.11430 | 13.8619 | 13.8874 | 8.6361 | 1.724 | 21.7519 | 3.2709 | 0.110862 |
| 87. | 0. | 2.09898 | 13.8622 | 13.8874 | 8.6306 | 1.749 | 21.6386 | 3.2421 | 0.112072 |
| 88. | 0. | 2.08364 | 13.8624 | 13.8874 | 8.6255 | 1.774 | 21.5317 | 3.2133 | 0.113293 |
| 89. | 0. | 2.06612 | 13.8627 | 13.8874 | 8.6179 | 1.785 | 21.2481 | 3.1946 | 0.114633 |
| 90. | 0. | 2.06529 | 13.8631 | 13.8874 | 8.6491 | 1.799 | 20.8030 | 2.9831 | 0.113144 |
| 91. | 0. | 2.05003 | 13.8635 | 13.8874 | 8.6551 | 1.826 | 20.5177 | 2.8940 | 0.113952 |
| 92. | 0. | 2.02608 | 13.8639 | 13.8874 | 8.6443 | 1.860 | 20.4158 | 2.8863 | 0.116348 |
| 93. | 0. | 2.00036 | 13.8642 | 13.8874 | 8.6280 | 1.895 | 20.3948 | 2.9091 | 0.119139 |
| 94. | 0. | 1.97834 | 13.8645 | 13.8874 | 8.6177 | 1.931 | 20.4149 | 2.9114 | 0.121410 |
| 95. | 0. | 1.95441 | 13.8648 | 13.8874 | 8.6013 | 1.958 | 20.3770 | 2.9440 | 0.123956 |
| 96. | 0. | 1.93987 | 13.8651 | 13.8874 | 8.6062 | 1.983 | 20.2786 | 2.8850 | 0.124990 |
| 97. | 0. | 1.92041 | 13.8654 | 13.8874 | 8.5981 | 2.018 | 20.3503 | 2.8870 | 0.126986 |
| 98. | 0. | 1.89509 | 13.8655 | 13.8874 | 8.5722 | 2.054 | 20.4453 | 2.9699 | 0.129947 |
| 99. | 0. | 1.88058 | 13.8657 | 13.8874 | 8.5719 | 2.061 | 20.2836 | 2.9410 | 0.131050 |
| 100. | 0. | 1.87428 | 13.8661 | 13.8874 | 8.5945 | 2.069 | 20.0079 | 2.8108 | 0.130759 |
| 101. | 0. | 1.85835 | 13.8663 | 13.8874 | 8.5980 | 2.072 | 19.7090 | 2.7619 | 0.131865 |
| 102. | 0. | 1.84807 | 13.8667 | 13.8874 | 8.6176 | 2.083 | 19.3929 | 2.6420 | 0.132008 |
| 103. | 0. | 1.82931 | 13.8669 | 13.8874 | 8.6197 | 2.102 | 19.1995 | 2.5936 | 0.133577 |
| 104. | 0. | 1.80655 | 13.8672 | 13.8874 | 8.6123 | 2.125 | 19.0943 | 2.5859 | 0.135882 |
| 105. | 0. | 1.78387 | 13.8674 | 13.8874 | 8.6050 | 2.133 | 18.8641 | 2.5781 | 0.138071 |
| 106. | 0. | 1.77502 | 13.8678 | 13.8874 | 8.6304 | 2.147 | 18.5365 | 2.4279 | 0.137923 |
| 107. | 0. | 1.75294 | 13.8681 | 13.8874 | 8.6310 | 2.162 | 18.2979 | 2.3800 | 0.139956 |
| 108. | 0. | 1.73042 | 13.8684 | 13.8874 | 8.6314 | 2.184 | 18.1182 | 2.3321 | 0.142111 |
| 109. | 0. | 1.70456 | 13.8687 | 13.8874 | 8.6250 | 2.209 | 17.9951 | 2.3149 | 0.144880 |
| 110. | 0. | 1.67927 | 13.8689 | 13.8874 | 8.6194 | 2.229 | 17.8482 | 2.2976 | 0.147550 |
| 111. | 0. | 1.65864 | 13.8692 | 13.8874 | 8.6237 | 2.247 | 17.6557 | 2.2394 | 0.149436 |
| 112. | 0. | 1.63614 | 13.8694 | 13.8874 | 8.6258 | 2.264 | 17.4593 | 2.1916 | 0.151628 |
| 113. | 0. | 1.61298 | 13.8697 | 13.8874 | 8.6279 | 2.277 | 17.2257 | 2.1439 | 0.153907 |
| 114. | 0. | 1.59237 | 13.8700 | 13.8874 | 8.6369 | 2.291 | 16.9503 | 2.0657 | 0.155728 |
| 115. | 0. | 1.56886 | 13.8703 | 13.8874 | 8.6427 | 2.304 | 16.6698 | 1.9980 | 0.158028 |
| 116. | 0. | 1.54397 | 13.8706 | 13.8874 | 8.6481 | 2.323 | 16.4204 | 1.9306 | 0.160588 |
| 117. | 0. | 1.51449 | 13.8709 | 13.8874 | 8.6463 | 2.348 | 16.2447 | 1.8940 | 0.164013 |
| 118. | 0. | 1.48253 | 13.8711 | 13.8874 | 8.6407 | 2.353 | 15.9736 | 1.8778 | 0.167806 |
| 119. | 0. | 1.46529 | 13.8715 | 13.8874 | 8.6629 | 2.369 | 15.5916 | 1.7390 | 0.168997 |
| 120. | 0. | 1.43427 | 13.8718 | 13.8874 | 8.6665 | 2.355 | 15.1210 | 1.6726 | 0.172571 |
| 121. | 0. | 1.41541 | 13.8723 | 13.8874 | 8.6885 | 2.367 | 14.5701 | 1.4939 | 0.173866 |
| 122. | 0. | 1.37844 | 13.8728 | 13.8874 | 8.6859 | 2.386 | 14.1010 | 1.3888 | 0.178800 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 123. | 0. | 1.33202 | 13.8733 | 13.8874 | 8.6854 | 2.375 | 13.5812 | 1.3057 | 0.185678 |
| 124. | 0. | 1.29601 | 13.8741 | 13.8874 | 8.7108 | 2.280 | 12.8252 | 1.1505 | 0.190530 |
| 125. | 0. | 1.25855 | 13.8749 | 13.8874 | 8.8598 | 2.064 | 11.9605 | 0.9257 | 0.195749 |
| 126. | 0. | 1.07835 | 13.8915 | 13.8874 | 9.5607 | 0.700 | 11.7692 | 0.7272 | 0.237248 |
| 127. | 0. | 0.92001 | 13.9146 | 13.8874 | 9.9700 | 359.600 | 11.4090 | 0.6175 | 0.277500 |
| 128. | 0. | 0.76325 | 13.9511 | 13.8874 | 10.4593 | 359.029 | 11.1313 | 0.5083 | 0.318308 |
| 129. | 0. | 0.65902 | 13.9563 | 13.8874 | 10.6939 | 359.163 | 11.5036 | 0.4362 | 0.346213 |

PART 3: WHAFIS

WHAFIS input:  YK-14.dat
WHAFIS output: YK-14.out

PART 3 COMPLETE


WHAFIS Elevation, and Total stillWater Level, transect: YK-14
Elevation (ft)
Station (ft)
0
2
4
6
8
10
12
14
16
18
20
0
500
1000
1500
2000
2500
Transect Profile
SWAN 1-D points
TSWL

WAVE HEIGHT COMPUTATIONS FOR FLOOD INSURANCE STUDIES (WHAFIS VERSION 4.0G, 08_2007)
Executed on: Thu Feb  6 16:14:34 2020
Input file:  C:\Users\shayward\Desktop\Kittery\T2\3_whafis\whafis4\YK-14.dat
Output file: C:\Users\shayward\Desktop\Kittery\T2\3_whafis\whafis4\YK-14.out

header

THIS IS A 100-YEAR CASE
THE FOLLOWING NON-DEFAULT WIND SPEEDS ARE BEING USED
WINDIF  56.14  WINDOF  56.14  WINDVH  60.00

PART1 INPUT

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| IE | 0.000 | -6.468 | 1.000 | 1.000 | 9.190 | 19.936 | 14.032 | 56.140 | 0.002 | 0.000 |
| OF | 8.000 | -6.455 | 0.000 | 9.193 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| OF | 9.000 | -6.453 | 0.000 | 9.193 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| OF | 20.000 | -6.435 | 0.000 | 9.197 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| OF | 21.000 | -6.433 | 0.000 | 9.197 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| OF | 32.000 | -6.414 | 0.000 | 9.201 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| OF | 33.000 | -6.413 | 0.000 | 9.202 | 0.000 | 0.000 | 0.000 | 0.000 | -0.065 | 0.000 |
| OF | 45.000 | -7.258 | 0.000 | 9.208 | 0.000 | 0.000 | 0.000 | 0.000 | -0.045 | 0.000 |
| OF | 49.200 | -7.150 | 0.000 | 9.197 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 52.500 | -7.065 | 0.000 | 9.203 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 55.800 | -6.981 | 0.000 | 9.210 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 59.100 | -6.897 | 0.000 | 9.216 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 62.300 | -6.812 | 0.000 | 9.222 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 65.600 | -6.728 | 0.000 | 9.229 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 68.900 | -6.644 | 0.000 | 9.235 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 72.200 | -6.559 | 0.000 | 9.241 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 75.500 | -6.475 | 0.000 | 9.248 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 78.700 | -6.391 | 0.000 | 9.256 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 82.000 | -6.306 | 0.000 | 9.262 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 85.300 | -6.222 | 0.000 | 9.269 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 88.600 | -6.138 | 0.000 | 9.275 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 91.900 | -6.054 | 0.000 | 9.281 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 95.100 | -5.969 | 0.000 | 9.287 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 98.400 | -5.885 | 0.000 | 9.293 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 101.700 | -5.801 | 0.000 | 9.299 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 105.000 | -5.716 | 0.000 | 9.304 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 108.300 | -5.632 | 0.000 | 9.310 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 111.500 | -5.548 | 0.000 | 9.315 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 114.800 | -5.464 | 0.000 | 9.321 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 118.100 | -5.379 | 0.000 | 9.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 121.400 | -5.295 | 0.000 | 9.331 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 124.700 | -5.211 | 0.000 | 9.336 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 128.000 | -5.126 | 0.000 | 9.341 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 131.200 | -5.042 | 0.000 | 9.346 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 134.500 | -4.958 | 0.000 | 9.351 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 137.800 | -4.873 | 0.000 | 9.356 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 141.100 | -4.789 | 0.000 | 9.361 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 144.400 | -4.705 | 0.000 | 9.366 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 147.600 | -4.620 | 0.000 | 9.370 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 150.900 | -4.536 | 0.000 | 9.375 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 154.200 | -4.452 | 0.000 | 9.380 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 157.500 | -4.367 | 0.000 | 9.384 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 160.800 | -4.283 | 0.000 | 9.389 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 164.000 | -4.199 | 0.000 | 9.394 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 167.300 | -4.115 | 0.000 | 9.399 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 170.600 | -4.030 | 0.000 | 9.403 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 173.900 | -3.946 | 0.000 | 9.408 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 177.200 | -3.862 | 0.000 | 9.413 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 180.400 | -3.777 | 0.000 | 9.417 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 183.700 | -3.693 | 0.000 | 9.422 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 187.000 | -3.609 | 0.000 | 9.426 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 190.300 | -3.524 | 0.000 | 9.431 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 193.600 | -3.440 | 0.000 | 9.436 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 196.800 | -3.356 | 0.000 | 9.440 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 200.100 | -3.272 | 0.000 | 9.445 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 203.400 | -3.187 | 0.000 | 9.450 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 206.700 | -3.103 | 0.000 | 9.454 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 210.000 | -3.019 | 0.000 | 9.459 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 213.300 | -2.934 | 0.000 | 9.464 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 216.500 | -2.850 | 0.000 | 9.468 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 219.800 | -2.766 | 0.000 | 9.472 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 223.100 | -2.681 | 0.000 | 9.477 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 226.400 | -2.597 | 0.000 | 9.481 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 229.700 | -2.513 | 0.000 | 9.486 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 232.900 | -2.428 | 0.000 | 9.490 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 236.200 | -2.344 | 0.000 | 9.494 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 239.500 | -2.260 | 0.000 | 9.498 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 242.800 | -2.176 | 0.000 | 9.502 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 246.100 | -2.091 | 0.000 | 9.507 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 249.300 | -2.007 | 0.000 | 9.511 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 252.600 | -1.923 | 0.000 | 9.516 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 255.900 | -1.838 | 0.000 | 9.520 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 259.200 | -1.754 | 0.000 | 9.524 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 262.500 | -1.670 | 0.000 | 9.528 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 265.700 | -1.586 | 0.000 | 9.532 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 269.000 | -1.501 | 0.000 | 9.537 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 272.300 | -1.417 | 0.000 | 9.541 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 275.600 | -1.333 | 0.000 | 9.545 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 278.900 | -1.248 | 0.000 | 9.549 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| OF | 282.200 | -1.164 | 0.000 | 9.554 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 285.400 | -1.080 | 0.000 | 9.558 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 288.700 | -0.995 | 0.000 | 9.562 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| OF | 292.000 | -0.911 | 0.000 | 9.566 | 0.000 | 0.000 | 0.000 | 0.000 | 0.115 | 0.000 |
| OF | 295.300 | -0.235 | 0.000 | 9.561 | 0.000 | 0.000 | 0.000 | 0.000 | 0.146 | 0.000 |
| IF | 298.600 | 0.053 | 0.000 | 9.564 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 | 0.000 |
| IF | 301.800 | 0.090 | 0.000 | 9.572 | 0.000 | 0.000 | 0.000 | 0.000 | -0.002 | 0.000 |
| IF | 305.100 | 0.041 | 0.000 | 9.581 | 0.000 | 0.000 | 0.000 | 0.000 | -0.009 | 0.000 |
| IF | 308.400 | 0.033 | 0.000 | 9.588 | 0.000 | 0.000 | 0.000 | 0.000 | -0.016 | 0.000 |
| OF | 311.700 | -0.067 | 0.000 | 9.597 | 0.000 | 0.000 | 0.000 | 0.000 | 0.017 | 0.000 |
| IF | 315.000 | 0.143 | 0.000 | 9.600 | 0.000 | 0.000 | 0.000 | 0.000 | 0.031 | 0.000 |
| IF | 318.200 | 0.133 | 0.000 | 9.607 | 0.000 | 0.000 | 0.000 | 0.000 | -0.041 | 0.000 |
| OF | 321.500 | -0.123 | 0.000 | 9.616 | 0.000 | 0.000 | 0.000 | 0.000 | -0.026 | 0.000 |
| OF | 324.800 | -0.036 | 0.000 | 9.620 | 0.000 | 0.000 | 0.000 | 0.000 | 0.081 | 0.000 |
| IF | 328.100 | 0.412 | 0.000 | 9.619 | 0.000 | 0.000 | 0.000 | 0.000 | 0.092 | 0.000 |
| IF | 331.400 | 0.569 | 0.000 | 9.623 | 0.000 | 0.000 | 0.000 | 0.000 | 0.085 | 0.000 |
| IF | 334.600 | 0.962 | 0.000 | 9.623 | 0.000 | 0.000 | 0.000 | 0.000 | 0.086 | 0.000 |
| IF | 337.900 | 1.124 | 0.000 | 9.628 | 0.000 | 0.000 | 0.000 | 0.000 | 0.027 | 0.000 |
| IF | 341.200 | 1.138 | 0.000 | 9.636 | 0.000 | 0.000 | 0.000 | 0.000 | 0.010 | 0.000 |
| IF | 344.500 | 1.193 | 0.000 | 9.643 | 0.000 | 0.000 | 0.000 | 0.000 | 0.082 | 0.000 |
| IF | 347.800 | 1.676 | 0.000 | 9.642 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| IF | 351.000 | 1.831 | 0.000 | 9.649 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| IF | 354.300 | 2.015 | 0.000 | 9.656 | 0.000 | 0.000 | 0.000 | 0.000 | 0.037 | 0.000 |
| IF | 357.600 | 2.074 | 0.000 | 9.665 | 0.000 | 0.000 | 0.000 | 0.000 | 0.021 | 0.000 |
| IF | 360.900 | 2.152 | 0.000 | 9.674 | 0.000 | 0.000 | 0.000 | 0.000 | 0.039 | 0.000 |
| IF | 364.200 | 2.334 | 0.000 | 9.680 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| IF | 367.500 | 2.488 | 0.000 | 9.688 | 0.000 | 0.000 | 0.000 | 0.000 | 0.049 | 0.000 |
| IF | 370.700 | 2.650 | 0.000 | 9.695 | 0.000 | 0.000 | 0.000 | 0.000 | 0.069 | 0.000 |
| IF | 374.000 | 2.935 | 0.000 | 9.701 | 0.000 | 0.000 | 0.000 | 0.000 | 0.075 | 0.000 |
| IF | 377.300 | 3.146 | 0.000 | 9.708 | 0.000 | 0.000 | 0.000 | 0.000 | 0.067 | 0.000 |
| IF | 380.600 | 3.375 | 0.000 | 9.717 | 0.000 | 0.000 | 0.000 | 0.000 | 0.056 | 0.000 |
| IF | 383.900 | 3.513 | 0.000 | 9.728 | 0.000 | 0.000 | 0.000 | 0.000 | 0.031 | 0.000 |
| IF | 387.100 | 3.577 | 0.000 | 9.741 | 0.000 | 0.000 | 0.000 | 0.000 | 0.083 | 0.000 |
| IF | 390.400 | 4.051 | 0.000 | 9.745 | 0.000 | 0.000 | 0.000 | 0.000 | 0.105 | 0.000 |
| IF | 393.700 | 4.266 | 0.000 | 9.756 | 0.000 | 0.000 | 0.000 | 0.000 | 0.121 | 0.000 |
| IF | 397.000 | 4.850 | 0.000 | 9.760 | 0.000 | 0.000 | 0.000 | 0.000 | 0.146 | 0.000 |
| IF | 400.300 | 5.233 | 0.000 | 9.777 | 0.000 | 0.000 | 0.000 | 0.000 | 0.103 | 0.000 |
| IF | 403.500 | 5.517 | 0.000 | 9.799 | 0.000 | 0.000 | 0.000 | 0.000 | 0.126 | 0.000 |
| IF | 406.800 | 6.050 | 0.000 | 9.815 | 0.000 | 0.000 | 0.000 | 0.000 | 0.196 | 0.000 |
| IF | 410.100 | 6.811 | 0.000 | 9.832 | 0.000 | 0.000 | 0.000 | 0.000 | 0.235 | 0.000 |
| IF | 413.400 | 7.598 | 0.000 | 9.968 | 0.000 | 0.000 | 0.000 | 0.000 | 0.190 | 0.000 |
| IF | 416.700 | 8.066 | 0.000 | 10.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.151 | 0.000 |
| IF | 419.900 | 8.580 | 0.000 | 10.234 | 0.000 | 0.000 | 0.000 | 0.000 | 0.129 | 0.000 |
| IF | 423.200 | 8.906 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.128 | 0.000 |
| IF | 430.000 | 9.877 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.148 | 0.000 |
| IF | 431.000 | 10.058 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.180 | 0.000 |
| IF | 432.500 | 10.326 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.178 | 0.000 |
| AS | 1535.100 | 9.461 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.059 | 0.000 |
| IF | 1538.000 | 9.289 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.028 | 0.000 |
| IF | 1541.000 | 9.298 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.069 | 0.000 |
| IF | 1557.000 | 7.984 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.076 | 0.000 |
| IF | 1558.000 | 8.012 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.106 | 0.000 |
| IF | 1565.000 | 8.829 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.027 | 0.000 |
| IF | 1574.000 | 8.451 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.050 | 0.000 |
| IF | 1575.000 | 8.328 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.023 | 0.000 |
| IF | 1586.000 | 8.180 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.012 | 0.000 |
| IF | 1587.000 | 8.190 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.067 | 0.000 |
| IF | 1598.000 | 8.989 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.004 | 0.000 |
| IF | 1607.000 | 8.280 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.082 | 0.000 |
| IF | 1608.000 | 8.165 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| IF | 1621.000 | 8.296 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.012 | 0.000 |
| IF | 1622.000 | 8.332 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.023 | 0.000 |
| IF | 1631.000 | 8.524 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.008 | 0.000 |
| IF | 1632.000 | 8.411 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.015 | 0.000 |
| IF | 1641.000 | 8.375 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.004 | 0.000 |
| IF | 1643.000 | 8.371 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 | 0.000 |
| IF | 1650.000 | 8.368 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.011 | 0.000 |
| IF | 1652.000 | 8.269 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.056 | 0.000 |
| IF | 1659.000 | 7.863 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.048 | 0.000 |
| IF | 1660.000 | 7.886 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.045 | 0.000 |
| IF | 1679.000 | 8.753 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.006 | 0.000 |
| IF | 1688.000 | 7.717 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.116 | 0.000 |
| IF | 1689.000 | 7.595 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| IF | 1703.000 | 8.110 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.036 | 0.000 |
| IF | 1704.000 | 8.140 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.022 | 0.000 |
| IF | 1719.000 | 8.459 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.017 | 0.000 |
| IF | 1720.000 | 8.406 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.003 | 0.000 |
| IF | 1737.000 | 8.413 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| IF | 1738.000 | 8.411 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.013 | 0.000 |
| IF | 1749.000 | 8.263 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.019 | 0.000 |
| IF | 1751.000 | 8.171 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.008 | 0.000 |
| IF | 1767.000 | 8.113 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.004 | 0.000 |
| IF | 1768.000 | 8.103 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.009 | 0.000 |
| IF | 1785.000 | 8.276 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.013 | 0.000 |
| IF | 1790.000 | 8.391 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.008 | 0.000 |
| IF | 1796.000 | 8.189 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.029 | 0.000 |
| IF | 1804.000 | 7.986 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.026 | 0.000 |
| IF | 1805.000 | 7.956 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.022 | 0.000 |
| IF | 1812.000 | 8.159 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.014 | 0.000 |
| IF | 1816.000 | 7.802 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.060 | 0.000 |
| IF | 1824.000 | 7.438 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.042 | 0.000 |
| IF | 1825.000 | 7.426 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.068 | 0.000 |
| IF | 1834.000 | 8.119 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.068 | 0.000 |
| IF | 1835.000 | 8.110 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.010 | 0.000 |
| IF | 1848.000 | 8.262 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.010 | 0.000 |
| IF | 1849.000 | 8.255 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| IF | 1862.000 | 8.273 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.040 | 0.000 |
| IF | 1868.000 | 9.012 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.125 | 0.000 |
| IF | 1869.000 | 9.150 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.155 | 0.000 |
| IF | 1870.900 | 9.461 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.164 | 0.000 |
| ET | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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| | END STATION | END ELEVATION | FETCH LENGTH | SURGE ELEV 10-YEAR | SURGE ELEV 100-YEAR | INITIAL WAVE HEIGHT | INITIAL W. PERIOD | | BOTTOM SLOPE | AVERAGE A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| IE | 0.000 | -6.468 | 1.000 | 1.000 | 9.190 | 19.936 | 14.032 | 56.140 | 0.002 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 8.000 | -6.455 | 0.000 | 9.193 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 9.000 | -6.453 | 0.000 | 9.193 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 20.000 | -6.435 | 0.000 | 9.197 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 21.000 | -6.433 | 0.000 | 9.197 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 32.000 | -6.414 | 0.000 | 9.201 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 33.000 | -6.413 | 0.000 | 9.202 | 0.000 | 0.000 | 0.000 | 0.000 | -0.065 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 45.000 | -7.258 | 0.000 | 9.208 | 0.000 | 0.000 | 0.000 | 0.000 | -0.045 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 49.200 | -7.150 | 0.000 | 9.197 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 52.500 | -7.065 | 0.000 | 9.203 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |

| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 55.800 | -6.981 | 0.000 | 9.210 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 59.100 | -6.897 | 0.000 | 9.216 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 62.300 | -6.812 | 0.000 | 9.222 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 65.600 | -6.728 | 0.000 | 9.229 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 68.900 | -6.644 | 0.000 | 9.235 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 72.200 | -6.559 | 0.000 | 9.241 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 75.500 | -6.475 | 0.000 | 9.248 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 78.700 | -6.391 | 0.000 | 9.256 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 82.000 | -6.306 | 0.000 | 9.262 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 85.300 | -6.222 | 0.000 | 9.269 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 88.600 | -6.138 | 0.000 | 9.275 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 91.900 | -6.054 | 0.000 | 9.281 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 95.100 | -5.969 | 0.000 | 9.287 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 98.400 | -5.885 | 0.000 | 9.293 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 101.700 | -5.801 | 0.000 | 9.299 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 105.000 | -5.716 | 0.000 | 9.304 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 108.300 | -5.632 | 0.000 | 9.310 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 111.500 | -5.548 | 0.000 | 9.315 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 114.800 | -5.464 | 0.000 | 9.321 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 118.100 | -5.379 | 0.000 | 9.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 121.400 | -5.295 | 0.000 | 9.331 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 124.700 | -5.211 | 0.000 | 9.336 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 128.000 | -5.126 | 0.000 | 9.341 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 131.200 | -5.042 | 0.000 | 9.346 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 134.500 | -4.958 | 0.000 | 9.351 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 137.800 | -4.873 | 0.000 | 9.356 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 141.100 | -4.789 | 0.000 | 9.361 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 144.400 | -4.705 | 0.000 | 9.366 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 147.600 | -4.620 | 0.000 | 9.370 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 150.900 | -4.536 | 0.000 | 9.375 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 154.200 | -4.452 | 0.000 | 9.380 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 157.500 | -4.367 | 0.000 | 9.384 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 160.800 | -4.283 | 0.000 | 9.389 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 164.000 | -4.199 | 0.000 | 9.394 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 167.300 | -4.115 | 0.000 | 9.399 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| OF | 170.600 | -4.030 | 0.000 | 9.403 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 173.900 | -3.946 | 0.000 | 9.408 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 177.200 | -3.862 | 0.000 | 9.413 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 180.400 | -3.777 | 0.000 | 9.417 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 183.700 | -3.693 | 0.000 | 9.422 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 187.000 | -3.609 | 0.000 | 9.426 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 190.300 | -3.524 | 0.000 | 9.431 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 193.600 | -3.440 | 0.000 | 9.436 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 196.800 | -3.356 | 0.000 | 9.440 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 200.100 | -3.272 | 0.000 | 9.445 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 203.400 | -3.187 | 0.000 | 9.450 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 206.700 | -3.103 | 0.000 | 9.454 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 210.000 | -3.019 | 0.000 | 9.459 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 213.300 | -2.934 | 0.000 | 9.464 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 216.500 | -2.850 | 0.000 | 9.468 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 219.800 | -2.766 | 0.000 | 9.472 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 223.100 | -2.681 | 0.000 | 9.477 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 226.400 | -2.597 | 0.000 | 9.481 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 229.700 | -2.513 | 0.000 | 9.486 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 232.900 | -2.428 | 0.000 | 9.490 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 236.200 | -2.344 | 0.000 | 9.494 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 239.500 | -2.260 | 0.000 | 9.498 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 242.800 | -2.176 | 0.000 | 9.502 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 246.100 | -2.091 | 0.000 | 9.507 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 249.300 | -2.007 | 0.000 | 9.511 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 252.600 | -1.923 | 0.000 | 9.516 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 255.900 | -1.838 | 0.000 | 9.520 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 259.200 | -1.754 | 0.000 | 9.524 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 262.500 | -1.670 | 0.000 | 9.528 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 265.700 | -1.586 | 0.000 | 9.532 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 269.000 | -1.501 | 0.000 | 9.537 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 272.300 | -1.417 | 0.000 | 9.541 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 275.600 | -1.333 | 0.000 | 9.545 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 278.900 | -1.248 | 0.000 | 9.549 | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 282.200 | -1.164 | 0.000 | 9.554 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 285.400 | -1.080 | 0.000 | 9.558 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 288.700 | -0.995 | 0.000 | 9.562 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 292.000 | -0.911 | 0.000 | 9.566 | 0.000 | 0.000 | 0.000 | 0.000 | 0.115 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |

| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| OF | 295.300 | -0.235 | 0.000 | 9.561 | 0.000 | 0.000 | 0.000 | 0.000 | 0.146 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 298.600 | 0.053 | 0.000 | 9.564 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 301.800 | 0.090 | 0.000 | 9.572 | 0.000 | 0.000 | 0.000 | 0.000 | -0.002 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 305.100 | 0.041 | 0.000 | 9.581 | 0.000 | 0.000 | 0.000 | 0.000 | -0.009 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 308.400 | 0.033 | 0.000 | 9.588 | 0.000 | 0.000 | 0.000 | 0.000 | -0.016 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 311.700 | -0.067 | 0.000 | 9.597 | 0.000 | 0.000 | 0.000 | 0.000 | 0.017 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 315.000 | 0.143 | 0.000 | 9.600 | 0.000 | 0.000 | 0.000 | 0.000 | 0.031 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 318.200 | 0.133 | 0.000 | 9.607 | 0.000 | 0.000 | 0.000 | 0.000 | -0.041 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 321.500 | -0.123 | 0.000 | 9.616 | 0.000 | 0.000 | 0.000 | 0.000 | -0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| OF | 324.800 | -0.036 | 0.000 | 9.620 | 0.000 | 0.000 | 0.000 | 0.000 | 0.081 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 328.100 | 0.412 | 0.000 | 9.619 | 0.000 | 0.000 | 0.000 | 0.000 | 0.092 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 331.400 | 0.569 | 0.000 | 9.623 | 0.000 | 0.000 | 0.000 | 0.000 | 0.085 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 334.600 | 0.962 | 0.000 | 9.623 | 0.000 | 0.000 | 0.000 | 0.000 | 0.086 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 337.900 | 1.124 | 0.000 | 9.628 | 0.000 | 0.000 | 0.000 | 0.000 | 0.027 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 341.200 | 1.138 | 0.000 | 9.636 | 0.000 | 0.000 | 0.000 | 0.000 | 0.010 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 344.500 | 1.193 | 0.000 | 9.643 | 0.000 | 0.000 | 0.000 | 0.000 | 0.082 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 347.800 | 1.676 | 0.000 | 9.642 | 0.000 | 0.000 | 0.000 | 0.000 | 0.098 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 351.000 | 1.831 | 0.000 | 9.649 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 354.300 | 2.015 | 0.000 | 9.656 | 0.000 | 0.000 | 0.000 | 0.000 | 0.037 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 357.600 | 2.074 | 0.000 | 9.665 | 0.000 | 0.000 | 0.000 | 0.000 | 0.021 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 360.900 | 2.152 | 0.000 | 9.674 | 0.000 | 0.000 | 0.000 | 0.000 | 0.039 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 364.200 | 2.334 | 0.000 | 9.680 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 367.500 | 2.488 | 0.000 | 9.688 | 0.000 | 0.000 | 0.000 | 0.000 | 0.049 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 370.700 | 2.650 | 0.000 | 9.695 | 0.000 | 0.000 | 0.000 | 0.000 | 0.069 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 374.000 | 2.935 | 0.000 | 9.701 | 0.000 | 0.000 | 0.000 | 0.000 | 0.075 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 377.300 | 3.146 | 0.000 | 9.708 | 0.000 | 0.000 | 0.000 | 0.000 | 0.067 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 380.600 | 3.375 | 0.000 | 9.717 | 0.000 | 0.000 | 0.000 | 0.000 | 0.056 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 383.900 | 3.513 | 0.000 | 9.728 | 0.000 | 0.000 | 0.000 | 0.000 | 0.031 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 387.100 | 3.577 | 0.000 | 9.741 | 0.000 | 0.000 | 0.000 | 0.000 | 0.083 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 390.400 | 4.051 | 0.000 | 9.745 | 0.000 | 0.000 | 0.000 | 0.000 | 0.105 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 393.700 | 4.266 | 0.000 | 9.756 | 0.000 | 0.000 | 0.000 | 0.000 | 0.121 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 397.000 | 4.850 | 0.000 | 9.760 | 0.000 | 0.000 | 0.000 | 0.000 | 0.146 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 400.300 | 5.233 | 0.000 | 9.777 | 0.000 | 0.000 | 0.000 | 0.000 | 0.103 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 403.500 | 5.517 | 0.000 | 9.799 | 0.000 | 0.000 | 0.000 | 0.000 | 0.126 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 406.800 | 6.050 | 0.000 | 9.815 | 0.000 | 0.000 | 0.000 | 0.000 | 0.196 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 410.100 | 6.811 | 0.000 | 9.832 | 0.000 | 0.000 | 0.000 | 0.000 | 0.235 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 413.400 | 7.598 | 0.000 | 9.968 | 0.000 | 0.000 | 0.000 | 0.000 | 0.190 | 0.000 |

| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
|---|---|---|---|---|---|---|---|---|---|---|
| IF | 416.700 | 8.066 | 0.000 | 10.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.151 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 419.900 | 8.580 | 0.000 | 10.234 | 0.000 | 0.000 | 0.000 | 0.000 | 0.129 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 423.200 | 8.906 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.128 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 430.000 | 9.877 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.148 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 431.000 | 10.058 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.180 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 432.500 | 10.326 | 0.000 | 10.326 | 0.000 | 0.000 | 0.000 | 0.000 | 0.178 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| AS | 1535.100 | 9.461 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.059 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1538.000 | 9.289 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.028 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1541.000 | 9.298 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.069 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1557.000 | 7.984 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.076 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1558.000 | 8.012 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.106 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1565.000 | 8.829 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.027 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1574.000 | 8.451 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.050 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1575.000 | 8.328 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.023 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1586.000 | 8.180 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.012 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1587.000 | 8.190 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.067 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1598.000 | 8.989 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.004 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1607.000 | 8.280 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.082 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1608.000 | 8.165 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1621.000 | 8.296 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.012 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1622.000 | 8.332 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.023 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1631.000 | 8.524 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.008 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1632.000 | 8.411 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.015 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1641.000 | 8.375 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.004 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1643.000 | 8.371 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1650.000 | 8.368 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.011 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1652.000 | 8.269 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.056 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1659.000 | 7.863 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.048 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1660.000 | 7.886 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.045 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1679.000 | 8.753 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.006 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1688.000 | 7.717 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.116 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1689.000 | 7.595 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1703.000 | 8.110 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.036 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1704.000 | 8.140 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.022 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1719.000 | 8.459 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.017 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |
| IF | 1720.000 | 8.406 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.003 | 0.000 |
| | END STATION | END ELEVATION | NEW SURGE 10-YEAR | NEW SURGE 100-YEAR | | | | | BOTTOM SLOPE | AVERAGE A-ZONES |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| IF | 1737.000 | 8.413 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1738.000 | 8.411 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.013 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1749.000 | 8.263 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.019 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1751.000 | 8.171 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.008 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1767.000 | 8.113 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.004 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1768.000 | 8.103 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.009 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1785.000 | 8.276 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.013 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1790.000 | 8.391 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.008 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1796.000 | 8.189 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.029 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1804.000 | 7.986 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.026 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1805.000 | 7.956 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.022 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1812.000 | 8.159 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.014 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1816.000 | 7.802 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.060 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1824.000 | 7.438 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | -0.042 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1825.000 | 7.426 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.068 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1834.000 | 8.119 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.068 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1835.000 | 8.110 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.010 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1848.000 | 8.262 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.010 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1849.000 | 8.255 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1862.000 | 8.273 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.040 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1868.000 | 9.012 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.125 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1869.000 | 9.150 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.155 | 0.000 |
| | END | END | NEW SURGE | NEW SURGE | | | | | BOTTOM | AVERAGE |
| | STATION | ELEVATION | 10-YEAR | 100-YEAR | | | | | SLOPE | A-ZONES |
| IF | 1870.900 | 9.461 | 0.000 | 9.461 | 0.000 | 0.000 | 0.000 | 0.000 | 0.164 | 0.000 |

----------END OF TRANSECT----------

NOTE:
SURGE ELEVATION INCLUDES CONTRIBUTIONS FROM ASTRONOMICAL AND STORM TIDES.

1

PART2: CONTROLLING WAVE HEIGHTS, SPECTRAL PEAK WAVE PERIOD, AND WAVE CREST ELEVATIONS

| | LOCATION | CONTROLLING WAVE HEIGHT | SPECTRAL PEAK WAVE PERIOD | WAVE CREST ELEVATION |
|---|---|---|---|---|
| IE | 0.00 | 11.92 | 14.03 | 17.53 |
| OF | 8.00 | 11.91 | 14.03 | 17.53 |
| OF | 9.00 | 11.91 | 14.03 | 17.53 |
| OF | 20.00 | 11.90 | 14.03 | 17.53 |
| OF | 21.00 | 11.90 | 14.03 | 17.53 |
| OF | 32.00 | 11.89 | 14.03 | 17.52 |
| OF | 33.00 | 11.89 | 14.03 | 17.52 |
| OF | 45.00 | 12.06 | 14.03 | 17.65 |
| OF | 49.20 | 12.04 | 14.03 | 17.62 |
| OF | 52.50 | 12.03 | 14.03 | 17.62 |
| OF | 55.80 | 12.01 | 14.03 | 17.62 |
| OF | 59.10 | 12.00 | 14.03 | 17.62 |
| OF | 62.30 | 11.99 | 14.03 | 17.61 |
| OF | 65.60 | 11.97 | 14.03 | 17.61 |
| OF | 68.90 | 11.96 | 14.03 | 17.61 |
| OF | 72.20 | 11.95 | 14.03 | 17.60 |
| OF | 75.50 | 11.93 | 14.03 | 17.60 |
| OF | 78.70 | 11.91 | 14.03 | 17.60 |
| OF | 82.00 | 11.85 | 14.03 | 17.56 |
| OF | 85.30 | 11.80 | 14.03 | 17.53 |
| OF | 88.60 | 11.74 | 14.03 | 17.49 |
| OF | 91.90 | 11.68 | 14.03 | 17.46 |
| OF | 95.10 | 11.62 | 14.03 | 17.42 |
| OF | 98.40 | 11.56 | 14.03 | 17.39 |
| OF | 101.70 | 11.51 | 14.03 | 17.35 |
| OF | 105.00 | 11.45 | 14.03 | 17.32 |
| OF | 108.30 | 11.39 | 14.03 | 17.28 |
| OF | 111.50 | 11.33 | 14.03 | 17.25 |
| OF | 114.80 | 11.27 | 14.03 | 17.21 |
| OF | 118.10 | 11.21 | 14.03 | 17.17 |
| OF | 121.40 | 11.15 | 14.03 | 17.14 |
| OF | 124.70 | 11.09 | 14.03 | 17.10 |
| OF | 128.00 | 11.03 | 14.03 | 17.07 |
| OF | 131.20 | 10.98 | 14.03 | 17.03 |
| OF | 134.50 | 10.92 | 14.03 | 16.99 |

| | | | | |
|---|---|---|---|---|
| OF | 137.80 | 10.86 | 14.03 | 16.96 |
| OF | 141.10 | 10.80 | 14.03 | 16.92 |
| OF | 144.40 | 10.74 | 14.03 | 16.88 |
| OF | 147.60 | 10.68 | 14.03 | 16.84 |
| OF | 150.90 | 10.62 | 14.03 | 16.81 |
| OF | 154.20 | 10.56 | 14.03 | 16.77 |
| OF | 157.50 | 10.50 | 14.03 | 16.73 |
| OF | 160.80 | 10.44 | 14.03 | 16.70 |
| OF | 164.00 | 10.38 | 14.03 | 16.66 |
| OF | 167.30 | 10.32 | 14.03 | 16.62 |
| OF | 170.60 | 10.26 | 14.03 | 16.59 |
| OF | 173.90 | 10.20 | 14.03 | 16.55 |
| OF | 177.20 | 10.14 | 14.03 | 16.51 |
| OF | 180.40 | 10.08 | 14.03 | 16.48 |
| OF | 183.70 | 10.02 | 14.03 | 16.44 |
| OF | 187.00 | 9.96 | 14.03 | 16.40 |
| OF | 190.30 | 9.90 | 14.03 | 16.36 |
| OF | 193.60 | 9.84 | 14.03 | 16.33 |
| OF | 196.80 | 9.79 | 14.03 | 16.29 |
| OF | 200.10 | 9.73 | 14.03 | 16.25 |
| OF | 203.40 | 9.67 | 14.03 | 16.22 |
| OF | 206.70 | 9.61 | 14.03 | 16.18 |
| OF | 210.00 | 9.55 | 14.03 | 16.14 |
| OF | 213.30 | 9.49 | 14.03 | 16.10 |
| OF | 216.50 | 9.43 | 14.03 | 16.07 |
| OF | 219.80 | 9.37 | 14.03 | 16.03 |
| OF | 223.10 | 9.31 | 14.03 | 15.99 |
| OF | 226.40 | 9.25 | 14.03 | 15.95 |
| OF | 229.70 | 9.19 | 14.03 | 15.92 |
| OF | 232.90 | 9.13 | 14.03 | 15.88 |
| OF | 236.20 | 9.07 | 14.03 | 15.84 |
| OF | 239.50 | 9.01 | 14.03 | 15.80 |
| OF | 242.80 | 8.95 | 14.03 | 15.76 |
| OF | 246.10 | 8.89 | 14.03 | 15.73 |
| OF | 249.30 | 8.83 | 14.03 | 15.69 |
| OF | 252.60 | 8.77 | 14.03 | 15.65 |
| OF | 255.90 | 8.70 | 14.03 | 15.61 |
| OF | 259.20 | 8.64 | 14.03 | 15.58 |
| OF | 262.50 | 8.58 | 14.03 | 15.54 |
| OF | 265.70 | 8.52 | 14.03 | 15.50 |
| OF | 269.00 | 8.46 | 14.03 | 15.46 |
| OF | 272.30 | 8.40 | 14.03 | 15.42 |
| OF | 275.60 | 8.34 | 14.03 | 15.39 |
| OF | 278.90 | 8.28 | 14.03 | 15.35 |
| OF | 282.20 | 8.22 | 14.03 | 15.31 |
| OF | 285.40 | 8.16 | 14.03 | 15.27 |
| OF | 288.70 | 8.10 | 14.03 | 15.23 |
| OF | 292.00 | 8.04 | 14.03 | 15.19 |
| OF | 295.30 | 7.53 | 14.03 | 14.83 |
| IF | 298.60 | 7.31 | 14.03 | 14.68 |
| IF | 301.80 | 7.29 | 14.03 | 14.67 |
| IF | 305.10 | 7.30 | 14.03 | 14.69 |
| IF | 308.40 | 7.30 | 14.03 | 14.70 |
| OF | 311.70 | 7.33 | 14.03 | 14.73 |
| IF | 315.00 | 7.27 | 14.03 | 14.69 |
| IF | 318.20 | 7.27 | 14.03 | 14.70 |
| OF | 321.50 | 7.33 | 14.03 | 14.74 |
| OF | 324.80 | 7.31 | 14.03 | 14.74 |
| IF | 328.10 | 7.08 | 14.03 | 14.57 |
| IF | 331.40 | 6.96 | 14.03 | 14.50 |
| IF | 334.60 | 6.67 | 14.03 | 14.29 |
| IF | 337.90 | 6.55 | 14.03 | 14.21 |
| IF | 341.20 | 6.54 | 14.03 | 14.22 |
| IF | 344.50 | 6.50 | 14.03 | 14.20 |
| IF | 347.80 | 6.14 | 14.03 | 13.94 |
| IF | 351.00 | 6.02 | 14.03 | 13.87 |
| IF | 354.30 | 5.89 | 14.03 | 13.78 |
| IF | 357.60 | 5.85 | 14.03 | 13.76 |
| IF | 360.90 | 5.80 | 14.03 | 13.73 |
| IF | 364.20 | 5.66 | 14.03 | 13.65 |
| IF | 367.50 | 5.55 | 14.03 | 13.58 |
| IF | 370.70 | 5.44 | 14.03 | 13.50 |
| IF | 374.00 | 5.22 | 14.03 | 13.36 |
| IF | 377.30 | 5.07 | 14.03 | 13.25 |
| IF | 380.60 | 4.90 | 14.03 | 13.15 |
| IF | 383.90 | 4.80 | 14.03 | 13.09 |
| IF | 387.10 | 4.76 | 14.03 | 13.07 |
| IF | 390.40 | 4.40 | 14.03 | 12.83 |
| IF | 393.70 | 4.25 | 14.03 | 12.73 |
| IF | 397.00 | 3.80 | 14.03 | 12.42 |
| IF | 400.30 | 3.52 | 14.03 | 12.24 |
| IF | 403.50 | 3.32 | 14.03 | 12.12 |
| IF | 406.80 | 2.92 | 14.03 | 11.86 |
| IF | 410.10 | 2.35 | 14.03 | 11.47 |
| IF | 413.40 | 1.84 | 14.03 | 11.26 |
| IF | 416.70 | 1.58 | 14.03 | 11.21 |
| IF | 419.90 | 1.29 | 14.03 | 11.13 |
| IF | 423.20 | 1.11 | 14.03 | 11.10 |
| IF | 430.00 | 0.35 | 14.03 | 10.57 |
| IF | 431.00 | 0.21 | 14.03 | 10.47 |
| IF | 432.50 | 0.01 | 14.03 | 10.33 |
| AS | 1535.10 | 0.00 | 0.00 | 9.46 |
| IF | 1538.00 | 0.03 | 0.21 | 9.48 |
| IF | 1541.00 | 0.05 | 0.26 | 9.49 |
| IF | 1557.00 | 0.11 | 0.39 | 9.54 |
| IF | 1558.00 | 0.12 | 0.40 | 9.54 |
| IF | 1565.00 | 0.14 | 0.44 | 9.56 |
| IF | 1574.00 | 0.17 | 0.48 | 9.58 |
| IF | 1575.00 | 0.17 | 0.48 | 9.58 |
| IF | 1586.00 | 0.20 | 0.52 | 9.60 |
| IF | 1587.00 | 0.20 | 0.52 | 9.60 |
| IF | 1598.00 | 0.21 | 0.56 | 9.61 |
| IF | 1607.00 | 0.25 | 0.58 | 9.64 |
| IF | 1608.00 | 0.25 | 0.59 | 9.64 |
| IF | 1621.00 | 0.28 | 0.62 | 9.66 |
| IF | 1622.00 | 0.28 | 0.62 | 9.66 |
| IF | 1631.00 | 0.30 | 0.64 | 9.67 |
| IF | 1632.00 | 0.30 | 0.64 | 9.67 |
| IF | 1641.00 | 0.32 | 0.66 | 9.68 |
| IF | 1643.00 | 0.32 | 0.67 | 9.69 |

| | | | | |
|---|---|---|---|---|
| IF | 1650.00 | 0.33 | 0.68 | 9.70 |
| IF | 1652.00 | 0.34 | 0.69 | 9.70 |
| IF | 1659.00 | 0.36 | 0.70 | 9.71 |
| IF | 1660.00 | 0.36 | 0.70 | 9.71 |
| IF | 1679.00 | 0.34 | 0.73 | 9.70 |
| IF | 1688.00 | 0.41 | 0.75 | 9.75 |
| IF | 1689.00 | 0.41 | 0.75 | 9.75 |
| IF | 1703.00 | 0.43 | 0.77 | 9.76 |
| IF | 1704.00 | 0.43 | 0.77 | 9.76 |
| IF | 1719.00 | 0.43 | 0.80 | 9.76 |
| IF | 1720.00 | 0.43 | 0.80 | 9.76 |
| IF | 1737.00 | 0.45 | 0.82 | 9.78 |
| IF | 1738.00 | 0.45 | 0.82 | 9.78 |
| IF | 1749.00 | 0.48 | 0.84 | 9.80 |
| IF | 1751.00 | 0.49 | 0.84 | 9.80 |
| IF | 1767.00 | 0.51 | 0.86 | 9.82 |
| IF | 1768.00 | 0.52 | 0.86 | 9.82 |
| IF | 1785.00 | 0.52 | 0.88 | 9.82 |
| IF | 1790.00 | 0.50 | 0.89 | 9.81 |
| IF | 1796.00 | 0.54 | 0.89 | 9.84 |
| IF | 1804.00 | 0.57 | 0.90 | 9.86 |
| IF | 1805.00 | 0.57 | 0.90 | 9.86 |
| IF | 1812.00 | 0.56 | 0.91 | 9.85 |
| IF | 1816.00 | 0.59 | 0.92 | 9.87 |
| IF | 1824.00 | 0.62 | 0.92 | 9.89 |
| IF | 1825.00 | 0.62 | 0.93 | 9.89 |
| IF | 1834.00 | 0.58 | 0.94 | 9.87 |
| IF | 1835.00 | 0.59 | 0.94 | 9.87 |
| IF | 1848.00 | 0.57 | 0.95 | 9.86 |
| IF | 1849.00 | 0.57 | 0.95 | 9.86 |
| IF | 1862.00 | 0.58 | 0.96 | 9.87 |
| IF | 1868.00 | 0.30 | 0.97 | 9.67 |
| IF | 1869.00 | 0.22 | 0.97 | 9.61 |
| IF | 1870.90 | 0.01 | 0.97 | 9.47 |

PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE

BETWEEN 432.50 AND 1535.10

PART4 LOCATION OF SURGE CHANGES

| STATION | 10-YEAR SURGE | 100-YEAR SURGE |
|---|---|---|
| 8.00 | 1.00 | 9.19 |
| 20.00 | 1.00 | 9.20 |
| 32.00 | 1.00 | 9.20 |
| 33.00 | 1.00 | 9.20 |
| 45.00 | 1.00 | 9.21 |
| 49.20 | 1.00 | 9.20 |
| 52.50 | 1.00 | 9.20 |
| 55.80 | 1.00 | 9.21 |
| 59.10 | 1.00 | 9.22 |
| 62.30 | 1.00 | 9.22 |
| 65.60 | 1.00 | 9.23 |
| 68.90 | 1.00 | 9.23 |
| 72.20 | 1.00 | 9.24 |
| 75.50 | 1.00 | 9.25 |
| 78.70 | 1.00 | 9.26 |
| 82.00 | 1.00 | 9.26 |
| 85.30 | 1.00 | 9.27 |
| 88.60 | 1.00 | 9.27 |
| 91.90 | 1.00 | 9.28 |
| 95.10 | 1.00 | 9.29 |
| 98.40 | 1.00 | 9.29 |
| 101.70 | 1.00 | 9.30 |
| 105.00 | 1.00 | 9.30 |
| 108.30 | 1.00 | 9.31 |
| 111.50 | 1.00 | 9.31 |
| 114.80 | 1.00 | 9.32 |
| 118.10 | 1.00 | 9.33 |
| 121.40 | 1.00 | 9.33 |
| 124.70 | 1.00 | 9.34 |
| 128.00 | 1.00 | 9.34 |
| 131.20 | 1.00 | 9.35 |
| 134.50 | 1.00 | 9.35 |
| 137.80 | 1.00 | 9.36 |
| 141.10 | 1.00 | 9.36 |
| 144.40 | 1.00 | 9.37 |
| 147.60 | 1.00 | 9.37 |
| 150.90 | 1.00 | 9.38 |
| 154.20 | 1.00 | 9.38 |
| 157.50 | 1.00 | 9.38 |
| 160.80 | 1.00 | 9.39 |
| 164.00 | 1.00 | 9.39 |
| 167.30 | 1.00 | 9.40 |
| 170.60 | 1.00 | 9.40 |
| 173.90 | 1.00 | 9.41 |
| 177.20 | 1.00 | 9.41 |
| 180.40 | 1.00 | 9.42 |
| 183.70 | 1.00 | 9.42 |
| 187.00 | 1.00 | 9.43 |
| 190.30 | 1.00 | 9.43 |
| 193.60 | 1.00 | 9.44 |
| 196.80 | 1.00 | 9.44 |
| 200.10 | 1.00 | 9.44 |
| 203.40 | 1.00 | 9.45 |
| 206.70 | 1.00 | 9.45 |
| 210.00 | 1.00 | 9.46 |
| 213.30 | 1.00 | 9.46 |
| 216.50 | 1.00 | 9.47 |
| 219.80 | 1.00 | 9.47 |
| 223.10 | 1.00 | 9.48 |
| 226.40 | 1.00 | 9.48 |
| 229.70 | 1.00 | 9.49 |
| 232.90 | 1.00 | 9.49 |
| 236.20 | 1.00 | 9.49 |
| 239.50 | 1.00 | 9.50 |
| 242.80 | 1.00 | 9.50 |
| 246.10 | 1.00 | 9.51 |
| 249.30 | 1.00 | 9.51 |
| 252.60 | 1.00 | 9.52 |
| 255.90 | 1.00 | 9.52 |
| 259.20 | 1.00 | 9.52 |
| 262.50 | 1.00 | 9.53 |
| 265.70 | 1.00 | 9.53 |

| | | |
|---|---|---|
| 269.00 | 1.00 | 9.54 |
| 272.30 | 1.00 | 9.54 |
| 275.60 | 1.00 | 9.55 |
| 278.90 | 1.00 | 9.55 |
| 282.20 | 1.00 | 9.55 |
| 285.40 | 1.00 | 9.56 |
| 288.70 | 1.00 | 9.56 |
| 292.00 | 1.00 | 9.57 |
| 295.30 | 1.00 | 9.56 |
| 298.60 | 1.00 | 9.56 |
| 301.80 | 1.00 | 9.57 |
| 305.10 | 1.00 | 9.58 |
| 308.40 | 1.00 | 9.59 |
| 311.70 | 1.00 | 9.60 |
| 315.00 | 1.00 | 9.60 |
| 318.20 | 1.00 | 9.61 |
| 321.50 | 1.00 | 9.62 |
| 324.80 | 1.00 | 9.62 |
| 328.10 | 1.00 | 9.62 |
| 331.40 | 1.00 | 9.62 |
| 337.90 | 1.00 | 9.63 |
| 341.20 | 1.00 | 9.64 |
| 344.50 | 1.00 | 9.64 |
| 347.80 | 1.00 | 9.64 |
| 351.00 | 1.00 | 9.65 |
| 354.30 | 1.00 | 9.66 |
| 357.60 | 1.00 | 9.66 |
| 360.90 | 1.00 | 9.67 |
| 364.20 | 1.00 | 9.68 |
| 367.50 | 1.00 | 9.69 |
| 370.70 | 1.00 | 9.69 |
| 374.00 | 1.00 | 9.70 |
| 377.30 | 1.00 | 9.71 |
| 380.60 | 1.00 | 9.72 |
| 383.90 | 1.00 | 9.73 |
| 387.10 | 1.00 | 9.74 |
| 390.40 | 1.00 | 9.74 |
| 393.70 | 1.00 | 9.76 |
| 397.00 | 1.00 | 9.76 |
| 400.30 | 1.00 | 9.78 |
| 403.50 | 1.00 | 9.80 |
| 406.80 | 1.00 | 9.81 |
| 410.10 | 1.00 | 9.83 |
| 413.40 | 1.00 | 9.97 |
| 416.70 | 1.00 | 10.10 |
| 419.90 | 1.00 | 10.23 |
| 423.20 | 1.00 | 10.33 |
| 1535.10 | 1.00 | 9.46 |

PART5 LOCATION OF V ZONES

| STATION OF GUTTER | LOCATION OF ZONE |
|---|---|
| 406.13 | WINDWARD |

PART6 NUMBERED A ZONES AND V ZONES

| STATION OF GUTTER | ELEVATION | ZONE DESIGNATION | | FHF |
|---|---|---|---|---|
| 0.00 | 17.53 | V23 | EL=18 | 130 |
| 8.00 | 17.53 | V23 | EL=18 | 130 |
| 9.00 | 17.53 | V23 | EL=18 | 130 |
| 20.00 | 17.53 | V23 | EL=18 | 130 |
| 21.00 | 17.53 | V23 | EL=18 | 130 |
| 32.00 | 17.52 | V23 | EL=18 | 130 |
| 33.00 | 17.52 | V23 | EL=18 | 130 |
| 45.00 | 17.65 | V23 | EL=18 | 130 |
| 49.20 | 17.62 | V23 | EL=18 | 130 |
| 52.50 | 17.62 | V23 | EL=18 | 130 |
| 55.80 | 17.62 | V23 | EL=18 | 130 |
| 59.10 | 17.62 | V23 | EL=18 | 130 |
| 62.30 | 17.61 | V23 | EL=18 | 130 |
| 65.60 | 17.61 | V23 | EL=18 | 130 |
| 68.90 | 17.61 | V23 | EL=18 | 130 |
| 72.20 | 17.60 | V23 | EL=18 | 130 |
| 75.50 | 17.60 | V23 | EL=18 | 130 |
| 78.70 | 17.60 | V23 | EL=18 | 130 |
| 82.00 | 17.56 | V23 | EL=18 | 130 |
| 85.30 | 17.53 | V23 | EL=18 | 130 |
| 87.87 | 17.50 | V23 | EL=17 | 130 |
| 88.60 | 17.49 | V23 | EL=17 | 130 |
| 91.90 | 17.46 | V23 | EL=17 | 130 |
| 95.10 | 17.42 | V23 | EL=17 | 130 |
| 98.40 | 17.39 | V23 | EL=17 | 130 |
| 101.70 | 17.35 | V23 | EL=17 | 130 |
| 105.00 | 17.32 | V23 | EL=17 | 130 |
| 108.30 | 17.28 | V23 | EL=17 | 130 |
| 111.50 | 17.25 | | | |

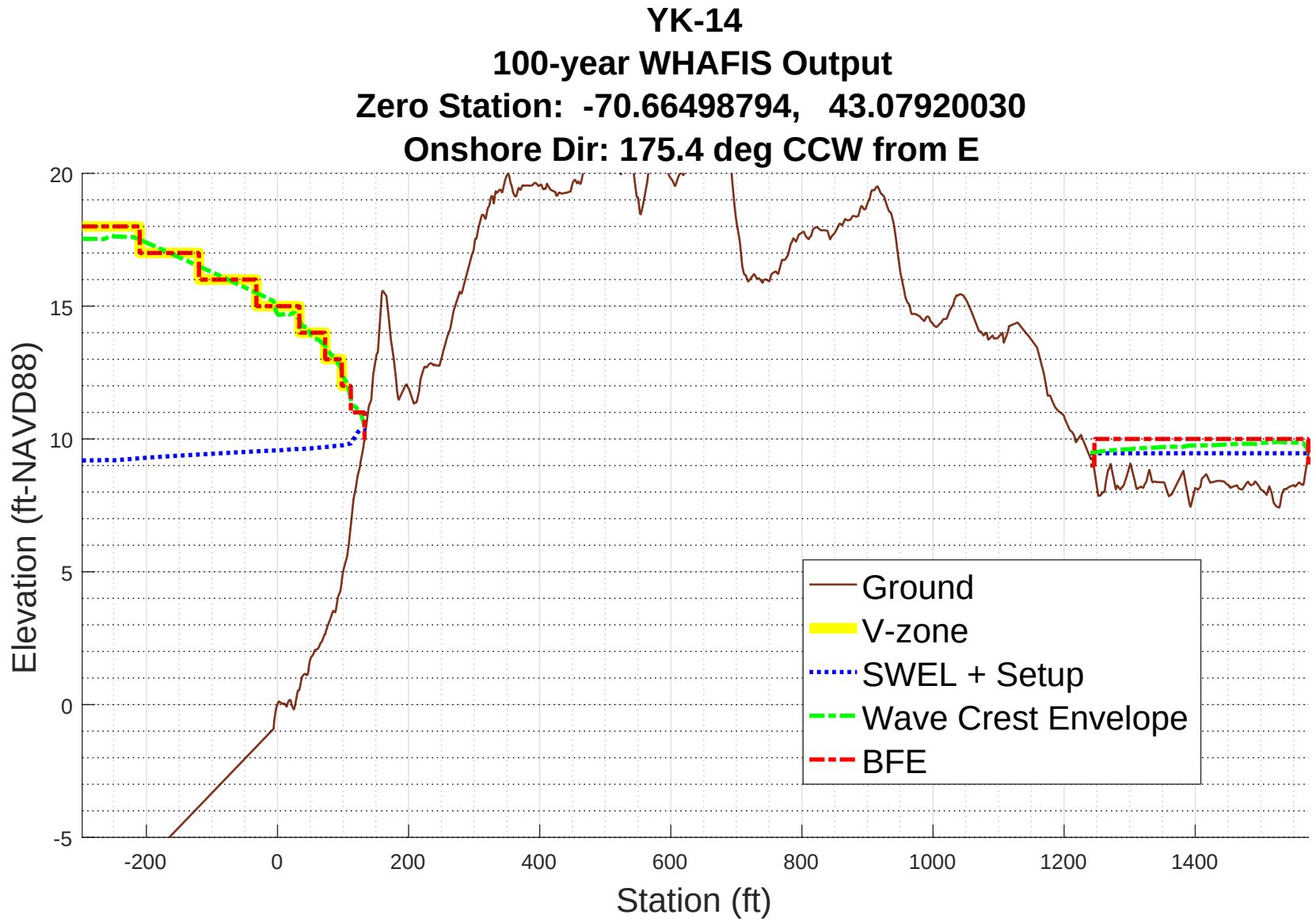
| | | | | |
|---|---|---|---|---|
| 114.80 | 17.21 | V23 | EL=17 | 130 |
| 118.10 | 17.17 | V23 | EL=17 | 130 |
| 121.40 | 17.14 | V23 | EL=17 | 130 |
| 124.70 | 17.10 | V23 | EL=17 | 130 |
| 128.00 | 17.07 | V23 | EL=17 | 130 |
| 131.20 | 17.03 | V23 | EL=17 | 130 |
| 134.50 | 16.99 | V23 | EL=17 | 130 |
| 137.80 | 16.96 | V23 | EL=17 | 130 |
| 141.10 | 16.92 | V23 | EL=17 | 130 |
| 144.40 | 16.88 | V23 | EL=17 | 130 |
| 147.60 | 16.84 | V23 | EL=17 | 130 |
| 150.90 | 16.81 | V23 | EL=17 | 130 |
| 154.20 | 16.77 | V23 | EL=17 | 130 |
| 157.50 | 16.73 | V23 | EL=17 | 130 |
| 160.80 | 16.70 | V23 | EL=17 | 130 |
| 164.00 | 16.66 | V23 | EL=17 | 130 |
| 167.30 | 16.62 | V23 | EL=17 | 130 |
| 170.60 | 16.59 | V23 | EL=17 | 130 |
| 173.90 | 16.55 | V23 | EL=17 | 130 |
| 177.20 | 16.51 | V23 | EL=17 | 130 |
| 178.34 | 16.50 | V23 | EL=17 | 130 |
| 180.40 | 16.48 | V23 | EL=16 | 130 |
| 183.70 | 16.44 | V23 | EL=16 | 130 |
| 187.00 | 16.40 | V23 | EL=16 | 130 |
| 190.30 | 16.36 | V23 | EL=16 | 130 |
| 193.60 | 16.33 | V23 | EL=16 | 130 |
| 196.80 | 16.29 | V23 | EL=16 | 130 |
| 200.10 | 16.25 | V23 | EL=16 | 130 |
| 203.40 | 16.22 | V23 | EL=16 | 130 |
| 206.70 | 16.18 | V23 | EL=16 | 130 |
| 210.00 | 16.14 | V23 | EL=16 | 130 |
| 213.30 | 16.10 | V23 | EL=16 | 130 |
| 216.50 | 16.07 | V23 | EL=16 | 130 |
| 219.80 | 16.03 | V23 | EL=16 | 130 |
| 223.10 | 15.99 | V23 | EL=16 | 130 |
| 226.40 | 15.95 | V23 | EL=16 | 130 |
| 229.70 | 15.92 | V23 | EL=16 | 130 |
| 232.90 | 15.88 | V23 | EL=16 | 130 |
| 236.20 | 15.84 | V23 | EL=16 | 130 |
| 239.50 | 15.80 | V23 | EL=16 | 130 |
| 242.80 | 15.76 | V23 | EL=16 | 130 |
| 246.10 | 15.73 | V23 | EL=16 | 130 |
| 249.30 | 15.69 | V23 | EL=16 | 130 |
| 252.60 | 15.65 | V23 | EL=16 | 130 |
| 255.90 | 15.61 | V23 | EL=16 | 130 |
| 259.20 | 15.58 | V23 | EL=16 | 130 |
| 262.50 | 15.54 | V23 | EL=16 | 130 |
| 265.59 | 15.50 | V23 | EL=15 | 130 |
| 265.70 | 15.50 | V23 | EL=15 | 130 |
| 269.00 | 15.46 | V23 | EL=15 | 130 |
| 272.30 | 15.42 | V23 | EL=15 | 130 |
| 275.60 | 15.39 | V23 | EL=15 | 130 |
| 278.90 | 15.35 | V23 | EL=15 | 130 |
| 282.20 | 15.31 | V23 | EL=15 | 130 |
| 285.40 | 15.27 | | | |

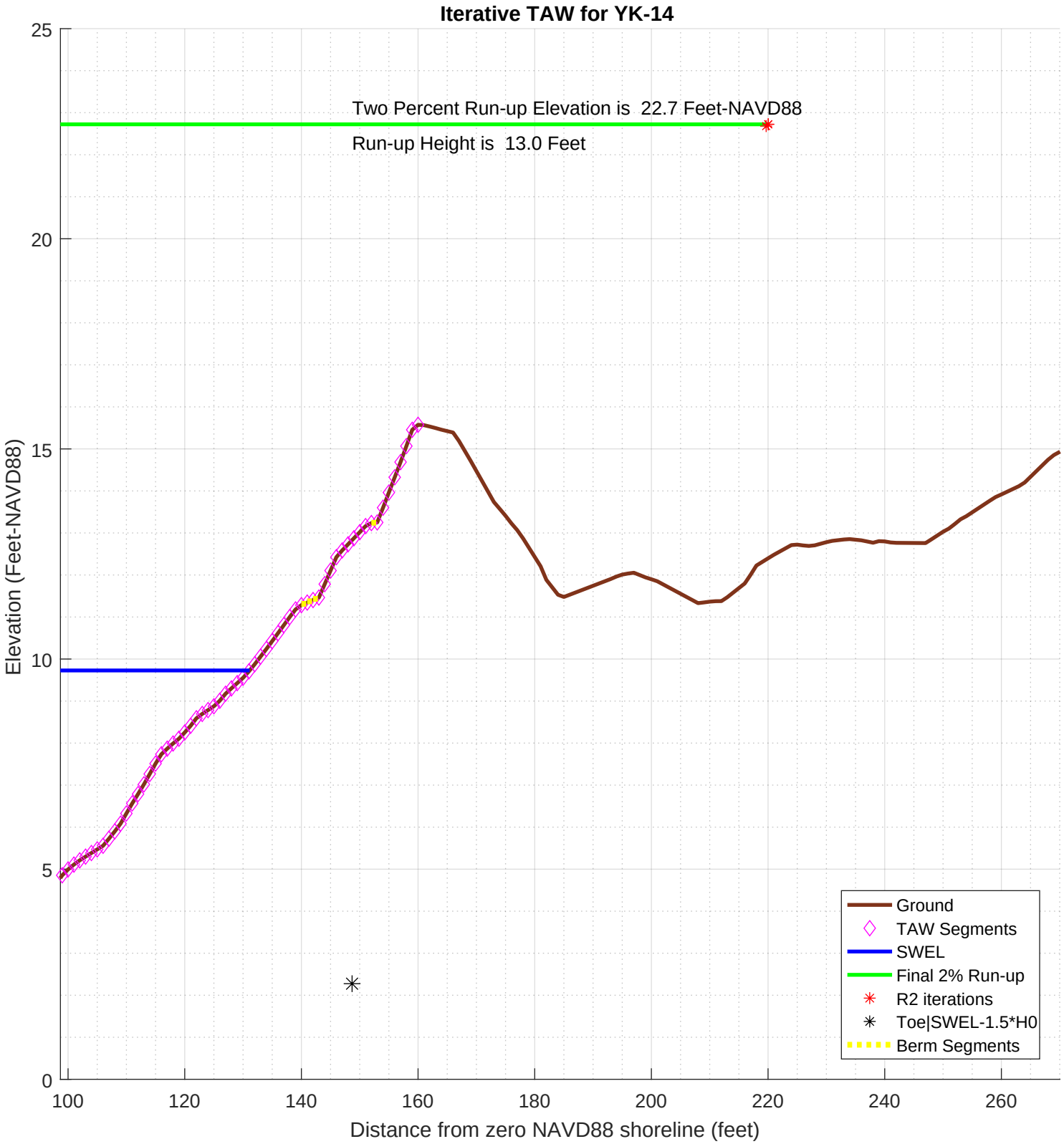
| | | | |
|---|---|---|---|
| 288.70 | 15.23 | V23 EL=15 | 130 |
| 292.00 | 15.19 | V23 EL=15 | 130 |
| 295.30 | 14.83 | V23 EL=15 | 130 |
| 298.60 | 14.68 | V23 EL=15 | 130 |
| 301.80 | 14.67 | V23 EL=15 | 130 |
| 305.10 | 14.69 | V23 EL=15 | 130 |
| 308.40 | 14.70 | V23 EL=15 | 130 |
| 311.70 | 14.73 | V23 EL=15 | 130 |
| 315.00 | 14.69 | V23 EL=15 | 130 |
| 318.20 | 14.70 | V23 EL=15 | 130 |
| 321.50 | 14.74 | V23 EL=15 | 130 |
| 324.80 | 14.74 | V23 EL=15 | 130 |
| 328.10 | 14.57 | V23 EL=15 | 130 |
| 331.29 | 14.50 | V23 EL=14 | 130 |
| 331.40 | 14.50 | V23 EL=14 | 130 |
| 334.60 | 14.29 | V23 EL=14 | 130 |
| 337.90 | 14.21 | V23 EL=14 | 130 |
| 341.20 | 14.22 | V23 EL=14 | 130 |
| 344.50 | 14.20 | V23 EL=14 | 130 |
| 347.80 | 13.94 | V23 EL=14 | 130 |
| 351.00 | 13.87 | V23 EL=14 | 130 |
| 354.30 | 13.78 | V23 EL=14 | 130 |
| 357.60 | 13.76 | V23 EL=14 | 130 |
| 360.90 | 13.73 | V23 EL=14 | 130 |
| 364.20 | 13.65 | V23 EL=14 | 130 |
| 367.50 | 13.58 | V23 EL=14 | 130 |
| 370.68 | 13.50 | V23 EL=13 | 130 |
| 370.70 | 13.50 | V23 EL=13 | 130 |
| 374.00 | 13.36 | V23 EL=13 | 130 |
| 377.30 | 13.25 | V24 EL=13 | 140 |
| 380.60 | 13.15 | V24 EL=13 | 140 |
| 383.90 | 13.09 | V24 EL=13 | 140 |
| 387.10 | 13.07 | V24 EL=13 | 140 |
| 390.40 | 12.83 | V24 EL=13 | 140 |
| 393.70 | 12.73 | V24 EL=13 | 140 |
| 396.15 | 12.50 | V24 EL=12 | 140 |
| 397.00 | 12.42 | V24 EL=12 | 140 |
| 400.30 | 12.24 | V24 EL=12 | 140 |
| 403.50 | 12.12 | V24 EL=12 | 140 |
| 406.13 | 11.91 | A18 EL=12 | 90 |
| 406.80 | 11.86 | A18 EL=12 | 90 |
| 409.87 | 11.50 | A18 EL=11 | 90 |
| 410.10 | 11.47 | A18 EL=11 | 90 |
| 413.40 | 11.26 | A18 EL=11 | 90 |
| 416.70 | 11.21 | A18 EL=11 | 90 |
| 419.90 | 11.13 | A18 EL=11 | 90 |
| 423.20 | 11.10 | A18 EL=11 | 90 |
| 430.72 | 10.50 | A18 EL=10 | 90 |
| 432.50 | 10.33 | | |
| 1535.10 | 9.46 | A18 EL= 9 | 90 |
| 1542.82 | 9.50 | A18 EL=10 | 90 |
| 1870.47 | 9.50 | A18 EL= 9 | 90 |
| 1870.90 | 9.47 | | |

ZONE TERMINATED AT END OF TRANSECT
PART 7 POSTSCRIPT NOTES

PS# 1 START(364553.2393,4770947.9307)
PS# 2 END(363899.1929,4771000.183)

-1.000000e+00


YK-14
100-year WHAFIS Output
Zero Station: -70.66498794, 43.07920030
Onshore Dir: 175.4 deg CCW from E
Elevation (ft-NAVD88)
Station (ft)
20
15
10
5
0
-5
-200
0
200
400
600
800
1000
1200
1400
Ground
V-zone
SWEL + Setup
Wave Crest Envelope
BFE


Iterative TAW for YK-14
Two Percent Run-up Elevation is 22.7 Feet-NAVD88
Run-up Height is 13.0 Feet
Elevation (Feet-NAVD88)
Distance from zero NAVD88 shoreline (feet)
0
5
10
15
20
25
100
120
140
160
180
200
220
240
260
Ground
TAW Segments
SWEL
Final 2% Run-up
R2 iterations
Toe|SWEL-1.5*H0
Berm Segments

```
diary on         % begin recording

% FEMA appeal for The Town of Harpswell, Cumberland county, Maine
% TRANSECT ID: YK-14
% calculation by SJH, Ransom Consulting, Inc. 06-Feb-2020
% 100-year wave runup using TAW methodology
% including berm and weighted average with foreshore if necessary
%
% chk nld 20181015
%
% This script assumes that the incident wave conditions provided
% as input in the configuration section below are the
% appropriate values located at the end of the foreshore
% or toe of the slope on which the run-up is being calculated
% the script does not attempt to apply a depth limit or any other
% transformation to the incident wave conditions other than
% conversion of the peak wave period to the spectral mean wave
% as recommended in the references below
%
%
% references:
%
% Van der Meer, J.W., 2002. Technical Report Wave Run-up and
% Wave Overtopping at Dikes. TAW Technical Advisory Committee on
% Flood Defence, The Netherlands.
%
% FEMA. 2007,  Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update
%
%
%

%-------------------------------------------------------------------------
% CONFIG
%-------------------------------------------------------------------------
fname='inpfiles/YK-14sta_ele_include.csv';   % file with station, elevation, include
                                        % third colunm is 0 for excluded points
imgname='logfiles/YK-14-runup';
SWEL=9.19;  % 100-yr still water level including wave setup.
H0=4.9688;    % significant wave height at toe of structure
Tp=13.8709;    % peak period, 1/fma,
T0=Tp/1.1;

gamma_berm=0.94964;   % this may get changed automatically below
gamma_rough=0.8;
gamma_beta=1;
gamma_perm=1;

setupAtToe=0.5381;
maxSetup=1.1359;   % only used in case of berm/shallow foreshore weighted average

plotTitle='Iterative TAW for YK-14'

plotTitle =

Iterative TAW for YK-14



% END CONFIG
%------------------------------

SWEL=SWEL+setupAtToe

SWEL =

                    9.7281

SWEL_fore=SWEL+maxSetup

SWEL_fore =

                    10.864



% FIND WAVELENGTH USING DEEPWATER DISPERSION RELATION
% using English units
L0=32.15/(2*pi)*T0^2

L0 =

          813.626378047832


% Find Hb (Munk, 1949)
%Hb=H0/(3.3*(H0/L0)^(1/3))
%Db=-Hb/.78+SWEL;  % depth at breaking

% The toe elevation here is only used to determine the average
% structure slope, it is not used to depth limit the wave height.
% Any depth limiting or other modification of the wave height
% to make it consitent with TAW guidance should be performed
% prior to the input of the significant wave height given above.
Ztoe=SWEL-1.5*H0

Ztoe =
```

```
                    2.2749


% read the transect
[sta,dep,inc] = textread(fname,'%n%n%n%*[^\n]','delimiter',',','headerlines',0);

% remove unselected points
k=find(inc==0);
sta(k)=[];
dep(k)=[];

sta_org=sta;  % used for plotting purposes
dep_org=dep;


% initial guess at maximum run-up elevation to estimate slope
Z2=SWEL+1.5*H0

Z2 =

                   17.1813


% determine station at the max runup and -1.5*H0 (i.e. the toe)
top_sta=-999;
toe_sta=-999;
for kk=1:length(sta)-1
    if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
       top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
    end
    if  ((Ztoe > dep(kk)) & (Ztoe <= dep(kk+1)))    % here is the intersection of Ztoe with profile
       toe_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Ztoe)
    end
end
% check to make sure we got them, if not extend the end slopes outward
S=diff(dep)./diff(sta);
if toe_sta==-999
   dy=dep(1)-Ztoe;
   toe_sta=sta(1)-dy/S(1)
end

toe_sta =

          148.690355329948

if top_sta==-999
   dy=Z2-dep(end);
   top_sta=sta(end)+dy/S(end)
end

top_sta =

          173.496221662469


% just so the reader can tell the values aren't -999 anymore
top_sta

top_sta =

          173.496221662469

toe_sta

toe_sta =

          148.690355329948



% check for case where the toe of slope is below SWL-1.5*H0
% in this case interpolate setup from the setupAtToe(really setup as first station), and the max setup
% also un-include points seaward of SWL-1.5*H0
if Ztoe > dep(1)
   dd=SWEL_fore-dep;
   k=find(dd<0,1); % k is index of first land point
   staAtSWL=interp1(dep(k-1:k),sta(k-1:k),SWEL_fore);
   dsta=staAtSWL-sta(1);
   dsetup=maxSetup-setupAtToe;
   dsetdsta=dsetup/dsta;
   setup=setupAtToe+dsetdsta*(toe_sta-sta(1));
   sprintf('-!!- Location of SWEL-1.5*H0 is %4.1f ft landward of toe of slope',dsta)
   sprintf('-!!- Setup is interpolated between setup at toe of slope and max setup')
   sprintf('-!!-       setup is adjusted to %4.2f feet',setup)
   SWEL=SWEL-setupAtToe+setup;
   sprintf('-!!-       SWEL is adjusted to %4.2f feet',SWEL)
   k=find(dep < SWEL-1.5*H0)
   sta(k)=[];
   dep(k)=[];
else
   sprintf('-!!- The User has selected a starting point that is %4.2f feet above the elevation of SWEL-1.5H0\n',de
   sprintf('-!!- This may be reasonable for some cases.  However the user may want to consider:\n')
   sprintf('-!!-   1) Selecting a starting point that is at or below %4.2f feet elevation, or\n', Ztoe)
   sprintf('-!!-   2) Reducing the incident wave height to a depth limited condition.\n')
```

```
end

ans =

-!!- The User has selected a starting point that is 1.22 feet above the elevation of SWEL-1.5H0


ans =

-!!- This may be reasonable for some cases.  However the user may want to consider:


ans =

-!!-   1) Selecting a starting point that is at or below 2.27 feet elevation, or


ans =

-!!-   2) Reducing the incident wave height to a depth limited condition.




% now iterate converge on a runup elevation
tol=0.001;  % convergence criteria
R2del=999;
R2_new=3*H0; %initial guess
R2=R2_new;
iter=0;
R2_all=[];
topStaAll=[];
Berm_Segs=[];
TAW_ALWAYS_VALID=1;
while(abs(R2del) > tol && iter <= 25)
    iter=iter+1;
    sprintf ('!----------------- STARTING ITERATION %d -----------------!',iter)
    % elevation of toe of slope
    Ztoe
    % station of toe slope (relative to 0-NAVD88 shoreline
    toe_sta
    % station of top of slope/extent of 2% run-up
    top_sta
    % elevation of top of slope/extent of 2% run-up
    Z2
    % incident significant wave height
    H0
    % incident spectral peak wave period
    Tp
    % incident spectral mean wave period
    T0

    R2=R2_new
    Z2=R2+SWEL
    % determine slope for this iteration
    top_sta=-999;
    for kk=1:length(sta)-1
       if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
          top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
          break;
       end
    end
    if top_sta==-999
       dy=Z2-dep(end);
       top_sta=sta(end)+dy/S(end)
    end

    % get the length of the slope (not accounting for berm)
    Lslope=top_sta-toe_sta

    % loop over profile segments to determine berm factor
    % re-calculate influence of depth of berm based on this run-up elevation
    % check for berm, berm width, berm height
    berm_width=0;
    rdh_sum=0;
    Berm_Segs=[];
    Berm_Heights=[];
    for kk=1:length(sta)-1
       ddep=dep(kk+1)-dep(kk);
       dsta=sta(kk+1)-sta(kk);
       s=ddep/dsta;
       if  (s < 1/15)     % count it as a berm if slope is flatter than 1:15 (see TAW manual)
          sprintf ('Berm Factor Calculation: Iteration %d, Profile Segment: %d',iter,kk)
          berm_width=berm_width+dsta;   % tally the width of all berm segments
          % compute the rdh for this segment and weight it by the segment length
          dh=SWEL-(dep(kk)+dep(kk+1))/2
          if  dh < 0
              chi=R2;
          else
              chi=2* H0;
          end
          if (dh <= R2 & dh >=-2*H0)
```

```
         rdh=(0.5-0.5*cos(3.14159*dh/chi)) ;
      else
         rdh=1;
      end
      rdh_sum=rdh_sum + rdh * dsta
      Berm_Segs=[Berm_Segs, kk];
      Berm_Heights=[Berm_Heights, (dep(kk)+dep(kk+1))/2];
   end
   if dep(kk) >= Z2  % jump out of loop if we reached limit of run-up for this iteration
      break
   end
end
sprintf ('!------- End Berm Factor Calculation, Iter: %d ---------!',iter)
berm_width
rB=berm_width/Lslope
if (berm_width > 0)
   rdh_mean=rdh_sum/berm_width
else
   rdh_mean=1
end
gamma_berm=1- rB * (1-rdh_mean)
if gamma_berm > 1
   gamma_berm=1
end
if gamma_berm < 0.6
   gamma_berm =0.6
end
% Iribarren number
slope=(Z2-Ztoe)/(Lslope-berm_width)
Irb=(slope/(sqrt(H0/L0)))
% runup height
gamma_berm
gamma_perm
gamma_beta
gamma_rough
gamma=gamma_berm*gamma_perm*gamma_beta*gamma_rough

% check validity
TAW_VALID=1;
if (Irb*gamma_berm < 0.5 | Irb*gamma_berm > 10 )
   sprintf('!!! - - Iribaren number: %6.2f is outside the valid range (0.5-10), TAW NOT VALID - - !!!\n', Irb*
   TAW_VALID=0;
else
   sprintf('!!! - - Iribaren number: %6.2f is in the valid range (0.5-10), TAW RECOMMENDED - - !!!\n', Irb*gam
end
islope=1/slope;
if (slope < 1/8 | slope > 1)
   sprintf('!!! - - slope: 1:%3.1f V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!\n', islop
   TAW_VALID=0;
else
   sprintf('!!! - - slope: 1:%3.1f V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!\n', islope)
end
if TAW_VALID == 0
   TAW_ALWAYS_VALID=0;
end

if (Irb*gamma_berm < 1.8)
   R2_new=gamma*H0*1.77*Irb
else
   R2_new=gamma*H0*(4.3-(1.6/sqrt(Irb)))
end


% check to see if we need to evaluate a shallow foreshore
if berm_width > 0.25 * L0;
   disp ('!   Berm_width is greater than 1/4 wave length')
   disp ('!   Runup will be weighted average with foreshore calculation assuming depth limited wave height on
   % do the foreshore calculation
   fore_H0=0.78*(SWEL_fore-min(Berm_Heights))
   % get upper slope
   fore_toe_sta=-999;
   fore_toe_dep=-999;
   for kk=length(dep)-1:-1:1
      ddep=dep(kk+1)-dep(kk);
      dsta=sta(kk+1)-sta(kk);
      s=ddep/dsta;
      if s < 1/15
         break
      end
      fore_toe_sta=sta(kk);
      fore_toe_dep=dep(kk);
      upper_slope=(Z2-fore_toe_dep)/(top_sta-fore_toe_sta)
   end
   fore_Irb=upper_slope/(sqrt(fore_H0/L0));
   fore_gamma=gamma_perm*gamma_beta*gamma_rough;
   if (fore_Irb < 1.8)
      fore_R2=fore_gamma*fore_H0*1.77*fore_Irb;
   else
      fore_R2=fore_gamma*fore_H0*(4.3-(1.6/sqrt(fore_Irb)));
   end
   if berm_width >= L0
      R2_new=fore_R2
      disp ('berm is wider than one wavelength, use full shallow foreshore solution');
   else
      w2=(berm_width-0.25*L0)/(0.75*L0)
      w1=1-w2
```

```
            R2_new=w2*fore_R2 + w1*R2_new
         end
      end % end berm width check

      % convergence criterion
      R2del=abs(R2-R2_new)
      R2_all(iter)=R2_new;

      % get the new top station (for plot purposes)
      Z2=R2_new+SWEL
      top_sta=-999;
      for kk=1:length(sta)-1
         if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
            top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
            break;
         end
      end
      if top_sta==-999
         dy=Z2-dep(end);
         top_sta=sta(end)+dy/S(end);
      end
      topStaAll(iter)=top_sta;

end

ans =

!----------------- STARTING ITERATION 1 -----------------!


Ztoe =

    2.2749


toe_sta =

   148.690355329948


top_sta =

   173.496221662469


Z2 =

   17.1813


H0 =

    4.9688


Tp =

   13.8709


T0 =

   12.6099090909091


R2 =

   14.9064


Z2 =

   24.6345


top_sta =

   236.07556675063


Lslope =

   87.3852114206816


ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 1


dh =

   6.24775


rdh_sum =
```

```
         0.696694661749085

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 7

dh =

                   5.59575

rdh_sum =

          1.29514584126333

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 8

dh =

                   5.53985

rdh_sum =

          1.88491919851846

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 54

dh =

                  -1.58515

rdh_sum =

           1.9125625838384

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 55

dh =

                  -1.64545

rdh_sum =

          1.94232759962642

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 56

dh =

                   -1.7051

rdh_sum =

          1.97426609824767

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 66

dh =

                  -3.51485

rdh_sum =

          2.10529161254412

ans =
```

```
!------- End Berm Factor Calculation, Iter: 1 ---------!

berm_width =
     7

rB =
        0.0801050874192117

rdh_mean =
          0.30075594464916

gamma_berm =
         0.943986993818757

slope =
         0.278155640880075

Irb =
          3.55938219472908

gamma_berm =
         0.943986993818757

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                       0.8

gamma =
         0.755189595055005

ans =
!!! - - Iribaren number:   3.36 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:3.6 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
          12.9529669019934

R2del =
          1.95343309800661

Z2 =
          22.6810669019934

ans =
!----------------- STARTING ITERATION 2 -----------------!

Ztoe =
                    2.2749

toe_sta =
```

```
          148.690355329948

top_sta =
          219.673945440751

Z2 =
          22.6810669019934

H0 =
                    4.9688

Tp =
                   13.8709

T0 =
          12.6099090909091

R2 =
          12.9529669019934

Z2 =
          22.6810669019934

top_sta =
          219.673945440751

Lslope =
          70.9835901108023

ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 1

dh =
                   6.24775

rdh_sum =
         0.696694661749085

ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 7

dh =
                   5.59575

rdh_sum =
          1.29514584126333

ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 8

dh =
                   5.53985

rdh_sum =
          1.88491919851846

ans =
```

```
Berm Factor Calculation: Iteration 2, Profile Segment: 54

dh =
                  -1.58515

rdh_sum =
          1.92141855805693

ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 55

dh =
                  -1.64545

rdh_sum =
          1.96071001201676

ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 56

dh =
                   -1.7051

rdh_sum =
          2.00286041802213

ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 66

dh =
                  -3.51485

rdh_sum =
          2.17380355043182

ans =
!------- End Berm Factor Calculation, Iter: 2 ---------!

berm_width =
     7

rB =
        0.0986143415551862

rdh_mean =
         0.310543364347402

gamma_berm =
         0.932009687844265

slope =
         0.318928132457954

Irb =
          4.08112203828527

gamma_berm =
         0.932009687844265
```

```
gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                      0.8

gamma =
         0.745607750275412

ans =
!!! - - Iribaren number:   3.80 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:3.1 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
           12.996319619657

R2del =
        0.0433527176635842

Z2 =
           22.724419619657

ans =
!----------------- STARTING ITERATION 3 -----------------!

Ztoe =
                    2.2749

toe_sta =
          148.690355329948

top_sta =
          220.037948107951

Z2 =
           22.724419619657

H0 =
                    4.9688

Tp =
                   13.8709

T0 =
          12.6099090909091

R2 =
           12.996319619657

Z2 =
```

```
           22.724419619657

top_sta =

          220.037948107951

Lslope =

          71.3475927780029

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 1

dh =

                  6.24775

rdh_sum =

         0.696694661749085

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 7

dh =

                  5.59575

rdh_sum =

          1.29514584126333

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 8

dh =

                  5.53985

rdh_sum =

          1.88491919851846

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 54

dh =

                 -1.58515

rdh_sum =

          1.92117843923054

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 55

dh =

                 -1.64545

rdh_sum =

          1.96021165551224

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 56

dh =

                  -1.7051
```

```
rdh_sum =
          2.00208530851954

ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 66

dh =
                  -3.51485

rdh_sum =
          2.17195923757907

ans =
!------- End Berm Factor Calculation, Iter: 3 ---------!

berm_width =
     7

rB =
        0.0981112288088038

rdh_mean =
         0.310279891082724

gamma_berm =
         0.932330712579984

slope =
         0.317797740938144

Irb =
          4.06665713138656

gamma_berm =
         0.932330712579984

gamma_perm =
     1

gamma_beta =
     1

gamma_rough =
                       0.8

gamma =
         0.745864570063987

ans =
!!! - - Iribaren number:   3.79 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!


ans =
!!! - - slope: 1:3.1 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!


R2_new =
```

```
          12.9955805204094

R2del =

      0.000739099247571318


Z2 =

          22.7236805204094


% final 2% runup elevation
Z2=R2_new+SWEL

Z2 =

          22.7236805204094


diary off
```

PART 5: RUNUP2

for transect: YK-14

Station locations shifted by: -0.20 feet from their
original location to set the shoreline to
elevation 0 for RUNUP2 input

RUNUP2 INPUT CONVERSIONS
for transect: YK-14

Incident significant wave height: 12.46 feet

Peak wave period: 14.03 seconds

Mean wave height: 7.80 feet

Local Depth below SWEL: 15.66 feet

Mean wave height deshoaled using Hunt approximation for
celerity assuming constant wave energy flux.
References: R.G. Dean and R.A. Dalrymple. 2000. Water

Wave Mechanics for Engineers and Scientists. World
Scientific Publishing Company, River Edge New Jersy

USACE (1985), Direct Methods for Calculating Wavelength, CETN-1-17
US Army Engineer Waterways Experiment Station Coastel Engineering
Research Center, Vicksburg, MS

also see Coastal Engineering Manual Part II-3
for discussion of shoaling coefficient

Deep water wavelength, L0 (m)
L0 = g*T*T/twopi
L0 = 32.17*11.93*11.93/6.28 = 728.42
Deep water wave celerity, C0 (ft/s)
C0 = L0/T
C0 = 728.42/11.93 = 61.07
Angular frequency, sigma (rad/s)
sigma = twopi/T
sigma = 6.28/11.93 = 0.53
Hunts (1979) approximation for Celerity C1H (ft/s) at Depth D (ft)
y = sigma.*sigma.*D./g
y = 0.53*0.53*15.66/32.17 = 0.14
C1H = sqrt( g.*D./(y+1./(1 + 0.6522.*y + 0.4622.*y.^2 + 0.0864.*y.^4 +0.0675.*y.^5)) )
C1H = 21.94
Shoaling Coefficient KsH
KsH = sqrt(C0/C1H)
KsH = sqrt(61.07/21.94) = 1.67
Deepwater Wave Height H0_H (ft)
H0_H = H/KsH
H0_H = 7.80/1.67 = 4.67

Deepwater mean wave height: 4.67 feet

END RUNUP2 CONVERSIONS

RUNUP2 RESULTS
for transect: YK-14

RUNUP2 SWEL:
9.20
9.20
9.20
9.20
9.20
9.20
9.20
9.20
9.20

RUNUP2 deepwater mean wave heights:
4.44

4.44
4.44
4.67
4.67
4.67
4.91
4.91
4.91

RUNUP2 mean wave periods:
11.33
11.93
12.52
11.33
11.93
12.52
11.33
11.93
12.52

RUNUP2 runup above SWEL:
5.10
5.63
6.06
5.27
5.79
6.33
5.44
5.93
5.91

RUNUP2 Mean runup height above SWEL: 5.72 feet

RUNUP2 2-percent runup height above SWEL: 12.58 feet

RUNUP2 2-percent runup elevation: 21.78 feet-NAVD88

RUNUP2 Messages:
No Messages

_____END RUNUP2 RESULTS_____

_____ACES BEACH RUNUP_____

Incident significant wave height: 12.46 feet

Significant wave height deshoaled using Hunt equation

Deepwater significant wave height: 6.54 feet

Peak wave period: 14.03 seconds

Average beach Slope: 1:20.78 (H:V)

ACES RUNUP CALCULATED USING 'Aces_Beach_Runup.m'

ACES Beach 2-percent runup height above SWEL: 8.44 feet

ACES Beach 2-percent runup elevation: 17.64 feet-NAVD88

ACES BEACH RUNUP is valid

_____END ACES BEACH RESULTS_____

PART 5 COMPLETE_____

```
  FEMA                                                  sjh            job 2
  RUNUP2 transect: YK-14                                                   1
3.00
  -6.47 -297.8 1.0
  -6.41 -252.8 1.0
  -0.91 -5.8   1.0
  -0.13 -1.8   1.0
  0.12  2.2    1.0
  0.18  28.2   1.0
  1.00  37.2   1.0
  1.16  46.2   1.0
  1.78  51.2   1.0
  2.65  73.2   1.0
  3.53  85.2   1.0
  3.56  89.2   1.0
  5.56  106.2  1.0
  7.73  116.2  1.0
  9.88  132.2  1.0
  11.18 139.2  1.0
  11.46 143.2  1.0
  12.42 146.2  1.0
  13.25 153.2  1.0
1 15.57 160.2  1.0
 9.2   4.44  11.33
 9.2   4.44  11.93
 9.2   4.44  12.52
 9.2   4.67  11.33
 9.2   4.67  11.93
 9.2   4.67  12.52
 9.2   4.91  11.33
 9.2   4.91  11.93
 9.2   4.91  12.52
```

**********

CROSS SECTION PROFILE

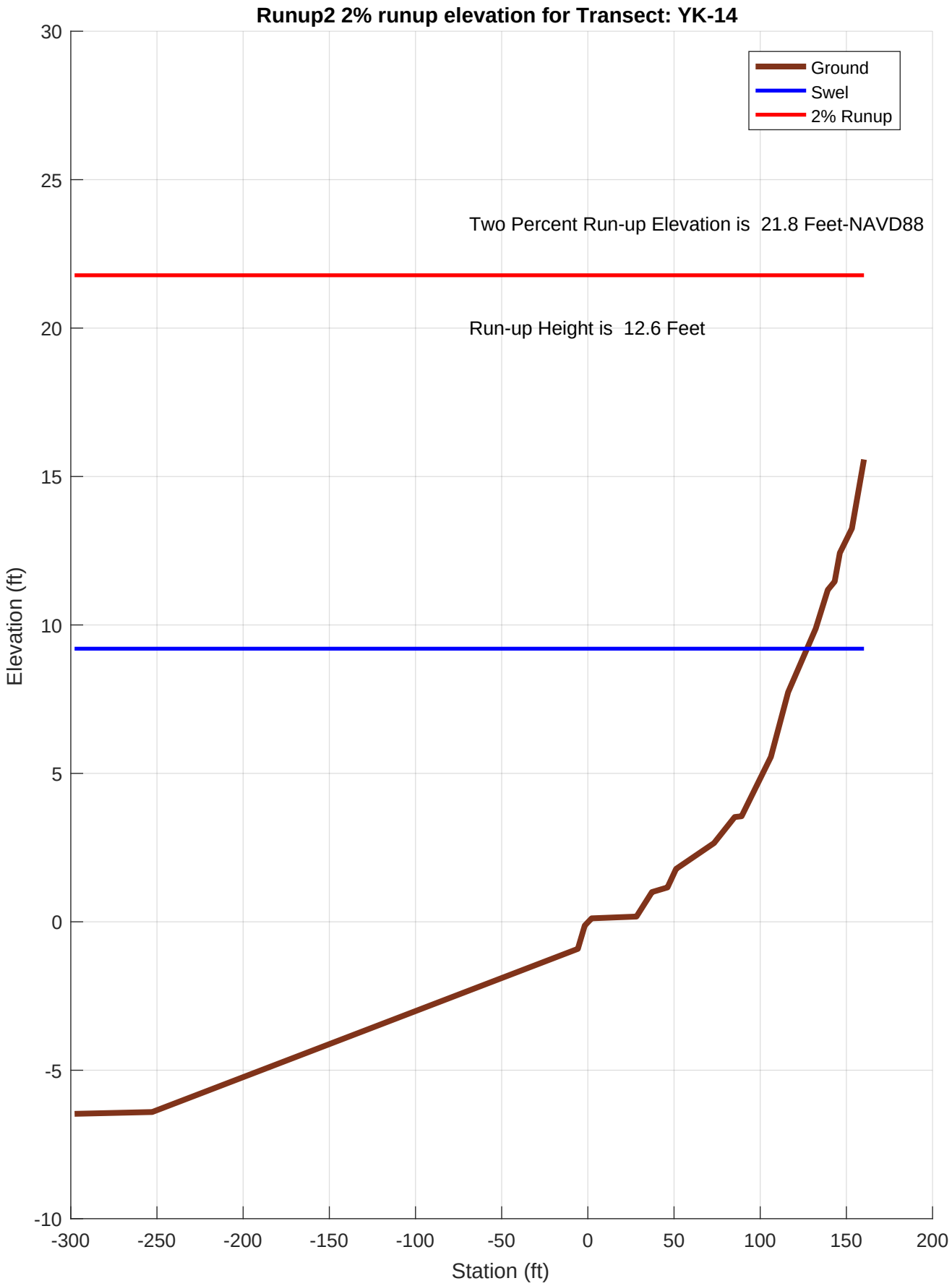
| | LENGTH | ELEV. | SLOPE | ROUGHNESS |
|---|---|---|---|---|
| 1 | -297.8 | -6.5 | | |
| | | | .00 | 1.00 |
| 2 | -252.8 | -6.4 | | |
| | | | 44.91 | 1.00 |
| 3 | -5.8 | -.9 | | |
| | | | 5.13 | 1.00 |
| 4 | -1.8 | -.1 | | |
| | | | 16.00 | 1.00 |
| 5 | 2.2 | .1 | | |
| | | | 433.33 | 1.00 |
| 6 | 28.2 | .2 | | |
| | | | 10.98 | 1.00 |
| 7 | 37.2 | 1.0 | | |
| | | | 56.25 | 1.00 |
| 8 | 46.2 | 1.2 | | |
| | | | 8.06 | 1.00 |
| 9 | 51.2 | 1.8 | | |
| | | | 25.29 | 1.00 |
| 10 | 73.2 | 2.7 | | |
| | | | 13.64 | 1.00 |
| 11 | 85.2 | 3.5 | | |
| | | | 133.33 | 1.00 |
| 12 | 89.2 | 3.6 | | |
| | | | 8.50 | 1.00 |
| 13 | 106.2 | 5.6 | | |
| | | | 4.61 | 1.00 |
| 14 | 116.2 | 7.7 | | |
| | | | 7.44 | 1.00 |
| 15 | 132.2 | 9.9 | | |
| | | | 5.38 | 1.00 |
| 16 | 139.2 | 11.2 | | |
| | | | 14.29 | 1.00 |
| 17 | 143.2 | 11.5 | | |
| | | | 3.13 | 1.00 |
| 18 | 146.2 | 12.4 | | |
| | | | 8.43 | 1.00 |
| 19 | 153.2 | 13.3 | | |
| | | | 3.02 | 1.00 |
| 20 | 160.2 | 15.6 | | |

LAST SLOPE 3.00 LAST ROUGHNESS 1.00

**********

OUTPUT TABLE

| INPUT PARAMETERS | | | RUNUP RESULTS | | | |
|---|---|---|---|---|---|---|
| WATER LEVEL ABOVE DATUM (FT.) | DEEP WATER WAVE HEIGHT (FT.) | WAVE PERIOD (SEC.) | BREAKING SLOPE NUMBER | RUNUP SLOPE NUMBER | RUNUP ABOVE WATER LEVEL (FT.) | BREAKER DEPTH (FT.) |
| 9.20 | 4.44 | 11.33 | 5 | 19 | 5.10 | 9.34 |
| 9.20 | 4.44 | 11.93 | 5 | 19 | 5.63 | 9.57 |
| 9.20 | 4.44 | 12.52 | 5 | 19 | 6.06 | 9.79 |
| 9.20 | 4.67 | 11.33 | 5 | 19 | 5.27 | 9.71 |
| 9.20 | 4.67 | 11.93 | 5 | 19 | 5.79 | 9.94 |
| 9.20 | 4.67 | 12.52 | 5 | 19 | 6.33 | 10.17 |
| 9.20 | 4.91 | 11.33 | 5 | 19 | 5.44 | 10.10 |
| 9.20 | 4.91 | 11.93 | 2 | 19 | 5.93 | 10.26 |
| 9.20 | 4.91 | 12.52 | 2 | 19 | 5.91 | 10.49 |


Runup2 2% runup elevation for Transect: YK-14
Ground
Swel
2% Runup
Two Percent Run-up Elevation is 21.8 Feet-NAVD88
Run-up Height is 12.6 Feet
Elevation (ft)
Station (ft)
30
25
20
15
10
5
0
-5
-10
-300
-250
-200
-150
-100
-50
0
50
100
150
200