# Elevations and sediment depths of previously-surveyed beach surfaces at Fire Island, New York vibracore sites

[Abbreviations: m, meter; ID, core identification number; %, percent; core\_btm, core bottom; Z, profile elevation; Duncomp, depth below April 2016 surface elevation; Dcomp, relative depth in core barrel after accounting for core compaction]

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| **Core ID** | **Core Length (m)** | **Penetration (m)** | **% Core Compaction** | **Profile Date** | **Profile Elevation (Z) (m)** | **Duncomp (m)** | **Dcomp (m)** | **Comment** |
| P10-C03 | 1 | 0.995 | 1.005 | core\_btm | 0.238 | 0.995 | 1.000 |  |
| P10-C03 |  |  |  | 1/1/13 | 0.987 | 0.246 | 0.247 |  |
| P10-C03 |  |  |  | 1/25/16 | 1.210 | 0.023 | 0.023 |  |
| P10-C03 |  |  |  | 4/11/16 | 1.233 | 0.000 | 0.000 |  |
| P10-C04 | 1.41 | 1.8 | 1.195 | core\_btm | 0.716 | 1.410 | 1.410 |  |
| P10-C04 |  |  |  | 1/1/13 | 1.442 | 0.684 | 0.684 |  |
| P10-C04 |  |  |  | 9/1/13 | 1.825 | 0.301 | 0.301 |  |
| P10-C04 |  |  |  | 4/1/14 | 1.920 | 0.206 | 0.206 |  |
| P10-C04 |  |  |  | 1/25/16 | 2.026 | 0.100 | 0.100 |  |
| P10-C04 |  |  |  | 4/11/16 | 2.126 | 0.000 | 0.000 |  |
| P11-C01 | 1 | 1.595 | 0.627 | core\_btm | 0.224 | 1.595 | 1.000 |  |
| P11-C02 |  |  |  | 2/1/13 | 0.000 | 1.819 | 1.140 | eroded |
| P11-C01 |  |  |  | 3/1/13 | 0.000 | 1.819 | 1.141 | eroded |
| P11-C01 |  |  |  | 12/1/13 | 0.000 | 1.819 | 1.141 | eroded |
| P11-C01 |  |  |  | 10/1/14 | 0.000 | 1.819 | 1.141 | eroded |
| P11-C01 |  |  |  | 9/1/15 | 0.100 | 1.719 | 1.078 | eroded |
| P11-C01 |  |  |  | 1/25/16 | 0.325 | 1.494 | 0.937 |  |
| P11-C01 |  |  |  | 4/6/16 | 1.667 | 0.152 | 0.095 |  |
| P11-C01 |  |  |  | 4/11/16 | 1.819 | 0.000 | 0.000 |  |
| P11-C02 | 1.55 | 1.705 | 0.909 | core\_btm | 0.587 | 1.705 | 1.550 |  |
| P11-C02 |  |  |  | 2/1/13 | 0.560 | 1.732 | 1.574 | eroded |
| P11-C02 |  |  |  | 3/1/13 | 0.807 | 1.485 | 1.350 |  |
| P11-C02 |  |  |  | 4/1/14 | 1.085 | 1.207 | 1.097 |  |
| P11-C02 |  |  |  | 1/1/15 | 1.669 | 0.623 | 0.566 |  |
| P11-C02 |  |  |  | 9/1/15 | 1.822 | 0.470 | 0.427 |  |
| P11-C02 |  |  |  | 4/6/16 | 1.957 | 0.335 | 0.304 |  |
| P11-C02 |  |  |  | 4/11/16 | 2.292 | 0.000 | 0.000 |  |

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| **Core ID** | **Core Length (m)** | **Penetration (m)** | **% Core Compaction** | **Profile Date** | **Profile Elevation (Z) (m)** | **Duncomp (m)** | **Dcomp (m)** | **Comment** |
| P22-C13 | 1.08 | 1.13 | 0.956 | core\_btm | 1.037 | 1.130 | 1.080 |  |
| P22-C13 |  |  |  | 1/25/16 | 0.960 | 1.207 | 1.154 | eroded |
| P22-C13 |  |  |  | 4/6/16 | 1.652 | 0.515 | 0.492 |  |
| P22-C13 |  |  |  | 4/11/16 | 2.167 | 0.000 | 0.000 |  |
| P22-C14 | 1.7 | 1.735 | 0.98 | core\_btm | 1.053 | 1.735 | 1.700 |  |
| P22-C14 |  |  |  | 4/1/13 | 2.171 | 0.617 | 0.605 | eroded |
| P22-C14 |  |  |  | 6/1/13 | 2.184 | 0.604 | 0.592 | eroded |
| P22-C14 |  |  |  | 4/1/14 | 2.087 | 0.701 | 0.687 |  |
| P22-C14 |  |  |  | 10/1/14 | 2.323 | 0.465 | 0.456 |  |
| P22-C14 |  |  |  | 1/1/15 | 2.418 | 0.370 | 0.363 |  |
| P22-C14 |  |  |  | 1/25/16 | 2.594 | 0.194 | 0.190 |  |
| P22-C14 |  |  |  | 4/11/16 | 2.788 | 0.000 | 0.000 |  |
| P22-C15 | 0.71 | 0.985 | 0.721 | core\_btm | -0.037 | 0.985 | 0.710 |  |
| P22-C15 |  |  |  | 4/1/14 | -0.007 | 0.955 | 0.688 |  |
| P22-C15 |  |  |  | 1/25/16 | 0.133 | 0.815 | 0.587 |  |
| P22-C15 |  |  |  | 4/11/16 | 0.948 | 0.000 | 0.000 |  |
| P25-C05 | 1.64 | 1.645 | 0.997 | core\_btm | 1.023 | 1.645 | 1.640 |  |
| P25-C05 |  |  |  | 2/1/13 | 0.950 | 1.718 | 1.713 | eroded |
| P25-C05 |  |  |  | 4/1/13 | 1.845 | 0.823 | 0.820 |  |
| P25-C05 |  |  |  | 6/1/13 | 2.174 | 0.494 | 0.492 |  |
| P25-C05 |  |  |  | 9/1/13 | 2.216 | 0.452 | 0.451 |  |
| P25-C05 |  |  |  | 12/1/13 | 2.273 | 0.395 | 0.394 |  |
| P25-C05 |  |  |  | 4/1/14 | 2.308 | 0.360 | 0.359 |  |
| P25-C05 |  |  |  | 1/1/16 | 2.385 | 0.283 | 0.282 |  |
| P25-C05 |  |  |  | 4/11/16 | 2.668 | 0.000 | 0.000 |  |

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| P25-C06 | 1.58 | 1.79 | 0.883 | core\_btm | 1.426 | 1.790 | 1.580 |  |
| P25-C06 |  |  |  | 1/1/13 | 1.882 | 1.334 | 1.177 |  |
| P25-C06 |  |  |  | 2/1/13 | 2.225 | 0.991 | 0.874 |  |
| P25-C06 |  |  |  | 4/1/14 | 2.890 | 0.326 | 0.287 |  |
| P25-C06 |  |  |  | 1/1/15 | 3.001 | 0.215 | 0.189 |  |
| P25-C06 |  |  |  | 3/1/15 | 3.041 | 0.175 | 0.154 |  |
| P25-C06 |  |  |  | 5/1/15 | 3.104 | 0.112 | 0.098 | eroded |
| P25-C06 |  |  |  | 9/1/15 | 3.114 | 0.102 | 0.090 |  |
| P25-C06 |  |  |  | 1/1/16 | 3.116 | 0.099 | 0.088 |  |
| P25-C06 |  |  |  | 4/6/16 | 3.157 | 0.059 | 0.052 |  |
| P25-C06 |  |  |  | 4/11/16 | 3.216 | 0.000 | 0.000 |  |
| P25-C07 | 1.41 | 1.455 | 0.969 | core\_btm | 0.404 | 1.455 | 1.410 |  |
| P25-C07 |  |  |  | 3/1/15 | 0.400 | 1.459 | 1.414 | eroded |
| P25-C07 |  |  |  | 1/1/16 | 0.778 | 1.081 | 1.047 |  |
| P25-C07 |  |  |  | 4/11/16 | 1.859 | 0.000 | 0.000 |  |
| P26-C08 | 1.71 | 1.985 | 0.861 | core\_btm | 1.163 | 1.985 | 1.710 |  |
| P26-C08 |  |  |  | 1/1/13 | 2.223 | 0.925 | 0.797 |  |
| P26-C08 |  |  |  | 3/1/15 | 2.358 | 0.790 | 0.680 |  |
| P26-C08 |  |  |  | 9/1/15 | 2.370 | 0.778 | 0.670 |  |
| P26-C08 |  |  |  | 1/21/16 | 2.435 | 0.713 | 0.614 |  |
| P26-C08 |  |  |  | 1/25/16 | 2.562 | 0.586 | 0.505 |  |
| P26-C08 |  |  |  | 4/6/16 | 2.815 | 0.333 | 0.287 |  |
| P26-C08 |  |  |  | 4/11/16 | 3.148 | 0.000 | 0.000 |  |

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| P26-C09 | 1.25 | 1.99 | 0.628 | core\_btm | 0.396 | 1.990 | 1.250 |  |
| P26-C09 |  |  |  | 1/1/13 | 1.281 | 1.105 | 0.694 |  |
| P26-C09 |  |  |  | 1/1/14 | 1.331 | 1.055 | 0.662 |  |
| P26-C09 |  |  |  | 6/1/14 | 1.421 | 0.965 | 0.606 |  |
| P26-C09 |  |  |  | 10/1/14 | 1.799 | 0.587 | 0.368 |  |
| P26-C09 |  |  |  | 3/1/15 | 2.001 | 0.385 | 0.242 |  |
| P26-C09 |  |  |  | 9/1/15 | 2.089 | 0.297 | 0.186 |  |
| P26-C09 |  |  |  | 4/11/16 | 2.386 | 0.000 | 0.000 |  |
| P29-C10 | 1.25 | 1.88 | 0.665 | core\_btm | 0.135 | 1.880 | 1.250 |  |
| P29-C10 |  |  |  | 12/1/13 | 1.670 | 0.345 | 0.230 |  |
| P29-C10 |  |  |  | 1/1/14 | 1.855 | 0.160 | 0.107 |  |
| P29-C10 |  |  |  | 4/1/14 | 1.897 | 0.118 | 0.079 |  |
| P29-C10 |  |  |  | 4/11/16 | 2.015 | 0.000 | 0.000 |  |
| P29-C11 | 1.49 | 1.73 | 0.861 | core\_btm | 1.308 | 1.730 | 1.490 |  |
| P29-C11 |  |  |  | 12/1/13 | 2.550 | 0.488 | 0.420 |  |
| P29-C11 |  |  |  | 3/1/14 | 2.620 | 0.418 | 0.360 |  |
| P29-C11 |  |  |  | 10/1/14 | 2.840 | 0.198 | 0.170 |  |
| P29-C11 |  |  |  | 3/1/15 | 2.843 | 0.195 | 0.168 |  |
| P29-C11 |  |  |  | 5/1/15 | 2.878 | 0.160 | 0.138 |  |
| P29-C11 |  |  |  | 9/1/15 | 2.887 | 0.151 | 0.130 |  |
| P29-C11 |  |  |  | 1/21/16 | 2.932 | 0.106 | 0.091 |  |
| P29-C11 |  |  |  | 4/11/16 | 3.038 | 0.000 | 0.000 |  |