

**Low and High Estimates of the Area of Land Close to Sea Level, by Jurisdiction: Virginia<sup>1</sup>** (square kilometers)

Jurisdiction	Meters above Spring High Water																			
	low	high	low	high	low	high	low	high	low	high	low	high	low	high	low	high	low	high		
	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0										
-----Cumulative (total) amount of Dry Land below a given elevation-----																				
<b>Eastern Shore</b>	<b>21</b>	<b>63</b>	<b>56</b>	<b>111</b>	<b>93</b>	<b>159</b>	<b>137</b>	<b>204</b>	<b>180</b>	<b>243</b>	<b>221</b>	<b>279</b>	<b>258</b>	<b>315</b>	<b>294</b>	<b>349</b>	<b>329</b>	<b>382</b>	<b>362</b>	<b>416</b>
Accomack	13	41	37	78	65	115	98	149	131	172	160	192	180	211	200	227	218	242	233	257
Northampton	7.4	22	20	33	29	44	39	55	49	71	61	87	78	104	94	122	111	140	129	159
<b>Northern Virginia</b>	<b>0</b>	<b>5.1</b>	<b>2.8</b>	<b>10</b>	<b>6.3</b>	<b>15</b>	<b>9.7</b>	<b>20</b>	<b>13</b>	<b>25</b>	<b>17</b>	<b>29</b>	<b>21</b>	<b>34</b>	<b>25</b>	<b>39</b>	<b>30</b>	<b>44</b>	<b>35</b>	<b>49</b>
Arlington	0	0.2	0.1	0.5	0.3	0.7	0.5	1.3	0.6	1.9	0.8	2.6	1.4	3.3	2.1	4	2.7	4.7	3.4	5
Alexandria	0	0.4	0.3	0.9	0.6	1.3	0.9	1.7	1.2	2.1	1.5	2.5	1.8	2.9	2.2	3.2	2.5	3.6	2.9	4
Fairfax	0	2	1.1	3.9	2.5	5.9	3.8	7.6	5.2	9.2	6.6	11	8	12	9.5	14	11	15	12	18
Prince William	0	1	0.5	2	1.2	3	1.9	3.9	2.6	4.7	3.3	5.5	4	6.3	4.8	7.2	5.6	8	6.4	8.8
<b>Rappahannock Area</b>	<b>0</b>	<b>3.3</b>	<b>1.8</b>	<b>6.5</b>	<b>4.1</b>	<b>9.9</b>	<b>6.4</b>	<b>14</b>	<b>8.7</b>	<b>20</b>	<b>11</b>	<b>26</b>	<b>15</b>	<b>31</b>	<b>20</b>	<b>37</b>	<b>26</b>	<b>43</b>	<b>32</b>	<b>49</b>
Stafford	0	1.4	0.8	2.7	1.7	4.2	2.7	5.4	3.6	6.8	4.6	8.1	5.7	9.4	6.9	11	8.2	12	9.5	14
Fredericksburg	0	0.1	0.04	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.4	0.3	0.5	0.4	0.5
King George	0	2.7	1.5	5.4	3.3	8.1	5.2	11	7.1	16.7	9	22	12	27	17	32	22	37	27	43
Spotsylvania	0	0.09	0.05	0.2	0.1	0.3	0.2	0.3	0.2	0.4	0.3	0.5	0.3	0.5	0.4	0.6	0.5	0.7	0.5	0.8
Caroline	0	0.4	0.3	0.9	0.6	1.3	0.9	1.8	1.2	2.3	1.5	2.8	1.9	3.3	2.4	3.8	2.9	4.4	3.4	5.2
<b>Northern Neck</b>	<b>0.1</b>	<b>22</b>	<b>11</b>	<b>43</b>	<b>27</b>	<b>66</b>	<b>42</b>	<b>92</b>	<b>58</b>	<b>141</b>	<b>74</b>	<b>190</b>	<b>100</b>	<b>239</b>	<b>147</b>	<b>287</b>	<b>193</b>	<b>336</b>	<b>240</b>	<b>378</b>
Westmoreland	0	4.7	2.4	9.3	5.7	14	9	21	12	37	16	53	24	69	39	84	54	100	69	112
Richmond	0	4.6	2.4	8.9	5.5	13	8.7	18	12	25	15	32	20	38	26	44	32	51	38	57
Northumberland	0	5.9	2.8	11	6.9	17	11	24	15	44	19	64	27	84	46	104	65	124	85	141
Lancaster	0.1	7	3.6	14	8.5	21	14	28	19	35	24	42	29	48	36	55	42	61	48	68

1. Low and high are an uncertainty range based on the contour interval and/or stated root mean square error (RMSE) of the input elevation data. Calculations assume that half of the RMSE is random error and half is systematic error. For a discussion of these calculations, see Titus and Cacula 2008 or <http://maps.risingsea.net>

<b>Middle Peninsula</b>		<b>9.1 42</b>	<b>33 89</b>	<b>66 139</b>	<b>108 190</b>	<b>149 230</b>	<b>186 268</b>	<b>220 307</b>	<b>258 336</b>	<b>292 364</b>	<b>319 392</b>
Essex		0 3.8	2 7.3	4.6 11	7.1 15	9.7 22	12 28	17 34	22 40	28 46	34 53
King and Queen		0 2.9	1.7 5.7	3.7 8.6	5.5 12	7.5 15	9.6 19	13 22	16 26	19 30	23 33
King William		0 1.6	0.9 3.2	2 4.8	3.1 8.4	4.2 13	5.4 18	9.6 22	14 27	18 32	23 36
Middlesex		0.2 3.4	2 6.8	4.4 11	7 14	10 19	13 23	16 27	20 31	24 35	28 39
Gloucester		4.1 16	13 33	26 50	41 67	55 76	67 84	75 93	84 99	91 104	96 111
Mathews		4.7 15	13 33	26 54	44 73	62 85	79 97	90 108	101 113	111 117	115 121
<b>Hampton Roads</b>		<b>24 91</b>	<b>78 200</b>	<b>154 333</b>	<b>264 469</b>	<b>381 650</b>	<b>519 848</b>	<b>711 1045</b>	<b>907 1192</b>	<b>1089 1307</b>	<b>1215 1424</b>
James City		0.1 3.8	2 7.2	4.7 11	7 14	9.4 18	12 22	15 26	19 30	23 34	27 39
York		1.4 6	5 13	9.9 21	16 28	23 33	28 37	33 42	38 45	42 48	44 51
Newport News		2.2 6.9	6 11	9.7 15	13 18	16 21	19 25	23 28	26 33	30 38	35 42
Poquoson		1.4 4.5	4 8.8	7.4 13	11 16	15 16	16 17	17 17	17 17	17 17	17 17
Hampton		1.9 5.9	5 18	13 32	25 45	38 60	51 74	65 88	80 93	90 98	95 102
Surry		0 1.4	1 2.7	1.7 4.1	2.7 5.3	3.6 6.2	4.6 7.1	5.5 8	6.4 9	7.2 9.9	8.1 11
Isle of Wight		0.2 3.4	2 6.2	4.2 9.1	6 12.8	8 17	10 22	14 26	18 31	22 35	27 42
Norfolk		1.9 5.8	5 17	13 30	24 42	35 67	52 91	77 115	101 120	118 124	122 128
Virginia Beach		9.3 33	30 69	55 117	94 163	138 219	185 273	241 327	295 368	347 393	378 418
Suffolk		0.7 4.3	3.1 7.1	5.4 10	7.5 15	10 23	13 31	21 39	28 50	37 60	47 73
Portsmouth		1.2 3.9	3.5 9.6	7.6 15	13 22	18 33	27 45	38 56	50 61	58 65	63 70
Chesapeake		3.5 12	11 31	22 57	45 87	69 137	100 205	162 272	229 337	298 385	353 430
<b>Other Jurisdictions</b>		<b>0 9.9</b>	<b>5.7 19</b>	<b>12 29</b>	<b>19 40</b>	<b>26 54</b>	<b>32 67</b>	<b>44 80</b>	<b>56 93</b>	<b>68 106</b>	<b>81 122</b>
Charles City		0 3.2	1.8 6.3	4 9.6	6.2 13	8.4 18	11 23	15 28	19 32	23 37	28 43
Chesterfield		0 1.3	0.8 2.6	1.7 3.9	2.5 4.8	3.4 5.5	4.3 6.2	5 7	5.7 7.7	6.3 8.4	7 8.9
Colonial Heights		0 0.04	0.02 0.1	0.05 0.1	0.07 0.12	0.09 0.14	0.12 0.15	0.1 0.2	0.1 0.2	0.15 0.19	0.16 0.24
Hanover		0 0.02	0.02 0.05	0.03 0.1	0.05 0.2	0.1 0.3	0.1 0.4	0.2 0.5	0.3 0.6	0.4 0.7	0.5 0.7
Henrico		0 0.8	0.5 1.5	1 2.3	1.5 2.8	2 3.2	2.5 3.7	2.9 4.1	3.3 4.6	3.8 5.1	4.2 6.3
Hopewell		0 0.4	0.2 0.8	0.5 1.1	0.7 1.3	1 1.4	1.2 1.6	1.4 1.7	1.5 1.8	1.6 1.9	1.7 2.2
New Kent		0 2.1	1.2 4.1	2.6 6.2	4 9.4	5.4 13	6.9 17	10 21	14 25	18 29	22 34
Petersburg		0 0	0 0	0 0	0 <0.01	0 0.01	<0.01 0.01	<0.01 0.01	0.01 0.02	0.01 0.02	0.01 0.03
Prince George		0 1.9	1.1 3.8	2.4 5.7	3.7 8.1	5 11	6.3 14	8.8 17	12 20	15 23	17 26
Williamsburg		0 0.05	0.03 0.1	0.06 0.1	0.1 0.2	0.1 0.3	0.2 0.3	0.2 0.4	0.3 0.4	0.3 0.5	0.4 0.6
<b>Statewide</b>		<b>54 236</b>	<b>189 479</b>	<b>362 751</b>	<b>585 1029</b>	<b>816 1362</b>	<b>1060 1707</b>	<b>1368 2051</b>	<b>1708 2332</b>	<b>2028 2582</b>	<b>2283 2830</b>

Jurisdiction	Meters above Spring High Water																							
	low		high		low		high		low		high		low		high		low		high		low		high	
	0.5		1.0		1.5		2.0		2.5		3.0		3.5		4.0		4.5		5.0					
-----Cumulative (total) amount of Nontidal Wetlands below a given elevation-----																								
<b>Eastern Shore</b>	<b>946</b>	<b>7</b>	<b>22</b>	<b>20</b>	<b>48</b>	<b>39</b>	<b>76</b>	<b>63</b>	<b>101</b>	<b>87</b>	<b>114</b>	<b>107</b>	<b>126</b>	<b>119</b>	<b>137</b>	<b>131</b>	<b>146</b>	<b>141</b>	<b>153</b>	<b>149</b>	<b>161</b>			
Accomack	484	7	21	19	45	36	70	58	92	80	104	98	114	108	124	119	132	128	138	134	145			
Northampton	462	0.4	1.2	1	3.4	2.5	5.9	4.7	8.1	7	9.7	8.8	11	10	13	12	14	14	15	15	16			
<b>Northern Virginia</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>6</b>			
Stafford	6.8	0	0.5	0.3	1	0.6	1.5	1	1.9	1.3	2.3	1.7	2.6	2	2.9	2.3	3.3	2.6	3.6	3	3.9			
Alexandria	0.2	0	0.03	0.02	0.07	0.04	0.1	0.06	0.11	0.09	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12		
Fairfax	4.9	0	0.2	0.1	0.4	0.2	0.6	0.4	0.7	0.5	0.8	0.6	0.9	0.7	1.1	0.9	1.2	1	1.3	1.1	1.4			
Prince William	5.1	0	0.2	0.1	0.3	0.2	0.5	0.3	0.6	0.4	0.6	0.5	0.7	0.6	0.8	0.7	0.8	0.7	0.9	0.8	0.9			
<b>Rappahannock Area</b>	<b>20</b>	<b>0</b>	<b>0.6</b>	<b>0.3</b>	<b>1.2</b>	<b>0.7</b>	<b>1.7</b>	<b>1.1</b>	<b>2.4</b>	<b>1.5</b>	<b>3</b>	<b>1.9</b>	<b>3.6</b>	<b>2.5</b>	<b>4.2</b>	<b>3.1</b>	<b>4.9</b>	<b>3.7</b>	<b>5.5</b>	<b>4.3</b>	<b>6.2</b>			
Fredericksburg	0	0	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
King George	13	0	0.5	0.3	1	0.6	1.5	1	2	1.3	2.4	1.7	2.8	2.1	3.3	2.5	3.7	2.9	4.1	3.3	4.6			
Spotsylvania	0.1	0	0.02	0.01	0.03	0.02	0.05	0.03	0.06	0.04	0.06	0.05	0.07	0.06	0.08	0.06	0.08	0.07	0.09	0.08	0.12			
Caroline	6.3	0	0.1	0.03	0.1	0.1	0.2	0.1	0.3	0.2	0.5	0.2	0.7	0.3	0.9	0.5	1.1	0.7	1.3	0.9	1.5			
<b>Northern Neck</b>	<b>57</b>	<b>0</b>	<b>2.5</b>	<b>1.2</b>	<b>4.8</b>	<b>2.9</b>	<b>7.3</b>	<b>4.7</b>	<b>9.8</b>	<b>6.4</b>	<b>14</b>	<b>8.1</b>	<b>18</b>	<b>10</b>	<b>22</b>	<b>14</b>	<b>26</b>	<b>18</b>	<b>30</b>	<b>22</b>	<b>34</b>			
Westmoreland	14	0	0.5	0.3	1	0.6	1.5	1	2.2	1.3	3.9	1.7	5.6	2.5	7.2	4.1	8.9	5.7	10.6	7.3	12			
Richmond	22	0	0.9	0.4	1.7	1	2.5	1.6	3.3	2.2	3.9	2.8	4.5	3.4	5.1	4	5.7	4.5	6.3	5.1	6.9			
Northumberland	11	0	0.5	0.3	1.1	0.6	1.6	1	2.2	1.4	3.7	1.8	5.1	2.4	6.6	3.8	8	5.2	9.6	6.6	11			
Lancaster	9.8	<0.01	0.5	0.3	1.1	0.7	1.6	1.1	2.1	1.4	2.5	1.8	2.8	2.2	3.2	2.5	3.5	2.8	3.8	3.2	4.2			
<b>Middle Peninsula</b>	<b>165</b>	<b>2.6</b>	<b>12</b>	<b>9.5</b>	<b>26</b>	<b>19</b>	<b>40</b>	<b>31</b>	<b>54</b>	<b>44</b>	<b>66</b>	<b>55</b>	<b>78</b>	<b>67</b>	<b>90</b>	<b>79</b>	<b>98</b>	<b>90</b>	<b>106</b>	<b>98</b>	<b>113</b>			
Essex	28	0	0.8	0.4	1.5	0.9	2.3	1.5	2.9	2	3.4	2.5	3.9	3	4.4	3.5	4.8	3.9	5.3	4.4	5.9			
King and Queen	22	0	0.9	0.5	1.7	1.1	2.5	1.6	3.1	2.2	3.5	2.8	4	3.2	4.4	3.6	4.8	4	5.3	4.4	5.8			
King William	36	0	0.4	0.2	0.7	0.5	1.1	0.7	1.4	0.9	1.7	1.2	2	1.5	2.3	1.8	2.6	2	2.9	2.3	3.3			
Middlesex	9.7	<0.01	0.7	0.4	1.4	0.8	2.1	1.4	2.8	1.9	3.1	2.4	3.5	2.8	3.8	3.2	4.1	3.5	4.5	3.8	4.8			
Gloucester	44	1.4	5.5	4.5	12	9.1	19	15	25	20	28	25	31	27	34	30	36	33	37	34	38			
Mathews	27	1.2	3.8	3.5	8.6	6.7	14	11	19	16	26	22	34	29	41	37	46	44	51	48	55			

<b>Hampton Roads</b>	<b>329</b>	<b>12</b>	<b>42</b>	<b>38</b>	<b>74</b>	<b>64</b>	<b>96</b>	<b>84</b>	<b>127</b>	<b>104</b>	<b>167</b>	<b>127</b>	<b>205</b>	<b>164</b>	<b>245</b>	<b>202</b>	<b>285</b>	<b>242</b>	<b>326</b>	<b>279</b>	<b>391</b>
James City	33	<0.01	0.8	0.4	1.5	0.9	2.2	1.4	2.8	1.9	3.3	2.5	3.7	2.9	4.2	3.3	4.6	3.8	5.1	4.2	5.6
York	17	0.19	0.9	0.7	2.7	1.9	4.9	3.7	6.7	5.6	7.4	6.9	8	7.6	8.7	8.2	9.1	8.8	9.5	9.2	9.9
Newport News	15	0.1	0.3	0.3	0.7	0.5	1	0.9	1.3	1.2	1.4	1.35	1.42	1.4	1.5	1.4	1.5	1.5	1.6	1.6	1.7
Poquoson	24	0.02	0.1	0.1	0.4	0.3	0.8	0.6	1.1	0.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Hampton	14	0.06	0.2	0.2	0.4	0.3	0.6	0.5	0.9	0.7	1.5	1.1	2.2	1.8	2.9	2.5	4	3.3	5.1	4.4	6.2
Surry	11	0	0.6	0.3	1.3	0.8	1.9	1.2	2.4	1.7	2.5	2.1	2.7	2.4	2.9	2.6	3	2.7	3.2	2.9	3.4
Isle of Wight	29	<0.01	0.3	0.2	0.6	0.4	0.9	0.6	1.4	0.8	2.2	1	3.1	1.5	4	2.4	4.8	3.2	5.7	4	7.3
Norfolk	4.7	0.1	0.3	0.2	0.5	0.4	0.8	0.7	1.1	0.9	1.3	1.1	1.5	1.3	1.7	1.5	1.7	1.7	1.7	1.7	1.7
Virginia Beach	112	4.2	14	13	25	22	33	29	41	37	46	43	50	48	53	51	56	54	57	56	59
Suffolk	26	0.03	0.2	0.1	0.3	0.2	0.4	0.3	0.8	0.4	1.3	0.5	1.8	1	2.3	1.4	3.1	2.1	6.8	2.9	33
Portsmouth	3.7	2.4	7.7	6.8	8.9	8.9	9.2	9.1	9.5	9.3	9.9	9.6	10	10	11	10	11	10.7	11	10.9	11
Chesapeake	40	4.5	17	15	32	28	40	36	58	44	89	56	120	86	152	116	186	149	217	180	251
<b>Other Jurisdictions</b>	<b>85</b>	<b>0</b>	<b>5.5</b>	<b>3.2</b>	<b>11</b>	<b>6.9</b>	<b>16</b>	<b>10</b>	<b>20</b>	<b>14</b>	<b>22</b>	<b>18</b>	<b>24</b>	<b>20</b>	<b>26</b>	<b>22</b>	<b>28</b>	<b>24</b>	<b>30</b>	<b>26</b>	<b>33</b>
Charles City	22	0	1.9	1.1	3.7	2.4	5.6	3.6	6.8	4.9	7.4	6.2	8	6.9	8.6	7.5	9.2	8.1	9.8	8.6	11
Chesterfield	11	0	0.4	0.2	0.7	0.4	1.1	0.7	1.2	0.9	1.2	1.1	1.2	1.17	1.24	1.2	1.3	1.2	1.3	1.2	1.3
Henrico	4.2	0	0.04	0.02	0.08	0.05	0.12	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.4	0.3	0.4
Hopewell	0.7	0	0.1	0.1	0.2	0.1	0.3	0.2	0.3	0.3	0.4	0.3	0.4	0.3	0.4	0.36	0.4	0.37	0.41	0.38	0.42
New Kent	34	0	2.3	1.3	4.5	2.9	6.8	4.4	8.1	6	8.7	7.6	9.3	8.2	9.8	8.8	10.4	9.3	11	9.9	12
Prince George	11	0	0.8	0.5	1.5	1	2.3	1.5	3.1	2	3.9	2.6	4.7	3.3	5.5	4	6.3	4.8	7.1	5.5	7.5
Williamsburg	0.4	0	0.02	0.01	0.03	0.02	0.05	0.03	0.06	0.04	0.07	0.05	0.08	0.06	0.1	0.07	0.11	0.09	0.12	0.1	0.14
<b>Statewide</b>	<b>1619</b>	<b>21</b>	<b>86</b>	<b>72</b>	<b>167</b>	<b>134</b>	<b>240</b>	<b>197</b>	<b>317</b>	<b>260</b>	<b>389</b>	<b>320</b>	<b>459</b>	<b>387</b>	<b>529</b>	<b>455</b>	<b>594</b>	<b>523</b>	<b>657</b>	<b>583</b>	<b>745</b>
	Cumulative (total) amount of land below a given elevation																				
Dry Land		54	236	189	479	362	751	585	1029	816	1362	1060	1707	1368	2051	1708	2332	2028	2582	2283	2830
Nontidal Wetlands		21	86	72	167	134	240	197	317	260	389	320	459	387	529	455	594	523	657	583	745
All Land	1619	1694	1941	1881	2265	2115	2611	2401	2965	2694	3370	2999	3785	3374	4199	3782	4545	4170	4858	4486	5193

