USVI-LANDS SUSCEPTIBLE TO SEA LEVEL RISE

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Methodology:

Using Standard License for ESRI’s ArcGIS Desktop 10.3.1 projection set to NAD_1983_HARN_StatePlane_Puerto_Rico_Virgin_Islands_FIPS_5200; a shoreline polygon was built from the polyline Ocean_Shoreline.shp using advancing editing tool converting polyline to polygon. Then using the slr data as source and shoreline as target, use advance editing tool “split” shoreline polygon to 2ft slr and 6ft slr respectively. Re-calculate area and re-compute the percent land impacted.

Results:

<table>
<thead>
<tr>
<th>SLR Scenarios</th>
<th>Miles²</th>
<th>KM²</th>
<th>% of coastal lands that will be flooded by SLR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2050: 2 feet (0.5 m)</td>
<td>2</td>
<td>5</td>
<td>1.47%</td>
</tr>
<tr>
<td>2100: 6.5 feet (2 m)</td>
<td>6</td>
<td>16</td>
<td>4.57%</td>
</tr>
</tbody>
</table>

Sources:


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Using NOAA’s sea level rise high scenario of 6.5 feet (2.0 meters) for 2100, up to 16 km² or 4.6% of total coastal land area could be flooded.