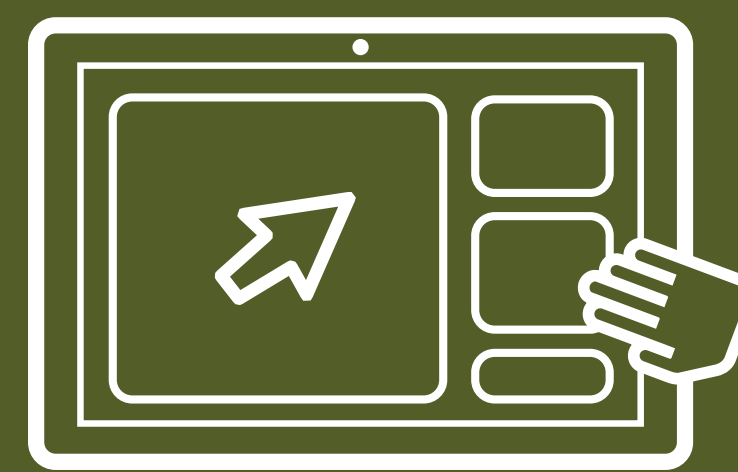
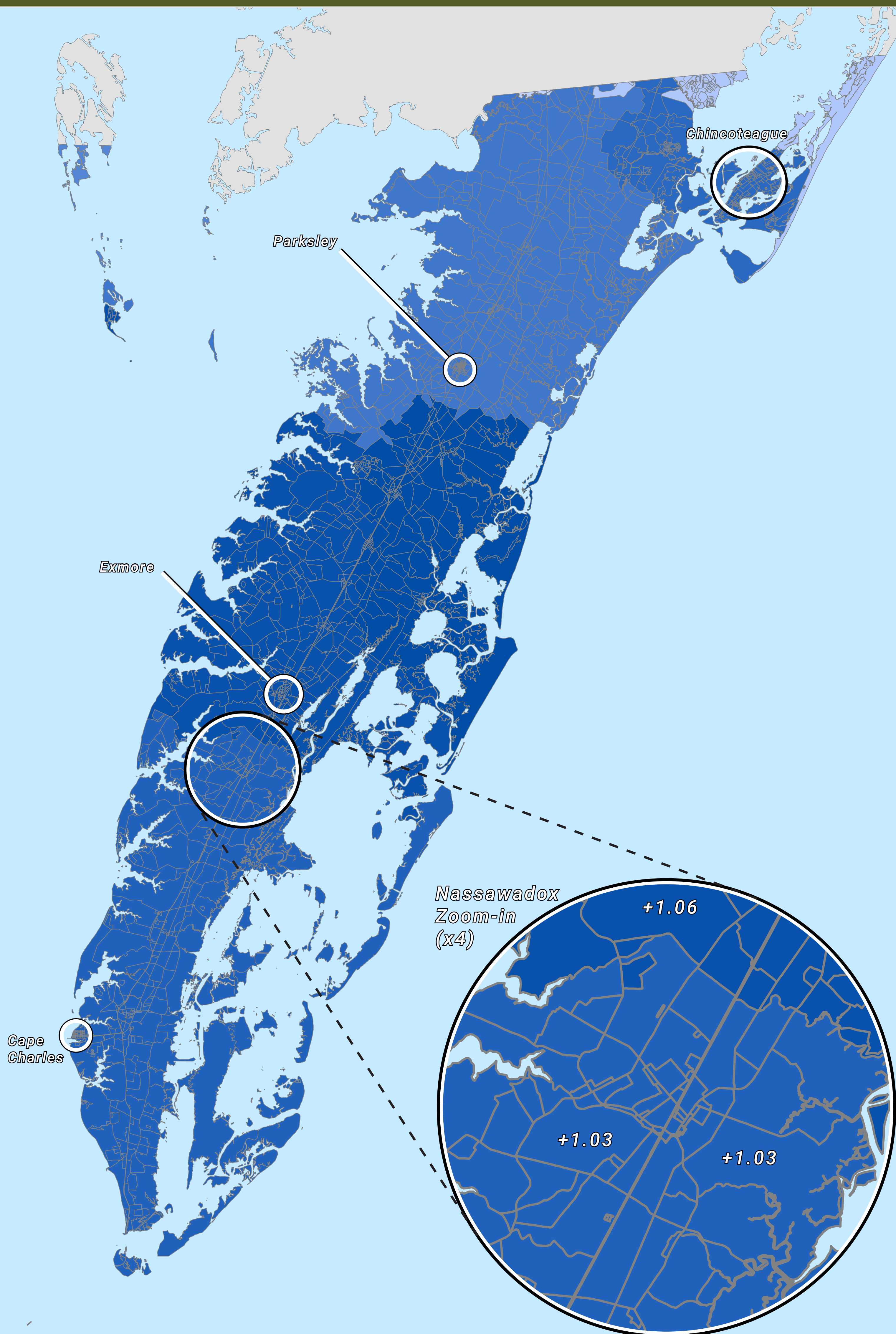


Wetness Trends on the Eastern Shore



Livability Tool Data Preview



Wetness and dryness of ground

Monitoring wetness and dryness conditions is important for both farmers and communities because the soil condition can directly affect plant growth and soil saturation.

These conditions ultimately impact food production, water supplies, the potential for flooding, and to a larger extent the economic well-being of both rural and urban populations.

Therefore, understanding wetness and dryness is essential for better planning and risk management.

Data range

The Meteorological Index (MI) shows the physical ground condition. Compare the wetness and dryness maps to see which will be more significant to a specific area.

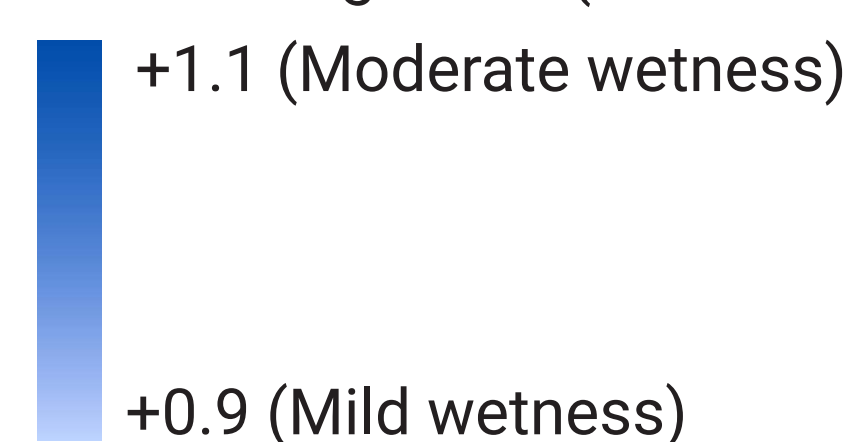
Severity category	MI range
Extreme wetness	+2.0 or more
Severe wetness	+1.5 to +2.0
Moderate wetness	+1.0 to +1.5
Mild wetness	0.0 to +1.0
Mild dryness	-1.0 to 0.0
Moderate dryness	-1.5 to -1.0
Severe dryness	-2.0 to -1.5
Extreme dryness	-2.0 or less

Time sequence

The research assesses the likely wetness or dryness for 2024 and future years 2030 to 2100.

Legend

Wetness Magnitude (Year 2024)



0 2.5 5 10 Miles

Map uses U.S. Census "block" areas, a geographic unit for population statistics.



Key takeaway

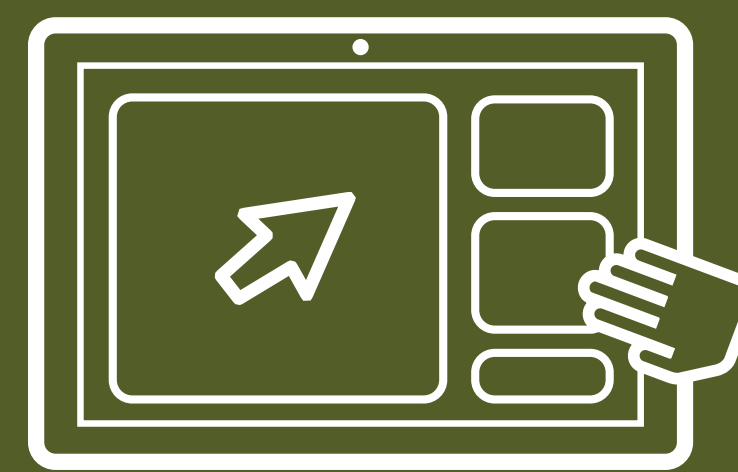
Some areas of the Eastern Shore are trending wetter than other areas

Data is generated using the Soil and Water Assessment Tool (SWAT) released by the U.S. Department of Agriculture's Agricultural Research Service. Projections are extracted from the NASA Earth Exchange Global Daily Downscaled Projections (NEX-GDDP-CMIP6) dataset that meets the Paris Agreement's 1.5 degree target.

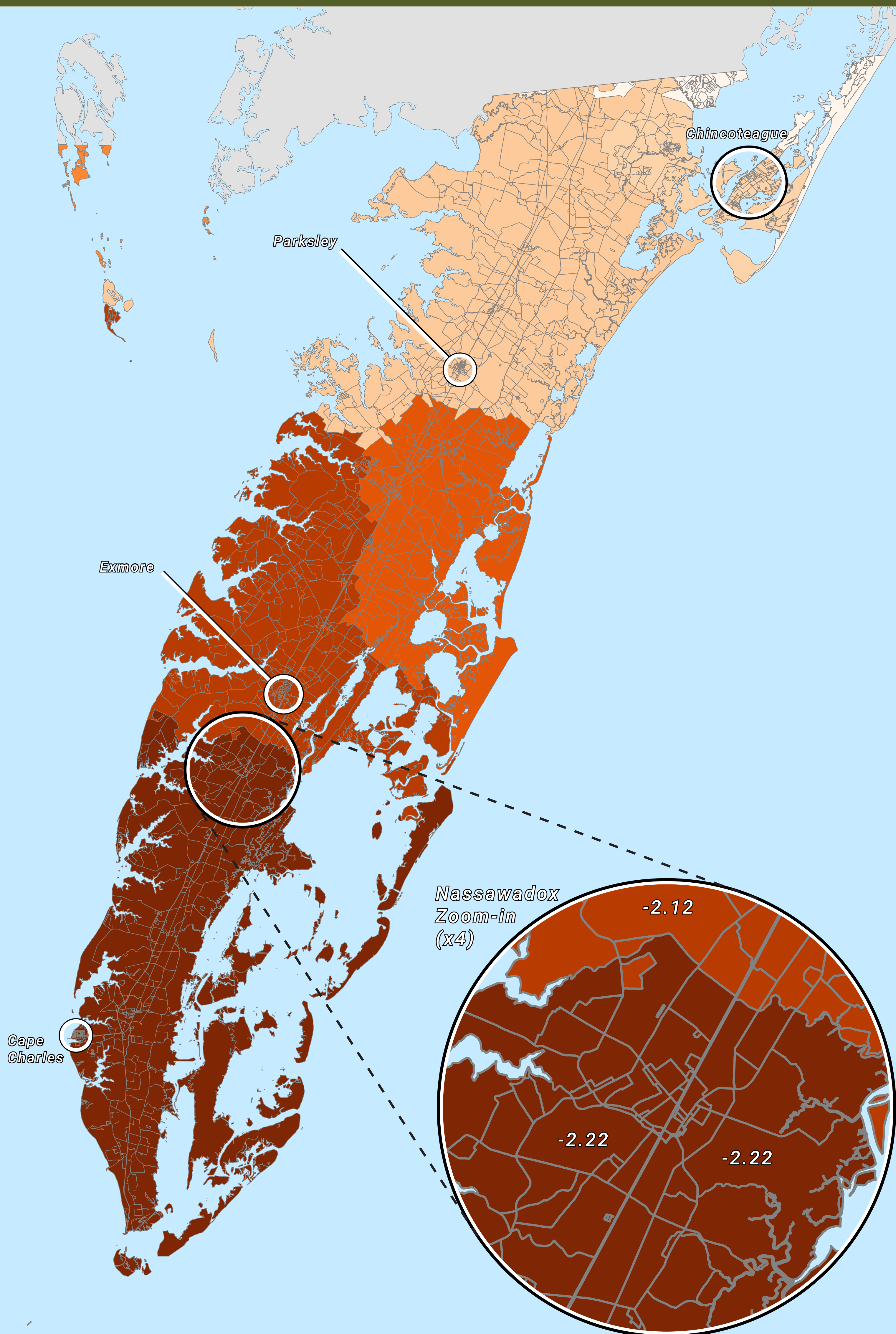
Tran, T. N. D. & Lakshmi, V. 2024. "Enhancing human resilience against climate change: Assessment of hydroclimatic extremes and sea level rise impacts on the Eastern Shore of Virginia, United States." *Science of The Total Environment*, 947, 174289. <https://doi.org/10.1016/j.scitotenv.2024.174289>.



Dryness Trends on the Eastern Shore



Livability Tool Data Preview



Wetness and dryness of ground

Monitoring wetness and dryness conditions is important for both farmers and communities because the soil condition can directly affect plant growth and soil saturation.

These conditions ultimately impact food production, water supplies, the potential for flooding, and to a larger extent the economic well-being of both rural and urban populations.

Therefore, understanding wetness and dryness is essential for better planning and risk management.

Data range

The Meteorological Index (MI) shows the physical ground condition. Compare the wetness and dryness maps to see which will be more significant to a specific area.

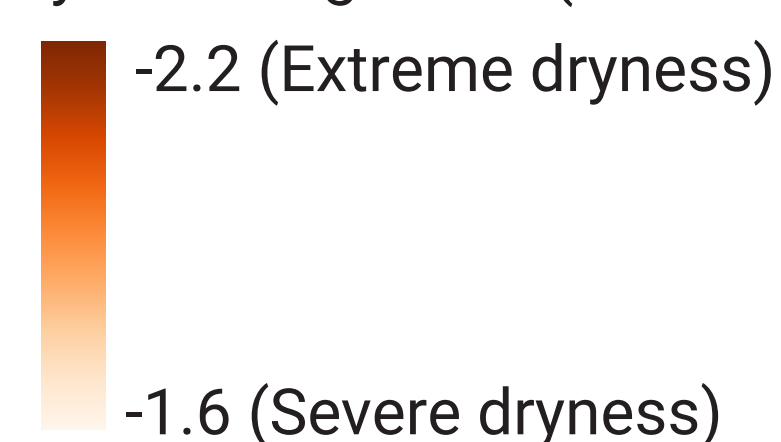
Severity category	MI range
Extreme wetness	+2.0 or more
Severe wetness	+1.5 to +2.0
Moderate wetness	+1.0 to +1.5
Mild wetness	0.0 to +1.0
Mild dryness	-1.0 to 0.0
Moderate dryness	-1.5 to -1.0
Severe dryness	-2.0 to -1.5
Extreme dryness	-2.0 or less

Time sequence

The research assesses the likely wetness or dryness for 2024 and future years 2030 to 2100.

Legend

Dryness Magnitude (Year 2024)



0 2.5 5 10 Miles

Map uses U.S. Census "block" areas, a geographic unit for population statistics.



Key takeaway

Some areas of the Eastern Shore are trending drier than other areas

Data is generated using the Soil and Water Assessment Tool (SWAT) released by the U.S. Department of Agriculture's Agricultural Research Service. Projections are extracted from the NASA Earth Exchange Global Daily Downscaled Projections (NEX-GDDP-CMIP6) dataset that meets the Paris Agreement's 1.5 degree target.

Tran, T. N. D. & Lakshmi, V. 2024. "Enhancing human resilience against climate change: Assessment of hydroclimatic extremes and sea level rise impacts on the Eastern Shore of Virginia, United States." *Science of The Total Environment*, 947, 174289. <https://doi.org/10.1016/j.scitotenv.2024.174289>.

