


## Analysis of Maine's Coastal water and Soil Solidity

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### **Abstract**

Much of the agriculture conducted in Maine is done near the southeastern coast. This situates many of Maine's farms in an ecoregion called a 'brackish tidal marsh,' containing brackish water. Brackish water can then result in an increasing salinity content for the surrounding agricultural soil, causing complications for crop growth. This proof-of-concept project focuses on identifying the gradient levels of salinity, or EC (Electric Conductivity), contained within a small region of Casco bay. This project's data were collected from the Androscoggin River bordering Brunswick and Bath, Maine. Along this river, three plots were selected in order to gauge the longer span of the riverfront. At these plots, both water and soil samples were tested on-site in order to compare salinity levels to one another, as well as to the other two plots. Results from this single site's time series data will be presented and implications for expanding this project to multiple Maine locations, including guidelines on how to structure the collection of data, and lessons learned will be discussed.