Tracking New Jersey’s Changing Landscape through Dynamic Animated Mapping

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Wedged between metro NYC and Philly, New Jersey is the most densely populated state in the nation. The pressure for development due to this geographic juxtaposition has resulted in the urbanization of hundreds of thousands of acres of the Garden State’s former farmland, forests and watershed lands since the 1980’s. The accelerated pressure for development has also ignited one of the most highly successful conservation and open space preservation movements of any state with over 1 million acres of land preserved to date. While cumulative landscape changes over time can be massive, it’s often a challenge to effectively communicate these changes in a manner meaningful to the stakeholders involved.

The development of animated mapping tools is helping to tell the story of the landscape change, environmental impacts and conservation successes of the state and is helping multiple stakeholders to better visualize and better understand the outcomes of land management activities. This illustrated poster presents an overview of the New Jersey Land Change Viewer developed at Rowan University and how it is being utilized to more effectively communicate the dynamic landscape processes occurring over large spatial and temporal scales.

The mapping project depicts detailed animated geovisualizations of urban growth, farmland fragmentation, forest fragmentation, impervious surface expansion, wetland encroachment, farmland preservation and open space acquisition over three decades of data availability. The animated mapping techniques inform, educate, and support a broad constituency of users from teachers to planners to conservation stakeholders.