Using ArcGIS GeoPlanner to Visualize the Cumulative Impact of Green Stormwater Infrastructure

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It is challenging to communicate the benefits and costs of green stormwater infrastructure, especially in comparison to conventional "gray" infrastructure. The coastal management community needs an easy-to-use tool to measure and visualize the incremental contributions that different green stormwater infrastructure practices can make to meet community stormwater capture and infiltration goals, combined with a way to locate these practices through collaborative scenario design processes. Geodesign is a collaborative design process that uses geospatial technology to consider the current features of a landscape and to create, analyze, and compare planning scenarios. ArcGIS GeoPlanner is a geodesign platform that allows users to visualize and draw different scenarios, analyze their benefits and drawbacks at a variety of scales, and use map layers to choose suitable locations for green infrastructure practices. Wisconsin Sea Grant has developed a GeoPlanner template documented by a training lesson to support green stormwater infrastructure. This session will demonstrate how to create and assess green infrastructure scenarios and assess their impact through visualization dashboards. While green infrastructure cannot solve all urban stormwater issues, the cumulative benefit of many practices in sufficient density can help take the burden off gray infrastructure.