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Optimizing PennDOT's Snow Routes and Planning Process with GIS

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Each year PennDOT's Bureau of Maintenance and Operations (BOMO) is required to plan its snow routes for each truck in the counties throughout the state. This route planning results in printed maps used by drivers to provide winter services to the roadways to which they are assigned. In the past, this ad-hoc process was a paper one involving GIS Analyst work. BOMO desired a web-based application enabling district and county personnel to designate the routes for each truck electronically and include data validation and automated map plotting. The Snow Route Planning Application was developed to fill the needs of district and county PennDOT staff to electronically designate and assign snow routes throughout the state, and manage the contract agreements with the vendors and truck inventory information. This need was driven by the Next Generation (NextGen) directive to save money throughout the state and the DOT's operations.