Executive Summary

Local Roads Mileage System - Development & Implementation Category A

Johnson, Mirmiran & Thompson, Inc. (JMT) rewrote and implemented the PennDOT Local Road Mileage System. The system houses the Liquid Fuels inventory and is used to determine annual Municipal Liquid Fuels (Act 655) and Highway Transfer (Turnback) Program payments to municipalities throughout the state of Pennsylvania, which sum up to an annual amount of approximately \$500 million. The system is also the primary local road source for the department's All Roads Network of Linear Referenced Data (ARNOLD). ARNOLD is provided by the Federal Highway Administration (FHWA) and contains the locations of all roads in the State.

This project focused on replacing the dotGrants system, which was the legacy interface for the Liquid Fuels inventory. Johnson, Mirmiran & Thompson, Inc. worked with stakeholders from the Pennsylvania Department of Transportation Central Office, as well as numerous districts, to develop, test, and implement the new system. Key objectives included the migration of the Liquid Fuels Road inventory from the legacy system to a system that supported the integration of the GIS state network, the Liquid Fuels inventory, and the non-Liquid Fuels inventory being collected by the Pennsylvania Department of Transportation planning partners. Key goals of the application were to improve access, updates, and maintenance of the Liquid Fuels inventory by creating a paperless PR-990 process that pushed data into the system.

The new system went live in February of 2020 and resulted in a modern user interface for District and Department end users, decreased data entry time by providing a more streamlined data entry process, and integration points with other critical business systems within Pennsylvania Department of Transportation.