



activities with their Metropolitan Planning Organizations (MPOs) and other stakeholders. The goal is to use *UPlan* to support the project-based and long-term decisionmaking processes. For example, if UDOT has a road project, they can invite the stakeholders to share layers of information such as wildlife corridor and wetland data. Then UDOT and their stakeholders can review together what the potential impacts are within the project limits. They can all speak to the same information and make knowledge-based decisions. UDOT has found utilizing the GIS-based analytical system saves them time and resources as they can now share information and data more easily and efficiently.

With data sharing, security and privacy were a major concern for UDOT. One feature of the *UPlan* database system is the ability to limit access to data. UDOT can upload data and limit permissions as to who can see the information. A committee from one of multiple jurisdictions can create a group so only committee members can view certain information, allowing for more directed and secured data sharing. Much of the data is publicly accessible and a citizen can easily make their own map showing different layers from the database, or look up information such as a pavement status or a roadway corridor.

Creating a Better Future with Performance Scenarios

UDOT's robust GIS-based analytical database, *UPlan*, is also being put to use to support making performance-based investment decisions. They utilize their database system to run models of various performance scenarios enhancing their long range planning efforts. *UPlan* has greatly reduced the time it takes to review performance scenarios making the process much more efficient and effective. Within the database UDOT's initial performance scenario parameters included five areas of performance measurement: Safety, Congestion, Economy, Environment, and Asset Management. Future measures are being developed for analysis within the database.

With these original parameters input into *UPlan*, UDOT could predict how proposed

projects would impact their performance measures. In addition, the information can be used to review past projects as well as choose future projects by creating the investment scenarios. This is the first time UDOT is using an integrated statewide planning model for these efforts.

Results

With *UPlan*, the GIS-based analytical database, UDOT gained a clearer vision and an improved understanding of their needs. When initially looking to create a GIS-based analytical database, UDOT had no related data to GIS, yet today UDOT has thousands of layers of GIS data for various queries and data mining and staff to help process it. UDOT has utilized their database to improve investment decisions and visually represent their transportation issues to better communicate their needs. As a result of their efforts, *UPlan* is an off the shelf GIS-based analytical database system and is being utilized by over a dozen other States. UDOT's interactive database, *UPlan*, can be found at: <http://uplan.maps.arcgis.com/home/>.

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