

GIS and Dixie Western Corridor Study

The St. George urbanized area represented the fastest growing urban area in the United States from 1990 to 2000. With no sign of slowing growth, the St. George area must plan for a range of infrastructure needs including new and expanded roadways, utilities, and related facilities. The Dixie Metropolitan Planning Organization (Dixie MPO) is responsible for transportation planning in the area and has identified a number of major new transportation facilities. One facility has been identified as the Western Corridor which connects the cities of Ivins and Santa Clara to St. George through the presently undeveloped areas west of St. George City.

Developing alignments for a future corridor can be a difficult, but beneficial process. A corridor study can ease the work required for an EIS by doing effective analysis and using good local data and expertise. The Dixie Western Corridor Study was a rewarding project that identified a future alignment of a major corridor. Like many major roadway projects the Dixie Western Corridor Study had several daunting issues including: protected species habitat in the study area, elevation and slope problems, existing residential communities, crossing two rivers and others.

For this particular corridor study a process was developed in which the issues were each listed and weighted by a committee of local experts. The identified criteria needed to be measures and GIS was the tool we used to measure it. Acquiring the necessary data needed to measure the identified criteria can present a challenge. We asked the local agencies involvement on our committees to provide the data necessary for the analysis and they complied. For example, the Bureau of Land Management provided polygons of protected species habitat, and Washington County Water Conservancy District provided data on rivers and floodplains. GIS was the tool that allowed us to measure each of the criteria identified in choosing the best alignment.

There were lessons learned and success stories associated with this project including, working with agencies like the BLM to back the recommended corridor and calming a hot political issue. Corridor studies like this one are a way to exercise good planning. Preserving an alignment prior to development reduces impacts and costs for the corridor and addressing concerns and issues early allows time for compromising solutions.

GIS served this corridor study in many ways. GIS improves the quality of the report, by transforming a data-intense, technical report into a colorful, easy-to-read report with meaningful maps, and GIS enhances our ability to communicate with clients and to display spatial data for public forums. Finally, GIS provided us with a way to measure impacts and identified criteria to select the best available corridor option to preserve for a future roadway.