

Large Area Planning for Growth & Conservation

Growth scenarios for St. George's 10,000-acre South Block

Location: St. George, Utah

Partners: City of St. George; the Utah State and Institutional Land Trust Administration; the US Environmental Protection Agency; Winston Associates, with CommunityViz assistance by Steve Mullen (Foresee) and Lex Ivey (TerraCognitoGIS)

Context: The City of St. George lies in southwestern Utah's fast-growing sun-belt. With a population of 50,000 in 2000, St. George is expected to grow to 98,000 by 2020. In 2009, "Relocate-America" ranked St. George as one of "America's Top 100 Places to Live." Retirees, families and employers have been paying heed.



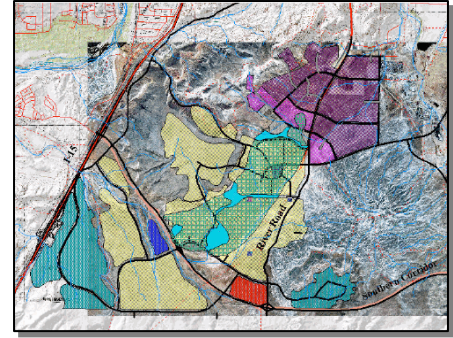
Large areas within the city boundaries remain undeveloped. Notably, a 10,000-acre block of primarily desert land known as "South Block" is in the single ownership of the Utah State and Institutional Land Trust (SITLA), which has been planning for the area's development for a number of years. A new airport east of the Block and a new regional highway are now under construction. The City of St. George, SITLA, and the US Environmental Protection Agency (EPA) jointly funded this project in 2005 to understand the development potential of the area, to study impacts on the habitat of the rare Holmgren's milkvetch (found in only a few places in the world), and to explore the implications of applying smart-growth principles to such a large new development area.

Project Description: SITLA had prepared a preliminary concept plan showing five residential neighborhoods and business and employment centers. Project consultants used the concept plan to develop a "Current Practices" scenario based on then-current standards in St. George. Following substantial public input, including two well-attended charrettes, a "Compact Growth" scenario was created using smart growth principles. The public and stakeholder groups were instrumental in shaping the project through the charrettes, each of which focused around three topic areas: the White Dome (an important natural area), the Neighborhood, and Business and Industry.



Through impact analysis with CommunityViz[®], it was shown that the "Compact Growth" scenario had several significant advantages over "Current Practices": more habitat area could be preserved, parkland would increase, more people would live in walking distance of a bus stop, vehicle miles traveled would decrease, and an anticipated imbalance between population and jobs would be decreased. In addition to visualizing the difference impacts in the form of bar graphs, the consultants used CommunityViz to create landscape-scale 3D models, overlaying the development plans onto the topography and landscape of the community.

An objective of Part 1 of the study was to test CommunityViz in evaluating smart growth principles in this real-life large block setting. A conclusion of Part 1 was “CommunityViz was found to be an effective tool for interactive planning... for presenting complex information in readily understandable ways... (and for) developing indicators for impacts on natural systems. Comparing scenarios through bar-graph indicators was very effective in allowing viewers to quickly understand the magnitude of impacts. The 3D capabilities were powerful for general orientation and understanding overall scale of development.”

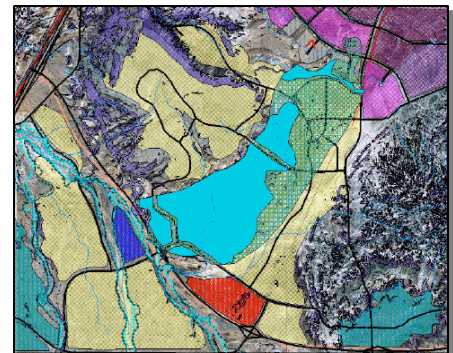


Technology and Tools: CommunityViz 3.0 Scenario 360™ was used for impact analysis; SiteBuilder 3D™ was used to develop the landscape scale 3D visualizations. The public and stakeholder groups were brought into the process through two focused design charrettes designed to elicit suggestions on policy and implementation activities.

Outcomes: This project is an excellent case for early and large-scale planning, and it has already resulted in a number of important implementation actions. Following the recommendations of the study, SITLA developed more detailed smart growth plans for the area. It proposed a general plan amendment to the City, which in 2007 was adopted as official city planning policy. The study suggested that the (then) planned locations for new highway interchanges should be relocated to better serve circulation needs, and they have since been relocated. SITLA and The Nature Conservancy have entered into a partnership to create a new 800-acre preserve to provide important habitat protection, nature trails and educational signs in the White Dome area, as contemplated during the White Dome charrette.

“CommunityViz was a helpful tool to quickly evaluate different land development scenarios. Also of particular help is the 3D imaging which helps everyone, particularly lay people, to visualize and understand the impact of various land use proposals.”

–Bob Nicholson,
St. George Director of
Community Development



KEY LINKS

CommunityViz

<http://www.communityviz.com>

City of St. George:

<http://www.sgcity.org>

Utah State and Institutional Land Trust Administration:

<http://trustlands.utah.gov>

US Environmental Protection Agency:

<http://www.epa.gov>

Winston Associates:

<http://www.winstonassociates.com>

Foresee Consulting:

<http://www.foreseeconsulting.biz>

TerraCognitoGIS:

<http://www.terracog.com>