

## ASK THE EXPERT

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### Exploring the Geography of Economic Development

**Geographic Information Systems are being deployed by locations to enable developers to zero in on available properties. Here are some basic steps for getting the most out of GIS.**

**Q** How does a Geographic Information System (GIS) enhance the site selection process?

**The Expert Says:** As the saying goes, be it a map, pie or bar chart, or scatter plot, a visual is worth a thousand words. GIS is a database linked to geographic features to perform complex location inquiries with a user-friendly map format as the end result. So the product of a GIS site selection analysis is composed of a map or group of maps displaying the requested site selection screening criteria in a way that is easily visually understood.

A typical site selection process is conducted in four phases. The primary GIS component falls within Phase I, which focuses on describing the project and then defining and screening the search region to determine Areas of Interest. The other three phases include: Phase II: extensive field work and analysis resulting in the creation of a shortlist of Finalist Locations; Phase III: final negotiations among the Finalist Locations with the selection of a Preferred Location; and Phase IV: incentive documentation, real estate transaction, and incentive capture.

In Phase I, the client's project requirements are interpreted into a set of measurable screening criteria. GIS then provides a great value in determining and assessing a target search region using the clients requested criteria, resulting in quali-

fied "Areas of Interest" that are displayed in a map format. The resulting maps visually aid the project team in locating pockets of viable areas to consider for further review). It is important to note that GIS is just a tool used in the process—a decision-support instrument, not a decision-making instrument. Using the GIS screening process in Phase I reduces the amount



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of time necessary to locate Areas of Interest to days instead of weeks or maybe even months, therefore getting the client through the Phase I process quicker. In addition to efficiency, GIS enhances effectiveness, directing the location team to areas that meet initial criteria and so more likely to house their preferred location.

After the viable areas are selected, an RFP is submitted to the qualifying state and/or local offices. GIS is then used to show the locations on a map that fit the RFP requirements

that have been submitted by the various offices. After analysis of the RFPs, a map is generated that shows which candidate locations were retained, marginal, or eliminated. If you do not have a GIS system, some analysis can be conducted in spreadsheet format; but the result is an output of rows and columns, which do not easily show the Areas of Interest in a visual, comprehensible format.

Some criteria require the analysis of mileage radius around specific data, such as a 10-mile radius around interstates and connecting free limited access highways or a 25-mile radius around union locals that have 500 or more members. This analysis cannot be easily done in a spreadsheet format; and along with the mileage radius, a percentage of the county area needs to be calculated.

After you have calculated the screening criteria in different formats or software, you must bring together the resulting analysis into a chosen software to display the results. A GIS system will do all that for you with a map or set of maps showing each individual criteria screen and a resulting composite map.

So, GIS can be an important tool in making a decision process more efficient, effective, and understandable; but to realize GIS benefits, the system needs to be a part of a sound overall decision process using in-house expertise to best utilize the programs and manage the data that are available. **BT**