GIS DATA QUALITY ASSESSMENT FOR LOCAL GOVERNMENTS

In order to have the ability to respond to everyday requests reliably and accurately government agencies have to be confident that GIS data is up to date and accurate. The challenge is to assess data quality in a world of legacy mapping data that has evolved over time, is now maintained with new software and has been integrated with new inter-agency applications. Founded upon our industry experience and best practices, our Assessment Services for GIS data quality—and all linked databases containing feature attributes—help local government agencies face this challenge, efficiently and effectively.

GIS supports the Community Administration lifecycle

Our GIS Data Quality Assessment ensures that your organization is able to obtain benefits right away, as demonstrated by the following sample set of initial pay off requirements:

- **URBAN PLANNING**: urban growth and economic development planning, land use and permit tracking, public housing and rehabilitation planning, educational planning, legislative redistricting
- **LAND DIVISION & TAXING**: take community growth plans into nes subdivisions that adhere to land division, plat recording and indexing, map updating as well as tax regulations for parcel identification and appraisal, which are the pillars of a land governance framework
- **TRANSPORTATION**: management of transportation and infrastructure planning, scheduling of road maintenance activities during off-peak hours or seasons
- **ENVIRONMENTAL PROTECTION**: ability to select sites for locally unwanted land uses, environmental monitoring, wildlife and greenway corridor site location
- **UTILITIES**: management of utility infrastructures, provide precise location and routing information to repair crews, identify assets that need to be retired and replaced based on their expected life cycle, plan for efficient field equipment inspection

GIS data alignment with best practices

Enforcement of the organization’s practices is a difficult task and not always properly supported by GIS platforms:

- Is symbology used consistently throughout the GIS data set?
- Have map layers been properly employed in all maps? Are all features placed on the correct layers?
Is color and line type consistently employed for transportation network line features?

Are there overlapping features (not readily visible) that potentially generate duplicate information, such as duplicated utility piping that result in incorrect mileage?

Are there any incorrectly tagged devices?

Is GIS data linked to external databases that might provide additional levels of inter-agency consistency? For example, is every parcel and address instance properly identified on either data set?

Are there any features not aligned with agency practices? If so, what is the gap between the Actual and Recommended state?

The accompanying radar chart and summary table for GIS data quality status present an example of our Data Quality Assessment Report.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Actual</th>
<th>Recommended</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature classes</td>
<td>0.7</td>
<td>3</td>
<td>77%</td>
</tr>
<tr>
<td>Layering</td>
<td>1.5</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>Representation &amp; Visualization</td>
<td>2</td>
<td>4.1</td>
<td>51%</td>
</tr>
<tr>
<td>Spatial location</td>
<td>1</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Attributes</td>
<td>1</td>
<td>3</td>
<td>67%</td>
</tr>
<tr>
<td>Attribute domains</td>
<td>0.5</td>
<td>4</td>
<td>88%</td>
</tr>
<tr>
<td>Data update maturity</td>
<td>1.5</td>
<td>3.5</td>
<td>57%</td>
</tr>
</tbody>
</table>

Our GIS Data Quality Assessment includes a set of Standard Reports and we can also deliver Specialized Assessment Reports upon request.

About Us

We are a group of seasoned geospatial professionals with experience in local governments and utilities. We have a proven track record in GIS data, model and process analysis in various markets that allow organizations to capitalize on existing investments in GIS technologies and applications. We help identify the gap between Actual and Desired states and provide recommendations to close it by applying our GIS Governance Framework, comprising:

- GIS alignment with IT and Business objectives
- Value delivery
- Risk management

By sending us a grid sample, the total amount of data to process and your service order form, we will be able to send you a quote to accommodate your business and technical needs. We can guarantee fast turnaround with assessment results.

For more information, please call us at (505) 586-2286 or send your e-mail inquiries to: info@gisdataexperts.com

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