

Five Questions Every Board Should Ask Before Approving a GIS Purchase

A Guide for Directors, General Managers, and Executive Staff of Water, Sewer, Stormwater, and Special Districts

Introduction

A Geographic Information System (GIS) is one of the most important technology investments a utility or public agency will make. It affects field operations, engineering, customer service, maintenance, emergency response, capital improvement planning, regulatory compliance, and nearly every department that manages physical infrastructure.

Unfortunately, many GIS purchasing decisions are made by comparing software feature lists or by selecting the product that appears to have the largest market share. While both are considerations, they are not the questions that determine whether a GIS investment will provide value over the next ten to twenty years.

As stewards of public funds, Board members have a responsibility to ensure that technology purchases are based on long-term operational value, financial responsibility, and organizational sustainability.

Before approving any GIS purchase, consider asking these five questions

Question 1

What Will This GIS Cost Over Its Entire Life—Not Just the First Year?

Software subscriptions and implementation costs are only part of the financial picture.

A complete evaluation should include:

- Initial implementation costs
- Annual software subscriptions
- Required desktop software licenses
- Training expenses
- Consulting costs
- Database administration

- Server or cloud infrastructure
- Custom programming
- Ongoing maintenance
- Future expansion costs
- Employee replacement and retraining costs

The lowest initial proposal is not always the least expensive solution over ten years.

Ask your staff:

"Can you provide the estimated total cost of ownership for the next ten years?"

If that analysis has not been performed, the Board should request it before approving the purchase.

Question 2

What Happens If Our GIS Expert Leaves?

Many public agencies rely heavily on one employee to maintain and customize their GIS.

If that employee retires or accepts another position:

- Can someone else immediately operate the system?
- Will critical knowledge leave with them?
- How much retraining will be required?
- How long before operations return to normal?

Employee turnover is inevitable.

Technology investments should reduce organizational risk—not increase it.

Ask your staff:

"How dependent is this solution on one individual?"

A resilient GIS should allow the organization to continue operating even when personnel change.

Question 3

Does This System Improve Daily Operations—or Simply Display Maps?

Modern GIS should be much more than digital maps.

It should improve operational efficiency by helping staff answer questions such as:

- Which valves isolate this water main?
- Which customers are affected by a shutdown?
- What assets require preventive maintenance?
- Which work orders remain incomplete?
- Where are CCTV inspections available?
- Which facilities require inspection this month?
- What infrastructure is approaching replacement age?

If a GIS cannot directly improve daily operations, it becomes an expensive mapping system instead of a management tool.

Ask your staff:

"How will this system reduce labor, improve service, or lower operating costs?"

Operational improvements should be measurable.

Question 4

Are We Buying Software—or Buying Long-Term Support?

Software will eventually require:

- Configuration
- Data maintenance
- Enhancements
- Troubleshooting
- User training
- New reports
- Integration with future systems

Boards should understand who will provide those services.

Questions to consider include:

- Will support be provided by the software developer?
- Will multiple vendors be involved?
- How quickly can assistance be obtained during emergencies?
- What level of ongoing support is included?
- What services require additional consulting fees?

Technology should come with dependable support, not simply a software license.

Ask your staff:

"Who will we call when we need help, and how quickly can we expect assistance?"

Question 5

Does This Purchase Serve Our Agency's Needs—or Someone Else's?

Not every organization requires the same GIS.

A statewide utility, a major metropolitan city, and a 5,000-customer water district have very different operational requirements.

The Board should understand:

- Why this particular system was recommended?
- Which alternatives were evaluated?
- How each option supports the agency's specific goals?
- Whether additional complexity provides measurable value.

Bigger is not always better.

More expensive is not always better.

More popular is not always better.

The best GIS is the one that most effectively supports the agency's mission while making responsible use of public funds.

Ask your staff:

"Why is this the best solution for our agency—not simply the most widely recognized one?"

Final Thoughts

Technology purchases should never be driven solely by brand recognition, marketing, or assumptions about what other organizations have chosen.

Every Board has a fiduciary responsibility to ask whether a proposed solution:

- Provides measurable operational benefits.
- Minimizes long-term costs.
- Reduces organizational risk.
- Supports employees rather than creating dependence on specialized expertise.
- Delivers lasting value to the ratepayers and taxpayers who ultimately fund the investment.

The right GIS should not simply produce attractive maps.

It should help your agency operate more efficiently, respond more effectively, preserve institutional knowledge, and make better decisions for years to come.

Asking these five questions before approving a GIS purchase will help ensure that your agency invests in a solution that serves both today's operational needs and tomorrow's strategic goals.