

Mobile GIS Improves Collaboration

“Integrated applications allow an easy, real-time visualization of field data through dashboards, work order management systems, Web mapping applications, and reports. This allows public works departments to reduce costs and streamline mobile GIS operations with focused data collection, inspection, and maintenance applications.”

Chris Gerecke, Director of Enterprise Solutions
at Timmons Group

Mobile geographic information system (GIS) technology has quickly become a critical component of municipalities’ enterprise IT implementations. The technology provides a precise and cost-effective means of collecting geospatial data. Municipal governments and their public works departments have been early adopters of this powerful technology, relying on mobile GIS to help improve the quality and speed of data collection and stimulate collaboration between field and office staff.

An ongoing stream of accurate field data must be collected and analyzed by public works department employees to sustain the municipal workflow. There are many benefits that can be gained from deploying mobile GIS including the creation of intuitive solutions that are tailored to specific workflows. Mobile GIS applications require little training and can be successfully deployed throughout an entire field operation.

Put Data Where You Need It

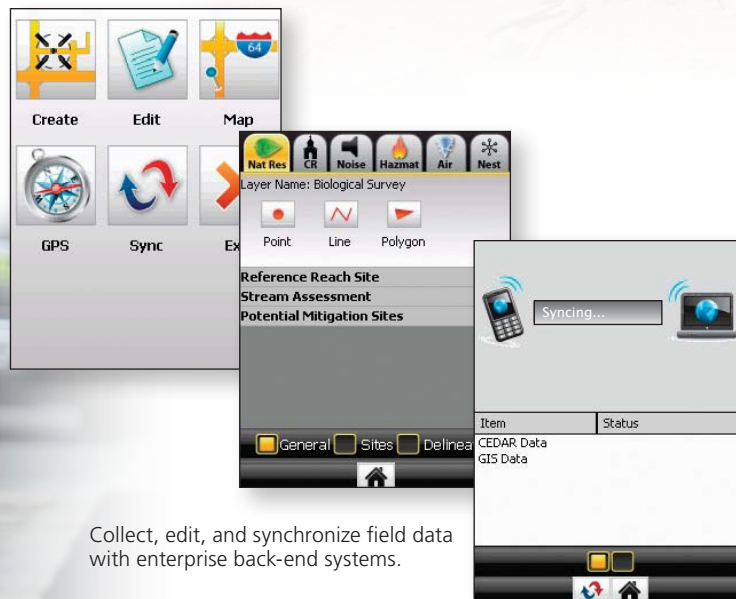
During the data compilation phase of a project, maximizing field collection while minimizing data errors is critical, especially when project data directly impacts essential public services. Handheld GPS solutions that provide precise, dependable, results can be synchronized with ArcGIS® Server technology so that real-time edits in the field are immediately updated in the geodatabase, eliminating the need to check the data in and out.

“Whether you’re simply mapping the location of public works assets or integrating all your spatial data into a complex database for managing infrastructure, vehicle fleets, or environmental impacts, an integrated mobile GIS is critical to the implementation of a successful enterprise solution.”

Michelle Frye, Marketing Manager, Mapping and GIS Division at Trimble Navigation Limited



Leverage the power of mobile GIS with common public works field projects such as inspections and incident reports.



“Collecting, editing, and analyzing mobile GIS data seamlessly in an always-connected environment and being able to integrate data with back-end, line-of-business applications such as SAP, CRM [customer relationship management], and field service automation systems [using geospatial capabilities] are significant to the overall success of those implementing a mobile GIS solution in their enterprise.”

Martin Copping, ArcGIS Mobile Product Manager at Esri





Expand the Municipal View

Municipal workers can respond more quickly and minimize impacts on services by using data collected from both official reports and citizen sources. This information has become important for reporting incidents and emergencies in a city or county. Proactively using this information promotes civic responsibility by engaging community members in providing valuable, firsthand information when an emergency strikes.

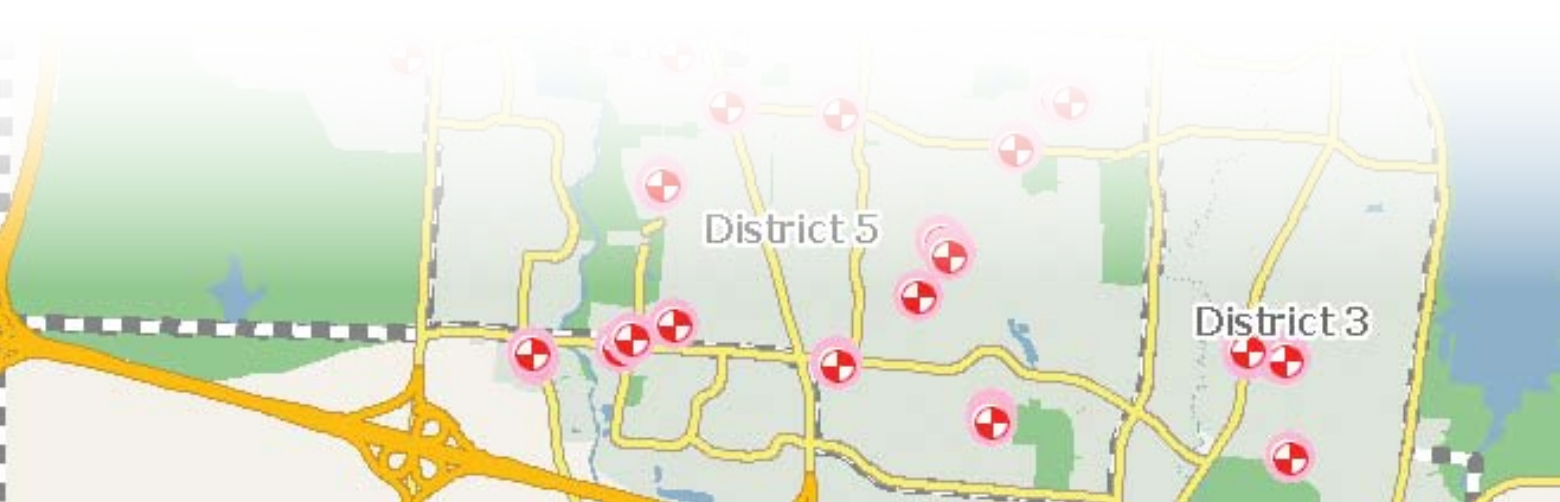
Data collected from the field can provide important information regarding the location and urgency level of an event. When used in conjunction with a field crew equipped with mobile GIS, this information greatly expands reporting capabilities. This in turn allows public works dispatchers to better evaluate incoming service requests from the public and prioritize work orders for field crews. On-site, crews can use mobile GIS devices to access the geodatabase and review information such as the age, composition, and maintenance history of an asset, like a water pipe in the event of its rupture.

Save Costs through Data Integration

A recent report by RTI International and the Logistic Management Institute for National Institute of Standards and Technology (NIST) estimated that more than \$15.8 billion are wasted in inadequate interoperability every year. Municipalities can reduce redundancy and make greater use of existing data by integrating disparate datasets and back-end business processes. Using a mobile GIS solution can significantly reduce costs in data collection and analysis procedures.

“While the necessary data captured by remote devices may vary greatly in content—including locational photographs and videos, GPS coordinate measurements, and readings from automated monitoring systems—the key to a successful integrated mobile GIS solution is reliability, accuracy, durability, and ease of use in both connected and disconnected environments. Our public works business partners strive to meet these requirements so that we can better support our clients.”

Chris Thomas, Industry Manager for Government Solutions at Esri





Capturing accurate infrastructure data in advance of emergencies is crucial to effective response.

Better Mitigate a Disaster or Emergency Situation

Public works executives and managers are part of the first teams responding during natural disasters and security threats. When disasters strike, the availability of up-to-date reference maps can literally mean the difference between life and death. GIS and mobile solutions can be used to monitor constantly changing data to make critical, lifesaving decisions. During flood season, rising water can be monitored to determine what roads need to be closed and what utilities need to be isolated. Safe and navigable evacuation routes can be maintained to analyze interior building floor plans and hazardous material storage areas, and supporting metadata can be accessed from the field to mitigate dangerous situations.

Collaborating Means Success

Mobile GIS is a critical component of the public works enterprise workflow, providing accurate and cost-effective data collection for many applications within the municipality. From mission-critical responsibilities to routine maintenance programs, a real-time exchange of information between field operations and department headquarters is required to collect, exchange, and analyze essential data.

Esri's partner network program allows public works departments of any size to implement GIS applications tailored specifically to their individual needs. The synergy generated by the Esri, Trimble Navigation, and Timmons Group collaboration is stimulating the development of mobile GIS solutions that can fuel the municipal workflow from asset management to planning and analysis.

Read more about successful solutions from Esri, Trimble, and Timmons Group at www.esri.com/pwmobile or for more information, call us at 888-603-3207.

