New Tools for Real-Time Decision Making and Risk Management

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Canadian National Railway is interested in identifying the environmental receptors along their rail lines for planning purposes and risk management. Tetra Tech developed an innovative geographic information system (GIS) of Michigan's Lower Peninsula to identify the specific sensitive environmental receptors. Our GIS is configured as a multilayer, searchable display of project-specific environmental datasets. These include mapped wetlands and hydric soils, threatened, endangered or special concern species, protected properties, water resource protection areas, water supply wells and their distribution, and other significant hydrologic information. The GIS database was developed from various state and federal agencies and private organizations, and reflects the most up to date status of environmental information for the project area. Our approach allows maintaining significant environmental information in a centralized location and performing seamless and timely upgrades as updates are available. The platform includes a web-based interface and components to access the information remotely and in real-time using field devices; ideal for emergency responders.