

INTETICS HELPS GOVERNMENT AGENCY MONITOR ENVIRONMENTAL VIOLATIONS ACROSS 5,244 HECTARES OF NATIONAL PARK LAND



Objective

To help the Kharkiv Department of Ecological Inspections develop and integrate a new mobile and web application to monitor legal violations and misuse of natural resources in a national park.



Challenge

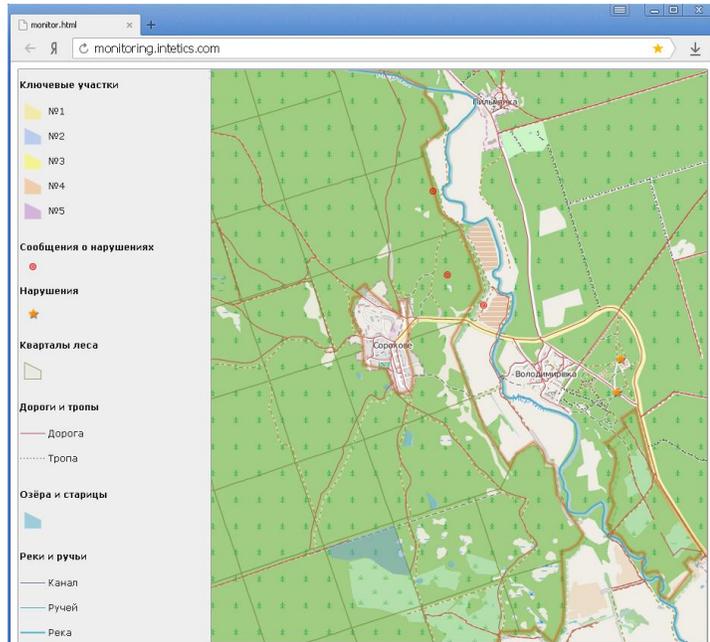
The “Slobzhanskiy” National Park is a 5,244 hectare area located in an industrialized region that requires constant monitoring for ecological violations. Until recently, 35 inspectors from the government agency recorded violations and other geospatial information on paper and then input the data at the office using desktop GIS solutions. The agency wanted to use latest technologies to simplify the monitoring process and decided to find a partner capable of end-to-end development of a new cross-platform geo-application, functional in the field and at the office. The application had to have multiple levels of accessibility for government staff and other non-commercial and remote collaborators. It had to receive violation claims remotely and record their exact coordinates. It had to allow editing of related spatial information, such as location and condition of fences, buildings, roads etc. It had to track the status of violation claims, generate map reports with violation locations, and use various geospatial data resources using WMS, TMS and REST standards. Finally, the application had to be easily maintained, cost-effective and integrate with existing databases.



Solution

The governmental environmental protection agency turned to Intetics because of its years of experience in geospatial software development and because of its status as Ukraine’s leader in GIS solutions. Intetics surveyed existing technologies and new technological processes, and began work on the application, taking care of project management, technology selection, development, implementation and integration of the system. To satisfy client’s requirements, Intetics chose open source technologies that guaranteed low-cost maintenance, but also stability and customization.

Intetics used the standard client-server architecture based on open databases and editors that allowed use of mobile and web applications for work with new and existing databases. Intetics team developed specialized elements to manage incoming claims, which included new forms for in-field data entry, tools to edit spatial data, new interface to administer status of claims, and creation of templates for geo reports. Finally, Intetics developed training materials with all documentation written in two official national languages and trained the Department’s staff on use of the new system. Throughout the development



process, Intetics used bug-tracking systems and various collaboration platforms that ensured quality delivery.



Results

Due to working with Intetics, the Kharkiv Department of Ecological Inspections was able to better monitor violations in a large national park area. Intetics team developed the new application and integrated it with the department's existing databases. The application added more efficiency to Department's day-to-day functions, and was cost-effective and easily maintained. Intetics additionally conducted a technical feasibility analysis for crowdsourcing violation information in the future. Based on this project's success, the Department asked Intetics to develop another new application to monitor the park's biodiversity.

“Without Intetics our monitoring process was slow and disorganized. The robustness and functionality of the new application helps us better manage our national park.”