

Florida Department of Transportation's Environmental Screening Tool

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In 2003, the Florida Department of Transportation (FDOT) and the Federal Highway Administration (FHWA) implemented Florida's Efficient Transportation Decision Making Process (ETDM), a decision-making strategy designed to encourage early, interactive agency involvement in transportation projects. Previously, transportation stakeholder bodies did not conduct environmental or socio-cultural impact reviews on projects until FDOT developed cost-feasible project plans and priority projects had been incorporated into a five-year Work Program. The consequences of involving stakeholder agencies so late included long gaps between project steps, community concerns not being effectively communicated to designers, and too much expensive work being performed on a project before reviews to make significant modifications afterwards. FDOT and FHWA, with support from other federal, state, and local agencies, instituted the ETDM to streamline project delivery and create collaboration to identify the impacts a project could have before too much was spent on it. Their ultimate goal was to create facilities that would both provide mobility and protect Florida's natural, cultural, and community resources.

To support this endeavor, FDOT created the Environmental Screening Tool (EST), an interactive Internet-accessible computer application that combines mapping technology, relational database management systems, and geographic information systems (GIS). The EST application enables member users, including Metropolitan Planning Organizations (MPOs), environmental and community affairs agencies and Indian tribes, to analyze and communicate project data.

To facilitate analysis, FDOT and MPOs enter data related to specific transportation projects while the Florida Geographic Data Library and other resource agencies supply information related to environmental conditions, historic sites, and community resources. After the data is loaded, standard GIS analyses prescribed by resource agencies are automatically run to determine any impacts a project could have on the environment. For example, these analyses would show whether a transportation project would pass through a wetland or a site recorded in the National Register of Historic Places. The results are stored in the EST database along with project information and detailed summary reports of any environmental effects. This type of agency review occurs at two stages: the Planning Stage, which occurs after FDOT conducts cost feasible studies, and the Programming Stage, which happens before FDOT considers projects for the upcoming work program.

After examining the results of the analyses, agency representatives to their FDOT district's Environmental Technical Advisory Team (ETAT) report their agency's internal position on the project and, if relevant, suggest avoidance or mitigation strategies. These comments are entered into the project database. The public is able to view planning and project information, agency reviews, summary reports, maps and all official ETAT comments through a public access portion of the EST website. Citizens can provide comments through FDOT and MPO workshops and other established participation channels, and these are also included in the database.

To date, there are more than 500 active users of the restricted EST website (not including

other support staff in their agencies), and approximately 280 ETDM projects have gone through active review. Though the EST was initially intended for larger projects with many potential problems, FDOT, state MPOs, and other planning bodies have conducted approximately 1,000 additional feasibility studies and non-ETDM project reviews using this application. FDOT staff report that they have experienced numerous benefits by conducting studies and interagency communication through the EST, which are listed below:

- Project proposals have been modified and particularly problematic ones have been removed from FDOT plans in response to issues identified via the EST. Long-range cost estimates for transportation projects that respond to potential environmental mitigation projects have also improved.
- The EST database allows information about ETDM projects to be distributed quickly and easily and provides an avenue for agency responses and collaboration. It also has reduced the paperwork needed for project review.
- EST analyses helped create time and cost savings by enabling ETAT members to identify where a project would have minimal or no potential effects on resources. This allows them to reduce the scope of complex studies or eliminate them altogether.

Peter McGilvray, Technical Project Manager of the EST, identified growing enthusiasm for the use of the application in planning processes. He explained that MPO staff and other planners were initially hesitant about using the EST for project review. However, since many of them participated in FDOT's regional training processes and became familiar with the application, he has heard planners complain about receiving documents related to project review on paper instead of electronically. The Federal Emergency Management Agency also took advantage of a customized version of the EST after the intense hurricane season of in 2004 in order to determine the best sites for temporary housing and debris collection. McGilvray reports that other state transportation departments, including those in North Carolina, Washington, and Tennessee, are considering how to develop similar decision-making processes and electronic applications of their own.

Since its implementation in 2003, the EST has and will continue to evolve. A revised version was released in 2005 that features new search tools, online member accounts and an online ETDM library. Users are also able to navigate to frequently-viewed projects more quickly, and to specify which analysis results they want to view on the GIS Analysis Results page. McGilvray said that FDOT plans to implement a performance management and monitoring system into the EST, which will record the different ways that it is being used. FDOT is also developing a commitment tracking module, which will allow ETDM participants to verify that the commitments made regarding on a project during its initial planning and review stages will be part of its design later on.

References

Florida, Department of Transportation. Florida's ETDM Process. Tallahassee: The Department [2006].

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