New Professional Development Tool Introduced by the Environmental Competency Building Program

Developing and maintaining the knowledge and expertise of transportation and environmental professionals is essential to the effective delivery of an environmentally sustainable transportation program. Recognizing this need, the Federal Highway Administration (FHWA) created the Environmental Competency Building (ECB) Program to support professional development opportunities in the transportation and environmental disciplines. This issue of Successes in Stewardship introduces the Competency Navigator, an online resource and tool developed by the ECB Program in collaboration with a steering committee of transportation and environmental leaders. The Competency Navigator is intended to assist professionals in identifying key environmental and technical topic areas associated with the delivery of environmentally sustainable transportation programs.

The Need for Building Environmental Competencies

The complex and dynamic nature of the environmental analysis, documentation, and review processes for transportation projects requires that professionals in these fields gain familiarity with and mastery of a wide range of environmental competencies. Yet many do not have access to the resources or training opportunities that would help them develop the skills needed to comply with environmental review requirements in the transportation-planning and project-development processes. As a result, they may overlook opportunities to implement meaningful environmental stewardship practices during these processes. In response, the ECB Program has developed a Competency Navigator, an online resource tool for assessing the types and degrees of environmental competencies recommended for various disciplines (for example, planners versus legal staff or design engineers), and then linking professionals within those disciplines to specific tools and resources related to those competencies.

Introducing the Competency Navigator

An environmental competency refers to the set of knowledge and skills needed to perform a specific technical or legal obligation in the broad range of transportation-planning and delivery processes. The knowledge sets required for the delivery of a sustainable transportation program are diverse — they include topics ranging from alternatives analysis to historic preservation to commercial vehicle operations — and the degree of “competency” required often varies by discipline or professional role. The ECB Competency Navigator helps individuals in different disciplines to find tailored recommendations for the degree of proficiency that they should strive to achieve across multiple competencies. To do so, the Navigator customizes tools and recommendations around nine disciplines or roles in the transportation and environmental professions:

- Senior-level manager
- Project manager
- Environmental specialist
- Planner
- Right-of-way specialist
- Design engineer
- Construction/maintenance staff
- Legal staff
- Civil rights staff
When a user selects a position, the Navigator generates a specific list of environmental competencies recommended for people working in that field. The competencies for each discipline are then sorted by the degree of proficiency or level of understanding recommended for someone in that field. The three levels of understanding used to classify competencies in the Navigator are:

- **Awareness** — a general familiarity with the subject area or skill
- **General Understanding** — the ability to apply broad knowledge to situations likely to be encountered and to recognize significant deviations
- **Technical Proficiency** — having or demonstrating a high degree of knowledge or skill in a particular area

The classification of competencies by level of understanding provides another layer of value for people seeking tailored professional development opportunities or discipline-specific resources and information. An example of how the Competency Navigator works for a “planner” is provided below (see Figure 1). As you can see, the Navigator recommends that planners have an “awareness” of issues such as biogeochemical cycles and contract management but a higher degree of “general understanding” of issues such as context-sensitive solutions and habitat restoration. Recommendations for “technical proficiency” are reserved for the competencies that are most critical to a planner’s work, such as alternatives analysis, intermodal passenger and freight, land use, and the planning process. Sometimes the recommended competencies or levels of understanding are the same for professionals working in different roles, while other times they differ.

**Figure 1: Environmental competency results generated for a planner.**

<table>
<thead>
<tr>
<th>Awareness (A)</th>
<th>General Understanding (G)</th>
<th>Technical Proficiency (T)</th>
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</thead>
</table>
| - Biogeochemical Cycles
- Bioremediation of Contaminated Sites
- Contaminant Site Assessment
- Contract Management
- Ecological Indicators
- Food Webs and Trophic Levels
- Invasive Species
- Preparation of Environmental Documents
- Safety
- Sampling Techniques and Procedures
- Stormwater Program, National Pollutant Discharge Elimination | - Biological Community Dynamics
- Coastal Resources
- Context-Sensitive Solutions
- Cultural Resources
- Ecosystems
- Endangered Species
- Environmental Injuries/UCS
- Erosion and Sediment Control
- Habitat Restoration Techniques
- Habitats
- Highway Traffic Noise
- Historical Preservation
- Indirect and Cumulative Impact Analysis | - Alternatives Analysis
- Bicycle/Pedestrian Programs
- Civil Rights Act Title VI
- Commercial Vehicle Operations
- Community Impact Analysis
- Economic Development
- Environmental Justice
- Intelligent Vehicle Initiative
- Interagency Coordination
- Intermodal Passenger and Freight
- Land Use
- Modeling
- Planning Process |

In addition to helping professionals identify the key environmental competencies important to their positions, the Competency Navigator serves as a centralized source of credible, up-to-date information on resources available to enhance their understanding within each competency. The Navigator includes over 1,100 listings of related trainings, seminars, workshops, research materials, and web-based resources that address each of the environmental competency areas.

**Putting the Navigator to the Test**

An initial version of the Competency Navigator was released in May 2008. Over the next few months, environmental and transportation professionals are encouraged to explore the tool online and to provide feedback on the functionality and format of the site as well as the quality of information available. FHWA will use this feedback to design the final version of the Competency Navigator. To use the Competency Navigator, or for more information on the ECB Program, please visit [http://www.environment.fhwa.dot.gov/ecb/index.aspx](http://www.environment.fhwa.dot.gov/ecb/index.aspx).
Look What's New!

The first audit report of the California Department of Transportation’s (Caltrans) assumption of federal authority for environmental reviews of transportation projects was published in the Federal Register on June 2, 2008 and is part of SAFETEA-LU’s Surface Transportation Project Delivery Pilot Program. Comments on the audit report will be accepted for a 60-day period, closing on Aug. 1.

FHWA was selected for a 2008 White House Closing the Circle Award for Recycling for successfully promoting recycling as an integral part of road construction. FHWA now runs the nation's largest recycling program through its efforts to ensure that hundreds of millions of tons of material are put back into roadways rather than disposed of in landfills.

The Woodrow Wilson Bridge project was honored with the American Society of Civil Engineers (ASCE) 2008 Outstanding Civil Engineering Achievement (OCEA) Award at a ceremony in Arlington, Virginia, on April 30.

Successes in Stewardship is a Federal Highway Administration newsletter highlighting current environmental streamlining and stewardship practices from around the country. To subscribe, visit http://environment.fhwa.dot.gov/isis_registration/Register.aspx or call 617-494-3137.

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