Eco-Logical Starter Kit, Overview, and Technical Assistance Launch

Presenters

**Mike Ruth**, Federal Highway Administration, Office of Project Development and Environmental Review

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(Learn more about Eco-Logical at the FHWA website)
Steps to Ensure Optimal Webinar Connection

This webinar broadcasts audio over the phone line and through the web room, which can strain some internet connections. To prevent audio skipping or webinar delay we recommend participants:

• Close all background programs
• Use a wired internet connection, if possible
• Do not use a Virtual Private Network (VPN), if possible
• Mute their webroom audio (toggle is located at the top of webroom screen) and use phone audio only
Outline

• What is Eco-Logical
• Implementing Eco-Logical
• Integrated Eco-Logical Framework
• Frequently Asked Questions
What is Eco-Logical?

• An ecosystem methodology for planning and developing infrastructure projects

• Developed by eight Federal agency partners and four State DOTs

• Collaboration between transportation, resource, and regulatory agencies to integrate their plans and identify environmental priorities across an ecosystem
Encourages Federal, State, Tribal and local partners involved in infrastructure planning, design, review and construction to make infrastructure more sensitive to wildlife and their ecosystems:

- Integrates plans across agency and political boundaries
- Promotes open public and stakeholder involvement
- Provides time and cost savings and better environmental outcomes
- Streamlines approval processes for infrastructure projects while maintaining safety, environmental health and effective public involvement
What are the benefits of Eco-Logical?

- Better environmental outcomes and lower transaction costs
- Promotes public support and increases public confidence in an agency’s ability to provide effective and efficient service.
- Improves resource and regulatory agency relationships.
- Reduces redundancy and increases the efficiency, transparency and predictability of the transportation delivery process.
Is Eco-Logical feasible for my agency?

YES!

• Implementing Eco-Logical works within existing regulations and policies and represents forward-thinking transportation and responsible environmental practice.

• Implementing Eco-Logical can be adopted using a phased approach and offers incremental benefits in terms of improved interagency collaboration and communication, and more predictable transportation and environmental review processes.
Eco-Logical goes by many different names, but here are a few terms you may have heard:

• **Eco-Logical approach**: Advance, ecosystem-scale planning, and priority setting
  – Brings together transportation, resource, and regulatory agencies
  – Agencies incorporate natural resource and infrastructure data prior to transportation planning
  – Agencies identify critical ecological resources and establish joint environmental priorities

• **Implementing Eco-Logical**: Set of tools, steps, and activities that practitioners can use to bring the Eco-Logical approach into practice
Integrated Eco-Logical Conservation and Transportation Planning Framework (IEF):  
The nine step IEF provides a structured process to avoid or minimize environmental impacts and plan future mitigation.

Regional Ecosystem Framework (REF):  
An element developed in Eco-Logical and highlighted as a step within the IEF, which focuses on integrating infrastructure and natural resource data, as well as transportation and natural resource plans, so that all agencies are operating off of one integrated set of information.
Implementing Eco-Logical

- The set of tools, steps and activities that bring the Eco-Logical approach into practice
- Jointly managed by FHWA and AASHTO, with funding from SHRP2
- Focused on increased awareness and understanding of the Eco-Logical approach in all States and regions and at all levels of government
Integrated Eco-Logical Framework (IEF)

• Process to guide transportation and resource specialists in the integration of transportation and ecological decisionmaking

• Helps identify potential impacts to environmental resources very early in the planning process
Steps of the IEF (and the Eco-Logical approach)

1. Build and strengthen collaborative partnerships
2. Integrate natural environment plans
3. Create a Regional Ecosystem Framework (REF)
4. Assess effects on conservation objectives
5. Establish and prioritize ecological actions
6. Develop a crediting strategy
7. Develop programmatic agreements and consultations (biological opinion, or permit)
8. Implement agreements and deliver projects
9. Update the REF

Partner
Share Data
Analyze Effects
Identify key sites and actions
Document
Implement Evaluate
The Eco-Logical Webinar Series has covered each step of the IEF in detail.
“Eco-Logical” by Other Names

- Many agencies use other names to describe Eco-Logical
  - Watershed approach
  - Landscape-scale planning
  - Ecosystem planning
- Other programs may have some or all of the elements of Eco-Logical
- Resources available for all agencies implementing Eco-Logical — *under any name*
Existing v. New Projects

• Can Eco-Logical be used in agencies that are not constructing new projects?
  – YES!

• Eco-Logical tools and outcomes can be applied to:
  – Renovation and rehab projects
  – Long-range planning
  – Establishing mitigation programs
  – Wildlife crossings
  – Green infrastructure improvements
Flexibility of the IEF

- Do we have to do the Eco-Logical steps in order?
- Can we skip any steps?

**Flexibility is okay!**

- Document what you plan to do and why.
- Enlist the Eco-Logical On-Call Technical Assistance Team to figure out how to “flex” the IEF to work for you!
Eco-Logical Starter Kit, Overview, and Technical Assistance Launch

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- **Carolyn Washburn**, C2HM HILL (carolyn.washburn@ch2mhill.com)
- **Margaret Barondess**, Michigan Department of Transportation (barondessm@michigan.gov)
Implementing Eco-Logical Audiences

- Unfamiliar
- Aware but not active
- Beginning to implement
- Actively implementing

- Resource and regulatory agencies
- State DOTs
- Environmental stakeholders
- Practitioners
- Decision-makers
- State
- Federal
- Tribal
- Advocates
- MPOs
- Private sector
- FHWA Divisions
Implementing Eco-Logical Technical Assistance Resources

- Executive Training
- Implementation Assistance Program
- Self-Assessment Survey
- Case Studies
- Champions
- On-Call Technical Assistance
- Peer Exchanges
- Practitioner’s Handbook
- Starter Kit
- Workshops

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Implementing Eco-Logical – Starter Kit

February 10, 2015

Federal Highway Administration

American Association of State Highway and Transportation Officials
Welcome to our Implementing Eco-Logical Starter Kit webinar.

The **Starter Kit** is a website tool just developed by FHWA and AASHTO through our SHRP2 Program.


Or Google “FHWA and Eco-Logical”!
You can navigate to other pages on the website by clicking the text or icons located here.

Implementing the Eco-Logical Approach

The Eco-Logical approach organizes current methods for addressing natural resource identification, avoidance, minimization and mitigation into a systematic, step-wise process that starts at the beginning of the transportation planning process and concludes with establishing programmatic approaches to recurring natural resource issues that are implemented at the project level.

What are the advantages of an ecosystem approach?

Show me an example of how this would work.

Eco-Logical On-Call Technical Assistance is now available!
FHWA has a team of Eco-Logical experts ready to provide responsive, individualized guidance and support to agencies as they implement the Eco-Logical approach. Request technical assistance today!

Eco-Logical Annual Meetings Page is now available!
Want to talk to someone about Eco-Logical in person at a meeting? Check us out and see where we are going and where we have been!
Implementing the Eco-Logical Approach

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In the graphic above, click each step for useful implementation information including a description of the step, technical information, and examples of agency projects.
Select a step to read about the approach, find agency examples and tools.

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Read a summary describing the goals of each step of the Eco-Logical Approach.

The goals of Step 1 are:

1. Break down organizational barriers.
2. Take an inventory of each stakeholder’s goals, priorities, processes, and major areas of concern within a specified planning region.
3. Document significant issues that may affect agency goals and mitigation needs.
4. Create a shared regional planning vision.
5. Obtain formal agreements on roles, responsibilities, processes, and timelines that establish or reinforce partnerships.
6. Document criteria and opportunities for using programmatic consultation approaches to better address transportation and conservation planning needs.
7. Identify initial funding options.

With a basic vision in mind and the commitment of the transportation planning organization to make the initial investment of resources toward the IEF process, the transportation planning agency (for the DOT or MPO, as the responsible party for transportation planning and begins outreach to other planning organizations and resource agencies in the...
Navigate between the steps on the website by clicking on the numbers on this image.
The goals of Step 3 are:

1. Create the regional ecosystem framework, based on mapping and prioritization of resources and transportation and land use plans.
2. Create transportation program scenarios that address short- and long-term improvements and include all features that may cause impact to natural resources.
3. Obtain a shared understanding of the current and planned/proposed locations, quantities, and patterns of all development, uses, and resource impacts in the region.

Create the Regional Ecosystem Framework. The regional ecosystem framework (REF) is the consolidation of the data collected in Step 2 into a geospatial database, with land use plans, including the long range transportation plan.

Creating Planning Scenarios. At this step, the stakeholders overlay the current plans with resources. Alternative scenarios could be developed depending on factors such as near-term versus long-term and low growth versus high growth assumptions. The transportation planning organization would provide its plan for the planning region and its assumptions. Other land use planning, such as community land use and management plans from the major local, state, and federal regulatory, land management and planning agencies in the region, could be included for a cumulative view. The combination of the plans defines the “footprint” of consideration of impacts.

The alternate scenarios can be overlaid on the resource mapping. It is likely that locations where planned improvements overlap important resources will be readily visible.

Documentation. The stakeholders should document the development of scenarios.

What is the difference between the terms “Regional Ecosystem Infrastructure Development Framework” (REIDF) and “Region Ecosystem Framework” (REF)?
There is a webinar that describes each step of the Eco-Logical approach!
Read about the science of the Eco-Logical approach from TRB reports.
Read about what other DOTs and MPOs are doing with their Eco-Logical Program.
Regional Ecosystem Framework prepared by North Central Texas Council of Governments!
Share the success of your Eco-Logical program with us!

You can select this link to provide us your information and we will post it!

Want to add your program to this page? Please contact us with your information!
Who else is Implementing Eco-Logical? DOTs, MPOs, other agencies?

YES!

Read about their programs and accomplishments.
Do you want to put your agency on the map? Contact us! Share your information with us and… We will post it!
Meet the current award recipients and read about their programs.

### Lead Adopters and User Incentives

Lead Adopters and User Incentives are the agencies that received funding from FHWA to support their Eco-Logical program goals!
Read about the early Eco-Logical pilot projects that started in 2007.

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<th>Agency</th>
<th>Project Title</th>
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<td>Central Texas Greenprint for Growth – A Tool for Balancing Sustainable Conservation Goals with the Infrastructure Needs of our Rapidly Urbanizing Region</td>
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<tr>
<td>Chicago Department of Transportation (CDOT)</td>
<td>Sustainable Infrastructure Standards for Urban Ecology</td>
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<td>Colorado Department of Transportation (CDOT)</td>
<td>Developing a Regional Ecosystem Framework for the I-70 Corridor, Colorado: An Eco-Logical Approach</td>
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<td>Envision Utah</td>
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<td>Oregon State University (OSU)</td>
<td>Using the Eco-Logical Approach to Develop and Implement Conservation and Mitigation Priorities for Oregon</td>
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<td>Thomas Jefferson Planning District Commission (TJPDC)</td>
<td>Integrating Green Infrastructure and Transportation Planning</td>
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Our Technical Assistance program is underway!

You can participate by reviewing our past peer exchanges...
Or review a prior webinar.....or participate in an upcoming workshop!
New!
Submit an on-line request for technical assistance to FHWA.

Subject Matter Experts are available to help you attain your Eco-Logical goals!

Implementing Eco-Logical
On-Call Technical Assistance Team

The Federal Highway Administration (FHWA) has created an On-Call Technical Assistance Team to provide guidance and support to State DOT, MPOs, resource and regulatory agencies as they implement the Eco-Logical approach. The Team can assist with organizational, technical, regulatory, or scientific issues. Technical issues related to the Eco-Logical approach, could include such things as:

- Gaining general Eco-Logical implementation information
- Building collaboration and coordination within an agency
- Establishing connections and dialogue among agencies, including FHWA Division Offices, MPOs (MPOs), State Department of Transportation (State DOTs), and Federal and State resource agencies
- Building geospatial data based regional ecological and infrastructure development frameworks
- Developing crediting strategies
- Prioritizing ecological actions and conservation objectives

The Team is comprised of a set of experts from:

- Federal Highway Administration
- Environmental Protection Agency (EPA)
- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. DOT Volpe Center, and
- Eco-Logical Champions.
We are at the meetings and conferences you attend!

Review our past presentations.
We have a lot of information to share to help you with your Eco-Logical program.

- Tools
- Research
- Agency Examples
- Webinars
Coming Soon!

AASHTO is preparing a Practitioner’s Handbook on Eco-Logical!

Below is a list of the Eco-Logical resources available by topic.

Implementation Tools

- Website Tool Webinar
- Practitioner’s Handbook
- AASHTO Annual Meeting Brochure
- Eco-Logical Fact Sheet
- Webinars

Technical References

- Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects
- Annual Reports - Eco-Logical Successes

Transportation Research Board Reports

- An Ecological Approach to Integrating Conservation and Highway Planning, Volume 1
- An Ecological Approach to Integrating Conservation and Highway Planning, Volume 2
- Practitioner’s Guide to the Integrated Ecological Framework, Volume 3
- Manager’s Guide to the Integrated Ecological Framework, Volume 4
- Integrated Eco-Logical Framework Outreach Project
- Expedited Planning and Environmental Review of Highway Projects
Contact us to learn more about Eco-Logical.

Do you have information to share with others? Please submit it to us!

Request technical assistance!
7 Conservation Priorities

Aerial Migrants

Coastal Tributaries

Migratory Fish

Coastal Marsh

Inland Wetlands

Amphibians and Reptiles

Rare Plant Communities
Technical Advisory Committee
• Primary Boundary
  • ~90,000 ac.
  • Determined by 575 ft. contour

• Secondary boundary
  • ~250,000 ac.
  • Determined by coastal watersheds
Farm Field Tiling
Resources to Inform IEF

- Existing Cons. Plans
- Data Layers
- Models

Research

Experts