



# Implementing Eco-Logical Mitigation Approaches State DOT Peer Exchange

March 11-12, 2015



U.S. Department of Transportation  
Federal Highway Administration



TRANSPORTATION RESEARCH BOARD  
OF THE NATIONAL ACADEMIES

# Participants



- Welcome and Introductions
  - FHWA
  - USACE
  - AASHTO
  - USFWS
  - Volpe
  - DOTs
    - South Carolina
    - Florida
    - Colorado
    - California

# Agenda (Day 1)



- Welcome, Introductions, Overview
- Objectives, Mitigation in the Context of Eco-Logical
- Background discussion on each DOT's mitigation programs, successes, and challenges
- **LUNCH**
- Process to establish a mitigation bank
- Species banking
- **BREAK**
- Funding a Mitigation Program
- Summary of Day 1

# Agenda (Day 2)



- Recap and Overview
- Data and Tools to Manage Mitigation Sites
- Implementing and Permitting with Resource and Regulatory Agencies
- **BREAK**
- Action Planning (breakouts)
- Eco-Logical Resources
- Wrap-Up and Evaluation

# Peer Exchange Objectives

- Objectives
  - Address questions about mitigation in the context of the Eco-Logical approach
  - Generate peer-to-peer learning
  - Cover learning objectives of peers
  - Seek opportunities to share lessons about innovative mitigation approaches related to Eco-Logical
- DOT Learning Objectives
  - Fund programmatic mitigation
  - Implement mitigation projects
  - Develop GIS tools related to mitigation
  - Learn steps to establish mitigation program
  - Share successes and lessons

# Mitigation in the IEF (REF)

- REF (Step 3) is a cornerstone of the Eco-Logical approach
- By integrating resource data with transportation data, the REF helps transportation and environmental agencies identify joint needs and priorities
- Data in the REF is used to build a mitigation approach
  - Identify sites
  - Set priority sites
- Mitigation approaches can help implement and organize the needs and priorities identified through the REF

# Mitigation in the IEF (4-8)

- Step 4: Assess effects on conservation objectives
- Step 5: Establish and prioritize Eco-Logical actions
- Step 6: Develop crediting strategy
- Step 8: Implement actions, including mitigation





# Peer Discussion Points

- What prompted your agency to consider mitigation programs? What areas are you most interested in related to mitigation?
- Describe any mitigation programs that your DOT has considered, planned, or implemented
- Describe your DOT's involvement with and/or adoption of the Eco-Logical approach



Photo courtesy of NHDOT



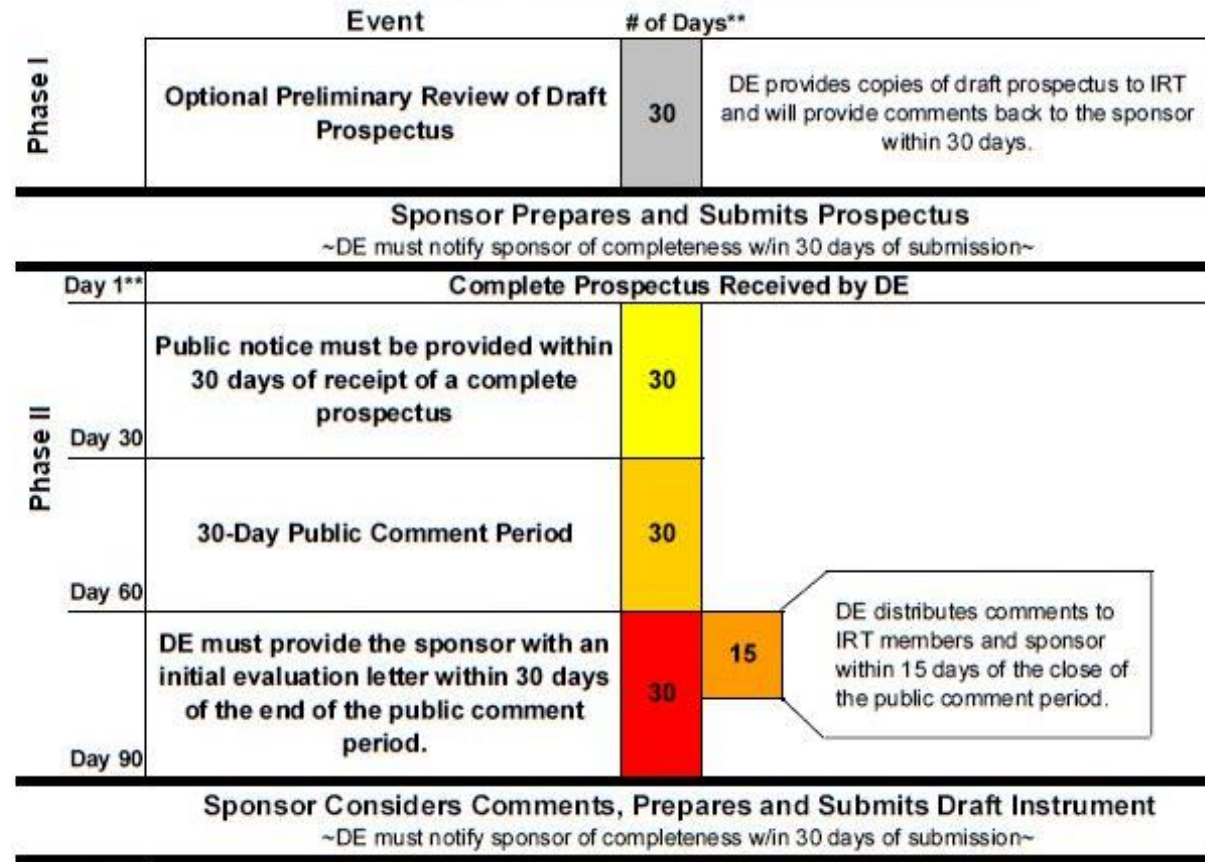
# Background Discussion Points



- Describe the relationship between your mitigation programs and Eco-Logical activities
- What are the greatest successes and lessons from your involvement with mitigation programs and the Eco-Logical approach?
- What are your greatest challenges and questions about mitigation in the context of Eco-Logical?
- What do you hope to learn from this peer exchange?

# Topic 1: Process to Establish a Mitigation Program

## Compensatory Mitigation Rule Timeline for Bank or ILF Instrument Approval\*

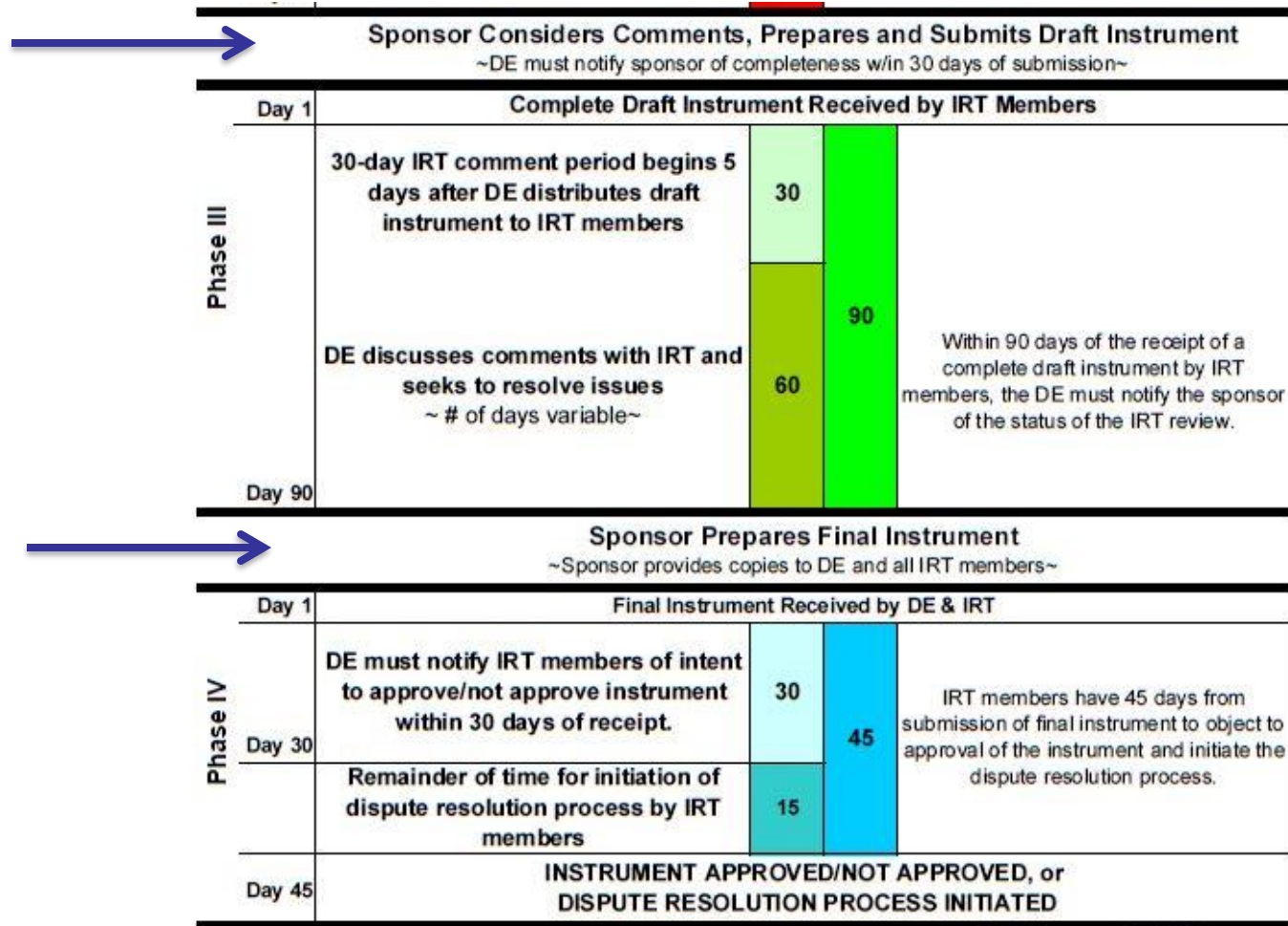


Action Items for the DOT



# Topic 1: Process to Establish a Mitigation Program

## Action Items for the DOT



EPA/Corps draft 4/02/08

Total Required Federal Review (Phases II-IV): ≤225 Days

\*Timeline also applies to amendments

\*\*The timeline in this column uses the maximum number of days allowed for each phase.

# Prospectus

A complete prospectus includes the following:

- Objectives of the proposed bank or in-lieu fee program
- How the bank or ILF will be established & operated
- The proposed service area(s)
- The general need and technical feasibility of the proposed bank or ILF program
- The proposed ownership arrangements and long-term management strategy for the bank or ILF project sites
- Qualifications of the sponsor to successfully complete the types of mitigation projects proposed, including information on past activities



# Prospectus

For a proposed mitigation bank, the prospectus must also address:

- Ecological suitability of the site to achieve the objectives of the bank, incl. physical, chemical, & biological characteristics of the site and how that site will support the planned types of aquatic resources and functions.
- Assurance of sufficient water rights to support long-term sustainability of the mitigation bank.

For a proposed in-lieu fee program, the prospectus must also include:

- The compensation planning framework, which will be used to select, secure, and implement aquatic resource compensatory mitigation activities. The compensation planning framework is discussed in greater detail at 33 CFR 332.8(c)/40 CFR 230.98(c).
- A description of the in-lieu fee program account. The in-lieu fee program account is the repository for all fees collected from permittees, earnings, and interests received by the in-lieu fee program from operation as a method of compensatory mitigation. The establishment, operation, and use of the program account is discussed in greater detail at 33 CFR 332.8(i)/40 CFR 230.98(i).

# What must banks and ILF include?

Mitigation bank and in-lieu fee program instruments must include the following information:

- Description of the proposed service area(s). Service areas may be based on the watershed, ecoregion, or physiographic province, and/or other geographic area in which the bank or in-lieu fee program is authorized to provide compensatory mitigation
- Accounting procedures
- Provision stating that legal responsibility for providing mitigation lies with the sponsor once a permittee secures credits from the sponsor
- Default and closure provisions
- Reporting protocols
- Any other information deemed necessary by the district engineer





# What must banks and ILF include?

For a mitigation bank, a complete instrument must also include the following information (33 CFR 332.4(c)(2)-(14)/ 40 CFR 230.94(c)(2)-(14)):

- Objectives
- Site selection factors considered
- Site protection instrument (conservation easement, declaration of restrictions, title transfer, etc.)
- Baseline information – description of ecological characteristics of the proposed mitigation bank site
- Description of number of credits to be provided
- Mitigation work plan – detailed written specification and work descriptions for the mitigation bank site
- Maintenance plan – description and schedule of maintenance requirements
- Performance Standards – ecologically-based standards used to determine whether the project is achieving its objectives
- Monitoring requirements
- Long-term management plan – description of mitigation site management after meeting all performance standards to ensure long-term sustainability of the site
- Adaptive management plan – a management strategy to address unforeseen changes in site conditions or other aspects of the project. It guides decisions for addressing circumstances that adversely affect a mitigation project
- Financial assurances – a description of any financial assurances that will be provided to ensure that the mitigation project will be completed in accordance with its performance standards.
- A credit release schedule tied to achievement of specific milestones.



# What must banks and ILF include?

For an in-lieu fee program, a complete instrument must include the following information:

- Compensation planning framework (33 CFR 332.8(c)/40 CFR 230.98(c));
- Specification of the amount of advance credits (33 CFR 332.8(n)/40 CFR 230.98(n)) and the fee schedule for these credits;
- Methodology for determining future project-specific credits and fees;
- Description of the in-lieu fee program account (33 CFR 332.8(i)/40 CFR 230.98(i)).



Photo courtesy of NHDOT

# What is USACE looking for?



- Watershed approach - 332.8(b)(3)
- Self-sustaining - 332.8(a)(2)
- When on public lands, environmental benefits over and above normal management activities - 332.3(a)(3)
- Likelihood of success - 332.3(a)(2) and (b)(1)
- Aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources, trends in land use, ecological benefits, and compatibility with adjacent land uses - 332.3(b)(1)

# Spotlight on Species Banking

- USFWS is looking for well-sited, well-managed, financially-assured mitigation sites
- Compensatory mitigation mechanism preference – mitigation in advance of impacts
- Bank and ILF sites based on landscape-level conservation plans with consideration of changing climate



# How do conservation banks differ from wetland and stream banks?

- Purposes
- No regulations specific to banking – USFWS has Policy
- Prospectus or less formal Proposal is usually OK
- No public review and comment through bank approval
- Conservation Banking Review Team (CBRT)
  - Very similar to IRT
- No mandated timeline
- Must always be in-kind for the affected species
- Service areas usually based on Recovery Units
- Crediting methodology can be complex
- Funding schedules may differ for long-term management endowments

# Joint CWA-ESA Banks



- Why joint banks?
  - holistic approach
  - better serve the regulated community where resources overlap
  - more ecologically effective
  - more cost efficient
  - improved federal permitting, reduces regulatory burden
- The FWS usually defers to the Corps process
- FWS becomes a co-chair with the Corps on IRT
- Multiple service areas for multiple resources
- Stacking of credits OK – but unstacking of credits not OK

# Topic 2: Funding a Mitigation Program

- Federal Funds are allowed to be used for mitigation programs
- Can be totally State funded
- Can be a public-private partnership

# Funding Long-term Stewardship



- Usually entail the deposit of funds into a dedicated account
- Endowment managed by independent, qualified third party generally preferred by FWS
- Ensure the funds are legally restricted to the purposes and property for which they were extracted
- Ensure the mechanism used to manage the funds is based on legal, financial, and operational principles that provide the mechanism a strong statistical chance of persisting indefinitely
- How much funding is needed? How to size endowment?
- Endowment invested according to standards set in Uniform Prudent Management of Institutional Funds Act (“UPMIFA”).



# Topic 3: Data and Tools to Manage Mitigation Sites



- Infrared Photography
- Aerial Photography
- USDA Maps
- NRCS Soil Surveys
- USFWS National Wetland Inventory Maps
- USGS Topographic maps
- Conservations Maps
- FEMA Firm Maps
- Species Maps
- Vegetation Cover maps
- Forestry Surveys

# Topic 4: Implementation and Permitting with Resource Agencies

- Which agencies do I coordinate with?
- Species? Waters? Combinations?
- Interagency Review Team (IRT)
- How long should I allow for the Regulatory Process?

# Action Planning



- Each DOT articulates goals and steps needed
- List timeline of steps to meet DOT goals
- List resources, technical expertise, partnerships, and funding sources needed
- Briefly discuss any outstanding questions or anticipated challenges