Streamlining Section 7 Review

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Bridging Kentucky Goals

Purpose

• Improve safety/soundness of current Kentucky Bridges

Goals

• Deliver 1,000 bridges for construction within 6 years

• Deliver 400 bridges for construction within 2 years
Bridging Kentucky Overview

Statewide Initiative

• Distributed across the Commonwealth
• Bridges in all 120 counties
Section 7 Streamlining Approach

Typical Design Approach

- Same location
- Limited approach work
- Replacement
- Rehabilitation
Section 7 Streamlining Approach

Strong Relationships
Section 7 Streamlining Approach

Division of Work

- Firm responsibility by KYTC District
- Division by number of projects
- Additional division of workload based on survey needs
- All 12 KYTC Districts
- 98 counties
Section 7 Streamlining Approach

Use of Existing Agreements

Screening
- KYTC Habitat Assessment Manual

Non-species Specific
- No Effect Finding Forms

Bat Specific
- 4(d) Rule
- 2015 Interim Programmatic Agreement for Forest Dwelling Bats
Survey Methodology

Desktop Review

• Initial Project Screening

  ➢ Screening checklist

    ❖ Information for Planning and Consultation (IPaC)

    ❖ KYTC Bridge Inspection Photos

  ➢ Major/Minor Issues

  (flag projects which may affect schedule)
Habitat Assessments

Tools

• KYTC Habitat Assessment Manual
• Bats in Bridges Datasheet
• Site reconnaissance
• Water quality screening
• Visual screening

Results

• No effect
• Survey required
Surveys

Survey Plans

• Programmatic Survey Plans
  ➢ Fish/mussels
  ➢ Similar projects
  ➢ Reduced USFWS plan reviews
  ➢ Faster survey scheduling

• Site-specific plans
  ➢ Critical habitat
  ➢ Special Use Waters
  ➢ Crayfish
Reporting

• No Effect Forms – No T&E species habitat
  ➢ USFWS opportunity to review

• Batch Biological Assessments (Batch BAs)
  ➢ No T&E species found
  ➢ Bat habitat concerns addressed
  ➢ USFWS review up to 30 days
  ➢ Concurrence has been faster

• Re-initiation process
  ➢ Modification of project footprint
  ➢ Modification of project timing
Individual and Formal Consultation

• Site-specific Biological Assessments
  ➢ Critical Habitat

• Formal Consultation (Biological Opinions)
  ➢ T&E species found
  ➢ USFWS review – up to 165 days
  ➢ Efforts underway to shorten timeline

• Close, continuous coordination
  ➢ USFWS and design firms
  ➢ Report template, avoidance, minimization, conservation measures
## Streamlining Highlights

### Flora and Fauna Listed Species

<table>
<thead>
<tr>
<th>Taxa Surveyed</th>
<th>Number of Species</th>
<th>Total Surveys Completed</th>
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</thead>
<tbody>
<tr>
<td>Bats</td>
<td>4</td>
<td>All</td>
</tr>
<tr>
<td>Fish</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Crayfish</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Mussels</td>
<td>11</td>
<td>71</td>
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<tr>
<td>Plants</td>
<td>9</td>
<td>14</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>176</strong></td>
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</tbody>
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Streamlining Highlights

Agency Consultation

- 380 projects addressed in BA documents
- Largest batch BA contained 49 projects
- 12 projects with formal ESA consultation
- 221 projects with No Effect Findings
Jessamine County Bridge

Structural Assessment

- Box beam bridge built in 1983
- Tensioning rod failure and beam separation observed
- Superstructure replacement
- Project letting and construction proposed for fall 2019
Jessamine County Bridge

Agency Coordination and Bat Survey

- Bat signs and individuals identified
- No habitat for plants and mussels
- USFWS confirms known gray bat maternity colony
- One of few remaining maternity colonies in Bluegrass Region
- USFWS estimates 4,000 bats during maternity season
Jessamine County Bridge

Coordination and Reporting Timeline

- 3 / 2019 - Roosting locations mapped
- 4 / 2019 - Meet with USFWS & Bridging KY
- 4 / 2019 - Meet with project engineer
- 5 / 2019 - Platform inspection of bridge
- 6 / 2019 - First draft BA submitted
- 7 / 2019 - Final draft BA submitted
- 8 / 2019 - Final Section 7 approval
Jessamine County Bridge

Avoidance and Minimization Measures

• Construction timeframe limited to November 15 to March 31
• Typical erosion and sediment control measures
• Preconstruction platform bridge inspection
• Post-construction monitoring
• **BUILD A BAT BRIDGE** for recolonization of gray bats
Jessamine County Bridge

Building a Bat Bridge

• **ROOST RESEARCH**
  - Identify optimal thermal and roost spacing parameters
  - Coordination with other DOTs and well-known bat colony managers at bridge locations

• **TALK TO AN ENGINEER**

**Design Parameters**

• Box beam gap spacing of 1.5”
• Net increase of linear roosting area from 572’ to 762’
• Joint depths range from 9” to 34”
• Roosting volume increase from 133 ft³ to 218 ft³
• Stable and protected bat habitat for 30-year lifespan bridge design
Jessamine County Bridge
Public Outreach

BridgingKentucky.com