Crucial Habitat Assessment Tool (CHAT) and Wildlife Data

Presenters:

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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
The Eco-Logical On-Call Technical Assistance Tool is available for agencies to

- Request responsive, individualized guidance on Implementing Eco-Logical
- Submit ideas for webinars or other Eco-Logical Activities
FHWA has developed a Case Study on how Colorado DOT implemented Steps 7-9 of the nine-step Integrated Eco-Logical Framework:

- [https://www.environment.fhwa.dot.gov/ecological/ImplementingEcoLogicalApproach/Case_Study_CDOT.asp](https://www.environment.fhwa.dot.gov/ecological/ImplementingEcoLogicalApproach/Case_Study_CDOT.asp)
Development of Sustainable Strategies Supporting Transportation Planning and Conservation Priorities Across the West

A project of the Western Governors’ Association with support from the Federal Highway Administration
Participants

Report prepared by:
Western Governors’ Association

Center For Large Landscape Conservation

Western Transportation Institute – Montana State University

For the:
Federal Highway Administration

With Contributions from 16 State Transportation and Wildlife Agencies:
Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, Oklahoma, Oregon, South Dakota, Utah, Washington and Wyoming

And the
Western Association of Fish and Wildlife Agencies

Project field trip – wildlife overpass, Flathead Reservation, US 93, MT
Purpose

- Identify ways digital wildlife data support transportation
- Identify strategies that build a collaborative approach
- Enable more efficient, economic and sustainable transportation outcomes
Crucial Habitat Assessment Tool

Online at wafwachat.org

Crucial Habitat Assessment Tool
“The Governors encourage widespread use of CHATs by industry, the public, and state and federal agencies. Planners at all levels in the public and private sectors can use state CHATs as a ‘first look’ to help identify where states’ wildlife assets are located.”

-WGA Policy Resolution, State Wildlife Science, Data and Analysis

Governor John Hickenlooper (CO), WGA Chairman, introduces the Western Governors’ CHAT to the public at WGA’s 2013 Winter Meeting. Hickenlooper is joined by (L-R) Gov. Brian Sandoval (NV), Gov. Gary R. Herbert (UT), Gov. Steve Bullock (MT), Secretary of the Interior Sally Jewell, and Gov. C.L. “Butch” Otter (ID).
Key Points

- **Collaborative:** A cross-boundary tool, guided by the work of the Western Governors’ Wildlife Council representing 16 states.

- **Useful:** Pre-planning tool for energy, transportation, and land use planning.

- **Non-Regulatory:** The WG CHAT simply gives a 30,000-foot “first look” at wildlife habitat.
State Data Funneled into CHAT

NOTE: HabiMap ™ Arizona and the Western Governors’ CHAT do not show tribal lands in Arizona.
What is Crucial Habitat?

State Data Inputs
- State Fish Distribution
- SOC Observations
- SOC Habitat Models
- WGA Large Intact Blocks
- WGA Corridors Layer
- WGAESOC
- Big Game Habitat Models
- Regional Habitat Models
- National Fish Habitat
- Wetland Rest. database
- Connectivity

Combine into map layers using common framework
- Aquatic Species of Concern
- Terrestrial Species of Concern
- Native and Unfragmented Habitat
- Species of Economic and Recreational Importance
- Freshwater Integrity
- Wetlands
- Connectivity

Aggregated Crucial Habitat Layer

Crucial Habitat
Long Term Hosting

WESTERN GOVERNORS'
Crucial Habitat Assessment Tool
Mapping Fish and Wildlife Across the West

WESTERN ASSOCIATION OF FISH AND WILDLIFE AGENCIES
Crucial Habitat Assessment Tool
Mapping Fish and Wildlife Across the West

WAFWA Chat Coordinator: Holly Michael (holly.michael@wafwa.org)
Identifying Strategies

Four Major Components:

- Determine the use of CHATs via a Questionnaire
- Identify Best Management Practices and include case studies
- Explore nexus with FHWA’s Eco-Logical framework
- Identify Opportunities to use digital wildlife data in transportation
Questionnaire – who completed

TARGETS

Part 1: Leadership: department heads, decision makers

Part 2: Practitioners: biologists, environmental specialists, planners, engineers

RESPONSES

• All 16 state DOTs responded in both parts

• Part 1: 26 responses from states, FHWA and 5 federal land management agencies - USFWS, NPS, USFS, BIA, BLM

• Part 2: 28 responses from states, FHWA, USFWS, USFS, NPS, BIA, and tribal agencies
Use of regional and state CHATs – Leadership response summary

- Many transportation offices unaware of, and unfamiliar with, CHATs
- State CHATs tend to be used more, ranked more highly than the regional CHAT
- Many potential uses and users of CHAT information were identified

**Uses:**
- Planning
- Scoping
- Environmental studies
- Site assessment

**Users:**
- Environmental specialists
- Biologists
- Planners
Use of regional and state CHATs – Biologists, planners, engineers, etc. response summary

- States consider wildlife-vehicle collisions and game species more important than habitat quality and connectivity; feds responded conversely
- Majority of federal respondents were not familiar with CHATs
- 50%+ do not use regional CHAT – doesn’t meet their specific needs
- Ways to increase attention to wildlife: increase funding, early integration in planning

New Mexico state CHAT
1) Incorporate wildlife information before budgets are set
2) Set joint transportation and wildlife priorities
3) Employ a transportation-wildlife liaison
4) Expand the role of wildlife biologists
5) Use CHATs in mitigation planning
6) Invest in innovative technologies, research and monitoring
7) Increase use and understanding of CHAT websites
8) Use FHWA’s *Eco-Logical* approach to improve cooperation

Credit: P. Cramer, USU, UDWR and UDOT
I-80 CSMPS study area. Existing and proposed wildlife crossings in Nevada and Utah represented by red deer heads. Source: Nevada Department of Transportation
Red circles denote potential conflict areas. Source: Rouge Valley Council of Governments.
Best Management Practices

Key Next Steps

1) Update data regularly
2) Develop finer scale CHAT data
3) Improve integration of CHAT websites and other wildlife data sources
4) Expand CHAT outreach
5) Align highway safety and wildlife priority areas

US 93, Montana

SR 260, Tonto NF, Arizona
Matrix of Opportunities:
Completed by all 16 State DOTs

<table>
<thead>
<tr>
<th>MATRIX OF OPPORTUNITIES</th>
<th>STATE:</th>
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<tbody>
<tr>
<td></td>
<td>TYPE OF DATA AVAILABLE IN STATE: Regional CHAT, State CHAT, Other Digital Wildlife Data</td>
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<th>TRANSPORTATION PROCESSES</th>
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<td>Potential Use: High - H, Medium - M, Low - L, No - N</td>
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<td>Long Range or System Plans</td>
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<td>Programming, Funding, Internal Project Scoping (pre-STIP)</td>
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<td>Project Design, Environmental Review &amp; Public Scoping (post-STIP)</td>
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<td>Construction</td>
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<td>Operations</td>
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Opportunities

Results:
Regional CHAT

Greatest potential use:
- Pre- and post-STIP planning activities

Least potential use:
- Construction or operations

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Potential Use:

- Strategic Plans or Policies
  - N: Never
  - S: Sometimes
  - A: Always
  - N/A: Not applicable
- Long Range or System Plans
  - L-M: Low-Medium
  - M: Medium
  - H: High
- Construction
  - L: Low
  - M: Medium
  - H: High

*California indicated low to moderate use potential only for projects that cross state boundaries. If a project is completely intrastate, CA would use ACE (state CHAT).
Opportunities

Results:
State CHATs

Greatest potential use:

- Pre- and post-STIP activities
- Mitigation planning
## Opportunities

### Results:

Other data sources

**Greatest potential use:**

- Post-STIP activities
- Mitigation planning

![Table showing other digital wildlife data with potential uses and current usecategories.](image-url)
Opportunities

Future Needs Identified:

- Overcome institutional/cultural barriers within DOTs
- Increase state DOT ownership of wildlife values
- Increase communication/alignment between wildlife and transportation agencies
- DOTs and DOWs should set joint priorities
- Find better ways to fund wildlife mitigation
Eco-Logical

STEP 1: Collaboration
STEP 2: Eco Status
STEP 3: Develop REF
STEP 4: Assess REF
STEP 5: Prioritize
STEP 6: Crediting
STEP 7: Agreements
STEP 8: Implement
STEP 9: Update REF
4 Potential opportunities to use CHATs within the Eco-Logical framework:

Step 1  Build and strengthen collaborative partnerships
Step 2  Characterize resource status and integrate natural environment plans
Step 3  Create a Regional Ecosystem Framework (REF) (overlay of geospatially-mapped transportation plans with conservation priorities, land use, and other data)
Step 4  Assess effects on conservation objectives
Step 5  Establish and prioritize actions
Step 6  Develop a crediting system
Step 7  Develop programmatic consultation, a biological opinion or a permit
Step 8  Implement agreements, adaptive management and delivery projects
Step 9  Update the REF and plan
Top Opportunities to Strengthen CHAT ↔ Eco-Logical Nexus:

- Case Studies
- Webinars
- Peer learning exchanges
- Conferences and meetings
- Annual reports and other documentation
Future Steps:

- Increase CHAT outreach
- Explore CHAT data refinements
- Expand use of CHATs
- Assess if CHATs need modification
- Investigate DOT responses to opportunities matrix
- Strengthen the CHAT ↔ Eco-Logical nexus
- Overcome DOT cultural barriers to consider wildlife
- Increase funding for CHATs and wildlife mitigation
Next Steps for Western Association of Fish and Wildlife Agencies (WAFWA) and CHAT
Thank You!

Alaska
Arizona
California
Colorado
Idaho
Kansas
Montana
Nebraska
Nevada
New Mexico
Oklahoma
Oregon
South Dakota
Utah
Washington
Wyoming
Center For Large Landscape Conservation
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