

# Task Force on Ecology and Transportation Newsletter

Transportation Research Board Task Force ADC30T

Spring 2004

## From the Chair

Welcome to the first electronic newsletter for the Task Force on Ecology and Transportation. I have been impressed by the work of our subcommittees since the meeting in January. The Mission, Goals and Strategies document has come together well and I would like to thank those who developed this document. Mary, Peter, and Susan and others, thanks! We will be formally adopting this document at the Mid-Year Meeting in San Diego. I would also like to thank the Communications Subcommittee, particularly Marcia Bowen, who has worked to not only put together this newsletter, but also developed and updated the mailing lists. Marcia and Mary Gray have also provided sound counsel to help me keep things going with the Task Force. Last, but certainly not least the Programs Subcommittee has been busy with the Mid-Year meeting and initial planning for the TRB Annual Meeting in January. Alison Berry, Sandy Jacobson, Trisha White, Joe Burns and Amanda Hardy (who was unofficially drafted to help) have been adapting to overcome shifting priorities with the programs and things are coming together well. Sheila Mone has also helped us as she developed and planned the Mid-Year Meeting for the host State of California and ADC10, the Committee on Environmental Analysis in Transportation.

At the Mid-Year Meeting we should be able to get the remaining subcommittees underway to develop their own strategies and begin to implement them. The Research Subcommittee may have some interesting challenges since we will be partnering with the ICOET Planning Committee in their reorganized structure to address research needs for both groups. This may be the tie that binds ICOET to TRB more closely in the future. This concept is still in the planning stages and will be more fully developed over the next year as planning for ICOET 2005 moves forward. If you can help with paper reviews for the Annual Meeting, let Doug Smith (smithdo@pbworld.com) know before August.

Last, but not least I would like to thank the members who have worked on all of the above tasks, but weren't mentioned above, and, most of all, I want to thank Kim Fisher, our TRB staff representative, for answering my many questions and providing help with moving the Task Force forward. See you in San Diego!

## California Here We Come!

Excitement is building as we plan for our mid-year workshop in sunny San Diego. This year's theme is *Collaboration: Improving Mobility and the Environment*. Sessions will highlight case studies and opportunities for collaboration among agencies, public and

private sectors, and the academic community, to further the goal of improving both mobility and the environment. Our CalTrans hosts, along with the new U.C. Davis Road Ecology Center, are planning sessions that promise to enlighten us on innovations from the "left" coast. The workshop will be truly multimodal, as we join the subcommittee on "Environmental Issues Related to Guided Intercity Passenger Transportation" (AR020(1) along with our parent committee "Environmental Analysis in Transportation" (ADC10). Mark your calendars for August 16-19 and check the website : <http://www.cevs.ucdavis.edu/cofred/public> (select "Professional Conferences") for updated program information, meeting registration and hotel accommodations. See you there!

## January Meeting a Success!

The night was late! The acoustics were abominable! We shared an open room with four other committees! But that didn't stop our Task Force from getting energized, mobilized and organized. In our first meeting as an official TRB task force, Chair Tom Linkous skillfully led the group in creating the necessary structure to implement our mission. Subcommittees were formed (see guide below), and tasks assigned. FHWA's Fred Banks gave an update on SAFETEA and the status of various FHWA initiatives; Amanda Hardy (Western Transportation Initiative), Alison Berry (UC Davis Road Ecology Center) and Trish White (Defenders of Wildlife) reported on various initiatives underway in their organizations. John Fischer, CTE, generously offered to support the Task Force as they have for ADC10. The meeting was adjourned with a feeling of accomplishment - that we had taken a huge step towards becoming an effective task force.



*Enthusiastic Faces at January 2004 meeting of Task Force on Ecology and Transportation.*

## Who's Who: Subcommittee Organization (as of January 2004)

Steering Committee	Mary Gray (chair), Doug Smith, Pete Dodds, Susan Hagood, Bill Branch, Deb Nelson, Marcel Huiljser.
Meetings and Programs Committee	Joe Burns (chair), Trish White, Alison Barry. Alex Levy —paper review
Communications Committee	Marie Venner, Marcia Bowen (co chairs)
Liaison Committee	Amanda Hardy (chair), Alex Levy, Marcia Bowen
Research Needs Committee	Doug Smith (chair), Susan Hagood, Peter Dodds, Robert Goo, Paul Garrett, Lars Carlson, Jan Mueller, Dave Sullivan, Sandy Jacobson.

## Task Force on Ecology and Transportation: Mission, Goals and Strategies

The steering committee has been busy creating a mission and scope for the Task Force, summarized below. We expect to finalize this at the mid-year meeting. A synopsis is provided below.

### Mission and Scope

The mission of the Task Force is to integrate ecologically sound principles into transportation decision-making. The Task Force is focused on developing and sharing solution-oriented applications and best management practices in the field of ecology and transportation with participants in TRB meetings, the International Conference on Ecology and Transportation, and other transportation and environmental meetings. The Task Force strives to continually identify and act upon information and research needs in ecology and transportation.

### Task Force Goals

#### Goal One

Identify ecology and transportation research and information needs.

#### Strategy

Coordinate with ICOET and appropriate institutions, such as the UC Davis Road Ecology Center, to identify research gaps and then solicit research problem statements, which will feed into the natural resources section of TRB's publication entitled "Transportation Environmental Research Needs."

#### Goal Two

Collect and disseminate ecology and transportation research results, solution-oriented applications, and best management practices.

#### Strategy

Exchange information, present research and identify emerging ecological issues as they relate to transportation in professional meetings, including annual and mid-year TRB meetings and the International Conference on Ecology and Transportation as well as an annual newsletter.

#### Goal Three

Integrate ecological issues into transportation projects at the earliest stage of development of each project.

#### Strategy

Maintain a database of contemporary examples of the integration of ecological issues in early transportation development; develop a list of state and FHWA environmental managers, as well as a list of existing state conservation plans; sponsor workshops, special purpose meetings, conferences and training sessions focused on integration of ecological principles in transportation planning; develop and maintain a liaison with the AASHTO Center for Environmental Excellence.

#### Goal Four

Maintain an active, geographically and organizationally diverse Task Force whose members are committed to working toward the accomplishment of the Task Force mission.

#### Strategy

Annually review Task Force membership to identify gaps in expertise and/or representation and problems with membership numbers, terms, and levels of participation; assign each Task Force member the responsibility of identifying highly qualified potential members and providing these names to the Task Force chair; charge each Task Force member with volunteering a minimum of 30 hours per year toward accomplishment of the mission and goals of the Task Force; encourage each Task Force member to share relevant information from Task Force meetings, sessions and conferences with members of their own agencies and organizations.

Thanks to Mary Gray, Susan Hagood,

# Liaisons share information to help Task Force grow into niche, set roots

*By Liaison Subcommittee Chair, Amanda Hardy, Western Transportation Institute at Montana State University*

Given that “ecology” is the study of how organisms interact with their surrounding environment and other organisms (i.e., the study of how everything interacts with everything else), it is not surprising that the Task Force on Ecology and Transportation has a long list of opportunities to coordinate with other TRB committees. Ecological issues and transportation research are truly interdisciplinary, involving natural and physical sciences as well as socioeconomic and political sciences; the prospects for Task force members and friends to intermingle as liaisons to other related groups seem endless.

Greetings, Task Force Members and Friends! It’s your friendly Liaison Subcommittee Chair working to inspire each of you to consider being a liaison between our fledgling Task Force and your other TRB interests. Coordination with other committees or subcommittees with interests in similar topics is an important goal of the Task Force on Ecology and Transportation. By planting liaisons in other committees, we can sow the seeds of awareness of our Task Force while also thinning the amount of duplication of efforts. Communication between committees and subcommittees will help the Task Force grow and set roots as a subcommittee of our parent committee (ADC10 Committee on Environmental Analysis in Transportation).

The role of a liaison is to share information between TRB committees via email, newsletters, and/or by presenting a short overview of the other committees’ activities and upcoming events. Liaisons need not be Task Force members or Committee members. If you are a regular attendee of committee meetings or follower of groups with overlapping interests with the Task Force, your only responsibility as liaison would be conveying information between the two groups.

Many of us are already serving as Task Force liaisons. Alex Levy is Chair of A3B05(2) Subcommittee on Animal-Vehicle Collisions and has been closely coordinating with the Task Force. While a number of us follow and relay information from ADC10 Committee on Environmental Analysis in Transportation, I serve as the “official” liaison between the Task Force and that Committee. If you are already coordinating with other committees, we would like to recognize you if you are willing to volunteer as the “official” liaison to your respective groups; please send your contact information to me, along with your group’s new TRB designation number, the name of the current Chair, and any news that you wish to share with the Task Force. Thank you to those of you that recently volunteered to serve as liaisons. They are listed below, along with their news from abroad

Sean Furniss, Task Force on Transportation Needs of National Parks and Public Lands (ADA40T)

- o The ADA40T Task Force has scheduled its mid-year meeting for July 21-22 at Glacier National Park in Montana. The Task Force has issued a call for papers on the following topic areas for the January 2005 TRB meeting: Alternative Transportation Systems in National Parks and Public Lands; New Transit and Shuttle Bus Systems In National Parks and Public Lands; ITS in National Parks and Public Lands; Coordinated Planning Activities for Federal, State, and Local Agencies and Gateway Communities; Innovative Institutional Partnerships and Funding Strategies; Transportation and Context Sensitive Design; Bicycles, Pedestrians, and Non-Motorized Transportation in Parks; Economic and Social Impacts of Alternative Transportation Systems on Gateway Communities; and The Influence of Transportation on the Quality of Visitor Experience: Research Measures and Methods. For more information and to obtain the meeting agenda, please contact Sean Furniss at Sean\_Furniss@fws.gov.

- Jan Muller, Committee on Hydraulics, Hydrology, and Water Quality (A2A03)
- Brian Smith, TRB Committee on Physiochemical Phenomena in Soils (A2L03)
  - o The A2L03 Committee will be doing a bioengineering session at the next meeting. More details to come later.
- Marcia Bowen, Committee on Environmental Effects of Aviation (AV030), Environmental Issues Related to Guided Intercity Passenger Transportation-Subcommittee, AR020(1) , and Task Force on Marine Environment.
  - o There has been a lot of excitement in the Committee on Environmental Effects of Aviation (AV030) about the newly created Aviation Cooperative Research Program. The committee has been focusing on its six priority environmental issues for airports: noise, environmental process, technology development, methodology/tools, water quality and air quality. A soon-to-be completed report summarizing these issues is hoped to be a springboard for research topics. The committee will focus on finalizing the report and developing research statements at its mid year meetings, which are being held at the Port of Oakland on June 21/22,

We hope you will help us network within TRB by volunteering to be a liaison. We look forward to learning more about other TRB news and activities that affect ecological issues in transportation and the advancement of the Task Force on Ecology in Transportation.

# Research News!

## Evaluation of Wildlife Crossing Structures on US Highway 93 in Montana

By Dr. Marcel Huijser, Western Transportation Institute, Montana State University

On December 20, 2000 the Confederated Salish and Kootenai Tribes (CSKT), the Federal Highway Administration (FHWA), and the Montana Department of Transportation (MDT) signed a Memorandum of Agreement for the reconstruction of US Highway 93 on the Flathead Indian Reservation from Evaro to Polson, Montana. Because wildlife is important to the CSKT natural and cultural heritage, reducing the negative effects of the highway on wildlife was a major consideration in the reconstruction of US Highway 93. The project will include 42 wildlife crossing structures and wildlife-proof fencing for an estimated nine million dollars. The magnitude of this effort is unprecedented in North America and offers an excellent opportunity to evaluate the effectiveness of wildlife crossing structures in a rural environment that includes agricultural, business, residential, and recreational uses and activities.



Photo 1: Whisper Maillet, a graduate student at MSU, checks for animal tracks on one of the sand tracking beds along US Highway 93. Whisper has received a graduate fellowship from WTI-MSU and the Wildlife Conservation Society

The Western Transportation Institute (WTI-MSU) at Montana State University has been contracted by MDT to evaluate the effectiveness of the mitigation measures. The study aims to evaluate how effective the mitigation measures are in reducing the number of animal-vehicle collisions. In addition, the study evaluates whether deer and black bears continue to cross the road by using the wildlife crossing structures. WTI is currently collecting preconstruction data on animal crossing rates. More than 60 sand tracking beds have been placed alongside the road to estimate the number of deer and black bear crossings. In 2003 more than 1100 deer tracks and nearly 100 black bear tracks were recorded (Figure 1). Other activities include



Photo 2. A footprint of a black bear in one of the sand tracking beds

the development of best management practices based on experiences encountered during the design, construction, maintenance, and monitoring of the mitigation measures to provide guidance for further research and future projects.

For further information, contact Amanda Hardy or Marcel Huijser, Western Transportation Institute, Montana State University, 416 Cobleigh Hall, Bozeman, Montana 59717. email: [ahardy@coe.montana.edu](mailto:ahardy@coe.montana.edu), Phone: 406-994-2322, Fax: 406-994-1697

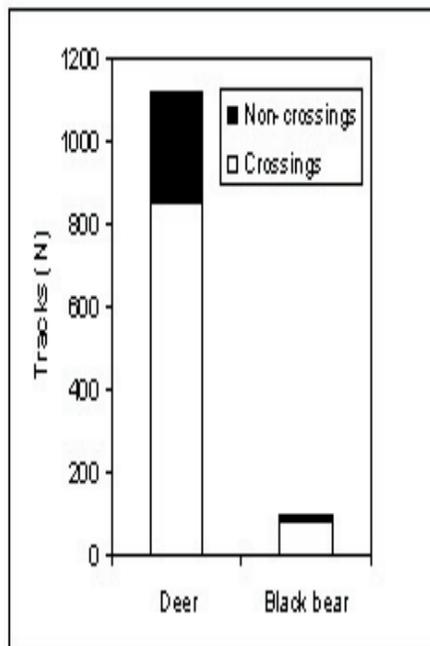


Figure 1. The number of deer (white-tailed and mule deer combined) and black bear tracks encountered on the sand tracking beds in 2003.

## Help Wanted!

One of the new projects in the TRB's National Cooperative Highway Research Program's 2005 program will involve a study of the barotraumatic impacts of pile driving on fish. NCHRP panels typically meet 3 times over about a two year period, developing a Request for Proposals, reviewing and selecting a winning contractor, and reviewing an interim report. Most or all of the meetings will take place in Washington, D.C. and all travel expenses are paid by the NCHRP. If any member is interested, submit a resume by return e-mail to Chris Hedges ([CHedges@nas.edu](mailto:CHedges@nas.edu)), National Cooperative Highway Research Program, 202/334-1472

# Call for Papers

Transportation Research Board  
2005 Annual Meeting  
January 9-13, 2005  
Washington, DC

## Task Force on Ecology and Transportation (ADC30T)

### Theme: Ecological Solutions

The TRB Task Force on Ecology and Transportation, ADC30T, is planning a paper session for the 2005 Annual Meeting in Washington, DC. **WE NEED YOUR HELP:** If you have, or know of anyone who has research, or a project meriting presentation, please consider the TRB Annual Meeting as your venue to share your efforts and knowledge with our members and friends. More specific areas or topics of particular interest to the Task Force include:

1. Habitat fragmentation and connectivity issues;
2. Wildlife crossings;
3. Aquatic habitat and natural design principles for streams;
4. Fish and aquatic organism passage;
5. Riparian corridors and hydrologic processes;
6. Secondary and cumulative impacts on ecological resources;
7. Endangered species mitigation and conservation;
8. Mitigation monitoring;
9. Streamlining transportation planning through the use of mitigation BMPs;
10. Hydroacoustic impacts and their mitigation in aquatic habitats.

Please indicate ADC30T on the Submission Review form to indicate that the paper is being submitted in response to this call for papers.

Papers can be submitted from early June until August 1, 2004, which is the final date to submit papers to the TRB Electronic Submittal Website (for peer review).

Check out the TRB website at [www.trb.org](http://www.trb.org). For additional information regarding the Annual Meeting, on authoring a paper, and the TRB Electronic Submittal Website can be found, specifically at: <http://www4.trb.org/trb/annual.nsf>.

In addition, authors who have submitted papers are requested to send the paper number and title to the TRB Task Force on Ecology and Transportation by August 3, 2004 to [smithdo@pbworld.com](mailto:smithdo@pbworld.com).

For additional information, contact Doug Smith at: E-mail: [smithdo@pbworld.com](mailto:smithdo@pbworld.com), Phone: 919-468-2129

## Tidbits

### National Research Council Conference, "Introducing Sustainability into the Transportation Planning Process."

Member Richard Forman will be a panel presenter on Road Ecology at the National Research Council Conference, "Introducing Sustainability into the Transportation Planning Process" (Baltimore July 11-13, 2004).

The feature article in the May 2004 issue of *Environment* (and cover photo) is "Road Ecology's Promise: What's Around the Bend", authored by member Dr. Richard Forman. Dr. Forman outlines the evolution of road ecology, and provides an excellent, readable summary for those just getting into the field. In it, he mentions the formation of our Task Force (thank you Dr. Forman!)