

# Committee on Ecology and Transportation Newsletter

Transportation Research Board Committee ADC30

Fall/Winter 2007

## Notes from the Chair

*Tom Linkous, Chair*

Spring was eventful for those interested in transportation ecology. In May the fourth International Conference of Ecology and Transportation was held in Little Rock, Arkansas. The conference was well attended with representation from 14 countries and over 330 registered attendees. Our Ecology and Transportation Committee business meeting was held on Tuesday evening and was attended by 27 members and friends (more on that later). The presentations and sessions were excellent and the conference feedback from both participants and the organizing committee was very positive. Two items of note from the post conference debriefing are that the 2009 ICOET will be held in Minnesota and Frank Pafko (MNDOT), who is well known to many of us as a past member of ADC10 and an active member of the AASHTO SCOE Ecological Subcommittee, will be involved in hosting ICOET in 2009.

Two items really made an impression on me at ICOET. First, I was very impressed by the quality of science being reported in the presentations and second, I was awakened to the issue of global warming and the potential interplay between ecological effects of global warming and transportation ecology by an excellent CalTrans/UC Davis seminar. The way we handle impacts related to transportation facilities has the potential to exacerbate or ameliorate the ecological consequences of global warming. Providing for permeability of the transportation network could help facilitate movement of species in response to long-term climate changes, while the introduction of wide ranging, tolerant and invasive species along transportation corridors and in ports and harbors are two examples of transportation related issues which are at the opposite end of the spectrum. We will be hearing much more about this topic in the future and we need to be active participants in research and information dissemination on road ecology aspects of global warming.

Our business meeting was limited to primarily planning for the next TRB Annual Meeting in January, 2008 and working with Sandy Jacobson and our Research Subcommittee to develop research needs statements for TRB's new research needs web site. The Research Subcommittee has successfully posted several research statements to TRB's research needs web site. It is my understanding that the site will be rolled out

later this summer. The Research Subcommittee is continuing to identify research needs and could still use suggestions from members or friends.

Annual Meeting Update: ADC30 is cosponsoring two workshops and three paper/conference sessions as well as our business meeting. The program includes:

- Integration of Planning and Environmental Analysis in Transportation – Workshop;
- Cutting Carbs in the Transportation Sector: International Efforts to Address Global Climate Change – Workshop;
- Partnerships Toward Ecological and Cultural Stewardship: Application of Geospatial Tools and Practices to Implement SAFETEA-LU – Paper Session;
- Transportation Operations and Ecology: Working In and Over Water – Conference Session;
- Transportation-related Environmental Issues in Parks and Public Lands – Paper Session;
- Ecology and Transportation Committee – Business Meeting.

Thanks are due to Joe Burns and Deb Nelson, who developed our program. Details on the schedule for the Annual Meeting will be available in November and we will forward this information to members and friends as soon as it is available. Registration for the meeting is underway and you should be aware that for the first time, conference room reservations can be made at the same time as registration. Advance registration ends November 30, so mark your calendars!

Summer meeting planning is underway and ADC30 will be meeting in the Denver, Colorado vicinity, likely in the second half of July. The Committee on Environmental Analysis in Transportation (ADC10), chaired by Mark Kross, and the Committee on Transportation Needs of National Parks and Public Lands (ADA40), chaired by Carol Zimmerman, will be cosponsoring this meeting. Brian Yanchik has stepped up to chair ADC30's Summer Workshop Subcommittee and is working with the other committees on details.

I hope your summer has been as enjoyable as mine and I hope to see you at the Annual Meeting, January 13 – 17, 2008.

## New Handbook Demystifies Transportation for Conservation Advocates

*By Patricia White and Jesse Feinberg, Defenders of Wildlife*

Committee member Patricia White has authored a new book *Getting Up To Speed: A Conservationists Guide to Wildlife and Highways*. The handbook is an information guide for the lay public—particularly environmental advocates—on highway planning, policies and procedures.

*Getting Up To Speed (GUTS)* is divided into four sections:

**Law, Policy and Governance** describes the legislative and regulatory framework associated with our transportation infrastructure, including the highway bill, funding, research and management of roads on public lands.

**Anatomy of a Road** illustrates the life cycle of a road project, from the planning process to environmental review, through construction and long-term maintenance.

**Natural Environment** provides greater detail about transportation policies and practices specifically related to wildlife, roadside vegetation and aquatic resources.

**Advocacy** outlines helpful hints for conservation advocates and showcases some of the best examples of successful organizations and campaigns.

Harvard University's Dr. Richard T. T. Forman, friend of the Committee and author of the seminal book *Road Ecology: Science and Solutions*, said "GUTS has demystified the world of transportation for you, providing new discoveries at every turn. Conservationists and transportation experts alike will find a goldmine of elucidations and opportunities for new partnerships. Indeed, if you absorb but a tenth of this information, you are a dangerous opponent to the status quo".

Defenders Habitat and Highways Campaign works to reduce the effects of surface transportation on the nation's wildlife and natural resources by restoring habitat connectivity across existing highways and by preventing future habitat loss to unwise and unnecessary road building.

GUTS is available online at <http://www.GettingUpToSpeed.org>. Copies of the book are available free of charge to non-profit wildlife conservation advocacy organizations. Government agencies and private companies may purchase hardcopies for \$25 each.

## The Left Coast Leads the Way

On June 7, 2007, Caltrans marked a historic moment by signing the SAFETEA-LU Section 6004 Memorandum of Understanding (MOU), becoming the first Department of Transportation in the nation to be assigned formal responsibilities for Categorical Exclusion (CE) determinations by the Secretary of the U.S. Department of Transportation. Under the provisions of the MOU, Caltrans assumes legal responsibility and authority for determining CEs in the same manner as FHWA: all actions must comply with applicable Federal laws and FHWA regulations, policies and guidance. Section 6004 also allows Caltrans to assume FHWA's responsibilities for coordination and consultation under other federal environmental laws such as the Endangered Species Act, Clean Water Act, and National Historic Preservation Act.

Caltrans' assumption of FHWA's CE responsibilities under Section 6004 will streamline the federal environmental review process for categorically-excluded transportation projects by eliminating FHWA's project-by-project review and approval. Caltrans will apply federal environmental requirements in the same manner that FHWA does now, maintaining FHWA's rigorous environmental standards.

Categorical Exclusions (CEs) are a category of NEPA actions that do not have a significant individual or cumulative effect on the environment. If a project is determined to be categorically excluded, preparation of a NEPA document (an environmental impact statement or an environmental assessment) is not required. Categorically excluded projects must still comply with the permitting and consultation requirements of other federal environmental regulations, which may require the development of avoidance, minimization, or mitigation strategies, if any are necessary.

FHWA defines its CEs in regulations at 23 CFR 771.117, where they are divided into two groups based on a transportation project's potential for environmental effects: The first group, listed in 23 CFR 771.117(c) (called the "c" list), consists of actions that almost never cause significant environmental impacts, for instance, minor construction activities such as bicycle lanes or landscaping. These actions are automatically classified as CEs, except where "unusual circumstances" occur. Unusual circumstances can occur, for example, if a project is controversial on environmental grounds or if it is determined that a project involves significant environmental effects. If significant environmental effects are involved, an environmental document must be prepared.

The second group, listed in 23 CFR 771.117(d) (the "d" list), are examples of actions that normally do not result in significant environmental effects, but for which studies must still be prepared to document that a specific project will not result in a significant environmental effect.

In 1990, FHWA and Caltrans signed a Programmatic CE Agreement (PCE) that provided advanced approval for

decisions on certain types of categorically excluded projects. Caltrans had project-by-project approval authority for these PCE projects, with no need for project-specific FHWA review or approval. However, FHWA still had to approve those projects that did not qualify as PCEs. The Section 6004 MOU gives Caltrans the approval for all CE.

### Scope of CE Responsibility

Under Section 6004, Caltrans will assume responsibility for approving CEs on the “c” list and those CEs listed as examples on the “d” list. In addition, states may propose additional actions that qualify as CEs under the “d” list, provided that documentation is presented to FHWA justifying these additions. Caltrans added seven additional actions as categorical exclusions. Caltrans developed the proposed additions based on reviewing the types of activities that FHWA and Caltrans have historically approved as CEs in California. Appendix A of the Section 6004 MOU lists the additional CE actions. For projects that are not on the

“c” or “d” list or the Appendix A list, but for which a CE classification is appropriate, Caltrans will assume responsibility under the Section 6005 Surface Transportation Project Delivery Pilot Program.

### Waiver of Sovereign Immunity

Under the CE assignment and the NEPA delegation pilot program, the State is assuming sole responsibility and liability for its NEPA actions and decisions and is subject to Federal court jurisdiction. To do this, California waived its 11th amendment right to sovereign immunity against actions brought by its citizens in federal court for the narrow purposes of the pilot program. The waiver was enacted as part of AB 1039 in the spring of 2006 and became effective in November 2006 when the transportation bond (Proposition 1B) was passed by the voters. For more information, see

[http://www.dot.ca.gov/hq/env/nepa\\_pilot/html/categorical\\_exclusion.htm#draft6004mou](http://www.dot.ca.gov/hq/env/nepa_pilot/html/categorical_exclusion.htm#draft6004mou).

## ADC30 is now on the Web

By Christopher G. Gesing, P.E., Michael Baker Jr., Inc.

On March 30, 2007 the ADC30 Ecology and Transportation Committee’s official web site went “live” on the World-Wide-Web. The web site is a digital repository of information about the Committee as well as news and information of general interest on ecological issues as they relate to transportation.

The web site contains information on the Committee Membership; Mission; Subcommittee Goals and Objectives; current and past newsletters, business meeting minutes and other Committee business. The web site also contains information on sponsored conferences; past conferences, including presentations/proceedings; and links to other TRB Committee and ecology-related web sites. A ListServ feature facilitates communication among the members and friends of the regarding committee activities and sponsored events. Information on the web site, including the Committee newsletter, is downloadable.

Thanks to Marcia Bowen, Joe Burns, Amanda Hardy, and Mary Gray, the Subcommittee Chairs, for their input on the web site design and context and to Michael Baker Inc. for maintaining the web site content. Special thanks to Tom Linkous, Chair, for his invaluable ideas and for bringing this group together.

This is your web site, and it is only as good as you make it. Pass along comments, links and conferences of general interest to the membership to Tom or one of the Subcommittee Chairs.

We appreciate the assistance of the Center for Transportation and the Environment (CTE) at North Carolina State University for hosting the ADC30 web site at <http://www.itre.ncsu.edu/ADC30/default.htm>.

Chris Gesing  
ADC30 Web Master

**ECOLOGY AND TRANSPORTATION COMMITTEE** **TRANSPORTATION RESEARCH BOARD**

**ADC30 Committee**

TRB Home Members ListServ Links / Resources Newsletters Documents Other Committees Conferences

Welcome to the Transportation Research Board ADC30 Committee web site. Here you will find information about upcoming events and meetings, recent news, general information and downloadable documents associated with ADC30.

**Mission and Scope**

The mission of the Ecology and Transportation Committee is to stimulate research and communicate the results of recent and ongoing research to and throughout the transportation community; engage in research, planning, evaluation, education and outreach associated with sound ecological principals and designs; and integrate ecologically sound principles into transportation planning, decision-making, and design.

The TRB 87th Annual Meeting will be held January 13-17, 2008 in Washington, DC. [Online Registration](#) is now open! The [Meeting Announcement](#) contains general workshop, meeting registration, and hotel reservation information.

Check out the [Conferences Page](#) often for information on future and past conferences, including announcements, highlights, agendas and presentations.

**Get Acrobat Reader**

Acrobat Reader is needed to view many portions of this site please download the Acrobat Reader

*This committee stimulates research in transportation ecology and communicates the results of recent and ongoing research to and throughout the transportation community. It engages in research, planning, evaluation, education and outreach associated with sound ecological principles and designs, and strives to integrate ecologically sound principles into transportation planning, decision-making, maintenance and design.*

Please contact the [webmaster](#) with any comments or difficulties regarding this site.

**News and Information**

- [ADC30 Goals](#)
- [Winter 2006 ADC30 Newsletter](#)  
[Download PDF Newsletter here](#)
- [TRB re-organizes and renames](#)  
[Download New TRB Cio Chart](#)  
[TRB Mission Statement](#)

**Events/Meetings**

- [87th TRB Annual Meeting](#)  
January 13-17, 2008  
Washington, DC

# Habitat Cores and Landscape Corridors: a New Tool for Virginia DOT's use in Project Planning and Environmental Scoping

*By Bridget Donaldson, Research Scientist, Virginia Transportation Research Council*

As the result of a collaborative effort between the Virginia Transportation Research Council and the Virginia Department of Conservation and Recreation (VDCR), Virginia Department of Transportation (VDOT) will feature a new environmental tool in its GIS applications. Created by VDCR, this GIS tool, the Virginia Natural Landscape Assessment (VANLA), identifies large patches of natural land cover (habitat cores) and the habitat linkages connecting these areas (landscape corridors). This analysis can be integrated into VDOT's existing GIS applications for access by staff involved with transportation planning and environmental scoping activities. Analyzing a proposed project with this tool in the early stages of project development will allow VDOT to identify important natural resource areas and wildlife corridors to avoid or for which mitigation may be appropriate or necessary.

VANLA is a landscape-scale GIS analysis for identifying, prioritizing, and linking natural lands in Virginia. This work was guided initially by ecological assessments conducted for other states and regions, most notably the Maryland Green Infrastructure Assessment and the Chesapeake Bay Resource Lands Assessment. Using land cover data derived from satellite imagery, VANLA identified unfragmented ecological units called cores. Cores are large patches of one or more natural land covers with at least 100 acres of interior cover. Large, medium, and small cores, as well as a smaller feature type called habitat fragments that may be important in the

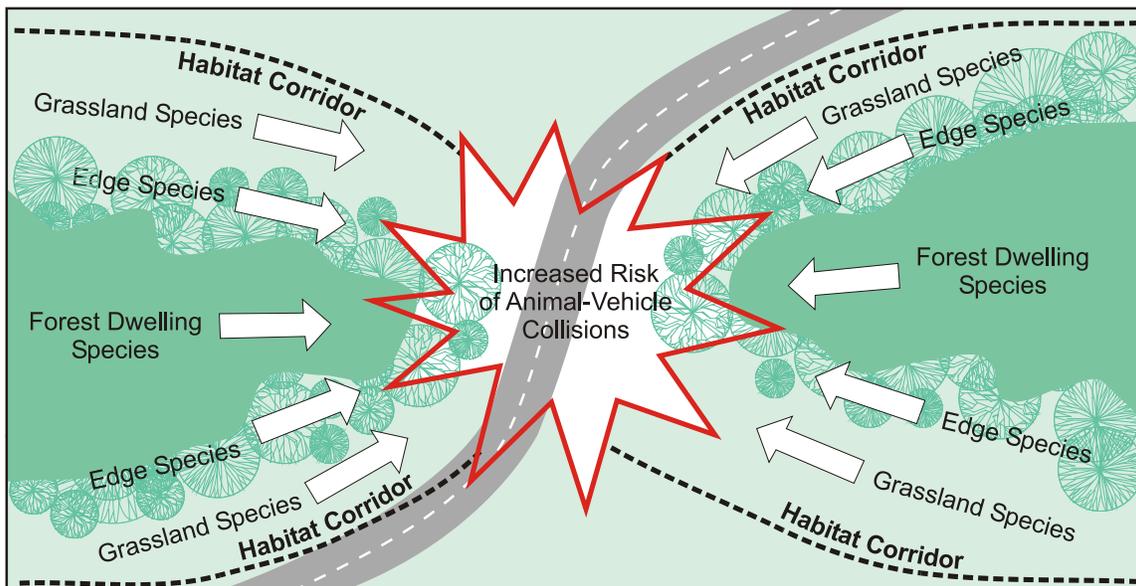
more urban localities, have been identified and mapped. Cores provide habitat for a wide range of species, from species dependent upon interior forests to generalist species that use many different ecological communities.

Landscape corridors are strips of natural cover that traverse the matrix of largely anthropogenic land covers to connect cores to each other. Corridor development required least-cost path analysis to identify the best corridor routes between cores. Least-cost paths in this analysis were defined as the shortest distance through the most suitable land covers for wildlife use and movement. The corridors model combines various landscape parameters, including land cover, urban proximity, riparian forest, roads, slope, core priority, interior forest, and offshore water. A suitability layer was created that represented impedances, the degree to which landscape features inhibit wildlife use and movement.

Providing this environmental tool to VDOT can result in fewer project delays, promote collaboration between VDOT and state natural resource and regulatory agencies, and comply with the directives of the new habitat conservation provision in the SAFETEA-LU. In addition, basing particular project decisions on a project's location relative to a habitat corridor can decrease the risk of costly animal-vehicle collisions.

For further information, contact Bridget Donaldson, Virginia Transportation Research Council, Charlottesville, VA 22903. Email: [Bridget.Donaldson@VDOT.Virginia.gov](mailto:Bridget.Donaldson@VDOT.Virginia.gov), Phone: 434-293-1922, Fax: 434-293-1990.

■ see HABITAT CORES Photo 2 on page 6



*Photo 1. A VANLA GIS image depicting two habitat cores connected by a landscape corridor.*

## Research Needs in Aviation

By Marcia Bowen

Many of us are so focused on highways that we forget that other modes often have research areas that are relevant to our own practices. The Committee on Environmental Impacts of Aviation developed 29 research needs problem statements for submittal to the 2008 Airport Cooperative Research Program (ACRP). The ACRP, authorized in 2003, became part of the TRB research program in 2005. Its goal is to “solve common operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the airport industry”. FAA is the program sponsor, with a governing board that includes representatives from airport operating agencies, other stakeholder, and relevant industry organizations, and TRB as program manager. The proposed research areas revolve around air, noise, and water, along with general environmental issues. There is a strong nexus with the Ecology and Transportation Committee in the area of water and wildlife. Water quality is an important issue at airports, particularly as it relates to stormwater runoff. Stormwater from runways can contain heavy metals, petroleum byproducts, and spent de-icing and anti-icing fluids. Runoff can lead to diminished water quality, and in the specific case of de-icing fluids, increased biochemical oxygen demand and proliferation of nuisance bacteria. Compliance with the National Pollution Discharge Elimination System (NPDES) requirements, including its stormwater program, often includes preventative measures as well as the use of Best Management Practices (BMPs). BMPs can create new issues related to wetlands and wildlife. BMPs frequently include bio-measures such as bio-swales, grassy filter strips, treatment wetlands. These “water detention” methods, while improving stormwater quality, attract various forms of wildlife. Birds and especially waterfowl create a safety hazard (BASH or Bird Aircraft Safety Hazards) to airplane operations. On-site wetland mitigation can also attract birds and waterfowl, further exacerbating. There is a strong research need on balancing water quality improvements while minimizing wildlife hazards. Vegetation management practices can also create ecological issues. Airports were often constructed in flat, low lying areas, which often are in or adjacent to wetlands. Therefore, airport improvements and expansions often involve tree clearing in forested wetlands. It is unclear how these activities affect adjacent hydrology, which has a bearing on wildlife attraction and BASH. Finally, there is overarching interest in the effects of airport improvements on wetlands and wildlife, and whether mitigation efforts have been effective. These topics clearly demonstrate how our committees can benefit from information sharing and collaboration across modes.

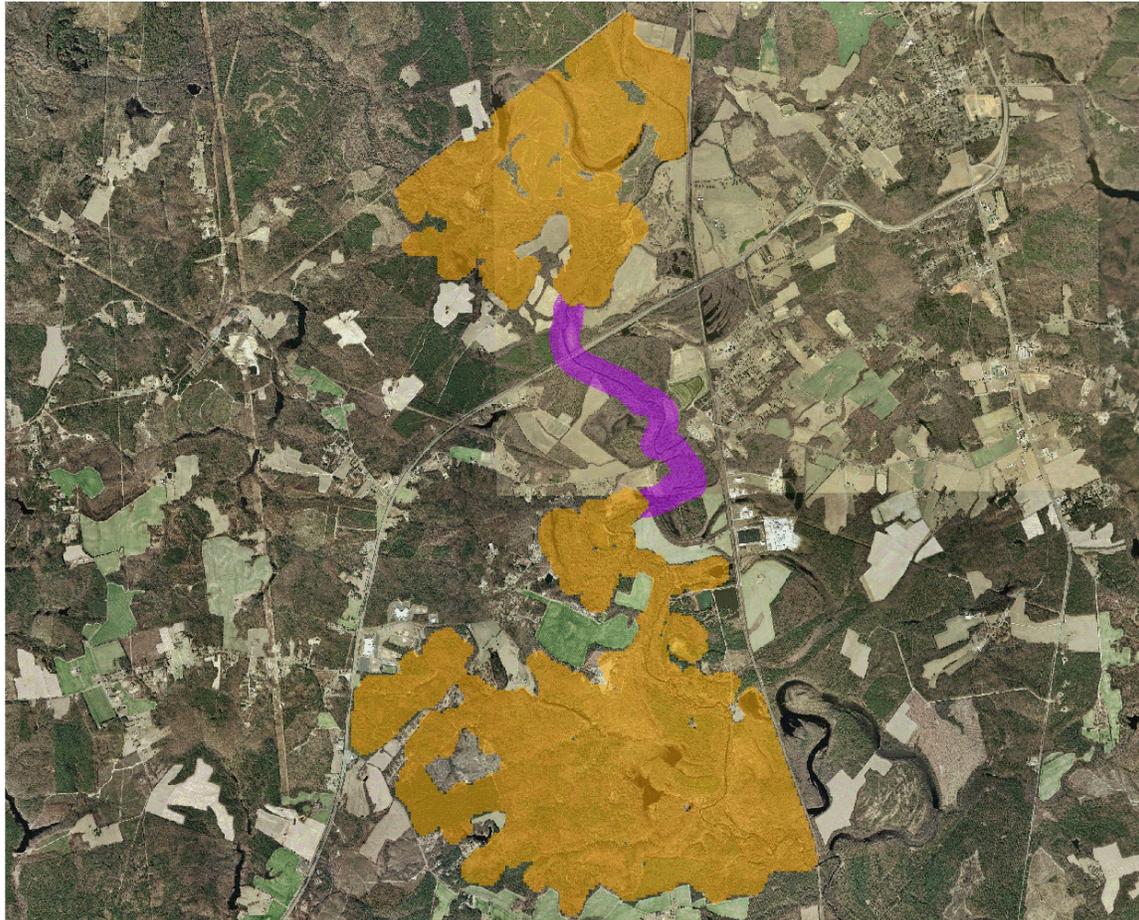
Of the 29 research proposals, one was selected for FY2008 that has great relevance to the committee: Project 4-06- Analysis

and Best Management Practices for the Prevention of Wildlife Strikes at Small Airports. This \$300,000 project will tabulate and analyze wildlife strike data, with a special emphasis on small (General Aviation and small Part-139) airports. Smaller airports are especially vulnerable to wildlife strikes because they are typically more rural and often lack fencing that can exclude wildlife. Furthermore, these airports typically lack wildlife hazard mitigation plans. Air traffic is increasing at the small airports with the advent of air taxi services, further increasing the potential for wildlife collisions. This project will collate recent data (post-1995) into a national wildlife strike database. Interviews and surveys will supplement the database to gain a better understanding of the unique issues facing small airports. This project will provide a systematic review of wildlife collisions at small airports, and develop management recommendations to reduce wildlife hazards.

### Conserving Wildlife on and around Maine Roads-a new conservation guide

While Maine is thought of as a rural state, it faces the same challenges of rapidly expanding roadways into wildlife habitat as every other state. To help educate planners, municipalities, and transportation professionals, Maine Audubon, with assistance from Maine Department of Transportation, published *Conserving Wildlife on and Around Maine's Roads*. The first part of the guide explains how roads affect wildlife both directly through accident and injury and indirectly through habitat fragmentation and loss; increased contaminants; and invasion of non-native species. The second half is devoted to strategies to reduce impacts to wildlife during all phases of highway development (planning, construction, maintenance). Highway planning efforts in the state benefit from Maine Audubon's Beginning with Habitat (BWH) program. BWH is a statewide landscape-level mapping program designed to conserve valuable wildlife and plant habitat planning. When highway planning is integrated with BWH data, impacts to important wildlife areas can be avoided or minimized. Various crossing structure designs are included in the guide, such as over- and under-passes, and fish and amphibian-friendly culverts. Transportation professionals will find this a useful summary and helpful for the lay public.

## ■ HABITAT CORES from page 6



*Photo 2. The location at which the corridor intersects with the road depicts a higher-risk area for animal-vehicle collisions.*

## Transitions

Joe Burns is now the National Transportation Ecology Program Leader for the Forest Service in Washington DC. Congratulations Joe!

We bid farewell to Amanda Hardy as she begins her PhD at Colorado State University. Many thanks for all you have done for the Committee! Marcel Huijser has assumed Amanda's membership position on the Committee. Best of luck, Amanda, we expect great things of you!

**Working Draft - 2008 TRB Annual Meeting - Environment & Energy Section Workshops, Sessions and Meetings of Interest. (At Hilton Hotel, unless otherwise indicated)**

	Monday, January 14, 2008	Tuesday, January 15, 2008	Wednesday, January 16, 2008	Thursday, January 17, 2008
8:00-9:45	<p>234 Using Resources, Power and Fuel Efficiently and Practicing Sustainability in Transportation Endeavors (ADC60)</p> <p>212 Transportation Operations and Ecology: Working In and Over Water (AHD10/A DC30) MARRIOTT</p> <p>ADC50 Cmte. Mtg.</p> <p>ADC10(2) Research Topics Subcmte Mtg.</p> <p>ADC40(1) Aircraft Noise Subcmte Mtg. (SHOREHAM)</p>	<p>435 Impacts of Climate Change on Transportation. The Research is Out. What Does it Mean for Transportation Managers? (ADD40/ADC75)</p> <p>436 New Developments in Transportation Environmental and Sustainability Management Programs (ADC60)</p> <p>422 Concrete Bridges - Understanding Our Past and Preserving It for the Future (AFF10/ADC50) SHOREHAM</p> <p>459 Environment &amp; Energy Poster Session - 9:30-Noon</p> <p>ADC20(1) Project Level Air Quality Analysis Subcmte Mtg.</p> <p>ADC40 Cmte. Mtg.</p>	<p>644 Recent Research on Pavement Noise Issues (ADC40)</p> <p>633 Opportunities for Energy Security and Greenhouse Gas Emission Reductions from Improved Fuel Efficiency (ADC75)</p> <p>617 Context Sensitive Solutions (CSS) and Bridge Aesthetics: Procedures that Underlie Successful and Cost Effective Designs (AFF10/ADC50) MARRIOTT</p> <p>ADC20(2) Regional Air Quality Analysis Subcmte. Mtg.</p>	<p>137 How to Design and Build Quieter Pavements (ADC40)</p> <p>8:30am-Noon: 129 Integration of Planning and Environmental Analysis in Transportation (ADC10/30/50)</p> <p>118 Addressing Data and Integration Issues for the U.S. Environmental Protection Agency MOVES Model (ADC20)</p> <p>12-15pm-5:30pm 141 Cutting Carbs in the Transportation Sector: International Efforts to Address Global Climate Change (ADC00)</p> <p>1:30p-5:00p: 178 Wayside Transit Noise Predictions Used to Supplement the FTA Noise Impact Methodology (ADC40)</p>
10:15- Noon	<p>264 New Rules, New Partners: An Inside Look at Mitigation Banking (ADC10)</p> <p>ADC20 Cmte. Mtg.</p> <p>ADC50 Cmte. Mtg. (Continued)</p> <p>AV030(1) Aviation Sustainability Subcmte. Mtg (SHOREHAM)</p> <p>AW030 Marine Environmental Cmte. Mtg (SHOREHAM)</p>	<p>459 Environment &amp; Energy Poster Session continued - 9:30- Noon</p> <p>ADC40 Cmte. Mtg. (Continued)</p>	<p>672 Low Carbon and Renewable Fuels: Policies to Reduce Greenhouse Gases and Enhance Sustainability (ADC75/ADD40)</p> <p>678 State Implementation Plan Controls for Ozone and Fine Particulates (ADC20/ADA30)</p> <p>ADC30 Cmte. Mtg. (Continued)</p>	<p>8:30am-5:00pm 137 How to Design and Build Quieter Pavements (ADC40)</p> <p>8:30am-Noon: 129 Integration of Planning and Environmental Analysis in Transportation (ADC10/30/50)</p> <p>118 Addressing Data and Integration Issues for the U.S. Environmental Protection Agency MOVES Model (ADC20)</p> <p>12-15pm-5:30pm 141 Cutting Carbs in the Transportation Sector: International Efforts to Address Global Climate Change (ADC00)</p> <p>1:30p-5:00p: 178 Wayside Transit Noise Predictions Used to Supplement the FTA Noise Impact Methodology (ADC40)</p>
Noon-1:30	<p>ADC75(2) Climate Change Subcmte. Mtg.</p>	<p>ADC00 Environment &amp; Energy Section Chairs Lunch -MEMBERS ONLY-</p>	<p>Chairman's Luncheon -TICKET REQUIRED-</p>	<p>MEETINGS/ORIENTATIONS</p> <p>2:30p-4:00p New &amp; Young Attendees Welcome Session (MARRIOTT)</p> <p>4:00p-6:30p Policy &amp; Multimodal Groups New Chairs Orientation -COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:30p-8:30p Policy &amp; Multimodal Group Chairs Dinner - COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:00p-8:00p International Reception (HILTON)</p>
1:30-3:15	<p>310 Diesel Emissions from Intermodal Transportation Modes: Data Sources and Analytical Methods (ADC20/ABJ40/AT0/AT025)</p> <p>317 Reauthorization and Climate Change: Federal, State and Local Roles (ADC75/ADD40)</p> <p>ADC60 Cmte. Mtg</p> <p>ADC10(1) Natural Resources and Environmental Stewardship Subcmte. Mtg</p> <p>ADC50(1) Programs Subcmte. Mtg.</p> <p>AV030 Environmental Impacts of Aviation Cmte. Mtg. (SHOREHAM)</p>	<p>512 Global Trends and Environmental Effects of Biofuels: Pt. 1, International Perspectives (ADC75/A0010/ADC20)</p> <p>517 Post WWII Suburban Development and Transportation Projects: Part 1 - Grappling with the Recent Past (ADC50)</p> <p>519 Streamlining Transportation Decision Making While Sustaining and Analyzing the Environment (ADC10)</p> <p>506 Shifting Into Neutral? Assessing carbon offset programs for transportation (AV030/ADC75) SHOREHAM</p> <p>AV030(2) Aviation Climate Change Subcmte. Mtg (SHOREHAM)</p> <p>ADC30 Cmte. Mtg</p>	<p>700 Integrating Energy Planning and Transportation Revenue Policies (ADC75/ABE10)</p>	<p>12-15pm-5:30pm 141 Cutting Carbs in the Transportation Sector: International Efforts to Address Global Climate Change (ADC00)</p> <p>1:30p-5:00p: 178 Wayside Transit Noise Predictions Used to Supplement the FTA Noise Impact Methodology (ADC40)</p>
Wed: 2:30-4:00	<p>370 Partnerships Toward Ecological and Cultural Stewardship: Application of Geospatial Tools and Practices to Implement SAFETEA-LU (ADC30/10/50/AB760/ADD50)</p> <p>365 Delivering the Goods: Opportunities for Reducing Energy and Greenhouse Gas Emissions in Freight Operations (ADC75/AT015)</p> <p>ADC60 Cmte. Mtg (Continued)</p> <p>ADC40(2) Guided Rail &amp; Transit Noise Subcmte. Mtg</p> <p>AR020(1) Rail Environmental Subcmte. Mtg (SHOREHAM)</p>	<p>576 Global Trends and Environmental Effects of Biofuels: Supplies and Impacts (ADC75/ADD40)</p> <p>582 Post WWII Suburban Development and Transportation Projects: Part 2 - But Are They Eligible? (ADC50)</p> <p>574 Construction Noise Impact Assessment, Mitigation and Policy (ADC40)</p> <p>ADC30 Cmte. Mtg. cont.</p>	<p>733 New Perspectives on Sustainable Transportation (ADD40/ADC75)</p> <p>ADC75 Cmte. Mtg.</p>	<p>2:30p-4:00p New &amp; Young Attendees Welcome Session (MARRIOTT)</p> <p>4:00p-6:30p Policy &amp; Multimodal Groups New Chairs Orientation -COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:30p-8:30p Policy &amp; Multimodal Group Chairs Dinner - COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:00p-8:00p International Reception (HILTON)</p>
3:45-5:30	<p>370 Partnerships Toward Ecological and Cultural Stewardship: Application of Geospatial Tools and Practices to Implement SAFETEA-LU (ADC30/10/50/AB760/ADD50)</p> <p>365 Delivering the Goods: Opportunities for Reducing Energy and Greenhouse Gas Emissions in Freight Operations (ADC75/AT015)</p> <p>ADC60 Cmte. Mtg (Continued)</p> <p>ADC40(2) Guided Rail &amp; Transit Noise Subcmte. Mtg</p> <p>AR020(1) Rail Environmental Subcmte. Mtg (SHOREHAM)</p>	<p>576 Global Trends and Environmental Effects of Biofuels: Supplies and Impacts (ADC75/ADD40)</p> <p>582 Post WWII Suburban Development and Transportation Projects: Part 2 - But Are They Eligible? (ADC50)</p> <p>574 Construction Noise Impact Assessment, Mitigation and Policy (ADC40)</p> <p>ADC30 Cmte. Mtg. cont.</p>	<p>733 New Perspectives on Sustainable Transportation (ADD40/ADC75)</p> <p>ADC75 Cmte. Mtg.</p>	<p>2:30p-4:00p New &amp; Young Attendees Welcome Session (MARRIOTT)</p> <p>4:00p-6:30p Policy &amp; Multimodal Groups New Chairs Orientation -COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:30p-8:30p Policy &amp; Multimodal Group Chairs Dinner - COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:00p-8:00p International Reception (HILTON)</p>
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5:45-7:15	<p>ADC40(3) Highway Noise &amp; Vibration Subcmte Mtg.</p> <p>ADD40 Transportation and Sustainability Cmte. Mtg.</p>	<p>576 Global Trends and Environmental Effects of Biofuels: Supplies and Impacts (ADC75/ADD40)</p> <p>582 Post WWII Suburban Development and Transportation Projects: Part 2 - But Are They Eligible? (ADC50)</p> <p>574 Construction Noise Impact Assessment, Mitigation and Policy (ADC40)</p> <p>ADC30 Cmte. Mtg. cont.</p>	<p>733 New Perspectives on Sustainable Transportation (ADD40/ADC75)</p> <p>ADC75 Cmte. Mtg.</p>	<p>2:30p-4:00p New &amp; Young Attendees Welcome Session (MARRIOTT)</p> <p>4:00p-6:30p Policy &amp; Multimodal Groups New Chairs Orientation -COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:30p-8:30p Policy &amp; Multimodal Group Chairs Dinner - COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:00p-8:00p International Reception (HILTON)</p>
7:30-9:30	<p>ADC40(3) Highway Noise &amp; Vibration Subcmte Mtg.</p> <p>ADD40 Transportation and Sustainability Cmte. Mtg.</p>	<p>576 Global Trends and Environmental Effects of Biofuels: Supplies and Impacts (ADC75/ADD40)</p> <p>582 Post WWII Suburban Development and Transportation Projects: Part 2 - But Are They Eligible? (ADC50)</p> <p>574 Construction Noise Impact Assessment, Mitigation and Policy (ADC40)</p> <p>ADC30 Cmte. Mtg. cont.</p>	<p>733 New Perspectives on Sustainable Transportation (ADD40/ADC75)</p> <p>ADC75 Cmte. Mtg.</p>	<p>2:30p-4:00p New &amp; Young Attendees Welcome Session (MARRIOTT)</p> <p>4:00p-6:30p Policy &amp; Multimodal Groups New Chairs Orientation -COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:30p-8:30p Policy &amp; Multimodal Group Chairs Dinner - COMMITTEE CHAIRS ONLY (SHOREHAM)</p> <p>6:00p-8:00p International Reception (HILTON)</p>

Color Code Key: **BLACK** - Hilton sessions sponsored by Environment & Energy Section Committees; **PURPLE** - Non-Hilton events sponsored by of interest to the Environment & Energy Section Committees; **BLUE** - Poster Session; **RED** - Special Events; **GREEN** - Hilton Committee/Subcommittee Meetings. NOTE: [XXX] before title indicates assigned session number in the printed and online Annual Meeting Program.