

**PLANNING AND ENVIRONMENT GROUP**  
**Triennial Strategic Plan (TSP)**  
**TRB Committee on Ecology and Transportation (ADC30)**

**Committee Chairperson:** Mr. Alexander F. Levy

**TSP Three-Year Period:** April 15, 2013 to April 15, 2016

**Date Prepared:** March 30, 2013

**1. *Committee Future Outlook Statement***

**Scope:** The committee is comprised of experts in the field of ecology and transportation. The committee identifies major research needs and gaps in this field, assists in bringing these research topics to fruition and communicates the results of recent and ongoing transportation ecology research to and throughout the transportation community. The major focus of the committee is to ensure that sound ecological principals are integrated into transportation planning, decision-making, maintenance and design.

- i. The committee last considered the scope in 2009 and it still accurately reflects the breadth of our committee's interests and activities.
- ii. The scope may be expanded to address the challenges ahead as we adapt our recognition and understanding of near and long term global climate change effects, shifts in transportation demand and patterns, and evolving environmental and transportation policy, particularly to address sustainability, livability, and economic vitality.

**2. *Committee Plan***

- a. As a Task Force on Ecology and Transportation, ADC30T underwent strategic planning in 2006 to become the Ecology and Transportation committee (ADC30). We developed a mission and scope that remains timely and relevant and have made strides to forward that mission, as noted in our annual reports. As a standing committee, we have also revisited strategic planning in 2009 and, again in 2013, with the rededication of this TSP.
- b. ADC30 will address and track both long term and emerging issues including:
  - Facilitating innovative responses to a changing environment: Understanding and fostering adaptability for natural systems, including:
    - Incorporating climate change adaptation strategies into transportation planning/mitigation specifically as they relate to ecological concerns:
      - Aquatic and Terrestrial Habitat Connectivity: Preserving and improving ecological connectivity in an era of climate change awareness.
      - Ecological Asset Management: Understanding changes to wildlife related assets due to climate change and adapting transportation systems for sustainability in fish and wildlife resources and ecosystem services.
      - Overcoming Barriers: Working to alleviate safety risks while improving habitat connectivity.

- Wildlife vehicle collisions: Leveraging safety and sustainability values.
    - Invasive species and roadside vegetation management.
    - Ecology-based decision making for recreational transportation: Leveraging connectivity goals with non-motorized, multiuse trails to offer the public recreation opportunities associated with a healthy lifestyle by connecting with the natural environment.
  - Measuring what matters:
    - Consideration of environmental values and features in the transportation planning process.
    - Improving understanding of the ecological impacts of transportation.
    - Performance measurement of transportation systems at an ecosystem-level.
    - Developing support for existing and leveraging new ecological data tools, including geospatial data and decision making tools.
- c. ADC30 will address cross-cutting and emerging issues in collaboration with other committees.

In addition to regularly cosponsored conference and poster sessions, ADC30 jointly plans interdisciplinary workshops each year at the Annual TRB meeting.

- For the 2014 Annual meeting the committee is exploring the interest and feasibility of sponsoring at least one workshop or session on:
  - Transportation planning decision-making based on geospatial data tools that integrate social, economic and environmental priorities. The workshop or session will highlight efforts that support major program initiatives, such as FHWA's *Every Day Counts*.
  - Geospatial data tools that use baseline ecological conditions, transportation effects analysis, and maximize mitigation performance.

d. Near-term planned activities (2013-2014)

ADC30 continues to make strides in achieving its goals. The membership of ADC30 represents an active community of practitioners who individually and collectively demonstrate its commitment to partnerships and the identification of research needs, including cross-cutting issues, as is evidenced by the following planned activities for 2013 through the 2014 TRB Annual Meeting:

- Leveraging the knowledge, skills, interests, and participation of new committee members from 2013 rotation.
- Issuance and interdisciplinary promotion of a Call for Papers for the 2014 TRB Annual Meeting
- Generation of semi-annual committee newsletter for internal and external publicity as well as dissemination of milestones, announcements, and perspectives on research needs, practice-ready results, case studies, and research-in-progress.

- Collaborative engagement with subject-matter practice and research professionals during the committee’s mid-year meeting at the International Conference on Ecology and Transportation (ICOET) in Phoenix, Arizona.
  - Revision/update of committee outreach and research needs poster for meetings and symposia.
  - Strengthening of committee liaisons to leverage cross-cutting issues and synergies.
  - Formalization and ongoing review of key research needs and statements in TRB’s Transportation Research Information Services (TRIS) Database
  - Cosponsorship of 2014 TRB Annual Meeting technical session featuring practice-ready highlights and case studies from 2013 ICOET, AASHTO Standing Committee on the Environment (SCOE) meetings, and related symposia.
  - Sponsoring 2014 TRB Annual Meeting paper sessions featuring responses to our Call for Papers, in addition to offering a venue for unsolicited submissions relevant to the committee’s goals.
  - Cosponsorship of 2014 TRB Annual Meeting poster session featuring responses to our Call for Papers, in addition to offering a venue for unsolicited submissions of research-in-progress and case studies commended by AASHTO SCOE, the 2013 ICOET, as well as other symposia.
- e. Ongoing and envisioned future activities
- Annually issue Calls for Papers for the TRB Annual Meeting
  - Semi-annual publication and distribution of committee newsletter.
  - Ongoing reinforcement and cultivation of inter-committee liaisons.
  - Annually reevaluate and reconcile research needs with TRIS.
  - The Committee on Ecology and Transportation plans to continue sponsoring the biennial International Conference on Ecology and Transportation. ADC30 will continue active involvement in the TRB Annual meeting, including sponsorship of workshops and technical sessions as well as continued involvement of individual members in relevant research projects.

### 3. *Committee History*

#### a. Membership characteristics

- i. There are a total of 26 members, which includes 1 committee chair, 4 young members and 1 international member. There are 10 female members (42%) and one minority member on the committee (Asian).
- ii. Membership geographic distribution:  
Eastern 12 Central 5 Western 8 International 1
- iii. Membership professional affiliation:  
State Government 7 Federal Government 6 Education 5  
Private Sector 5 Local Government 0 nonprofit/Other 3
- iv. In addition to active membership, ADC30 has 133 “friends” of the committee.

- v. Liaison with other committees:
  - Geographic Info Science & Applications (ABJ60)
  - Transportation Needs in National Parks and Public Lands (ADA40)
  - Environmental Analysis in Transportation (ADC10)
  - Low-Volume Roads (AFB30)
  - Landscape and Environmental Design Committee (AFB40)
  - Task Force on Context Sensitive Design/Solutions (AFB50T)
  - Hydrology, Hydraulics and Water Quality Committee (AFB60)
  - Culverts and Hydraulic Structures (AFF70)
  - Physicochemical Phenomena in Soils (AFP40)
  - Subcommittee on Animal-Vehicle Collisions (ANB20(2))
  - Subcommittee on Environmental Maintenance (AHD10(1))
  - Environmental Impacts of Aviation (AVO30)
  - Marine Environment (AWO30)
  
- vi. External organizations liaison activities:
  - International Conference on Ecology and Transportation
  - The Wildlife Conservation Society – North American Program
  - Virginia Center for Transportation Innovation and Research (formerly the Virginia Transportation Research Council)
  - Montana State University: Western Transportation Institute
  - USDOT Federal Highway Administration, Office of Planning, Environment, and Real Estate (HEP)
  - AASHTO Center for Environmental Excellence
  - AASHTO Standing Committee on the Environmental
  - North Carolina State University: Center for Transportation and the Environment
  - University of California at Davis: Road Ecology Center
  
- b. Subcommittees and Joint Subcommittees:
  - i. Communication – Ms. Marcia A. Bowen
  - ii. Liaison – Mr. Lars H. Carlson
  - iii. Steering –Vacant
  - iv. Research – Dr. Patricia Cramer
  - v. Program –Vacant
  - vi. Animal Vehicle Collisions (ANB20-2) - Joint Subcommittee with the Safety Data, Analysis and Evaluation Committee – co-chairs - Dr. Fraser Schilling/ Dr. Keith Knapp
  
- c. Papers reviewed and published:
  - i. 2011 - Papers reviewed \_3\_ Papers published \_1\_
  - ii. 2012- Papers reviewed \_4\_ Papers published \_1\_
  - iii. 2013- Papers reviewed \_3\_ Papers published \_1\_
  
- d. Annual Meeting Workshops and Sessions  
 Reflecting just some of the breadth of cross-cutting and emerging issues, the following is a listing of co-sponsored workshops, as well as an enumeration of sponsored paper/conference sessions and co-sponsored sessions from Annual Meetings from 2011 through 2013 (for brevity, annually co-sponsored poster sessions are not enumerated):

## 2011

Workshop: **Sustainability Made Manifest:**

**International Wildlife Crossing Infrastructure Design Competition**

Lead: *Committee on Ecology and Transportation (ADC30)*

Co-sponsors: *Committee on Landscape and Environmental Design (ANB40)*  
*Committee on General Structures (AFF10)*

Conference Session: **Off the Beaten Path: Low-Volume Roads and Ecology**

*Committee on Low-Volume Roads (AFB30); Committee on Ecology and Transportation (ADC30); Committee on Hydrology, Hydraulics and Water Quality (AFB60)*

Paper Session: **Ecology of Scale: Road Ecology Research and Practice**

*Committee on Ecology and Transportation (ADC30)*

## 2012

Workshop: **Environmental Management of Low-Volume Roads**

Lead: *Committee on Low-Volume Roads (AFB30)*

Co-sponsors: *Committee on Ecology and Transportation (ASDC30)*  
*Committee on Hydrology, Hydraulics and Water Quality (AFB60)*

Conference Session: **Some Best Presentations from 2011 International Conference on Ecology and Transportation**

*Committee on Ecology and Transportation (ADC30); Committee on Landscape and Environmental Design (ANB40)*

Conference Session: **Enabling Planning-Level Ecological Decision Making: Recent Progress in Development of National Online Information Systems and Environmental Performance Measures**

*Committee on Ecology and Transportation (ADC30); Committee on Environmental Analysis in Transportation (ADC10)*

## 2013

Workshop: **Effective Practices to Develop Research Needs Statements and Funding Opportunities**

Lead: *Environment and Energy Section (ADC00)*

Co-sponsors: *Committee on Environmental Analysis in Transportation (ADC10)*

*Committee on Transportation and Air Quality (ADC20)*

*Committee on Ecology and Transportation (ADC30)*

*Committee on Transportation-Related Noise and Vibration (ADC40)*

*Committee on Historic and Archeological Preservation in Transportation (ADC50)*

*Committee on Waste Management and Resource Efficiency in Transportation (ADC160)*

*Committee on Transportation Energy (ADC70)*

*Committee on Alternative Transportation Fuels and Technologies (ADC80)*

*Committee on Marine Environment (AWO30)*

*Committee on Environmental Impacts of Aviation (AVO30)*

Conference Session: **Incredibly Loud and Extremely Close: Effects of Noise on Wildlife** (Dual Sessions)

Lead: *Transportation-Related Noise and Vibration (ADC40)*

Co-sponsors: *Planning and Environment Group (AD000)*  
*Committee on Environmental Analysis in Transportation (ADC10)*  
*Committee on Ecology and Transportation (ADC30)*  
*Committee on Construction Management (AFH10)*  
*Committee on Project Delivery Methods (AFH15)*  
*Committee on Environmental Issues in Transportation Law (ALO50)*  
*Committee on Marine Environment (AWO30)*

Paper Session: **Current Ecology & Transportation Research**  
*Committee on Ecology and Transportation (ADC30)*

e. Annual/Mid-Year Committee Meeting Attendance

Program Year	Annual Meetings	Midyear Meetings
2011	38	41 (ADC10 & ADC30 joint caucus)
2012	36	11 (6 present, 5 call-in)
2013	33	June 25, 2013

f. Communications tools: Website, Listserv, Conference Calls, and Newsletter

ADC 30 maintains a webpage at: [www.cte.ncsu.edu/adc30/default.htm](http://www.cte.ncsu.edu/adc30/default.htm). The webpage includes the mission and scope of the committee, information on TRB and its annual meeting, list and contact information for the ADC30 committee members, a listserv, links and resources, and the ADC30 newsletter.

The ADC30 Listserv is a moderated listserv to facilitate communication among the members and friends of the TRB ADC30 Committee on Ecology and Transportation regarding committee activities and sponsored events.

Beginning in 2012, the Committee on Ecology and Transportation initiated the use of teleconference capabilities provided by TRB. Three committee teleconferences were engaged in 2012, with a minimum of four anticipated for each successive year. As committee membership becomes acquainted with available web-based video and distance-meeting capabilities, these tools will also become a method of conducting committee business during periods between opportunities to gather – in-person – at the TRB annual and mid-year meetings.

Since the spring of 2004, the committee has published a newsletter approximately twice per year. The newsletter includes findings and summaries from recent studies, information about upcoming events and meetings, recent news, and original content from renowned research professionals in ecology and transportation.

**4. List shared activities during the past three years:**

**2011 International Conference on Ecology and Transportation Seattle, Washington**

With an attendance of over 500 people, ICOET ([www.icoet.net](http://www.icoet.net)) is one of the very best information exchanges for practice-oriented research and case studies from all 50 United States and over 20 other countries. The Committee on Ecology and Transportation is closely aligned with ICOET and is well-represented in the Steering Committee for the biennial symposium. In August 2011, TRB ADC30 held its summer meeting at ICOET in

Seattle. Washington. Several TRB ADC30 members presented at ICOET, as well as participated on conference committees, abstract reviews, and moderated sessions. Practice-ready highlights from the 2011 ICOET were brought to a full-house of interested participants at the 2012 TRB Annual Meeting.

The 2011 ICOET in Seattle featured more than 168 research paper and poster presentations in its technical program. There were more than 533 presenters and attendees representing more than 20 countries including the US, Australia, Brazil, Canada, France, India, Ireland, Israel, Mexico, the Netherlands, Portugal, the People's Republic of China, Sweden, Switzerland, Taiwan, and Wales. Proceedings from ICOET 2011 are directly applicable to the ADC30 committee activities and are anticipated to be published in spring 2010. ICOET 2011 was co-sponsored by the Committee on Environmental Analysis and the Committee on Ecology and Transportation, who conducted joint and breakout business meetings to leverage synergies and initiate planning for co-sponsored conference sessions at the TRB 2012 Annual Meeting.

**2012 TRB Joint Summer Meeting June 24-27, Little Rock, Arkansas**

Co-sponsored by Committee on Environmental Analysis (ADC10), Committee on Air Quality (ADC20), Committee on Environmental Justice (ADD50), and the Committee on Ecology and Transportation ADC30 committee members were involved in developing a midyear workshops on IPaC: Endangered Species Act Consultation as a Tool, identifying and articulating research needs, as well as featuring a plenary session on the SHRP2 Report from TCAPP and Ecological Pilots. The concept of these workshops is being expanded to address sustainably through the integration of planning, environment, and project development and additional workshops are anticipated.

**2012 Infra Eco Network of Europe conference: 21-24 Oct, Potsdam, Berlin, Germany**

Representation and presentations by committee membership occurred at the 2012 Infra Eco Network of Europe. IENE is a pan-European, biennial conference on ecology and transportation provide a recurring interdisciplinary forum for the exchange of new scientific findings and practical experiences between the sectors of environment and transport in Europe.