What’s Ahead for Transportation Environmental Analysis and Research?

By Mark Kross, ADC10 Chair, Missouri Department of Transportation

What’s ahead in the realm of transportation environmental analysis? How about associated research? I offer a few observations to examine these questions. Some have said the profession is still too focused on the National Environmental Policy Act (NEPA) and that we have moved beyond writing NEPA documents and beyond fulfilling the commitments within those documents. The perspective is that, as stewards of the environment, we are now doing what is right for the environment and not just what is required by NEPA and other environmental regulations. But, regardless of what we might think about NEPA, its age, or its presumed obsolescence, it still is the underpinning for consideration of the environment in transportation. And in a time where generating money for transportation projects is an increasing challenge, is there a likelihood that efforts at environmental enhancements in transportation will diminish in order to deliver environmental mitigation commitments?

For a number of years, we have heard about moving consideration of the environment earlier into the transportation planning phase from the traditional position of project development and design. This shift gained momentum with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). I recall when transportation planners began to consider the environment within their processes. Major Transportation Investment Analyses (MTIAs) and subsequent Major Investment Studies (MISs) were written with environmental elements in those analyses. The Transportation Equity Act for the 21st Century (TEA-21) de-emphasized separate MIS documents to reduce duplication, while directing integration of Planning and NEPA. Integration proponents have conducted "Linking Planning and NEPA" workshops since 2004. In 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) included Sections 3005, 3006, and 6001, which require environmental considerations in formal transportation planning processes. Missouri has seen a concerted effort by some of its Metropolitan Planning Organizations (MPOs) to accomplish this objective. Other planning organizations around the country also have been using a host of flexible approaches to consider the environment. These efforts will vary as they evolve over time and occur within differing planning and project contexts.

There are emerging transportation environmental issues, such as Mobile Source Air Toxics (MSATs); global warming; ecosystem approaches; mitigation banking for non-wetland resources; and non-traditional methods to deliver projects (e.g., Design-Build and public private partnerships (PPPs)). How these will play in our own transportation environmental worlds will vary across the nation. We shall do our best to address these issues through collaboration with our peers, with our partners, and with our proponents and opponents.

Some say we need to instill in all transportation professionals an innate attention to the environment. A stated parallel example is the way safety in transportation has become second nature in transportation work and in the emphasis of transportation professionals. Those proponents have said we ought to learn from the transportation safety professionals and analyze what it took them to see this attention-to-safety-with-no-second-thoughts effort come to pass. With "Safety First" within everyone’s line of sight, what would it take to promote “Environment First” and have that become another innate aspect of transportation and its practicing professionals? I asked some federal safety professionals about this. One thing I heard was that the perception regarding safety being ingrained in the minds of all transportation professionals is not fully representative of the actual situation.
Apparently, there have to be repeated reminders about safety to maintain the focus on it. Whatever can be done to keep this focus on it. Whatever can be done to keep this focus helps the situation. Hence, although we could learn from the experiences of bringing safety to transportation, we will need to remain persistent and keep the environment in the transportation spotlight.

The Committee on Environmental Analysis in Transportation is involved in aspects of these questions and issues. TRB now is making a key effort to collect transportation research needs from all its committees. ADC10 has been a major force in developing previous TRB Environmental Research Needs conferences and is building on work performed at those conferences to assess needed transportation environmental research. We are working to collaborate with the Standing Committee on the Environment (SCOE) of the American Association of State Highway and Transportation Officials (AASHTO) who also is assessing research needs. The upcoming ADC10 summer workshop, beginning July 6th in Chicago, includes an interactive research session by the Research Topics Subcommittee that promises to be both informative and productive. Another session will describe the integration of NEPA analyses with alternate methods of project delivery, including public-private partnerships and design-build. A third session will provide an interactive means to consider transportation environmental analysis in the next 10 years. The ADC10 committee, meeting with about 40 other committees in Chicago with a common theme of sustainability, also has a plenary session titled The Many Environmental Faces of Transportation Sustainability – Going Strong…But Where? These opportunities should assist ADC10 as it looks ahead to the future of transportation environmental analysis and as we chart our own course. I hope you join us in Chicago to explore these matters.

**Announcements**

**Call for Papers 87th TRB Annual Meeting, January 13-17, 2008**

The Transportation Research Board (TRB) Committee on Environmental Analysis in Transportation, ADC10, invites the submission of papers for presentation at TRB's Annual Meeting on a broad number of transportation environmental topics including the links between transportation planning and the environment. The Environmental Analysis in Transportation Committee and its subcommittees are interested in both research and case studies that address all aspects of project planning, development, enhancement, sustainability and stewardship, mitigation and performance evaluation for all modes. Among the topics of specific interest are:

- Congestion Measures and Environmental Analysis, including Environmental Costs;
- Sustainable Roads;
- Public Private Partnerships and Environmental Review Process;
- Mitigation Planning and Joint Funding;
- Environmental Management Systems and Lessons Learned; and

Please indicate ADC10 on the Submission Review form to indicate that the paper is being submitted in response to this Call for Papers. Please note that TRB has implemented dual paper submittal deadlines for the 2008 Annual Meeting: Papers in non-PDF format must be submitted by Friday, July 27, 2007; Papers in PDF format must be submitted by Wednesday, August 1, 2007. Papers cannot be accepted after the stated deadlines because of the time required for peer review and program development. Paper submission information is posted on the TRB website [http://www.trb.org/meeting](http://www.trb.org/meeting). This site is updated periodically; authors should review all information on this site before submitting papers.

In addition, authors who have submitted papers in response to this call are requested to send the paper number and title to jbach@louisberger.com.

If you have any questions related to this call for papers, please contact: Jim Bach at jbach@louisberger.com or 973-678-1960 extension 531.
### Preliminary Schedule of Events
(Subject to change)

**Friday, July 6, 2007**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tr>
<td>8:00am - 8:30am</td>
<td><strong>Welcoming Session</strong>&lt;br&gt;Speakers: Welcoming to Chicago, Clayton Harris III, Illinois DOT&lt;br&gt;Christine Gerencher, TRB Staff&lt;br&gt;Mark Kross, Missouri DOT and ADC10 Chair</td>
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<td>8:30am - 10:00am</td>
<td><strong>Session #1 Section 6002 and You</strong>&lt;br&gt;Moderator: Carolyn Nelson, CH2M Hill&lt;br&gt;<strong>Session 1.1 Coordination Plans</strong>&lt;br&gt;Speaker: Kelly Dunlap, Caltrans&lt;br&gt;<strong>Session 1.2 Agency Collaboration</strong>&lt;br&gt;Speaker: Louise Smart, CDR Associates&lt;br&gt;<strong>Session 1.3 Public Involvement</strong>&lt;br&gt;Speaker: Donna Brown, Wisconsin DOT&lt;br&gt;<strong>Session 1.4 Implementation of SAFETEA-LU Section 6002 and Roundtable Discussion</strong>&lt;br&gt;Speaker: Charlie Webb, CH2M Hill and TBD, Wisconsin DOT&lt;br&gt;Roundtable Facilitator: Shari Schaftlein, FHWA</td>
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<tr>
<td>10:00am - 10:30am</td>
<td><strong>Break</strong></td>
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<td>10:30am - Noon</td>
<td><strong>Session #2 Assessing Our Environment</strong>&lt;br&gt;Moderator: Martin Palmer, Washington State DOT&lt;br&gt;<strong>Session 2.1 Global Warming: What DOTs Can Do</strong>&lt;br&gt;Speaker: Gary McVoy, New York State DOT&lt;br&gt;<strong>Session 2.2 CSS in Planning – Best Practices</strong>&lt;br&gt;Speaker: Janet D’Ignazio, ICF&lt;br&gt;<strong>Session 2.3 Wildlife Impact Assessment</strong>&lt;br&gt;Speaker: Alex Levy, Arcadis</td>
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<td>Noon - 1:30pm</td>
<td><strong>Lunch (On Your Own)</strong></td>
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<td>1:30pm - 3:00pm</td>
<td><strong>Session #3 Managing NEPA under Non-Traditional Project Delivery Approaches - Partnerships in the NEPA Process</strong>&lt;br&gt;Moderator: Pat Trombly, Massachusetts Highway Department&lt;br&gt;<strong>Session 3.1 The Basics: Public Private Partnerships (PPP) – Legislative Origins, Basic Models and Relationship to NEPA</strong>&lt;br&gt;Speaker: Jennifer Mayer, FHWA&lt;br&gt;<strong>Session 3.2 The Details: Managing Partners under NEPA in PPPs -- Roles and Responsibilities, Risks and Liabilities</strong>&lt;br&gt;Speaker: David Grachen, FHWA</td>
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</table>
Session 3.3 Reality: Public-Private Partnerships and NEPA -- California SR125 and Other PPPs  
Speaker: Kent Olsen, PB

Session 3.4 Reality: Design-Build and NEPA -- Missouri and Other DOT Experiences  
Speaker: Mark Kross, Missouri DOT

3:00pm - 3:30p  
**Break**

3:30pm - 5:30pm  
Session #4 Implementation of Mitigation and Enhancement Measures  
Moderator: Muggs Stoll, San Diego Association of Governments

Session 4.1 Stormwater Banking  
Speaker: Neil Weinstein, LiD Foundation

Session 4.2 Green Infrastructure  
Speaker: Dominique Lueckenhoff, U.S. EPA

Session 4.3 Joint Funding for Mitigation of Impacts  
Speaker: Ann Campbell, U.S. EPA

Saturday, July 7, 2007

8:00am - 9:45am  
Session #5 Sustaining Transportation Environmental Research  
Moderator: Joe Shalkowski, PBSJ, Inc.  
Panel Speakers: Leni Oman, Washington State DOT  
Chris Hedges, TRB  
Shari Schafflein, FHWA  
Gary McVoy, New York State DOT  
Christine Gerencher, TRB  
Joe Crossett, TransTech Management, Inc.

9:45am - 10:00am  
**Break**

10:00am - Noon  
Session #6 Planning and Environment Linkages: Partnerships for Better Decision-making  
Moderator: Mike Culp, FHWA Washington Office  
Speakers: Robert Ritter, FHWA Office of Planning  
Neil Pedersen, Maryland State Highway Administration  
Sherry Kamke, U.S. EPA Region 6  
Nancy Lee, US Fish and Wildlife Service  
Alan Clark, Houston-Galveston Area Council  
Cultural and Historic Resource Perspective, SHPO or ACHP - TBD

Noon - 1:30pm  
**Lunch (On Your Own)**

1:30pm - 2:45pm  
Session #7 Congestion Initiative and Environmental Analysis  
Moderator: Shari Schafflein, FHWA Washington Office

Session 7.1 Update on FHWA Congestion Initiative  
Speaker: Chip Larsen, FHWA

Session 7.2 Lessons Learned Incorporating Freight Needs and Impacts into NEPA – A Michigan Experience  
Speaker: Joe Corradino, Corradino Group

Session 7.3 Congestion Relief and the Environmental Review Process – An Atlanta Experience  
Speaker: Dennis Henderson, PB
2:45pm - 3:15pm  Session #8  Transportation Environmental Analysis in the Next Ten Years

Moderator: Mark Kross, Missouri DOT
Roundtable Discussion

3:15pm - 3:30pm  Break

3:30pm - 5:30pm  TRB Opening Session (Plenary Session #1): It’s Easy Being Green – Chicago’s Efforts in Creating Sustainable Communities

5:30pm - 6:30pm  Welcome Reception

Sunday, July 8, 2007

9:00am - 10:30am Concurrent Discussion Sessions: The Many Faces of Transportation Sustainability

TRB Session #2a  Show Me the Money! The Future of Transportation Finance: Perspectives on Sustainable Approaches

TRB Session #2b  Sustainable Data Programs

TRB Session #2c  Creating Sustainable Transportation and Land Use Chicago Style

10:30am - 10:45am  Break

10:45am - 12:15pm Concurrent Discussion Sessions: The Many Faces of Transportation Sustainability (Continued)

TRB Session #3a  Express Yourself – How Citizens’ Choice of Transportation Modes Can Contribute to More Sustainable Communities

TRB Session #3b  Chicago: America’s Freight Distribution Hub

TRB Session #3c  The Many Environmental Faces of Transportation Sustainability – Going Strong…But Where? (Organized by the TRB Committee on Environmental Analysis and Transportation)

Moderator: Andy Fekete, RBA Group

Floor Facilitator: Frank Bracaglia, VHB

Panel Speakers: Sam Seskin, CH2M Hill
Gary McVoy, New York State DOT
(Brief presentations will be followed with a roundtable discussion by attendees to explore the future of the environmental parameters of transportation sustainability.)

12:30pm - 4:15pm Committee Meeting (Box Lunch Provided)

Monday, July 9, 2007

8:00am - Noon  Environmental Analysis Tour

Hosts: Illinois DOT, Chicago District Office
The ADC10 tour offers an onsite opportunity to visit and view selected specific ongoing projects in a context sensitive arena, as well as completed results in transportation environmental sustainability. The focus will be projects with specific historic, cultural, and community context sensitive settings of metropolitan Chicago with their ongoing or completed environmental initiatives. The tour begins as we drive west to view various locations of Chicago’s Gateway Green expressway public-private partnership initiatives. It then will feature the Dan Ryan Expressway, including its Air Quality Monitoring Program and a stop & stretch with presentations about Emergency Traffic Patrol and also environmental aspects associated with the Kingery Expressway, Dan Ryan, and South Lake Shore Drive projects. We then continue to the South Lake Shore Drive project viewing the results of its completed construction integrated with parkland and exposure to Lake Michigan and its beaches within a metropolitan setting. We then return via Lake Shore Drive to the Renaissance Chicago Hotel.
**Steering Subcommittee Report**

*By Kim Gambrill*

**Activities and Accomplishments: July 2006 – January 2007**

- Completed revisions to the Liaison Subcommittee and the Publications Subcommittee goals and objectives (both adopted July 9, 2006).
- Contacted eight ADC10 Members and Friends who indicated interest in the work of the Steering Subcommittee in their responses to Mark Kross’s ADC10 Information, Interests and Proficiencies Survey. Martin Palmer and Marie Venner have been added to the Subcommittee, increasing our membership to three!
- Circulated revised Steering Subcommittee Goals and Implementation Strategies for review and comment on November 22, 2006. No comments were received. Adopted on January 24, 2007.

**Activities Planned for January 2007 – July 2007**

- Assist the Committee Chair in the preparation of the 2004 – 2006 Triennial Strategic Plan (TSP)
- Work with Frank Bracaglia and Mark Kross to update the Newsletter Subcommittee Goals, Objectives and Procedures (planned adoption in July 2007).
- Work with Pat Trombly and Mark Kross to create goals and objectives for the new History Subcommittee.
- Assist Ron DeNadai and Mark Kross to create an electronic version of the Mid-Year Workshop planning notebooks.

**Research Topics Subcommittee - Five Focus Areas (As of January 19, 2007)**

*By Joe Shalkowski, PBS&J*

- Contribute research ideas as opportunities arise.
- Track what happens to research ideas generated in the transportation and environmental professions through monitoring of TERI and other data sources.
- Identify which research ideas may be “hot topics” for ADC10 calls for papers or calls for presentations through coordination with our AASHTO, TRB, FHWA, State DOT, and institutions of higher learning partners.
- Track what happens to the research that is funded (e.g., STEP and NCHRP 25-25) so that appropriate links to the research results are available and arrangements are made to present the results at TRB, if appropriate, during a presentation/poster/or paper session.
- Support any future Research Needs Conference.

**Publications Subcommittee Report**


The late summer/early fall has been another busy time for the Publications Subcommittee. A total of 30 different reviewers were pressed into service to conduct peer reviews on the 14 papers assigned to ADC10. In the end, a total of 51 reviews were prepared for those 14 papers.

A Call for Papers was issued this year covering a variety of topics related to the interests of the Committee, such as Green Highways, Sustainability, and Environmental Management Systems. It is noteworthy that the Committee reviewed a higher than usual percentage of papers from academics this year. Three of the four papers being presented and one of our three posters are being presented by academics.

In the end, four papers were recommended for presentation at the Annual Meeting in January with three additional papers suggested for a Poster Session. Many thanks to all our dedicated reviewers.
Presentations

Benchmarking State Department of Transportation Environmental Commitment Tracking Systems (07-2439)
- Marie Venner, ICF International
- Brian Allen, Federal Highway Administration
- Mike Barylski, ICF International
- Mark Youman, ICF International
- Michael DeWit, ICF International

Mix Design and Benefit Evaluation of High Solar Reflectance Concrete for Pavements (07-0497)
- Kanok Boriboonsomsin, University of California, Riverside
- Farhad Reza, Ohio Northern University

Areawide Cumulative Effects Analysis Using GIS (07-2611)
- John W. Wyckoff, University of Colorado, Denver
- Lynn E. Johnson, University of Colorado, Denver
- Brian Muller, University of Colorado, Denver
- Fred Nuszdorfer, University of Colorado, Denver
- Brad Beckham, Colorado Department of Transportation

Environmental Knowledge and Attitudes and Environmental Impact of Vehicle Ownership and Use (07-2978)
- Bradley Flamm, University of California, Berkeley

Poster Session

Current DOT EMS Development Efforts: Examples from Construction, Maintenance, Project Development and Planning (P07-0659)
- Marie Venner, ICF International
- Michael DeWit, ICF International
- Will Gibson, ICF International
- Rodney Concienne, Texas DOT
- Sonal Sanghavi, Maryland State Highway Administration
- Julie Hunkins, North Carolina DOT

Community of Practice Considerations to Advance the Practice of Environmental Management Systems at DOTs (P07-0664)
- Marie Venner, ICF International
- Michael DeWit, ICF International
- Rodney Concienne, Texas DOT
- Sonal Sanghavi, Maryland State Highway Administration
- Julie Hunkins, North Carolina DOT

Development of Silt Fence Tieback Design Methodology for Highway Construction Installations (P07-1239)
- Wesley C. Zech, Auburn University
- Jarid L. Halverson, Auburn University
- T. Prabhakar Clement, Auburn University

We are seeking recommended topics for next year’s Annual Meeting.

**History Subcommittee Report**

*By Pat Trombly, Massachusetts Highway Department*

The formation of a history subcommittee was discussed at the ADC10 2006 Mid-Year meeting in Seattle. There was support among the membership to establish this new subcommittee and ADC10 Chair, Mark Kross, agreed to discuss with TRB. The go-ahead was given by TRB in October 2006 to establish the subcommittee.
Pat Trombly, Mark Kross, Kim Gambrill, and Ron DeNadai have started to pull together old records, a list of potential contacts, and general thoughts on the format of the “history.” Through the survey that was conducted by Mark on interests of members and friends, a list of potential subcommittee members has been assembled (Tom Weck, Wayne Kober, Carol Cutshall, and Ron DeNadai).

In anticipation of the 2007 mid-year meeting in July, the following tasks will be undertaken:

1. Formalize the subcommittee membership
   * Contact, via Mark, the members/friends who expressed interest

2. Develop (with the subcommittee) a draft Goals/Objectives for comment and discussion

3. Develop (with the subcommittee) an outline/format for the history to date and format for maintaining the committee records in the future for comment and discussion

4. Continue with information-gathering, including contact with TRB liaisons regarding any previous records (e.g. Triennial Reports)

5. Initiate work on an oral history from key members (past and present) of A1F02/ADC10
   (Kim suggested that we may be able to eventually provide an audio link on the ADC10 website for excerpts from the recordings.)

Members and friends are asked to forward copies of any past meeting minutes, notes, information and annotated photos (no matter how embarrassing!) to:
Patricia.Trombly@MHD.state.ma.us
Patricia Trombly
Massachusetts Highway Department
Construction Division
10 Park Plaza Room 7360
Boston, MA 02116

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**Mid-Year Subcommittee Report--Summary of the 2006 Mid-Year Workshop**

By Martin Palmer and Beva Ubias, Washington State DOT

The Conference Overall
On July 9-12, 2006, the Environmental Analysis in Transportation (ADC10) and the Ecology and Transportation (ADC30) Committees held a joint summer workshop in Seattle. The Washington State Department of Transportation hosted the event and the theme of the meeting was “Plain Talk on the Environment and Transportation.” The last such event held in the northwest United States was in 1993.

Overall, the theme and presentations urged better communications with the public and interest groups making for more meaningful interactions that result in better projects for both transportation and the environment. Over the years, guidance, and rules have accumulated, however, there lacks a strategy to comprehensively examine undertakings. Presenters recommended that project proponents use clear explanations and terms that people can readily understand. The model for “reader-friendly” NEPA documents tells a story about the projects by using clear language, effective graphics, and a brief thorough narrative. Highly technical information should be placed in appendices. Many organizations endorse these and similar approaches and FHWA supports this type of flexibility for developing NEPA documentation.

The conference included a “transportation tour” of the multi-billion dollar Alaskan Way Viaduct project through downtown Seattle from the top of the historic Smith Tower. The tower, built in 1914, has a commanding view of the Seattle waterfront and downtown area. The group also took a boat ride across the Puget Sound for dinner at the Kiana Lodge on Washington’s Olympic Peninsula.

Main Messages from the Mid-Year Meeting
● Reader friendly documents improve everyone’s understanding and, ultimately, participation in the process. This leads to better formation of partnerships that foster a greater understanding of transportation projects, reduce potential impacts, and increase overall support for our endeavors.
- Upcoming efforts will focus on integrating transportation and environmental planning with an increased focus on environmental competency building, and continued participation in the Green Highways and similar initiatives.
- Emerging environmental issues for FHWA include how the NEPA process may change to address the effects of global warming, growing congestion, and freight service.
- An ecosystem-wide approach to assessing resource needs tends to serve both resource and project needs better than traditional project-by-project approaches. This collaborative approach has proved more effective in identifying and protecting valuable natural resources while enhancing the human environment—all in a sustainable manner.
- Developing a common vision, value, practices, and language in impact assessments along with a region-level look at the disruption from development is vital to reasonable protection for endangered plants and animals. This broad look at resource impacts can aid us in achieving streamlining and stewardship goals.
- Land trusts can be valuable partners in promoting a green infrastructure and leveraging scarce transportation dollars.
- Costs to comply with environmental regulations on projects ranged from about 2 to 12 percent of the total project costs. Six projects were part of a study examining a wide range of projects from around the country. About 80 percent of the mitigation costs occurred in the construction phase as opposed to staff time during design. On average, states spend $300 to $400 million per year on environmental compliance.

Survey Says
A total of 94 people from 19 states attended the conference representing a good mix of consultants, State DOTs, local governments, and resource agencies. We had a 17 percent return rate on the post-conference surveys. Information returned on surveys indicated that people enjoyed the conference. The boat ride to and dinner at Klana Lodge scored very high and all categories received a 4 out of 5 or higher. We received a couple of comments suggesting that getting a more robust agenda out earlier would have been beneficial.

Closing
While putting on a successful conference is a lot of work, it proved very rewarding for us and all the people in the state and communities we serve.

Liaison Reports
Committee on Hazardous Materials Transportation (ATO40)

By Pat Trombly, Massachusetts Highway Department

ATO40 held its 2006 mid-year meeting at the TRB Summer Conference in LaJolla, California on July 11, 2006. The Committee is focusing on safety technology related to transport vehicles (trucks and trailers) and containers, as well as driver safety issues. On-going research in these areas includes field tests of rollover warning devices and truck-tracking technologies with respect to improved incident response. Driver safety issues involve incident prevention and incident management; discussions included information on new regulations requiring driver sleep requirements (8 hours). Cross-over discussions on vehicle safety and driver safety looked at using tracking technologies for such things as real-time driver alerts on events, such as tornados and severe weather, which would allow consideration of alternate routes or holding/rescheduling shipments. The Committee is also looking at safety and security issues related to rail, including tank car design and track infrastructure.

The Committee reports that funds have been appropriated for a TRB Hazardous Materials Cooperative Research Program. ATO40 suggested that TRB establish a stakeholder committee to determine research needs – the stakeholders to include representatives from emergency response, shippers, carriers, among others.

There is a significant amount of coordination by members of this committee with other public and private organizations who also generate data and research on these subjects (e.g. Transport Canada and Dept. of Energy).

ATO40 anticipates attending the 2007 TRB Summer Conference in Chicago.
**Transportation Energy Committee (ADC70) and the Alternative Transportation Fuels Committee (ADC80)**

*By Pat Trombly, Massachusetts Highway Department*

There is a great deal of overlap between these two committees. With ADC70 focusing on factors which affect energy consumption of vehicular and rail systems (mainly fuel) and the impact of fuel choice on broader issues, such as climate change and greenhouse gases, their primary scope and research has been covering the same or related topics as ADC80. Both committees are looking at assessment of petroleum impacts (climate change and greenhouse gases), the range of alternative fuels, and hybrid vehicles. The two committees hold a joint summer meeting every two years, known as the Asilomar Conference. The next Asilomar Conference will be summer 2007.

A major topic of discussion at their business meetings at the 2007 Annual Meeting is a proposed merger of the two committees.

**Environmental Issues in Transportation Law Committee (AL050)**

*By Frank Bracaglia, P.E., Vanasse Hangen Brustlin, Inc.*

The Environmental Issues in Transportation Law Committee (AL050) is in the process of planning for their Mid-Year Legal Workshops. In 2007, this session will be in Philadelphia from July 8th through July 10th.

In no special order, the Committee considers the following as issues worthy of presentation at the workshop or as possible research topics.

- Update on Final Guidance on Section 6002 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)
- FHWA’s Final Rule on Statewide Transportation Planning and Metropolitan Transportation Planning—This is the final planning rule that links Planning and NEPA. It will be effective in July 2007.
- Effect on Highway Projects of Supreme Court’s Rapanos Decision on Federal Jurisdiction over Waters of the United States
- NEPA Delegation to States under SAFETEA-LU and Waiver of Sovereign Immunity—Is this an effective way to transfer responsibility to the states?
- Public-Private Partnerships and Environmental Compliance Obligations (NEPA and Operational)
- FHWA/USACE Involvement in Cooperative Projects and NEPA Class of Action
- NEPA/Section 404 Merger Agreements
- Advancing the Level of Design of a Preferred Alternative
- NEPA Application When Records of Decision Are Phased—More information on this topic is in the FHWA’s Final Rule on Statewide Transportation Planning and Metropolitan Transportation Planning.
- Clean Air Act, Conformity, and NEPA Update
- Global Warming and NEPA—There are a several court cases that deal with this topic. How far should a project-specific level analysis go to determine global warming impacts? Will carbon emissions have to be treated as indirect or cumulative effects?
- Terrorism and NEPA—Is the facility a terror target? Is there a requirement to consider potential impacts of a terrorist attack?

In other related Committee business, the electronic publication titled, *The Natural Resource Lawyer* will now be issued quarterly.
A well attended ADD50 Committee meeting was held on Tuesday, January 23, 2007 at the TRB Annual Meeting. Jacquelyne Grimshaw, with the Center for Neighborhood Technology, serves as the Committee Chair. The Committee’s many activities and accomplishments over the last year were reviewed. These efforts included the summer meeting on July 10, 2006 in La Jolla, California; a call for papers; and preparations that led to the following three ADD50 sessions at the 2007 Annual Meeting:

- Toolkit for Environmental Justice, Session No. 490
- Challenges in Environmental Justice: Planning, Methodologies, and Language, Poster Session No. 547
- Investigating Environmental Justice in Metropolitan Planning Organizations, Session No. 611.

During the meeting, a statement of planned activities was also reviewed. It was reported that the future activities of the committee will be based on identified needs. Over the last four years, the EJ Task Force (and now EJ Committee) have focused on research in the following six areas:

- Research on distribution of harmful human health or environmental effects of transportation programs, policies, and activities
- Research and development of improved methods and techniques
- Research on the availability of data sources needed to identify and evaluate minority and low-income populations
- Research on the indirect and cumulative effects associated with transportation projects that could contribute to a disproportionate impact
- Research on how effective transportation professionals are in reaching the underserved with existing public involvement techniques
- Research on the implementation, application, and practice of completed research.

In the future, the Committee leadership expressed an interest to explore international perspectives on the issues of environmental justice. Is the USA setting the agenda for Europe and other parts of the world? Finally, the Committee will be joining many other TRB Committees at the 2007 TRB Summer Conference in Chicago.

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**Feature Articles**

**AASHTO Center for Environmental Excellence – One Stop Source for Environmental Information for Transportation Professionals**

By Kate Kurgan, American Association of State Highway and Transportation Officials (AASHTO)

The American Association of State Highway and Transportation Officials (AASHTO) Center for Environmental Excellence (Center) was developed in cooperation with the Federal Highway Administration to promote environmental stewardship and to encourage innovative ways to streamline the transportation delivery process. The Center is designed to serve as a resource for transportation professionals seeking technical assistance, training, information exchange, partnership-building opportunities, and quick and easy access to environmental tools.

The Center is continuously updating and enhancing its web site: [http://environment.transportation.org/](http://environment.transportation.org/). Practitioners are able to submit comments or ideas by completing a data form on the Center’s home page. The Center launched two new web site sections in 2006, Environmental Justice and Invasive Species. The Center will add new Linking Planning and NEPA, Noise, and SAFETEA-LU sections this summer. The Center is continuously reaching out to State DOTs and resource agencies to collect additional innovative practices and success stories and to promote these ideas and practices on the web site.
The Center launched its Transportation and Environmental Research Ideas Database in the summer of 2006. The database contains a compilation of environmental research needs, links to completed reports, and the status of ongoing research. Each research need is prioritized by the AASHTO Standing Committee on Environment. This database provides a strategic foundation for environmental research for AASHTO, TRB, FHWA, State DOTs and other transportation professionals. Please also see the article in this newsletter titled TERI – Harmonizing Transportation and Environmental Research Needs for more information on the TERI Database.

The Center launched the Programmatic Agreements Library (PAL) in December 2006. The database is a collection of successful and/or innovative agreements from State DOTs. The library includes examples of executed programmatic agreements, summarizes agreement information, contains a link to the full agreement, and provides a search mechanism for practitioners to research agreements that meet specific requirements. The types of agreements in the library include:

- Categorical Exclusions,
- Section 106,
- Endangered Species,
- Transportation Enhancements,
- Land Management, and,
- Section 4(f).

The Center is expanding the library and it is expected that approximately 50 additional agreements will be posted to the library this summer. Please visit the PAL at: http://environment.transportation.org/pal_database/.

The Center is also working on an update to the report titled, Taking the High Road, The Environmental and Social Contributions of America’s Highway Programs. The update will provide the most recent data and information regarding contributions of highway programs. The update will be based on a review of the latest reports and statistics, including the recent FHWA research report on environmental stewardship, as well as contacts with state and federal highway agency officials and other experts. Chapters will include:

- Transportation Enhancements,
- Historic Preservation and Cultural Resources, including Tribal Consultation,
- Recycling and Waste Management,
- Air Quality,
- Context Sensitive Solutions,
- Brownfields Redevelopment and Smart Growth/Land Use,
- Bicycle and Pedestrian,
- Wetlands and Water Quality,
- Wildlife and Ecosystems,
- Noise Abatement,
- Scenic Byways, and
- Vegetation Management

The report will incorporate discussions of contributions related to energy and human health issues and transportation agencies creating partnerships with resource and permitting agencies.

The Center develops Practitioner’s Handbooks to provide practical advice on a range of environmental issues that arise during the planning, development, and operation of transportation projects. The Handbooks are primarily intended for use by project managers and others who are responsible for coordinating compliance with a wide range of regulatory requirements. Six handbooks have been developed to date, including:

- Maintaining a Project File and Preparing and Administrative Record for a NEPA Study,
- Responding to Comments on an Environmental Impact Statement,
- Managing the NEPA Process for Toll Lanes and Toll Roads,
• Tracking Compliance with Environmental Commitments/Use of Environmental Monitors,
• Utilizing Community Advisory Committees for NEPA Studies, and
• Consultation under Section 106 of the National Historic Preservation Act.

Four Handbooks are under development including:
• Defining Purpose and Need,
• Implementing an Environmental Management System in a State DOT,
• Considering Environmental Issues in Statewide and Metropolitan Transportation Planning, and
• Achieving Environmental Streamlining through the SAFETEA-LU Environmental Review Process.

Handbooks can be downloaded from the Center’s web site by visiting: http://environment.transportation.org/center/products_programs/practitioners_handbooks.aspx.

AASHTO, ACEC, and FHWA undertook a cooperative effort to improve the quality of environmental documents. A joint report was published in June 2006 regarding legal sufficiency and the quality and clarity of environmental documents. The Center and ACEC will hold a webinar in the spring of 2007 to provide practitioners with more information on the report.

The report can be downloaded from the Center’s web site at http://environment.transportation.org/center/products_programs/improving_quality_nepa.aspx.

The Center continues to provide technical assistance through its Center Technical Assistance Program (CTAP). The Center recently enhanced the CTAP program and there are now 35 technical experts available for assignments in the following areas:
• Air Quality Conformity/Air Toxics,
• Community Impacts,
• Context-Sensitive Solutions,
• Endangered Species/Ecosystem Management,
• Environmental Justice,
• Environmental Management Systems,
• Hazardous Waste/Waste Management,
• Historic and Cultural Resources,
• Indirect and Cumulative Impacts,
• Land Use,
• Legal,
• NEPA/Environmental Process Generalist,
• Project Management,
• Public Involvement/Agency Coordination, and
• Wetlands/Water Resources.

Each expert’s biography is listed on the Center’s webpage along with his/her specific area of expertise. For more information on this program visit the Center’s web site at: http://environment.transportation.org/center/tech_experts/.

The Center continues to organize a wide range of problem solving meetings to bring together State DOTs; FHWA; federal and state regulatory and resource agencies; and other stakeholders to discuss and identify the problems that the parties are confronting with specific environmental processes and to identify potential solutions to those problems. The Center held meetings about Section 7 Consultations under the Endangered Species Act and Section 106 of the National Historic Preservation Act. In addition, the Center sponsored problem solving meetings that resulted in the development of a programmatic approach to address potential impacts to the Indiana Bat. This approach will allow State DOT monies to be directed toward recovery of the Indiana Bat and eliminate most of the project-by-project review related to the species. The Ohio Department of Transportation and the U.S. Fish and
Wildlife Service's Ohio Ecological Services Field Office received the 2007 Transportation Environmental Stewardship Excellence Award for this effort.

The Center sponsored the 2006 AASHTO/FHWA Context Sensitive Solutions Peer Exchange in Baltimore. The Peer Exchange was attended by over 260 participants from 46 states, the District of Columbia, Puerto Rico, and Nova Scotia. Based on the information gained at the Peer Exchange, FHWA and the Center hosted a follow-up meeting in October 2006 to develop the AASHTO/FHWA action plan to advance CSS implementation within State DOTs and revise the CSS principles. Four work groups were created to facilitate the implementation process. The groups include:

- Making the Case for CSS,
- Building CSS Knowledge and Skills,
- Promote Flexibility in Standards Application to Facilitate CSS Through Revisions of Standards and/or Better Understanding and Utilization of Inherent Flexibility, and
- Support Leadership and Coalition Building

A fifth group is redrafting the CSS Principles to reflect the progress made since the 1998 conference. Documents, presentations, and reports can be located at the Center’s web site at http://environment.transportation.org/center/products_programs/css_peer_exchange.aspx.

The Center also held the 2006 Best Practices in Context Sensitive Solutions Competition. The winners were presented with awards during the AASHTO Annual Meeting in October 2006. A report profiling the entries is posted on the Center’s web site at http://environment.transportation.org/center/products_programs/annual_competitions.aspx.

For more information please contact Shannon Eggleston at 202-624-3649 or seggleston@aashto.org

Hard copies of all documents and reports can be purchased by visiting the AASHTO Bookstore at: https://bookstore.transportation.org/

SAFETEA-LU Implementation Tops Agenda at 2006 FHWA Environment Conference

Implementation of the 2005 highway and transit reauthorization bill was top on the agenda at the second environmental conference held for Federal Highway Administration staff on June 27-29, 2006.

The purpose of the event was to bring together environmental staff from around the country to discuss the most relevant environmental issues facing the highway agency across the United States, according to an FHWA official. More than 200 participants from 47 of the agency's 52 division offices attended the conference in Arlington, Va., the official said. The event was only open to FHWA staff.

Although the theme of the event was the Interstate Highway System's 50-year anniversary, much of the discussions focused on implementation of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

FHWA Administrator Rick Capka kicked off the event with a look to past accomplishments of the agency and the challenges that remain to be addressed, according to a summary of his remarks. Challenges include addressing highway safety, implementing Transportation Secretary Norman Mineta's congestion relief initiative, development of a new freight policy, and weighing options for financing the nation’s highways including tolls and increased private sector participation.

Capka also pointed to the newly enacted environmental and planning provisions in SAFETEA-LU as opportunities for improvement. New requirements related to the National Environmental Policy Act (NEPA) review process, reforms to Section 4(f) of the Department of Transportation Act, and increased delegation of authority to states represent some of the biggest changes in decades, he said.
NEPA Review Changes

The new environmental review procedures under Section 6002 of SAFETEA-LU offer an opportunity to complete the NEPA process more quickly and with better outcomes, Capka said.

The conference session on Section 6002 was one of the most popular sessions among FHWA staff, an official told BNA. Participants still have a lot of questions on the new process, ranging from designation of participating and cooperating agencies to the new statute of limitation for legal claims, the official added.

In addition, participants received a recent report on improving the quality of NEPA documents. The report represents the findings of a joint committee of FHWA, the American Association of State Highway and Transportation Officials, and the American Council of Engineering Companies. The report also will be sent to FHWA division administrators, according to an FHWA spokeswoman.

Other conference sessions covered linking planning and NEPA, Section 4(f) reforms, public involvement, Section 106 of the National Historic Preservation Act and tribal consultation, indirect and cumulative impacts, the Endangered Species Act and Migratory Bird Treaty Act, noise-compatible land use planning, air toxics and PM 2.5 hot-spot analysis, context-sensitive solutions, and Clean Water Act Section 404 and wetland banking.

In addition, participants heard several legal presentations from FHWA’s chief counsel’s office, including sessions on NEPA litigation and the Freedom of Information Act.

Sessions on the recent major project guidance, design-build contracts, and public-private partnerships illustrated how environmental work is blending into other areas of FHWA, the official said.

Several meetings were held in the evenings, including groups working to set up FHWA regional information-sharing networks. Others discussed the SAFETEA-LU pilot delegation states, funding for wetland and habitat mitigation, and an FHWA technical archeology network. The agency is planning to hold another environmental conference in 2008.

More detailed information on the conference proceedings has been posted at http://www.environment.fhwa.dot.gov/conference/conf_proceedings.pdf.

TERI – Harmonizing Transportation and Environmental Research Needs

By Joe Crossett, TransTech Management

In the summer of 2006, AASHTO’s Center for Environmental Excellence rolled out a simple solution for a troublesome research problem that most of this newsletter’s readers can relate to: “As a professional community, how can we ensure that great new research ideas, whether they are jotted down by breakout groups at a conference or submitted in response to a call for research, don’t slip through the cracks?” Welcome to TERI - the Transportation and Environmental Research Ideas database!

TERI’s sponsors at AASHTO noted that, each time a new call for research ideas was issued or a potential conference agenda was discussed, people involved usually asked smart questions like “What happened to last year’s set of good ideas?” or “What are the research ideas that are most important to our community?” Simply put, good research ideas often get lost on the road to funding.

TERI, serves as a barometer of the research that is most important to practitioners. The database is stocked with ideas from credible sources such as TRB meeting proceedings, SCOE workshop results, research needs white papers, and your suggestions. The TERI web interface lets users quickly suggest, view, and even rate (AASHTO Standing Committee on Environment members only) transportation and environmental research ideas organized by disciplines. You can review TERI online at http://environment.transportation.org/teri_database/

With TERI up and running in time for last year’s SCOE meeting and for the NCHRP 25-25 project selection process, AASHTO has already used it to select a year’s worth of NCHRP 25-25 and general NCHRP submissions. This year, the ADC10 Research Sub-Committee is using TERI to help establish our committee’s research priorities.

But AASHTO needs your help to keep TERI vital. Throughout the spring and summer of 2007 the Center for Environmental Excellence will be seeking fresh research ideas from the transportation and environmental community, including the friends and members of ADC10 to add to TERI. Watch for e-mails in the near future that
ask for your input and please contribute – you can be assured that good research ideas will not slip through the cracks if we all work together to make TERI a success.

For more information about TERI call Shannon Eggleston, AASHTO (202) 624 3649 or Joe Crossett, TransTech Management (412) 441 1820.

**Hot Research Ideas – TERI Spring 2006 Ranking Results**

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<tr>
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<td>Air Quality</td>
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<td>• Evaluate the Interactions Between Transportation-Related Particulate Matter, Ozone, Air Toxics, Climate Change, and Other Air Pollutant Control Strategies</td>
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<td></td>
<td>4</td>
<td>• Assessment of Air Quality Impacts of Alternative Land Use Planning Approaches</td>
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<td>• Develop an Ammonia-Related Emissions Component for Inclusion In PART or MOBILE Emissions Models</td>
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<td>• Analysis of the Costs and Benefits of Transportation Strategies to Improve Energy Security</td>
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<td></td>
<td></td>
<td>• Developing Better Ways to Measure the Number of Alternative Fuel and Advanced Technology Vehicles</td>
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<td>• Fuel Economy and Global Warming: Understanding How Consumer Behavior Influences the Link Between Transportation and Global Warming</td>
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<td>Environmental Enhancements</td>
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<td>• Recurring Community Impacts</td>
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<td></td>
<td>4.5</td>
<td>• Develop Techniques for Ensuring Public Involvement Activities During Transportation Project Development Include Non-Traditional Populations</td>
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<td>4.5</td>
<td>• Case Studies of Best Practices, Model Initiatives and Mitigation Strategies that Incorporate the Principles of Title VI and Environmental Justice in Transportation Decisions</td>
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<td>4.3</td>
<td>• Develop Performance Measures to Evaluate the Effectiveness of Public Involvement, Community Impact Assessment, and Environmental Justice Processes</td>
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<td>4</td>
<td>• Strategies for Effective Dialogue On Complex Transportation Issues And Decision-Making Processes with Communities Of Diverse Backgrounds</td>
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<td>• Implementation of Cultural Resource Commitments</td>
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<td></td>
<td>4.6</td>
<td>• Streamlining Evaluation of Historic and Cultural Resources by Using Historic Contexts</td>
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<td>Land Use and Smart Growth</td>
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<td>• Improving Understanding About How Highway Capacity Influences Development and Land Use Patterns</td>
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<td>• Guidance on Legal Sufficiency Criteria for Adequate Cumulative &amp; Secondary Impacts Analysis in EIS Documents</td>
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<td>Wildlife and Ecosystems</td>
<td>4</td>
<td>• National Habitat Linkage and Connectivity Mapping Initiative</td>
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<td>4</td>
<td>• Compile and Evaluate Alternate Strategies for Maintaining Riparian Ecosystems Crossed by Transportation Facilities</td>
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NCHRP 25-25 – Providing Quick-Response Research on Environmental Issues in Transportation

By Kate Kurgan, American Association of State Highway and Transportation Officials (AASHTO)

NCHRP 25-25 panel members met in Washington D.C. in October 2006 to select FY07 project statements. AASHTO's Standing Committee on Research (SCOR) allocated $500,000 to NCHRP 25-25 for FY07. The panel members were able to allocate $715,000 for FY07 from remaining balances. Constructive Panel discussion resulted in the final selection of ten research statements.

The selected research ideas include:

- Recurring Community Impacts
- Effective Organizational Structures and Management Practices for Achieving Environmental Stewardship in Transportation Agencies
- Guide to Use of Tier 1 Environmental Impact Statements for Transportation Projects
- Improving Project Environmental Cost Estimates
- New Noise Barrier Products and Noise Barrier Approval Research and Guidelines
- Implementation of Community and Cultural Resource Commitments
- Determine Alternative Calculations for Fine Particulate Emission Factors Other Than AP-42 Applicable to Calculate Re-Entrained Dust on Transportation Projects
- Guidance on Legal Sufficiency Criteria for Adequate Cumulative and Secondary Impacts Analysis in EIS Documents
- Development and Implementation of a Transportation and Climate Change
- Clearinghouse and Transportation Program Responses to Greenhouse Gas (GHG) Reduction Initiatives and Energy Reduction Programs

TRB staff will be soliciting proposals for these tasks from the task order contractors, Cambridge Systematics, ICF Consulting, and Parsons Brinckerhoff.

NCHRP 25-25 was allocated $600,000 by SCOR for FY08.

For more information on NCHRP 25-25, please visit: http://www.trb.org/trbnet/projectdisplay.asp?projectid=761

Mid-Atlantic Green Highways Partnership on the Move!

By Denise Rigney, U.S. Environmental Protection Agency

The Mid Atlantic Green Highways Partnership (GHP) has been busy over the last year and half since it was first introduced at the Transportation Research Board Annual Meeting in 2006. GHP was recently mentioned in US News and World Report and featured in Engineering News. Visit the GHP web site at www.greenhighways.org to see and hear more news. This new and improved web site was launched in fall of 2006 and includes background and news on GHP, as well as podcasts from key GHP partners.

In this article, I will highlight some of the exciting efforts being undertaken by the GHP. GHP and EPA are sponsoring pilot efforts in the area of watershed-driven stormwater management with the Low Impact Development Center and the Maryland State Highway Administration. The purpose of
these pilots is to document the Maryland State Highway Administration’s successful process for addressing stormwater management on a watershed basis through the evaluation of a number of key case studies. The LID Center will assist in benchmarking the results and provide a peer review of the SHA process. The LID Center will also evaluate additional innovative technology for use as BMPs. GHP is also working on evaluating products for use in stormwater management with the help of Villanova University, Prince George’s County (Maryland), the National Ready Mix Concrete Association, and the Asphalt Pavement Association. The purpose is to develop parameters for pervious concrete and porous asphalt for inclusion in Prince George’s County’s BMP – Decision Support System for Watershed Based Stormwater Management.

The Anacostia River watershed restoration activities have been a key priority of GHP. A 2006 Earth Day event unveiled the joint EPA/FHWA funding of integrated transportation and watershed efforts in the Anacostia watershed. A number of efforts are being funded through partnerships among the District of Columbia DOT, Maryland State Highway Administration, Prince George’s County, and Anacostia Watershed groups. GHP’s support of coordinating efforts to help restore the Anacostia River included the sponsorship of an Anacostia Executive Charrette in November 2006. This effort brought together top executives from state and federal agencies; environmental groups; and also representatives from the development and trade organizations to chart the future integrated planning efforts in the Anacostia watershed.

Efforts in the regulatory arena include a Regulatory Roundtable held in October 2006 to gain input into the GHP effort from the key regulatory agencies in the Mid-Atlantic Region, as well as from their headquarters offices. The regulatory agencies, such as the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service, were excited to participate in the GHP theme efforts to investigate innovative ways to address stewardship and regulatory requirements. These agencies provided input by providing their view of the Characteristics of a Green Highway as seen on the GHP web site. These “characteristics” are a work in progress! Visit the GHP website and provide your own views on what goes into making a highway “green”.

GHP took the effort of characterizing the components of a green highway by sponsoring a workshop along with the Federal Highway Administration and the Maryland State Highway Administration on the Planning, Designing, and Engineering of a Green Highway. The U.S. Route 301 Waldorf Area Transportation Improvements Project was used by this workshop as a “case study” to trigger innovative ideas and focus on possible recommendations for the project. Participants included local, state, and federal agencies; members of the GHP Ad Hoc Committee; trade organizations; conservation groups; and the U.S. Route 301 project team. The participants focused on the three theme areas of watershed-driven stormwater management, beneficial reuse of industrial byproducts, and conservation and ecosystem protection. All participants stepped out of their daily roles as regulators, transportation decision makers, and conservation advocates to look at the bigger picture of addressing transportation needs and leaving the environment “better than before”. Products of this meeting will be forthcoming on the GHP web site.

This year’s Annual meeting included a workshop sponsored by ADC10 that focused on GHP and Green Infrastructure. This workshop showed the advantage of integrating transportation and conservation planning. GHP advocates the use of Green Infrastructure planning tools, and conservation planning tools such as “Eco-Logical” early in the transportation planning phase and throughout the transportation development process to assist in identifying ways to protect and enhance the environment while addressing transportation goals and needs. The presentations given during this workshop are highlighted on the GHP web site under “Presentations”.

So, keep an eye out for GHP in the News! But don’t forget to check out our progress on our interactive web site, www.greenhighways.org. New activities, information, and podcasts in the areas of stormwater management, beneficial reuse, and ecosystem protection are being added weekly.

**Development of a Prototype Environmental Information Management System (EIMS) for NCHRP Project 25-23**


The National Cooperative Highway Research Program (NCHRP) 25-23 research initiative was designed to develop...
and provide important tools to assist transportation and planning agencies in meeting the environmental challenges of today and in the future. Work was recently completed on Phase 2 of the initiative. The objective of this project was to design, test, and demonstrate a prototype environmental information management system (EIMS). Work on Phase 2 was performed by a research team led by Cambridge Systematics, Inc., with support from Parsons Brinckerhoff and Venner Consulting, Inc.

The prototype EIMS developed for this project is a web-based information management system with a relational database and map interface, as shown in Figure 1. The system has the following functionalities:

**Long-Term Planning:** Definition of long-term plans and related environmental management data; definition of alternatives associated with long-term plans; management of data related to any environmental analyses performed for a plan alternative and impacts indicated by an analysis; management of public involvement steps and actions for a plan or plan alternative; and association of long-term plans with projects.

**Project Development:** Definition of projects and related environmental management data; definition of alternatives associated with projects; management of data related to any environmental analyses performed for a project alternative and impacts indicated by an analysis; management of public involvement steps and actions for a project or project alternative; and association of projects with specific assets.

**Asset Definition:** Definition of up to three types of assets, such as roads, bridges, and maintenance facilities or other assets; definition of any environmental management data or other data associated with an asset; and association of an asset with map features.

**Commitment Tracking:** Definition of commitments and specific actions taken related to a commitment; and association of commitments with a specific plan, project, or asset.

**Requirements/Best Practices:** Definition of specific requirements and/or best practices related to environmental management; grouping of requirements/best practices into sets; and association of plan, project, or asset alternatives with a specific requirement/best practice set.

![EIMS Components Diagram](image)

**Figure 1 EIMS Components**

Key features of the EIMS include a flexible design that allows agencies to define their own data items in the database and user interface; ability to link plans, projects, and assets with external documents (e.g., photographs, reports, or other documents); and integration with Crystal Reports for reporting. Figure 2 shows an example screen from the system.
A critical part of the research effort was to test the prototype EIMS. Two agencies, the Missouri Department of Transportation (MoDOT) and the North Carolina Department of Transportation (NCDOT), volunteered to test the system. Generally, the test agencies reported a positive experience with the testing of the EIMS. The test agencies suggested several features and enhancements as a result of the testing process.

In finalizing the EIMS, the research team implemented a series of enhancements to the system based on the testing results. Also, the team recommended a set of additional steps to facilitate the transition of the EIMS from a prototype system to a production system that can advance the state-of-the-practice in environmental management in transportation agencies across the United States. The research team and project panel agreed that managing future development of the system through the AASH TOWare program represents the most viable strategy for stewardship of the EIMS. The American Association of State Highway and Transportation Officials (AASHTO) is now exploring the potential for a software solicitation for supporting and enhancing the system.

Additional information on the NCHRP 25-23 initiative, including instructions for obtaining the system and downloading the NCHRP 25-23(2) final report, is available through NCHRP Research Results Digest 317, available at [http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rrd_317.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rrd_317.pdf).

**Public-Private Partnerships and the Growing Dependence on Concession Agreements - Changing the Project Development Process Landscape**

*By Joe Shalkowski, PBS&J*

Several TRB sessions at the 2007 Annual Meeting focused on this topic from a foreign and domestic perspective. Key speakers included Amadeo Saenz of TxDOT, Thomas Pelnik of VDOT, D.J. Gribbin of Macquarie, Ken Daley of Transurban, a contingent from Spain, Imad Nesserrednine of 407 ETR Concession Company, Jennifer Mayer from FHWA, and over ten others.

Based on the presentations, it appears that concessionaires (typically a consortium of engineers, developers, and financiers) will increasingly assume the role of designer, builder, operator, and maintainer of high-demand, capacity-
adding projects. While the State DOTs entering into these agreements will maintain “ownership” of the transportation programs, projects, and network facilities/right-of-way, the concessionaires will “control” many aspects of the projects and facilities for which they purchase the “rights to conduct business.” These purchased business rights may have an agreement period lasting up to 99 years. The presenters discussed many of the clauses and issues being addressed in these agreements (e.g., risk assessment; revenue sharing; non-compete clauses; toll rates; asset management and performance; evolving tolling systems; and operator involvement during design). Furthermore, it was explained how State DOTs intend to leverage these agreements to advance public-private partnerships as a way to build projects that may not be as lucrative from a revenue-generating perspective (e.g., mixing public and private moneys or diverting public moneys from revenue generating projects to other needed projects).

There was also discussion on how the State DOTs intend to interact with and direct the concessionaires over the course of these agreements. It was explained that the State DOTs want to keep focused on the big picture and be less prescriptive on the details. For example, the State DOTs have every intention to effectively communicate the goals and objectives of the project, the performance measures to be used to assess if those goals and objectives are being met, the environmental commitments that must be fulfilled, and the milestones and schedules that must be met. Also, when tolling is involved, it appears that the State DOTs, as well as the state legislatures, intend to have involvement with the concessionaires in establishing tolling policies and rate schedules. However, it was clear that the State DOTs want to avoid dictating and prescribing the details of how to design, build, operate, and maintain a facility (e.g., pavement design standards). Some State DOTs intend to use the services of an “Independent Engineer” to oversee the concessionaires. The “Independent Engineer” may be jointly funded by the State DOT and concessionaire.

There were questions about the role that concessionaires could play during the Planning and NEPA phases of project development. The overwhelming response was that the concessionaires are stakeholders just like the public or any other business. However, it was pointed out that some State DOTs who enter into these types of agreements are reassessing their “Conflict of Interest” regulations. The State DOTs recognize that many firms and entities may have involvement in these types of agreements and that they do not want to disqualify this community from the procurement process on broad categories of projects. Furthermore, there is recognition that the role of the concessionaire during the planning and NEPA phases may evolve. Concessionary projects may, in effect, be good examples of projects that link planning and NEPA because the revenue-generating aspects of the projects could be used to demonstrate a real “need and purpose.” In addition, it may make good environmental sense to involve the concessionaires in the NEPA process so that there is a shared understanding of the environmental commitments and the reasons for integrating context sensitive solutions, environmental management systems, and other environmental/community enhancements into the design, construction, operation, and maintenance of the project. Consequently, it is evident that the NEPA/project development process landscape will continue to change and adapt.

Joe Shalkowski serves as a NEPA Practice Leader for PBS&J and is the Deputy Program Manager for the I-69/Trans-Texas Corridor General Engineering Consultant in Austin, Texas.
Sources of Funding for Environmental and Planning Research

Provided by Leni Oman, Washington State DOT

Federal Programs

Surface Transportation Environment & Planning (STEP) Cooperative Research Program
- Scope: environmental and planning topics of national interest
- 2007 Research Plan available

Strategic Highway Research Program (SHRPB)
- National interest
- 4 focus areas: Safety, Renewal, Reliability, Capacity
- Capacity is the primary focus area addressing environment and planning research
- TRB Special Report 260 summarizes program intent
- Program in Development
  http://www.trb.org/SHRPB/CPK2/CPK2.cfm

Corporate Advanced Research Program
- Seeks to transfer breakthrough technologies into the transportation sector
- Program in Development
  http://www.fhwa.dot.gov/ctap/ctap.cfm

Small Business Innovation Research (SBIR) Program
- Aims to stimulate technological innovations
- Annual solicitation
  http://www.volpe.dot.gov/sbir/sbir_index.html

State & University Programs

AASHTO’s Quick Response Research Projects
- CEOs, SCOE, SCOP, SCOPT, SCOS all have funding
- Projects intended to be accomplished in 6-12 months
- Annual solicitation through AASHTO committee

State Research Programs
- Due: Timing varies by state
- Contact your state DOT research director
  http://research.transportation.org/?
  store=state&agent=td/

Transportation Pooled Fund Program
- Requires at least two states or a state and FHWA to share a common interest and commitment to fund a research activity
- Can be initiated at any time
- Contact your state DOT research director
  http://www.fhwa.dot.gov/state/active.htm

University Transportation Centers
- Focus and process vary by organization
  http://ght.dot.gov/

Sources of Funding for Environmental and Planning Research

Transportation Research Board Programs

National Cooperative Highway Research Program
- Problem Statements Due: September 15
- Synthesis Topics Due: February 14
- Legal Studies: early July
  http://www.trb.org/CRP/NCHRP/NCHRP.asp

Airport Cooperative Research Program
- Problem Statements Due: April 15
- Synthesis Topics Due: October 12
  http://www.trb.org/CRP/ACRP/ACRP.asp

Innovations Deserving Exploratory Analysis
- Transfers technologies to transportation uses. 4 focus areas: High-Speed Rail, Transit; Safety; NCHRP Highway
- Annual solicitation
  http://www.trb.org/STudies/Programs/IDEA.asp

National Freight Cooperative Research Program
- Problem statements can be submitted at anytime by anyone.
  http://www.trb.org/CRP/TFRP/TFRP.asp

Hazardous Materials Cooperative Research Program
- Conducts the work of TRB Spec Rpt 283
  http://www.trb.org/CRP/HMCRP/HMCRP.asp

Commercial Truck and Bus Safety Synthesis Program (CTBSSP)
- Topics Due: May 31
  http://www.trb.org/CRP/CTBSSP/CTBSSP.asp

Transit Cooperative Research Program
- Problem Statements Due: June 15
- Synthesis Topics Due: March 31
- Legal studies: February 15
  http://www.trb.org/CRP/TCRP/TCRP.asp

Strategic Highway Research Program (SHRP2)
- National interest
- 4 focus areas: Safety, Renewal, Reliability, Capacity
- Capacity is the primary focus area addressing environment and planning research
- TRB Special Report 260 summarizes program intent
- Program in Development
  http://www.trb.org/shrp2/

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- Aims to stimulate technological innovations
- Annual solicitation
  http://www.volpe.dot.gov/sbir/sbir_index.html

This includes only research funding available through transportation research programs. Additional research funding is available for environmental and planning topics from other government, academic, and private sources.
Research News

The following are recently completed research reports or reports/topics of interest to the Committee:

- Multi-Pollutant Emissions Benefits of Transportation Strategies


- Control of Invasive Species

- USACE Reissuance of Nationwide Permits

- Handbook on Highway Construction Noise

- Guidelines for Historic Bridge Rehabilitation and Replacement

- State Transportation Agency Strategies to Address NPDES Phase II Requirements
  http://www.trb.org/NotesDocs/25-25(16)_FR.pdf


- Analyzing, Documenting, and Communicating the Impacts of Mobile Source Air Toxic Emissions in the NEPA Process
  http://www.trb.org/NotesDocs/25-25(18)_FR.pdf

  http://ceq.eh.doe.gov/ntf
For the readers’ benefit, here is a list of current (2007) members of TRB Committee ADC10.

ADC10 Officers
- Mark S. Kross, Missouri DOT, Chairman
- Susan Killen, Parsons Brinckerhoff, Secretary

TRB Staff Representative
- Christine Gerencher

ADC10 Subcommittee Chairs
- James (Jim) J. Bednar, CH2M Hill, Liaison
- Frank Bracaglia, Vanasse Hangen Brustlin, Inc., Newsletter
- Ron DeNadai, Mid-Year Workshop
- Andras (Andy) Fekete, The RBA Group, Environmental Stewardship
- Kenneth (Kim) M. Gambrill, Steering
- Christopher (Chris) G. Gesing, Michael Baker Jr., Inc., Website
- Joseph (Joe) S. Shalkowski, PBS&J Transportation and I-69/TTC, Research Topics
- Patricia (Pat) Trombly, Massachusetts Highway Department, History

ADC10 Members
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- Marcia Bowen, Normandeau Associates
- Craig Casper, Pikes Peak Area COG
- Joe Crossett, TransTech Management, Inc.
- David Grachen, Federal Highway Administration Resource Center
- Jeff Heilman, Parametrix, Inc.
- Kris Hoellen, The Conservation Fund
- Mary Ivey, New York State Department of Transportation
- Parviz A. Koushki, Kuwait University
- Dominique Lueckenhoff, U.S. Environmental Protection Agency
- Lynn Malbrorough, Arkansas Highway and Transportation Department
- James B. Martin, North Carolina State University
- Byron (Barney) O’Quinn, ARCADIS
- Martin Palmer, Washington State Department of Transportation
- Shari Schattlein, Federal Highway Administration
- Charles (Muggs) Stoll, San Diego Association of Governments

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- Lisa Landers, Federal Highway Administration
- Christopher (Chris) Van Wyk, Federal Transit Administration

Emeritus Members
- Ron DeNadai
- Robert L. Jacobsen, Robert Jake Jacobsen
- Wayne W. Kober, Wayne W Kober, Inc.
- Douglas L. Smith, Parsons Brinckerhoff
- Thomas (Tom) L. Weck

Others can become “friends of the committee” by contacting Mark Kross at 573-751-4606. His e-mail address is mark.kross@modot.mo.gov.
Editor's Notes

By Frank Bracaglia, P.E., Vanasse Hangen Brustlin, Inc.

I hope you enjoyed this issue of the newsletter. It has been on hiatus for too long!

Thanks to those who contributed feature articles for this newsletter. Thanks also to Chris Gesing of Michael Baker Jr., Inc. for his help in designing and formatting the electronic newsletter, and in posting it on the ADC10 Committee Web site.

Thanks in advance to the subcommittee chairs, members, friends of the committee and others who step forward and volunteer to submit announcements, subcommittee reports, research news, requests for information, or features for the next newsletter. The date for publication of the next newsletter is November 2007.

Remember, this is your newsletter and it is only as good as you make it. I hope to see you all at the 2007 Summer Workshop in Chicago.

- Frank

Newsletter Guidelines

Major Headings:
- Chairman's Message
- Research News
- Announcements
- Requests for information
- Subcommittee Reports
- Notices
- Feature Articles

Submittals are to be formatted to an 8½ x 11-inch size, typewritten in caps and lowercase, single spaced, flush left margin. The subject and author should be provided as part of the text. Articles may be submitted by e-mail to me.

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Subcommittee chairs are expected to submit reports on committee activities. Announcements, Research News, Features and Requests for Information may be submitted by anyone.

The TRB ADC10 Newsletter is published twice a year by Michael Baker, Jr., Inc., 100 Airside Drive, Moon Township, PA 15108. The ADC10 Committee truly appreciates that firm's assistance. We appreciate the assistance of the Center for Transportation and the Environment (CTE) at North Carolina State University for hosting the electronic newsletter on the ADC10 web site at http://www.itre.ncsu.edu/ADC10/default.htm

Electronic Newsletter

This newsletter is not being printed and mailed. It is being e-mailed to members, friends of the committee and others who have provided us an e-mail address. Newsletters are available only by e-mail and on the ADC10 web site. Please submit your e-mail address to Frank Bracaglia at fbracaglia@vhb.com to get on the e-mail list for future newsletters. The newsletter also is available at the ADC10 committee's web site at http://www.itre.ncsu.edu/ADC10/default.htm hosted by the Center for Transportation and the Environment (CTE).