



NatureServe

Final Report

Linking Conservation and Transportation Planning Workshops

2006

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The following is the final report under the contract between NatureServe and the Federal Highway Administration (FHWA), under the Order for Services #DTFH61-05-P-00301 covering the 12 month period of performance beginning September 2005. The purpose of this report is to provide an overview of the project, outcomes, lessons learned, and recommendations/next steps for the period of the contract. The overall purpose of this project was to promote the use of data, tools and frameworks that advance environmental stewardship and streamlining initiatives within the transportation planning process.

I. Summary

The Federal Highway Administration (FHWA) Project Development and Environmental Review Office engaged NatureServe and Defenders of Wildlife to collaborate with local FHWA and DOT staff in three states (Arizona, Arkansas and Colorado) to improve linkages between conservation and transportation planning (with an emphasis on long-range planning), and thereby streamline state planning efforts and provide a head start in meeting several Presidential Executive Orders and FHWA initiatives including:

- SAFETEA-LU
- Ecological: Ecosystem Approach to Infrastructure, and Cooperative Conservation
- Environmental Mitigation: Avoid, Minimize, Compensatory Mitigation
- Scenario Planning
- Integrated Planning
- Support for Transportation Project Decision-Making
- GIS4EST Workshop Content
- Programmatic Approach to the Endangered Species Act
- Green Highways (in concert with US EPA)
- Good Neighbor Environmental Board (GNEB).

We facilitated the process of linking conservation and transportation planning efforts by holding three workshops that provided an unprecedented collaboration between the transportation and conservation communities in Arizona, Arkansas, and Colorado (some neighboring state participation was included too). Each workshop facilitated: 1) an understanding of each parties goals and challenges, 2) identification of collaboration opportunities, and 3) knowledge sharing about data, planning frameworks, and analytical tools that support the link between conservation and transportation planning. The mix of people that were invited to these workshops included state DOT planners, state FHWA environmental staff, state metropolitan planning organizations, local federal agency staff involved in land management and environmental regulations, state fish and game staff, state natural heritage program staff, and local conservation organizations. We invited representatives from across each state (and some neighboring states) that were either involved in transportation planning, could be effected by future transportation infrastructure and/or who offered expertise that could assist in integrating conservation data, planning approaches, and analytical systems with current transportation planning processes.

Final Report

Linking Conservation and Transportation Planning Workshops - 2006

These workshops provided a unique opportunity for the participants to ensure that conservation targets and goals were considered in the transportation planning process.

II. Approach

Three workshops were held - one in Arizona, Arkansas and Colorado respectively. NatureServe and Defenders worked collaboratively with local and national office staff of the FHWA to ensure appropriate representatives from state and federal agencies, as well as a few key NGO partners.

Overview of workshop content

Each workshop included presentations that covered the following:

- Ø current transportation planning processes and goals,
- Ø efforts underway that streamline and link conservation and transportation planning – local and agency-wide (Eco-Logical, Green Infrastructure, etc.),
- Ø widely used conservation planning frameworks in use (including Natural Heritage methods, emerging ecological assessment frameworks, and State Wildlife Action Plans),
- Ø software tools being utilized to support conservation planning (including NatureServe Vista, Community Viz, Quantm, etc.),
- Ø other tools and data in use to support conservation and transportation planning (NSGIC, Wildlife Linkages (AZ), etc.)

All of these were subjects were presented in the context of how they could be used during various stages of the current transportation planning process in each state. The workshops were structured to allow frequent input and dialog related to all the ideas that were introduced, and one of the major outcomes of the workshop was a modified version of the current transportation planning process or an approach to identify a modified planning process in each state. Another major outcome of the workshops was the chance to identify key partners within and between organizations that could facilitate a link between conservation and transportation planning.

Project Deliverables

In summary, outcomes and products from the project included:

1. A revised planning process with specific next steps and leads to ensure implementation
2. Workshop materials, including a compilation of materials on a variety of conservation decision support tools and methods
3. NatureServe Vista case study presentation (with example analyses and output results)
4. Summary of current information sharing and coordination across agencies (data management, programmatic approaches)
5. Workshop summaries including next steps

Final Report

Linking Conservation and Transportation Planning Workshops - 2006

6. Summary of project, cumulative lessons learned and recommended next steps (final report)

Workshop materials available online

Copies of the workshop presentations, notes, action items, and other reference materials can be found at:

<http://www.defenders.org/habitat/highways/workshops/home.html>

Dates of Workshop

- ✓ Arkansas workshop (Little Rock, AR)- May 31-June 1, 2006
- ✓ Colorado workshop (Lakewood, CO) - August 15 & 16, 2006
- ✓ Arizona workshop (Phoenix, AZ) - November 8 & 9, 2006.

III. Project Outcomes

Overall Project Outcomes

- ✚ Provided a venue for unprecedented collaboration between transportation and conservation communities.
- ✚ Helped to build the capacity for integrating conservation planning into transportation planning and project development.
- ✚ Increased awareness of Eco-logical document, and related SAFETEA-LU Section 6001 requirements.
- ✚ Provided an opportunity to discuss how new State Wildlife Action Plans may be used in the transportation planning context.
- ✚ Provided information on conservation data and ecological assessment frameworks that could be integrated into transportation planning process.
- ✚ Provided demonstrations and information about land use planning tools that are available to assist a collaborative approach to planning.

Actions resulting from workshop:

- ✚ **Follow-up meetings/training:**
 - In all states there were local FHWA or DOT staff who volunteered to organize a follow-up meeting to further explore some of the ideas that came up during the workshop related to the use of data and/or tools, and to begin coordination with resource agencies.
 - **Arizona:** During the workshop, Arizona agreed to start a yearly statewide meeting/consultation between ADOT, AZ FHWA and resource agency representatives in the state to ensure integration of goals, data and expertise related to conservation and transportation planning. ADOT has begun the organization of this follow-up planning meeting in coordination with state resource agencies, it was originally scheduled for March but will be rescheduled for early summer 2007.
 - **Arkansas:** On February 27, 2007, the Arkansas FHWA Division Office's Planning and Program Development team and Arkansas State Highway and Transportation Department's Planning and Environmental Divisions hosted a meeting with resource agencies and Arkansas MPOs to comply

Final Report

Linking Conservation and Transportation Planning Workshops - 2006

with the requirements of SAFETEA-LU Section 6001 regarding consultation on land-use management, natural resources, environmental protection, conservation and historic preservation, which shall involve, as appropriate, comparisons of resource maps and inventories, and mitigation planning activities. The meeting was well attended by state and Federal agencies and included representatives from the USFWS, Army Corps of Engineers, Arkansas Forestry Commission, State Historic Preservation Office, and Arkansas Natural Heritage Commission.

- **Colorado:** On March 9, 2007, the state FHWA and DOT staff in Colorado held a meeting with state MPOs and resource agencies to begin a collaborative planning process, and agreed upon required planning products/analyses. Also, a Green Infrastructure training course is being set up for FHWA and DOT staff in Colorado.

Use of New Tools and/or Data:

- **Colorado:** As agreed upon at the project workshop, CDOT sent state resource agencies a list of datasets they proposed to use for transportation planning analysis, and received a response back from resource agencies. In addition, the Colorado Pikes Peak MPO and CDOT are working with the Colorado Natural Heritage Program to test out the use of NatureServe Vista (a land use planning decision support tool).
- **Arkansas** will upload MPO and ecoregional boundaries into GeoStor (the State GIS System).
- **Arizona:** Agreed to develop a series (3) of pilot projects to demonstrate benefits of early consultation in long range planning process – demonstrate to agencies, agreed to develop requirements for technology & data, then identify appropriate technology and data, and agreed to overlay long range statewide plans with large-scale conservation area.

IV. Lessons learned/Successes

The lessons learned listed below fell into two categories: 1) lessons learned by the participants, and 2) lessons learned by the organizers. Based on the workshop survey results, and on general observations by the organizers of the workshop, the following list was developed. This list can be used to guide future work in the effort to link conservation and transportation planning.

Lessons Learned by Participants

- 1) Most participants felt it was valuable to provide a venue for transportation planners to simply meet resource agency representatives they had not met before. The dialog between the groups assisted in:
 - a) Helping both sides understand the goals and challenges each faced.
 - b) Finding areas of intersection – work that if it was done collaboratively would benefit the goal of linking conservation and transportation planning.
 - c) Introducing transportation planners to various conservation planning frameworks
 - d) Introducing conservation planners to the current transportation process

Final Report

Linking Conservation and Transportation Planning Workshops - 2006

- 2) Having the opportunity to dialog about places in the transportation process that would benefit from conservation data, tools or frameworks
- 3) For all participants to learn about and discuss the use of available resources – data, expertise, frameworks, and technologies.
- 4) In all three states their seemed to be a need to increase coordination between state DOT and state MPOs.

Lessons Learned by Organizers

Future workshops would benefit from:

- 1) Providing presenters with a set of focus questions/ideas to address in order to keep presentations relevant to workshop goals.
- 2) Pre-conference meetings with small group of workshop agenda planners to ensure a strong and focused agenda.
- 3) Talking with each presenter prior to workshop to ensure a focused and targeted presentation, and ensure linkages/collaboration between presentations.
- 4) Keep number of participants to 40 or less – otherwise keeping discussions focused becomes difficult.
- 5) Having local leadership be fully engaged is essential to:
 - a) successfully identifying and mobilizing key participants, and
 - b) setting a strong agenda and ensuring good communication with local planners.
- 6) Including a presentation on widely-used conservation planning frameworks early on that illustrates the similarity between conservation and transportation planning processes – this created a camaraderie among planners (environmental and transportation).
- 7) Be sure facilitators are comfortable a) guiding the group to specific next steps, b) encouraging cross pollination between participants, and c) identifying someone to keep the momentum going after the workshop ended.
- 8) Including data and expertise in the area of non-species data – such as data on air and water quality, rather than a focus on species and ecological communities.
- 9) In addition to identifying key datasets, tools and experts, spend time talking to key participants about their experience with these things and finding out how useful they had been to integrating conservation into transportation planning. This would allow the organizers to bring out key challenges to using specific data, tools and approaches, and determine what changes/improvements were needed to make them more useful.
 - a) In one case a methodology for linking conservation and transportation planning was presented and later we received feedback that the method presented was not based on quality data, and therefore it had been minimally useful. If we had known that ahead of time we could have guided the discussion to address these concerns.
- 10) It is essential to make time at the beginning of the workshop for everyone to introduce themselves and answer a question that will help others understand each person's perspective on what is working and what needs improvement to support linking conservation and transportation planning – in Arizona this helped facilitate the dialog between the various agencies and organizations.

Final Report

Linking Conservation and Transportation Planning Workshops - 2006

- 11) It is essential to clearly state the purpose and outcome of the workshop early on, and ensure that someone locally takes ownership of carrying 'next steps' through in order to keep the momentum going.
- 12) Come to the workshop with local data 'in hand' and have a day of hands-on integration of conservation and transportation data and expertise.
- 13) So overall, one major recommendation from these lessons learned would be to ensure enough resources to allow some of the pre-workshop data gathering, research, and one trip to each state to survey key individuals and hold a smaller group meeting to get initial input on some of the issues identified above before planning the final workshop agenda.

Workshop Survey Results

The following links will direct you to the 'summary' page of each workshop's survey results. The surveys allow you to either: 1) view all responses for each question by clicking on the 'view' button next to each question, or 2) click on the 'view detail' button on the top right of the summary page and scroll through the detailed responses for each person.

- ✚ For Arkansas Workshop survey results go to:
<http://www.surveymonkey.com/Report.asp?U=219956539756>
- ✚ For Colorado Workshop survey results go to:
<http://www.surveymonkey.com/Report.asp?U=248539167203>
- ✚ For Arizona Workshop survey results go to:
<http://www.surveymonkey.com/Report.asp?U=286296921348>

V. Recommendations/Next Steps

- 1) Follow-up with AR, CO, and AZ on next steps identified in each state related to follow-up meetings, and status of transportation process and identification of obstacles to integrating conservation planning. Offer assistance in areas of data acquisition, access to conservation experts and use of land use planning tools.
- 2) Workshop participants could assist in demonstrating usefulness of this collaborative planning process by giving presentations at professional conferences relevant to their agency and their subject matter.
- 3) Assist states with cooperative funding and partnerships to facilitate next steps identified during workshops.
- 4) Development of specific guidance on how to meet 6001 requirements – especially related to consultation requirements.
- 5) Need to identify a process for tracking conservation planning related requirements through every level of the transportation planning process. There are many levels of decision-making and it is easy for requirements to be 'dropped' due to conflicts or resource limitations.
- 6) After follow-up with AR, CO and AZ, begin planning workshops in states where there is local interest in integrating conservation data, tools and expertise into current transportation planning processes.

Final Report

Linking Conservation and Transportation Planning Workshops - 2006

- 7) Identify ways to integrate planning done by MPOs and state DOTs.
- 8) Identify ways to ensure state-wide annual meetings where planning is done collaboratively between state DOTs , resource agencies, and other organizations that can provide assistance in linking conservation and transportation planning (also recommend roll-up/integration of data prior to collaborative planning meeting).
- 9) Annual Planning meeting to include standard methods and data for developing an integrated plan (recommend using NatureServe Vista or other land use planning tool that can step planning team through standard process of planning considerations).
- 10) Require coordination with local state Natural Heritage Program in developing long range transportation plan to ensure inclusion of current data on species, ecological communities and other conservation datasets maintained by Natural Heritage Program or Natural Heritage Program partner (i.e. The Nature Conservancy, etc.).
The Natural Heritage Program in every state acts as a clearinghouse for standard data on imperiled species and ecological systems, and works statewide with conservation NGOs, state and federal agencies.

VI. Points of Contact and Participant Summary

Points of Contact

- ✓ FHWA point of contact for each state:
 - Ø Randall Looney (AR), randal.looney@fhwa.dot.gov
 - Ø Mike Vanderhoof, Michael.Vanderhoof@fhwa.dot.gov (CO),
 - Ø Steve Thomas (AZ), steve.thomas@fhwa.dot.gov
- ✓ NatureServe member program (also called natural heritage programs) point of contact for each state:
 - Ø Cindy Osborne (Arkansas Natural Heritage Program), cindy@arkansasheritage.org
 - Ø Melissa Landon (Colorado Natural Heritage Program), mal@lamar.colostate.edu
 - Ø Sabra Schwartz (Arizona Heritage Data Management System), SSchwartz@azgfd.gov
- ✓ Overall Project point of contact:
 - Ø Shara Howie (NatureServe), shara_howie@natureserve.org
 - Ø Trisha White (Defenders of Wildlife), twhite@defenders.org

Summary of Participants

Below is a breakdown of the number of workshop participants by organization and subject area.

Arkansas – Total 43 participants

Arkansas Highways	18 (total)
1) GIS	1
2) Engineer	4
3) Transportation Planning	5
4) Environmental Program/Planning	6
5) Other	2

Final Report
Linking Conservation and Transportation Planning Workshops - 2006

FHWA	9 (total)
1) FHWA, Arkansas	4 (total)
Ø Realtor	1
Ø Transportation Planning	1
Ø Community Planning	1
Ø Environmental Program	1
2) FHWA, Resource Center	2
3) FHWA, HQ	3
Corps of Engineers	1
Regional Planning Commission	2
USFWS	2
Arkansas Fish & Game	3
Conservation Non-profit	8

Arizona – total of 47 participants

ADOT	16 (total)
1) Design/Planning	8
2) Environmental/Natural Resource Management	5
3) GIS Analyst	1
4) Other	2
FHWA	7 (total)
1) FHWA, AZ	5 (total)
Ø Engineering	1
Ø Transportation Planning	1
Ø Environmental Program/Planning	3
3) FHWA, Resource Center	1
4) FHWA, HQ	1
Navajo Nation, Transportation Planning	1
MPO, Planning	3
Association of Governments	1
AZ State Land Department	1
AZ Game & Fish	6
USFS	1
BLM	1
EPA	1
USFWS	1
US Army Corp of Engineers	1
Conservation Non-profit	6
Consultant	1

Colorado – total of 67 participants

CDOT	27 (total)
1) Environmental Program/Planning	11
2) NEPA	2

Final Report
Linking Conservation and Transportation Planning Workshops - 2006

3) Transportation Planning	11
4) GIS	1
5) Other	2
FHWA	9 (total)
1) FHWA, CO	4 (total)
Ø Environmental Program	3
Ø Other	1
2) FHWA, Resource Center	3
3) FHWA, Central Federal Lands Highway Division	1
4) FHWA, HQ	1
MPO	2
Council of Governments	5
CO Division of Wildlife	1
CO Air Pollution Planner	1
CO Air Quality Planner	1
U.S. Army Corps of Engineers	2
USFWS	3
EPA	2
NPS	1
USEFS	4
University	2
Conservation Non-profits	7

If you would like additional information about this project please contact Shara Howie (703.797.4811, shara_howie@naturereserve.org) or Trisha White (202.772.0236, twhite@defenders.org).