Dear Colleagues:

This survey, sponsored by the National Cooperative Highway Research Program (NCHRP), will collect examples of successful approaches to linking environmental resource planning and transportation planning. There is a requirement included in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation for a consultation process between transportation agencies and resource agencies during the development of Long Range Transportation Plans, and consideration of available resource plans, maps and data during the transportation planning process.

By participating in this survey, you will contribute to a growing body of knowledge about how transportation and resource agencies and organizations are integrating their planning and data sharing efforts as well as what innovative techniques and approaches others might want to consider, and what issues still need to be addressed.

The results of this survey will be sent to you, and will be posted on several agency-sponsored websites.

In the following survey, the term ‘planning’ is meant to include:
- long term and shorter range planning,
- developing goals and objectives,
- gathering and analyzing data and information,
- developing and analyzing maps,
- developing performance measures,
- conducting public involvement, and
- developing a dialogue with other agencies and organizations aimed at the integration of environmental and transportation planning.

We appreciate your response, and also encourage you to forward this survey link to colleagues or partners that you think would be interested in providing input. Please copy Danny Kwan at dkwan@camsys.com when you send this link to others so that we can have a complete record of the distribution of this survey.

The survey for transportation professionals can be accessed at: http://www.surveymonkey.com/s.aspx?sm=HW_2bSUJh2EiplpJN8fb_2batgg_3d_3d

The survey for environmental and natural resource professionals can be accessed at: http://www.surveymonkey.com/s.aspx?sm=TMVkztWSR7xHk0BkTJ_2IOQ_3d_3d

Questions about this survey can be directed to:

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or to

Shara Howie
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Thank you!
4. Are you working with environmental/natural resource agency staff to integrate environmental resource planning into transportation planning including the integration of data and involvement of agency personnel?

☐ No, survey proceeds to question 5
☐ Yes, survey skips to question 17

5. Are you familiar with the processes and outcomes involved in environmental resource planning?

☐ Yes
☐ No

Comments:

6. Do you have a good understanding of what it means to successfully link environmental and transportation planning?

☐ Yes
☐ No

Comments:

7. What would help you the most in starting the process of linking environmental and transportation planning? Please select your top three or four choices.

☐ Support from your organization’s upper management for staff to collaborate with environmental resource agencies.
☐ Changes in organizational structure or staff expertise.
☐ Staff incentives (e.g. recognition, funding, etc.) for furthering collaboration between transportation and environmental resource planning.
☐ Annual statewide interdisciplinary planning meetings and/or workshops to assist the transportation and resource agencies’ efforts to collaborate.
☐ Examples of successes in interdisciplinary and collaborative efforts.
☐ Examples of successes in the use of expertise, data and tools.
☐ Identification of the key environmental and biological datasets that are needed to inform transportation planning and decision making.
☐ Identification of key transportation data and information that are needed to inform environmental planning and decision making.
☐ Regular access to experts in the environmental field to assist in identifying environmental goals, accessing ‘best available’ data, and assist in identifying how environmental priorities could conflict with transportation planning efforts.
☐ Other (please specify):

Comments:
### Linking environmental and transportation planning (transportation)

8. Which environmental and/or natural resource agencies or organizations would you consult with as part of your transportation planning process? Please check all that apply.

- U.S. Army Corps of Engineers
- U.S. Bureau of Indian Affairs
- U.S. Bureau of Land Management
- U.S. Department of Agriculture
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Geological Survey
- U.S. National Oceanic and Atmospheric Administration (NOAA) Fisheries
- U.S. National Park Service
- State Fish and Game Agency
- State Department of Natural Resources
- State Planning agency
- Regional/local parks or environmental department
- Tribal Agencies (Please specify part of agency)
- Non-profit organization (Please specify)
- Other agency or organization (Please specify)

Please specify below:

9. What environmental/natural resource plans do you think would be most useful to inform the transportation planning process? Please check all that apply.

- State Wildlife Action Plans (Potential Conservation Opportunity Area Maps)
- Wetland Conservation Plans
- Ecoregional Plans (The Nature Conservancy)
- Other high priority conservation site or area plans (developed by Federal, state, or local agencies or other organizations)
- Fisheries/wildlife management/restoration plans
- Recovery plans/conservation frameworks for Endangered Species Act (ESA) listed species
- Historic preservation plans
- Open space plans
- Development/land use plans (local, regional or state-wide)
- Other (please list and describe below)

10. What environmental/natural resource data do you think would be most useful to inform the transportation planning process? Please check all that apply.

- Air quality data
- Water quality data/hydrological models
- Mapped locations of environmental/natural resources
- Maps of ESA listed species and associated critical habitat
- Mapped wetlands (including functions and values)
- Trends of habitat or other ecological units (change in condition over time)
- Wildlife corridors/primary location of animal crossings
- Infrastructure design recommendations to facilitate animal crossings
- Landscaping or roadside planting guidance (to prevent introduction of invasive species, support native species, avoid attracting wildlife, and minimize effects of transportation route maintenance)
- Noise/vibration impact guidance (to minimize impact of transportation routes/construction on ESA species and critical habitat)
- Vegetation mapping
- Other (please list and describe below)

11. Have you had success in obtaining environmental/natural resource plans and/or data?

- Yes
- No

Please explain:

12. What types of transportation plans and/or information do you think would be useful to environmental/natural resource agencies to inform their planning process? Please check all that apply.

- Transportation corridors and projects proposed in long range plans
- Transportation routes proposed in other plans (such as modal , sub-area or corridor plans)
- Transportation Improvement Programs (TIPs)
- Roadside planting plans
- Road maintenance plans and programs
- Other plans or datasets (list and describe each below)
13. Have you made efforts to provide transportation planning information to environmental/natural resource staff?

- Yes
- No

Please explain

14. What do you perceive as the primary obstacles to integrating environmental resource and transportation planning efforts? Please check all that apply.

- Staff availability or commitment in your office/division
- Inadequate expertise in your office/division regarding transportation planning activities
- Lack of complete, quality and/or appropriate environmental/conservation data
- Insufficient staff availability or commitment in transportation agencies/organizations
- Lack of complete, quality and/or appropriate transportation related data
- Inadequate funding
- Communication or process barriers
- Other

Comments

15. What else, if anything, needs to happen to facilitate the integration of environmental resource and transportation planning?

16. What else would make transportation planning consultation with environmental resource agencies/organizations more effective?

4. General Input from Survey Participants Currently Involved in Integrated Plan...

* 17. Overall, do you think you have been successful in improving the effectiveness of your transportation planning process by integrating environmental resource planning?

- Yes, survey will proceed to question 21 after this page
- No, survey will skip to question 33 after this page

18. If yes, what is the primary reason for your success in improving the effectiveness of your transportation planning process by integrating environmental resource planning?

Please describe

19. Do you think that environmental resource planning in your area has been informed and improved by integrating transportation planning?

- Yes
- No

Please describe

20. Are you aware of other success stories? Please provide a point of contact (including name, email, phone #, agency or organization and title of effort) for other efforts to integrate environmental resource and transportation planning.

Point of Contact 1
Point of Contact 2
Point of Contact 3
Point of Contact 4
5. Example of Integrated Planning

21. Example of Integrated Planning. Please describe your experience in successfully integrating environmental resource and transportation planning (integrated planning).

   Description: (please provide a few words that best describes your integrated planning example)

   How did this integrated planning effort get initiated?

   What helped to get the integrated planning process started?

   What was the geographic scope of this integrated planning effort?

   Who had a major role in the integrated planning process (list names and agencies/organizations)?

22. What type of environmental resource plans and data were available to you? Please check all that apply.

   - State Wildlife Action Plans (Potential Conservation Opportunity Area Maps)
   - Wetland Conservation Plans
   - Ecoregional Plans (The Nature Conservancy)
   - Other high priority conservation site or area plans (Developed by Federal, state, or local agencies or other organizations)
   - Fisheries/wildlife management/restoration plans
   - Recovery plans/conservation frameworks for Endangered Species Act (ESA) listed species
   - Historic preservation plans
   - Open space plans
   - Development/land use plans (local, regional or state-wide)
   - Air quality data
   - Other plans or datasets (list and describe each below)
   - Water quality data/hydrological models
   - Mapped locations of environmental/natural resources
   - Maps of ESA listed species and associated critical habitat
   - Mapped wetlands (including functions and values)
   - Trends of habitat or other ecological units (change in condition over time)
   - Wildlife corridors/primary location of animal crossings
   - Infrastructure design recommendations that facilitate animal crossings
   - Landscaping or roadside planting guidance (to prevent introduction of invasive species, support native species, and minimize effects of transportation route maintenance)
   - Noise/vibration impact guidance (to minimize impact of transportation routes/construction on ESA species and critical habitat)
   - Vegetation mapping
   - Other plans or datasets (list and describe each below)

23. Were the environmental plans, data, maps, and agency personnel readily accessible?

   - Yes
   - No

   Please explain

24. How did you use the environmental resource plans, data, and/or maps? Please check all that apply.

   - To create high level transportation planning goals in consultation with environmental resource staff.
   - To conduct new independent analyses (i.e., overlay environmental resource and transportation plans, evaluating land use scenarios, etc.) to inform the transportation planning process.
   - Other (describe)

25. Describe the integrated planning process that you used. Did the process involve:

   - Identifying conservation targets?
   - Data/information gathering?
   - Identifying data/information gaps?
   - Data analyses?
   - Joint scenario planning (joint evaluation of land use scenarios based on conservation and transportation goals)?
   - Discussions with environmental/natural resource staff only?
   - Other

   Other (please specify)

26. Were there successful outcomes resulting from the integration of environmental resource and transportation planning?

   - Yes
   - No

27. If yes, what were these outcomes?

   Outcome 1
   Outcome 2
   Outcome 3
   Outcome 4
   Outcome 5
Linking environmental and transportation planning (transportation)

28. Were there negative outcomes resulting from the integration of environmental resource and transportation planning?
   - Yes
   - No

29. If yes, what were these outcomes?
   - Outcome 1
   - Outcome 2
   - Outcome 3
   - Outcome 4
   - Outcome 5

30. Did you make information related to transportation plans available to environmental/natural resource agencies?
   - Yes
   - No
   If no, why?

31. Regarding the question above, please describe the type of information provided.

32. How did environmental agencies use this information in their planning process?

Linking environmental and transportation planning (transportation)

6. Summary of Integrated Planning Experience

33. What are your top 3 choices of environmental expertise that were most helpful in your success of integrating environmental and transportation planning? Please rank in order (with 1 being highest) by choosing one selection for each number.

| Expertise in environmental resource planning (setting and evaluating measurable goals) | 1 | 2 | 3 |
| Expertise in acquisition and use of conservation data |  |
| Expertise in land acquisition to support conservation |  |
| Expertise in at-risk species or ecological community management (i.e., developing guidance for roadside planting based on information like known threats and effective management techniques) |  |
| Expertise in integration and analysis of conservation data with other datasets |  |
| Expertise in use of land use or other decision support systems that support integrated planning |  |
| Other types of environmental expertise |  |

Please list and describe other types of environmental expertise below

34. What are your top 3 choices of transportation expertise that were most helpful in your success of integrating environmental and transportation planning? Please rank in order (with 1 being highest) by choosing one selection for each number.

| Expertise in transportation corridors and projects proposed in long range plans | 1 | 2 | 3 |
| Expertise in transportation routes proposed in other plans (such as modal, sub-area or corridor plans) |  |
| Expertise in the Transportation Improvement Programs (TIPs) |  |
| Expertise in roadside planting plans |  |
| Expertise in roadside planting plans and programs |  |
| Other types of transportation expertise |  |

Please list and describe other types of transportation expertise below

Linking environmental and transportation planning (transportation)

7. Additional Input from Survey Participants Involved in Integrated Planning

35. Which of the environmental/natural resource plans listed below are (would be) most useful in achieving integrated planning? Please rank the usefulness of these plans. (1 being less useful and 5 being most useful) Are plans available now? (Check Available or Not Available)

- State Wildlife Action Plans (Potential Conservation Opportunity Area Maps)
- Wetland Conservation Plans
- Ecoregional Plans (The Nature Conservancy)
- Other high priority conservation site or area plans (developed by Federal, state, or local agencies or other organizations)
- Fisheries/wildlife management/restoration plans
- Recovery plans/conservation frameworks for Endangered Species
- Act (ESA) listed species
- Historic preservation plans
- Open space plans
- Development/Land use plans (local, regional or state-wide)
- Other plans

1 - less useful
2
3
4
5 - most useful
Available
Not Available

36. Which of the environmental/natural resource data listed below are (would be) most useful in achieving integrated planning? Please rank the usefulness of these data. (1 being less useful and 5 being most useful) Are data available now? (Check Available or Not Available)

- Air quality data
- Water quality data/hydrological models
- Mapped locations of environmental/natural resources
- Maps of ESA listed species and associated critical habitat
- Mapped wetlands (including functions and values)
- Trends of habitat or other ecological units (change in condition over time)
- Wildlife corridors/primary location of animal crossings
- Infrastructure design recommendations that facilitate animal crossings
- Landscaping or roadside planting guidance (to prevent introduction of invasive species, support native species, and minimize effects of transportation route maintenance)
- Noise/vibration impact guidance (to minimize impact of transportation routes/construction on ESA species and critical habitat)
- Vegetation mapping
- Other data

1 - less useful
2
3
4
5 - most useful
Available
Not Available

Other (list and describe each below) or additional comments
### Linking environmental and transportation planning (transportation)

#### 37. Are there any specific modeling outputs (spatial and temporal scales) that are (would be) useful in achieving integrated planning? Please rank the usefulness of these models. (1 being less useful and 5 being most useful) Are models available now? (Check Available or Not Available)

<table>
<thead>
<tr>
<th>Models of potential species/habitat locations (predictive range maps)</th>
<th>1 - less useful</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 - most useful</th>
<th>Available</th>
<th>Not Available</th>
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<tr>
<td>Model projections of future climate and ecological change (temperature, precipitation, relative sea level rise, storm frequency/intensity)</td>
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<td>Models of land use</td>
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<td>Predictive archeological models</td>
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<td>Habitat models</td>
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<td>Models to assess environmental impacts</td>
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<td>Models of population dynamics</td>
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<td>Models of noise and other effect from roads dependent on size of road</td>
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<td>Models of stormwater runoff</td>
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<td>Travel demand models</td>
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<td>Other models</td>
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</table>

Other useful models (list and describe each below) or additional comments

### Linking environmental and transportation planning (transportation)

#### 38. Which of the following are most useful in supporting integrated planning? Please rank these on a scale of 1 to 5 (1 being less useful and 5 being most useful).

| Support from your organization’s upper management for staff to collaborate with environmental resource agencies. | 1 | 2 | 3 | 4 | 5 - most useful |
| Changes in organizational structure or staffing expertise. | | | | | |
| Staff incentives (e.g., recognition, funding, etc.) for furthering collaboration between transportation and environmental resource planning. | | | | | |
| Annual statewide interdisciplinary planning meetings and/or workshops to assist the transportation and environmental agencies’ efforts to collaborate. | | | | | |
| A process to ensure that environmental considerations are taken into account at all levels of transportation decision-making (e.g., decisions made during the planning phases are communicated during project implementation). | | | | | |
| Examples of successes in interdisciplinary and collaborative efforts. | | | | | |
| Examples of successes in the use of expertise, data, and tools. | | | | | |
| Identification of the key environmental and biological datasets that are needed to inform transportation planning and decision making. | | | | | |
| Identification of the key transportation datasets that are needed to inform environmental resource planning and decision making. | | | | | |
| Availability of toolkits and Q&A summaries on how to meet SAFETEA-LU provisions for long-range transportation planning. | | | | | |
| Regular access to experts in the environmental field to assist in identifying environmental goals, accessing ‘best available’ environmental resource data, and conducting environmental resource planning as part of larger transportation planning process. | | | | | |
| Other | | | | | |

Other (please specify)

#### 39. List computer systems/tools that you currently use, and find useful, to integrate environmental and transportation plans, data and/or maps to inform integrated planning. Describe function that makes tool most useful.

<table>
<thead>
<tr>
<th>System/tool #1</th>
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<tr>
<td>System/tool #2</td>
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<td>System/tool #3</td>
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<td>System/tool #4</td>
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<td>System/tool #5</td>
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</table>

Comments

#### 40. In addition to the functions described above, what other functions or capabilities (not currently available), would be useful in a tool that supports integrated planning? Please describe.

#### 41. What would you change to make environmental resource plans, data, or maps more useful for transportation planning?

Page 16
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>42. What would you change to make transportation plans, data, or maps more useful for environmental resource planning?</td>
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<tr>
<td>43. Are there other things, not addressed in this survey, that you think would make transportation planning consultation with environmental resource agencies/organizations more productive or effective?</td>
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</tbody>
</table>