

Research Needs Lists

The following is a brief summary of some of the research needs and priorities that have been collected by several groups. Some of these are officially collected so that funds can be prioritized and allocated efficiently. Others are less formal and indicate a need based on a group's perception. The following are normally intended for federal funding, but each state has a research program with funds as well. Additionally, there are private or academic groups too, such as the UC Davis Road Ecology Center, that have their own institutional priorities.

Generally speaking, research needs for highways and environmental issues center around the impacts to wildlife and aquatics resources (barrier and mortality effects), planning process efficiencies including methods of impact determination and mitigation effectiveness, and how to integrate conservation and transportation planning.

National Cooperative Highway Research Program Project 25-27: Evaluating the Use and Effectiveness of Wildlife Crossing Structures.

The team of 9 transportation and resource professionals on this group gathered a list of research gaps and priorities, then solicited responses on priorities within the list by survey from other transportation and resource professionals. The results were listed both by process and information needs. For process needs, it was identified that a need to involve interested stakeholders including resource agencies, early in the planning process was key to creating environmentally-sensitive highway projects.

ICOET

The International Conference on Ecology and Transportation has a research subcommittee. The subcommittee does not have a list of research needs, but because ICOET is the world's leading conference on this emerging science, it has an excellent understanding of not only the emerging research needs but also the latest research findings. The ICOET research subcommittee is linked to the Transportation Research Board through several members in common, and this information is formally and informally shared before and after each ICOET.

TRB

The National Academies of Science has a number of elements. One such group is the huge Transportation Research Board. Within TRB are numerous committees with various emphases. These committees have the right and responsibility of submitting research needs to TRB for consideration of research funding. Currently a large effort is ongoing to solicit research problem statements from committees. A new committee, the Committee on Ecology and Transportation (ADC30), is submitting its first problem statements currently.

Other committees with similar interests include the Animal-Vehicle Collision Committee. This committee focuses heavily on deer-vehicle collision issues.

TRB also has had conferences in the past that have identified research needs. The most recent published one was in 2002, the environmental research needs conference.

TRB has an online file of research in progress. This includes all sorts of transportation research, not necessarily limited to highways and environmental issues. <http://rip.trb.org/>

AASHTO

The American Association of State Highway and Transportation Officials is a non-profit group that has a number of functions in research. One group that is involved in environmental research is the AASHTO Center for Environmental Excellence. The CEE has a database of research needs, and it is currently (i.e. this week) soliciting new research problem statements. Its TERI, or Transportation Environment Research Ideas, provides a summary of some of the other collected research need statements. http://environment.transportation.org/teri_database/

Other types of lists

The Sierra County (CA) Highway 89 Stewardship Team and Sagehen Experimental Forest have begun a research program for a long term investigation of environmental issues, especially relating to wildlife, on a highway in eastern California. This project has just begun to develop a research needs statement and program of work. The Stewardship Team is an interagency group of USDA Forest Service, Pacific Southwest Research Station, Tahoe National Forest, UC Cooperative Extension, Caltrans and California Dept of Fish and Game. Sagehen Experimental Forest is administered by the USDA Forest Service and Sagehen Creek Station by UC Berkeley.

The UC Davis Road Ecology Center developed a research priority list in 2005.