TRANSPORTATION ELEMENT

Appendix C-1

TRANSPORTATION AND THE ENVIRONMENT
Resource Summary
June 2004

Archeological Work
See Smart Growth Cultural Resource Planning Handbook. For copy go to
http://www.wisconsinhistory.org/histbuild/smartgrowth/smart%5Fmanual.html

De-icing Procedures and Salt Reduction
See Smart Growth Transportation Planning Handbook. For copy go to
http://www.dot.wisconsin.gov/localgov/docs/planningguide.pdf

Erosion Control
See Smart Growth Cultural Resource Planning Handbook. For copy go to
http://www.wisconsinhistory.org/histbuild/smartgrowth/smart%5Fmanual.html

Noise Monitoring
What Can Be Done to Reduce Highway Noise?
Highway noise is being attacked with a three-part strategy: motor vehicle control, land use control, and highway planning and design. The responsibilities for implementing these strategies must be shared by all levels of government: Federal, State, and local. Often, local officials can most effectively solve specific noise problems in their areas, as demonstrated in the U.S. Environmental Protection Agency's (EPA) Quiet Community and Each Community Helps Others (ECHO) programs. The following two sections briefly describe how traffic noise impacts can be reduced or prevented through efforts to obtain quieter vehicles and efforts to control future development near highways. The remainder of this pamphlet focuses mainly on noise abatement in the Federal-aid highway program.

Noise Reduction on Existing Roads
Some noise reduction measures that are possible on existing roads or on roads that are being rebuilt include creating buffer zones, constructing barriers, planting vegetation, installing noise insulation in buildings, and managing traffic. Buffer zones are undeveloped open spaces that border a highway. Buffer zones are created when a highway agency purchases land, or development rights, in addition to the normal right of way, so that future dwellings cannot be constructed close to the highway. This precludes the possibility of constructing dwellings that would otherwise experience an excessive noise level from nearby highway traffic. An additional benefit of buffer zones is that they often improve the roadside appearance. However, because of the tremendous amount of land that must be purchased and because in many cases dwellings already border existing roads, creating buffer zones is often not possible.
(Source: http://www.fhwa.dot.gov/environment/htnoise.htm)

Noise Wall: It is a specially designed structure built to reduce noise levels created by nearby highway traffic. It is built only after noise impact studies are conducted and certain conditions are met.
(Source: http://www.virginiadot.org/infoservice/faq-noise-walls.asp)

Prairie Restoration - Prairie restoration is the process of recreating a prairie where one once existed but now is gone. If we take the word *restore* literally, we would try to completely rebuild the prairie plant and animal community with all the species that a particular site used to have. This definition of prairie restoration can include planting a new prairie where the former prairie had been broken and farmed, or it can include improving a degraded prairie, that is, one that was never plowed but lost many plant species due to prior land management practices.
(Source: http://www.prairieplains.org/prairierestoration2.html)

Stormwater Management
See Section E, Agricultural, Natural, and Cultural Resource Element of this plan for information on your jurisdiction's stormwater management strategies.

Wetland Creation – designing and building a wetland.

Wetland Mitigation – the creation or enhancement of a wetland in exchange for the loss of another wetland due to development.

Wetland Enhancement – Most wetland enhancement work includes small structures built to add water or regulate water levels in an existing wetland. Subsurface and surface drains and tiles are plugged. Concrete and earthen structures—usually dikes or embankments—are built to trap water. These practices maintain a predetermined water level in an existing wetland. Adjustable outlets allow the landowner to fluctuate the water level during different seasons. Enhancement also includes planting native wetland vegetation if plant populations need to be supplemented.
(Source: http://www.ctic.purdue.edu/Core4/Core4Main.html)

Wetland Mitigation and Transportation
Wetland mitigation is the replacement of wetland functions through the creation or restoration of wetlands. Mitigation is required as a condition of many permits issued under state law (Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended) and federal law (Part 404 of the Clean Water Act). The goal of wetland mitigation is to replace wetland functions that provide public benefits, such as flood storage, water quality protection, fish and wildlife habitat, and groundwater recharge.
(Source: http://www.michigan.gov/deq/0,1607,7-135-3313_3687-10426--00.html)

See also (http://www.dnr.state.wi.us/org/water/fhp/wetlands/mitigation/index.shtml) for more information.

Wetland mitigation banking programs implemented by State transportation agencies offer unique opportunities to consolidate, manage, and protect wetlands resources more effectively while maintaining more workable alternatives for transportation and development. Onsite mitigation remains the first and preferable alternative where feasible. However, by moving the location of mitigation away from transportation projects and development centers, mitigation often can be better integrated with supporting ecosystems, more effectively managed, provide more services to society, and allow for better planning of business, commercial, and residential development.
(Source: http://www.fhwa.dot.gov/environment/wetmtdoe.htm)

Wetland Restoration – putting a degraded wetland back to its original function, water regime, size, biotic diversity, etc. Wetland restoration projects are designed to put the "wet" back into drained wetlands. Once the water has been restored, wetland vegetation can reestablish. Wildlife of all types will then utilize the restored habitat.
Wetland restoration projects are not designed to create deepwater ponds or alter existing natural wetlands.
(Source: http://www.michigan.gov/deq)
Other sources:
http://www.dnr.state.wi.us/org/water/fhp/wetlands/documents/handbook.pdf

Wetland Preservation – protecting current wetlands from development, degradation, pollution, etc.
Sources of information:
http://northamerican.fws.gov/NAWCA/grants.htm
http://www.fsa.usda.gov/pas/publications/facts/html/crepwi01.htm
http://wetlands.fws.gov/
http://www.wisducks.org/WWA%20Web/