Sustainable Design for Highway Corridors

• The Arizona Department of Transportation (ADOT), in cooperation with the Federal Highway Administration (FHWA) oversees the preparation of environmental documents in accordance with the requirements of the National Environmental Policy Act (NEPA). These interdisciplinary documents ensure that project associated environmental impacts and subsequent measures to mitigate those impacts are addressed and implemented appropriately through design and construction.
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• NEPA [42 U.S.C. 4321 et seq.] was signed into law on January 1, 1970, establishing a national environmental policy and goals for the protection, preservation, and enhancement of the environment.

• NEPA provides a process for federal agencies to carry out these goals. The NEPA process is initiated when a federal agency plans to take an action
Sustainable Design of Highway Corridors

- Technical analyses under NEPA must consider the following environmental factors:

  - Air Quality  [Federal/Local]
  - Biological Resources  [Federal]
    - Endangered and Threatened Species
    - Migratory Birds
    - Game animals
    - Wildlife Corridors/Bridge Crossings
  - Cultural Resources  [State/Federal]
  - Hazardous Materials  [State/Federal]
  - Invasive Species/Noxious Weeds  [State/Federal]
  - Land Use  [Local Plans]
  - Noise  [Local Ordinances/neighborhoods]
  - Prime and Unique Farmlands  [Local/State/Federal]
  - Sections 4(f) and 6(f)-Local  [Local/State/Federal]
  - Socioeconomics  [Federal]
  - Title VI Environmental Justice  [Federal]
  - Visual  [Local/Federal]
  - Water Resources  [Local/State/Federal]
  - Wild and Scenic Rivers  [State/Federal]
Sustainable Design of Highway Corridors

• Public involvement plays an important role in the NEPA process. Near the outset of the design process the public is invited to participate in the scoping process by receiving project information and by attending public scoping meetings and submitting comments to the lead agency.
Categorical Exclusion
Programmatic/Non-Programmatic

• Categorical Exclusions (CEs) are defined by FHWA as actions that meet the definition in 40 CFR 1508.4 and, based on past agency experience with similar actions, do not involve significant environmental impacts. These are actions that DO NOT:
• induce a significant impact to planned growth or land use for the area
• require the relocation of significant numbers of people
• have a significant impact on any natural, cultural, recreational, historic or other resource
• involve significant air, noise, or water quality impacts
• have significant impacts on travel patterns
• and otherwise, either individually or cumulatively, have significant environmental impacts
• Programmatic agreements allow for certain activities to be completed without environmental review or analysis, if certain conditions are followed.
• Environmental Determination. A decision based on non-Federal review standards
NEPA Review Process
Eco-Logical Framework for Highway Corridors

• Articulates a vision for infrastructure development and ecosystem conservation to harmonize economic, environmental and social needs and objectives.

• Seeks to design infrastructure in ways that minimize habitat fragmentation and protect larger scale, multi-resource ecosystems.

• FHWA program for preserving and enhancing “green” corridors in correlation with highway and land use planning.

• FHWA seeks local government involvement to develop a “Regional Eco-system Framework” for analysis