

Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands 2008



Chapter Overview Presentations

Twelve Chapter Overview presentations supplement the Guidelines document. Chapters 1-11 each have a Chapter Overview and an additional one summarizes appendices A-O.

These self-paced presentations are designed for individual use or for small group presentations where discussion can be accommodated. It is helpful to have the Guidelines document as a reference when viewing the presentations.

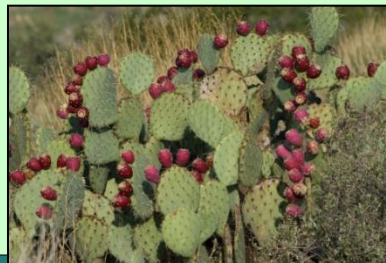
The Chapter Overview presentations are available on the ADOT Roadside Development Section website.

<http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/guidelines-for-highways-on-bureau-of-land-management-and-us-forest-service-lands>

Navigate the Chapter Overview by scrolling through the pages.

Arizona Department of Transportation Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands 2008

Chapter 2: ADOT Development Process on BLM/USFS Lands



Acknowledgments:



Arizona Department of Transportation

Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands



Steering Committee Members & Contributors

ADOT

Members:

LeRoy Brady
Richard Duarte*
Doug Forstie
John Louis*
Mary Viparina
Todd Williams

Contributors:

Thor Anderson
Nicole A. Carpenter
Lonnie Hendrix
Paul Langdale
Siobhan Nordhaugen



FHWA

Members:

Ken Davis
Steve Thomas

Contributors:

Layne Patton



BLM

Members:

Carol Kershaw*
Angela Mogel

Contributors:

John Reid



USFS

Members:

Marjorie Apodaca
Mathew O'Grady*
Bill Woodward*

Contributors:

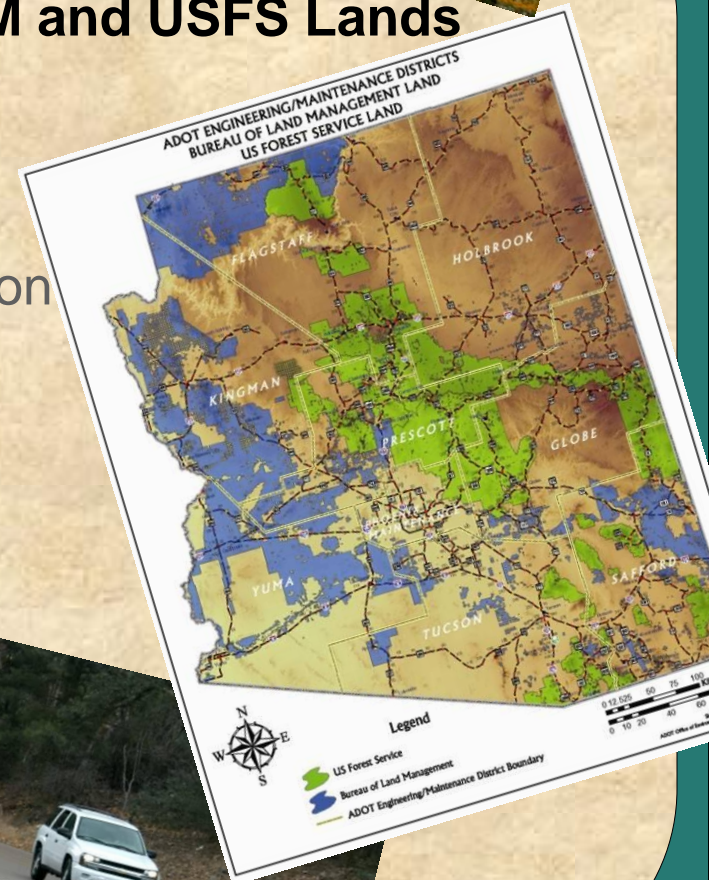
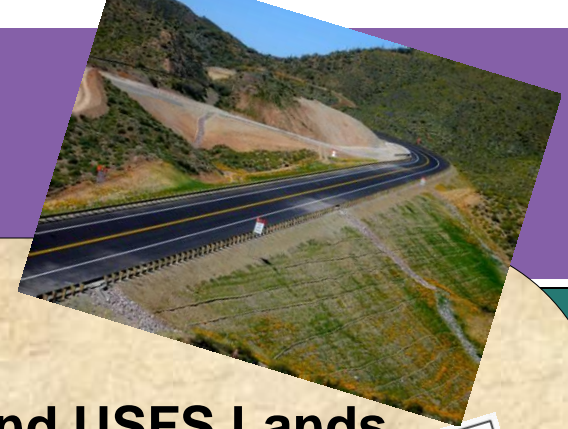
Terry Brennan
Rob Ingram

* Past Member

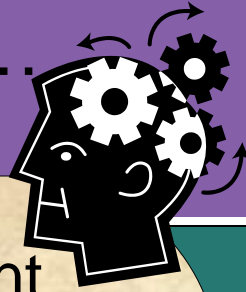
Guidelines Contents



- 1 Introduction
- 2 ADOT Development Process on BLM and USFS Lands**
- 3 Habitat Connectivity
- 4 Roadway Design and Construction
- 5 Major Structure Design and Construction
- 6 Drainage Design and Construction
- 7 Landscape Restoration
- 8 Storm Water and Pollution Control
- 9 Material Sites
- 10 Construction
- 11 Maintenance Operations
- Appendices A - O



After reviewing the Chapter 2 Tutorial you should...



- Understand the basics of the ADOT Development Process and the information prepared at each stage.
- Grasp the importance of coordination of ADOT Long Range Plans with BLM/USFS long-range plans.
- Be familiar with these terms/concepts:
 - Five-Year Construction Program
 - Long Range Planning, Project Scoping
 - Project Development Stages I-V
 - National Environmental Policy Act
 - Categorical Exclusion
 - Environmental Assessment
 - Environmental Impact Statement
 - Project Reference



And you should also...



- Know when BLM/USFS representatives have opportunities to provide input into the ADOT planning process.
- Understand the of depth and breadth of NEPA and its requirements.
- Know that the Guidelines can assist in understanding the NEPA process throughout all phases of a project.
- Be aware of the Arizona Parkways, Historic and Scenic Roads Program.
- Be able to access links for additional information on Chapter 2 topics.



Chapter 2 Contents



2.1 Chapter Goals

2.2 ADOT Project Development Process

2.3 National Environmental Policy Act

2.4 Project Reference

2.5 Arizona Parkways, Historic and Scenic Roads

2.6 USFS Processes that Affect ADOT Highway
Development

2.7 BLM Project Development Process

2.8 Additional Resources

2.1 Chapter Goals



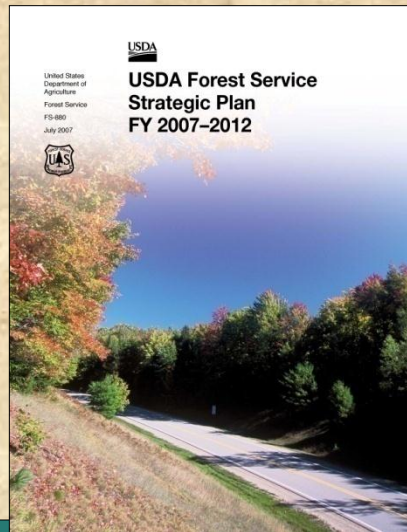
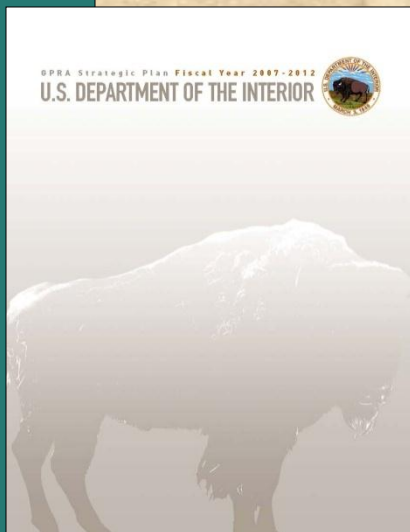
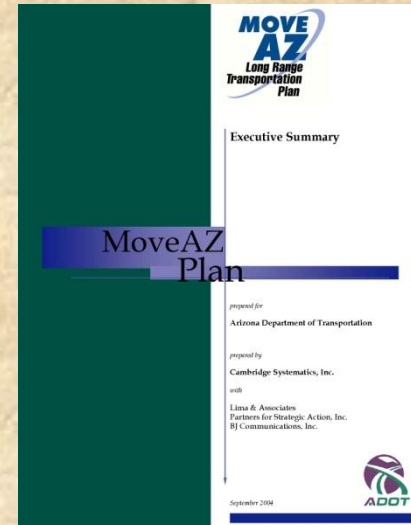
- Outline the ADOT Development Process and describe information typically prepared at each stage in the process.
- Describe types of information typically included in the Environmental Review Process so the design team can anticipate and integrate these concerns into the ADOT Development Process.
- Identify BLM and USFS policies that may affect the ADOT Process.



2.2 ADOT Project Development Process

The State Transportation Board sets priorities for construction or reconstruction projects. Each year, ADOT plans for the addition of these improvements to the State Highway System via the Five-Year Construction Program which results from Long Range Planning.

It is important that ADOT Long Range Plans be coordinated with BLM/USFS long-range planning.



Representatives from BLM/USFS have numerous opportunities to provide input into the ADOT planning process as shown in the following slides.

2.2 ADOT Project Development Process



- **Long Range Planning** *begins 5 - 20+ years prior to construction* and includes:
 - Regional Transportation Profiles
 - Small Area Transportation Studies
 - Multi-Modal Transportation Studies
 - Statewide Access Management Plan
 - Policy Issues
 - Long Range Plan
 - Feasibility/Corridor Study (18 months to prepare)
 - Five-Year Construction Program development



BLM/USFS representatives may advise on the selection of projects to be recommended for inclusion in the Five-Year Construction Program.

2.2 ADOT Project Development Process



- **Project Scoping** *begins 5 - 7 years prior to construction* and includes:
 - Project Scoping Letter (6 months to prepare)
 - Project Assessment (12 months to prepare)
 - Location/Design Concept Report [LCR/DCR] (24+ months to prepare)

BLM/USFS representatives can participate in and/or review the following during the Feasibility/Corridor Study or the LCR/DCR process:

- *Kick Off and Agency Field Review*
- *Initial and final project scoping document*
- *Environmental overview*
- *Public meetings and hearings*

2.2 ADOT Project Development Process



- **NEPA Process** *begins during Project Scoping* and culminates in the Environmental Document.
 - The magnitude of anticipated impacts resulting from the roadway project determine the type of NEPA process utilized and the resulting Environmental Document.

Opportunities for BLM/USFS participation during the NEPA process include:

- *Interdisciplinary team member during development of the Environmental Document*
- *Provide input on issues during agency Environmental Scoping Meetings and/or Field Reviews*
- *Review and comment on the Environmental Document throughout its development including agency review and public comment periods*
- *Provide letter of concurrence to include in final NEPA document*
- *Review the Record of Decision for the Environmental Impact Statement*

2.2 ADOT Project Development Process



- **Project Development: Stages I-V** *begins 1 - 3 years prior to construction* and includes:



- Increasingly detailed design submittals (plans, specifications and cost estimates) for review and comment in preparation of construction documents.

Refer to ADOT's Project Development Process Manual for detailed submittal requirements for each Stage.

Opportunities for BLM/USFS input during Project Development include participation in:

- *Design Kick-Off Partnering Meeting and Field Reviews*
- *Monthly coordination meetings during Stages I-IV*
- *Review and comment periods during Stages I-IV*
- *Providing input to development of updates to NEPA during the Project Development Process*

2.2 ADOT Project Development Process



- **Construction**

- Traditional ADOT Design-Bid-Build project
- Alternative Design/Construction methods



Opportunities for BLM/USFS input during Construction include participation in:

- *Construction Partnering Workshop*
- *Field Inspections and Field Reviews*
- *Weekly construction meetings; review/comment on meeting minutes*
- *Walk-Through (final Field Inspection)*
- *Partnering Closeout Workshop*

2.2 ADOT Project Development Process

- **Maintenance** *begins after project completion and formal acceptance by ADOT*



Opportunities for BLM/USFS input during Maintenance include participation in:

- *Annual Highway Maintenance Partnering*
- *NEPA review (when required)*



2.3 National Environmental Policy Act



- Requires that social, economic and environmental issues, concerns and values be considered along with technical aspects in the decision-making process.
- All projects on BLM/USFS lands must be in compliance with NEPA.
- End product of the NEPA process is the Environmental Document:
 - *Categorical Exclusion (CE)*
 - *Environmental Assessment (EA)*
 - *Environmental Impact Statement (EIS)*

A screenshot of the EPA's National Environmental Policy Act (NEPA) webpage. The header features the EPA logo and the text "U.S. ENVIRONMENTAL PROTECTION AGENCY". Below this is a blue banner with "National Environmental Policy Act (NEPA)". Navigation links include "Recent Additions", "Contact Us", and a search bar with "All EPA" and "Compliance and Enforcement" options. A breadcrumb trail reads "You are here: EPA Home » Compliance and Enforcement » National Environmental Policy Act". The main content area states: "The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions." A sidebar on the left contains the text "Compliance and Enforcement Home" and "National Environmental". A yellow "EPA Report Environmental Violations" badge is in the bottom right corner.

U.S. ENVIRONMENTAL PROTECTION AGENCY

National Environmental Policy Act (NEPA)

[Recent Additions](#) | [Contact Us](#) Search: ☐ All EPA ☒ Compliance and Enforcement

You are here: [EPA Home](#) » [Compliance and Enforcement](#) » National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.

Compliance and Enforcement Home

National Environmental

EPA Report Environmental Violations

2.3 National Environmental Policy Act



- The NEPA process ensures that:
 - Environmental impacts resulting from construction are anticipated and identified.
 - Measures to avoid, minimize or mitigate these impacts are recommended for public review and comment.
 - Approved measures are ultimately incorporated into the constructed project.
- The level of environmental analysis and the environmental document required (CE, EA or EIS) is typically based on the anticipated level of impact that may result from a project.
 - Length of time for analysis and documentation may vary from a few days to 3 or more years.

2.3 National Environmental Policy Act



- Biological and archaeological clearances will be required for all ground disturbing projects on BLM/USFS lands even if full NEPA investigations are not required.
 - The time required for these clearances varies greatly depending on species and/or sites present within the project limits.
- NEPA Process
 - For highway projects, the funding source dictates which agency will act as the 'lead agency' responsible for NEPA compliance.

Pages 14-15 of the Guidelines provide a more detailed discussion of lead agency determination and role, as well as a NEPA Process Flow Chart.

2.3 National Environmental Policy Act



- Mitigation
 - The NEPA process documents the anticipated impacts from highway construction; other laws including Section 4(f) of the DOT Act of 1966 and the Endangered Species Act may require avoidance or mitigation of these impacts.
 - These requirements should be stated in the Environmental Document and may include:
 - Bridges over riparian habitats
 - Avoidance/preservation of natural vegetation or landscape features
 - Salvage of native plants
 - Mitigation measures require careful coordination between ADOT and BLM/USFS during design and construction.
 - FHWA must provide written approval to 'value engineer' these requirements out of the project scope.

2.3 National Environmental Policy Act



- Visual Impact Assessment

- Assess both positive and negative visual impacts of a highway project during the NEPA process.
- Study views to and from the roadway.
- Use BLM/USFS visual assessment models.



- Required visual mitigation measures may affect:
 - Roadway alignment and engineered slopes
 - Natural drainages and bridges
 - Existing vegetation
 - Reestablishment of vegetative cover

2.3 National Environmental Policy Act



- Other activities that may require NEPA clearances/compliance include:
 - Geotechnical/Archaeological investigations
 - Water source development
 - Material source development
 - Maintenance
- NEPA and Cultural Resources
 - Section 106 of the National Historic Preservation Act
 - ARPA - Archaeological Resources Protection Act
 - NAGPRA – Native American Graves Protection and Repatriation Act



National NAGPRA



2.4 Project Reference



- Is an electronic document that serves as compilation of decisions made during the planning and design processes that need to be implemented during design and construction.
- Is a means to track these decisions to ensure that they are not overlooked or forgotten during subsequent design and construction.
- Is accessed directly through the ADOT Information Data Warehouse (AIDW).
- Is the way to do business on all ADOT highway projects.

APPENDIX K

GUIDELINES

APPENDIX K: PROJECT REFERENCE FACT SHEET

Purpose

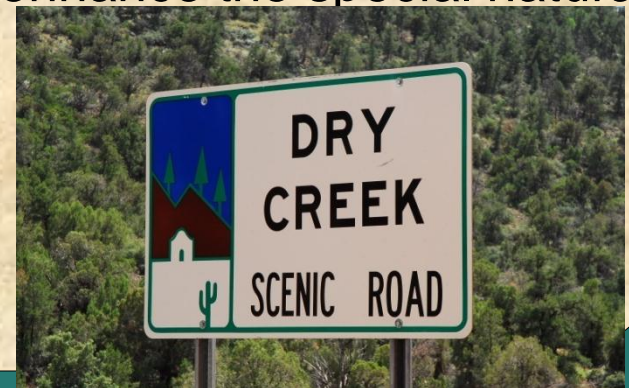
It is imperative that the Arizona Department of Transportation (ADOT) process benefits ADOT and all project stakeholders by providing the most current project information available.

The development of the Project Reference began as a cooperative effort of the Arizona offices of the Bureau of Land Management, the Federal Highway Administration and ADOT in early 2001. ADOT management embraced the concept and encouraged the continuing development of this system. In 2005, the Project

2.5 Arizona Parkways, Historic and Scenic Roads



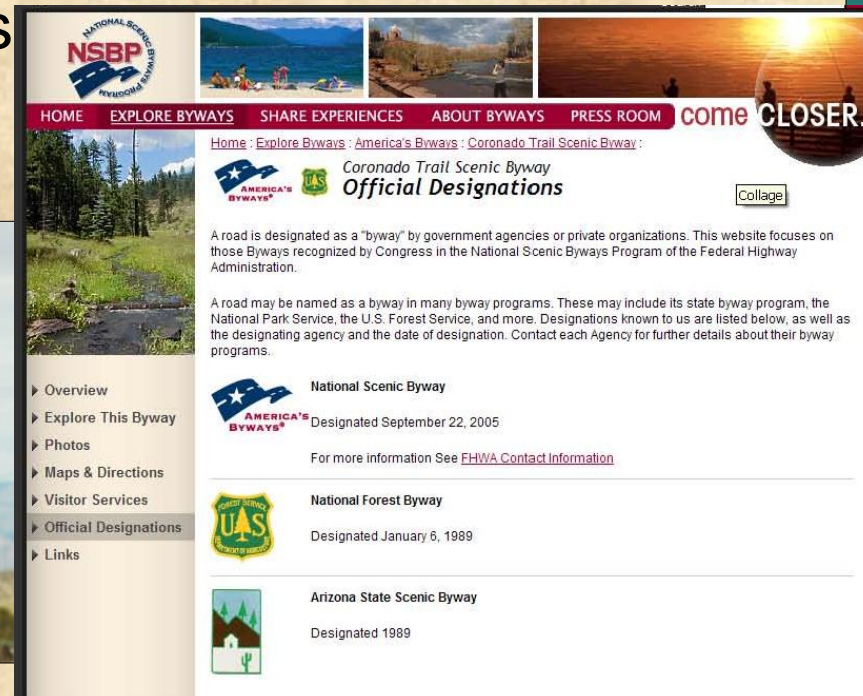
- Arizona Parkway, Historic and Scenic Roads Program
 - ADOT is charged with nomination, designation and maintenance of Parkways, Historic and Scenic Roads.
 - The program allows for the nomination, designation and maintenance of parkways, historic and scenic roads.
 - Nomination is as described in the *Application Procedures for Designation of Parkways, Historic and Scenic Roads in Arizona*.
 - State laws provide for exemption from standard construction and maintenance practices to ensure protection of the unique qualities of the road and to protect/enhance the special natural or cultural resources in the area.



2.5 Arizona Parkway, Historic and Scenic Roads

Other programs that recognize, preserve and enhance selected roads in Arizona are

- FHWA National Scenic Byways Programs,
- USFS National Forest Scenic Byways, and
- BLM Back Country Byways



2.6 USFS Processes



- USFS Processes that Affect ADOT Highway Development
 - National Forest Land and Resource Management Plan (Forest Plan)
 - Specifies goals for environmental quality and natural resource management.
 - Access Management Objectives and Process
 - Describe the extent and form of public access to the Forest to achieve management goals.
 - Forms of access may include hiking, horseback riding, motor vehicle, air or watercraft.
 - Road Management Objectives
 - Off-Highway Travel Management Objectives



2.6 & 2.7 USFS/BLM Processes



- USFS Processes that Affect ADOT Highway Development (continued)



- Letter of Consent
 - is the means by which USFS transfers land to FHWA for highway purposes.
- Merchantable Timber
 - The exact quantities of merchantable timber must be measured, valued and sold to ADOT prior to roadway construction activities.

- BLM Development Process

- Is similar to the USFS process and is described in detail in the MOU (Appendix D).



2.8 Additional Resources



- ADOT Home Page
<http://www.azdot.gov>
- ADOT Multimodal Planning Division
<http://www.azdot.gov/planning>
- ADOT Project Development Process
<http://www.azdot.gov/Highways/PPMS/ProjDevProcMan.pdf>
- BLM Home Page
<http://www.blm.gov/wo/st/en.html>
- FHWA Home Page, National Scenic Byways Program
<http://www.fhwa.dot.gov>, <http://www.byways.org/>
- USFS and NEPA
<http://www.fs.fed.us/emc/>

Highlights



- Read Chapter 2.....
 - To become familiar with the ADOT Development Process.
 - To learn when BLM/USFS representatives have opportunities to provide input into the ADOT planning process.
 - For an overview of NEPA requirements, the Environmental Review Process and integrating these into the ADOT Development Process.
 - For an introduction to the Arizona Parkways, Historic and Scenic Roads Program.
 - To review BLM/ USFS Processes that may affect ADOT Highway Development.
 - For links to additional resources on these topics.



Knowledge Check: Do you.....



- ✓ Understand the basics of the ADOT Development Process and the information prepared at each stage?
- ✓ Grasp the importance of coordination of ADOT Long Range Plans with BLM/USFS long-range plans?
- ✓ Know these terms/concepts:
 - ✓ Five-Year Construction Program
 - ✓ Long Range Planning, Project Scoping
 - ✓ Project Development Stages I-IV
 - ✓ National Environmental Policy Act
 - ✓ Categorical Exclusion
 - ✓ Environmental Assessment
 - ✓ Environmental Impact Statement
 - ✓ Project Reference



And do you.....



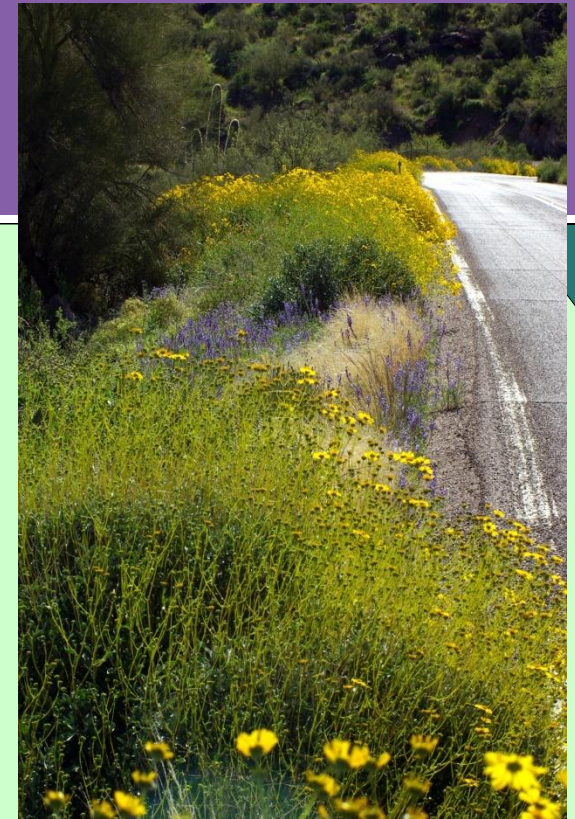
- ✓ Know when BLM/USFS representatives have opportunities to provide input into the ADOT planning process?
- ✓ Understand the of depth and breadth of NEPA and its requirements?
- ✓ Realize that the Guidelines can assist you in understanding the NEPA process throughout all phases of a project?
- ✓ Know the basics of the Arizona Parkways, Historic and Scenic Roads Program?
- ✓ Know how to access links for additional information on Chapter 2 topics?



Guidelines Appendices



- Acronyms and Abbreviations
- Glossary of Terms
- ADOT-FHWA-USFS MOU
- ADOT-FHWA-BLM MOU
- Slope Design Details
- Easement Development
- Section 106 Process on Forest Service Lands
- Typical Blasting Plan Content
- Comparison of Permit Processes for Material Sites
- Signing
- Project Reference Fact Sheet
- Native Plant Salvage & Replanting Evaluation Guidelines
- References and Photography Credits
- Additional Photos (online appendix)
- Document Revision History



Document Availability



Purchase from:
ADOT Engineering Records Section
1655 W. Jackson Room 175
Mail Drop 112F
Phoenix, Arizona 85007-3217
Telephone: 602-712-8216 or 712-7498
Fax: 602-712-3235

For availability and cost:
[http://www.azdot.gov/business/Contracts
andSpecifications](http://www.azdot.gov/business/ContractsandSpecifications)

Download from:
[http://www.azdot.gov/business/engineering-and-construction/roadway-
engineering/roadway-design-standards-and-guidelines/guidelines-for-
highways-on-bureau-of-land-management-and-us-forest-service-lands](http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/guidelines-for-highways-on-bureau-of-land-management-and-us-forest-service-lands)

Arizona Department of Transportation

Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands



