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.  

Navigate the Chapter Overview by scrolling through the pages.
Chapter 11: Maintenance
Acknowledgments:

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Arizona Department of Transportation

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

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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 11 Tutorial you should:

- Understand Maintenance Operations’ role in the highway planning and review process.
- Know the purpose of the Annual Highway Partnering Meeting and the Annual Draft Maintenance Plan.
- Be able to discuss the following typical ADOT maintenance operation activities:
  - Equipment Parking
  - Waste Disposal
  - Staging Area Maintenance
  - Vegetation Management
  - Noxious/Invasive Species Management
  - Tree Removal
  - Hazardous Vegetation
  - Brush Removal
  - Herbicide use
  - Ditch Cleaning and Shoulder Maintenance
  - Cut Slope Maintenance
  - Bridge, Fence, Wall Maintenance
  - Winter Storm Management
And you should also…

- Know to verify if NEPA compliance is required for your maintenance activities.
- Have a basis understanding of Emergency Maintenance Procedures.
- Know that the following BLM/USFS activities require coordination with the ADOT District Maintenance Traffic Division and ADOT Maintenance Operations:
  - Slash burning and other controlled burns
  - Logging across highways
  - Temporary access to highways
  - Maintenance of minor roadways intersecting with highways
Chapter 11 Contents

11.1 Chapter Goals
11.2 Maintenance Participation in Planning and Design
11.3 Maintenance Operations on BLM/USFS Lands
11.4 ADOT Maintenance Operation Activities
11.5 Emergency Procedures
11.6 BLM/USFS Maintenance Operation Activities
11.7 Additional Resources
11.1 Chapter Goals

- Describe how ADOT maintenance activities are best integrated with BLM/USFS resource management concerns.
- Describe the Annual Highway Maintenance Partnering Meeting.
- Outline opportunities for ADOT maintenance personnel to provide input during the design of proposed highway corridors.
- Outline routine ADOT maintenance activities and appropriate strategies for accomplishing those activities.
11.2 Maintenance Participation in Planning & Design

• Plan reviews during the project development process provide an opportunity to review and comment on proposed designs.
  – Review should include written comments from the ADOT District Maintenance Supervisor, District Environmental Coordinator, the ADOT Natural Resources Management Group Regional Manager, the local BLM office or USFS District Ranger and USFS Engineer.
11.3 Maintenance Operations on BLM/USFS Lands

- Annual Highway Maintenance Partnering Meeting.
  - Reestablish working relationships.
  - Review, amend, approve or reject proposed maintenance activities.
  - Agenda should include:
    - Review of past maintenance performed and lessons learned.
    - General review of routine, non-routine and unplanned maintenance.
    - Review and exchange of information on Threatened and Endangered species, archaeological sites and noxious or invasive species.
    - Discussion of environmental documentation for maintenance activities.
    - NEPA planning updates.
11.3 Maintenance Operations on BLM/USFS Lands

- Environmental Compliance and Documentation for Maintenance Operations.
  - Usually the funding source dictates which agency is responsible for NEPA compliance.
  - Additional NEPA documentation is not required for maintenance activities on existing alignments within BLM/USFS lands.
  - Rehabilitation and reconstruction activities on BLM/USFS lands where all activities stay within the existing ROW do require an additional NEPA decision.
  - Maintenance activities that utilize federal funding will require NEPA clearance and will coordinate with FHWA as the lead agency.
  - Demolition of load bearing structures requires National Emission Standard for Hazardous Air Pollutants (NESHAPs) compliance.
11.4 ADOT Maintenance Operation Activities

- ADOT Maintenance Operation Activities include:
  - Parking of maintenance equipment in acceptable overnight locations.
  - Designation of proper storage, staging and waste disposal areas.
  - Utilize existing storage and waste disposal areas to the fullest extent possible.
11.4 ADOT Maintenance Operation Activities

- ADOT Maintenance Operation Activities include:
  - Vegetation Management activities
  - Drainage Structure maintenance
  - Winter Storm Management Program activities
  - Bridge maintenance
  - Noxious and Invasive Species management
11.4 ADOT Maintenance Operation Activities also include:

- Ditch Cleaning and Shoulder Maintenance Activities
- Roadside Barriers
- Fences
11.5 Emergency Procedures

- Maintain contact lists for notification.
- Prioritize repairs.
- Repairs and maintenance should focus on restoring features to their pre-incident state.
11.6 BLM/USFS Maintenance Operation Activities

- Coordinate with ADOT District Highway Traffic Division and ADOT Maintenance Operations.
  - Slash burning and other controlled burns.
  - Logging across highways.
  - Temporary road access to highways.
  - Maintenance of minor roads intersecting with highways.
  - Avoid damage to guardrail, fence, fence supports and signs.
  - BLM/USFS need to maintain approaches of minor roads to highways to minimize tracking of unacceptable quantities of mud and debris onto the highway.
11.7 Additional Resources

- ADOT Stormwater Program including Maintenance and Facilities BMP Manual and Erosion and Pollution Control Manual
  http://www.azdot.gov/business/environmental-services-and-planning/water-quality/manuals
- State Noxious Weed List (R3-4-244 and R3-4-245)
  http://www.azsos.gov/public_services/Title_03/3-04.htm
- Federal Noxious Weed List
  http://plants.usda.gov/java/noxious?rptType=Federal
- Report 341, Integrated Roadside Vegetation Management, National Cooperative Highway Research Program
- Arizona Wildlands Invasive Plant Working Group (AZ-WIPWG): Invasive Non-Native Plants That Threaten Wildlands in Arizona
11.7 Additional Resources

• AASHTO
  http://www.transportation.org/Pages/default.aspx

• ADOT Roadway Design Guidelines

• USFS publication “Landscape Aesthetics, A Handbook for Scenery Management
  http://www.fs.fed.us/cdt/carrying_capacity/landscape_aesthetics_handbook_701_no_append.pdf

• Environmental Assessment for Management of Noxious Weeds and Hazardous Vegetation on Public Roads on National Forest System Lands in Arizona

• Forest Service Pesticide Use Proposal Form (FS 2100-2)
  http://www.fs.usda.gov/detail/tonto/landmanagement/resourcemanagement/?cid=fsbdev3_018789
11.7 Additional Resources

- BLM Vegetation Management EIS

- BLM Pesticide Use Proposal Form

- ADOT Winter Storm Management Environmental Overview and Operations Manual

- Federal-Aid Highway Emergency Relief Program
  http://www.fhwa.dot.gov/specialfunding/er/guide.cfm

- Phoenix Interagency Fire Center
  Phone 480.457.1551
Highlights

- Read Chapter 11........
  - For an overview of the Annual Highway Maintenance Partnering Meeting and Annual Maintenance Plan content.
  - To understand required environmental compliance and documentation for maintenance operations.
  - For a discussion of typical ADOT maintenance activities and tasks.
  - For an awareness of Emergency Maintenance Procedures.
  - For a list of BLM/USFS maintenance activities that require coordination with ADOT.
Knowledge Check: Do you……

- Understand Maintenance Operations’ role in the highway planning and review process?
- Know the purpose of the Annual Highway Partnering Meeting and the *Annual Draft Maintenance Plan*?
- Be able to discuss typical ADOT maintenance operation activities including:
  - Equipment Parking
  - Waste Disposal
  - Staging Area Maintenance
  - Vegetation Management
  - Noxious/Invasive Species Management
  - Tree Removal
  - Hazardous Vegetation
  - Brush Removal
  - Herbicide use
  - Ditch Cleaning and Shoulder Maintenance
  - Cut Slope Maintenance
  - Bridge, Fence, Wall Maintenance
  - Winter Storm Management
And do you......

✓ Know to verify if NEPA compliance is required for maintenance activities?
✓ Understand Emergency Maintenance Procedures?
✓ Know that the following BLM/USFS activities require coordination with the ADOT District Maintenance Traffic Division and ADOT Maintenance Operations:
  ✓ Slash burning and other controlled burns
  ✓ Logging across highways
  ✓ Temporary access to highways
  ✓ Maintenance of minor roadways intersecting with highways
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
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Telephone: 602-712-8216 or 712-7498
Fax: 602-712-3235

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