ADOT Arizona Department of Transportation

Roadside Vegetation Management Guidelines





This page intentionally left blank.

Roadside Vegetation Management Guidelines

These guidelines provide an overview of best practices for roadside vegetation management activities for staff across the state. Each guideline contains information on the purpose of the activity, planning the activity, coordination within ADOT and with external agencies ahead of undertaking the work, and best practices for the work. Some of the guidelines also contain information on equipment used for less common activities.

The appendices and associated posters include information that is useful for planning activities. Appendix A and the Recovery Zone Poster illustrate the recovery zone and sightlines and how the recovery zone size varies with design speed. Appendix B defines the roadway prism, which is an important concept for environmental compliance and maintenance work orders. Appendix C and the Vegetation Management Biozone Posters show and explain the different vegetation types across the state (and by district) which require different vegetation management techniques. Appendix D and the Land Ownership Posters show the land ownership across the state (and by district) to help with planning external agency coordination needs ahead of maintenance activities. Contact ADOT Roadside Resources for PDFs or prints of the posters.

The guidelines and appendices were developed by ADOT Roadside Resources with assistance from Logan Simpson and input from agency maintenance, design, engineering and environmental staff. The document was reviewed by Kris Gade, Justin White, LeRoy Brady, Kyle Seisinger, Robert Guevara, John Hucko, David Casselbury, Mark Schalliol, Kirk Kiser, Chris Cooper, Robert Stoner, Laura Nordan, Tyrel Cranford, Tom Engel, and Joshua Fife.

Produced and Published by Arizona Department of Transportation Infrastructure Delivery and Operations Division

~ M.

Jesse Gutierrez Deputy State Engineer for Operations

Date

Introduction

The Arizona Department of Transportation (ADOT) manages vegetation along approximately 1,390 miles of highways across Arizona. The primary goals of roadside vegetation management are maintaining traffic safety, preserving highway infrastructure, and maintaining a resilient native roadside plant community. ADOT is required to control weeds that occur in the right-of-way as defined in <u>Arizona Revised Statutes Title 3</u> and listed in <u>Arizona Administrative Code Title 3</u>, <u>Chapter 4</u>, R3-4-244 and R3-4-245) to comply with state law and to maintain good relationships with adjacent landowners. Executive Orders 13112 and 13751 direct federal agencies to prevent the introduction and spread of invasive species. ADOT has agreements with the US Forest Service and Bureau Land of Management under the Four Agency Partnership in Arizona regarding maintenance of transportation easements on their land (<u>Guidelines for Highways on BLM and US Forest Service Land</u>). The agreements with the BLM and USFS regarding vegetation management are reviewed annually and posted on the <u>ADOT Roadside Resources</u> webpage.

In order to manage roadsides with these objectives in mind, ADOT 's goal is to use a system of Integrated Roadside Vegetation Management (IRVM) to establish a plant community that is self-sustaining, resists weed infestations, requires only low maintenance effort, and provides necessary soil stabilization and erosion control. To this end, these guidelines for vegetation management were developed based on input from the maintenance, construction, landscape architecture, design, and environmental groups. Districts will also be developing individual vegetation management plans for each route within their district with an overall goal of establishing self-sustaining, low growing, weed-free vegetation on the roadsides over as much of the state highway system as possible. This system will require a process of removing undesirable species, such as noxious and invasive weeds and replacing them with desirable native species using seasonally-timed control measures.

The guidelines and attachments in this document are tied to activity codes in the Performance Controlled System (PeCoS) and are designed to be used as activities are being planned by supervisors and to guide standard work for staff in the field. A series of graphics and maps were developed to reach a mutual understanding of concepts across the design, construction and maintenance groups within ADOT. Traffic control information for each of the activities is available within the PeCoS activity descriptions. In general, all traffic should be maintained through the work area and protected in accordance with the requirements of the current Manual on Uniform Traffic Control Devices (MUTCD) and Arizona Supplement to the MUTCD. Also, all traffic control and traffic control devices should be in place prior to beginning work and removed once the work activity has been completed.

Guidelines	PeCos Activities
Stabilization	341, 343, 1400
Cut trees/brush	311, 315, 321, 324, 1450, 1460, 1461, 1462, 1466 (includes tumbleweed mechanical removal)
Chipping	310, 1463
Herbicide	351, 353, 354, 363, 1420, 1421, 1430, 1431, 1432, 1433, 1440, 1441, 1492
Mowing	1410
Revegetation	314, 323, 1470, 1471, 1472, 1475, 1476
Salvage	1464
Burning	1480, 1483 (includes tumbleweed burning)

This document is intended to be updated frequently to maintain its relevancy. Please direct comments, questions and suggestions to Kris Gade, Roadside Resources Specialist, ADOT Environmental Planning (kgade@azdot.gov, 602-292-0301).

Table of Contents

ntroduction	. I
	•••

Guidelines

Mowing	1
Cutting Trees and Shrubs	9
Chipping	
Herbicide Use	19
Prescribed Burning	33
Soil Stabilization	39
Native Plant Salvage	43
Revegetation	47

General Information

Appendix A: Recovery Area	55
Appendix B: Roadway Prism	57
Appendix C: Vegetation Management Biozones	59
Appendix D: Land Ownership	67

This page intentionally left blank.