

## **Annual Maintenance Plan for Cooperative Management Of Invasive Plants and Hazardous Vegetation Along Road Systems on US Forest Service Lands in Arizona**

### **PURPOSE**

The purpose of this annual maintenance plan is to address coordination and assistance between Arizona Department of Transportation (ADOT), Federal Highway Administration (FHWA), and the U.S. Forest Service (USFS) as required for management of invasive plants and hazardous vegetation on road systems and rights-of-way managed by ADOT or FHWA that can potentially affect nearby National Forest System (NFS) lands. Management and coordination between the agencies include the use of herbicides as analyzed in the USFS Environmental Assessment (EA) of 2004.

### **BACKGROUND**

This annual maintenance plan is part of the process outlined in Part B of Section VII. COORDINATION MEETINGS (p. C-7) in the *Amended Memorandum of Understanding between the Arizona Department of Transportation, the Federal Highway Administration, and the USDA, Forest Service, Southwestern Region Regarding The Construction, Operation and Maintenance of Highways in Arizona Crossing National Forest System Lands* (MOU No. 06-MU-11031600-013). The MOU was implemented October 16, 2008 and is found in Appendix C of the *Arizona Department of Transportation Guidelines for Highways on Bureau of Land Management and U. S. Forest Service Lands* (ADOT Guidelines). The Guidelines and MOU for Highways on BLM and USFS Lands manual are continuously updated with changes such as updating web links and adding information to the Maintenance Chapter regarding vegetation management for wildfire and hazard elimination.

The entire manual can be found at this link: <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>.

Appendix O, pages O-1 and O-2, lists each page that has changed.

The MOU of 2008 will be used in lieu of a previously issued MOU (MOU No. 03-MU-11031600-048) that was implemented May 27, 2003 between ADOT, FHWA, and USFS to coordinate management of invasive plant species and hazardous vegetation along public roadways traveling through the Apache-Sitgreaves, Coconino, Coronado, Kaibab, Prescott, and Tonto National Forests. The MOU of 2003 was originally intended to support the *Environmental Assessment for Management of Noxious Weeds and Hazardous Vegetation on Public Roads on National Forest System Lands in Arizona*. The EA was implemented under a “Decision Notice and Finding of No Significant Impact” on May 27, 2004.

The MOU of 2008 is expected to serve indefinitely as the operational MOU of record for cooperative management of invasive plants and hazardous vegetation by ADOT, FHWA, and USFS as required under the EA of 2004 (p. 45). The MOU of 2008 can only be terminated upon written request by one

of the signatory agencies whereas the MOU of 2003 had a five-year duration period. Incorporation of this annual maintenance plan with the MOU of 2008 fulfills the objectives of the MOU of 2003 since the plan encompasses nearly all of the items addressed in the earlier MOU, including herbicide use. The plan is also consistent with the EA of 2004, including the purpose of serving as an annual operating plan as required under the EA (p. 45). However, the annual maintenance plan for managing invasive plants and hazardous vegetation is intended to operate independently from other annual maintenance plans that are also applicable under the MOU of 2008.

## **SCOPE**

### **A. ADOT, FHWA, AND USFS SHALL:**

1. Meet at least once annually at a state-wide level (preferably in February or March) either physically in a meeting room or by teleconference to discuss program issues and opportunities and resolve any potential difficulties or conflicts. It is agreed that ADOT will coordinate all such meetings. Program operations from the previous year will be evaluated during the meeting, and the annual maintenance plan will be modified if necessary to achieve desired results. Any updated version of this maintenance plan will be mutually agreed upon by the three agencies.

### **B. ADOT SHALL:**

1. Arrange for annual or more frequent meetings between ADOT Districts and the National Forest personnel they interact with locally. These meeting(s) would include ADOT Environmental Planning, Roadside Development, and District Maintenance and Development personnel with their counterpart USFS personnel on relevant national forests to
  - a. Identify rights-of-way or other ADOT sites needing treatment,
  - b. Determine appropriate treatment methods and mitigations,
  - c. Establish schedules for needed treatments,
  - d. Identify sites where ADOT road maintenance equipment can be inspected and cleaned by air-blowing or washing to remove weed seed and other weed propagules before entering or leaving project sites,
  - e. Coordinate treatment of invasive plant infestations that cross jurisdictional boundaries,
  - f. Discuss any special requirements for areas such as scenic roads and environmentally sensitive areas,
  - g. Arrange to jointly check a number of treatment sites for compliance with established mitigations and treatment effectiveness, and
  - h. Determine equipment and supplies to be shared and execute any necessary agreements or paperwork.
2. Treat invasive plant species and hazardous vegetation by appropriate physical or chemical methods on rights-of-way, construction sites, and other related areas managed by ADOT within NFS lands or adjacent to NFS boundaries. In accordance with the EA, invasive plant infestations that occur on NFS land beyond the right-of-way or construction site may be treated by ADOT for up to 200 feet beyond the easement boundary to prevent re-infestation within the project area. Principal invasive plant species to be treated will be those listed in the **USFS PRIORITY PLANT LIST** shown below which includes weed species found on Arizona's noxious weed list and priority species as designated collectively by the six national forests. The list may be further

amended on a statewide basis through the USFS Regional Program Contact; the amended list will be provided by the USFS Regional Program Contact to ADOT Roadside Development. Treatment methods for controlling a number of invasive plant species may be found on the USFS website <http://www.fs.usda.gov/main/r3/forest-grasslandhealth/invasivespecies> or from other appropriate sources.

3. Implement best management practices as per Chapter 7.3 (p. 86) and Chapter 11.4 (p. 114) in ADOT Guidelines to reduce establishment and colonization of noxious and invasive weed species on NFS lands. This includes preventing transportation of weed seed or other types of weed propagules within NFS lands by ADOT equipment during travel from weed-infested areas to non-infested areas by implementing necessary sanitary measures such as vehicle inspections, air-blowing or washing of equipment, etc. These sanitary measures should also be implemented prior to use of ADOT equipment on NFS lands.
4. Implement sanitary measures to prevent introduction of weed seed or other types of weed propagules in seed, straw, hay, compost, gravel, or any other materials used during road construction or other ADOT-managed activities on or near NFS lands. This includes specifying the purchase of straw, wattles, straw blankets, and other straw materials certified to be weed-free prior to use on ADOT projects. Testing certificates will be reviewed for the presence of weed seed for compost supplied for ADOT projects. Gravel and other materials must be obtained from stockpiles or material sources that are free of listed weed species. Seed certificates of analysis from a seed testing laboratory using standards of the Association of Official Seed Analysts (AOSA) will be reviewed by ADOT in advance of seeding. Seed lots may be rejected based on the presence of weed seeds. All test results should be reported to the relevant national forest. ADOT will also require laboratory testing for additional weed species in seed lots if requested by a national forest.
5. Provide USFS contacts or their successors on relevant national forest(s) as designated below with a completed USFS Pesticide-Use Proposal (PUP), form FS 2100-2, at least two weeks before the intended treatment date. The PUP form may be obtained from USFS contacts as listed below. The scope and scale of each proposal will be mutually agreed upon between USFS and ADOT prior to submission. PUPs will be approved by USFS for up to five years with an annual review to be conducted by ADOT and USFS to validate that specific conditions in a PUP remain current. A new PUP will be developed by ADOT whenever new herbicide active ingredients are proposed or the specific conditions of the incumbent PUP are otherwise modified.

6. Provide direction to all ADOT crews and private contractors to ensure compliance with established procedures, mitigations, and other requirements. This includes
  - a. Implementing the Herbicide Safety and Spill Plan found in Appendix B of the EA that addresses pesticide handling and the possibility of herbicide spillage.
  - b. Applying all buffer zones and other protective measures identified in the EA and PUP as necessary to protect water resources, Tribal ethno-botany locations, threatened & endangered (T&E) species, or sensitive species. This includes post-spray monitoring to ensure that the protective measures were effective.
  - c. Post informational signs at designated pullouts and rest areas and place signage on spray vehicles listing the herbicide being used. The Forest invasive species coordinator will be notified 30 days ahead of treatments.
7. Maintain required records for applications of both restricted-use and general-use herbicides including applications made by private contractors for 3 years following treatments.
8. Use the ADOT Highway Condition Reporting System (HCRS) to post upcoming spray schedules on the 511 message system at least one week before application to inform the general public on the timing and location of proposed herbicide applications.
9. Provide ADOT's pesticide application e-form (Form # C59201214216) to relevant national forests when pesticides are used on these forests, preferably on a monthly basis or at least on a quarterly basis in accordance with the Federal fiscal year (October 1 through September 30). Contractors may use the "ADOT Herbicide & Pesticide Application Log" form and submit copies of the form to the Forest at the end of the construction project. Records in the e-form or the "ADOT Herbicide & Pesticide Application Log" form will include at a minimum:
  - a. Site locations of applications (e.g., Highway 12; MP115-MP125)
  - b. Date of application
  - c. Applicator(s) name
  - d. Targeted plant species
  - e. Application equipment (hand wand, boom sprayer, etc.)
  - f. Acreage treated
  - g. Treatment type (e.g., spot)
  - h. EPA registration number for each pesticide product
  - i. Active ingredient (e.g., glyphosate) and product name (e.g., Roundup) of individual herbicide products used. When herbicides are used in tank mixtures, each herbicide will be listed separately and specified as being part of a tank mix.
  - j. % active ingredient
  - k. % active ingredient in spray mix
  - l. Chemical rate/acre
  - m. Total amount of herbicide applied (product + dilutant)
  - n. Adjuvants and their mixing rate
10. Provide contacts from relevant national forests as listed below with a copy of ADOT's five-year construction program and District minor projects.

11. Provide a written request to the USFS Regional Forester located in the Southwestern Regional Office in Albuquerque, NM for adding any additional herbicides to the 16 herbicides originally analyzed in the EA of 2004. Arrangements for submitting the written request should be coordinated with the Regional Office program contact as stated below or the successor. The written request must be accompanied by a professionally prepared risk assessment of the proposed herbicide that addresses both human health and ecological risks. The scope and scale of the risk assessment will be mutually agreed upon between Regional Office staff and ADOT prior to submission. USFS risk assessments found at <https://www.fs.fed.us/foresthealth/protecting-forest/integrated-pest-management/pesticide-management/pesticide-risk-assessments.shtml> can be used for a proposed herbicide, but similarly prepared risk assessments from other sources may be submitted as appropriate. A review will then be made by Regional Office staff to determine whether the proposed herbicide has the same or similar impacts compared to analyses and effects evaluated in the EA. If addition of the proposed herbicide is consistent with the existing environmental analysis, a Supplemental Information Report (SIR) may be used by the USFS to allow use of the new herbicide in lieu of completing a new EA.
  
12. Be responsible for obtaining coverage under Arizona Dept. of Environmental Quality’s pesticide general permit (AZPGP) for pesticide discharges made by ADOT in Federally designated “Waters of the US” that occur on NFS lands in compliance with National Pollutant Discharge Elimination System (NPDES) regulations of the Clean Water Act.

**C. USFS SHALL:**

1. Arrange for USFS personnel on national forests to meet at least annually with counterpart personnel from ADOT including the Roadside Resources Specialist, Environmental Planning Maintenance Planner and District Maintenance personnel from relevant ADOT districts to:
  - a. Identify USFS sites along rights-of-way needing treatment,
  - b. Determine appropriate treatment methods and mitigations,
  - c. Establish schedules for needed treatments,
  - d. Identify sites where ADOT road maintenance equipment can be inspected and cleaned by air-blowing or washing to remove weed seed and other weed propagules before entering or leaving project sites,
  - e. Coordinate treatment of invasive plant infestations that cross jurisdictional boundaries,
  - f. Establish notification procedures for removal of hazardous trees and snags,
  - g. Discuss any special treatment requirements for areas such as scenic roads and environmentally sensitive areas,
  - h. Arrange to jointly check a number of treatment sites for compliance with established mitigations and treatment effectiveness, and
  - i. Determine equipment and resources to be shared and execute any necessary agreements or paperwork.

2. Provide ADOT with a single list of priority weed species to be treated across all six national forests [see **USFS PRIORITY PLANT LIST** below]. The nomenclature for species names and codes in the list will be in accordance with the USDA PLANTS Database found at <http://plants.usda.gov/java/>. The list may be amended on a statewide basis through the USFS Region 3 Coordinator for Invasive Species and Pesticides; the amended list will be provided by the USFS Region 3 Coordinator for Invasive Species and Pesticides to ADOT Roadside Resources.
3. Identify all sites within proposed vegetation treatment areas that have T&E species or sensitive species and provide this information to ADOT district personnel and the ADOT Environmental Planning Group Maintenance Planner as necessary. This will include information required for mitigation measures or constraints addressed in any finalized PUP.
4. Review and approve a PUP no less than two weeks before the intended treatment date and return the PUP form to ADOT. Scale and scope of each proposal will be mutually agreed upon between the USFS and ADOT prior to submission. PUPs will be approved for up to five years unless the annual review conducted by ADOT and USFS indicates that specific conditions of a PUP are no longer valid.
5. Submit a Highway Encroachment Permit Application to ADOT for approval of all work scheduled by USFS specifically for survey and monitoring of invasive species in state highway rights-of-way.
6. Complete and maintain required environmental documents in compliance with NEPA and associated regulations for implementation of this agreement.

**A. ADOT CONTACTS**

<p align="center"><b>ADOT Roadside Development Program</b></p>	<p align="center"><b>ADOT Environmental Planning Roadside Resources/Biology</b></p>
<p>Name: LeRoy Brady, Landscape Architect Address: 1611 W. Jackson St., MD EM03 City, State, ZIP: Phoenix, AZ 85007 Telephone: 602.712.7357 Email: <a href="mailto:lbrady@azdot.gov">lbrady@azdot.gov</a></p> <p>Responsibilities: Maintains list of noxious and invasive species, approves seed certificates and Noxious Species Control Plans for construction</p>	<p>Name: Kris Gade, Roadside Resources Specialist Address: 1611 W. Jackson St, MD EM02 City, State, ZIP: Phoenix, AZ 85007 Telephone: 602.292.0301 Email: <a href="mailto:kgade@azdot.gov">kgade@azdot.gov</a></p> <p>Responsibilities: Vegetation management and herbicide technical resource; herbicide coordination meeting</p>
<p align="center"><b>ADOT Environmental Planning Maintenance Planner</b></p>	<p align="center"><b>ADOT Environmental Planning Biology Team Lead</b></p>
<p>Name: Darin Kelly Address: 1221 S. 2<sup>nd</sup> Ave, MD T-100 City, State, ZIP: Tucson, AZ 85713 Telephone: 520.388.4254 Email: <a href="mailto:dkelly@azdot.gov">dkelly@azdot.gov</a></p> <p>Responsibilities: Environmental review of maintenance activities</p>	<p>Name: Joshua Fife Address: 1611 W. Jackson St, MD EM02 City, State, ZIP: Phoenix, AZ 85007 Telephone: 602.712.6819 Email: <a href="mailto:jfife@azdot.gov">jfife@azdot.gov</a></p> <p>Responsibilities: Environmental review of development projects and maintenance activities</p>
<p align="center"><b>ADOT Northeast Herbicide Contact</b></p>	<p align="center"><b>ADOT Northcentral Herbicide Contact</b></p>
<p>Name: William Bain Address: 2407 E Navajo Blvd City, State, ZIP: Holbrook, AZ 86025 Telephone: 928.524.5468 Email: <a href="mailto:wbain@azdot.gov">wbain@azdot.gov</a></p> <p>Responsibilities: non-construction-related herbicide applications and vegetation management</p>	<p>Name: Michael Drios Address: 1801 S. Milton Rd. City, State, ZIP: Flagstaff, AZ 86001 Telephone: 928.853.8479 Email: <a href="mailto:mdrios@azdot.gov">mdrios@azdot.gov</a></p> <p>Responsibilities: non-construction-related herbicide applications and vegetation management</p>
<p align="center"><b>ADOT Northwest Herbicide Contact</b></p>	<p align="center"><b>ADOT Southwest Herbicide Contact</b></p>
<p>Name: Dustin Hathaway Address: 2650 Glassford Hill Rd, MD P863 City, State, ZIP: Prescott Valley, AZ 86314 Telephone: 928.308.1605 Email: <a href="mailto:dhathaway@azdot.gov">dhathaway@azdot.gov</a></p> <p>Responsibilities: non-construction-related herbicide applications and vegetation management</p>	<p>Name: Coby Teal Address: 2243 E. Gila Ridge Rd. City, State, ZIP: Yuma, AZ 85365 Telephone: 928-920-4431 Email: <a href="mailto:ctéal@azdot.gov">ctéal@azdot.gov</a></p> <p>Responsibilities: Oversight of herbicide applications and vegetation management</p>
<p align="center"><b>ADOT Southeast Herbicide Contact</b></p>	<p align="center"><b>ADOT Southcentral Herbicide Contact</b></p>
<p>Name: Matthew Holcombe Address: 1900 N. Highway 60 City, State, ZIP: Globe, AZ 85502 Telephone: 928.402.5807 Email: <a href="mailto:mholcombe@azdot.gov">mholcombe@azdot.gov</a></p> <p>Responsibilities: non-construction-related herbicide applications and vegetation management</p>	<p>Name: Anthony Chadwick Address: 1444 W. Grant Road City, State, ZIP: Tucson, AZ 85745 Telephone: 520.838-2820 Email: <a href="mailto:achadwick@azdot.gov">achadwick@azdot.gov</a></p> <p>Responsibilities: non-construction-related herbicide applications and vegetation management</p>

<p><b>ADOT Central District Maintenance</b></p>	<p><b>ADOT Central District Construction</b></p>
<p>Name: Kirt Cummings                  Address: 2140 W. Hilton Ave.                  City, State, ZIP: Phoenix, AZ 85009                  Telephone: 602.909.6077                  Email: <a href="mailto:kcummings2@azdot.gov">kcummings2@azdot.gov</a></p> <p>Responsibilities: non-construction-related herbicide applications and vegetation management</p>	<p>Name: Jason Satterly                  Address: 1221 N. 21<sup>st</sup> Ave                  City, State, ZIP: Phoenix, AZ 85009                  Telephone: 602.712.7863                  Email: <a href="mailto:jsatterly@azdot.gov">jsatterly@azdot.gov</a></p> <p>Resident Landscape Architect                  Responsibilities: construction-related herbicide applications in Central District</p>
<p><b>ADOT Northeast District</b></p>	<p><b>ADOT Northcentral District</b></p>
<p>Name: Chris Massey                  Address: 2407 Navajo Blvd                  City, State, ZIP: Holbrook, AZ 86025                  Telephone: 928.532.2316                  Email: <a href="mailto:cmassey@azdot.gov">cmassey@azdot.gov</a></p> <p>District Maintenance Superintendent</p>	<p>Name: Chad Auker                  Address: 1801 S. Milton Rd.                  City, State, ZIP: Flagstaff, AZ 86001                  Telephone: 928.774.1491                  Email: <a href="mailto:cauker@azdot.gov">cauker@azdot.gov</a></p> <p>Assistant District Engineer – Maintenance</p>
<p><b>ADOT Northwest District</b></p>	<p><b>ADOT Southwest District</b></p>
<p>Name: Bruce Cooper                  Address: 1109 E. Commerce Dr.                  City, State, ZIP: Prescott, AZ 86305                  Telephone: 928.777.5868                  Email: <a href="mailto:bcooper@azdot.gov">bcooper@azdot.gov</a></p> <p>Operations Superintendent</p>	<p>Name: Danny Soliz                  Address: 2243 E. Gila Ridge Road                  City, State, ZIP: Yuma, AZ 85365                  Telephone: 928.317.2122                  Email: <a href="mailto:dsoliz@azdot.gov">dsoliz@azdot.gov</a></p> <p>District Maintenance Superintendent</p>
<p><b>ADOT Southeast District</b></p>	<p><b>ADOT Southcentral District</b></p>
<p>Name: Tyrel Cranford                  Address: 2082 E. US Highway 70                  City, State, ZIP: Safford, AZ 85546                  Telephone: 928.432.4908                  Email: <a href="mailto:tcranford@azdot.gov">tcranford@azdot.gov</a></p> <p>Highway Operations Superintendent</p>	<p>Name: Thomas Threlkeld                  Address: 1221 S Second Ave.                  City, State, ZIP: Tucson, AZ 85713                  Telephone: 520.388.4214                  Email: <a href="mailto:tthrelkeld@azdot.gov">tthrelkeld@azdot.gov</a></p> <p>District Maintenance Superintendent</p>
<p><b>ADOT Weblinks</b></p>	
<p>Roadside Development Info &amp; Weed Lists:  <a href="https://azdot.gov/business/engineering-and-construction/roadway-engineering/roadside-development">https://azdot.gov/business/engineering-and-construction/roadway-engineering/roadside-development</a>                  Environmental Planning Contacts:  <a href="https://www.azdot.gov/business/environmental-planning/contact-us">https://www.azdot.gov/business/environmental-planning/contact-us</a>                  District Contacts:  <a href="https://www.azdot.gov/business/district-contacts/overview">https://www.azdot.gov/business/district-contacts/overview</a></p>	



**B. USFS CONTACTS**

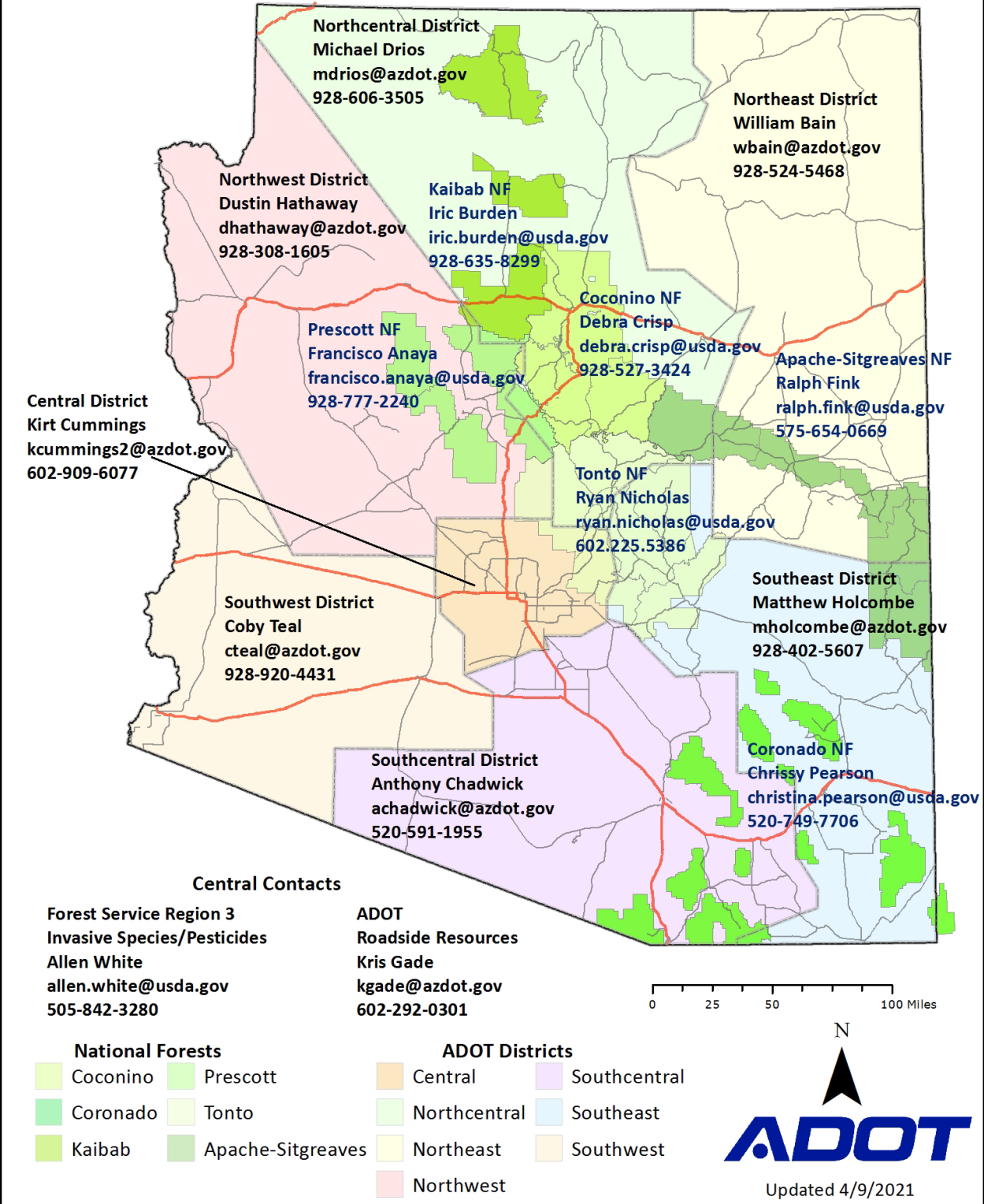
<b>Regional Office Program Contact</b>	<b>Apache-Sitgreaves National Forest Contact</b>
Name: Allen White Address: Forest Health Protection 333 Broadway Blvd, SE City, State, ZIP: Albuquerque, NM 87102 Telephone: 505-842-3280 FAX: 505-842-3150 Email: <a href="mailto:allen.white@usda.gov">allen.white@usda.gov</a>	Name: Ralph Fink Address: Apache-Sitgreaves National Forest 30 South Chiricahua Drive City, State, ZIP: Springerville, AZ 85938 Telephone: 575-654-0669 FAX: 928-333-5966 Email: <a href="mailto:ralph.fink@usda.gov">ralph.fink@usda.gov</a>
<b>Coconino National Forest Contact</b>	<b>Coronado National Forest Contact</b>
Name: Debra Crisp Address: Coconino National Forest 1824 South Thompson St. City, State, ZIP: Flagstaff, AZ Telephone: 928-527-3424 FAX: 928-527-3620 Email: <a href="mailto:debra.crisp@usda.gov">debra.crisp@usda.gov</a>	Name: Chrissy Pearson Address: Coronado National Forest 300 West Congress Street City, State, ZIP: Tucson, AZ 85701 Telephone: 520-749-7706 FAX: 520-508-3741 Email: <a href="mailto:christina.pearson@usda.gov">christina.pearson@usda.gov</a>
<b>Kaibab National Forest Contact</b>	<b>Prescott National Forest Contact</b>
Name: Iric Burden Address: Kaibab National Forest 800 South 6 <sup>th</sup> St. City, State, ZIP: Williams, AZ 86046-2899 Telephone: 928-635-8299 FAX: 928-635-8208 Email: <a href="mailto:iric.burden@usda.gov">iric.burden@usda.gov</a>	Name: Francisco Anaya Address: Prescott National Forest 344 S. Cortez St. City, State, ZIP: Prescott, AZ 86303 Telephone: 928-777-2240 Email: <a href="mailto:francisco.anaya@usda.gov">francisco.anaya@usda.gov</a>
<b>Tonto National Forest Contact</b>	
Name: Ryan Nicholas Address: Tonto National Forest 2324 East McDowell Rd City, State, ZIP: Phoenix, AZ 85006-2496 Telephone: 602-225-5386 Email: <a href="mailto:ryan.nicholas@usda.gov">ryan.nicholas@usda.gov</a>	

**C. FHWA CONTACTS**

<b>FHWA Environmental Coordinators</b>	<b>FHWA Environmental Program Manager</b>
Name: Tremaine Wilson Telephone: 602.382.8970 Email: <a href="mailto:Tremaine.Wilson@dot.gov">Tremaine.Wilson@dot.gov</a>  Name: Rebecca Yedlin Telephone: 602.382.8979 Email: <a href="mailto:Rebecca.Yedlin@dot.gov">Rebecca.Yedlin@dot.gov</a>  Address: 4000 N. Central Avenue, Suite 1500 City, State, ZIP: Phoenix, AZ 85012-3646	Name: Jennifer Elskan Telephone: 602.382.8974 Email: <a href="mailto:Jennifer.Elsken@dot.gov">Jennifer.Elsken@dot.gov</a>  Address: 4000 N. Central Avenue, Suite 1500 City, State, ZIP: Phoenix, AZ 85012-3646

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## ADOT and National Forest Herbicide/Invasive Species Contacts



Most recent version is available at <https://azdot.gov/business/environmental-planning/biology/roadside-resources>

## USFS PRIORITY PLANT LIST

Plant Code (USDA Plants Database)	Scientific Name (Synonym)	Common name
ACRE3	<i>Acroptilon repens</i>	Russian knapweed
AECY	<i>Aegilops cylindrica</i>	jointed goatgrass
AIAL	<i>Ailanthus altissima</i>	tree-of-heaven
ALMA12	<i>Alhagi maurorum</i>	camelthorn
ARDO4	<i>Arundo donax</i>	giant reed
ASFI2	<i>Asphodelus fistulosus</i>	onionweed
AVFA	<i>Avena fatua</i>	wild oats
BOIS	<i>Bothriochloa ischaemum</i>	yellow bluestem
BRNI	<i>Brassica nigra</i>	black mustard
BRTO	<i>Brassica tournefortii</i>	Asian mustard
BRCA6	<i>Bromus catharticus</i>	rescuegrass
BRDI3	<i>Bromus diandrus</i>	ripgut brome
BRJA	<i>Bromus japonicus</i>	Japanese brome
BRMA3	<i>Bromus madritensis</i>	compact brome
BRRU2	<i>Bromus rubens</i>	red brome
BRTE	<i>Bromus tectorum</i>	downy brome, cheatgrass
CACH42	<i>Cardaria chalepensis</i>	lenspod whitetop
CADR	<i>Cardaria draba</i>	whitetop
CAPU6	<i>Cardaria pubescens</i>	hairy whitetop
CAAC	<i>Carduus acanthoides</i>	plumeless thistle
CANU4	<i>Carduus nutans</i>	musk thistle
CEEC	<i>Cenchrus echinatus</i>	southern sandbur
CESP4	<i>Cenchrus spinifex</i>	field sandbur
CEST8	<i>Centaurea stoebe</i>	spotted knapweed
CEDI3	<i>Centaurea diffusa</i>	diffuse knapweed
CEIB	<i>Centaurea iberica</i>	Iberian starthistle
CEME2	<i>Centaurea melitensis</i>	Malta starthistle
CECA2	<i>Centaurea calcitrapa</i>	red starthistle
CENI3	<i>Centaurea nigrescens</i>	meadow knapweed
CEVI	<i>Centaurea virgata</i>	squarrose knapweed
CESU	<i>Centaurea sulphurea</i>	sulphur knapweed
CESO3	<i>Centaurea solstitialis</i>	yellow starthistle
CETE	<i>Ceratocephala testiculata</i>	curvseed butterwort
CIIN	<i>Cichorium intybus</i>	chicory
CHJU	<i>Chondrilla juncea</i>	rush skeletonweed
CHTE2	<i>Chorispora tenella</i>	blue mustard
CIAR4	<i>Cirsium arvense</i>	Canada thistle
CIVU	<i>Cirsium vulgare</i>	bull thistle
COMA2	<i>Conium maculatum</i>	poison hemlock
COAR4	<i>Convolvulus arvensis</i>	field bindweed
CYOF	<i>Cynoglossum officinale</i>	houndstongue
DICU5	<i>Dimorphotheca cuneata</i>	white bietou
DISI4	<i>Dimorphotheca sinuata</i>	glandular Cape marigold
DITE4	<i>Diploaxis tenuifolia</i>	wallrocket
DIFU2	<i>Dipsacus fullonum</i>	common teasel

**USFS PRIORITY PLANT LIST (Continued)**

<b>Plant Code (USDA Plants Database)</b>	<b>Scientific Name (Synonym)</b>	<b>Common name</b>
DRAR7	<i>Drymaria arenariodes</i>	alfombrilla
ELAN	<i>Elaeagnus angustifolia</i>	Russian olive
ELRE3	<i>Elymus repens</i>	quackgrass
ERCU2	<i>Eragrostis curvula</i>	weeping lovegrass
ERLE	<i>Eragrostis Lehmanniana</i>	Lehmann lovegrass
ERRE	<i>Erysimum repandum</i>	spreading wallflower
EUES	<i>Euphorbia esula</i>	leafy spurge
EUMU	<i>Euryops subcarnosus</i> ( <i>E. multifidus</i> )	sweet resinbush (hawkseye)
HAGL	<i>Halogeton glomeratus</i>	halogeton
HYVE3	<i>Hydrilla verticillata</i>	hydrilla
HYNI	<i>Hyoscyamus niger</i>	black henbane
HYPE	<i>Hypericum perforatum</i>	St. Johnswort
ISTI	<i>Isatis tinctoria</i>	dyer's woad
KOSC	<i>Kochia scoparia</i>	kochia
LELA2	<i>Lepidium latifolium</i>	perennial pepperweed
LEVU	<i>Leucanthemum vulgare</i>	oxeye daisy
LIDA	<i>Linaria dalmatica</i>	Dalmatian toadflax
LIVU2	<i>Linaria vulgaris</i>	yellow toadflax
LYSA2	<i>Lythrum salicaria</i>	purple loosestrife
MEOF	<i>Melilotus officinalis</i>	yellow sweetclover
MYAQ2	<i>Myriophyllum aquaticum</i>	parrotfeather
NEOL	<i>Nerium oleander</i>	oleander
ONPI	<i>Oncosiphon piluliferum</i>	globe chamomile
ONAC	<i>Onopordum acanthium</i>	Scotch thistle
PAAC3	<i>Parkinsonia aculeata</i>	Mexican palo verde
PEHA	<i>Peganum harmala</i>	African rue
PECI	<i>Pennisetum ciliare</i> ( <i>Cenchrus ciliaris</i> )	buffelgrass
PESE3	<i>Pennisetum setaceum</i>	fountaingrass
PEIN4	<i>Pentzia incana</i>	karoo bush
POCU6	<i>Polygonum cuspidatum</i>	Japanese knotweed
PORE5	<i>Potentilla recta</i>	sulphur cinquefoil
PYRAC	<i>Pyracantha sp.</i>	pyracantha
RHLA11	<i>Rhus lancea</i>	African sumac
SARA3	<i>Saccharum ravennae</i>	ravenna grass
SAKA	<i>Salsola kali</i>	Russian thistle
SATR12	<i>Salsola tragus</i>	prickly Russian thistle
SAAE	<i>Salvia aethiopis</i>	Mediterranean sage
SAMO5	<i>Salvinia molesta</i>	giant salvinia
SCAR	<i>Schismus arabicus</i>	Arabian schismus
SCBA	<i>Schismus barbatus</i>	Mediterranean grass
SIAR4	<i>Sinapis arvensis</i>	wild mustard
SOHA	<i>Sorghum halepense</i>	Johnsongrass
TACA8	<i>Taeniatherum caput-medusae</i>	medusahead

**USFS PRIORITY PLANT LIST (Continued)**

Plant Code (USDA Plants Database)	Scientific Name (Synonym)	Common name
TACH2	<i>Tamarix chinensis</i>	five-stamen tamarisk
TAPA4	<i>Tamarix parviflora</i>	smallflower tamarisk
TARA	<i>Tamarix ramosissima</i>	saltcedar
ULPU	<i>Ulmus pumila</i>	Siberian elm
VIMA	<i>Vinca major</i>	bigleaf periwinkle
VIMI2	<i>Vinca minor</i>	common periwinkle
XASP2	<i>Xanthium spinosum</i>	spiny cocklebur
XAST	<i>Xanthium strumarium</i>	common cocklebur

**HERBICIDES APPROVED FOR USE ALONG ROAD SYSTEMS ON US FOREST SERVICE LANDS IN ARIZONA**

Herbicide	Persistence in Soil	U.S. EPA Toxicity Category	NEPA complete**
2,4-D	10 Days	Moderately Toxic (Category II)	2004 EA
Chlorsulfuron	40 Days	Slightly Toxic (Category III)	2004 EA
Clopyralid	40 Days	Slightly Toxic (Category III)	2004 EA
Dicamba	Less than 14 Days*	Slightly Toxic (Category III)	2004 EA
Fluroxypyr	11-38 Days	Slightly Toxic (Category III)	2004 EA
Glyphosate	47 Days	Slightly Toxic (Category III)	2004 EA
Imazapic	120 Days	Slightly Toxic (Category III)	2004 EA
Imazapyr	25-142 Days*	Slightly Toxic (Category III)	2004 EA
Isoxaben	50-120 Days	Slightly Toxic (Category III)	2004 EA
Metsulfuron methyl	30 Days	Slightly Toxic (Category III)	2004 EA
Pendimethalin	44 Days	Slightly Toxic (Category III)	2004 EA
Picloram	90 Days*	Slightly Toxic (Category III)	2004 EA
Sethoxydim	5 Days	Slightly Toxic (Category III)	2004 EA
Sulfometuron methyl	20-28 Days	Slightly Toxic (Category III)	2004 EA
Tebuthiuron	Over 360 Days*	Slightly Toxic (Category III)	2004 EA
Triclopyr	30 Days	Slightly Toxic (Category III)	2004 EA

## Notes

\* May persist significantly longer under conditions of low moisture and rainfall and depending on soil type.

\*\* 2004 EA = Environmental Assessment for Management of Noxious Weeds and Hazardous Vegetation on Public Roads on National Forest System Lands in Arizona. The EA, including Appendix D (Biological Assessment and Evaluation), and this Decision Notice and Finding of No Significant Impact can be found at the following websites:

[http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fsbdev3\\_020955.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev3_020955.pdf) and

[http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fsbdev3\\_021522.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev3_021522.pdf).