

# ADOT Vegetation Management Guidelines – Cut Trees and Brush

## 1.0 Purpose of Cutting Trees and Shrubs

Removing trees and other plants from within the right-of-way that interfere with the safe operation of the highway system is an important element of vegetation management. The reasons for cutting back plants or removing them entirely include:

- Keeping the Recovery Area clear of fixed hazards
- Maintaining sight distance at intersections, cross roads, and along curves
- Removing vegetation that may obscure wildlife with the potential to cross the roadway and cause a collision
- Removing trees that may pose the threat of falling on the roadway under conditions of high winds or unstable soil
- Controlling invasive species
- Removing trees and brush that obscure traffic signs, signals, right-of-way fence, and hazard markers
- Preventing encroachment of plants into guardrails, distress lanes, drainage features, and shoulders
- Removing vegetation prior to herbicide treatment
- Removing and disposing of tumbleweeds and mustard weeds which have accumulated along fences, in cuts, and around drainage structures
- Removing shrubs and groundcovers in over-planted landscape areas which need thinning for irrigation inspection and repair functions
- Trimming trees in landscape areas to facilitate inspection and litter removal
- Trimming shrubs and groundcovers in landscape areas to improve plant barrier density
- Removing plants that are unhealthy or dead due to traffic damage, lightning, disease, or other problems
- Removing weeds growing around landscape plantings of trees, shrubs, and groundcovers by hoeing, cutting, or string trimming
- Preventing snow drifting and reducing ice on the roadway due to shading

1.0	PURPOSE
2.0	PLANNING
3.0	COORDINATION
4.0	BEST PRACTICES



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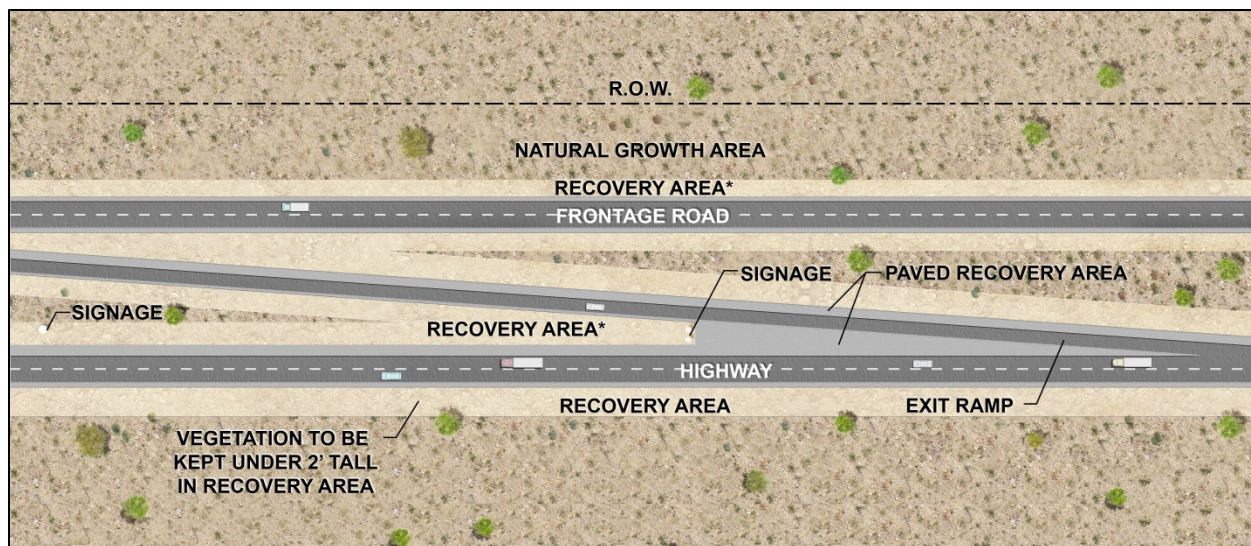


Diagram of highway with frontage road, showing recovery areas

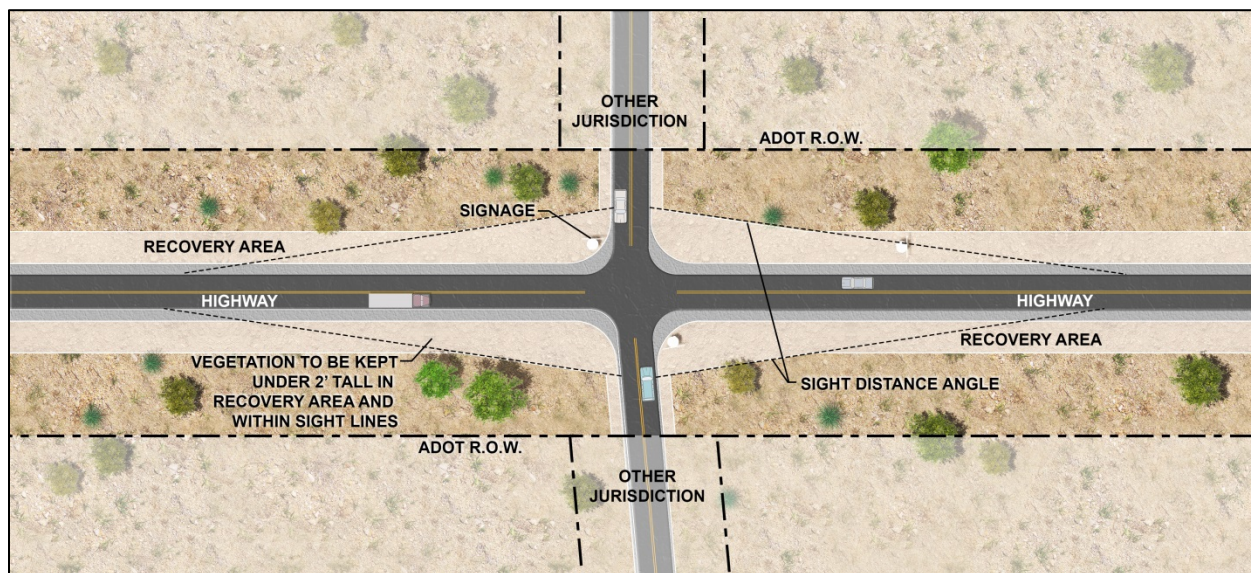


Diagram of highway with intersection, showing recovery areas

## 2.0 Planning to Cut Trees and Shrubs

### Seasonality

The removal of trees and other plants can generally occur at any time of the year, except:

- When soils are excessively wet, which could result in soil compaction or rutting from maintenance vehicles
- When plants are blooming, because removal may upset members of the public as well as reduce food sources available for pollinators
- When birds are nesting in the plants or trees. The Migratory Bird Treaty Act prohibits injuring or killing migratory birds, including eggs and nestling birds.



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If plants require pruning (rather than removal), the activity should be scheduled for the appropriate season relative to the type of plant involved. Generally, deciduous trees (ones that drop their leaves) and conifers (such as pines and firs) should be pruned during the winter, when they are dormant. Trees in the low desert areas can be pruned lightly at any time during the year, but heavier pruning should be restricted to the cooler months. Regardless of tree type, no more than 25% of the biomass should be removed in any year.

Rejuvenation pruning of shrubs and groundcovers in landscape plantings should be done just prior to the beginning of the growing season, which would be late winter through late spring, depending on elevation.

## Training

All ADOT personnel participating in vegetation removal should receive appropriate training in the safe use of chainsaws, chippers and the boom axe as well as the proper techniques for pruning.

## 3.0 Activity Coordination

### Intra-agency Coordination

The District Environmental Coordinator (DEC) should be contacted prior to vegetation cutting operations to conduct an inspection to establish and mark the clearing limits.

Roadside Development should be consulted if the proposed vegetation cutting occurs along a parkway, historic, or scenic route.

The herbicide contact should be contacted to schedule simultaneous herbicide treatments to prevent regrowth of the cut vegetation.

The DEC should be contacted if the vegetation proposed for cutting is rooted in drainages, washes, and/or riparian areas to evaluate whether or not a 404 permit is needed.

Contact the District Maintenance Supervisor to determine an appropriate location to place the brush piles that will need to dry in place for six months minimum, prior to burning or the location to haul cut brush for disposal.

### Interagency Coordination

Contact the local Forest Ranger District to obtain approval for removing trees on ADOT right-of-way within National Forest lands.

Prior to cutting trees or large cacti on ADOT right-of-way on National Park Service or US Fish and Wildlife Refuge land, coordinate with the park or refuge superintendent's office.

#### COORDINATION



#### WHO TO CALL

- Maintenance Supervisor
- District Environmental Coordinator
- Roadside Development - ***Design Landscape Architect***

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Coordinate with the appropriate Tribal representatives prior to cutting trees and shrubs in the right-of-way within Tribal lands.

## Environmental Concerns

Consult with the DEC prior to cutting trees and shrubs to determine if protected species occur within the work area.

## 4.0 Best Practices for Cutting Trees and Shrubs

### General

The following best practices apply to vegetation removal, whether involving selective pruning or total plant removal:

- Place safety devices and signs
- Service equipment, including chainsaws, as necessary
- Personnel are required to wear personal protective equipment
- Cut only the amount of vegetative material that can be cleaned up each day



### Urban Landscape Areas

The following best management practices are appropriate for urban areas:

- Tree branches shall be trimmed to a minimum four (4) feet above the ground for inspection and litter removal
- Palm fronds shall be trimmed to a minimum of 10 feet above the ground for fire prevention
- Workers should use proper pruning techniques
- Weeds should be placed in piles for pickup and picked up before the end of the shift

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## Rural Areas

Vegetation removal in rural areas typically involves cutting plants to ground level and then treating the stumps /stems with an herbicide, including these best practices:

- If not removing the whole tree, limbs should be cut close to the trunk to prevent unsightly “coat-hangers”
- Saw cut brush and trees; limb, lop, and buck stems
- Cut stumps close to the ground, with a maximum height of four (4) inches
- Treat stumps with herbicide within 10 minutes of cutting, or wait until the plants re-sprout and then re-treat (treatment plan depends on plant species)
- Limbs, trunks, stems and slash are to be cut into lengths no longer than six (6) feet
- Chip material and scatter to a maximum depth of two (2) inches or pile slash for burning in piles with a maximum size of 20 feet wide by 20 feet long by five (5) feet high
- Piles are not allowed in urban areas, urban interfaces, non-attainment air quality zones, and scenic vistas
- If trimmings are not chipped on site or piled for burning, load trimmings on truck or trailer and secure load for proper disposal
- Remove limbs from large trees and pile slash
- Haul away the trunk for disposal
- Remove tumbleweeds without disturbing the soil unless work order has been approved to apply a pre-emergent herbicide in the area



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