

Integrated Vegetation Management (IVM)



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What is IVM ?

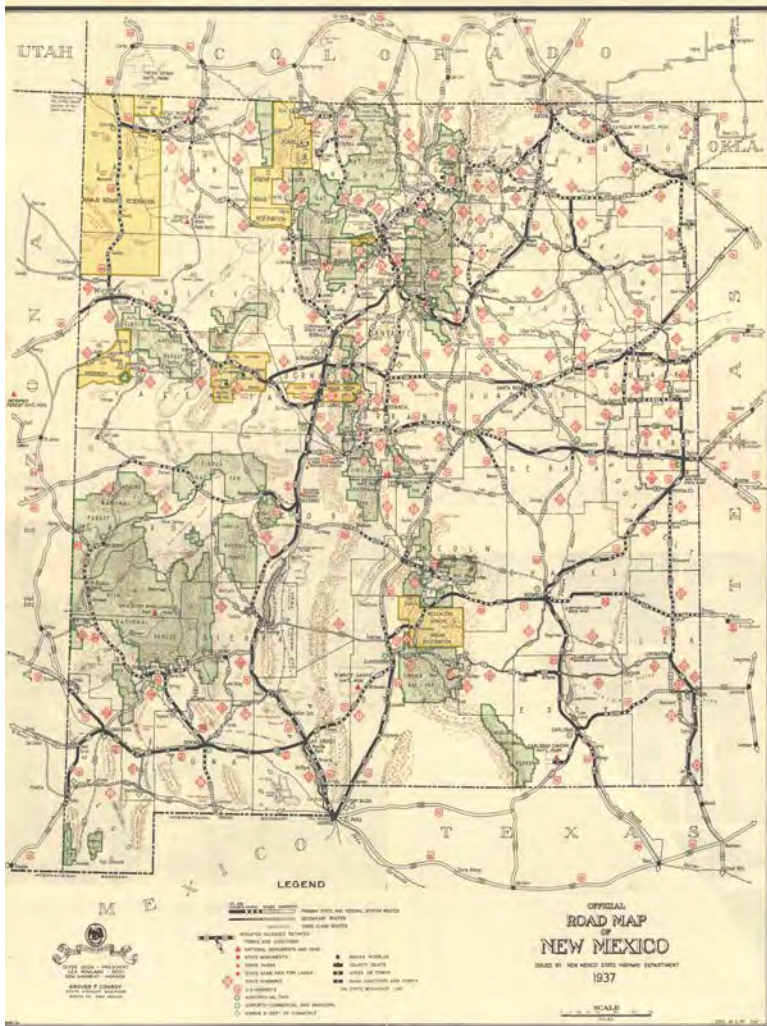
Maintain functional, aesthetically-pleasing, and sustainable roadsides with the lowest possible lifecycle costs

Manage ROW vegetation by balancing....

- ▶ All Costs
- ▶ Control Measures
- ▶ Environmental Quality
- ▶ Public Health
- ▶ Regulatory Compliance



Typical roadside with managed zone (left) and native zone (right).
Note condition of rangeland beyond ROW fence.



15,000 miles of state roads

200,000 acres of right of way

ROW may belong to:

- ▶ BLM
- ▶ State Land
- ▶ Tribal
- ▶ US Forest Service
- ▶ Department of Defense
- ▶ Local governments
- ▶ Federal Highways
- ▶ NMDOT
- ▶ Private landowners

The Standard:

- ▶ One pass mowing (15') for safety, sightlines, browse reduction. After seed set when possible.
- ▶ Safer herbicides as last resort and only behind guardrails, signs, edge of pavement

Exceptions to the standard:

- ▶ Chemically-sensitive individuals present
- ▶ Community acceptance
- ▶ Cooperative Weed Management Area
- ▶ Firebreak needed
- ▶ Landowning agency requirement
- ▶ Local government maintenance agreement
- ▶ Maintenance of roadway drainage
- ▶ Neighboring landowner/citizen request
- ▶ Noxious weeds present
- ▶ Proximity to acequias or waterways
- ▶ Sensitive species present
- ▶ Sight distance/access requirement
- ▶ Special landscape area
- ▶ Topography
- ▶ Tribal Nation requirement
- ▶ Worker safety (snakes, debris, etc)

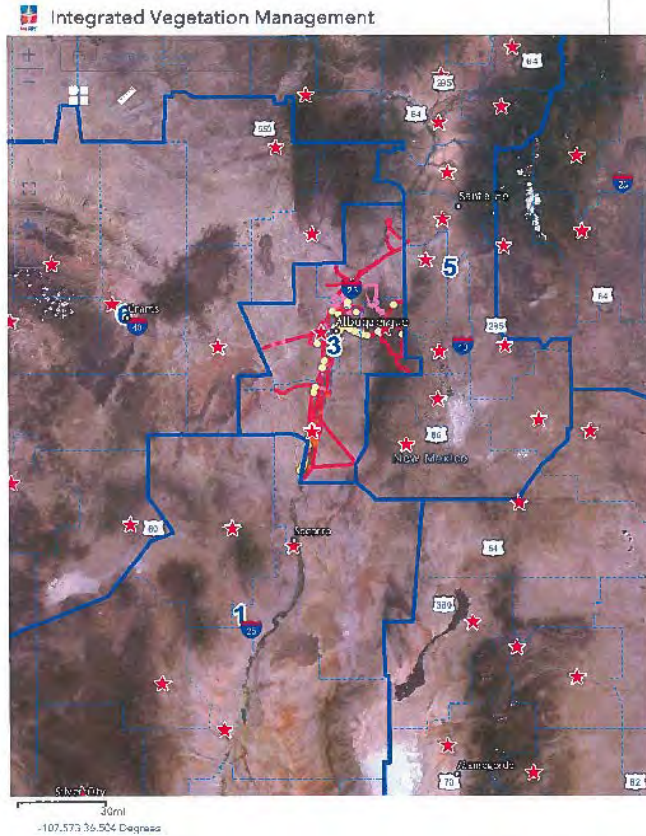
Four Steps

- ▶ 1. Map current maintenance mowing and spraying practices
- ▶ 2. Add exceptions such as: no-spray zones, special management areas, protected plants, noxious weeds, other agencies land management requirements, etc.
- ▶ 3. Survey adjacent states and and introduce appropriate best management practices
- ▶ 4. Ongoing monitoring and evaluation to reduce costs and risk

GIS Mapping

Integrated Vegetation Management

Page 1 of 1



Many Benefits of IVM

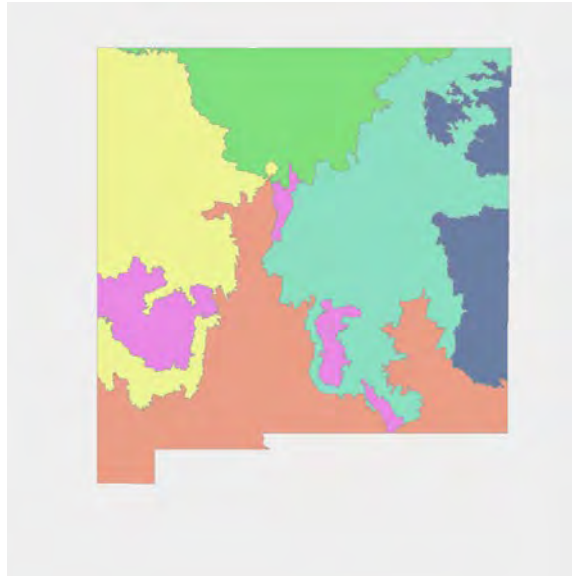
- ▶ Reduce the risk of regulatory violations for protected resources
- ▶ Preserve viable corridors for native plant persistence and migration
- ▶ Expected decrease in herbicide use
- ▶ Improve public perception of NMDOT by demonstrating safe transportation while protecting the environment
- ▶ Provide pollinator habitat to support agricultural industries
- ▶ Better control of noxious weed populations, protection of rare plants
- ▶ Mapping aids consistent execution of Maintenance tasks
- ▶ Better appearance of roadsides aids tourism and economic development
- ▶ Increased carbon sequestration addresses climate change

Additional Information

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the page, creating a modern, layered effect. The text 'Additional Information' is centered in a clean, black, sans-serif font.

Revegetation Zones and Seed Lists

2017 Zone 3 Seed List: Pecos/Canadian Plains and Valleys



Common Name	Botanical Name	Lbs of PLS*/Acre
Annual quick-cover grasses		
	Oats	<i>Avena sativa</i> 0.50
Sterile triticale	<i>Triticum aestivum X Secale cereale</i> 'Quickguard'	0.50
Cool-season grasses		
Bottlebrush squirreltail	<i>Elymus elymoides</i>	1.75
Western wheatgrass	<i>Agropyron smithii</i>	1.75
Warm-season grasses		
Alkali sacaton	<i>Sporobolus airoides</i>	0.20
Blue grama	<i>Bouteloua gracilis</i> var. <i>Alma</i> **	0.50
Buffalograss	<i>Bouteloua dactyloides</i>	1.00
Galleta	<i>Pleuraphis jamesii</i> var. <i>Viva</i> **	0.75
Little bluestem	<i>Schizachyrium scoparium</i>	0.50
Sand dropseed	<i>Sporobolus cryptandrus</i>	0.05
Sideoats grama	<i>Bouteloua curtipendula</i> var. <i>Vaughn</i> **	0.50
Wildflowers		
Dotted gayfeather	<i>Liatris punctata</i>	0.50
Blanket flower	<i>Gaillardia pulchella</i>	0.30
Goldenrod	<i>Solidago rigida</i>	0.10
Prairie aster	<i>Machaeranthera tanacetifolia</i>	0.30
Prairie coneflower	<i>Ratibida columnifera</i>	0.20
Purple prairie clover	<i>Dalea purpurea</i> var. <i>purpurea</i>	0.30
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	0.30
White prairie clover	<i>Dalea candida</i>	0.20
Wild four o'clock	<i>Mirabilis multiflora</i>	0.30
Woody Shrubs		
Apache plume	<i>Fallugia paradoxa</i>	0.10
Four-wing saltbush	<i>Atriplex canescens</i>	0.40
Prairie sage	<i>Artemisia ludoviciana</i>	0.02
Winterfat	<i>Krascheninnikovia lanata</i>	0.20

Green Infrastructure:

National Pollutant Discharge Elimination System Manual

Storm Water Management Guidelines for Construction and Industrial Activities

Revision 2
August 2012



New Mexico Department of Transportation
Drainage Section
PO Box 1149
Santa Fe, New Mexico 87504-1149



City of Albuquerque
Department of Municipal Development
PO Box 1293
Albuquerque, New Mexico 87103



Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Avenue, NE
Albuquerque, New Mexico 87107



The University of New Mexico
Environmental Health
1 University of New Mexico
Albuquerque, NM 87131



Southern Sandoval County Arroyo Flood Control Authority
1041 Commercial Drive, SE
Rio Rancho, New Mexico 87124



City of Rio Rancho
3200 Civic Center Circle NE
Rio Rancho, New Mexico 87124



Bernalillo County
Public Works
2400 Broadway SE
Albuquerque, NM 87102



New Mexico Environment Department
Surface Water Quality Bureau
Albuquerque District Office
Albuquerque, NM 87109

Protection of Trees	
<p>DESCRIPTION</p> <p>Trees can provide superior, low-maintenance, and long-term erosion protection. They are also useful for site aesthetics.</p> <p>PRIMARY USE</p> <p>Preserving and protecting trees can result in a more stable and aesthetically pleasing development. Trees stabilize the soil and help prevent erosion, decrease storm water runoff, moderate temperatures, provide buffers and screens, filter pollutants from the air, supply oxygen, provide wildlife habitat, and increase property values.</p> <p>APPLICATIONS</p> <p>Trees are desirable on steep or rocky slopes where mowing is not feasible; where ornamentals are desired for landscaping purposes; and where woody plants are desired for soil conservation or for establishment or maintenance of wildlife habitats.</p> <p>NOTES</p> <ul style="list-style-type: none"> Mark trees to be protected at a height visible to equipment operators. Equipment operators shall not clean their equipment by slamming it against the protected trees. Roots, trunk, and tops of trees can be protected by fencing. The fence shall be erected at the tree drip line. Limits for clearing must be located at the tree drip line. Trenching shall always be performed as far away from trees as possible. Consider tunneling as an option. Damaged trees should be repaired. Appropriate repairs should be prescribed by a forester or a tree specialist. 	<p>Applications</p> <ul style="list-style-type: none"> Perimeter Control ✓ Slope Protection Sediment Trapping Channel Protection ✓ Temporary Stabilization ✓ Permanent Stabilization Waste Management Housekeeping Practices <p>Targeted Constituents</p> <ul style="list-style-type: none"> Sediment Nutrients Toxic Materials Oil and Grease Floatable Materials Construction Wastes <p>Impact</p> <ul style="list-style-type: none"> ✓ Significant ✓ Medium Low Unknown or Questionable

Questions and Comments