

WESTERN GOVERNORS'

# National Forest and Rangeland Management

INITIATIVE

WEBINAR SERIES

OCTOBER 5, 2016

## Managing Electricity Reliability Risks on Forests and Rangeland

MODERATOR:

Anne Beard

PANELISTS:

Randy Miller

Reggie Woodruff

Tom Sullivan

Learn more about the Chairman's Initiative of Gov. Steve Bullock at [westgov.org/initiatives/forest-and-rangeland-initiative](http://westgov.org/initiatives/forest-and-rangeland-initiative)

# NERC FAC-003 ROW Clearing Project

PROJECT FOR RISK REDUCTION USING  
INTEGRATED VEGETATION MANAGEMENT TECHNIQUES

**Anne Beard**

*Manager, Vegetation Management and T&D Asset  
Management, Public Service Company of New Mexico*

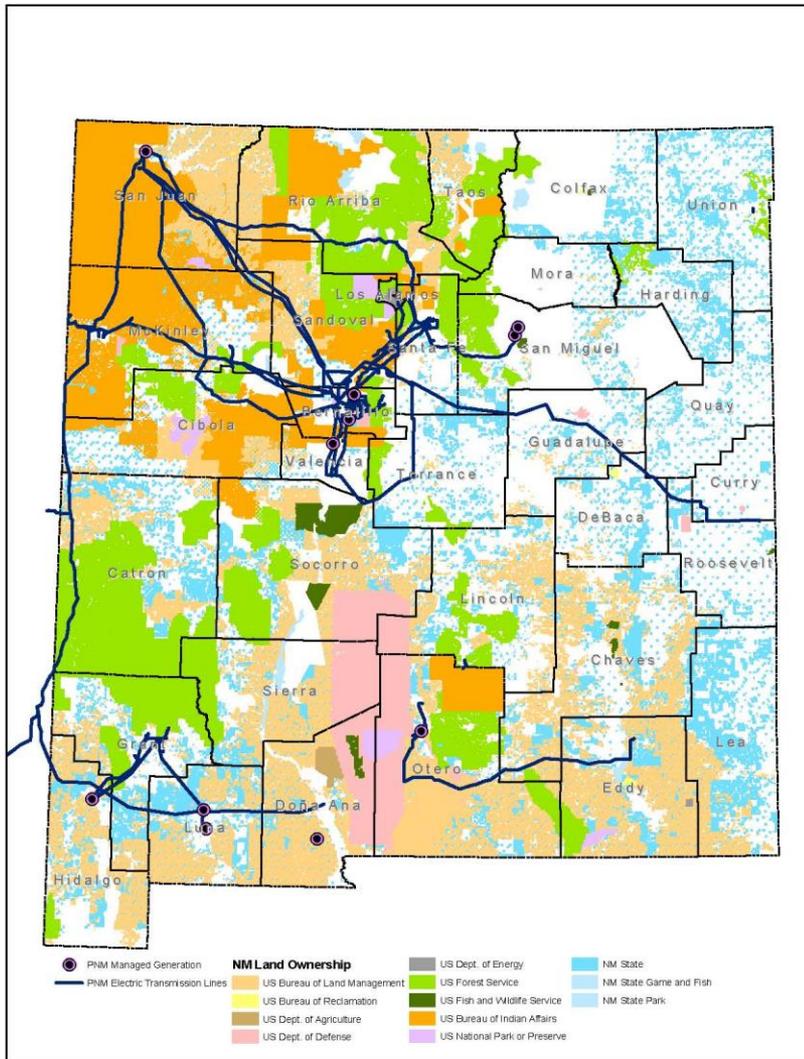


Talk to us.



OCTOBER 5, 2016

# THE NEW MEXICO LANDSCAPE



- PNM maintains over 14,500 miles of Transmission & Distribution (T&D) lines
- Over 40% of land is owned by federal, state, or tribal/pueblo entities



Talk to us.



## FAC-003-1 CLEARANCE 2 VIOLATION - SEPT 2011



**ACTUALLY A 20'+ TALL PIÑON PINE 7'8" CLEARANCE FROM  
345KV CONDUCTOR FOUND DURING AERIAL PATROL**

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# CONCERNS

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- Accuracy of existing patrol methods
- Additional clearance violations
- Risk of outage
- Cost \$
- Wildfire risk

# EXISTING REACTIVE PROGRAM



SLIDE 6 | OCTOBER 5, 2016



Talk to us.



# UNMANAGED VEGETATION



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# REACTIVE WORK

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# TREE/BRUSH ENCROACHMENT

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# TREES OF CONCERN

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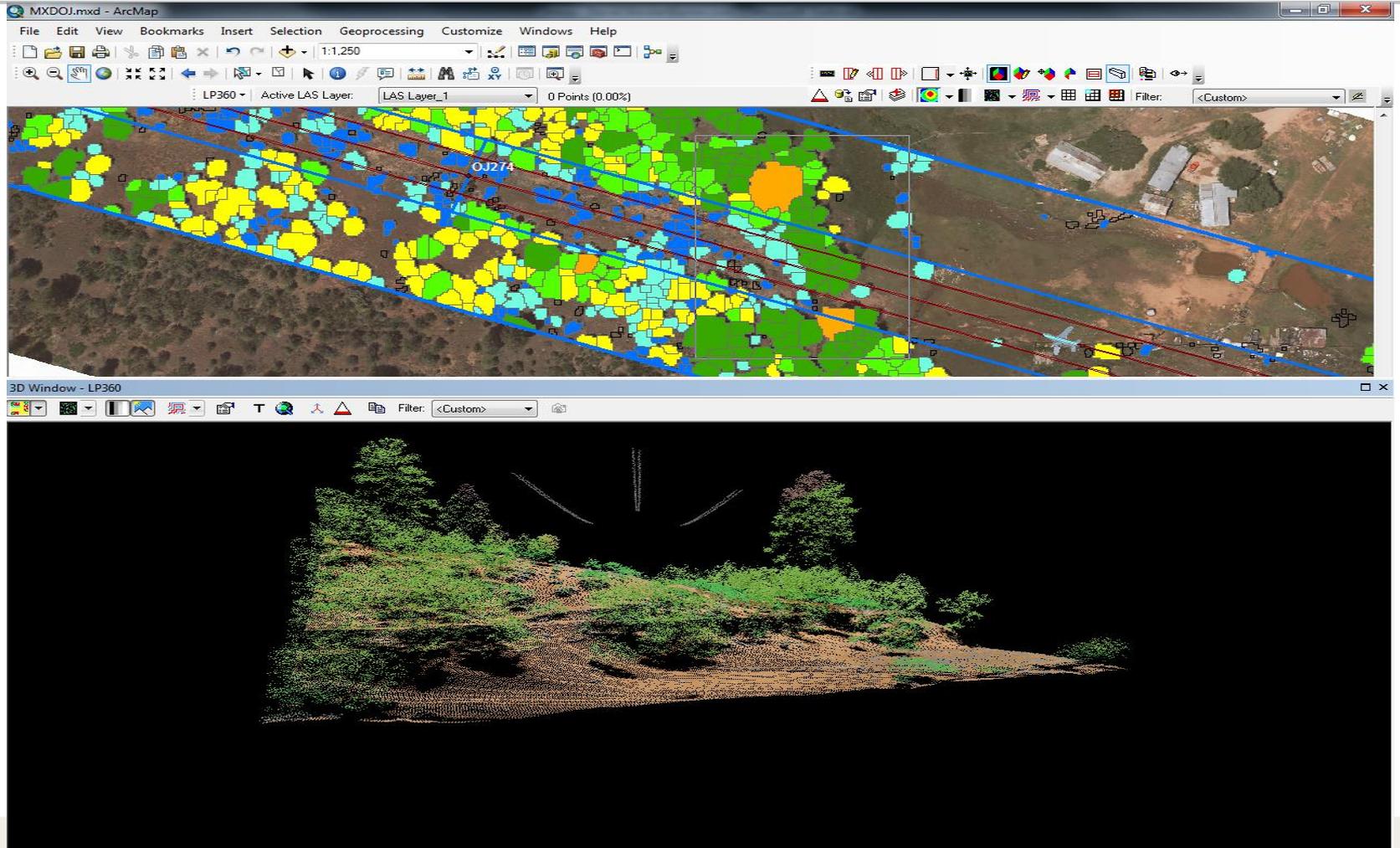
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# THE PROJECT - CHALLENGE

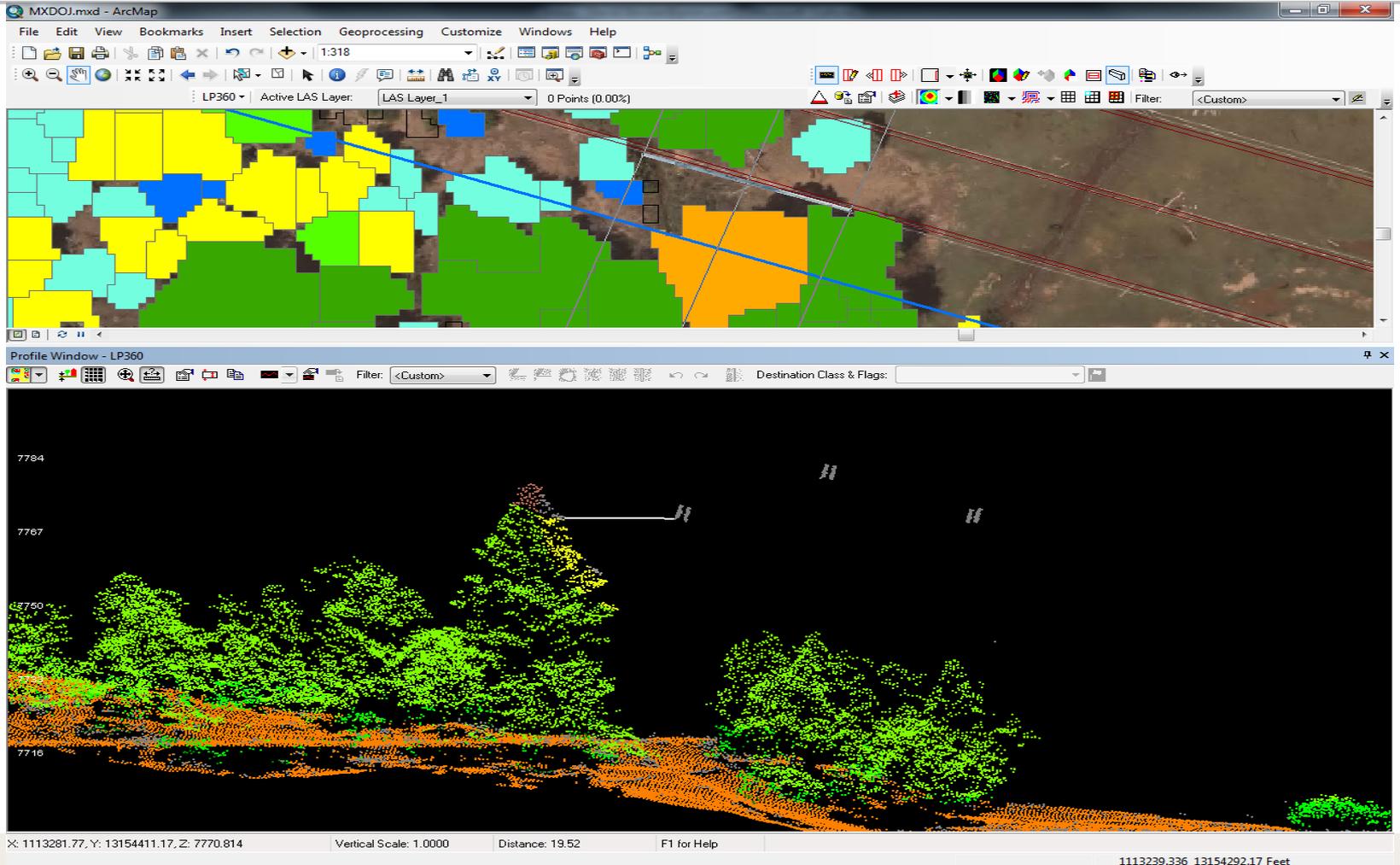
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# LIDAR - 3D VIEW



# LIDAR - PROFILE VIEW



# BEFORE AND AFTER



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# PROJECT BENEFITS – CLEAR HORIZON

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- NERC Compliance
- Reduce O&M costs over time
- System Hardening
- Reduce Fire Risk
- Environmental – pollinator habitat

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## ENVIRONMENTAL SCREENING

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**It's Easy to Underestimate Risk**

### The core of the environmental management system (EMS)

- All T&D work is evaluated or screened for environmental impact
- On certain jobs, the Environmental Services Department evaluates, prepares permits and issues clearances

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# HOW THE EMS FITS INTO THE CONSTRUCTION PROCESS

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- **Construction Projects >\$1M**
  - **Construction Management Process**
  - **Env Svcs is part of the project team**
- **Construction Projects <\$1M**
  - **Projects Reviewed in Environmental Screening Portal**



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# HOTZONES

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- HotZone® map identifies “sensitive areas”
- Based upon features/criteria: parks, open space, bosque, landfills, major arroyos, wetlands, open water, riparian habitat, T&E species, critical habitat, historic districts, national historic landmarks, archaeological sites, and federal, state, and Indian lands



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# ENVIRONMENTAL DATA MODEL

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- ROW renewals have prompted cultural and biological inventory of pre-NEPA lines
- PNM developed a personal geodatabase to store cultural, biological, and access road inventory data in a GIS framework
- Links to site descriptions, site maps, and reports



# CLEARANCES

- All projects will have a clearance with the work packet
- Clearances may have special stipulations such as monitoring or avoidance areas
- PNM employees and contractors must be familiar with stipulations and often have pre-field tailboard trainings

|  |  |               |
|--|--|---------------|
| <br>A personal commitment<br>to New Mexico | Environment Services Department<br>11/10/2015<br>REVISED 1/6/2016                                      | Page: 1 of 19 |
|  | Environmental Services Clearance Document—<br>WA Transmission Line<br>IVM Project Partial Clearance #1 |               |

|   |   |
|---|---|
| Passport Work Order #: 2458779                    | Passport Task #: WA vegetation<br>removal/tree trimming                           |
| ENV Clearance <input checked="" type="checkbox"/> | Special Stipulations <input checked="" type="checkbox"/> Reviewed by Sharon Brown |

This is a **partial clearance #1** for hand cut of vegetation within the 100 foot ROW along the WA transmission line. The clearance includes ROW on Private, Petroglyph National Monument (NPS), Laguna Pueblo, State Game and Fish (NMDGF), and State Trust lands (SLO). This clearance covers spans listed as **Clearance #1** in the table below.

Environmental clearance for vegetation maintenance is granted with special stipulations:

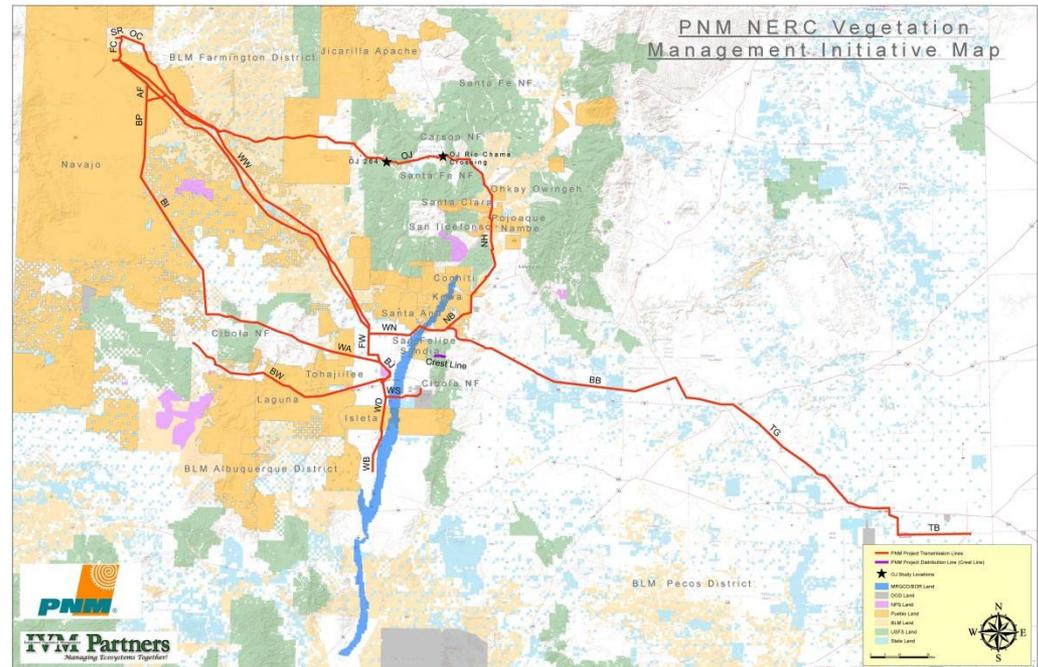
- Access and parking of vehicles is limited to existing access and patrol roads.
- Access to these spans is assuming rubber-tired vehicular access during dry conditions. Activities will not be performed under conditions in which equipment creates ruts in excess of 3 inches. If maintenance work requires road blading or re-development, contact Environmental Services.
- The contractor shall implement STOP, LOOK, and, LISTEN policy for 5-10 minutes to avoid any active bird nests. Should active bird nests (with eggs or young) be observed, tree cutting is not authorized.
- Cultural resources have been identified in the project area. Contact Environmental Services at least one week prior to scheduled work activity to coordinate flagging of these areas.
- Do not damage or introduce fill or contamination into acequia, arroyos, or drainages.
- Contact Environmental Services immediately if a spill occurs in an arroyo.
- No refueling is allowed within 100 feet of any waterway or drainage.
- Minimize crossing arroyos.
- No slash is allowed to be placed in arroyos or drainages.
- Slash is to be spread (no more than 2 feet in height) around right-of-way or per private land owners requests. No brush or other debris can prevent free grazing of livestock.

Once printed, this document is not controlled.

# INTEGRATED VEGETATION MANAGEMENT PROJECT

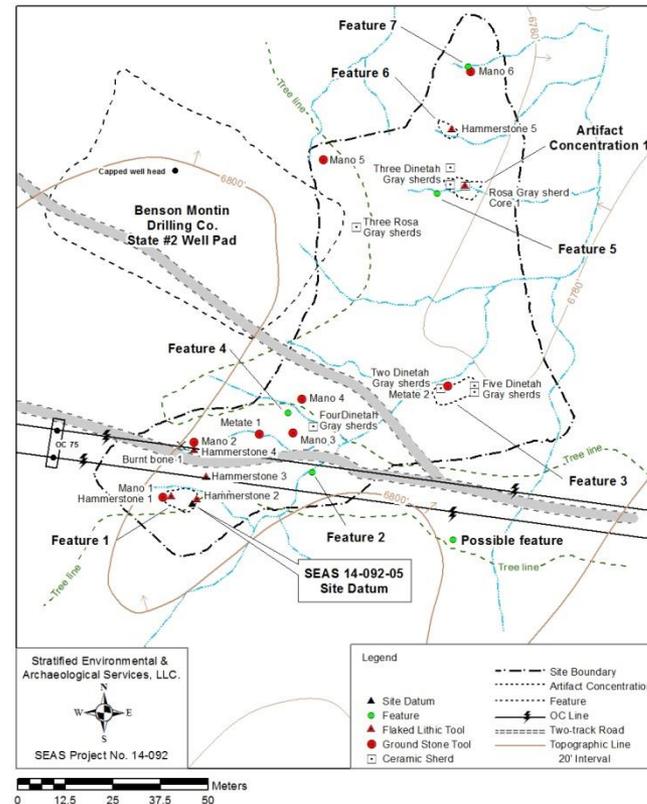
## NERC FAC-003-3

- 19 transmission lines of 200kV or above
- Five 115kV transmission lines deemed “critical path”
- Totals of over 1000 miles
- Use best tool for the job



# CULTURAL RESOURCES

- 215 miles of previously unsurveyed federal, state, or tribal lands
- Approximately 235 new archaeological sites identified to date



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# BIOLOGICAL RESOURCES

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- Existing Biological Data Model
- Phase I consultation with agencies on T&E and sensitive species and assessment of online tools – Critical Habitat, CHAT, county lists
- Phase II – on the ground biological evaluations and consultation with federal, state, and tribal agencies



Mesa Verde Cactus

# Thank you



# Utility Integrated Veg. Management



**Randy Miller**

*Director, Vegetation Management, PacifiCorp*



**Pacific Power | Rocky Mountain Power**

# Selective Management

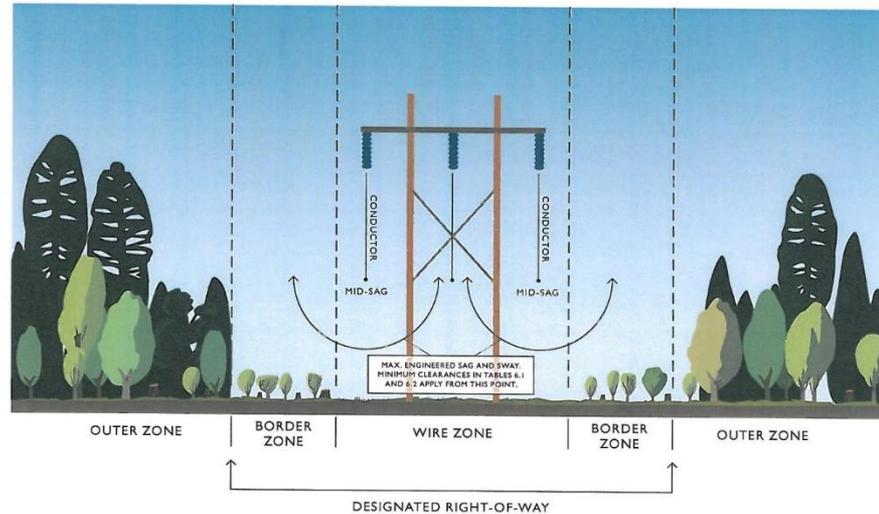
- **Should be done wherever possible**
  - › **Remove species that at any time in their life will interfere with conductors**
  - › **Establish a tree-resistant plant community**
  - › **Promote**
    - **Environmental Stewardship**
    - **Biodiversity**
  - › **Control**
    - **Wildfire**
    - **Noxious Vegetation**
  - › **Improve**
    - **Wildlife Habitat**
  - › **Reduce**
    - **Impacts of Management**



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# Wire Zone-Border Zone



- Establish compatible, stable plant communities.
- Enhance wildlife habitat (meadow species, edge species and forest species).

# Bramble and Byrnes: Game Lands 33



- Over 60 years of research on Game Lands 33 in Pennsylvania
- Begun to see how much herbicide use harmed wildlife
- Determined proper herbicide use helped create habitat that promoted populations and diversity

# Herbicide

- Application to utility Rights-of-way pioneered by Bramble and Byrnes.
- Should be done in compliance with EPA requirements
  - Using only properly labeled products



# Cover Type Conversion



Dylan Evans Photo

## Maintained Rights of Way are not Sacrifice Areas

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➤ Right-of-way  
Stewardship Council  
Accreditation

[http://www.rowstewardship.org/integrated\\_vegetation\\_management](http://www.rowstewardship.org/integrated_vegetation_management)



# WGA Webinar: Managing Electricity Reliability Risks On Forests and Rangeland



Reggie Woodruff

Energy Program Manager



# Points of Discussion

- Forest Service Mission
- Special Uses
- Transmission
- Vegetation Management
- Liability



# Right-of-Way Stewardship Program

*Tom Sullivan*

*ROW Stewardship Council*

*Chair, ROW Steward Audit Committee*

*October 5, 2016*



# What is ROW Steward Accreditation?

- Recognition for Commitment to and Compliance with the ROW Steward Requirements
- Compliance assessed and audited by independent third party
- ROW Steward Council Audit Committee Auditors
- Accreditation awarded by the ROW Steward Council
- Program is Administered by Dovetail Partners
  
- Similar Framework to:
  - ISO 9001: accreditation of manufacturing processes
  - ISO 14001: accreditation of Environmental Management Systems
  - FSC: Forest Stewardship Council forest management accreditation
  - SFI: Sustainable Forestry Initiative forest management accreditation

# ROW Stewardship Council Sponsor of Accreditation

ROWSC is composed of a diverse group of stakeholders who provide active management and guidance.

- *Technical Advisory Committee*. Subject matter Experts (SME), develop and maintain accreditation requirements
- *Audit Committee*. SME's responsible for verification audits of applicant submissions for accreditation.

# ROW Stewardship Council

| Constituency                           | Member                | Affiliation                       |
|--|-----------------------|-----------------------------------|
| Environmental NGO                      | Josianne Bonneau      | Wildlife Habitat Council          |
| Environmental NGO                      | Liz Johnson           | The Nature Conservancy            |
| Environmental NGO                      | Vicki Wojcik          | Pollinator Partnership            |
| Stakeholder-Academic Member            | Iris Caldwell         | University of Illinois - Chicago  |
| Public at large                        | Ruth Stein            | Private Citizen                   |
| UVM Contractor                         | David OBrien          | Lewis Tree                        |
| UVM Consultant                         | Derek Vannice         | CN Utility                        |
| UVM Supplier                           | Mark Rice             | Bayer                             |
| Industry Organization                  | Phil Charlton         | Utility Arborist Association      |
| Industry Organization                  | Rick Loughery         | Edison Electric Institute         |
| T-ROW Asset Owner/Manager              | Rebecca Spach         | First Energy                      |
| T-ROW Asset Owner/Manager              | Lisa Randall          | Pacific Gas & Electric            |
| T-ROW Asset Owner/Manager              | Alex Brown            | Exelon                            |
| Industry Organization (non-voting)     | John Goodrich-Mahoney | Electric Power Research Institute |
| Audit Committee Chair (non-voting)     | Tom Sullivan          | Energy Initiatives Group          |
| Technical Committee Chair (non-voting) | John Goodfellow       | BioCompliance Consulting, Inc.    |

# 10 Principles of ROW Steward

1. Compliance with Laws, Standards and BMPs
2. Tenure and Use Rights and Responsibilities
3. Community Relations
4. Management Planning
5. Understanding Pest and Ecosystem Dynamics
6. Setting Management Objectives and Tolerance Levels
7. Compilation of a Broad Array of Treatment Techniques
8. Accounting for Economic and Ecological Effects of Treatments
9. Site-specific Implementation of Treatments
10. Adaptive Management and Monitoring

# Audit Process

- Application
- Cost Estimate and Audit Expectations
- Timeline
- Audit agreement
- Applicant Submittals
- Gap Analysis
- Field Audit
- Draft Audit Report
- Final Audit Report
- Costs of Accreditation

# Field Audit

- ROW Steward is a performance based accreditation
  - Many Requirements look for field performance
  - All VM staff should understand IVM
  - All VM staff should understand ROW Stewardship concepts and this accreditation



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**Tom Sullivan**

*Audit Committee Chair,  
Right-of-Way Stewardship Council*

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