

Utility Vegetation Management (UVM)



**Not Just a Transmission
Problem:
Helping States with
Successful Programs**

Frank T. DiPalma
Jacobs Consultancy

Objectives

- Purpose of Utility Tree and Vegetation Management (UVM)
- What happens when you don't have an effective UVM
- UVM challenges
- Key components of successful programs



Purpose of Utility Tree and Vegetation Management (UVM)

- **Reliability**-prevent tree related outages
- **Fire Prevention**-prevent tree related fires
- **Public Safety**-see and avoid energized lines and equipment



When you don't have effective UVM

- August 14, 2003 -
Regulatory investigation
findings
 - Had ROW trees been
maintained, transmission
lines would not have
tripped
 - Existing ROW
maintenance was in line
with industry standards
 - Current industry standards
are inadequate
 - Improvement will not
occur without sustained
independent oversight



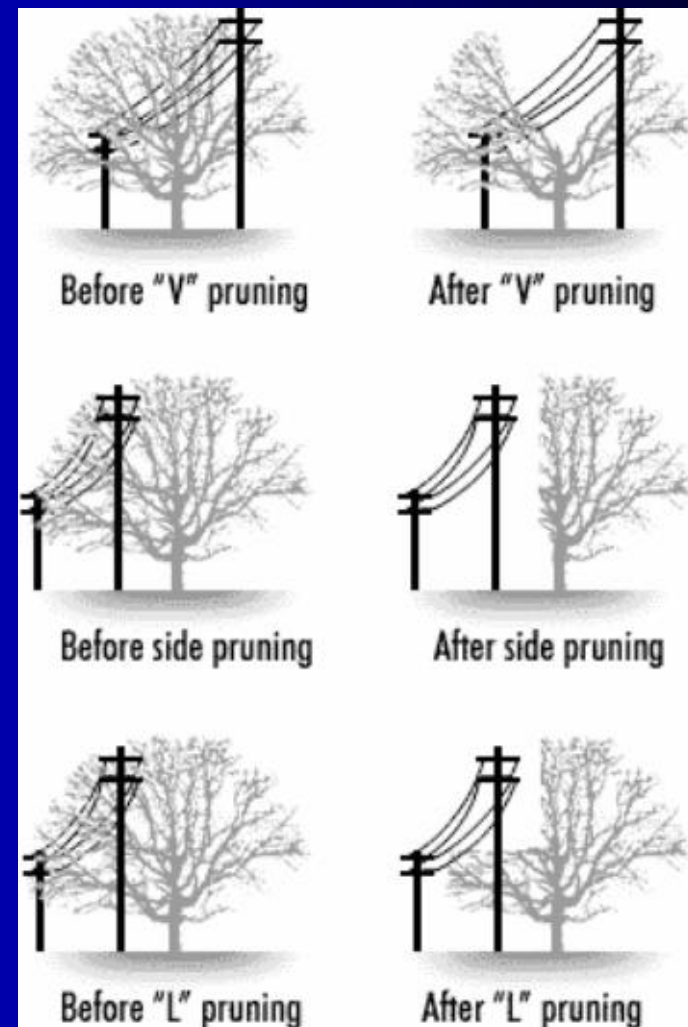
When you don't have effective UVM

- Key recommendations for utilities
 - Improve current systems for managing UVM workloads and schedules
 - Insure adequate and consistent UVM funding
 - Adopt UVM best practices
 - Improve public education
 - Appropriate plantings
 - Necessity of work



When you don't have effective UVM

- Key recommendations for regulatory agencies
 - Establish clear program expectations and standards
 - Incentives/penalties for compliance
 - Oversight should be regular and routine
 - Need to support UVM activities



Challenges

- Competing interests
 - Electric safety
 - Service reliability
 - Cost containment
with
 - Community resource
 - Tree health
 - Aesthetics



Challenges

- Variable Growth Rates/Health
- Extreme Weather/Natural Disasters
- Access Restrictions
- Unreasonable Demands or Expectations
- Labor/Equipment Availability



Components of Successful Programs

- Have a professional, qualified team
- Utilize vegetation management best practices
- Employ a work record and management system
- Need for regular performance and compliance auditing
- Appropriate funding
- Focus and commit to superior customer service

Components of Successful Programs

A Professional, Qualified Team

- Experienced and committed staff
- Responsive contractors committed to program goals
- Knowledgeable and supportive senior management



Components of Successful Programs

Utilize Integrated Vegetation Management (IVM)
Best Management Practices

- Comprehensive policy, procedures and specifications documents
- Consistently Applied & Enforced
- Control trees and brush on cross-country rights-of-way (Wire Zone – Border Zone concepts)
- Pruning consistent with the ANSI A300 – 2001 Pruning Standard
- Growth based – line clearance distances



Components of Successful Programs

Utilize Integrated Vegetation Management (IVM)
Best Management Practices

- Tree removal and replacement
- Selection of the proper trees for installation near electric facilities
- Notification and permission process



Components of Successful Programs

Employ a Work Record and Management System

- Accurate, current workload management database
- Basis for accurate planning, scheduling, direction and reporting



Components of Successful Programs

Regular Performance and Compliance Auditing

- Most utilities have no accurate measurements
- Establish clear performance standards and measurements
- Foundation for performance based incentive programs
- Enforcement and oversight should be routine

“You don’t get what you expect,
you get what you inspect.”



Components of Successful Programs

Appropriate Funding

- Funding level required to achieve established goals and objectives
- Based on accurate, current system needs



Components of Successful Programs

Focus and Commit to Superior Customer Service

- Program success and failure often directly related to customer service
- Utility & Contractor personnel:
 - Trained
 - Customer sensitive and focused
- Supply services at high levels
- Oversight organizations need to be directly involved



In Conclusion

- Tree and Vegetation Management is necessary for:
 - **Reliability**
 - **Fire prevention**
 - **Public safety**

In Conclusion

- When a utility does not have an effective UVM program:
 - High outage frequency and duration
 - Injuries, fatalities and property damage
 - Antagonistic customers/regulators
 - Need for increased regulatory oversight

In Conclusion

- Understand and provide for challenges:
 - Increased tree growth or death
 - Major storms
 - Access obstacles
 - Customer challenges
 - Limitations in procuring labor and equipment

In Conclusion

- An efficient and effective program requires:
 - Technically correct tree and vegetation management practices
 - Supported by adequate work management systems and funding
 - Regularly audited
 - Customer focused

Questions?



Frank DiPalma
Jacobs Consultancy
(908) 735-5000
frank.dipalma@jacobs.com