Right-of-Way Reclamation on Critical Transmission Corridors

The Dark Side of Vegetation Management

November 15, 2012
So what is Reclamation?

- According to IVM BMP: ‘requires non-selective techniques in areas dominated by incompatible vegetation’
- But… BMP also describes IVM as “a system of managing plant communities” using the “most appropriate control method”
Background and Definitions

So what is Reclamation?

- For practical purposes, it is a necessary, sometimes awkward, first step –
- Common on critical utility corridors – especially on new construction and those that have been neglected
- Given the appropriate follow up (i.e. continued IVM) it is a Sustainable, Ecosystem approach, Backed by science and industry
- It looks like this
It also looks like this...

Wire Zone - Border Zone

Industry best practice developed in the 1980s, based on over 50 years of university research, and endorsed by NERC* and FERC** following the August 2003 blackout.

NERC: North American Electric Reliability Corporation
FERC: Federal Energy Regulatory Commission
... and this
... and this
Historical Context

Why Now? What’s Changed?

• Response to New Federal Regulations after the Massive 2003 Blackout
• ZERO Tolerance Standard
• BUT, as “Randy” says…

(T&D World Magazine
January 1, 2011)

DON’T BLAME THE FEDS!!!!!!

Randy Miller, System Forester, PacifiCorp
Past President, UAA
Historical Context for PG&E

PG&E Initiates ROW Reclamation Program in 2009 for NERC Lines

- Response to New Federal Regulations
  - Not “BLAMING”… Just sayin

- Response to overgrown and neglected ROWs

- Response to 2004 and 2008 vegetation contacts

- Intended to be a 5 yr. program – Align with ANSI and BMPs… recently extended thru 2017

- Started in Sierras and Valley, i.e. less controversial / build on success
Reclamation and IVM by the Numbers

Identify Work Scope

- Inventories in 2008 and 2009

- For 6800 miles of Critical Corridor:
  - Approximately 350,000 to 450,000 tree and brush units
  - Approximately 3100 line miles affected
  - All land types impacted: Urban, Rural, Public, Private, Agricultural...

- Program reevaluation in 2012, follow-up inventory scheduled for 2012-2013 (Significant Progress to date)
Reclamation and IVM by the Numbers

Perform Financial Analysis

• IVM is cost justified over a 20yr evaluation period
• NPV $9MM advantage; 15 year payback
Setting Operational Thresholds

Sag + Law + Growth = 40 feet

Note: CPUC rules allow 230 kV lines to sag as close as 27 feet from the ground.
Setting Operational Thresholds
Pruning vs. Removal – The Electrical Perspective

• PG&E prunes the vast majority (80% to 90%) of trees that encroach on its electrical system

• As voltages increase, risk increases, clearance requirements increase, equipment tolerances decrease, and regulations become more stringent. Therefore: as voltages increase, tree removal rates increase.

• Distribution Lines: 12,000 volts to 21,000 volts (State Regs)
  • 113,000 miles of line
  • Approximately 8% to 10% removal rates

• Transmission Lines: 60kV to 115kV (State Regs)
  • 12,200 miles of line
  • Approximately 50% removal rates

• Higher-voltage Transmission Lines: 230kV and 500kV (Fed ZERO Tolerance)
  • 6,800 miles of line
  • 90% to 100% removal rates
Setting Operational Thresholds
Pruning vs. Removal – The Environmental Perspective

• PG&E follows industry standards and best practices for tree pruning (ANSI A-300 Part 1) and Integrated Vegetation Management (IVM) (ANSI A-300 Part 7)
  - Tree removal is the recommended industry practice when severe tree pruning would otherwise be required to achieve necessary line clearance
  - International Society of Arboriculture (ISA), National Arbor Day Foundation (NADF), and Utility Arborists Association (UAA) do not support “topping” of trees at any time
  - Pruning that removes more than 1/3 of the crown of a tree is strongly discouraged, as it has high potential to kill the tree
  - IVM on electric utility corridors is proven to promote healthy, diverse, low-growing plant communities.
  - IVM results in the establishment of early successional forest habitat which is critical for a wide range of plants and wildlife (including endangered species).
Communications and Relations

Internal Stakeholders: Know the players and their concerns

• Government Relations
  – Political Capital

• Media / News Dept. / External Communications
  – Brand Image

• Customer Sales & Service / Marketing
  – Customer Relationship

• Law Dept.
  – Risk Management and Legal Compliance

• Vegetation Management
  – Safety and Reliability
Customers and External Stakeholders

PG&E Initiates Work

• A series of letters are sent to affected property owners.
• Easement boundaries and incompatible trees are marked in the field.
• Consultants perform customer outreach.
Customers and External Stakeholders

For the community in affected areas:

- Community meetings and extensive one-on-one conversations with property owners
- Mail follow-up letters to affected property owners to provide information and invite discussion about our work
- Outreach to Home Owners Associations (HOAs)

For Opposition leadership:

- Direct engagement to foster dialog, share information and enhance mutual understanding
- Host field meeting to review examples of completed work sites
- Prompt response to written requests and document review
- Change and compromise BUT NO COMPROMISE ON SAFETY
Communications and Relations

Customers and External Stakeholders

For elected officials:

- Face to face meetings with elected officials ranging from city to county to state to federal
- Host in-field meetings
- Participated in meetings with CPUC representatives
- Held multiple conference calls with California Department of Fish and Game, and US Fish and Wildlife Service

For the media:

- Participate in editorial board meetings
- Provide regular updates to local media and prompt response to inquiries
- Participate in Radio and TV interviews
Steps and Missteps of Community Engagement

Community Response

Anger over PG&E Tree-Removal Plan
Press Democrat, March 30, 2012
PG&E clear cutting policies hit buzz saw of opposition
Kenwood Press, March 1 2012
Thousands of Wine Country Trees to Face the Axe
NBC Bay Area, February 28 2012
PG&E To Cut Thousands of Trees in Sonoma County
Press Democrat, February 28 2102
PG&E Moving Forward with Expanded Tree Cutting
Kenwood Press, January 15, 2012
Oakmonters Challenge PG&E Clearcutting Policy
Kenwood Press, December 01 2011

PG&E to hold meeting on big Sonoma County tree-cutting plan.
Press Democrat, March 27, 2012
Stop PG&E from Clear Cutting Our Trees
Press Democrat, March 25, 2012
Santa Rosa: Residents angry about PG&E plans to cut trees near power lines in Sonoma County
KTVU News
Going Forward

• PG&E has engaged Customers and Communities in good faith and will continue to do so

• Remarkable success with individual property owners (99.6% success overall; 98% success in highly sensitive reclamation areas)

• PG&E remains committed to Environmental Stewardship, Regulatory Compliance, Fiscal Accountability, Operational Excellence and Most Importantly SAFETY