# Black Hills Power, Inc.

d/b/a: Black Hills Energy

An overview of the Vegetation Management Program



## **Conversation Topics**

Sample of VM Process Flow

Integrated Vegetation Management (IVM)

**Best Practices** 

Methods/Techniques

**IVM Progress at BHP** 

Mountain Pine Beetle (MPB)

Example of Before & After work

## **General Work Flow**

		Scope	Plan	Execution	Monitor	Close
Black Hills Energy	VM Program Manager	Schedule circuits and project	Align Resources	Oversee high-level of project, Manage Stakeholders, Communication,	Manage project cost & Crew performance	Close out project (Invoices, crew/circuit performance, file maps, etc.)
	Contractor Inspector				Oversee Contractor performance & Escaladed Customer resolution	Accept completed projects
Contracted Tree Vendor	Tree Vendor General Foreperson		Accept Work package	Direct Contracted resources	Post Patrol completed work for acceptable clearances	
	Tree Vendor Work Planner		Initiate Work Planning	Customer Notification	Assist with project performance and customer resolution	
	Contracted Tree Crews			Complete assigned work		

## **Integrated Vegetation Management (IVM)**

- Long term approach to managing plant communities to achieve specific site objectives
- Combination of methods to promote sustainable, stable plant communities compatible with management objectives for specific use

## IVM Techniques

Manual/Bucket



### Mechanical



## IVM Techniques

## Herbicide



## Biological



## Tree Trimming versus IVM

### Tree Trimming

- Minimal clearance
- Reactive in nature
- Short term results
- Diminishing results

### IVM

- Larger Clearances
- Proactive in nature
- Long term results
- Sustainable results
- Less future labor required
- More desirable species
- Promotes species diversification
- Enhances wildlife habitat

## **Industry Supporting Best Practices**

- OHSA Standard 29 Part 1910 (Vertical Standards)
- ANSI Z133.1 (Arboricultural Operation Pruning, Repairing, Maintaining, and removing Trees and Cutting Brush – Safety Requirements
- ANSI A300 for Tree Care Operations Tree Shrub, and Other Woody Plant Maintenance – Standard Practices
- ANSI A300 Part 1 Utility Pruning of Trees
- ANSI A300 Part 7 Integrated Vegetation Management (IVM)

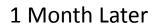
## IVM Difference - Example



## **IVM** in Progress

Before





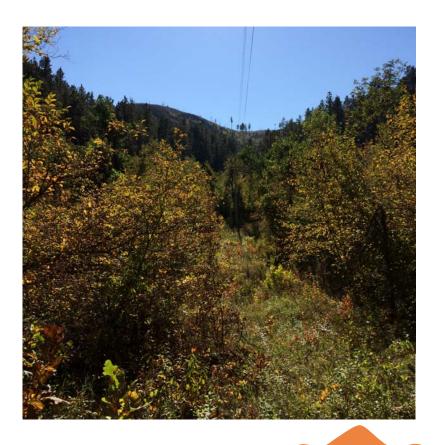


# **IVM in Progress**



## **IVM in Progress**





## **Mountain Pine Beetle**





Thank You for your attention & time.

Any questions?



### **VISION** Be the Energy Partner of Choice.

## **MISSION Improving Life with Energy.**

### **COMPANY VALUES**



We embrace change and challenge ourselves to adapt quickly to opportunities.



#### **Customer Service**

We are committed to providing a superior customer experience every day.



#### **Partnership**

Our partnerships with shareholders, communities, regulators, customers and each other make us all stronger.



#### Communication

Consistent, open and timely communication keeps us focused on our strategy and goals.



#### Integrity

We hold ourselves to the highest standards based on a foundation of unquestionable ethics.



#### Respect

We respect each other. Our unique talents and diversity anchor a culture of success.



### **Creating Value**

We are committed to creating exceptional value for our shareholders, employees, customers and the communities we serve...always.



### Leadership

Leadership is an attitude. Everyone must demonstrate the care and initiative to do things right.



We commit to live and work safely every day.