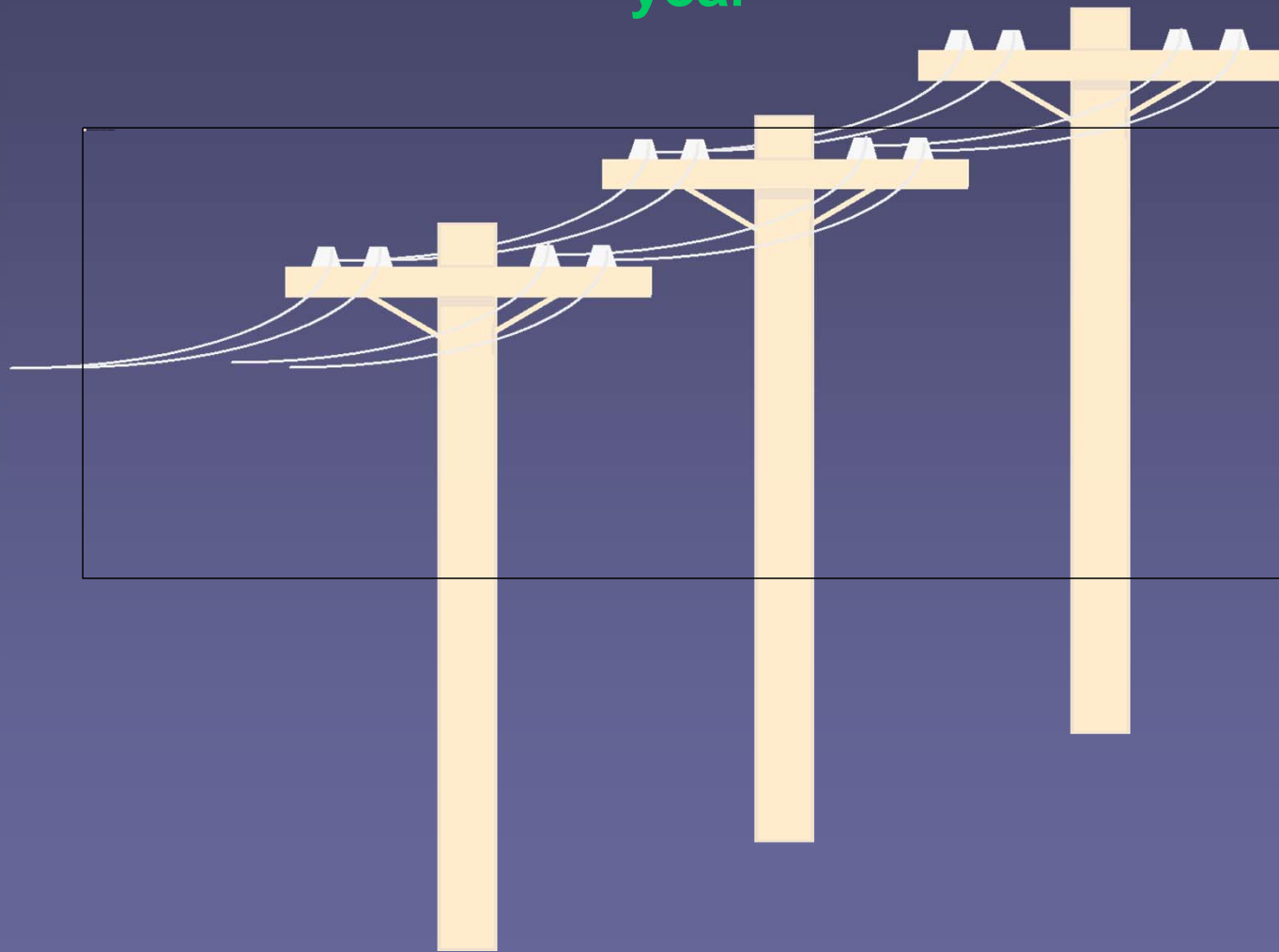


# Wood Pole Test and Treat Maintenance Program Bowen Island 2015

## BC Hydro Representatives

- Raymond Irving – Field Manager, 250-755-4798
- Terry Giesbrecht – Pole Maintenance Coordinator, 604-302-5511
- Spencer Nicholson – Pole Maintenance Coordinator, 604-250-9430
- Rene Roddick – Vegetation/Pest Biologist, 604-543-1533

**BC Hydro Test & Treat Program operates on an 8 year cycle. Approximately 105,000 distribution poles and 11,000 – 13,000 transmission poles are treated every year**



# Why Do We Treat Poles?

- Safety → public and property safety, and crew safety while working on poles
- Reliability → continuous uninterrupted service to our customers
- Environmental → use of preservatives reduces number of trees to be harvested, minimizes impact of disposal/recycling of used poles, and minimizes ground disturbance
- Financial Responsibility → cost effectiveness of maintenance versus pole renewals

# Pole failures

**Pole rotted off at groundline**



**Public Safety Hazard**

## Work Plan – Bowen Island

- Program will begin October 15 – 30, 2015
- Approximately 1,517 poles
- Up to 5 crews of certified applicators

## Work Plan (cont'd)

- Vehicle Id with BC Hydro contractor sign
- Applicator checks for wells and water at each site – maps, physical search, looks for flags and pins placed by residents
- Pre-job with contractor prior to commencement of work

## Pest Management Plan (PMP)

- Wood preservatives → approved and registered for utility wood poles by Health Canada
- Contractors → certified and licensed by the BC Ministry of Environment (MoE)



## PMP (cont'd)

- Work → under Pest Management Plan for Wood Structure Maintenance by the BC Hydro and Power Authority
- Work → strict adherence to *Integrated Pest Management Act* and Regulations

# Pole Inspection Process

- Inspectors assess poles above ground for safety and equipment condition:
  - Damage from insects, woodpeckers, vehicles
  - Visible signs of rot
  - Equipment failure/damage
  - Sound, probe and drill to assess for insect/rot/damage

## Pole Inspection (cont'd)

- Inspectors assess poles below ground:
  - Look for shell rot
  - Probe and drill to assess pole condition and strength → insect/fungus damage



**Drilling Poles**



**Fumigant placed into drill holes using hand-operated sprayer**



**Boron Rods**



**Installing Plugs**



**Field-Made Pole Bandage**





**Installing a full bandage**



Clean-up

# Wood Preservatives

- Metam sodium fumigant:
  - liquid preservative placed in drill holes in pole and capped (preservative contained in pole)
  - mixes with moisture inside poles and evaporates into pole within 7 hours
  - Other uses: commonly added to soil for planting preparation in agriculture.

## Wood Preservatives (cont'd)

- Copper hydroxide borate bandage:
  - wrapped and stapled around pole below ground
  - bandage covered in water-repellent material
  - preservatives bind strongly to the wood pole

## Wood Preservatives (cont'd)

- Boron/copper rods:
  - solid rods are placed in drill holes and capped to contain preservative in pole
  - preservative released slowly into pole over a period of 10 years
  - Other uses: natural sources of boron are commonly found in soil. Used in eye wash and soaps.

# Human Health Protection

- Field crews check multiple information sources prior to treatment to ensure human health and water are protected:
  - GIS mapping reviewed for locations of registered wells, watersheds, and waterbodies
  - Check for flags and pins placed by residents
  - Sensitive ecosystems and waterbody mapping (from Islands Trust) reviewed for additional information

# Human Health Protection

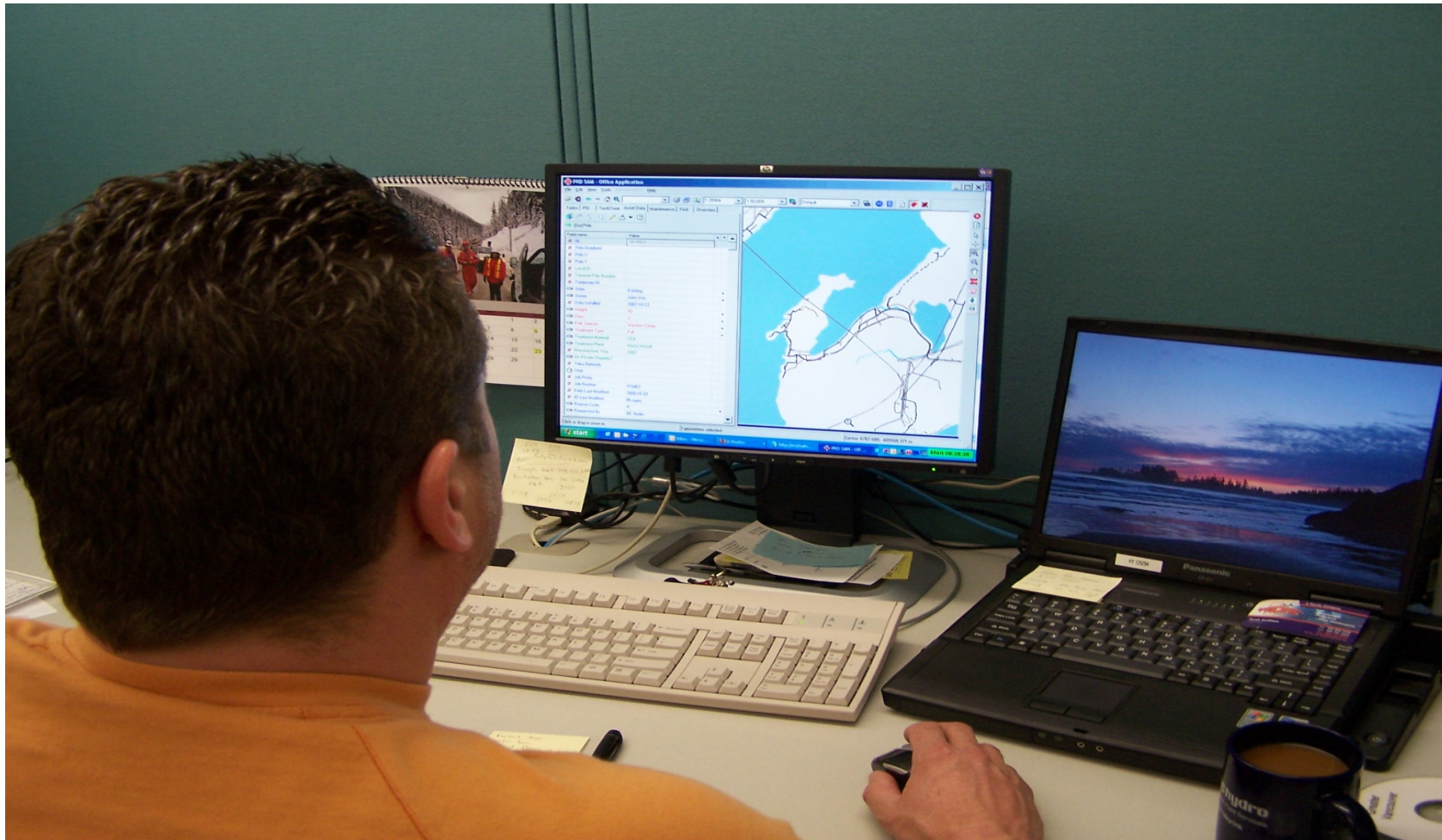
- Information sources reviewed by field crew (cont'd):
  - Field assessment completed prior to treatment on a site-by-site basis (10 meter physical sweep around pole)

## Health Protection (cont'd)

- Contractor certification ensures experienced, knowledgeable, and skilled applicators
- Contract specifications and details reviewed with contractor at pre-job conference
- Biologist/Specialists and Pole Maintenance Coordinator inspect, monitor and provide overall quality control



# GIS Mapping System



# Well Data

PRD SAM - Office Application

File Edit View Tools Administration Help

1:4037 1:5,000 Land AR

Maintenance Find Overview  
 Tasks PSI Test&Treat Asset Data

Task List

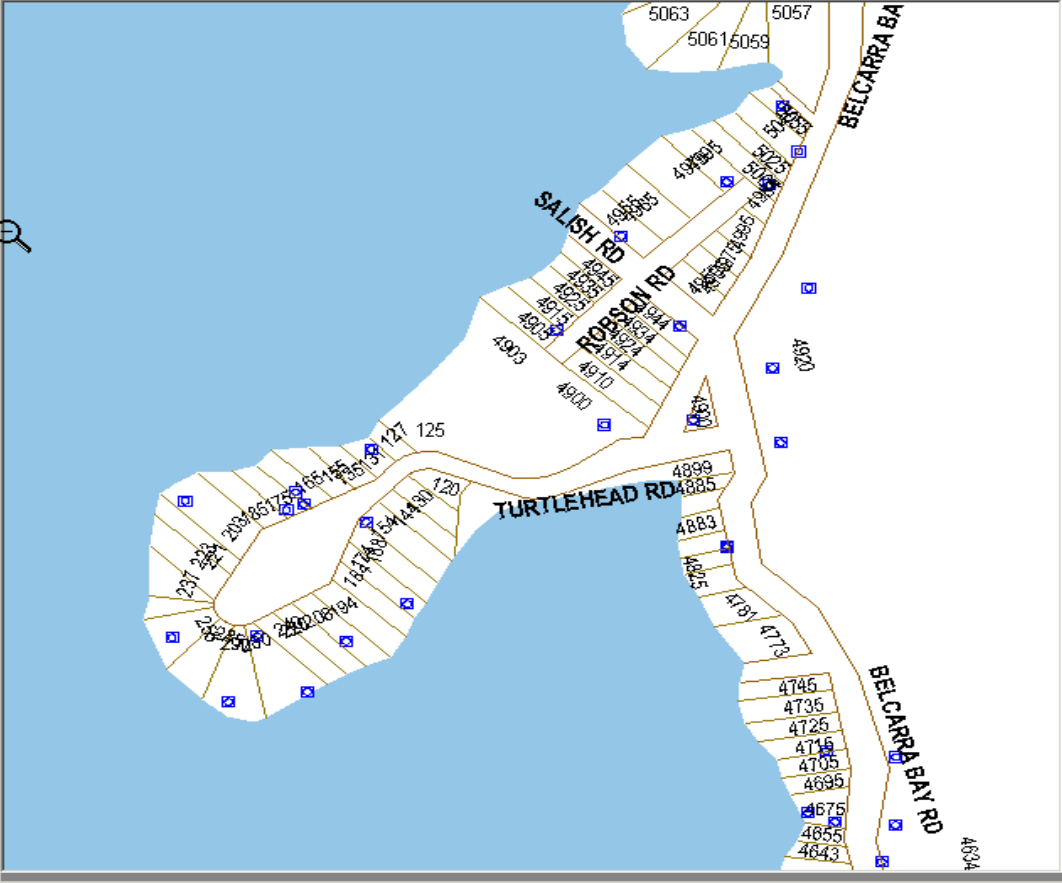
Filter by Job

Active Tasks only Number of Tasks: 0

Asset ID	Task #	Status	Asset
There is nothing to display			

Asset Note Action Request Edit Asset Complete Task

Name	Value
There is nothing to display	



Click or drag to select geometry Nothing selected Centre: 5509.261 -409446.251 m

# Human Health/Water Protection

## No-Treatment Zones

Product	No-Treatment Zone <sup>*</sup>				
	Fish bearing body of water Fish bearing wet or dry stream	Non fish bearing body of water – wet	Non fish bearing stream – dry	Water well	Point of diversion from water intakes (from any side where land slopes upward)
Liquid internal preservative	3 metres	1 metre	0 metres (do not treat below high water mark) <sup>1</sup>	10 metres	10 metres upslope
External liquid preservative (brush on)	3 metres	1 metre	1 metre	10 metres	10 metres upslope
Groundline bandages	3 metres	1 metre	1 metre	10 metres	10 metres upslope
<i>This table was modified from the NTZ table in the PMP to list boron.</i> <sup>2</sup>					
Boron rods <sup>2</sup>	1 metre	0 metres <sup>3</sup>	0 metres <sup>3</sup>	10 metres	5 metres upslope

<sup>\*</sup> Notes:

- <sup>1</sup> Liquid internal preservatives will only be applied to the portion of the pole that is permanently above the waterline.
- <sup>2</sup> The use of boron rods does not have a **regulated** NTZ requirement because boron is an *PMR* Schedule 2 excluded product; however, BC Hydro has exceeded regulations and committed to NTZs around fish-bearing waterbodies and water consumption sources (wells and intakes).
- <sup>3</sup> Solid internal preservatives can be used in locations that may be below the water table for portions of the year, provided they are not fish-bearing and dry at time of treatment.

# Summary

- Regulated pesticide program
- PMP reviewed by MoE (posted on [www.bchydro.com](http://www.bchydro.com))
- Pole maintenance important for public and worker safety
- Certified applicators completing work

## Summary (cont'd)

- Crews search for well/waterbody/watershed on maps and in field
- Pre-job conference prior to work
- Quality assurance by BC Hydro Pole Maintenance Coordinator and Specialist/Biologists
- For more information, call BC Hydro representative