

WHAT YOU DON'T KNOW ABOUT ASH TREE FAILURE COULD:

Check one...

- A: Cause you injury** ☐
- B: Cause your death** ☐
- C: Cause property damage** ☐
- D: All of the above** ☐

Brian Skinner, Central Div. Senior Arborist (Ret.)
Distribution Forestry
National Grid

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DISCLAIMER:

This presentation is meant to inform you of potential hazards related to EAB killed Ash trees and catastrophic failures that may cause injury, property/equipment damages or possible death to workers/bystanders. It is ***NOT*** intended to provide specific guidance or remedies for safe tree removal procedures or operations on your part. The presenter of this program neither bears nor assumes any responsibility or liability for your personal actions or inactions.

But 1st...a safety message...



Just because you
think you know
how...doesn't
mean you should!

Possible Darwin
Award nominee?

Some things should
really be left to the
professionals!

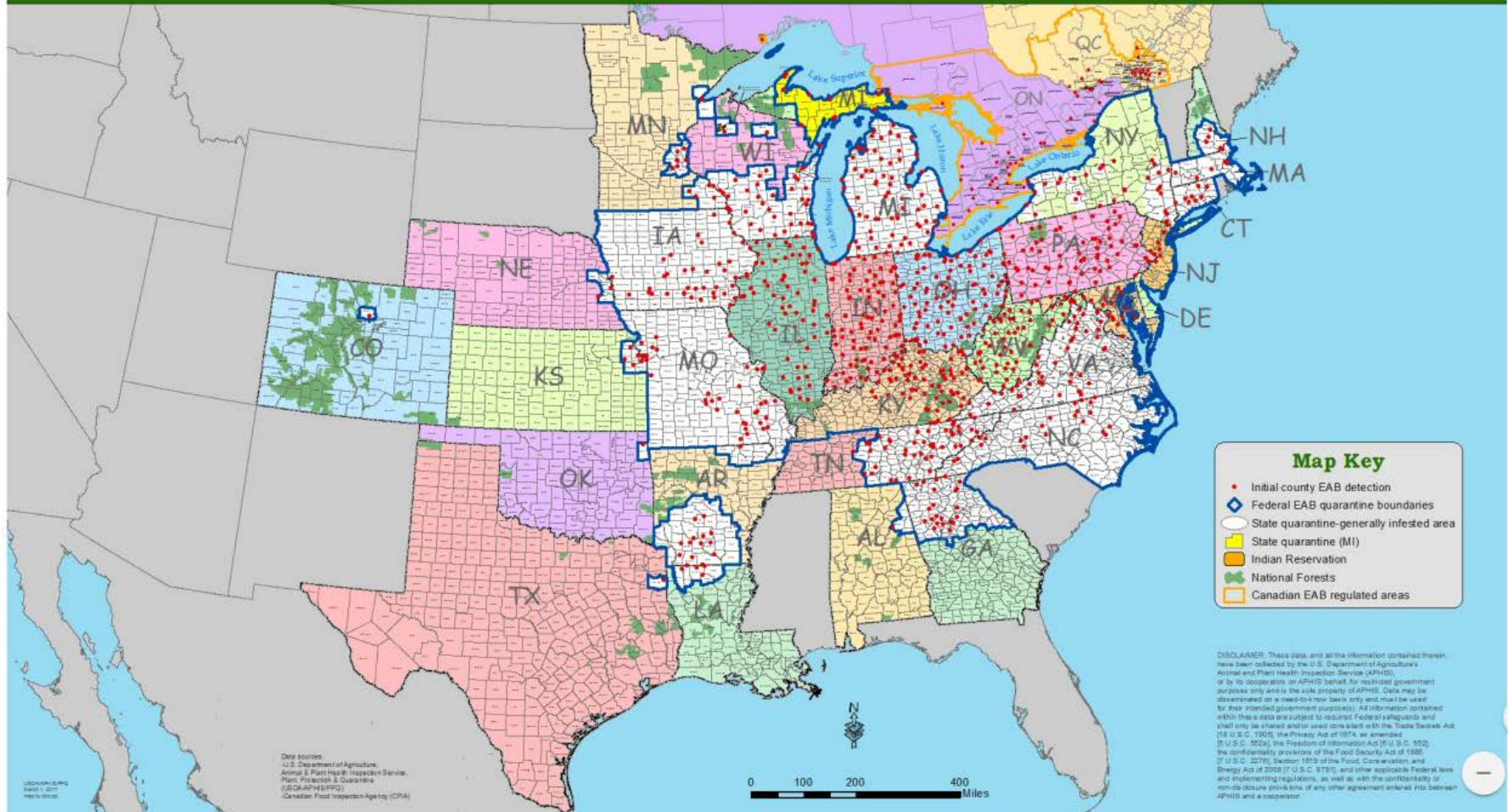


United States
Department of
Agriculture

Cooperative Emerald Ash Borer Project

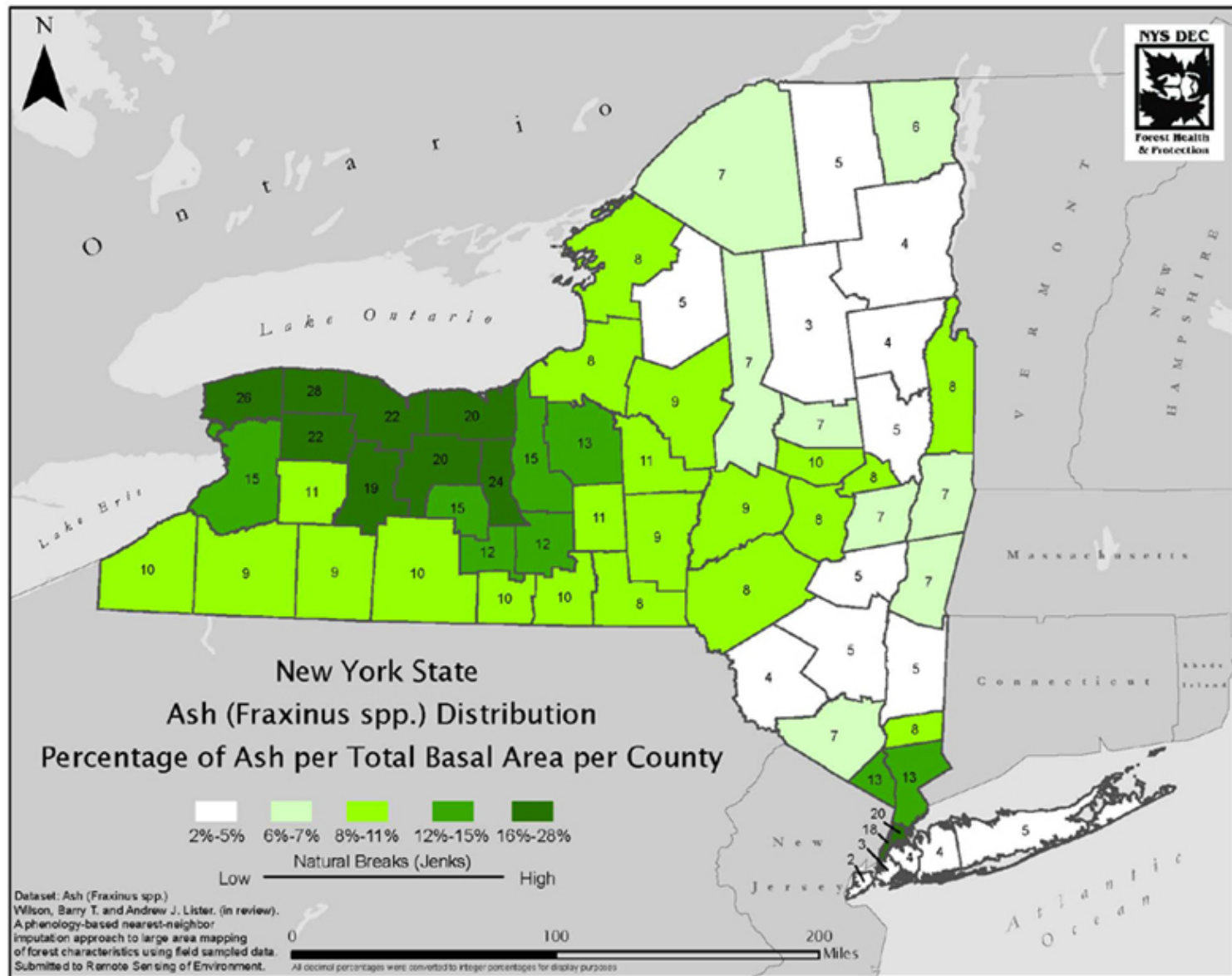
Initial county EAB detections in North America

March 1, 2017



EAB locations by States & Counties in US & Canada

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Ash Density by County

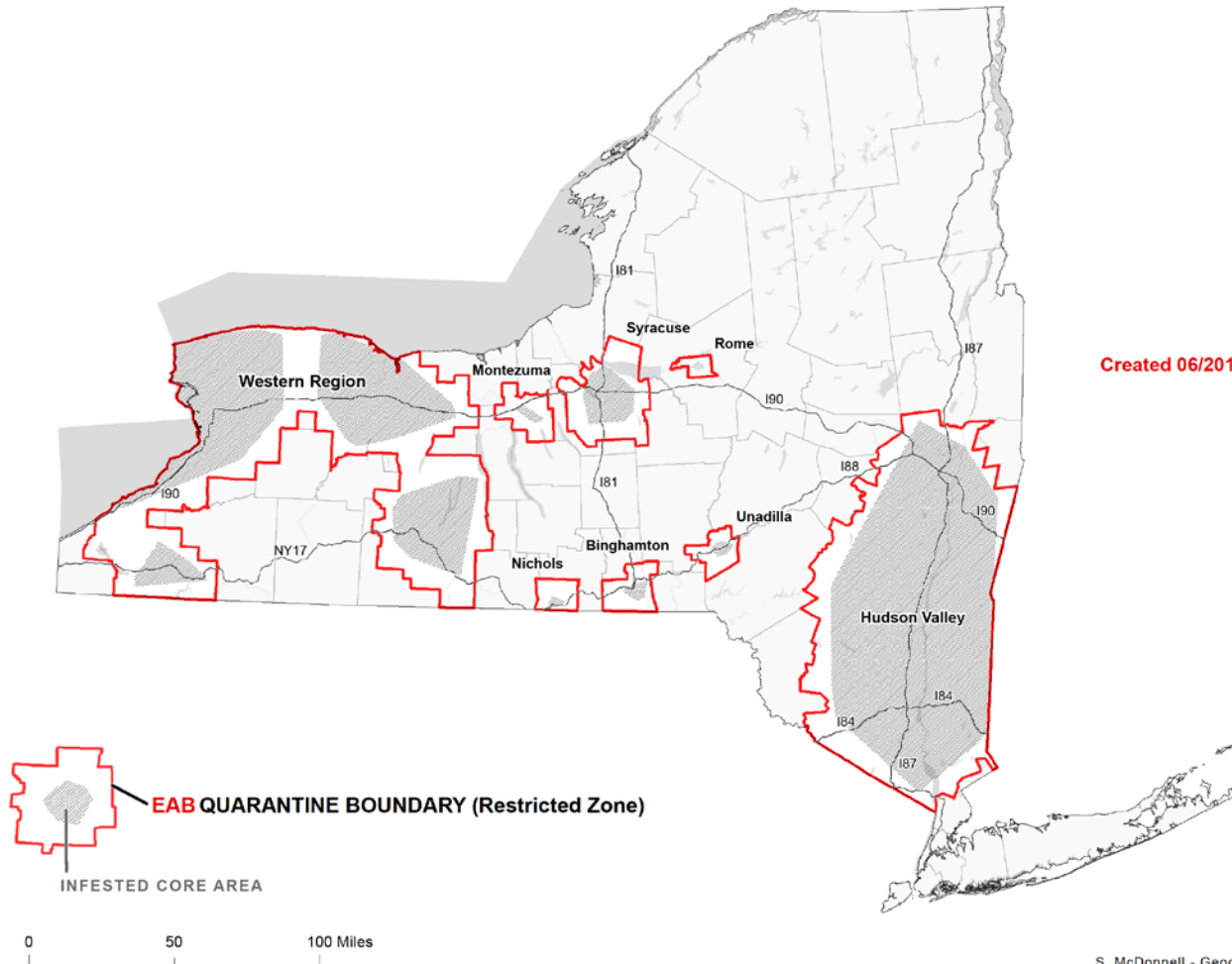
Emerald Ash Borer (EAB) **Quarantine Boundaries (Restricted Zones)**

Binghamton, Hudson Valley, Montezuma, Nichols,
Rome, Syracuse, Unadilla, Western Region



Department of
Environmental
Conservation

Agriculture
and Markets



S. McDonnell - Geographer
Division of Lands and Forests
Forest Health Unit

EAB Quarantine in NYS...(6/16) **nationalgrid**

Our focus...one
small, little,
devastating bug!





Serpentine
galleries

Not showing
infestation (yet!)

A quick review...

**Emerald Ash
Borer...**

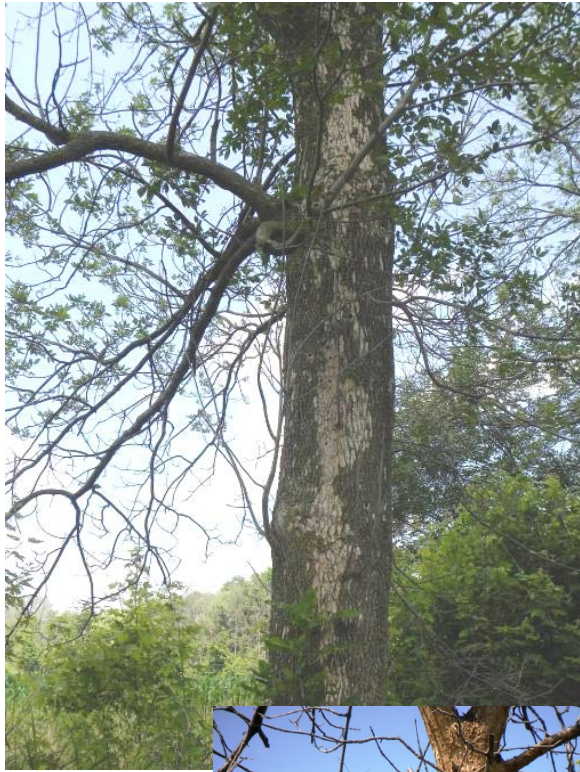


Infested!



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Typical woodpecker 'blonding'
activity noted... (usually heaviest
on the South & West sides of the tree
by the small Hairy & Downy
woodpeckers...starts ~ February)



Larvae w/
bell-shaped
segmented
body



EAB exit holes



Native borer exit holes

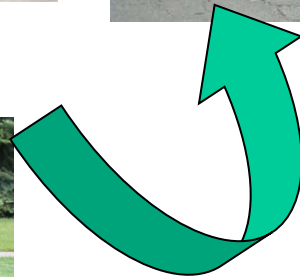
(Sometimes both found on same tree!)



Vertical bark splits



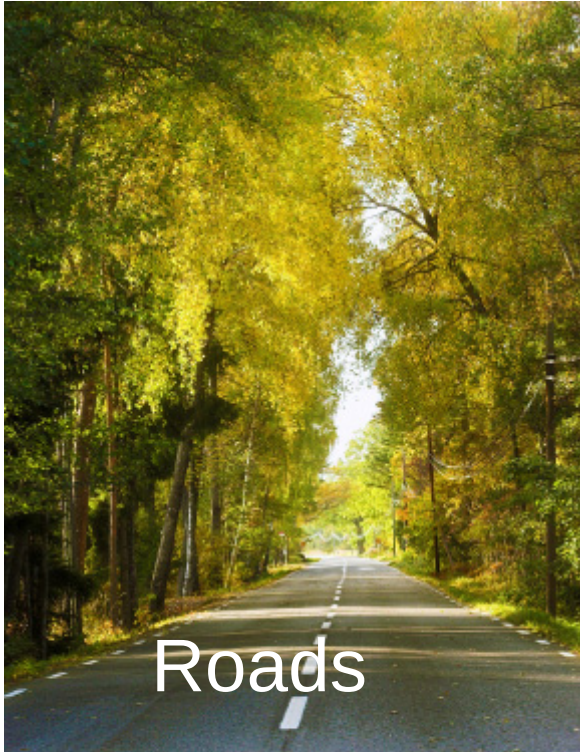
Basal epicormic
sprouts



*Property values, energy costs,
road repairs, tree
replacements, water
needs???*

**Mortality and changes
can occur rapidly over
a few, short years...**

Ash trees are everywhere...



Roads



Homes

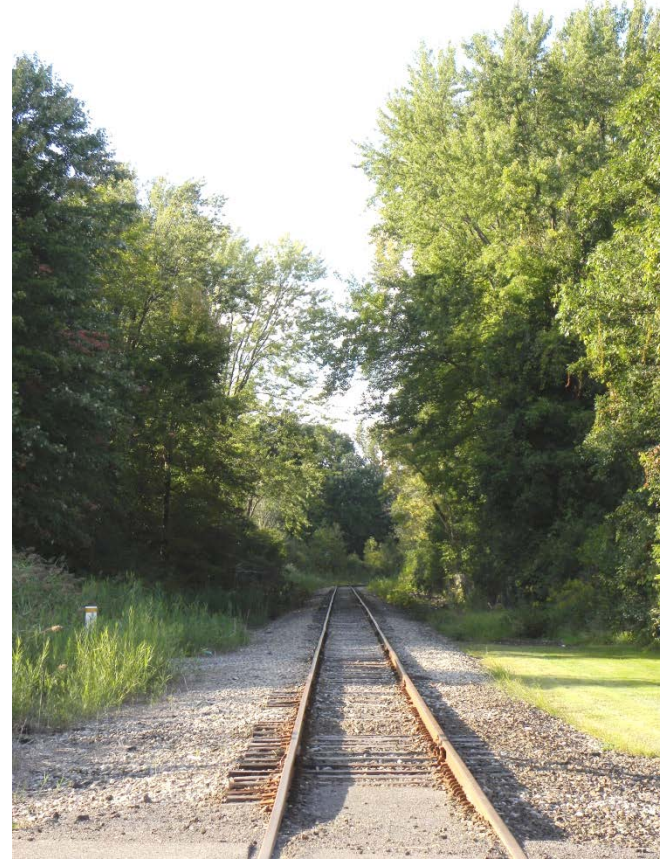


Commercial



Schools/Parks

Rail lines (main & spurs)



Highways



Gas transmission

Every type of utility & public infrastructure is going to be impacted to some degree...

Dead/dying roadside
trees...definite OH
utility line conflicts (likely
~50% of the time; maybe on
both sides of the roads
too...(and well beyond the edge
of the roads & ROWs!)



A significant public hazard!





Typically... “normal”
dead Ash tend to
piece down over
time once they die
(as do most trees)

We all know that...!



But once EAB
kills the tree...



This is what you're
going to start
seeing...after only
1-2 years!

aka "Ash Snap"!

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Small to **NO** loads
or stresses cause
limbs or whole
trees to break &
shatter...

Limb fractures
occur very close
to stem (<24")



**The force needed
to break a healthy
1" limb now breaks
a 5" dead limb!**

Davey Tree Research Lab
Dr. Anand Persad



Stem failures can be catastrophic, typically <24" above grade & **often under NO loads!**





Photo courtesy of Mark Contat, First Energy

Root failure can be catastrophic & common, **often under NO loads!**



“Barber chairing”
of stems can be
an unanticipated
problem...& has
resulted in at least
1 (*known*) fatality
of an experienced
worker



Photo: courtesy of Dr. Anand Persad - Davey Tree Research Lab

This is the impact zone of a failed
Ash in a wind event, ***only*** 14
months after EAB infestation!

Storm events when
dead Ash trees are
involved...



now yield more
significant
damages...to trees
& to property!

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That's going to be a significant *ongoing* problem for both utilities, DPWs/HDs and property owners...every time the wind blows hard!



For those that
snowplow...fallen (or
falling!) dead Ash
trees are going to
present a real
challenge...
especially when
they've fallen onto
the road in the dark
and are buried in the
snow!



Nice country road...**HIGH** density of Ash on both sides!

Who's going to pay for the removals?



This is going to be a safety, liability and financial concern for all...for at least 10 years most likely

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Hedgerows on farm fields & pastures will no longer offer shade, refuge or protection...but will become a threat for injury or death to man & beast or damage to equipment

Mowing crews will struggle to get their work done due to the presence of fallen trees & limbs...another often unanticipated consequence of such massive tree failure! What's the costs for productivity & equipment repairs?



Other concerns:



- A walk in the woods will no longer be an easy 'walk in the park'!
- Hunting will have a whole new set of safety threats.
- Hanging a deer stand in, or near an Ash tree may be suicidal!
- Fishing along creek banks, ponds or lakes may be a hazardous past-time.
- XC skiing may not be too much fun!
- Golfers have a whole new 'hazard' that may add injury or death to their card!

Where are your Ash trees in the community?

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Photo credit: Anand Persad, Davey Tree

Photo Credit: Mark Contat, First Energy

Line outages from falling trees/limbs will
be ***MUCH MORE*** common...with *likely*
longer restoration times!

What about road closures, clean-up & guiderail damages?

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Photo Credit: Mark Beamish, O&R



Those contacts can be dramatic, BIG,
causing expensive & time consuming
repairs...*(and don't forget everything else attached to
the poles that could be impacted!)*



Tree removals should ONLY be done using bucket trucks, a crane...





backyard lifts or supported
and working from a strong,
solid adjoining tree!



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Do **NOT** trust Ash trees that have been standing dead for more than 1-2 years! They are not the tree you think they are...or what you knew!

They could fail catastrophically and unexpectedly at any time!
Is **public safety** worth that risk?

(Lawyers are ALWAYS more expensive than a tree removal!)

Davey Tree now bans climbers in Ash if >20% dead!

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What'cha gonna do?

- Do you have a tree inventory?
- How many Ash & where?
- Are you saving any?
- Do you have a tree removal management plan?
- Do you have the \$?
- If not...do you have a good attorney?
- Consult regional PRISMs or EAB Task Forces



ALL in the industry & communities will face challenges and added costs for public/worker safety.

Do ***NOT*** stick your head in the sand!

You'll need to reconsider your work:

- Timing - Crew availability
- Costs (consider joint community contracts & equipment sharing)
- Coordination/cooperation w/ affected OH utilities (esp. electric)
 - Access by equipment
- Proximity of structures/OH conductors
- And...potentially even refusals to do the work when considered unsafe *(just walk away...cordon off the area from access!)*

SAFETY MUST TAKE PRIORITY!

Thanks for your time & attention!



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New York State High Voltage Proximity Act

(AKA NYS Labor Law Code Rule 57)

(1) The employer, contractor or other person making such approach or who is responsible for such activity, shall promptly notify the owner or person in charge of such high-voltage line at least five normal work days before such approach or activity is made by regular mail.

You have to notify us 5 business days in advance

Exception: In any emergency situation involving imminent danger to the life, health or safety of any person, the person responsible for such activity is not required to comply with this provision.

(2) Within three normal working days following the receipt of such written notice, the owner or person in charge of such high-voltage line shall respond to the person who is responsible for such activity or to performing any work in dangerous proximity to such high-voltage line.

We have to get back to you in 3 business days

New York State High Voltage Proximity Act

(3) The owner or person responsible for the high-voltage line shall perform all necessary precautionary actions to be taken to protect against the danger of energizing the line by approving in advance other effective methods or devices for the particular cases and for the particular locations.

We can tell you to hire your own electrically qualified contractor

(4) The employer, contractor or other person responsible for the activity within dangerous proximity of such high-voltage line shall be responsible for the precautionary action including determining what precautionary measures are necessary and preparations for implementing them whether or not such precautionary measures are actually implemented.

You owe us all our costs & overheads

OSHA 1910.269 vs. ANSI Z133

- OSHA 1910.269 is the *Law & Regulation*
- ANSI Z133 is the *Requirement* to adhere to the *Law & Regulation*
- The *Law & Regulation* is the foundation to the *Requirement*.



What does Z133 say you need to be a QLCA?

- Qualified Line Clearance Arborist: An individual who, through related training and on-the-job experience, is familiar with the equipment and hazards in line clearance and has demonstrated the ability to perform the special techniques involved. This individual may or may not currently be employed by a line-clearance contractor.

ANSI Z133 Annex B

- Has a generic outline of the requirements surrounding Qualified Line Clearance Tree Trimmers/Trainees
- Orientation & Training Requirements:
 - Familiar with OSHA & ANSI
 - Public Safety & WZTC
 - Recognize Electrical Hazards
 - Emergency Conditions

- 
- The background of the slide is a dark green color with a pattern of lighter green, stylized leaf veins and shapes, creating a textured, organic appearance.
- Orientation & Training Requirements (cont.):
 - PJHB
 - PPE
 - Emergency Response Procedures
 - Injury Avoidance
 - Operation of Aerial Lifts
 - Tools of the Trade
 - Climbing Techniques

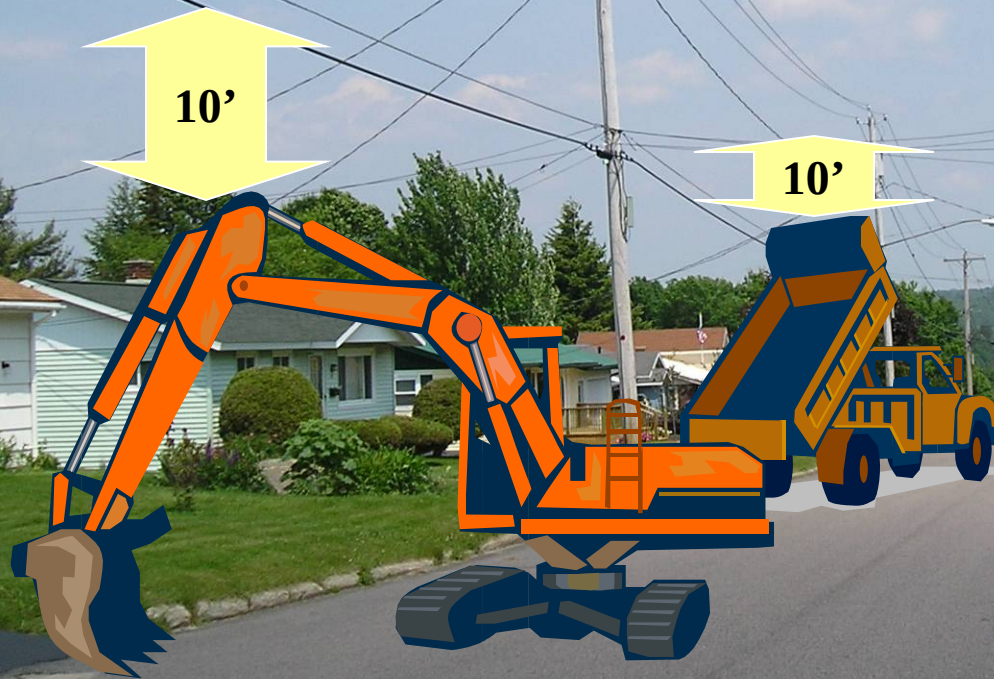


ANSI Z133 on What's Energized

- 4.1.1 – All overhead and underground electrical conductors and all communication wires and cables shall be considered energized with potentially fatal voltages.

Everything has the potential to carry electricity – guy cables, comm. cables and poles!

**If your crews are Electrically
Qualified...**



**If not...
Then 10'...
From
Everything!**

ANSI Z133 on Elevator Units

- 5.2.33 – Aerial devices equipped with an elevating structure that raises the turret and booms and changes the position of the aerial device shall not approach closer than the minimum approach distances specified in this standard. Arborists and other workers shall use spotters when necessary and keep workers on the ground clear of the vehicle and attachments if the aerial device may become energized.

When your elevator lifts the lower insulator to or above the primary...



Elevator





Z133 Annex H – Abatement

- H.3.3: Arborists should avoid all direct contact with the de-energized conductors, because de-energized lines should never be considered 100 percent electrically safe under all conditions.
“... from all known sources of energy...”

*(Generators in storms?????
Transformers can work BOTH ways!)*

What Happens When You Are The Cause Of An Outage?

(Esp. for those that may do side work...)

Have your insurance information ready for you are now liable for:

- Our costs to restore our customers and any claim we receive on:
 - Damage to customer's property or reduction in their quality of life
 - Loss of business and wages
 - Peripheral incidents or accidents associated with the outage

Again...thanks for your time & attention!



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