Risk and Logical Fallacies in Municipal Tree-Related Litigation

International Municipal Lawyers Association



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Orlando, Florida





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“Logical fallacies are statements of facts that contain errors in reasoning.” (Pirie, 2015)



A common tool used in debates, when provided as an opinion, they often lack necessary context.

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Affirming the Consequent

These imply a linear causation between a pre-existing condition and the consequences.

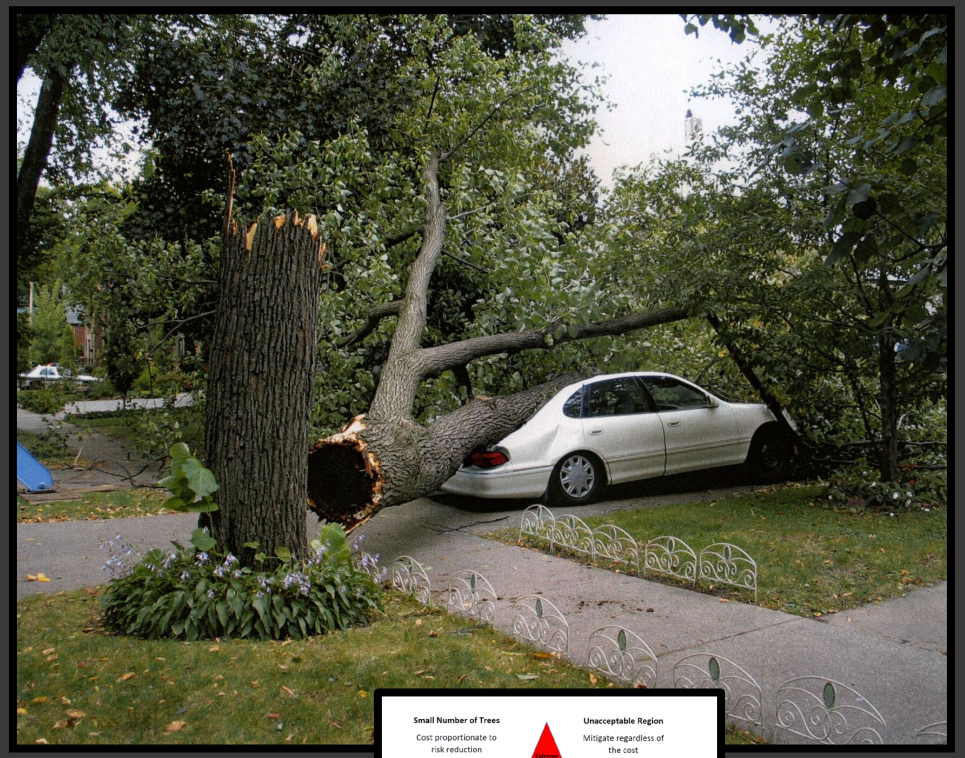


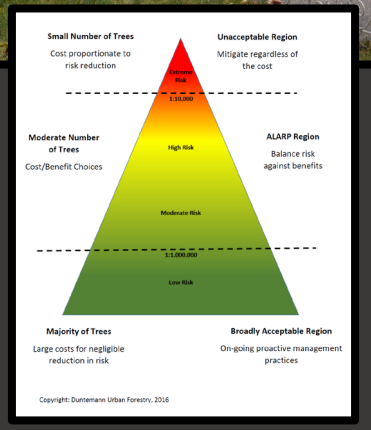
If "x" happened, then "y" must have been the reason.

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Affirming the Consequent

Because the tree failed, it must have been a "hazard".





Most trees involved with a tree-related incident would rate as low risk.

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The Analogical Fallacy

If something is common between two items, then other things are also held in common.

If "x_1" has an issue, then "x_2" must also have the same issue.

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The Analogical Fallacy

The subject tree, a *Black Locust*, must have *Phelinus robineae* (a decay fungi) because an adjacent *Black Locust* has *Phelinus robineae*.



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Bifurcation

Presents an argument as having only two possible outcomes when multiple outcomes are possible.

One has only option "x" or option "y" to choose from.

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Bifurcation



Risk is about uncertainty and several, if not dozens, of variables are present and fluctuating when discussing the risk associated with a specific tree.

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Blinding with Science

The overuse of technical or scientific jargon to imply the validity of an argument and presents the facade of relevance.



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Blinding with Science

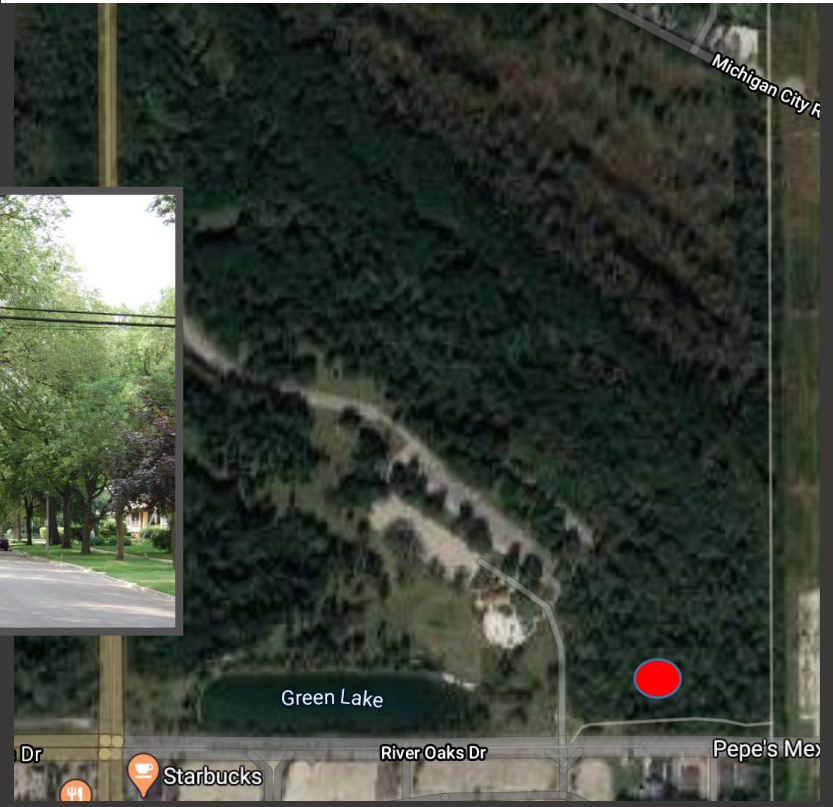
Mischaracterization of the Research

Example: The plaintiff's experts stated that the authors of a peer-reviewed article found windshield surveys adequate to identify individual tree defects.

In reality. the authors noted the inadequacy of windshield surveys when assessing trees along large, dense woodlands.

Table 1 – FPDCC Demographics	
Item	**Area/Length/Quantity**
District Area	68,000 acres
Trails	347 miles
Picnic Groves	271 each
Parking Areas	1,265 each
Structures	616 each
Perimeter	813 miles





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Loaded Words

These are words that typically have either a positive or negative connotation and are used to elicit an emotional response.

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Loaded Words

Example: "Hazard"



A situation or condition that is likely to lead to a loss, (personal injury, property damage, or disruption of activities or services). In relation to trees, a hazard is the tree part(s) identified as a likely source of significant harm (ISA, 2011).

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Loaded Words

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

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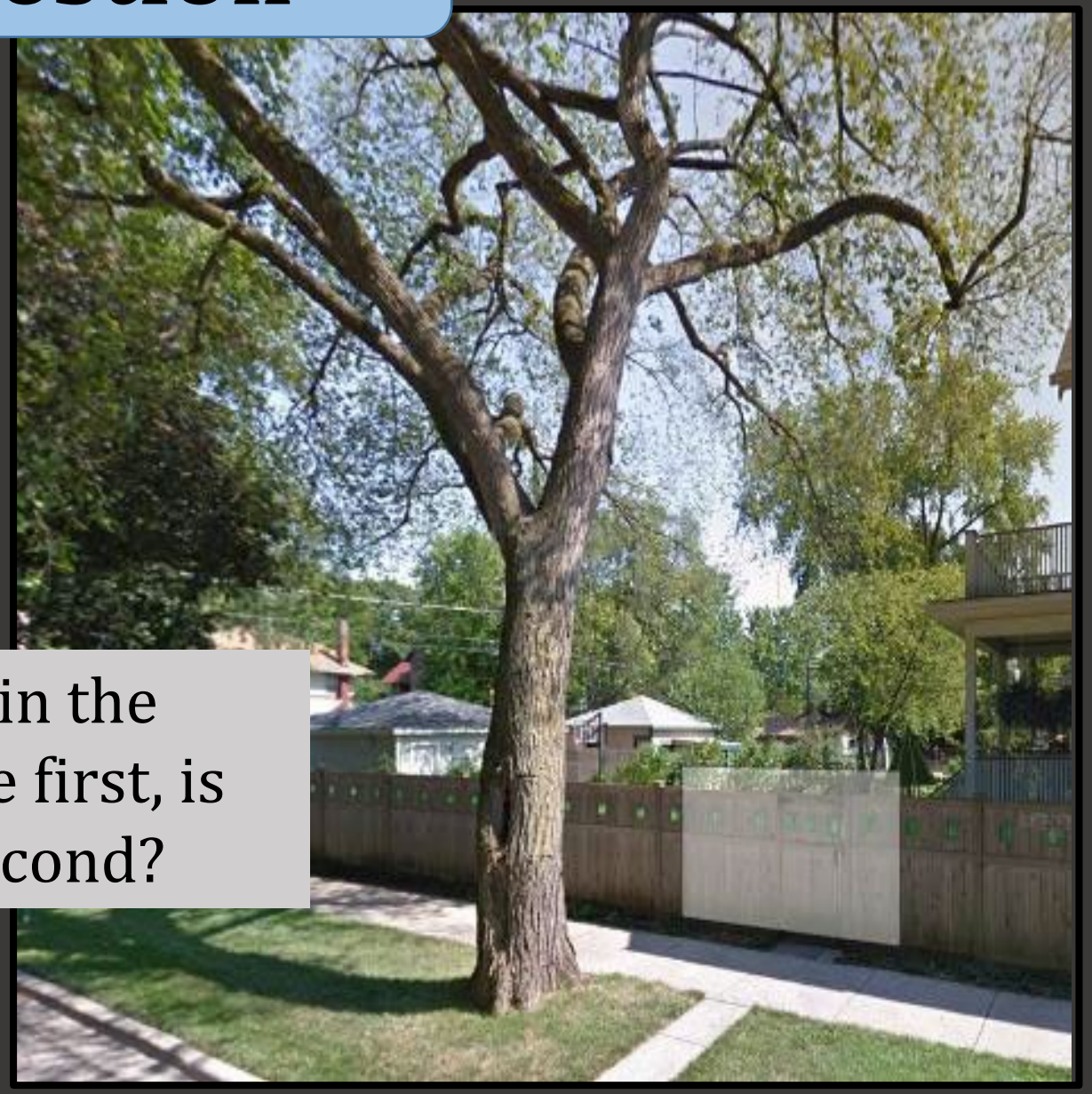
The Complex Question

Several issues are wrapped into one question or statement from which a yes or no answer is required.

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The Complex Question

Wouldn't you agree that this tree has a defect in the trunk, and the town should have removed it?



There are two queries imbedded in the question. If you answer yes to the first, is that also your response for the second?

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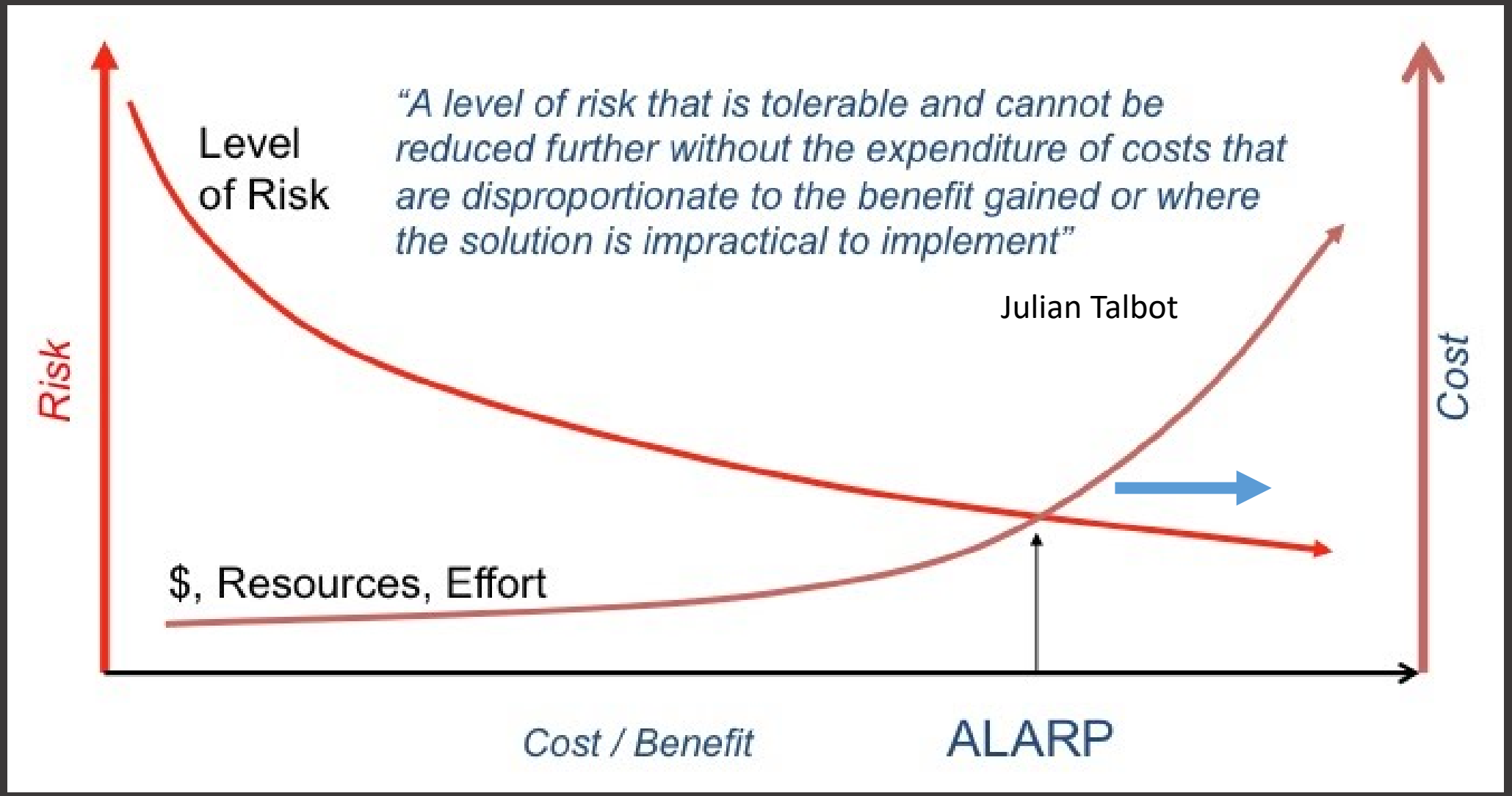
We Must do Something



Suggests that some additional task is always possible to correct the issue being presented.

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We Must do Something



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Unchallenged, logical fallacies become a fact.

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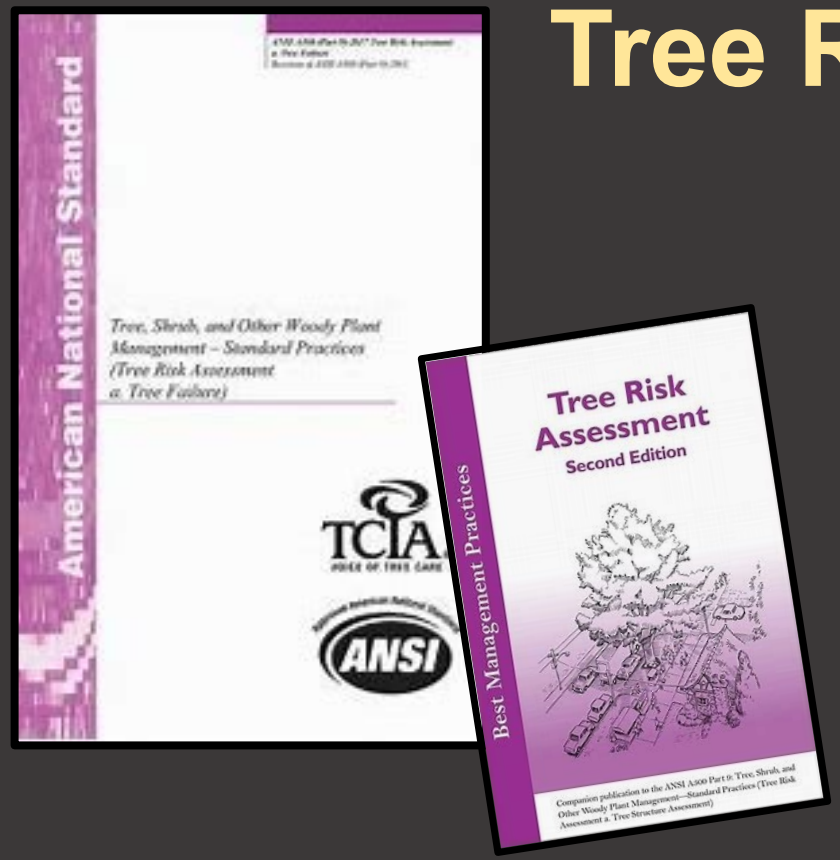
Risk concerns uncertainty

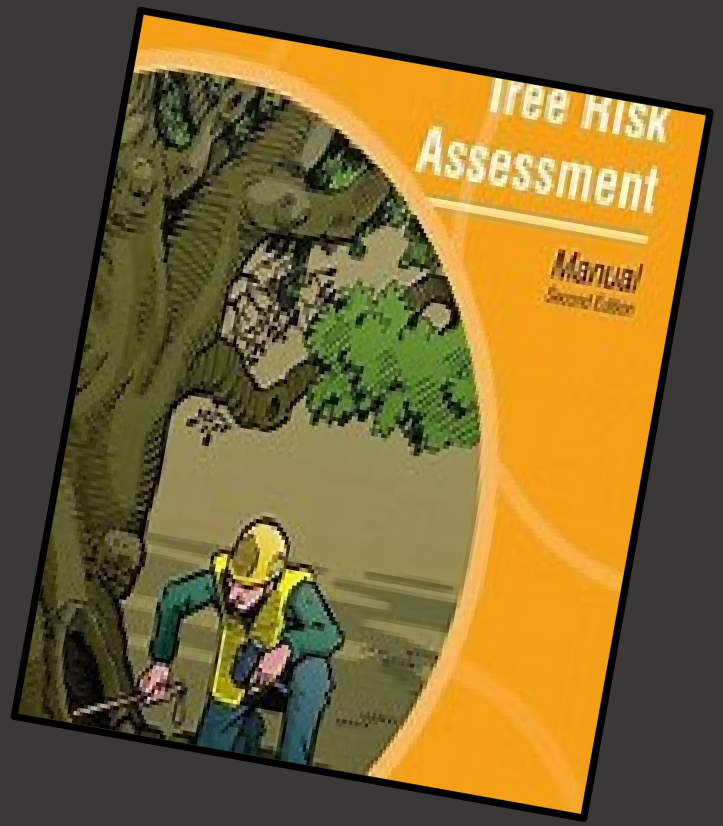
When opinions are provided in absolute terms, the opinion should be suspect.

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Event-Level Risk

International Society of Arboriculture's (ISA) Tree Risk Assessment Methodology





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Event-Level Risk



Level 1 – Limited Visual Assessment

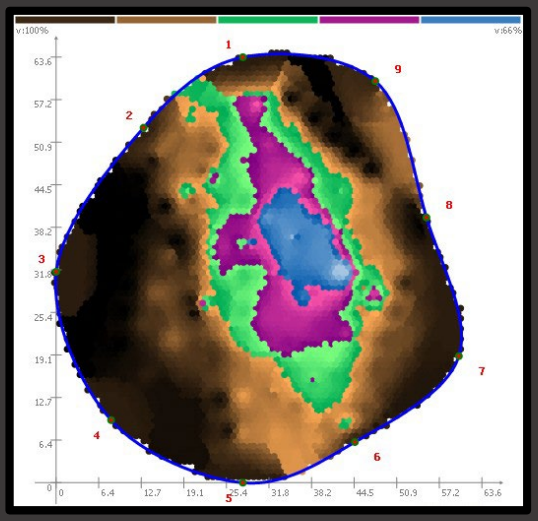
Observations/Mitigation

Level 2 – Basic Assessment

Observations/Risk Rating/Mitigation

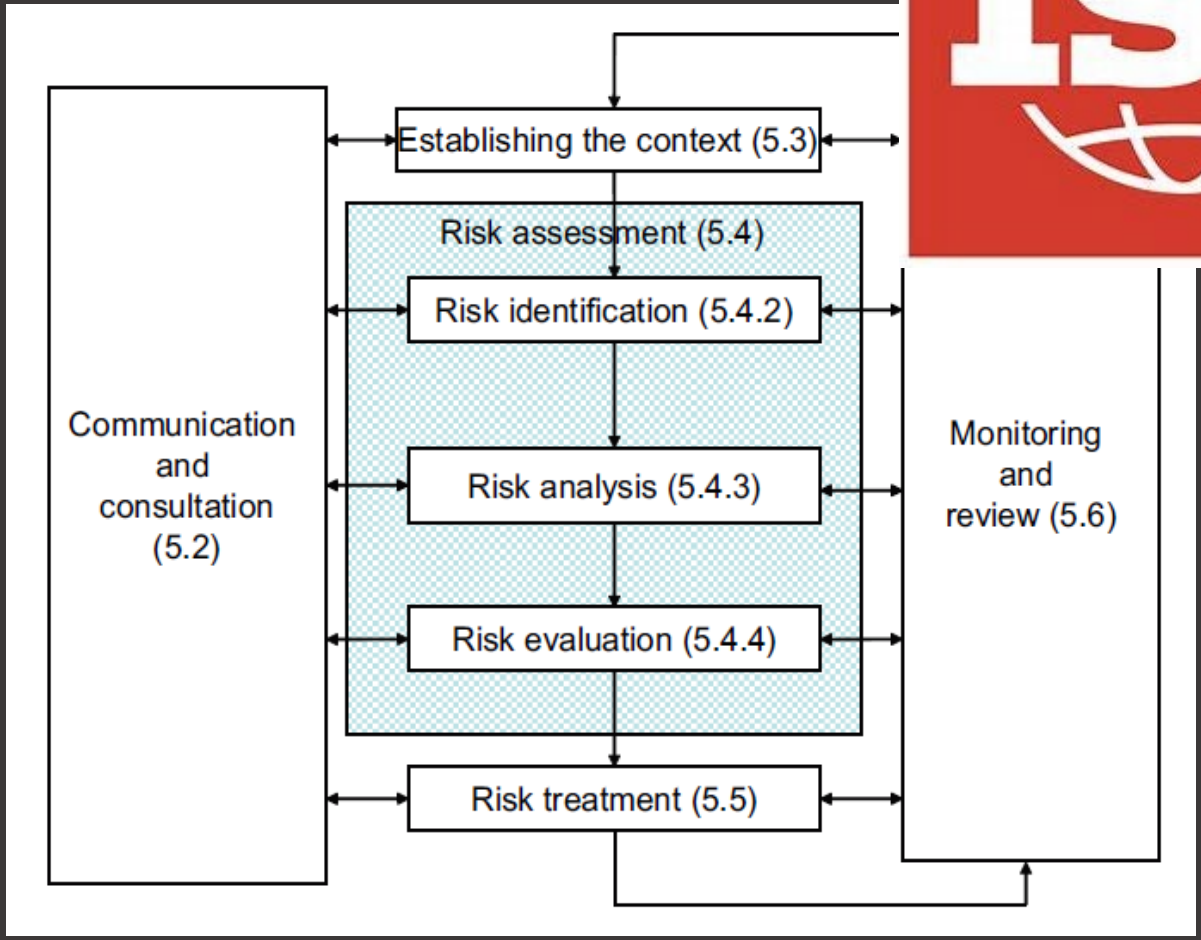
Level 3 – Advanced Assessment

Additional details that inform opinions



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System-Level Risk



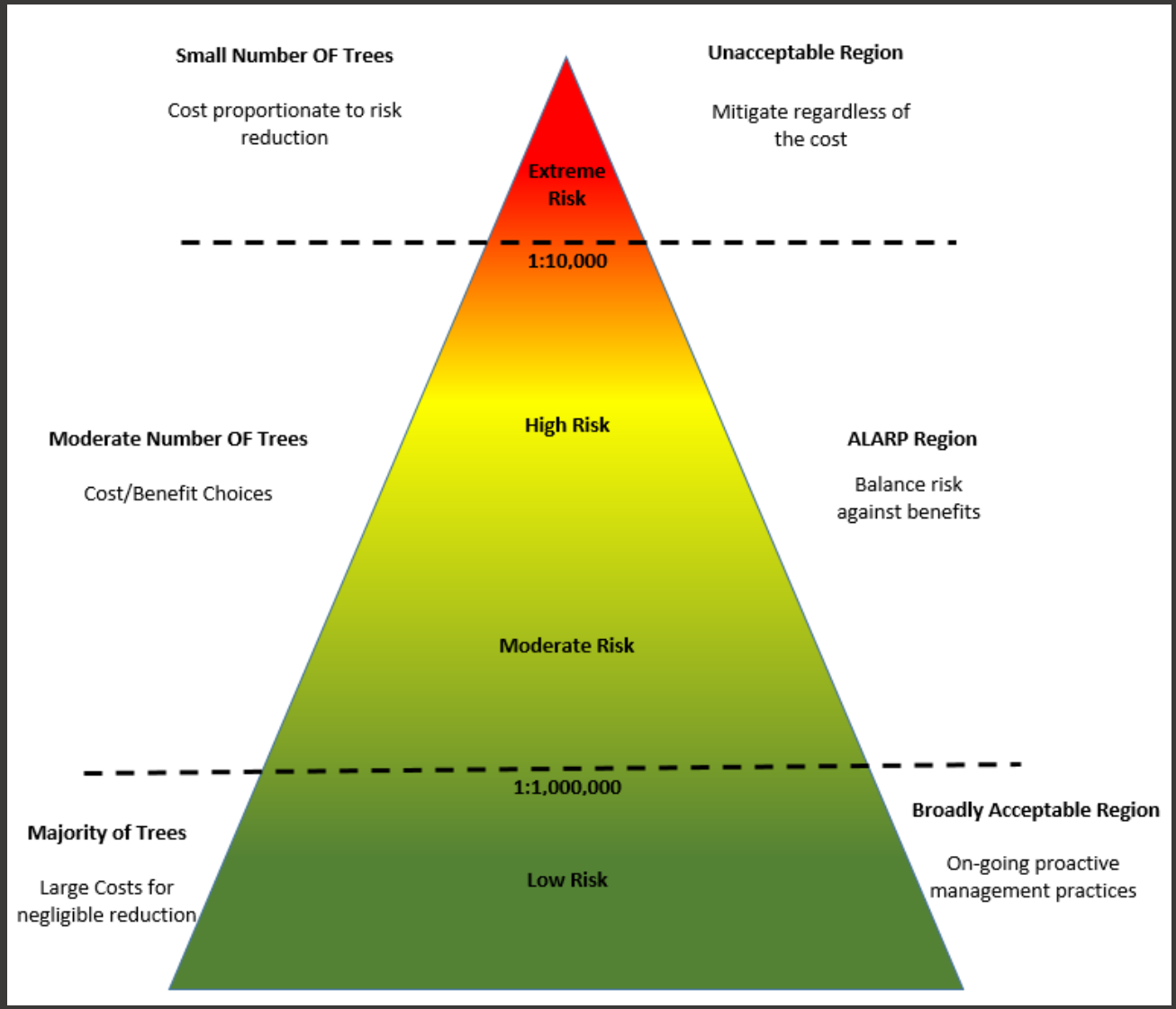
International Organization for Standardization

- Team effort
- Integrated
- Structured
- Customized
- Continual Improvement

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System-Level Risk

As Low as Reasonably Practical (ALARP)



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System-Level Risk

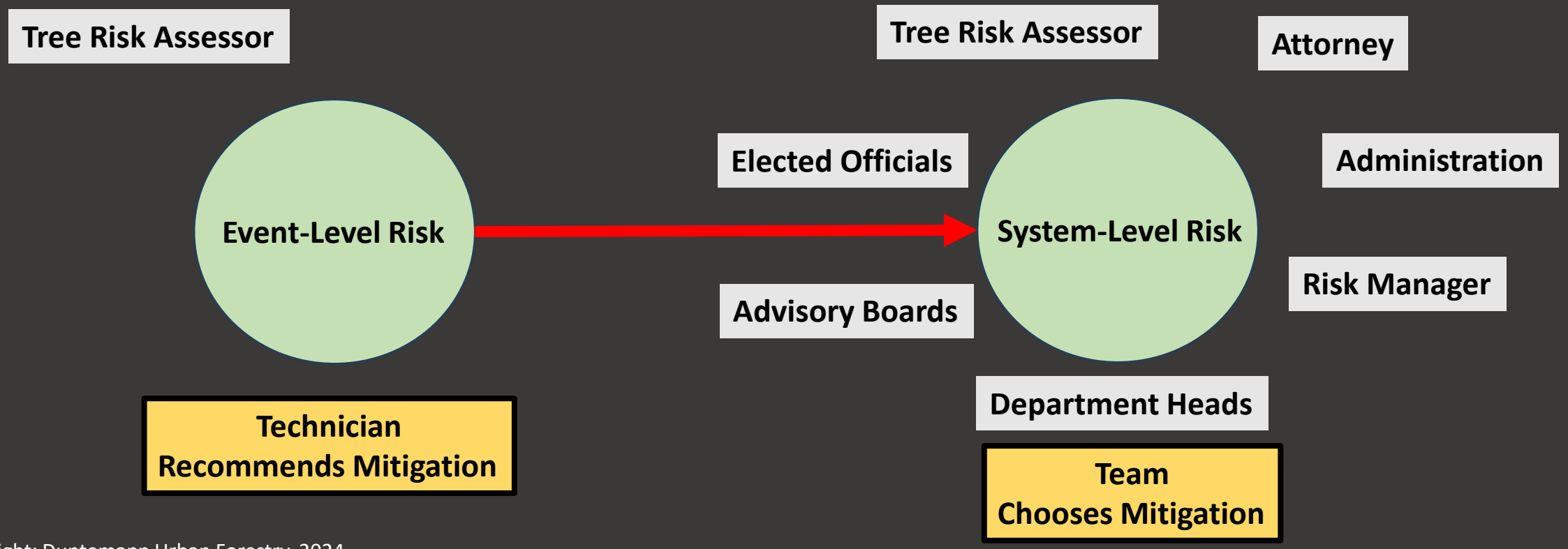
There is no standard for:

What types of inspection should occur?
What interval the inspections occur?
What mitigation is appropriate?

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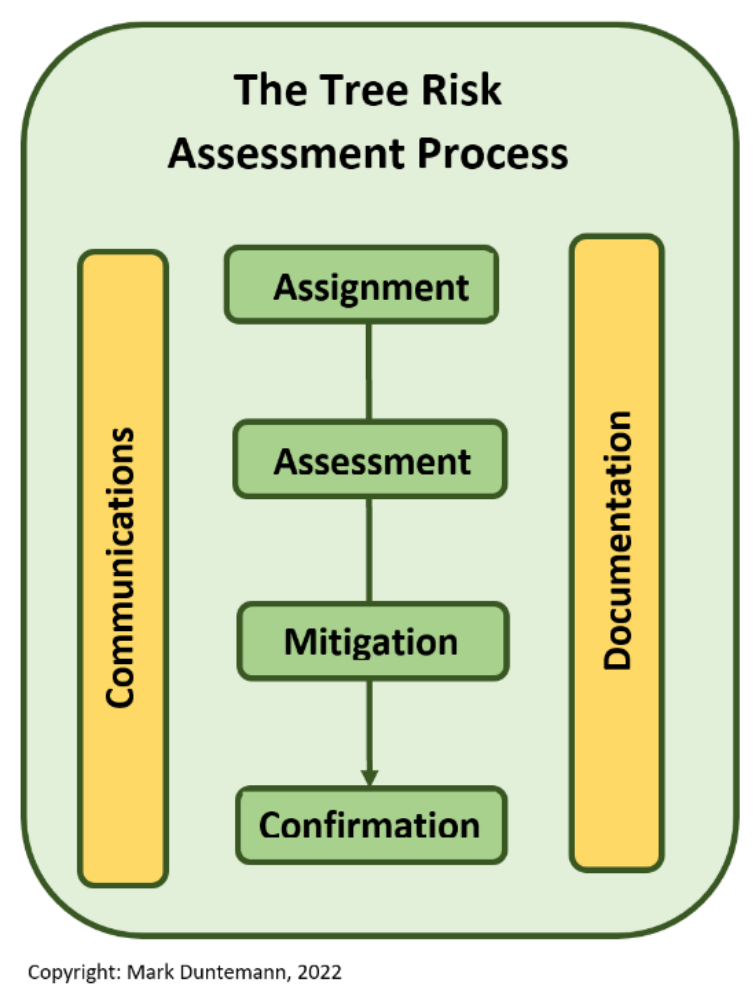
System-Level Risk

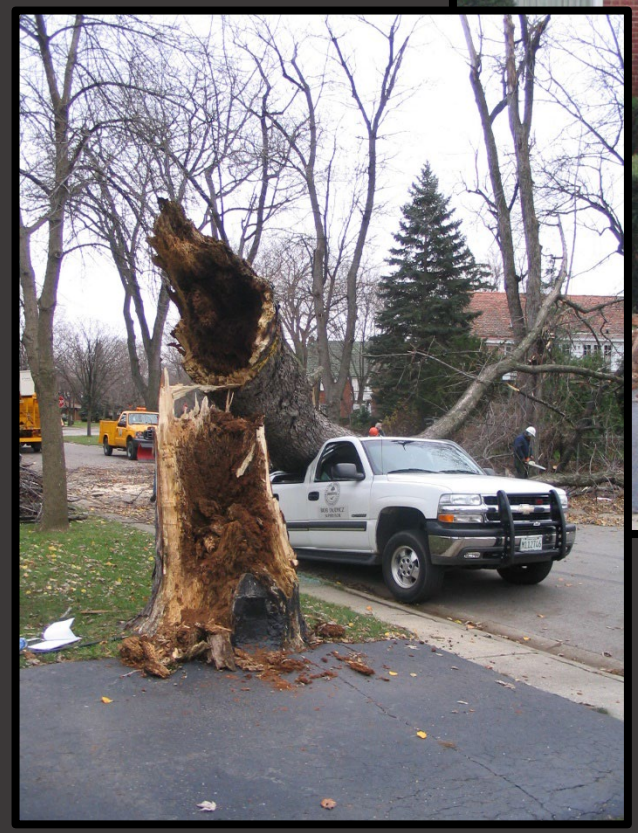
The ISA makes it very clear that the roles and responsibilities of the tree risk assessor and the owner/manager of the tree are distinctly different.



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System-Level Risk







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Summation

- Uncertainty is managed with information.
- Tree risk assessments are opinions.
- Tree risk management encourages a team approach.
- Each municipality has its own unique context from which a reasonable, practical, and proportionate policy can be formed.
- Prevent the mischaracterization of your program.

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Thank you!!!

For more information on tree risk management services:

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