

URBANFOREST CONNECTIONS

webinar series

Tree Risk Assessment for Municipalities

Wednesday, November 12, 2014 | 1:00 – 2:00pm ET

TRANSCRIPT

Kathy Sheehan: Hello everyone. Welcome to the U.S. Forest Service's Urban Forest Connections webinar series. I'm Kathy Sheehan, program manager with the Forest Service and I will be moderating the webinar today. Before we get started, our technology expert, Emilio Garza, will share some tips on how to use the Adobe Connect software to make your experience on today's webinar more valuable and enjoyable.

Emilio Garza: Thank you, Kathy. I want to mention for those on the phone line that if you're having difficulty connecting to the web meeting, you can contact Adobe Connect support at 800-422-3623. In Adobe Connect, each of those boxes are called pods. I will provide you with a quick orientation of the different features and pods. At the top of the Adobe Connect window you will see a feedback and status button. You can click this button to raise your hand if you're having difficulty with Adobe Connect or need any other help. Click again to lower your hands. You can also select from the other feedback options by clicking the area to the right. When you raise your hand for assistance I will start a one-on-one chat with you. This will open a new tab, which you will see at the bottom of the chat pod. Click on that tab and type to get help. Make sure to click back on the *Everyone* tab to return to the group chat. While in the group chat, we appreciate any comments made on the topic presented today.

Live captioning from Caption Colorado is streaming in the lower corner. You can adjust the size to hide the menu or see more of the captioning. You can listen to the session through the computer with a headset or headphones through your computer or through the phone by calling the number on the slide. Please only connect to audio one way, either phone or computer, to avoid an echo. For computer, click *Listen only*.

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If you want a mobile device, Adobe Connect looks a little different. You can view each pod on its own by tapping on it. Tap to return to the normal layout where you will see all the positive ones. Please know the captioning will not stream on mobile devices.

All participants are in listen only mode. The question-and-answer session after the presentation will be conducted via Adobe Connect only. Please submit your question anytime using the chat pod. This is being recorded. If you have any disagreements with this, you can disconnect at any time. Now I will turn the call back over to Kathy.

Kathy Sheehan: Thank you. Information about the Urban Forest Connections webinar series can be found on our website. This webpage includes a place to contact us with questions about the series, suggestions for future topics or feedback on how we are doing. You'll also find a list of upcoming webinars and our archive where you can access recordings of past presentations.

Before we dive into today's topic, we would like to first learn a little bit about who is participating in the webinar. To do that, we'll post three questions on the screen and ask that you respond to each one fairly quickly. The first question is: Where do you work? Please go by clicking one of the circles to the left.

Thank you. We will close that poll in three seconds. Our next poll is: What is your profession? Again you will have a few seconds to fill this out. And we will close the poll in a few seconds.

Finally the last question is: Where are you from? Thank you and we will close that in three seconds. Thank you.

Now on to today's topic: Tree Risk Assessment for Municipalities. We will hear from two speakers: Jerry Mason, an attorney with Mason and Stricklin, and Paul Ries, an urban forestry instructor and extension specialist with Oregon State University, as well as the Oregon Department of Forestry. Our first speaker, Jerry Mason, has worked in Idaho for 43 years as a local government administrator and as legal counsel to local government officials. Jerry serves as counsel to the Association of Idaho Cities and to the board of trustees of the Idaho Counties Risk Management Program, a 750-member local government liability and property insuring pool. Through his firm, Jerry frequently assists Idaho's state associations of cities and counties in matters of legislative concern. Now I will turn it over to you, Jerry.

Jerry Mason: Thank you, Kathy. I wish everyone a good morning or afternoon, as the case may be. This is a topic that is one that has significance for many communities because the whole idea of municipal liability is not one that is extremely old or extremely well-developed in terms of the history of American law. So we're going to look at some basic principles that are at work in this liability process. And tree risk is something that has some real significance in the municipal landscape, in part because in many communities, planting trees is a required activity with new developments and maintenance of existing trees can be an important responsibility for those who have legal duties associated either with trees on their own property or trees on adjoining public rights-of-way.

The physics of trees can cause a challenge and can prompt us to examine the environment in which trees exist in a very different way. First of all, as you are well aware, trees have substantial mass and the environment around them can be influenced by their movements in any way, shape or form. And then the other habit that we want from trees is generally growth, and that close growth can cause adverse [Indiscernible]. This is often true in the case of utility lines, gutters that handle drainage and other structures that find their way into the public right-of-way. The most [Indiscernible] are either falling parts or whole trees that bring about injuries to persons or property that happen to be in the way. And that can be prompted either by obviously a windstorm or by ice, by collisions with trees, and a number of intersections between human activity and the existing mass of substantial trees.

Another subject in the urban environment that is always a concern is the uplifting movement of tree roots on pedestrian pathways, curb and gutter lines, and other public infrastructure. Often the intent is excellent to plant trees adjoining public rights-of-way. But oftentimes the result is the power of the tree's root system or the effects of wind can cause tree roots to either uplift sections of pedestrian ways or intrude on utility systems, either by their roots for underground systems or by their branches for overhead lines that may become entangled. And then there is always that misplaced planning choice that has a 40 foot tree underneath a 30 foot utility line.

And then with modern transportation systems very often we depend upon unobstructed view of signals, call signs and control devices and often even if the trees are not in the right-of-way, branches can grow so that motorists either don't see the devices at all or see them at a time that is later than they would prefer in order to obey the sign signal or device.

Let us shift a little bit now to the historical foundations of risk. As I said, this is a relatively new phenomenon. It's not something that has been with us forever. Obviously, risk is the possibility of suffering some kind of loss or harm. If we are engaged in human endeavors, that is inherent in our existence. The basic rule in the United States that has been imported from the English common law takes the form of the old mantra of "the King can do no wrong." It really doesn't mean the king can do no wrong. It [Indiscernible] to do wrong with impunity in many of those. And the rationale for that, the underlying policy foundation, is really a separation of balancing powers

among the branches of government to keep courts from being the final source of all government powers. And so if the courts were left in charge of every aspect of wrongdoing, there was a definite shift in power toward the judicial branch.

The sovereign immunity or lack of actual ability to sue the government is kind of the inherent nature of our country's history legally. But in the 1960s and 1970s, American legislatures began to write down the walls and authorize lawsuits by citizens against government simply because the inequities of not allowing that seems to create immunities that were unfair and left people with damages that were unrecoverable and harm that seemed unjust. In many instances when authorization was given to citizens to sue the government, it was done with a number of conditions or limitations. So that certain uniquely [Indiscernible] activities would be excluded from damage of lawsuits, but others would have limitations on procedural requirements for filing claims and also limitations on damages in terms of actual amounts. The biggest groundswell of this activity was in the 1960s and 1970s. So this has only been around for the past 40 to 50 years. It's a relatively new phenomenon.

So as we go to this risk exposure that governments face now – and I know for most of us we feel like this has been around forever because it's been around for most of our professional lives – but these new standards of identifying how government can be sued in a similar manner to lawsuits against private parties, we get into examining what private parties have to face and that is avoiding negligent conduct. Negligence is generally defined as failing to meet a reasonable standard of care. But anybody reading that sentence can know that's kind of like setting out a saucer of warm milk for a band of attorneys. A reasonable standard of care, how [Indiscernible], all of these are terms that need a definition. And in a new field of law, that definition has come from a number of places. First of all, there is a duty for the property owner not to harm others. Secondly, with negligence there is a breach of that duty. And then it can't just be coincidental, it has to be causative. Did the breach of the duty cause harm or damage? [Indiscernible] Typically, damages are measured in dollar amounts. There may be equitable causes, but largely here we are talking about causing harm that prompts somebody to make a tort claim and file a damages action seeking to be compensated financially.

So there is this duty. Where does it come from? Well, a variety of standards, and they are evolving because this is not the traditional historic roots that American law has taken. The most common source is state legislature. The duty may be spelled out in general terms or may be specific to matters relating to trees. So in either event state legislation may provide a specific standard of care that is there for everyone to conform to. Additionally, many municipalities engage in what were traditionally called proprietary operations. And in some states that is still a meaningful term. Proprietary operations were often activities that were nongovernmental, meaning that private parties could also engage in them – operation of utilities, which can be by municipal departments or regulated public or otherwise, or operation of streets which often combines both the provision of the service and the regulation of contact on those streets which would be governmental conduct. In addition to that state legislation, often

local governments are responsible for either acting as authorized by state law through local ordinance or by their home rule powers to establish either by statute or Constitution, or by their charter which is authorized as a matter of state law. In these, municipal ordinances can establish standards of care which then in turn yield to setting forth duties. And then a uniform source for every state irrespective of whether you have state legislation, whether it's proprietary operations or whether it's your own ordinances, is court precedent. And that precedent derives from matters brought before the courts and adjudicated either by judges or reviewed by juries and resulting in jury verdicts. And so the combination of all these factors establishes the quilts of elements of duty that are part of the landscape for municipal tree risk.

So the plaintiff or claimant in your community has to know – has to determine – how to make a case for negligence if that person has been injured or harmed allegedly by somebody's acts or omissions regarding the municipal forest. First of all, it's up to us as actors in the world of public life to know the standard of care and turn opportunities like this webinar and a great amount of help from Paul's [Indiscernible] factors to be considered can help determine that standard of care. The absence of training or the [Indiscernible] of being concerned about her caring about the hazards that might exist can be a breach of duty in itself. Courts may refer to that as conscious ignorance or neglect to inform yourself about your responsibilities. And those responsibilities can be either affirmative – for example, if there is a row of trees along the street. If it's affirmative you have a duty and your duty is either spelled out by court decision or by statute or by a simple ordinance to check those trees periodically to see that they are solid and that they are standing in a way that they will not cause harm or injury to somebody by their failure to be firm and well planted or they might disrupt the adjoining pedestrian pathway, etc. Or can you simply be if you remedy things once that hazard is called to your attention. Is notice required? And each one of these duties is going to vary from state to state. Half the training part is you need to know how those duties play out in your state and whether you have an affirmative responsibility in these matters. Causation is either directly by your actions or indirectly by your failure to act, an omission. And in the law, seldom is the causation solely one party's responsibility. So you will find that in some instances claims are presented against multiple alleged [Indiscernible] or wrongdoers and the court is called upon to sort out among those wrongdoers who bear what proportion or share of the responsibility. In general, and not in every state, the liability in public life is generally limited for public agencies to the percentage of the agency's actual fault. The damages are usually measured in economic terms. In some states like the Pacific Northwest with Washington state as one, the maximum damage exposure is essentially unlimited whereas in other states, such as Idaho where I practice law, generally the State Tort Claims Act limits damages to one half million dollars for any state law-based claim. So different states, different standards, different exposures.

Whenever a claim is presented there are going to be a number of possible defenses that can arise and those defenses include first of all whether or not the public agency met the applicable standard of care. One of the critical elements of that is what do the records show. It's one thing to have that actually done it but it's absolutely another to

make sure that that conduct has been adequately documented. So maintaining proper records of attempting to meet the standard of care is almost as important as meeting it itself. Second, there are often statutory immunities that may protect against liability. For example, in each state law there may be a provision that says that local governments are only responsible to the extent that their finances allow them to carry out duties. And often that protection against liability exposure is vested in the governing board called the City Council or Board of County Commissioners, Board of Supervisors, such that they have made conscious decisions on the record that show that they have struck a balance between available resources and their actions.

Another possible defense – and we mentioned just shortly ago that there could be multiple defendants – is causation by others. It may be that it wasn't the city's sewer department or the city's transportation department, but rather the electric utility or the telephone company that caused the exposure and it may be their fault in part or in whole. It is important to recognize that as you look at addressing these issues it's absolutely vital to understand the immunities that are provided in your state statute. Is there adequate training? Was this foreseeable or not? If trees fall in an ice storm or in a windstorm, how foreseeable would it be? [Indiscernible] And actively, has the city or jurisdiction taken the requisite steps to see that the trees are in a stable condition? All of that can play into how cases are defended.

I'm going to close today with just more examples of cases that have addressed some of these liability principles in the real world. You may recognize some of the situations here. We're just going to be able to touch upon them, but I will quickly go through these. First, the case from Washington State where a standing tree fell across utility lines. The fall brought the utility lines down in the course of the storm and when a person attempted to move branches, that person was electrocuted. Ultimately the person injured in that instance sued the public agency, alleging that it should have assessed the condition of those trees and not put the person in that position of risk. Operating utility systems is a proprietary risk. Failure to inspect all trees for vulnerability became an issue for the court to evaluate.

The second case is a common occurrence, and this is when foliage from a tree blocks the view of the stop sign and as a result someone involved in a traffic crash alleges that failure to keep the tree trimmed was the result of their injuries. There are different questions here. Was a tree in the right-of-way? Was it on adjoining private property? What factors play into this? The speed limit, how soon should the traffic control sign be seen. You may have policy choices to make. Do you trim back overreaching branches or do you take the tree out? One makes a recurring task; the other may be good for us but damages the community forest. Those are choices to be made.

Finally, two other examples. Trees located at the base of the sledding hill. Sledders ran into the trees and ultimately there was a fatal injury in a case out of Alaska. It highlights for us the need to know what are the risks of having trees present in those recreational settings. And secondly, when you are defending the case, are there recreational immunity statutes? And in the final case, trees next to a sidewalk that led to a tripping

accident. This is another Washington case. The power of tree roots to invade the environment should never be underestimated. So choice of tree stock, location of facilities. One of the greatest frustrations I think that many people see is the need to keep a walking path absolutely straight instead of meandering around the tree. Always worth considering. So those are just four simple, basic examples of the liability exposure we're talking about. With that I will turn it over to Paul.

Kathy Sheehan: Actually, this is Kathy. So our next speaker is Paul Ries, who has over 25 years of urban forestry experience at the municipal, state, national and international levels. Currently, he is an urban forestry instructor and extension specialist in the College of Forestry at Oregon State University, where he teaches three online courses and is a lead curriculum developer for new undergraduate and graduate degrees in urban forestry. He also manages the Urban and Community Forestry program for the Oregon Department of Forestry, where he directs a statewide program that provides technical, financial and educational urban forestry assistance to cities, community groups and nonprofit organizations. Now I will turn it over to you.

Paul Ries: Thank you for laying the groundwork for us in the concept of risk. So I will start on my slide, like any good government presentation, with a little bit of a redaction there. You see we have redacted the name of the attorney whose office is right next to this tree that has a significant hazard to it and is clearly at risk. Some friends of mine and I saw this tree one day walking down a city street. We surmise that the tree had been hit by a truck, and a significant sized one, [Indiscernible] and there was a nice brand-new Honda parked right next to that tree along the street. So we went in and told the attorney they might want to move their car. We called the city and removed the tree that afternoon. So this certainly is very real. It's a topic that should be of concern to any of us who work in an urban forestry [Indiscernible]. So my talk is going to be focused on how we introduce the topic of tree risk assessment to different municipal officials. The idea here is not so much the how but also the why. Why is this important? And Jerry laid some good groundwork for us on that whole issue. I will talk about tree risk assessment. How we systematically identify and evaluate at the tree level. But I'm also going to talk about tree risk management and how we apply that information to policies and procedures and practices that allow us to manage your forest on a broader scale with tree risk in mind. So the goal again is the why as well as the how.

Much of what I talk about comes from this book and this publication was edited by [Indiscernible]. It really is designed to transition us from the methodologies and the focus of the last 20 years or so on hazard trees or hazard tree evaluation and moving to looking at the idea of tree risk. So we're still concerned about the trees, of course, but we are also looking at the risk of that tree present in our urban landscape. The facets of tree information here, of tree risk are really myriad. We also talk about trees

as biological organisms that are impacted by the forces of [Indiscernible] but were looking at everything for the technical aspect of determining how hazardous is that tree all the way to the tree risk management determinations of how risk-adverse are we. How much risk are we willing to accept? How emotionally attached are we to that tree even if it has some damages or has some defects to it? Is that tree valuable enough for us to change our practices in order to change the target zone or to change whatever we do around that in order for us to save that tree? And then the whole tree risk management has some economic and financial issues as well, not only for the individuals involved, but for the city governments.

So let's talk about some terminology. As Jerry did in his introduction, I will talk about some terms to make sure we're all on the same page. So we hear the term hazard a lot – “is a likely source of harm or [Indiscernible] typically talk about tree hazards in this case which might be signs or systems of decay, for example. Risk is a possibility of suffering [Indiscernible] and that's certainly true. We'll take that a step further and say that risk is also the likelihood of an event, in this case the tree failure happening and the possible consequences if that tree hits the next item, a target – the target being the people or property that could be injured or damaged. That is altogether we get this idea of tree risk.

We evaluate tree risk by both categorizing and quantifying both the likelihood of that tree failure occurring and the severity of the consequence if it hits something. There are a number of people involved with this whole idea of tree risk assessment and management. We might think of it in terms of two categories. On the right side of the screen you see there is a tree risk assessor, the people that actually would get into the situation where they are identifying the tree and the site conditions that need to be inspected. They are evaluating them in determining the likelihood of failure and the consequences of that failure tree or tree part hitting a target and determining what are the options for treatment or mitigation or abatement of that hazard. And then on the left side is the tree risk manager, somebody who has the duty or carries responsibility of making sure that the city is safe. Someone who defines what the tree risk possibility is, determines the budget and priority level of risk that they are willing to accept. For most of us on the webinar today, I am going to guess we are not the ultimate tree risk manager. We may not even be the tree risk assessor. We might find ourselves on both sides of the slide and that's okay. What I have to do today is give you a very broad look at some of the options involved and the considerations involved with this whole idea of tree risk assessment. And you may find yourself on this list in different parts at different times.

So let's talk about quantitative tree risk assessment. Another way to define risk is to say it's the probability times the consequences. So if we are concerned about risk, we want to be concerned about how probable is that tree to fail and the consequences would be if it had. We must understand that hazardness and riskiness are relative terms. We can't say if a tree is a hazard or risk, we can only say if one tree is more hazardous or at risk than another. With my students, I will find the tallest student in the room and stand next to him or her and make a statement. I will say, “I am tall. Is that a

true statement or not?” And typically the student is a good 6 inches taller than me and I will get a variety of answers. The correct answer is, it depends. I am the tallest member of my family. I've a wife and three daughters and they all come up to my eyeglasses. [Indiscernible] The tallness, height is a relative term just like risk and hazard. Probability is hard for us to quantify when it comes to trees because trees are natural structures and that's what makes this whole process somewhat difficult. Again, the goal today is not to get you to be an expert of all this but just to open your eyes to this whole idea of tree risk, how we identify it and how we determine that.

This new ISA BMP method is a matrix-based, qualitative approach. The previous method that was widely in use was from Jim Clark – an evaluation of hazardous trees in urban areas and that was a 3 to 12 scale. This new method is designed to be the next step in the evolution of that process of how we look at that. But whatever method we use to determine hazardness and risk, we need to make sure we understand the limitations of those. We need to recognize there is uncertainty associated with our ability to assess tree risk and to predict natural processes. So for example, we can have a picnic table that is underneath the tree and we can move that table in an effort to move the target or reduce the level of risk that that tree presents, but there is nothing to say that [Indiscernible] or campers might move that table back to under the tree when we are not looking. So there are a variety of things that we want to be concerned with in terms of determining it, but we need to understand that there is uncertainty here.

So the new method talks about three levels of tree risk assessment: limited, basic, and advanced. And I will go through each of these very briefly so you understand the difference here. And some of you may be doing advanced ones; some of you may be doing limited ones and be responsible for contracting someone to do the advanced ones. Limited risk assessment is really designed to be a drive-by or walk by. As you see in this example, a campground has a tree that has Indian Paint Fungus and that's at Idaho State Park. It is designed to identify candidates for further assessment, and in a limited risk assessment review you would try to determine which trees need further investigation. Maybe that's internal detection decay techniques or maybe that's trying to go through a campground after a storm and try to see where work needs to be done. The idea is that this is useful to do after a storm event or anything that induces change into the urban forest.

The second level is a basic risk assessment, what we might refer to as visual tree assessment. It involves the ground level of the tree, doing a complete review of the tree and the site in which that tree is growing, using some hand tools, perhaps those that you see here, but the goal is really to assess the tree health and the targets there – recording observations of any defect or condition that causes concern and then determining whether hazard assessment is necessary there. Maybe there is a treatment option or mitigation option that can be taken right there.

And then finally the most advanced level is called advanced risk assessment and that may involve aerial, or internal or some belowground assessment. And it may require

special skills, personnel and equipment to give us detailed information about specific tree parts or defects that would allow us to further gauge our comfort level with the risk that that tree presents.

Some of the other facets to this are that we want to look at the potential target that might be struck in the event that a catastrophe does occur. So in terms of targets we're looking at a target zone. What is the radius of the tree where something might be at risk and how often would that be occupied? A house, for example, or park visitor center has a much higher occupancy rate than a trail's parking lot. So the target is looking at the people or property who could be damaged or disrupted in the event of the failure.

Also discussing tree risk, we must also talk about the impact of wind and weather. It is my contention that most tree failures occur when winter weather introduces a force that exceeds the capacity of the tree to withstand that loading. In other words, that tree has visible or maybe not so visible sign of defect or decay that predisposes it to failure. But we also must understand that tree failures do occur in the absence of wind or weather events. And we have to pay attention to the weather. Because the weather is, can really be the ultimate arbiter of uncertainty and will be a factor in risk. There are trees that are going to be likely to fail in the event of wind and ice and snow events, but we also must understand that those events can really hurt any living trees.

So when we categorize tree risk these are some of the terms that are found in the new best management practices guidebook. We want to look at the likelihood that that tree will fail and here's a scale. The likelihood of that failure ranges from being improbable to imminent where it will fail in the minute and why are we standing underneath the tree talking about it. The consequences of failure – is that negligible or is it severe? The likelihood of the impacting a target is a high to very low. And the likelihood of failure impact – is it likely or unlikely?

So we want to take each of these four aspects of risk and say how do we make a matrix out of that to gauge tree risk. This is how we do it. Table 1 is a matrix from the tree risk assessments. We would crosscheck the likelihood of failure with the likelihood of it impacting a target. So if we have a tree that has a very low, very improbable likelihood of failure and a very low likelihood of impacting a target, we are probably not concerned about it. At the opposite end, if the failure is imminent and the likelihood of impactation is high, then we have a serious problem.

And then we want to look at the next matrix, which is if there is a risk, what are the consequences? The likelihood of failure and impact ranging from very likely to unlikely and then the consequences ranging from negligible to severe. So this slide again is the table from the ISA tree risk assessment publication and it gives you an idea of how do we set up a matrix that allows us to determine the risk. So if we are looking at a tree and that tree has some very minor defects, and we think that it is likely to fail, if there are some significant consequences, that is a high probability of failure, that risk rating would be a high.

That's more than about trees. It's really about helping people and property. It's money and safety. [Indiscernible] Pete Smith from the Arbor Day Foundation reminded me that the newly elected governor of Texas is in a wheelchair as a result of being hit by a falling tree while he was jogging many years ago. So this comes right home when we think about this happening and it can really impact people's lives. A tree risk assessment therefore helps us understand both the biological and physical aspect of the tree and the site and the reality of the target. Do we move into tree risk management and say we've got the physical and biological aspects, we've got the target, know about the legal and political and emotional aspect as well. Where do we go from here? So the question we then have to ask ourselves is how much risk is acceptable? That involves coming up with a tree risk management program.

The elements of that include things like the evaluation assessment of trees in our city, coming up with a policy and plan and an evaluation mechanism to make sure that what it is we are doing is meeting the goal. In each of the steps – inventory trees, establish priorities and figure out the procedures to undertake – the key here is to be systematic about it and document what you are doing. That should lead to a tree risk policy and every city should have a tree risk policy that is technically sound and financially feasible, and above all is defensible. It will look at how much risk the city can assume. We need also understand that the cost of prevention rarely exceeds the cost of repair. In other words, the cost of one lawsuit to payout to someone who is in a wheelchair for life can pale compared to what it would've cost us to have an arborist review the tree health conditions in our city on a regular basis.

So then we come up with a tree risk management plan and that plan should be part of this city's overall urban forestry plan and consistent with its other policies. The type of things that we would come up with in this management plan, therefore, would be a policy statement, assessment of the resource, our goals and outcomes, and maps and logs and things that help us really be consistent about the work that we are doing to keep our city safe. That might be a map, for example, as you see here in this example, coming up with areas that are at significant risk. That might mean the identifying arterials are having a color-coded system that would help us determine which street needs the most attention after storms.

The real key, though, I want to stress here, is evaluation. Most plans collect dust. And since we do everything online I say they collect digital dust. It's the same as putting a shelf on your [Indiscernible]. It is important that your policies and plans need to be regularly revised and updated and they need import. And the processes are really as important as the policies and plans because [Indiscernible] who can help your city determine these particular factors.

So in summary, the way I think about tree risk is in this area. You can't afford to save every tree any more than you can cut every tree down to forgo the benefits that our urban trees provide. By the same token, you as the city cannot afford to ignore the risks. So I think it's important that you seek assistance from consultants or from people

like your state urban forestry program, for example, who can help provide you that guidance. And by the way, the picture you're looking at was taken by my friend who is a consultant in British Columbia and it just goes to show you the length some homeowners will go to try to retain a tree. Because it's the Franken tree.

Some further recommended reading. You can check these on the website. The actual cost of that publication is \$23 retail and \$18 for members. I also highly recommend the U.S. Forest Service's *Urban Tree Risk Management* guide. It's available [online](#). You can download the whole book. It's a couple of hundred pages and is an excellent resource for people to use when they want to look at the idea of developing a management system [Indiscernible] to reduce their risk. Finally the thought I leave with you is that a healthy urban forest is a safe one and the overall goal of tree risk assessment is really to reduce the level of risk that we have our citizens and our Tauruses exposed to. So thanks for listening in today and now I will turn it back to Kathy.

Kathy Sheehan: Now we actually have some time left for questions, questions for either Jerry or Paul. I will ask the questions we have already. The question is: Who determines the standard of care for urban forestry?

Jerry Mason: I think it largely is a matter of state law and sometimes a matter of municipal ordinance. And even additional to that, there are going to be standards that derive from court decisions where juries ultimately determine it under the common law. I am sure Paul has more to say about that.

Paul Ries: I agree. And if you're working for [Indiscernible], believe it or not [Indiscernible] me once in the city that my city doesn't want to know where the hazard trees are. And I looked at the person, is it really? Does your traffic engineer not want to know where the traffic lights are out? You have to think about this in terms of the risk that is present in your city and the city cannot, as Jerry indicated, say, "We didn't know about that," and think it is going to be a legally defensible position.

Kathy Sheehan: The next question says: What was the outcome of these cases? It might be hard to go back into --

Jerry Mason: I can't do that right now, but I can tell you in one case there would have been liability except the recreational immunity statute basically caused the claimant to suffer the loss to herself. And the outcome in these cases is only relevant in the state they apply in. Each state is going to have a different legal foundation and your state may have different results because the different statutory scheme, a different municipal ordinance or different court decisions.

Kathy Sheehan: Thank you. The next question is: We're dealing with some legal issues for a new pest. If the tree is not at risk for falling down or causing damage but is acting as a source to expand the past infestation, how do you deal with that? Also, how do you factor in the wildlife value of the standing [Indiscernible]?

Paul Ries: You probably need to talk to a pathologist from your state forestry agency for this one. I think in general my observation would be that cities need to have policies that keep their streets safe. So if you have a disease outbreak in your city and you've got private property trees that are dead and overhanging the right-of-way, you ought to have in your tree ordinance the ability to compel a homeowner to remove the dead tree so that it doesn't threaten the right-of-way. The other aspect of that is the wildlife trees. There is a place for that as long as there is not a target, then you leave them. But if there is a target you have to remove them because of public safety.

Jerry Mason: If I could add one thought. If you don't have the necessary tools in your current ordinance and you find a new risk that is exposing the community forest – and by that I mean both the public forest and the private forest – by all means look at changing your ordinance to reflect the urgent nature of the steps you need to take to preserve the trees in your community. Don't think that you're stuck with the ordinance you have. You can look at revising it in order to deal with the concerns that you are confronting.

Kathy Sheehan: Thank you very much. The next question is: Based on your experience, how useful are assessment tools such as i-Tree Eco or other parts of that suite for risk assessment and management?

Jerry Mason: I will take that from a general aspect. I think anything you can do to show that you are proactive to the court and you're documenting the reviews you've done, the assessment you've done on the trees in your urban forest, the better off you are going to be. If you get called into court, you want to be able to show documentation and things like that are going to allow you to do that.

Paul Ries: I think it's absolutely essential that you provide the documentation, but also have a reasonably clear set of standards against which the documentation can be measured so that not only do you create a record of what you've done, but that you explain the standards to which that conduct is to be measured. If you are interested in these sorts of things, about how do we look at this on a big level, the Municipal Forestry Institute is being held in late February in Oregon.

Kathy Sheehan: I think we've time for one more question. The question is: Is a city liable if development plans are approved and then later the trees pose risk?

Jerry Mason: You are not liable for risk, but you are liable for the consequences. And ultimately if those trees are planted in a way that the city approved to be part of the city's right-of-way or parks, if there are municipal facilities, there is very little likelihood that you are going to be able to throw it back to the developer. So I think this may apply to trees on private property that the city requires to be left on a development. And the thing you need to understand about risk assessment is *when* you do risk assessment – that is, the place and time of evaluation. I can go out and look at the tree today and say, "That's a really low risk." But we're expecting ice tonight and that could completely change the assessment tomorrow. The same thing is with that development. It to be fine now, but in five or 10 years who knows what that status can be.

Paul Ries: Excellent point. [Indiscernible] you're turning on how you communicate that with developers and with others who might have an interest.

Kathy Sheehan: And with that we will have to wrap up for today. I would like to thank our presenters again for their time and sharing information with us about this hot topic and to thank all of you for participating.

If you are seeking credit, please write down the code that you see on the screen and send that to ISA using your form. Those of you who are on regular laptops can see the form over on the pod to your right. Otherwise, you can go to the ISA website. Somebody else asked the question earlier about whether you can get credit for other organizations. If you're interested in doing that, please contact us at the email shown on the bottom left of your screen and we will see if that can be worked out.

And if you have any questions about using these links, email us using that website -- or that email. So please, I hope you will join us next month on December 10 for the webinar, Seeing the Future Forest: CanVis & CommunityVis scenario planning tools featuring Lance Davisson of The Keystone Concept, LLC and Gretchen Riley of Texas A&M Forest Service. Thanks everyone and enjoy the rest of your day.

[Event concluded]

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