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VALID

Tree Risk-Benefit Management Strategy

v9.0

1 Our tree risk-benefit management strategy

Why and how we're going to manage the risk from our trees and branches falling

1 This flowchart shows the structure of our Tree Risk-Benefit Management Strategy. Everything follows from the **Policy**. The Policy sets out our position on trees, their benefits, and the risks. In brief, our Policy says;

- Trees give us many benefits that we need
- The overall risk from trees and branches falling is extremely low
- We can't remove the risk entirely. Trees are living structures that sometimes shed branches or fall during severe weather
- Our duty of care, when managing the risk, is to be reasonable, proportionate, and reasonably practicable
- We're going to manage the risk to an Acceptable or Tolerable level

The **Plan** explains how we'll carry out the Policy. We're going to manage the risk by **Passive Assessment** in all zones of use. And **Active Assessment** in **Zones of High Confluence** (high use and large trees).

The Strategy at a glance

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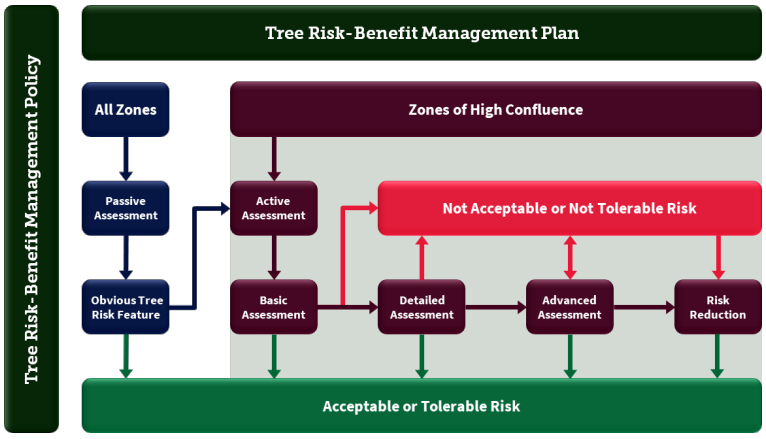


1.1 Passive Assessment

Picking up on Obvious Tree Risk Features you can't help but notice

3 Passive Assessment is simply picking up on **Obvious Tree Risk Features** you can't help but notice as you go about your daily routine. Passive Assessment is our most valuable risk management asset because we carry it out in all zones of use, day in day out, at no additional cost.

1.2 Active Assessment | Basic > Detailed > Advanced

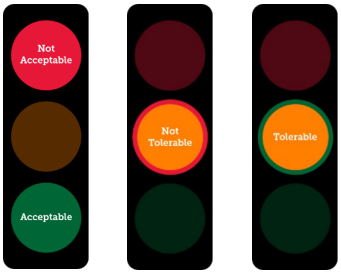
Trained assessors looking to find risks that might not be Acceptable or Tolerable

4 Active Assessment is where we have trained assessors looking for risks that might not be Acceptable or Tolerable. Active Assessment has 3 levels to it that increase in depth of evaluation. The 3 levels are, Basic > Detailed > Advanced. We carry out Active Assessment in Zones of High Confluence every 5 years.

1.3 Risk objectives & Risk ratings

Risk ratings are as easy to understand as traffic lights

5 VALID has applied 'ISO 31000 - Risk Management' and the 'Tolerability of Risk Framework' (ToR) to tree risk-benefit management and assessment, which we've adopted. In ISO risk terms, our 'objectives' are to grow, maintain, and conserve trees because of the many benefits they give us that we need. And, to manage the risk from tree failure to an Acceptable or Tolerable level. We have four easy-to-understand traffic light coloured risk ratings to show how we'll manage the risk.



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2 Establishing the context

Trees give us many benefits we need

6 The more obvious benefits that trees give us are visual beauty in the landscape, wood, and the various crops they produce. Wildlife habitat, pollution filtering, and reducing weather and climate change effects are additional values. Trees also have important social value as part of our culture, history, or because they commemorate an important event. As if all these benefits aren't enough. There's an ever-expanding body of scientific evidence that shows trees are essential for our physical health, mental wellbeing, and quality of life.

The overall risk to us from trees and branches falling is extremely low

7 Compared to other everyday risks we readily accept, the overall risk to us from branches or trees falling is extremely low. Our annual risk of being killed or seriously injured is less than one in a million. That's so low, we're at greater risk driving on about a 400km/250mi round trip to visit friends for a weekend than from branches or trees falling over an entire year. Given the number of trees we live with, and how many millions of us pass them daily, being killed or injured by a tree is a rare event. A rare event that usually happens during severe weather.

We can't be an insurer of nature or eliminate the risk from trees

8 Of course, we can't be an insurer of nature. Trees are living structures that sometimes shed branches or fall during severe weather. Since we need the many benefits from trees, we have to accept we can't remove all of the risk. Leaves, bark, cones, nuts, fruits, and small diameter deadwood regularly fall from trees. This natural debris is an Acceptable or Tolerable risk.

2.1 Duty of care

Reasonable
Proportionate
Reasonably practicable

9 We have a duty of care to manage the risk from our trees. The duty also says we should be reasonable, proportionate, and reasonably practicable when managing the risk. That means there's a balance we need to strike between the many benefits trees provide, the risk, and the costs of managing the risk. By taking a balanced approach, we don't waste resources by reducing risk - and losing benefits - when the risk is already Acceptable or Tolerable.

We all have a responsibility to make reasonable decisions

10 We're all expected to act reasonably and responsibly. We can manage our exposure to the higher risk from tree failure that happens during severe weather by not going outside. If we go out during severe weather, we're choosing to accept some of the risk.

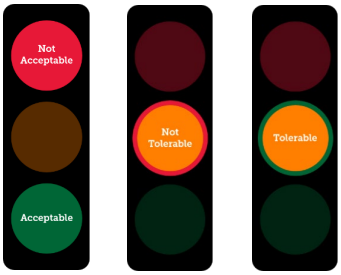
2.2 Risk tolerance

What's an Acceptable or Tolerable level of risk from our trees?

11 The Tolerability of Risk Framework (ToR) is an internationally recognised approach to making risk management decisions. It's used by duty holders where they manage a risk that's imposed on the public. ToR defines Broadly Acceptable and Unacceptable levels of risk. Between these levels is a region where the risk is Tolerable if it's 'as low as reasonably practicable' (ALARP). Put simply, ALARP means the risk is Tolerable if the costs of the risk reduction are much greater than the value of the risk reduction.

2.3 Risk objectives & Risk ratings

Risk ratings are as easy to understand as traffic lights



12 VALID has applied 'ISO 31000 - Risk Management' and the 'Tolerability of Risk Framework' (ToR) to tree risk-benefit management and assessment, which we've adopted. In ISO risk terms, our 'objectives' are to grow, maintain, and conserve trees because of the many benefits they give us we need. And, to manage the risk from tree failure to an Acceptable or Tolerable level. We have four easy-to-understand traffic light coloured risk ratings to show how we'll manage the risk.

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3 Establishing our context

Reasonable Proportionate Reasonably practicable

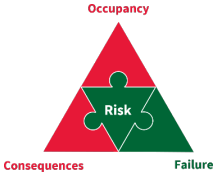
13 This Plan, and following sections, explain how we're going to carry out our **Policy**. We're taking a reasonable, proportionate, and reasonably practicable approach to manage the benefits from trees, so the risk is Acceptable or Tolerable.

We have many trees to manage with limited resources

14 Lowood has extensive grounds with many trees. The grounds include an area of unmanaged woodland which is used for the benefits that Eco Schools and outdoor activities. Two of our maintenance team who spend a lot of time working outside have done **Basic Validator** training. They carry out **Passive Assessment**, and **Active Assessment** at a Basic level when needed. All our people have a copy of the **Obvious Tree Risk Features** guide and carry out Passive Assessment.

3.1 Zones of High Confluence (high use + large trees)

A typical Zone of High Confluence



15 We're most likely to find any risks that aren't Acceptable or Tolerable where we have a combination of high use, in all weathers, and large trees. We call these **Zones of High Confluence**. They're zones where the highest categories of Likelihood of Occupancy and Consequences merge; Likelihood of Failure being the third part of the risk. The image on the left shows a mature tree in a Zone of High Confluence. Here, we have a Very High Likelihood of Occupancy. And a large tree, with many benefits, that has Very High Consequences if it fell. The tree has a Very Low Likelihood of Failure, and risk is Acceptable.

3.2 Passive Assessment & Active Assessment

Passive Assessment in all zones of use

16 We manage the risk with Passive Assessment in all zones of use, which we carry out day to day.

Active Assessment in Zones of High Confluence every 5 years

17 We're going to manage the risk with Active Assessment in Zones of High Confluence every 5 years. Because the overall risk is extremely low, and we carry out Passive Assessment, day in day out. Active Assessment every year, or every few years, isn't a reasonable, proportionate or reasonably practicable approach to managing the risk.

We'll increase the frequency of Active Assessment when necessary

18 We'll assess trees more frequently than 5 years when a Detailed Assessment has recommended it. If there's an outbreak of a disease. Or where a general decline in vitality is affecting a population of trees.

3.3 Risk rating limitations

Risk ratings are limited by the level of assessment

19 Risk ratings have limitations that depend on the level of assessment at which they're made. For instance, when we carry out Passive Assessment or Active Assessment at a Basic level. If there are no Obvious Tree Risk Features, the risk is Acceptable at that level of assessment. A Detailed or an Advanced Assessment is a more thorough evaluation than a Passive or Basic Assessment. They might find features that weren't apparent at lower levels of assessment, and the risk could be higher. However, carrying out a higher level of assessment, with the additional costs, when there's no obvious feature to trigger it isn't reasonable, proportionate, or reasonably practicable. These risk rating limitations make sense in the same way as your doctor not sending you to a hospital for further tests. At more additional cost. Unless you have symptoms to trigger a higher level of examination.

3.4 Severe weather

We'll be vigilant after storms as part of Passive Assessment

20 If a severe weather warning is forecast, and we're open, we'll not run any outdoor activities. Once the severe weather has passed, all our personnel will keep an eye out for Obvious Tree Risk Features as part of Passive Assessment.

You can take some responsibility for your own risk

21 Most deaths and injuries from tree failure happen during or just after severe weather. When a severe weather warning is forecast, you can manage your exposure to the higher risk by not going out, and by being watchful just after.

4 What is Passive Assessment?

Picking up on Obvious Tree Risk Features you can't help but notice

22 When a tree has a risk that might not be Acceptable or Tolerable it'll usually have an **Obvious Tree Risk Feature** you can't help but notice. Passive Assessment is simply picking up on these obvious features when we pass by trees whilst going about our day-to-day routines.

Trees with the highest risk are the easiest to find

23 Passive Assessment is a multi-layered, high volume, and low effort approach to managing the risk. Any trees with a risk that's not Acceptable or Tolerable are most likely to be picked up by Passive Assessment long before Active Assessment. Passive Assessment is our most valuable risk management asset because:

- Trees with the highest risk are the easiest to find
- Anyone can do it, from trained assessors to members of the public
- It's happening in all zones of use, day in day out, at no additional cost
- Higher use zones are being assessed more frequently than lower use zones because they're visited more often
- We're doing it after storms when trees that are damaged might now have a risk that's not Acceptable or Tolerable

Passive Assessment tree alerts escalate to Active Assessment > Basic

24 When we get a tree alert from Passive Assessment. We'll increase the level of evaluation to **Active Assessment** at a Basic level, by a Validator.

4.1 Our people & contractors

Our people passively assess thousands of trees every week

25 In line with ISO 31000 guidelines and principles, to manage the risk at all levels of our organisation, we carry out Passive Assessment. People in our organisation and contractors we use pass thousands of trees we manage every week. All these trees are being passively assessed, day in day out.

26 The quality and quantity of Passive Assessment varies depending on who's carrying it out and how they're doing it. For example, Passive Assessment by Validators is higher in quality, but lower in quantity than the rest of the team, and the public. Passive Assessment on foot is higher in quality than when driving, but lower in quantity. Here's how various levels of Passive Assessment quality and quantity work daily at the frontline of how we manage tree risk, with examples.

27 **Basic Validators** - Provide the greatest level of Passive Assessment quality because they've been trained. They're passively assessing trees they drive by, or walk past, whilst carrying out their work. Whilst doing some gardening, our Caretaker can't help but notice a broken hanging branch over a high use footpath after a storm.

28 **Arborist Contractors** - Let us know about trees they happen along that may need a closer look when they're out there working. Climbing in a tree, an Arborist can't help but notice a large crack on top of a branch in a neighbouring tree that overhangs a car park.

29 **Other Personnel** - The highest level of Passive Assessment quantity comes from the rest of our team. They have a copy of the Obvious Tree Risk Features guide. We encourage them to let us know about trees they come across that concern them. Driving in to work, one of our Teachers can't help but notice a tree that has an unusual lean.

4.2 The public

Let us know if you think any of our trees might be dangerous

30 You can download an easy to understand 'Obvious Tree Risk Features' guide to help you work out whether a tree might need a closer look, **here**.

5 What is Active Assessment?

Trained assessors looking for risks that are not Acceptable or Tolerable

31 Active Assessment is when we're looking for risks that might not be Acceptable or Tolerable. It's also triggered when **Passive Assessment** has picked up a tree that needs a closer look. Or there's some concern about the risk from a tree. We may carry out Active Assessment when we've had a tree work application.

Active Assessment has 3 levels Basic > Detailed > Advanced

32 Active Assessment has 3 levels to it that increase in depth of evaluation. The 3 levels are Basic > Detailed > Advanced.

33 **Validators** can carry out Basic and Detailed Assessments. Their contribution to an Advanced Assessment will depend on the equipment used.

34 **Basic Validators** can carry out Basic Assessments to find trees that might need a closer look. They don't make risk rating decisions, but can flag emergency work.

5.1 Basic Assessment

Finding the few trees where the risk might not be Acceptable or Tolerable

35 At a Basic level of assessment, we're looking for trees with obvious features where the risk might not be Acceptable or Tolerable. Occasionally, we'll come across trees that need **emergency work**. When Passive Assessment or a Basic Validator picks up a tree that needs a closer look, it's a Validator who decides whether to take the assessment level from Basic up to Detailed. Validators can also recognise features that might increase the likelihood of failure. They may evaluate these features with VALID's Tree Risk App, and carry out a Detailed Assessment when uncertain about the risk.

Assessments are made from easily accessible ground

36 We assess trees from easily accessible ground, by foot, bike, or from a vehicle. If we need to take a closer look at a tree from inaccessible ground, we'll arrange an Advanced Assessment.

We won't remove vegetation unless there's an Obvious Tree Risk Feature

37 We won't remove climbing plants, undergrowth, basal epicormic growth, or cut hedgerows to get a closer look unless there's an Obvious Tree Risk Feature. It's only if we find any of these risk features the costs of removing vegetation, and loss of their habitat benefits, are justified.

The trees or what they could fall on and the type of assessment will be recorded

38 Trees, or what they could fall on, and the type of assessment will be recorded. For example, in a park, we might plot and record that we've assessed individual or groups of trees on foot. Whereas, if there are many trees beside a road, we'll record that we've assessed the road.

No Obvious Tree Risk Features The risk is Acceptable

39 If a tree doesn't have a feature to trigger carrying out a Detailed Assessment, the risk is Acceptable at this Basic level of assessment.

5.2 Detailed Assessment

We do a Detailed Assessment when a tree needs a closer look

40 We'll carry out a Detailed Assessment on trees that need a closer look after a Basic Assessment. Because we have a tree work application. There's concern from the public about a tree. Or we want to show what the risk is on a tree.

41 The assessment is done from ground level using VALID's Tree Risk App.

We'll produce a report

42 The App prints a one side report. The report includes the risk rating, risk review year, risk reduction work (if necessary), and any general management advice. When risk reduction work is necessary, we'll record when it's completed.

5.3 Advanced Assessment

Large and important trees might be worthy of more effort and cost

What we'll do depends on the tree

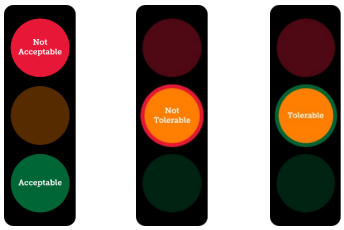
43 If we need more information about the likelihood of failure, we'll carry out an Advanced Assessment. Often, we'll do this because we have a valuable tree which has noticeable decay. The tree may have significant strength loss and we want to find out whether the tree is strong enough. If the costs of an Advanced Assessment are great, we'll decide whether the tree has enough value and future benefits to justify the costs.

Getting into the tree or onto difficult to access ground

44 Advanced Assessments include aerial evaluations in the upper parts of a tree. Or to get a closer look at a tree on difficult ground to access.

6 Risk ratings & risk reduction priorities

We'll prioritise risk reduction work and be practical about it



45 Risk reduction work will be given the highest priority where it's an emergency. Outside of that, we'll deal with the highest risks first and carry out the work in a sensible order to make the best use of our budget.

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6.1 Emergency work

Emergency work will be given the highest priority

46 If a tree has a very high likelihood of failure and it's in a high use zone, these Not Acceptable risks are 'emergency work'. We'll get a tree crew there as soon as we can to deal with any emergency work.

6.2 What we're going to do

First, we'll take stock so we can be cost effective

47 Outside of emergencies, where we can, we'll not start risk reduction work until we've carried out all our planned Active Assessments. That way, we'll know how much risk reduction work there is, where it is, and how much of our tree management budget we need to spend on it. This will help us prioritise the work, and coordinate it with other tree maintenance so we can plan it in a practical and cost-effective way.

6.3 Not Acceptable risks

Risks that are Not Acceptable will be dealt with first

48 We'll make Not Acceptable risk reduction work the priority. However, we'll do this work pragmatically. For example, we won't send a tree crew from one side of our operating area to another to carry out work where they spend more time travelling than doing the work. We also have to deal with other risks from trees, such as low branches, obscured road signs, and sightlines. If it means we can get more done with our tree budget, we're going to coordinate this kind of risk reduction work with tree failure risk reduction work.

6.4 Not Tolerable risks

Other risk reduction will be coordinated with routine work

49 Where possible, risk reduction work for risks that are Not Tolerable will be organised alongside other tree maintenance works. If there's not enough budget to carry out the both risk reduction and other maintenance work, we'll prioritise risk reduction.

6.5 Budget limitations

If we have budget limitations we'll explain them

50 If we don't have enough budget to carry out all the risk reduction work, we'll record why. Any remaining work will be rolled over to the next budget.

6.6 Review

Contractor meetings will be held every month to monitor works

51 We'll meet our contractors every month and monitor how risk reduction work priorities are being carried out. If we can make any improvements in our work priorities, they will be made here.

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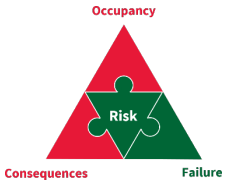
Appendices

Zones of High Confluence	A1
Obvious Tree Risk Features	A2
Summer Branch Drop	A3
What is VALID?	A4

1 What is a Zone of High Confluence?

A typical zone of high confluence



We're most likely to find any risks that aren't Acceptable or Tolerable where we have a combination of high use, in all weathers, and large trees. We call these 'Zones of High Confluence'. They're zones where the highest categories of Likelihood of Occupancy and Consequences merge; Likelihood of Failure being the third part of the risk. The image on the left shows a mature tree in a Zone of High Confluence. Here, we have a Very High Likelihood of Occupancy. And a large tree, with many benefits, that has Very High Consequences if it fell. The tree has a Very Low Likelihood of Failure, and risk is Acceptable.

Zones of High Confluence - Measurements

What we mean by 'High use' in zoning

When we work out Zones of High Confluence, the term 'high use', spans the Very High and High Likelihood of Occupancy categories in VALID's risk model. For roads, this is where traffic is 1400 or more vehicles a day.

For people, it's an average of someone passing every minute between 7am – 7pm, Monday to Friday. Which is around 1200 a day.

We zone train or tram lines as high use.

What we mean by 'High Consequences' in zoning

The term 'high consequences', are trees that have a stem diameter of 50cm/20in or more. That's because we're most likely to find risks that are not Acceptable or Tolerable in these larger trees.

Our Zones of High Confluence

We carry out Active Assessment in these zones every 5 years

These are our Zones of High Confluence;

- The road and footpaths to the main entrance of the school
- All school entrances
- Footpaths between buildings
- The road next to our sports fields

We manage these zones with Passive Assessment, day in day out, and Active Assessment every 5 years.

Zones of High Confluence maps

Our zones of high confluence are marked on maps

The following maps illustrate our Zones of High Confluence. We're managing the risk in all zones with Passive Assessment, day in day out. We'll carry out an Active Assessment in these zones every 5 years.

2 When might a tree be dangerous?

Trees with the highest risk are the easiest to spot

Be watchful after storms

52 When a tree has a risk that might not be Acceptable or Tolerable, it'll usually have an obvious tree risk feature you can't help but notice. If you come across a tree with anything like these obvious features, it should be looked at by an Arborist (tree expert) who's been trained in tree risk assessment.

2.1 Root failure

Storms can break tree roots without blowing them over

Signs to look out for are

Change in angle of the trunk
Large cracks in the soil
Hump in the ground on one side

53

2.2 Hanging branches

Don't forget to look up

Branches can break during storms and still hang on

Sometimes they can get stuck up there for quite a while

54

2.3 A crack or split into the wood, beyond the bark

When trees bend and twist in storms the wood can split and crack

Vertical cracks in the bark are just the tree growing well there's no need to worry

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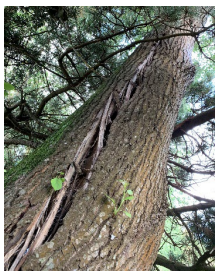
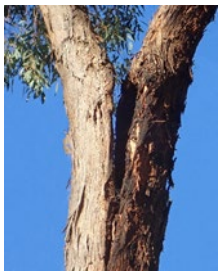




2.4 Decline & death

To stay healthy and strong trees need 'solar panel' leaves to make food

When trees suffer they often have much less leaf cover and many dead branches

Standing dead trees have great habitat benefits but need checking

56

2.5 Decay fungi fruiting bodies

To decay fungi these 'fruits' are like apples to an apple tree

Decay fungi and trees mostly live happily together creating essential habitat for wildlife

Fungi can sometimes 'eat' too much wood and weaken the tree

57

Photographs
Jake Miesbauer, Michael Richardson, Roy Finch, Mark Hartley, Rick Milson, Andrew Benson, David Abrahams
Felicity Cloake & Wilf, David Humphries, Jack Prynn, Moreton Arboretum, Josh Behounek, Jan Allen

3 All you need to know about the risk from SBD

Taking a reasonable proportionate and reasonably practicable approach

58 This guide looks at what Summer Branch Drop (SBD) is. Fact checks the risk. Reviews what we currently know and don't know. Then provides you with some risk management advice.

3.1 What is SBD?

Branches that unexpectedly fail after hot dry weather

59 SBD is a very loose term for branches on mature trees that have no obvious tree risk features, which unexpectedly fail after a period of hot dry weather.

3.2 Fact-checking the risk

The overall risk is mind-bogglingly low

60 Compared to other everyday risks that we readily accept, the overall risk from SBD is mind-bogglingly low. From the data[1 2] we have, the annual risk of death or serious injury is less than one in one hundred million. That's so low, we're at greater risk for the few minutes it takes to cover about 5km/3mi on a drive, than we are from SBD over an entire year.

3.3 What we know and what we don't know

There's no agreement about what SBD is or what it's called

61 Perhaps because the overall risk from SBD is so mind-bogglingly low, it's not been very well researched. There's no agreement about what SBD is, or even what it's called - it's also known as Sudden Branch Drop and Sudden Limb Drop. SBD is most commonly used as a catch-all term to describe branch failure when wind or extensive decay doesn't appear to be an obvious explanation.

There's no agreement about the critical factors that trigger branch failure

62 In the published literature[3 4], there's no agreement about what causes of SBD. There's no agreement about how hot and dry it needs to be, and for how long; or if humidity plays a role. Or whether the branch has to be horizontal or if its length is a critical factor. There's no agreement either about what time of day it's likely to happen, and if rain is required. Or even if the branch has to be free of obvious tree risk features to qualify.

3.4 Species profiling and a lack of obvious risk features

Many tree species can suffer from SBD

63 In the literature, SBD has been recorded on the following species; Ash, Beech, Cedar, Corymbia, Elm, Fig, Eucalyptus, Giant Sequoia, Horse Chestnut, Liquidambar, Oak, Pine, Plane, Poplar, Silver Maple, Sweet Chestnut, Tree of Heaven, Willow. There are probably more species not yet recorded.

We can't tell which branches will or will not fail

64 Branches that might fail because of SBD, on trees that don't have a history of it, lack any obvious tree risk features. This means an Arborist can't tell the difference between branches that have a high likelihood of failure from those that have a low likelihood of failure, before they fail.

3.5 Managing the risk

Unless a tree has a history of SBD the risk is Acceptable

65 If our trees don't have a history of SBD, even at the times of the year when it's most likely to happen, the risk is Acceptable. That means there's no need for us to reduce the risk any further. If any of our trees have a history of SBD, we'll reduce the risk to an Acceptable level by lowering occupancy or pruning.

Don't put up warning signs like this

66 Warning signs are unnecessary, or not effective. If a tree has no history of SBD, they're unnecessary because the risk is Acceptable. If a tree has a history of SBD, and the risk is not Acceptable or Tolerable, warning signs are not an effective way to manage the risk. They don't pass liability on to a visitor. And we won't be able to demonstrate signs altered visitor behaviour, and level of occupancy, so much the risk was reduced to an Acceptable or Tolerable level. Also, in the extremely unlikely event of someone being killed or injured. It'd be easy for a claimant to make a case we could've managed the risk better, by planting undergrowth, fencing the tree off, or pruning it.

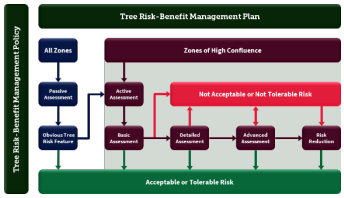
3.6 Further information

Want to know more about SBD and risk from tree failure?

67 **1 National Tree Safety Group | Risk Research**
2 List of Deaths From Falling Tree Parts in Australia
3 Sudden Branch Drop: A Case for Closer Inspection
4 Summer Branch Drop | Arboricultural Research Note

4 Simpler • Clearer • Smarter

The Strategy at a glance



68 Whether you manage or assess tree risk, we're here to help make your life less complicated and more effective.

69 From Strategy to App, we've got all your bases covered with the first complete tree risk-benefit management system. By taking out bafflegab (vague and ambiguous words) and numberwang (questionable maths that you can easily get wrong) from tree risk, we've made it...

70 "***Uncomplicated...intuitive...simpler...clearer...smarter***"

71 This is what Duty Holders, Arborists, and other team members who we've trained as Basic Validators are all saying. They're some words you'll likely use to describe how you feel after you've validated your approach to tree risk.

4.1 Tree risk-benefit management

Reasonable
Proportionate
Reasonably practicable

72 Whether you're a Government Agency, Landowner, or Homeowner you have a duty of care to manage the risk from your trees falling or dropping branches. To fulfil your duty, you should be reasonable, proportionate, and reasonably practicable about managing the risk to an Acceptable or Tolerable level.

73 VALID's got your back here with our full range of ISO 31000 compliant and common sense **Tree Risk-Benefit Management Strategies**. As part of our not-for-profit goals, we've released all the strategies under a creative commons license. That means they're *free* and open to *everyone*. **Validators** can help you customise your strategy. Or, they have an abbreviated *Validator Strategy* that covers you and them.

4.2 Tree risk-benefit assessment

VALID has been stress-tested to breaking point

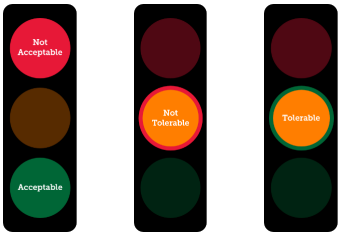
74 Risk-benefit assessments are carried out under the protective umbrella of our Tree Risk-Benefit Management Strategy. The Strategy does more than 95% of your assessments for you. When you need to carry out a *Detailed Assessment,* you'll use our super smart and intuitive **Tree Risk App**.

75 We've built the engine of the App with a Professor of Natural Hazards & Risk Science. The Professor's an internationally distinguished expert in this field. He's test-driven the model to breaking point:

> *"We have stress-tested VALID and didn't find any gross, critical sensitivities. In short, the mathematical basis of your approach is sufficiently robust and dependable for any practical purpose."*
>
> Willy Aspinall
> Cabot Professor in Natural Hazards & Risk Science
> University of Bristol

4.3 Tree risk ratings

Risk ratings are as easy to understand as traffic lights



76 Yes, it really is that clear and easy to understand. There's no confusion about what vague and ambiguous words or complicated numbers mean. We have four easy-to-understand traffic light coloured risk ratings.

Red	Not Acceptable risks will be reduced to an Acceptable level
Amber	Not Tolerable risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks
Amber	Tolerable risks will not be reduced but may require an increased frequency of assessment than green Acceptable risks
Green	Acceptable risks will not be reduced

4.4 Tree risk-benefit management advice & training

Visit our Training page
Or get in touch for help

77 We work with Duty Holders to help them manage the risk and benefits from their trees. We also train Arborists to become **Validators**. And personnel who spend a lot of time outside, who aren't Arborists, to be **Basic Validators**.