

# Generic Risk Assessment for Arboriculture - Sheffield



Ref	Hazard	Risk	Persons Affected	Industry Best Practice/Guidance	Control Measures
<b>1.0</b>	<b>Emergency Contingencies</b>				
1.1	Staff or other personnel on site suffer injury, including infection with communicable disease, e.g. HIV, Hepatitis B and TB <i>See also Section 2: Site considerations</i>	Fatality, Ill health, Worsening of injury, Worsening of condition, Viral infection, Psychological trauma	Work team Client General Public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401,402.</li> <li>FISA 802</li> <li>AA - A Guide to Good Climbing Practice",</li> <li>HSE INDG317 "Chainsaws at work".</li> <li>HSE: "RIDDER"</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate First Aid Kit for task.</li> <li>Climbers carry personal First Aid Kit fit for purpose.</li> <li>All staff trained and certificated in First Aid.</li> <li>At least one of ground staff trained, equipped and certificated in Aerial Rescue.</li> <li>All staff to know site location and means of contacting emergency services.</li> <li>All staff trained to complete Accident Book. Be aware.</li> <li>Items of concern should be carefully handled with protective gloves and disposed of correctly</li> </ul>
1.2	Fire explosion	Burns Blast injuries	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401</li> <li>FISA 301, 302,802</li> <li>HSE HSG47 "Avoiding danger from underground services"</li> </ul>	<ul style="list-style-type: none"> <li>Same as above.</li> <li>In case of vehicle or plant fire. Stop work, evacuate all persons to a safe distance and contact the emergency services.</li> <li>Do not attempt to extinguish a fire, leave that to the emergency services.</li> <li>Fire blanket stored in vehicle</li> </ul>
1.3	Contact with energised power lines  <i>See also 2.2 Power lines – over and underground</i>	Serious injury Fatality Third party electrocution.	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401, 402,</li> <li>FISA 302, 802, 804</li> <li>HSE HSG47 "Avoiding danger from underground services"</li> <li>HSE GS6 – 'Avoiding danger from overhead power lines'</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>As above, and all staff trained.</li> <li>Emergency procedures known.</li> <li>Accurate assessment of situation.</li> <li>Means of contacting Regional Electricity Company is known to all staff.</li> <li>No work to take place within one tree length + 'Vicinity Zone' if felling.</li> <li>If climbing no work to take place within 10m of live cables, including the canopy of the tree.</li> </ul>
1.4	Emergency call-out work: night-time work. Poor weather conditions.	Cut/crush/ impact injury due to poor visibility/ unstable trees or structures/ other people/ vehicles on site.	Work team/ client/general public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 308, 310, 501,</li> <li>FISA 301, 302, 303, 304, 306, 307, 802, 804</li> <li>HSE INDG317 "Chainsaws at work", HSE HSG47 Avoiding danger from underground services"</li> <li>NPTC CS 34, 35, 50</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Co-ordination with emergency services, local authorities, utility company etc.</li> <li>Portable lighting on site.</li> <li>Unauthorised personnel excluded from work area: signs, barriers, etc.</li> <li>PPE.</li> </ul>

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2.0	<b>Site Conditions</b>				
2.1	<b>Work Site – Common Factors</b>				
a	Works vehicles	Personal injury from contact with sharp edges (doors, lockers, tailgates, etc.). Jump/fall from load bed, trailer, cab, etc. Crush injuries from tipper bed, trailer, unexpected movement, etc.	Work team Client General public	<ul style="list-style-type: none"> <li>• AFAG Safety Guide 403,</li> <li>• FISA 501, 502, 503, 603, 701, 702</li> <li>• Routine preventative maintenance in accordance with internal procedures and manufacturers' recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• All operators trained.</li> <li>• Vehicle manufacturers' instruction manual available.</li> <li>• All guards and warnings in place.</li> <li>• Regular vehicle maintenance and servicing.</li> <li>• Loading and securing of load in accordance with Department for Transport guidelines.</li> <li>• Appropriate PPE, such as safety helmet, safety boots and suitable gloves.</li> <li>• Always reverse with the aid of a 'banksman'</li> </ul>

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b	Theft of work equipment from works vehicles. Theft of works vehicles, including trailed loads.	Serious injury/fatality arising from untrained use/abuse/mis-use of stolen work equipment. Severe injury from contact with stolen vehicle moving at speed. Jump/fall from load bed, trailer, cab, etc. Crush injuries from tipper bed, trailer, unexpected movement, etc.	User Thief General public Work team Client Emergency services personnel	<ul style="list-style-type: none"> <li>Internal procedures designed to ensure security of work equipment on site</li> </ul>	<ul style="list-style-type: none"> <li>Awareness training for all operators.</li> <li>Comply with all in-company security instructions.</li> <li>Do not leave machinery running when unattended</li> <li>Do not leave ignition keys in unattended vehicles or idle plant such as brushwood chippers or stump grinders.</li> <li>Timing of operations in sensitive areas (<i>see also 2.6 Working in sensitive/emotionally charged locality</i>).</li> <li>Regular vehicle servicing and maintenance.</li> <li>All guards and warnings in place.</li> <li>Loading and securing of load in accordance with Department for Transport guidelines.</li> </ul>
c	Use of hand tools	Cuts Muscular strain	Work team	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401</li> <li>FISA 302, 304, 307,</li> </ul>	<ul style="list-style-type: none"> <li>Edged tools guarded.</li> <li>Safe stance/positioning.</li> <li>Safe working distance from colleagues.</li> <li>PPE.</li> <li>Appropriate First Aid Kit</li> </ul>
d	Access equipment: : Ladders, steps and temporary platforms  See also 5.7 <i>Mobile elevated work platform (MEWP)</i>	Falling, Injury from falling object Concussion Crushing	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401, 403</li> <li>AA – Guide “A Guide to Good Climbing Practice”</li> <li>AA ‘ICOP for Arboriculture – Tree Work At Height’</li> <li>HSE L22 – ‘Approved Code of Practice’ PUWER</li> </ul>	<ul style="list-style-type: none"> <li>All staff fully trained and competent.</li> <li>Ensure stability, especially on soft or uneven ground.</li> <li>Ladders should be secured at the top if used as a working platform, and operator independently secured.</li> <li>Do not extend the ladder beyond the top 3 rungs.</li> <li>Follow manufacturer’s safety instructions. Regular inspection of all access equipment.</li> </ul>

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e	Powered tools and machinery	Cut injuries Crushing Electrocution Infection from hydraulic oil	Work team Client General public	<ul style="list-style-type: none"> <li>Operator's certificates</li> <li>FISA 203, 805</li> </ul>	<ul style="list-style-type: none"> <li>All staff fully trained.</li> <li>Access to machinery manuals and records.</li> <li>Manufacturers' guidelines to be followed, as is guidance published by AFAG, HSE etc.</li> </ul>
f	Manual handling	Muscular strain Back injury Crush injuries	Work team	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>FISA 301, 302, 303, 304.</li> <li>Amey document - PLC-H&amp;S-204</li> </ul>	<ul style="list-style-type: none"> <li>Avoid manual lifting where practicable: use mechanical aids.</li> <li>Move smaller pieces.</li> <li>Use hand aid tools.</li> <li>Use ergonomic work systems, work planning.</li> <li>PPE.</li> </ul>
g	Weather: Extremes of temperature, wet, windy, electrical storm	Poor visibility Loss of grip Slipping, Physiological stress Hypothermia Electrocution	Work team	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401</li> <li>FISA 302, 802</li> <li>AA – Guide "A Guide to Good Climbing Practice"</li> </ul>	<ul style="list-style-type: none"> <li>Continually assess working conditions</li> <li>Change task if required</li> <li>Stop work.</li> <li>PPE.</li> <li>Thermal blanket available.</li> </ul>
h	Terrain	Slipping Tripping	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401</li> <li>FISA 302, 307, 802.</li> </ul>	<ul style="list-style-type: none"> <li>Prepare site.</li> <li>Change task if unprepared.</li> <li>Change access.</li> <li>Appropriate footwear for staff / tyres for vehicles</li> </ul>
i	Staff or other personnel on site suffer injury from communicable disease, e.g. HIV, Hepatitis B, TB <i>See also Section 1: Emergency contingencies</i>	Fatality Ill health Worsening of condition. Viral infection Psychological trauma	Work team Client General public	<ul style="list-style-type: none"> <li>See Amey Documentation</li> <li>RIDDOR - Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013</li> <li>F2508A Guidance notes <a href="https://www.hse.gov.uk/forms/incident/f2508a.htm">https://www.hse.gov.uk/forms/incident/f2508a.htm</a></li> </ul>	<ul style="list-style-type: none"> <li>Appropriate First Aid Kit on site.</li> <li>All staff trained and certificated in First Aid.</li> <li>Site location and means of contacting emergency services is known to all staff.</li> <li>Treat all blood or body fluid as infected and take universal precautions i.e. use of gloves, wash hands thoroughly, bag items carefully and seal bag.</li> <li>Be aware.</li> <li>Items of concern should be carefully handled with latex gloves and disposed of correctly.</li> </ul>

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j	Stings or bites	Transmitted infections (bacterial or viral) Allergic reactions	Work team Client General public	<ul style="list-style-type: none"> <li>Health monitoring and surveillance</li> </ul>	<ul style="list-style-type: none"> <li>Identify any team member with specific allergy.</li> <li>Identify the animal / insect / vegetation with the potential to cause harm and monitor position, activity and movement and treat with caution. Where the risk of injury is real, use the appropriate PPE.</li> <li>First Aid training.</li> <li>Guidance published by AAIS, AA, HSE etc.</li> <li>Programme work for most appropriate time/season.</li> <li>Staff to disclose allergies</li> <li>Epinephrine auto-injector (if required)</li> </ul>
k	Needle stick injuries	Viral infection Psychological trauma.	Work team Client General public	<ul style="list-style-type: none"> <li>Health monitoring and surveillance</li> <li>HSE 'Health and Safety (Sharp Instruments in Healthcare) Regulations 2013 - Guidance for employers and employees'</li> </ul>	<ul style="list-style-type: none"> <li>Identify sites with the potential to harbour discarded hypodermic syringes and treat with caution. Contact supervisor.</li> <li>Where the risk of injury is real then use "sharps" containers for the acceptable disposal of syringes.</li> <li>Under no circumstances shall syringes be re-sheathed because of risk of needle stick injury.</li> <li>Appropriate PPE.</li> <li>Appropriate First Aid and post exposure treatment, counselling.</li> <li>Guidance published by AAIS, Arboricultural Association, HSE etc.</li> </ul>
l	Deer tick bites	Lyme disease Infection from the bacteria carried by deer ticks,	Work team Client General public <i>Most likely from May to October</i>	<ul style="list-style-type: none"> <li>Reporting of any ill health. Operatives at risk should maintain regular health checks.</li> <li>"Tick bites and Lyme disease", Kingston and Richmond &amp; Twickenham PCT</li> <li>HSE – <i>Lyme Disease 'Guidance Note'</i></li> </ul>	<ul style="list-style-type: none"> <li>Where deer are believed to be present wear long trousers tucked into socks, long sleeves buttoned at wrist and tucked in at waist during May – October</li> </ul>
m	Salmonella	Fatality Ill health	Work team Client General public	<ul style="list-style-type: none"> <li>Reporting of any ill health.</li> <li>Operatives at risk should maintain regular health checks</li> <li>HSE – <i>Salmonella 'Guidance Note'</i></li> </ul>	<ul style="list-style-type: none"> <li>Be aware.</li> <li>Wear gloves.</li> <li>Wash hands thoroughly before eating, smoking etc.</li> </ul>
n	Tetanus	Fatality Ill health	Work team Client General public	<ul style="list-style-type: none"> <li>Regular booster injections.</li> <li>Reporting of any ill health.</li> <li>Operatives at risk should maintain regular health checks</li> </ul>	<ul style="list-style-type: none"> <li>Keep anti-tetanus injections up to date.</li> </ul>
o	Dog and cat faeces: Toxocara cati roundworm	Toxocariasis: Loss of sight Ill health	Work team Client General public	<ul style="list-style-type: none"> <li>Health monitoring and surveillance</li> </ul>	<ul style="list-style-type: none"> <li>Be aware</li> <li>Wear gloves.</li> <li>Wash hands thoroughly before eating, smoking etc.</li> </ul>

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p	Weils Disease (Leptospirosis) – transmitted to humans by contact with urine from infected rats	Fatality Ill-health	Anyone who is exposed to rats, rat or cattle urine: those in contact with canal and river water are also at risk	<ul style="list-style-type: none"> <li>Reporting of any ill health.</li> <li>Operatives at risk should maintain regular health checks.</li> <li>HSE INDG84 Leptospirosis – are you at risk?</li> </ul>	<ul style="list-style-type: none"> <li>Wear protective clothing.</li> <li>Cover all cuts and broken skin with waterproof plasters before and during work.</li> <li>Wash hands after handling contaminated clothing or other materials and always before eating, drinking or smoking.</li> <li>See local Public Health Laboratory Service or hospital consultant microbiologist for advice and serological testing</li> </ul>
2.2	Power lines – over and underground	Electrocution Contact with live lines	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401,</li> <li>FISA 804</li> <li>HSE HSG47 'Avoiding danger from underground services'.</li> <li>NPTC suite of certificates of competence in Utility Arboriculture (if working within vicinity zones)</li> <li>HSE-GS6 'Avoiding overhead power lines'</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>All staff trained.</li> <li>Observe safe working distances: No work within 10m of any overhead power line without contacting Regional Electricity Company supplier (REC). If working within vicinity zone.</li> <li>Follow instructions and procedures of REC.</li> <li>Shut down power.</li> </ul>
2.3	Other utility way leaves (e.g. Telephone lines, gas mains, water or sewage pipes)	Rupturing gas, water and telecomm supplies. Explosions Flooding Loss of comms Loss of data	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401: HSE HSG47 "Avoiding danger from underground services":</li> <li>Amey document - PLC-H&amp;S-116/01 'Service avoidance briefing'</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>Establish existence / position of way leaves: Utilities' site plans;</li> <li>CAT scanner used by trained operator.</li> <li>Avoid excavation or excavate only using insulated hand tools</li> <li>Avoid significant ground impact from falling timber</li> <li>Avoid contact with overhead telecomm lines.</li> </ul>
2.4	Buildings or other obstructions	Trees Parts of trees in contact with building or obstruction People enter/exit buildings near to worksite that must remain open.	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401</li> <li>FISA 302, 307, 310</li> <li>NPTC Certificates of Competence: CS31, 32, 33, 41, 44</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>Work planning.</li> <li>All staff trained and certificated in felling and dismantling operations. Buildings evacuated if necessary.</li> <li>Notify occupants, and use work staff to monitor building access routes.</li> <li>Undertake work during 'off-peak' or closed hours if possible</li> </ul>

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2.5	Working near roads/ footpaths/ public areas	Trees Parts of trees hitting passing traffic/ pedestrians. Workers struck by passing traffic	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401:</li> <li>Department for Transport Approved Code of Practice "Safety at street works and road works" to support NRSWA.</li> <li>Traffic Signs Manual - Chapter 8</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>All staff trained to appropriate level.</li> <li>At least one certificated operator on site on public roads.</li> <li>Adequate staff on site to maintain traffic control.</li> <li>Use of "Hi-viz" clothing/PPE.</li> <li>Public excluded from work area: signs, barriers, tape.</li> <li>Stop traffic when required to safely facilitate works</li> <li>All signage and guarding to comply with Traffic Signs Manual - Chapter 8</li> </ul>
2.6	Working in sensitive/ emotionally charged locality	Offending or alienating the general public. Work team becoming the victim of verbal or physical abuse	Work team Client General public local special interest group/anti-social element of local community	<ul style="list-style-type: none"> <li>In-company code of practice / instruction.</li> </ul>	<ul style="list-style-type: none"> <li>Use of hand tools where possible for pruning works; clear work site: Take brush off-site without chipping to reduce the risk that noise may cause nuisance and/or signal the presence of the work team.</li> <li>Refer situation to supervisor.</li> <li>Seek to calm the tensions.</li> <li>Guide and educate the general public.</li> <li>Consider battery powered saw.</li> </ul>
2.7	Protestors actively trying to disrupt or prevent work	Members of the public entering work site and / or designated 'Drop Zone' Risk of serious injury	Work team Client General public	<ul style="list-style-type: none"> <li>Amey policy.</li> <li>Client instruction.</li> </ul>	<ul style="list-style-type: none"> <li>Should protestors threaten or attempt to prevent or interfere with work. Work Team are to stop work and contact their designated supervisor / manager</li> <li>Contact the police as a 'Non-Emergency' by phoning 101 if required</li> <li>Always use the Amey Close Call reporting system should an incident occur no matter how minor</li> </ul>
2.8	Works within 3m of the Supertram swept path or 2.75m of the overhead line equipment	Electrocution Contact with live lines. Workers / Equipment / Trees hitting passing tram	Work team Client General public	<ul style="list-style-type: none"> <li>Supertram Code of Practice - SEO / 1 / 1003</li> </ul>	<ul style="list-style-type: none"> <li>Method statements must be prepared by the Statutory Undertaker or Contractor and be agreed in writing by the SYSL Engineer.</li> <li>Staff briefed on Supertram Track Safety.</li> <li>Consider arranging for temporary closure of tram service or when tram is not operational e.g. night</li> <li>In case of emergency works that effect the Supertram Network, contact the following (0114) 2798128 - Supertram Operations Control Centre (OCC). Callers should ask for the Control Room Officer (CRO).</li> </ul>

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<b>3.0</b>	<b>Environmental Considerations</b>				
3.1	Mineral oil/herbicides/pesticides in or near water courses.  Tree work adjacent to watercourses	Pollution threat to aquatic life forms, be they plant or animal  Sawdust, chippings, brushwood, timber causing blockage to watercourse	Work team Client General public	<ul style="list-style-type: none"> <li>BS 3998:2010 "Recommendations for Tree Work",</li> <li>BS 5837:2012 "Guide for trees in relation to construction".</li> <li>Forestry Commission: "Forests and water guidelines"</li> <li>Countryside and Rights of Way Act 2000</li> <li>EC Directive 2000/60/EC Water Framework Directive</li> </ul>	<ul style="list-style-type: none"> <li>All staff to receive training. Refuelling of vehicles, plant and equipment to be carried out away from watercourses.</li> <li>No mixing and decanting of pesticides and herbicides or other chemicals in the vicinity of a watercourse.</li> <li>Gain Environment Agency licence for herbicide application within 20m of a watercourse.</li> <li>Ensure watercourses and banks are kept clear of arisings from tree work</li> </ul>
3.2	Proposed work adjacent to protected species / habitat	Damage to protected species or habitat: Damage to badger setts and so community of badgers.  Disturbance to nesting or roosting places.  Disturbance to habitat.	Work team Client General public	<ul style="list-style-type: none"> <li>Wildlife and Countryside Act 1981 as amended.</li> <li>EC Directive on the Conservation of Wild Birds 1979 (79/409/EEC).</li> <li>EC Directive on Conservation of Natural Habitats and Wild Flora and Fauna 1992 (92/43/EEC).</li> <li>EC Directive 2000/60/EC Water Framework Directive.</li> <li>Badger Act 1981.</li> <li>The Deer Act 1991.</li> <li>The Protection of Badgers Act 1992.</li> <li>Countryside and Rights of Way Act 2000.</li> <li>BS 8596 - Surveying for bats in trees and woodland</li> <li>AA Guidance Note 10 'Protected Species and Arboriculture'</li> <li>Bat Conservation Trust Training - Arboriculture and bats: Scoping surveys for arborists</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>Experienced surveyor to carry out visual check before works commence. If protected species present either: <i>Delay works until animal moves off of its own accord (e.g. otter, snake etc.). or</i> <i>Delay works until a non-critical season – out of nesting/breeding or migration season, or</i> <i>Change scope of works to avoid disturbance of habitat, or</i> <i>Obtain relevant licence from English Nature (badger sett, bats, crayfish, water voles).</i></li> <li>As appropriate for the species or habitat present.</li> <li>Notify Amey Ecological Team</li> <li>Any work within 50 m of an active badger sett will require a license from Natural England.</li> </ul>
3.3	Excessive noise or noise at inappropriate times.  Excessive dust.	Loss of enjoyment of property through noise or dust.	Work team Client General public	<ul style="list-style-type: none"> <li>Noise at Work Regulations 1989</li> <li>HSE – Noise at Work INDG362(rev2)</li> </ul>	<ul style="list-style-type: none"> <li>Only use correctly maintained and silenced vehicles, plant and equipment.</li> <li>Unless emergency work, limit working hours to 8:00 to 18:00 Monday to Friday.</li> <li>Consider battery operated chainsaw use.</li> <li>Site chipping equipment to avoid wind blowing debris onto private property.</li> <li>Use water suppression to dust dispersal if practicable.</li> </ul>



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3.4	Bio-Security	Cross contamination of tree stock. Vectoring of pathogens – invasive species	Work Team	<ul style="list-style-type: none"> <li>WEBSITE <a href="http://www.forestry.gov.uk/pestsanddiseases">http://www.forestry.gov.uk/pestsanddiseases</a></li> <li>FISA 805</li> </ul>	<ul style="list-style-type: none"> <li>When bio-security issues are encountered or suspected notify supervisor / manager.</li> <li>Correct disposal of arisings. Cleaning / sterilising work tools after use. Update/ train arb staff on latest pest/ disease information.</li> </ul>

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4.0	<b>Operations</b>				
4.1	Chainsaws – Common Factors				
a	Fuelling	Fire Explosion Burns/blast injuries Spillage	Work team Client General public	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>AFAG 308</li> <li>FISA 301</li> <li>NPTC CS30.1</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and competent. Shaded fuelling site. Safe distance from any ignition source. Correct sealed containers. Saw fuel caps replaced securely.</li> <li>*NO SMOKING ON SITE*</li> <li>Spill kit located on vehicle</li> <li>Fire blanket on site</li> </ul>
b	Maintenance: chain / bar	Cuts from chain / bar / hand tools	Work team	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>FISA 301</li> <li>NPTC CS30.1</li> </ul>	<ul style="list-style-type: none"> <li>Avoid bare hand contact with chain and bar.</li> <li>Ensure files have handles.</li> <li>PPE.</li> </ul>
c	Noise	Deafness	Saw operator Work team	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work"</li> <li>FISA 301,801</li> <li>NPTC CS30.2</li> </ul>	<ul style="list-style-type: none"> <li>Correct saw maintenance (exhaust baffles, chain and bar).</li> <li>Hearing protectors.</li> <li>PPE</li> </ul>
d	Vibration	Vibration-induced White Finger (VWF), Hand Arm Vibration Syndrome (HAVS)	Saw operator, <i>particularly operators of large chainsaws</i>	<ul style="list-style-type: none"> <li>INDG175 'Hand-arm Vibration at Work'</li> <li>INDG317 "Chainsaws at work"; HSE 246/31 "Reducing Risks of HAV Injury From Hand Held Power Tools";</li> <li>FISA 301</li> <li>NPTC CS30.2</li> </ul>	<ul style="list-style-type: none"> <li>Select appropriate equipment</li> <li>Monitor and carefully regulate exposure times against published data. Correct maintenance for A/V systems, chain and bar.</li> <li>Gloves worn.</li> <li>PPE.</li> <li>Use of lorry-mounted grab to reduce the need to cut large diameter or stem wood into manageable pieces</li> <li>HAVS recorded and monitored on time sheets</li> </ul>
e	Poor handling	Muscular strain/ long-term injury	Saw operator	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>FISA 301, 302, 303, 304</li> <li>NPTC CS30 - 45</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and competent.</li> <li>Use of ergonomic work systems.</li> <li>Work planning.</li> </ul>
f	Contact with moving chain/ kickback	Cut injuries / laceration	Saw operator	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work"</li> <li>FISA 301, 302, 303, 304, 306, 307</li> <li>AFAG 308.</li> <li>Appropriate level of chainsaw competence as per NPTC CS units 30 to 45.</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and competent.</li> <li>Saw safety features fitted and working.</li> <li>Correct bar and chain maintenance.</li> <li>PPE</li> <li>First aid kit appropriate for task</li> </ul>

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Ref	Hazard	Risk	Persons Affected	Industry Best Practice/Guidance	Control Measures
4.2	Tree Climbing – Common Factors				
a	Weak tree structure.  <i>See also 5.4 Mobile Elevating Work Platform</i>	Failure of climber's anchor point, climber falls from tree, limbs fall on climber/ground crew	Climber Ground crew	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401, 403:</li> <li>AA Guide "A Guide to Good Climbing Practice";</li> <li>NPTC CS38;</li> <li>HSE Research Report 123 Use and effectiveness of mobile elevating work platforms for tree work</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Assessment of anchor points and tree.</li> <li>Ensure strength of anchor points.</li> <li>Use of supplementary anchor points.</li> <li>Avoid climbing: Consider the use of a Mobile Elevating Work Platform (MEWP) as means of access and/or as working platform.</li> </ul>
b	Equipment failure	Climber falls from or within tree: major or minor contact injuries	Climber Ground crew	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS38.</li> <li>LOLER Regs 1998</li> <li>HSE L22 – 'Approved Code of Practice' PUWER</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>Daily checks of equipment.</li> <li>Worn/damaged equipment withdrawn from service.</li> <li>Thorough Examination of Lifting Equipment (<i>PPE climbing equipment every 6 months</i>)</li> </ul>
c	Poor climbing technique: Free climbing, unprotected position, loss of balance	Climber falls from, or within, tree: major or minor contact injuries	Climber Ground crew	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401,</li> <li>AA Guide "A Guide to Good Climbing Practice",</li> <li>NPTC CS38</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Use of correct equipment and procedures.</li> <li>PPE.</li> </ul>
d	Falling objects: equipment, tools, branches	Injury to persons and/or property below	Work team Client General public	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401,</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS38, 39, 40, 41, 45</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Correct use of tools, equipment and tool strops.</li> <li>Identified hazard areas.</li> <li>Communication procedures.</li> <li>Use of suitable 'Drop Zone'</li> </ul>
e	Awkward movements when working in tree	Muscular strain Back injury	Climber	<ul style="list-style-type: none"> <li>AFAG Safety Guide 401</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS38, 39.</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained; Planned work programme.</li> <li>Ergonomic climbing techniques and routing of ropes to achieve best working positions.</li> <li>Use of supplementary anchors.</li> </ul>

# Generic Risk Assessment for Arboriculture - Sheffield



Ref	Hazard	Risk	Persons Affected	Industry Best Practice/Guidance	Control Measures
4.3	Chainsaw in Tree – Common Factors				
a	Top-handled saw use by climber	Kickback Cut injury / laceration. Cutting climbing rope causing fall injury Fatality	Saw operator Ground crew	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work": HSE CRR 402/2001 "Safe working methods with top-handled chainsaws";</li> <li>FISA 301</li> <li>AFAG Safety Guide 308, 401;</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS30, 38, 39, 40 41</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Top handled saws used only in tree (apart from warm-up).</li> <li>Operator in correct position.</li> <li>Ropes kept in safe position.</li> <li>Use of supplementary anchor.</li> <li>Use of cut-proof strop if applicable.</li> <li>Chain brake applied before and after cutting.</li> <li>Two-handed use wherever possible, never "cut and hold".</li> <li>PPE.</li> </ul>
b	Passing saw to or from climber	Saw falling on ground staff. Rope damage	Saw operator Ground crew	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>AFAG Safety Guide 308, 401</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS30, 38, 39, 40, 41, 45.</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Good communication.</li> <li>Correct methods of attaching/ securing saw.</li> <li>Use of tool line if appropriate.</li> <li>PPE.</li> </ul>
c	Large saw use. <i>See also 4.1 d Vibration</i>	Kickback, cut injury / laceration, Vibration. Muscular strain, back injury. Cutting climbing rope/strop leading to slip or fall injury / fatality	Saw operator/ Ground crew	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>FISA 301</li> <li>AFAG Safety Guide 401:</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS30, 39, 41, 45.</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Saw is appropriate to task.</li> <li>Saw supported centrally on harness or on tool line if appropriate.</li> <li>Operator in correct position.</li> <li>Consider unclipping saw from harness when removing large diameter sections.</li> <li>Ropes kept in safe position.</li> <li>Use of supplementary anchor.</li> <li>Use of cut-resistant strop if applicable.</li> <li>Chain brake applied before and after cutting.</li> <li>Two-handed use at all times.</li> <li>PPE.</li> </ul>
4.4	Branch removal	Cuts Impact Crush injuries	Work team Client General public	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>FISA 301</li> <li>AFAG Safety Guide 401, 403, 308:</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS30, 38, 39, 40, 41</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Correct climber position. Accurate severing cuts.</li> <li>Team communication.</li> <li>Work equipment, plant and machinery stored securely at suitable distance from tree.</li> <li>PPE.</li> <li>Non-Workers public excluded from work area</li> <li>Use of suitable 'Drop Zone'</li> <li>Stop highway traffic if required</li> </ul>

# Generic Risk Assessment for Arboriculture - Sheffield



Ref	Hazard	Risk	Persons Affected	Industry Best Practice/Guidance	Control Measures
4.5	Use of lowering equipment.	System failure Impact Crush injuries. Rope friction burns	Climber Ground crew	<ul style="list-style-type: none"> <li>FISA 301</li> <li>AFAG Safety Guide 308, 401,403</li> <li>AA Guide "A Guide to Good Climbing Practice"</li> <li>NPTC CS38, 39, 40, 41. HSE AIS 30: "</li> <li>LOLER Regs 1998</li> <li>HSE L22 – 'Approved Code of Practice' PUWER</li> <li>AA 'ICOP for Arboriculture – Tree Work At Height'</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Equipment inspected regularly by a competent person.</li> <li>Thorough Examination of Lifting Equipment (lowering equipment every 12 months).</li> <li>Correct routing of ropes.</li> <li>Appropriate position and strength of anchor points, pulleys, etc.</li> <li>Working within Safe Working Load.</li> <li>Team communication.</li> <li>Stop highway traffic if required</li> </ul>
4.6	Tree felling	Impact Crush injuries	Work team Client General public	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>FISA 501, 301, 302, 303, 304, 306, 307, 310</li> <li>NPTC CS30, 31, 32, 33, 44.</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Safe working distances.</li> <li>Escape routes maintained.</li> <li>Accuracy of cuts.</li> <li>Use of felling aids.</li> <li>PPE.</li> </ul>
4.7	De-limbing and cross cutting.	Chainsaw injury: Kickback, cut injury/ laceration. Impact/crush injury.	Work team	<ul style="list-style-type: none"> <li>HSE INDG317 "Chainsaws at work":</li> <li>FISA 301, 303, 304.</li> <li>NPTC CS30, 31, 32, 33</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Work planning.</li> <li>Safe working distances.</li> <li>Escape routes maintained.</li> <li>PPE</li> <li>Beware of kick back from saw to operator and work team.</li> <li>Maintain 'safe working distance'</li> </ul>
4.8	Storm damaged trees: Extreme tension.	Chainsaw injury: Kickback, cut injury/ laceration. Impact/crush injury.	Work team Client General public Emergency services personnel	<ul style="list-style-type: none"> <li>FISA 302, 304, 306, 310</li> <li>NPTC CS31, 32, 34, 35, 50</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Work planning.</li> <li>Safe working distances.</li> <li>Escape routes maintained.</li> <li>Correct assessment of tension and compression.</li> <li>Safe use of winch.</li> <li>PPE</li> <li>If unsafe to work, secure area in conjunction with emergency services and return to site better prepared</li> </ul>
4.9	Chemical spraying.	Contamination Poisoning.	Operator Work team Client General public	<ul style="list-style-type: none"> <li>FISA 202</li> <li>NPTC PA1, PA2, PA6</li> <li>HSE L5 – 'Approved Code of Practice' COSHH</li> <li>COSHH Regs 2002</li> <li>HSE L22 – 'Safe Use of Work Equipment'</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained and certificated.</li> <li>Choice of application method.</li> <li>Safe and secure storage.</li> <li>Operation in accordance with COSHH assessment.</li> <li>Data information available.</li> <li>Accurate calibration and mixing.</li> <li>PPE.</li> <li>Washing facilities.</li> <li>Correct disposal of waste.</li> <li>Medical surveillance.</li> </ul>

# Generic Risk Assessment for Arboriculture - Sheffield



					<ul style="list-style-type: none"> <li>Follow manufacturers instructions.</li> </ul>
Ref	Hazard	Risk	Persons Affected	Industry Best Practice/Guidance	Control Measures
4.10	Stump Grinding	Silica dust exposure – long term lung disease Contact with underground services Flying debris	Operator Work team General public	<ul style="list-style-type: none"> <li>AFAG 606</li> <li>HSE - <i>Control of exposure to silica dust: A guide for employees</i></li> <li>HSE HSG47 "Avoiding danger from underground services"</li> </ul>	<ul style="list-style-type: none"> <li>All operatives trained in the use of cable location plans and cable detecting equipment.</li> <li>Exploratory hand dig if underground services are in close proximity.</li> <li>Use of insulated hand tools.</li> <li>Suitable dust masks and eye protection.</li> <li>Prior to work - Permit to dig always required</li> <li>(SHARC) Service Hazard and Risk Control</li> <li>When there is risk of silica dust FFP3 filtering face-pieces or respirators with P3 filters must be used</li> </ul>
4.11	Tree Planting	Manual handling injuries Contact with underground services Cuts to hands	Work team	<ul style="list-style-type: none"> <li>FISA 103</li> <li>HSE L23 – Manual Handling</li> <li>HSE HSG47 "Avoiding danger from underground services"</li> </ul>	<ul style="list-style-type: none"> <li>Operatives have manual handling training</li> <li>Containerised trees to be carried by at least two persons</li> <li>All operatives trained in the use of cable location plans and cable detecting equipment.</li> <li>Exploratory hand dig if underground services are in close proximity.</li> <li>Use of insulated hand tools.</li> <li>Prior to work - Permit to dig always required</li> <li>(SHARC) Service Hazard and Risk Control</li> </ul>

# Generic Risk Assessment for Arboriculture - Sheffield



Ref	Hazard	Risk	Persons Affected	Industry Best Practice/Guidance	Control Measures
5.0	<b>Machinery</b>				
5.1	Brushwood chippers	Cuts, Noise (deafness) Limb injury Eye injury	Operator Work team Client General public	<ul style="list-style-type: none"> <li>FISA 604 Woodchippers.</li> <li>HSE Agricultural Information Sheet 38: "Powered mobile wood chippers: Operator protection at infeed chutes"</li> <li>NPTC Certificate of Competence in Brushwood Chipper Operations</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained.</li> <li>Manufacturers' instruction manual available.</li> <li>All guards and warnings in place.</li> <li>Regular machine maintenance.</li> <li>Safe fuelling and storage of fuel.</li> <li>Unauthorised personnel excluded from work area: signs, barriers, etc.</li> <li>PPE.</li> </ul>
5.2	Stump grinders	Cuts Noise (deafness) Injury from flying debris. Injury from contact with cutter wheel or contact with underground services	Operator Work team Client General public	<ul style="list-style-type: none"> <li>HSE HSG47 "Avoiding danger from underground services":</li> <li>NPTC Certificate of Competence in Stump Grinding Operations</li> <li>AFAG-606 Mobile Stump Grinders</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained.</li> <li>Manufacturers' instruction manual available.</li> <li>All guards and warnings in place.</li> <li>Regular machine maintenance.</li> <li>Safe fuelling and storage of fuel.</li> <li>Adequate barriers for flying debris.</li> <li>Unauthorised personnel excluded from work area: signs, barriers, etc.</li> <li>PPE.</li> </ul>
5.3	Winches – hand or mechanical	Injuries from: failure of equipment, whiplash, and worn cables.	Operator Work team Client General public	<ul style="list-style-type: none"> <li>FISA 310, 502</li> <li>NPTC CS32, 34, 35, 44.</li> <li>LOLER Regs 1998</li> <li>HSE L22 'Approved Code of Practice' PUWER</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained.</li> <li>Regular machine maintenance.</li> <li>Equipment inspected regularly by a competent person.</li> <li>Thorough Examination of Lifting Equipment (every 12 months).</li> <li>SWL known: all strops, shackles and cables to SWL minimum.</li> <li>PPE.</li> </ul>
5.4	Brushcutters / Clearing saws	Cuts Noise (deafness) Injury from flying debris. Injury from contact with cutting head / blade	Operator Work team Client General public	<ul style="list-style-type: none"> <li>FISA 203</li> <li>NPTC Certificate of Competence in Brushcutting Operations (if applicable)</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained.</li> <li>Regular machine maintenance.</li> <li>Safe fuelling and storage of fuel</li> <li>Correct fitting of harness.</li> <li>Unauthorised personnel excluded from work area: signs, barriers, etc.</li> <li>PPE.</li> </ul>

## Generic Risk Assessment for Arboriculture - Sheffield

Ref	Hazard	Risk	Persons Affected	Industry Best Practice/Guidance	Control Measures
5.5	Hedge-trimmers (See also: 2.1 d: Access equipment)	Cuts Noise (deafness) Injury from contact with cutting knives	Operator Work team Client General public	<ul style="list-style-type: none"> <li>Manufacturer's operator manual.</li> <li>NPTC AHT02 - Certificate of Competence in the Safe Use of Hedge Trimmers (If applicable)</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained.</li> <li>Regular machine maintenance.</li> <li>Safe fuelling and storage of fuel.</li> <li>Unauthorised personnel excluded from work area: signs, barriers, etc.</li> <li>PPE.</li> </ul>
5.6	Mechanised pole pruner	Cuts Noise (deafness); Injury from contact with chain, severed sections falling on operator / others Muscular Strain	Operator Work team Client General public	<ul style="list-style-type: none"> <li>Manufacturer's operator manual.</li> <li>NPTC CS 48: "Mechanised pole pruner"</li> </ul>	<ul style="list-style-type: none"> <li>All operators trained.</li> <li>Regular machine maintenance.</li> <li>Safe fuelling and storage of fuel.</li> <li>Observe working height / angle limits.</li> <li>Unauthorised personnel excluded from work area: signs, barriers, etc.</li> <li>PPE.</li> <li>Wear Harness to reduce strain.</li> <li>Share operation of saw.</li> </ul>
<b>Assessor Name:</b>		A.Greenwood S.Taylor-Hanson		<b>Signature:</b>	<b>Date:</b> Jan 2017

For Risk Classification Matrix and ALARP calculation see Appendix



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## Appendix

Ref	Severity	Likelihood	Risk Classification	Risk Classification After Control Measures	ALARP (As Low as Reasonably Practicable)
1.1	5	1	Hi	Hi	Yes
1.2	4	2	Hi	Me	Yes
1.3	5	2	Cr	Hi	Yes
1.4	4	2	Hi	Me	Yes
2.1a	3	2	Me	Me	Yes
2.1b	5	2	Cr	Hi	Yes
2.1c	3	3	Hi	Lo	Yes
2.1d	4	2	Hi	Me	Yes
2.1e	3	2	Me	Me	Yes
2.1f	3	3	Hi	Me	Yes
2.1g	3	2	Me	Lo	Yes
2.1h	2	3	Me	Lo	Yes
2.1i	5	1	Hi	Hi	Yes
2.1j	2	2	Lo	Lo	Yes
2.1k	4	2	Hi	Me	Yes
2.1l	4	2	Hi	Me	Yes
2.1m	5	1	Hi	Hi	Yes
2.1n	5	1	Hi	Hi	Yes
2.1o	4	1	Me	Me	Yes
2.1p	5	1	Hi	Hi	Yes
2.2	5	2	Cr	Hi	Yes
2.3	4	2	Hi	Me	Yes
2.4	2	3	Me	Lo	Yes
2.5	3	3	Hi	Me	Yes
2.6	2	3	Me	Lo	Yes
2.7	3	3	Hi	Me	Yes
2.8	4	2	Hi	Me	Yes
3.1	2	2	Lo	Lo	Yes
3.2	3	2	Me	Me	Yes

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Ref	Severity	Likelihood	Risk Classification	Risk Classification After Control Measures	ALARP (As Low as Reasonably Practicable)
3.3	2	2	Lo	Lo	Yes
3.4	4	2	Hi	Me	Yes
4.1a	4	2	Hi	Me	Yes
4.1b	2	3	Me	Lo	Yes
4.1c	4	4	Cr	Me	Yes
4.1d	4	3	Cr	Me	Yes
4.1e	3	3	Hi	Me	Yes
4.1f	4	3	Cr	Me	Yes
4.2a	5	2	Cr	Hi	Yes
4.2b	5	2	Cr	Hi	Yes
4.2c	5	2	Cr	Hi	Yes
4.2d	4	3	Cr	Me	Yes
4.2e	3	3	Hi	Me	Yes
4.3a	5	3	Cr	Hi	Yes
4.3b	4	2	Me	Me	Yes
4.3c	4	3	Cr	Me	Yes
4.4	4	3	Cr	Me	Yes
4.5	4	3	Cr	Me	Yes
4.6	4	3	Cr	Me	Yes
4.7	4	3	Cr	Me	Yes
4.8	4	3	Cr	Me	Yes
4.9	3	2	Me	Me	Yes
4.10	4	2	Hi	Me	Yes
4.11	3	2	Me	Me	Yes
5.1	3	3	Hi	Me	Yes
5.2	4	2	Hi	Me	Yes
5.3	3	2	Me	Me	Yes
5.4	3	2	Me	Me	Yes
5.5	2	2	Lo	Lo	Yes
5.6	2	3	Me	Lo	Yes

# Generic Risk Assessment for Arboriculture - Sheffield



## Risk Calculation

The risk calculation process described below uses a qualitative (rather than quantitative) assessment of risk. This means that the process is largely subjective, being based on personal judgement, supported by appropriate knowledge of the activity, location and hazards in question. The following tables use five levels of severity and likelihood.

## Severity

“Severity” is indicative of the consequence or outcome of the hazard. The progression from level 1 to level 5 for severity is not linear. The consequence for each level is so much greater than the preceding one, that it should be visualised as an *exponential* progression.

The most likely adverse effect of the hazard should be used when determining severity, rather than the worst case outcome. Because the consequence for each level is so much greater than the preceding one, **the assessor must be satisfied that the likelihood of any more severe outcomes is both As Low As Reasonably Practicable and Tolerable (ALARP)**

Severity			
Level	Description	Measure	
1	Trivial	Trivial injury	(or trivial asset damage)
2	Minor	Minor injury	(or minor asset loss / damage)
3	Moderate	Over 3-day injury	(or significant asset loss / damage)
4	Substantial	Major injury	(or business interruption)
5	Catastrophic	Fatality	(or business termination)

## Likelihood

“Likelihood” is the estimate of the *hazard* arising

Likelihood		
Level	Description	
1	Minimal	<i>highly unlikely to occur</i>
2	Low	<i>foreseeable, but unlikely to occur</i>
3	Moderate	<i>foreseeable and likely to occur</i>
4	High	<i>foreseeable and highly likely to occur</i>
5	Very High	<i>almost certain to occur</i>

# Generic Risk Assessment for Arboriculture - Sheffield

## Risk Classification Matrix

The five levels specified for severity and likelihood give rise, when entered, to a 5-by-5 risk matrix. Tolerability of risk decreases with increasing Risk Level.

			Severity				
			1	2	3	4	5
			Trivial	Minor	Moderate	Substantial	Catastrophic
Likelihood	1	Highly unlikely	In	Lo	Me	Me	Hi
	2	Unlikely	In	Lo	Me	Hi	Cr
	3	Likely	Lo	Me	Hi	Cr	Cr
	4	High likely	Lo	Hi	Cr	Cr	Cr
	5	Almost certain	Lo	Hi	Cr	Cr	Cr

Classification		Conclusion	Action Required
In	Insignificant	Risk is broadly acceptable.	Work may proceed with no further action, but be alert to any changes which <i>may</i> require reassessment.
Lo	Low	<p>Risk falls in the region of tolerability, so it must be shown to be ALARP before work begins / continues.</p> <p>If costs* are clearly very high and the reduction in risk is only marginal, then it is likely that the situation is already ALARP and further improvements are not required.</p> <p>In other circumstances the improvements may be relatively simple or cheap to implement and the risk reduction significant. Here the existing situation is unlikely to be ALARP and the improvement is required.</p> <p>The degree of scrutiny, level of effort and robustness of recording this consideration must rise with the risk classification.</p>	Monitor for changes, which <i>will</i> require reassessment.
Me	Medium		
Hi	High		
Cr	Critical	Risk is not tolerable.	Work may not start or continue until the risk has been reduced. If it is not possible to reduce the risk even with unlimited resources, the work has to remain prohibited.

\* Costs includes finance, resources and time