Salvaging Timber: 
Frequently Asked Questions

Who can I contact for help?

The Kentucky Division of Forestry should be your first contact for providing you with on-site technical assistance after encountering a catastrophic event, however if you need a timber appraisal for insurance or tax purposes, you will need the services of a consultant forester. The Division of Forestry foresters can conduct a preliminary assessment of your forestland and provide you a stewardship plan with recommendations for sustaining forest health. However if timber salvage is recommended and you are concerned about the value of timber lost, consultant foresters within Kentucky may be found at www.KACF.org

What should I do with my damaged timber?

Consider these questions before taking any action.
1. Do I have a manageable timber stand left undamaged?
2. Will I be able to make a timber sale in the future when prices are better?
3. Can I salvage the damaged timber?

To answer these questions you will need vital information about your specific situation; foresters can help you obtain this information. When damage occurs in patches, consider making the damaged patches new stands separate from undamaged patches. Avoid selling undamaged timber as salvage; this would be recommended only when a future timber harvested isn’t warranted. More money can be lost by selling good trees in a poor market (which usually exists after a widespread loss of timber) than can be earned by salvaging damaged trees. Do not allow the salvage operation to damage good trees. The income from a salvage cut is usually small compared to that from a future harvest when better prices return.

How fast do I need to salvage my damaged timber?

Slightly damaged pines and severely damaged hardwoods may have some value six months to a year following damage. Slightly damaged hardwoods may last for several years due to differences of deterioration rates among species. Some wind-damaged trees may not qualify as sawtimber because of the internal damage they suffered.

How should I select a buyer/operator to salvage my timber?

Select a salvage timber buyer or logger in much the same way as for a normal timber sale. Although the timber needs to be harvested in a timely manner, don’t rush or select an operator with whom you are not comfortable. You should have a contract that clearly states what timber is to be removed and what timber it to be left. Remember that even during this time all Best Management Practices should be followed. Contact a Kentucky Master Logger in your local area for the salvage harvest by visiting the following website: www.masterlogger.org. If a timber buyer approaches you, ask for references and check them. Loggers with good equipment, trained crews, and Sustainable Forestry Initiatives (SFI) certification are going to be in high demand. Be sure that loggers operating on your property have both limited liability and workers compensation insurance.
What other risks does my timber face during this time?

The other major risk at this time is fire because of the vast amount of debris on the ground. This fuel dries very quickly in the summer sun; if ignited, the resulting fire could be devastating. A large amount of debris on the ground could limit firefighters’ ability to control a fire. Follow all recommended burn bans and take great care to prevent a forest fire.

How can timber value be estimated in damaged timber stands?

Because of the difficulty of estimating the salvage value of timber and the complexities of the market, we strongly recommend that landowners get help from professional foresters in determining timber value.

How can I use a timber cruise to estimate a timber casualty loss?

The deductible loss from a casualty is the lesser of the fair market value of the lost timber and one’s basis in the timber. Casualty losses can be claimed on IRS Form 4684, which is available in IRS Publication 2194, the Disaster Losses Kit. To file this form and claim a loss, a landowner needs three values:

• the fair market value before the disaster;
• the fair market value after the disaster; and
• the basis in the timber.

Timber basis is the key. If the basis is zero, there is no deductible loss. The timber basis should already have been established. If not, a retroactive basis may be estimated. Combine the cruise above with growth information collected with an increment borer. Grow the timber backward to the time the property was acquired. See www.msucares.com for more information on how to determine basis. Generally, it is worthwhile to estimate basis if a forester’s fee is less than 15 percent of the estimated basis.

Values calculated from cruise needed on IRS Form 4684:

Fair market value before = the sum by product [total tons/ac x values before disaster].
Fair market value after = {the sum by product [undamaged tons/ac x values after disaster]} + salvage value of damaged trees.

Timber Salvage Contract Suggestions:

When preparing contracts for large areas of salvage or areas that will include salvage timber as well as large amounts of standing, healthy trees, a consulting forester should be employed to estimate the value of the timber and/or administer the sale. If you wish to handle the sale yourself, an attorney should be consulted or employed to prepare the actual contract which will protect you and the purchaser. When preparing a contract for timber salvage, the following items should be considered.

1. General Information -- include names and addresses of seller and buyer, the date of the agreement, a legal description of the tract, including the exact location, acreage, boundaries and a map of the timber area to be sold.
2. Declaration of Seller's Ownership & Right to Convey -- the seller should declare ownership and right to convey the timber; guarantee the title to the timber; and guarantee to defend all claims against the timber.
3. Right of Ingress and Egress -- the seller should guarantee the buyer the right to enter and exit the property.
4. Statement of the Type of Cutting -- state whether the harvest is to be clearcut, selectively marked, seed-tree, salvage only, or other method. If selectively marked, state how the trees to be cut are marked. State clearly what is to be harvested.
5. **Purchase Price, Payment Method and Terms** - purchase price may be a lump sum or on a value per unit basis, and terms of payment must be clearly stated.

6. **Duration of the Agreement** - state a time period which the timber must be cut and include a provision for extending the contract due to bad weather if necessary.

7. **Conditions Governing Removal of Timber** - state clearly any restrictions pertaining to equipment; location of skid trails, haul roads, log decks and loading sites; limits to ingress and egress; seller’s right to limit operations during certain weather events; and other limitations to the overall operation. Be reasonable with these limitations, not overly restrictive.

8. **Conditions Governing the Care of Other Property** - state clearly the penalty or payment for damage to existing structures and features of the property (roads, bridges, fences, ditches, buildings, streams, and other features or improvements) and for trees not included in the sale.

9. **Assignment of the Contract** - include a provision for or against the assignment of the contract to another.

10. **Implementation of state BMP minimum requirements for timber harvesting and utilization of a Kentucky Master Logger**

11. **Fire Protection** - the purchaser should be required to comply with all fire laws and immediately suppress, at his own expense, any fire originating (by accident or negligence) from his operation.

12. **Performance Bond and Financial Responsibility of the Buyer** - The buyer should be expected to carry personal liability insurance, property damage insurance, and Workman's Compensation Insurance for the period of the contract. To insure performance, the buyer may be required to put a cash bond in escrow.

13. **Arbitration in Case of Disagreement** - each party should name one person and these two agree on a third person to settle a dispute.

14. **Signatures of All Parties and Notarization**
Ice Damage – Safety in the Woods

Jeff Stringer, UK Forestry Extension

The following information is provided to help keep you safe in ice-damaged woodlands and while clearing tree debris from roads, trails, and fences.

Overhead Danger – Spotting and Flagging Danger Trees and Widow Makers

In comparison to wind storms, ice storms cause many broken branches to remain high in the crown of trees. These are called "widow makers" and persist in woodlands for several years after an ice storm. Extreme caution is warranted when walking or working in woodlands damaged by ice. While periods of high winds are dangerous, limbs can fall even on windless days. Scout roads and trails for widow makers, broken tops and other overhead dangers. Also, all trees with damaged tops or lodged trees (see below) should be removed, placed on the ground, or flagged as a "danger tree" using yellow and black caution flagging.

Cutting Trees

Significant care is required when felling trees in ice-damaged woods due to the abnormally high number of overhead dangers. It is wise to hire a trained logger to cut trees.

1) Widow Makers: Take time to look up into the crown of a tree and make sure no widow makers (broken or dead hanging branches) are overhead or that could be dislodged from an adjacent tree during felling. If there are widow makers present, avoid the situation.

2) Lodged Trees: Lodged trees are those that have fallen into and lodged in an adjacent tree. Never try to cut the adjacent tree to get both on the ground. Pull or drag the lodged tree to the ground. If trees cannot be removed, then flag them as a danger tree.

3) Spring Poles: A spring pole is a tree whose top has been pinned down to, or near to the ground and the main stem is bent and under stress. Do not, under any circumstances, try and cut this tree. Several loggers are killed annually in the U.S. cutting spring poles. Only trained individuals should cut these trees. Mark spring poles with caution flagging and stay away.

4) Broken Trees: Look up into the tree to determine if the main stem is broken, severely bent, or otherwise damaged. Where damage is present, it may be best to leave the tree standing as a danger tree and flag it.

5) Flag Danger Trees: Any tree that possesses a significant safety risk (see above), needs to be marked with caution flagging to warn of the danger (when working to clear the damage and for the foreseeable future).

6) Felling Procedures: All safety gear should be worn and safe felling techniques should be used including:

- Look into the top of the tree being felled and the surrounding trees. Inspect for widow makers, tree crowns and branches that are intertwined, vines that connect trees and other hazards. It is easy to drag a top or branch out a surrounding tree in ice-damaged woods.
- Plan an escape route and clear branches from the ground so that you can easily move away from the stump at a 45 degree angle to the line of fall of the tree when it starts to fall. This escape path can be a significant issue in ice-damaged woods with substantial debris on the ground.
- Proper directional felling techniques including notching and back cutting the tree (using the open face felling technique is best). Leave adequate holding
and hinge wood, using wedges to guide the fall. If any of this terminology is unfamiliar to you, chances are you may not be qualified to safely fell trees, especially when they are damaged.

7) **Safety Gear:** The use of safety gear, particularly hard hats is extremely important in damaged woodlands. Small limbs can kill without a hard hat. Also wear chainsaw-resistant chaps, eye protection (screens or goggles) and ear protection. All of these are available commonly from farm and hardwood stores and chainsaw equipment dealers.

**Tractor, Dozer, and Skid Steer Safety – Clearing Fences and Woods Roads**
The following are important when using equipment to remove debris from woods roads or fences.

1) **Tractors Skidding:** Skidding logs behind a tractor is extremely dangerous. If logs or tree tops become hung, the tractor can easily flip over backwards. You can not count on lifting the ends of the logs or tops with a 3-point hitch to overcome this problem. Chain logs, tops, branches to the front of the tractor when possible and drag the branches in reverse or use buckets or forks to remove debris.

2) **Tractor, Dozer and Skid Steer Precautions:** The following are concerns when driving or working on the ground around tractors, dozers, or skid steer equipment.
   a. Open seats and agricultural cabs are dangerous due to falling debris. Pushing tops can lead to broken stems being forced into an open cockpit or through the glass and into the cab, endangering the driver.
   b. When clearing tops and debris you will tend to be focused on the ground. BE AWARE that while moving brush and fallen trees you can inadvertently rub or shake standing trees causing widow makers to fall. Make sure that the area above your head is clear of widow makers. This is important regardless of whether you are on a tractor, bull dozer, or working on the ground.

**Cutting Brush and Tops**
Significant care is required when cutting up tops and brush. When downed or partially downed limbs are on top of each other there is considerable risk of being struck by a branch that is under stress when it is cut, releasing the stress in the branch and causing it to whip towards you.

1) **Dislodged Branches:** Always start cutting at the ends of broken branches and the top of a pile of branches and work towards the middle.

2) **Hanging Branches:** When cutting branches that are still attached to the tree, start cutting from the end of the branch and work towards the tree. Do not cut the branch to the point where it is NOT touching the ground. Leaving a branching hanging in the air is creating a significant hazard.

**Safety – Basic Chain Saw**
All basic chainsaw safety rules should be followed. Listed below are a few of the most important:

1) Wear all safety apparel, chainsaw resistant chaps, hardhats, eye protection (screens or goggles) and hearing protection. See your local chainsaw sales outlet for advice.

2) Start the saw with the saw on the ground with the bar away from you, and the toe of one boot in the handle. Hold the handle with one hand and ensure that your thumb is locked around the handle and your arm is straight. Do not “drop start” the saw. If you can not put your foot in the handle place the handle between your legs, and hold the saw as indicated above using the free hand to smoothly pull the cord.

3) The upper half of the nose of the bar should not come into contact with anything (twig, limb, ground). Contacting this section of the bar will cause the bar to kick back and fly up towards your face.

4) Never look directly down the kerf of the bar when cutting. Keep your head to one side so that if the bar kicks back it misses your head.

5) Cutting into the soil, for even a split second can severely damage the chain. Also cutting through ice and frozen wood will quickly dull most chains.

6) Look for wire or other metal objects that the tree has grown over and avoid them. These can cause chains to fly apart if they are made of hard metal.

**Getting Assistance**
If there are situations that look dangerous, they probably are. Running a chainsaw and felling damaged trees is extremely dangerous. Hire a trained logger (Kentucky Master Logger) or a professional tree care specialist to get danger trees on the ground. Make sure they carry liability insurance. Sometimes loggers may have mechanized equipment that can be very safely used in ice damaged woods.

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Ice Damage – Timber Salvage Decisions
Jeff Stringer, UK Forestry Extension

This guide is provided to help make decisions regarding timber losses associated with ice damage. If timber value loss is significant, a salvage operation may be warranted as well as claiming a tax loss.

Assessing Timber Value Loss Due to Ice
Ice can lead to a wide range of damage to trees and the woodlands as a whole. In some cases the ice only damages upper branches, while other trees will be overturned or the main stem will be broken. The majority of the timber value resides in the lower main stem and assessment of timber loss must focus on the damage that has occurred to this section of the tree.

Determining if a salvage harvest is warranted and what the timing of that harvest should be is based on:
• **Type of Damage Sustained:** damage must be assessed on sawtimber sized trees (trees greater than 16 inches in diameter) to determine the effect on the butt log (lower 10 to 20 feet of the main stem).
• **Percentage and Overall Number of Damaged Trees:** an assessment must be made to determine if the volume of timber affected warrants a commercial harvest.
• **Species:** some species hold their wood quality longer than others after being damaged. Pines and soft wooded trees such as red maple or yellow-poplar (tulip tree) can degrade quickly within the first growing season after damage, while oaks and other hard wooded species can maintain wood integrity for several years.
• **Veneer versus Regular Sawtimber:** because veneer logs can be significantly devalued by staining and checking (regardless of species) compared to average sawtimber, salvage of damaged veneer trees must be done quickly.
• **Current Timber Markets:** as with all harvest decisions, current market conditions must be taken into account.

Guide to Salvage Decision Making
1. Use the Decision Guide for Ice Damaged Table (see next page) to estimate the extent of timber value loss to individual trees and determine the percentage of trees sustaining significant timber damage.
2. If valuable veneer trees have sustained timber (low main stem) damage then an immediate salvage is warranted. Veneer species include black walnut, white and red oaks, ash, black cherry, hard (sugar) maple, and other commercially valuable species. Veneer trees must have a 16 inch plus diameter and contain a solid, straight, defect free (no branches or bark blemishes) log at least 10 feet in length. Few trees meet these qualifications.
3. As a general rule, if over 50 percent of the average quality sawtimber sized trees throughout the woodland have damage to the lowest 10 to 20 feet of the main stem, a salvage harvest is warranted. For pine or soft wooded species, the harvest should be within 6 to 9 months and if oaks and other hard wooded species dominate, within the next two years.
4. If you find areas or patches (1 acre in size or greater) where over 50 percent of the average timber trees have main stem damage then a salvage harvest could be warranted in these areas.
5. Contact the Kentucky Division of Forestry (KDF) for assistance and guidance. Reference their publication “Salvaging Timber: Frequently Asked Questions” for information on salvage cutting. You might decide that you can claim a deduction on your taxes and foresters can advise how to figure a casualty loss.
6. If KDF advises a salvage sale, use a consulting forester to determine the timing and administer the sale. The harvest should be focused on improving the woodlands not just removing the damage. Foresters can use the opportunity to regenerate areas that need it and remove damaged and lower value stems that need to be removed even if the stand had not been damaged.
## Decision Guide for Ice Damaged Timber

<table>
<thead>
<tr>
<th>Condition</th>
<th>High Quality Veneer</th>
<th>Medium Quality Sawtimber</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all veneer species</td>
<td>soft wooded species</td>
</tr>
<tr>
<td></td>
<td>(walnut, white and red oak, cherry, hard maple)</td>
<td>(poplar, soft maple, cottonwood, pines)</td>
</tr>
<tr>
<td><strong>Main stem broken</strong>&lt;br&gt;within 10 feet of the ground</td>
<td>Immediate loss of butt log</td>
<td>Immediate loss of butt log</td>
</tr>
<tr>
<td>10 to 20 feet off the ground</td>
<td>Main stem log removed before growing season.</td>
<td>Main stem log removed within 1 year.</td>
</tr>
<tr>
<td><strong>Main stem bent, greater than 60 degrees</strong></td>
<td>Immediate loss if bend is in bottom 10 ft of main stem.</td>
<td>Immediate loss, unless sections 10 to 12 feet long are solid and unbent. Should be removed within 1 year.</td>
</tr>
<tr>
<td><strong>Uprooted lying on ground</strong></td>
<td>Needs to be removed before growing season.</td>
<td>Needs to be removed within 2 years.</td>
</tr>
<tr>
<td><strong>Large branches torn from main stem within 20 feet of ground.</strong></td>
<td>Needs to be removed prior to growing season.</td>
<td>Needs to be removed within 1 year.</td>
</tr>
<tr>
<td><strong>Crown branches broken - more than 50% gone</strong></td>
<td>Scout these trees over the next several years, if they look to be dying, remove logs immediately.</td>
<td>Scout trees over the next several years. Remove logs within 2 years after dying.</td>
</tr>
<tr>
<td><strong>Crown branches broken - less than 50% gone</strong></td>
<td>Generally not a problem unless other stress occurs during subsequent growing seasons (drought, frost and insect defoliation).</td>
<td></td>
</tr>
</tbody>
</table>

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Ice Damage – Managing Woodland Damage and Health

Jeff Stringer, UK Forestry Extension

This fact sheet provides information on overall woodland health and the effects of ice damage on long-term woodland health and management.

Species Vary in Susceptibility
Significant ice build-up affects each species of tree differently. The degree of damage that a tree sustains is based on species, severity of ice, wind, and the timing of the ice. If ice occurs after the “sap rises” in late winter, branches breaking can easily pull the bark off the stem below. Prior to this time, the bark is tight on the tree and less damage occurs. Table 1 provides damage information on selected species from the ice storm of 2009 in western Kentucky (see Table 2 for a broader list of species).

<table>
<thead>
<tr>
<th>Species</th>
<th>Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>black cherry</td>
<td>severe top, stem breakage, uprooting</td>
</tr>
<tr>
<td>black walnut</td>
<td>severe top</td>
</tr>
<tr>
<td>black oak (mature)</td>
<td>severe top, stem breakage, uprooting</td>
</tr>
<tr>
<td>southern red oak (mature)</td>
<td>severe top, stem breakage, uprooting</td>
</tr>
<tr>
<td>gum</td>
<td>severe</td>
</tr>
<tr>
<td>sugar maple</td>
<td>moderate damage</td>
</tr>
<tr>
<td>soft maples (red, silver)</td>
<td>severe top, stem breakage</td>
</tr>
<tr>
<td>white oak</td>
<td>moderate top damage</td>
</tr>
<tr>
<td>hickories</td>
<td>uprooting</td>
</tr>
<tr>
<td>young oaks</td>
<td>moderate top</td>
</tr>
<tr>
<td>yellow-poplar (tulip tree)</td>
<td>severe top and uprooting</td>
</tr>
</tbody>
</table>

Damage Assessment
Ice storms can significantly damage tops and branches. While the majority of damage will no doubt make the canopy look bad, much of this damage will eventually heal. However, there are trees that will be permanently injured. The following is a general list of injury that you should be concerned about.

- **Greater than 30% top reduction in oaks and hickories.** Oaks and hickories re-grow relatively slowly compared to other species such as yellow-poplar.
- **Greater than 50% top reduction in fast growing species.** Yellow-poplar, cottonwood, black walnut and other fast growing species can quickly regenerate top damage and can tolerate more top reduction than slower growing species.

- **Bent more than 50 to 60 degrees.** Generally larger trees that have bent this much do not recover and while may not die will remain permanently bent.
- **Main-stem below the crown or entire top broken.**
- **Uprooted.**

If a large number of trees have these types of damage, then a salvage operation to remove this material may be warranted. Contact a Kentucky Division of Forestry forester or a consulting forester to assist (see below).

Managing Damage
A professional forester can give you credible advice on how to manage damaged stands. There may be trees that can be used for local firewood or other on-farm uses. Timber Stand Improvement (TSI) work, including killing dam-
Aged trees may be warranted to help remove injured trees that will never fully recover. You can use the TSI operation to enhance the growth of remaining valuable trees if it is implemented correctly. Cost share assistance can be obtained to help offset the cost of TSI. In areas where the damage is significant, a salvage operation (in the form of an improvement harvest) to remove the damage trees might be warranted. If wildlife management is an objective, the forester can work with a wildlife biologist from the Kentucky Department of Fish and Wildlife Resources to determine appropriate TSI or improvement harvest.

### Table 2: General Ice Damage Susceptibility

<table>
<thead>
<tr>
<th>Susceptible:</th>
<th>Intermediate:</th>
<th>Resistant:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspen</td>
<td>Ashes</td>
<td>Baldcypress</td>
</tr>
<tr>
<td>Basswood</td>
<td>Beech</td>
<td>Blackgum</td>
</tr>
<tr>
<td>Black cherry</td>
<td>Black Walnut</td>
<td>Bur oak</td>
</tr>
<tr>
<td>Black locust</td>
<td>Boxelder</td>
<td>Catalpa</td>
</tr>
<tr>
<td>Black oak (mature)</td>
<td>Chestnut oak</td>
<td>Colorado blue spruce</td>
</tr>
<tr>
<td>Bradford pear</td>
<td>Eastern white pine</td>
<td>Crabapple</td>
</tr>
<tr>
<td>Butternut</td>
<td>Green ash</td>
<td>Eastern hemlock</td>
</tr>
<tr>
<td>Cottonwood (linden)</td>
<td>Loblolly pine</td>
<td>Eastern redcedar</td>
</tr>
<tr>
<td>Elms</td>
<td>Paper birch</td>
<td>Ginkgo</td>
</tr>
<tr>
<td>Hackberry</td>
<td>Pin oak</td>
<td>Hickories</td>
</tr>
<tr>
<td>Honey locust</td>
<td>Red maple</td>
<td>Hophornbeam</td>
</tr>
<tr>
<td>Pitch pine</td>
<td>Scarlet oak</td>
<td>Horsechestnut</td>
</tr>
<tr>
<td>Red elm</td>
<td>Scotch pine</td>
<td>Kentucky coffeetree</td>
</tr>
<tr>
<td>River birch</td>
<td>Slash pine</td>
<td>Norway maple</td>
</tr>
<tr>
<td>Siberian elm</td>
<td>Sourwood</td>
<td>Norway spruce</td>
</tr>
<tr>
<td>Silver maple</td>
<td>Sugar maple</td>
<td>Ohio buckeye</td>
</tr>
<tr>
<td>Virginia pine</td>
<td>Sycamore</td>
<td>Pignut hickory</td>
</tr>
<tr>
<td>Willow</td>
<td>Tamarack</td>
<td>Shagbark hickory</td>
</tr>
<tr>
<td></td>
<td>Tulip poplar</td>
<td>Swamp white oak</td>
</tr>
<tr>
<td></td>
<td>White ash</td>
<td>Sweetgum</td>
</tr>
<tr>
<td></td>
<td>Yellow birch</td>
<td>White oak</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yellow buckeye</td>
</tr>
</tbody>
</table>

Adapted from Hauer et al. (1993)

**Use an Improvement Harvest to Salvage Timber**

If a salvage operation is required, it would be prudent to contact the Kentucky Division of Forestry or a consulting forester for assistance (see “Ice Damage – Timber Salvage Decisions”). In many cases, the professional forester can layout an improvement harvest that will not only get rid of damaged trees but will do it in a manner that will benefit the woodlands. There will be areas that can be regenerated and small openings might be warranted. There are areas where trees are damaged around valuable or potentially valuable trees that are unharmed. Selecting the proper trees to remove and protecting the remaining valuable trees is important. Removing damaged timber without regards for the remaining valuable trees can lead to increasing the damage in the woods.

**Potential for Future Forest Fire Risk**

The tops and branches on the ground are fuel for forest fires. In critical areas next to houses and structures or in areas of high value timber, cutting or driving over the tops with a dozer or other heavy equipment to get the majority of the woody debris within 2 to 3 feet of the ground will help debris retain moisture and rot faster, reducing the potential of ignition.

**Insects and Disease**

Removing debris or damaged trees and helping debris to rot quickly (see above) are the only feasible treatments that can help reduce problems from insects and disease. Fortunately, when top damage is light, the insect and disease problem will be minimal. There is little that can be done to reduce the rotting that will occur to standing trees (outside of cutting them down). There are some insects that thrive on weaken trees, and these insects are likely to increase in woods where the ice storm is severe. Ask a professional forester to advise you whether a salvage sale or a treatment is necessary to reduce the hazard of insect build up.
**Income Tax Deduction for Timber Casualty Loss**

Dr. Linda Wang  
*Forest Taxation Specialist, USDA Forest Service*

September 2008

Timber damaged or destroyed by hurricane, fire, earthquake, ice, hail, tornado, high wind and other storms are “casualty losses” that may allow timberland owners to claim a deduction on their federal income tax returns. Yet the specific requirements on calculating the loss by the tax law and rules may result in low or no deductions being available in certain cases.

The cost of hiring professional forestry and/or appraisal services to establish the required tax data and records should be weighed with the potential tax savings before proceeding.

**Determining the Amount of Casualty Loss**

Deductible casualty loss for timber held for business or investment purpose is the smaller of the adjusted basis of timber and the difference of the fair market value immediately before and after the casualty. Salvage sale is reported separately.

**An Example**

A hurricane damaged your timber tract. Before the hurricane, the fair market value of the timber was $10,000. But after the storm, the timber is worth only $1,000. So the FMV loss of your timber is $9,000 ($10,000 - $1,000). Assuming that the basis of the timber is 5,000. Then the amount of casualty loss deduction is only $5,000, not $9,000.

**Calculating the Adjusted Basis**

The key for most cases is to figure out the “adjusted basis” of standing timber. Generally, the cost of a property is called “basis” in tax terms. “Adjusted basis” is the original basis reduced or added by adjustments over the term of ownership (such as new purchase or timber sale).

The original basis for:

- **purchased timber property** is the purchase price and related costs (such as legal fee and timber cruises).
- **gifted timber property** is the donor’s adjusted basis in most instances.
- **inherited timber property** is the fair market value (or alternative value if so elected) on the date of death (or alternative valuation date).

If you have not determined the basis of your timber at the time of acquisition, you may use the current volume, growth over the years, and timber price at the time of acquisition to establish it retroactively.

**What You Need from Your Forester**

To establish timber basis and appraise the fair market value loss of timber immediately before and after the casualty, consult a professional forester if necessary to determine the proper timber volume in thousand board feet, cords or tons and timber prices, as suggested by the IRS Timber Casualty Loss Audit Technique Guide.

**“Single Identifiable Property” As the Measure**

Treasury regulations requires that casualty loss is determined with respect to the “single identifiable property”. In the case of timber, it is normally the entire timber block owned by the taxpayer, not just the timber actually damaged or destroyed. For example, assume that you own 100 tons of hardwood sawtimber with a total basis of $4,000 kept together in one place (account). A fire destroyed 20 tons. The adjusted basis for casualty loss determination in this case is $4,000, not just $800 ($4,000 x 20 tons/100 tons).

**Where to Report the Casualty Loss**

All casualty losses are claimed first on Form 4684. For timber investment property, the loss is then entered into Schedule A of Form 1040. For timber business property, the loss is entered on Form 4797. Schedule D is used for gains if any (see below for salvage sale). Form T should also be prepared, although you may not be required to file (see filing instruction on who must file on Form T).

**What If a Net Gain Is Realized**

If you conduct a salvage sale, a taxable gain is realized when the salvage value exceeds the adjusted basis of damaged timber. But you may elect to postpone paying taxes on the gain if the proceeds is re-invested in timber such as forest planting, purchase of timberland and stock in the control of timber corporations.
Tax Pointers

Appraisal Fee and the Cost of Photo:
- Appraisal fees and the cost of taking photos are not part of the casualty loss deduction. They are part of deductible expenses claimed on itemized deductions (subject to 2% adjusted gross income limitation).

For property held for personal use:
- The casualty loss was further limited. The deduction, as calculated first as the smaller of the fair market value loss and the adjusted basis, is then subject to $100 reduction and 10% adjusted gross income limitation (aggregated with all casualties on personal property such as homes and autos) to get to the allowable casualty loss deduction.
- If you don’t take itemized deduction, you will not be able to deduct a casualty loss on personal property.
- The $100 reduction and the 10% adjusted gross income limitation were lifted for Hurricane Katrina, Rita, and Wilma, and Kansas storms taxpayers.

When to claim the loss:
- You can deduct a casualty loss only in the tax year in which the casualty occurred generally.
- However, for Presidentially declared disaster area, you may elect to apply the casualty loss in your prior year’s tax return and thus avoid waiting to file the loss in the current year. But this should also be weighed with the current year’s tax bracket and any expenses in amending prior year’s tax return (if applicable).

Tips on Tax Records for Proof

- Gather information about the casualty (time, nature of the event and the area affected)
- Take photos as quickly as possible after the casualty
- Log the date, location and photographer
- Gather legal, insurance, and accounting papers from the court, title company, the bank, or the insurance company to establish ownership and possible insurance claims if any
- Forest management records such as management plan
- Document hired services from professional foresters and/or appraisers

It is important that you have records that support your casualty loss deduction, but do not attach them to your return.

Recommended Readings

3. IRS publication 547, 548, 4492, 4492-A: These guides contain many casualty loss calculation examples, which can be helpful for a general understanding of the casualty loss rules.
4. Tax Preparation Software. The software can be an effective tool for casualty loss calculation if you are interested in self-prepare your return, which can save your time over calculations and form selections.