

## 4 - Forestry

**1990 Covenants are *in italics* with corresponding Regulation below.**

### 23. Trees - Covenants (page 6)

*No living trees shall be cut down on any site without the prior approval of the Association Board of Directors, which may grant such approval through the Design Review Committee. However, nothing herein shall preclude site owners from cleaning up dead and down material on their sites for use as firewood or removal of same to an Association-approved collection point for such material or to a County approved landfill.*

### 19. TREES – Regulations (page 12)

No living trees greater than 2 inches in diameter [P1], generally as measured at 4 ½ feet above ground level[P2], shall be cut down on any site without the prior approval of the Association, which may grant such approval through the Board of Director’s appointed Forest Manager or certified Designee or as part of the Design Review eCommittee (DRC) review for purpose of construction, driveways, utility lines, septic tanks, leach fields, solar panels and /or approved structure. If the owner desires to mitigate their property, they must develop a plan with the Forest Manager or certified Designee. Likewise if an owner desires to create a defensible space around property improvements, the owner must first obtain a plan from the Forest Manager [BS3] or Designee. See “Appendix A: Mitigation and Defensible Space – General Guidelines” for additional information.

—Note: Removing a living tree over 2 inches in diameter, without PRIOR approval, review and permit issuance by the forestry manager may result in fines up to \$1000.00 for each unpermitted tree removed.

### Fine Schedule Reference: Category 1

- iii. Removing a living tree over 2 inches in diameter without approval from the appropriate authority. (Section I: Article 2.19.) \$1,000.00 Fine for First Violation.

### 5. Removal of Trees from Common Areas - Covenant (page 8)

*Only the Board of Directors or their designee may approve removal of any living tree in the common areas. However, dead and down trees and limbs may be removed by the Association or by any site owner for firewood in the interest of safety and aesthetics.*

### 12. TREES – LOT CLEAN UP [P4]– Regulations (page 15))

It is permissible for property owners to clean up dead and down trees and timber on their sites for use as firewood or to remove the same to an Association approved collection point for such material or to an approved county landfill. Owners may likewise obtain dead and down trees and timber from the common areas, but shall not encroach upon private property sites to gain

access to such common areas. Live trees may be removed for defensible space and mitigation purposes as authorized by the Forest Manager or ~~certified-De~~designee<sup>[P5]</sup> [from an owner's lot or on common areas. A mitigation approval plan and permits must be obtained after a review by the Forestry Manager or Designee. See "Appendix A: Mitigation and Defensible Space – General Guidelines" for additional information.](#)

– The Association may provide a dump trailer for local use only. The dump trailer may be obtained by contacting Arrowhead Patrol personnel. [Note: Removing a living tree over 2 inches in diameter, without PRIOR approval, review and permit issuance by the forestry manager may result in fines up to \\$1000.00 for each unpermitted tree removed.](#)

#### **Appendix A: MITIGATION AND DEFENSIBLE SPACE** <sup>[BS6]</sup> – Regulation (page 30-31) – [GENERAL GUIDELINES](#)

Arrowhead is a mixture of open meadows, aspen stands and high elevation mixed conifer forest consisting of Douglas fir, spruce and subalpine fir. The interval between natural fires is over 100 years in this forest type which results in a natural condition of multi-level dense stands of trees. Man has inserted houses, RV's, and roads into this environment and created the potential for more frequent fires that also present more risk to man made improvements.

In these multi-level dense stands there is increased competition for water, nutrients and sun light which makes the trees more susceptible to mortality from insects and disease. These dense stands of trees with dead material and low branches greatly increase the likelihood that a small ground fire could climb into the crowns and spread from tree to tree burning a much larger area. Fires of this type are much more difficult, if not impossible, for fire fighters to control.

Since 2000, Arrowhead has been conducting forest fuel reduction on both common land and individual lots to reduce the risk of uncontrollable wildfire. This program has two basic parts: Mitigation, which can also be called thinning, and Defensible Space.

[A mitigation approval plan and permits must be obtained after a review by the Forestry Manager or Designee. Contact the Forest Manager](#) <sup>[P7]</sup> [or Designee for an appointment and review to obtain proper permits prior to mitigating any tree greater than 2" in diameter. Note: Removing a living tree over 2 inches in diameter, without PRIOR approval, review and permit issuance by the Forestry Manager or Designee may result in fines up to \\$1000.00 for each unpermitted tree removed](#) <sup>[BS8]</sup>.

## MITIGATION ON VACANT LOTS AND RV UNDEVELOPED LOTS: [P9] - [GENERAL GUIDELINES](#)

At Arrowhead, mitigation refers to the removal of forest vegetation that is done on the common land and on lots with neither a structure nor a developed RV site.

The objectives of mitigation are to: 1) keep a wildfire on the ground and of low to moderate intensity to increase the likelihood of control by fire fighters; and 2) thin the forest to maintain or increase the vigor of remaining trees to make them more resistant to attack by insects or disease.

Mitigation has five basic elements:

- 1) Removal of ladder fuels. - Ladder fuels are defined as live or dead vegetation within 6' of the ground and under the drip line of conifers that will be retained.  
This can be small trees or the limbs of larger trees that in event of a fire could carry that fire into the crowns of the larger trees.
- 2) Tree spacing – Retained trees should have some space between crowns. In some cases 2 or 3 trees of equal condition could be retained in a closer group and thought of as one tree from a fire perspective.
- 3) Replacement trees – Small trees that are not within 10' of the drip line of larger conifers. These trees should be limbed to no higher than 1/3 of the tree height to maintain the vigor of the tree.
- 4) Standing dead trees – Remove all standing dead trees under 6" DBH (Diameter Breast Height) and remove limbs from the lower 6' of larger trees. Retention of 2 to 4 larger dead trees per acre is good for wildlife but removal of additional larger dead should be considered for fire reasons.
- 5) Down dead – Down logs that do not crush under foot should be removed. Logs that are in more advanced stages of decay will retain fire but make little contribution to the spread of fire.

Live aspen trees [P10] are not a fire risk and do not need to be removed when doing mitigation.

[A mitigation approval plan and permits must be obtained after a review by the Forestry Manager or Designee. Contact the Forest Manager or Designee for an appointment and review to obtain proper permits prior to mitigating any tree greater than 2" in diameter. Note: Removing a living tree over 2 inches in diameter, without PRIOR approval, review and permit issuance by the forestry manager may result in fines up to \\$1000.00 for each unpermitted tree removed.](#)

## DEFENSIBLE SPACE FOR LOTS WITH A STRUCTURE OR A DEVELOPED RV SITE [P11] – [GENERAL GUIDELINES](#)

At Arrowhead, Defensible Space refers to forest vegetation removal on individual lots that have a structure or developed RV site.

In addition to the mitigation objectives of keeping a wildfire on the ground and maintaining or improving forest health, Defensible Space is intended to provide a situation where wild fire can burn past a structure without igniting it and to provide an area for fire fighters to safely work while fighting a fire.

Defensible Space consists of 4 circular (or, on slopes, elliptical) zones with the structure or RV site at the center.

Zone #1 – This is the first 5 feet out from the structure or RV pad (including decks, posts and steps). This area should consist of non-flammable material such as concrete, gravel or dirt. Flammable materials such as gasoline, lumber or firewood should not be stored under or on decks during the wildfire season. Firewood storage should be a minimum of 45' from the structure or RV pad and preferably on the uphill side.

Zone #2 – The next 30 feet (more on the downhill side). This is the area of the most aggressive thinning. All ladder fuels should be removed. [P12] All conifers should be limbed so that tips of branches are 8 feet above the ground. There should be 10 feet of separation between crowns of conifers. Branches on conifers near the structure should be limbed above the eaves. Grass height should not exceed 4 inches during fire season.

Zone #3 – The next 30 feet. The same principles apply but not quite as aggressively. Ladder fuels should be removed although limbing to 6 feet is sufficient. Crown spacing of 8 feet is also sufficient and grass should be kept to less than 4 inches during fire season.

Zone #4 – The remainder of the lot to the property line. Here the prescription is the same as the mitigation prescription discussed above.

For both mitigation and defensible space these are basic guidelines and the Arrowhead Forest Manager [or Designee](#) should be consulted to assist with adjustments for variations in species composition, slope, arrangement, insect and disease concerns, fire risk from adjacent areas, and to retain dust and visual screens from nearby roads and neighboring properties.

While the measures described here cannot guarantee complete protection from wild land fire, they have been shown to markedly improve the chances of successfully protecting structures and residents.

[A mitigation approval plan and proper permits must be obtained after a review by the Forestry Manager or Designee. Contact the Forest Manager or Designee for an appointment and review to obtain proper permits prior to mitigating any tree greater than 2" in diameter. Note: Removing a living tree over 2 inches in diameter, without PRIOR approval, review and permit issuance by the Forestry Manager or Designee may result in fines up to \\$1000.00 for each unpermitted tree removed.](#)