MAINTENANCE

OF

THE NATURAL

ENVIRONMENT

AT

WINTERGREEN

ABSTRACT

This document addresses the topic of protection of the natural beauty of the vegetation, topography and other natural features of all properties within Wintergreen, the implementation of important environmental controls and maintaining the purity of the watershed areas in Wintergreen. New WPOA staff have been hired to supervise compliance with the Covenants and the rules and regulations derived from them. The principal re-interpretations and revisions of ruling documents include:

1) Strong emphasis on owner's fiscal responsibility for their agent's (e.g. contractors and sub-contractors) conformance with the Covenants,
2) New requirements for location of driveways and utility trenches,
3) New requirements for set-backs and restoration of vegetation buffer,
4) New protective regulations aimed at minimizing disturbance of topography and herbaceous vegetation during excavation,
5) Clearer definitions of tree canopy, understory and herbaceous layers of the forest and permission necessary for their removal,
6) Enhanced understanding of extraordinary diversity of the Wintergreen ecosystem and its fragility and uniqueness.

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INTRODUCTION

From the earliest days, those associated with Wintergreen recognized the unique, natural and unspoiled environment of the portion of the Central Blue Ridge Mountains and Rockfish Valley in which Wintergreen is located. The quality of this environment attracted buyers here and is the prime asset that must be protected. Wintergreen confidently expects to preserve this beautiful natural setting for the future enjoyment of the property owners through conformance with the Covenants by individual property owners; administration and enforcement of the Covenants by the Wintergreen Property Owners Association, Inc. (WPOA); and the science-based environmental advice provided by The Wintergreen Nature Foundation (TWNF).

Every property owner at Wintergreen receives the green booklet entitled Covenants, Restrictions and Affirmative Obligations Applicable to All Properties in Wintergreen 1974 (hereafter the Covenants). A revision to Part II [pp. 67-109] of the Covenants was approved by the membership in 1999. The Covenants represent a contract between the individual owners and the community. This summary reminds each property owner of what they promise to do when they become owners. Regardless of whatever representations have been made to you, these documents are the ruling documents at Wintergreen. It is strongly suggested that owners read carefully the Covenants documents they have received and seek assistance for any areas they wish to have clarified.

The primary purpose of Wintergreen's Covenants and the foremost consideration in their origin is the creation of a community that is aesthetically pleasing and functionally convenient (Part I, p. 3). The Covenants are designed to encourage the preservation of privately owned property values and to provide for enhancement of common property rights enjoyed by all owners.

The Architectural Review Board (ARB) was established to implement the purposes of the Wintergreen Covenants as related to construction and physical improvements to properties. The Covenants contain certain procedures and restrictions affecting each owner and the use of his or her site that must be followed by the ARB and the property owner. In the General Covenants, some more important ones pertain to submission of plans and specifications for building on a lot, including a landscaping plan, protection of waterways from pollution, obstruction or alteration, and the provision that the siting of structures takes into consideration topography, large trees, other aesthetic and environmental considerations [Part I, pp. 3,4,5,6]. Objective standards and guidelines in addition to and more restrictive than the Covenants have been and may be established and amended to implement the purposes of these covenants [Part I, p.3].

There are Additional Restrictions to Implement Effective Environmental Controls. These are in place in order to protect the natural beauty of the vegetation, topography, and other natural features of all properties within Wintergreen and the purity of the watershed areas in Wintergreen. The environmental controls established include the restrictions that are addressed in the Covenants [Part II, 1,2,3,4, pp. 9,10].

(1) topographic and vegetation characteristics of properties shall not be altered by any means

except after plans are approved. There shall be a minimum of earth movement and vegetation reduction,

(2) no trees, shrubs or other vegetation may be removed without written approval if more than ten (10) feet away from the footprint of the house,

(3) adequate and effective erosion control must be exercised,

(4) vegetation on undeveloped lots or unkempt lots must be controlled to preserve beauty or safety.

Open space areas will be protected, maintained and enhanced for the conservation of natural and scenic resources and to promote conservation of soils, wetlands, wildlife, game and migratory birds [Part III, 1, p.12].

In the event of any potential violation, the Covenants Compliance staff will investigate the complaint. The staff will report to the Executive Director who will decide if a true violation of Covenants or breach of regulations has occurred. In the event that a violation is determined to have occurred, a decision will be made regarding mitigation. A registered letter advising owner to cease and desist and to mitigate the violation following the directive of the Executive Director will be sent.

An appropriate number of days will be allowed for the owner to complete mitigation and thereafter a fine of $10.00 per day will be imposed. In the event of a difference of opinion regarding the violation and mitigation, the matter will be referred to the Appeals Committee, which will review all pertinent facts and recommend future action, possibly including arbitration.

If deemed necessary by lack of compliance by the owner after a violation or breach of regulations of Covenants, the Board of Directors may order the Executive Director to proceed at law or in equity. In addition, neighbors may proceed at law [Part VI.2, p. 22,23]. The failure to enforce any rights or reservations regardless of how long such failure shall continue does not disallow right to enforce.

The owner is ultimately responsible for observation of the Covenants and any breaches of them by the contractor. Owners are advised to exercise care in the choice of their contractor since the contractor acts as the owner's agent. Certain contractors are recognized on a yearly basis by WPOA for their good work in observance of the Covenants.

GENERAL CONSIDERATIONS

It is the intent of the Covenants, and should be the intent of new owners and contractors as well, that as much natural vegetation as possible is retained and minimal damage is done to the land. This will enhance the enjoyment of each home and protect the environment for all. It is strongly recommended that owners, realtors, architects and contractors recognize the fundamental seriousness of these issues to the Wintergreen community.

The purpose of the environmental regulations is to:

(1) preserve the health of the valley and mountain ecosystems, the home of our native flora and fauna,

(2) protect the purity of our streams from erosion and siltation by observing good storm water management practices,

(3) keep the community as safe as possible from flood and fire by observing basic precautions

outlined on page 9.

Blanket “do’s and don’ts” applicable to the development and management of all lots are impossible to enumerate. Each lot is unique in its location and natural features. It is a basic obligation that no disturbance of the lot including removal of trees, shrubs or other vegetation or earth movement occurs prior to approval of plans by the ARB, unless approved and recorded by the WPOA staff member. Once the final plan is approved for construction, no trees, shrubs or other vegetation regardless of diameter may be removed without written approval if more than ten (10) feet away from the area designated for the footprint of the house and the area designated for the driveway and utility trench. Equipment appropriate to the site to accomplish the aims of minimum earth movement should be employed. In the event that unique construction techniques such as that required for the use of modular components are being considered, such techniques will not be prohibited. However, there shall be no clearing of vegetation or changing of topography performed **in excess of that** required for a conventional house.

To help implement environmentally protective land use it is now required that owners of property must meet with a WPOA staff member on their lots prior to their submission of any plans to the ARB in order to consider each lot individually. Owners will have the opportunity to learn of the vegetal, topographic and water characteristics unique to the lot at this meeting.

SITING: The siting of the home and driveway is critical for both the owner and for neighbors. Set-backs of at least fifteen (15) feet to the side and back are required for preservation of vegetation, prevention of erosion and to protect the privacy of all. Every effort should be made to place the utility trench within the footprint of the driveway thus decreasing the need to clear vegetation. Effort should also be made to place the grinder pump and buried propane tank in the ten (10) foot cleared area around the house. A restoration of a vegetation buffer area may be required in the event of over clearing of vegetation.

The siting of the home and driveway will take account of topography. Prevention of erosion is a serious consideration on sloping lots. Simple terracing, such as the use of log berms placed horizontally at right angles to the slope, is an easy method for modifying erosion on a disturbed slope. Natural topography, such as rock outcrops, frequently harbors a diverse and unique flora. Outcrops may be a focus of a landscape plan and should remain undisturbed.

Siting will take account of vegetative features of your lot. Vegetative features are divided into three categories:

Trees: Taller trees that have reached their mature height constitute the canopy layer (Examples: oaks, hickories, maples, etc.). Preservation and protection of these large mature trees during the excavation process will be a priority. Younger trees in the forest are the replacements for the older ones in years to come. Some should be preserved. In the past, removal of trees under 6" in diameter was allowed without written permission. However, experience has shown that lack of understanding led to the indiscriminate cutting of replacement trees, valuable shrubs and small trees of the understory. Written permission from the staff is now required for any removal. Trees that pose a danger to residences because of old age or disease can be removed with written permission from a WPOA staff member.

Understory trees and shrubs: Smaller trees and woody shrubs below the canopy layer are the understory layer (Examples: dogwoods, rhododendrons, witch-hazels, etc.). Understory vegetation of native shrubs or smaller trees that take years to develop must be preserved. Consideration should be given to setting aside topsoil on a portion of the property and "heeling" in valuable shrubs for later transplantation in the disturbed site. TWNF representatives will be glad to give guidance in this matter.

Herbaceous layer: the herbaceous layer consists of the non-woody plants on the earth's floor that are natives or non-invasive exotics well-suited to the environment. These include categories of plants that flower (wild-flowers, grasses and sedges) or have no flowers (mosses and ferns). TWNF representatives can advise the owners of the identity of native plants on their lots. Undesirable native plants (poison-ivy, brambles, coral-berry, etc.) may be controlled. Invasive exotic plants threatening the natural environment (Asian stilt grass, kudzu, etc.) are discussed on pages 8 and 10 and should always be removed.

VIEWS: Wintergreen has many lots that have different real estate value by virtue of their location. Every property owner should be aware that, regardless of representations made to them, there are natural limitations to their view by virtue of their site and the built lots, developed or undeveloped, on either side of them. The purpose of the set-backs mentioned above is to maintain a vegetal screen between houses if possible.

Naturally occurring views from some homes may be enhanced by limited and judicious pruning of trees and shrubs to create a "filtered view". Written permission by a WPOA staff member is necessary. However, it is not permitted to remove trees specifically for this purpose. It goes without saying that there shall be no removal, topping or pruning of trees that are not on the owner's lot. In the past, owners or their agents have improved or actually created views by clearing trees and/or understory. Trees have been pruned in a manner detrimental to the health of the tree. The present result of this past practice is evident at high altitudes where clearing a view for a house on one site created gaps in the forest canopy that makes the house visible from across the view-shed. This may well be offensive to those looking at the sites from across the view-shed and is a clear violation of the intent of the Covenants.

PROTECTION OF WATERWAYS: Riparian borders are the undisturbed vegetation along the banks of natural or man-made streams, ponds and lakes aimed at preventing erosion and preserving the health of the waterways. While ideal soil and conservation rules suggests the maintenance of thirty-five feet (35) of riparian border, practical considerations necessitate as a goal the maximum possible protection within reason. The stream beds adjoining lots should be protected and may not be dammed, rerouted or otherwise interfered with. An effective storm water management plan is required as part of the building plan**.**

A site plan that shows appreciation of the environmental guidelines in this communication must be done by a professional [licensed surveyor/responsible land disturber]. It must be presented along with a construction plan according to the procedures required by the ARB and approved by that Board before development of the lot and construction can begin.

SPECIAL CONSIDERATIONS: VALLEY FLOOR, HIGH ALTITUDES , AND FIRE

The entire community of Wintergreen is situated on one contiguous property, but is comprised of two geographically separate areas, unconnected by direct roads within the property. The two areas, connected by Routes 151 and 664, are commonly referred to as the Stoney Creek Valley community and the Mountain community. In general, the Stoney Creek valley floor is at 800 feet above sea level, while the mountain and ridge areas of Wintergreen-Crawford's Climb in Stoney Creek, Black Rock Mountain and Devils Knob and Laurel Ridge on the mountain-have a maximum height between 2100 to 3850 feet. There are differences in the vegetation, topography and climate in the two areas and these differences can influence the natural environment around the home. Temperatures vary according to the altitude. In general, the altitudes above 2800 feet have temperatures 10° to 15° cooler than the valley. Average summer temperature in the valley is approximately 75 degrees, with highs near 87° and lows near 66°. The average winter temperature in the valley is about 38° with highs near 46°. The average winter temperature in the valley is about 38° with highs near 46° and lows near 21°. The high mountain areas have experienced temperatures as low as 25° below zero. The average annual rainfall is about 46" but the mountain gets 41 inches of snow in contrast to the valley's 21".

The WPOA staff is aware of the ecology of different areas of the mountain and valley. There are several hundred trees, understory trees, shrubs, wildflowers, native grasses, ferns and mosses in the flora of Wintergreen, a rich diversity. Different ecological niches, wet, dry, sunny, shady, high altitude or low, that have different directional orientation and soil conditions, contain different plants. An ongoing effort is being made to specifically identify sites where particular wildflowers, shrubs or conspicuously blooming understory trees are located. The only way one can determine what vegetation should be preserved is to identify the plants. In most instances, but not all, plants can be identified by vegetation alone, but sometimes it is necessary to wait for blooms before on can be certain of the plant's identity. The WPOA staff and TWNF is a resource for this kind of information.

VALLEY FLOOR CONSIDERATIONS

The Stoney Creek is a feeder for the Rockfish River. The flat lower area is part of a geolologic alluvial fan, formed long ago by depositions of cobbles, pebbles and silt from the eroding mountains above. The valley has long been populated and was under cultivation or grazed. The soil layer in some areas is thin and in others is rich.

Much vegetation on the valley floor consists of secondary growth with plants that are in some cases undesirable or invasive. Some conifers, the cedars and Virginia pines, have reached maturity or are diseased and are a fire hazard. These may be removed without permission. In some meadow areas native brambles, poison ivy, nettles or other like plants may be removed. Some natural areas have rare native plants that survive, particularly in the wetlands around present day Allen's Creek and along the streams, and these should be preserved.

The Wintergreen Valley floor is an area suitable for lawns and planned gardens. However, use of

ornamental shrubs and grasses or annual or perennial flowers that can escape from gardens and become invasive is discouraged. Some areas of Stoney Creek already have Japanese knotweed (found in water ways), crown vetch, multiflora roses, and Japanese bittersweet. These plants as well as some trees, princess tree and the tree of heaven, are invasive. The most serious invasive at Wintergreen is Asian stilt grass, growing in marshy areas and along roadsides. All of these can overgrow and replace native plants or trees and should be eliminated.

HIGH ALTITUDE CONSIDERATIONS

The knobs and mountains have several particular ecological areas where different communities of native plants grow and these should be preserved to maintain the natural environment of Wintergreen that attracted owners here. On the higher mountain elevations, including those accessible from Stoney Creek on Crawford's Knob, trees that screen homes from view should be preserved. Preservation of canopy layer is of utmost importance to prevent erosion and to protect the valley below from flooding. Lawns are not natural to the mountains. Lawns require removal of native herbaceous growth which is contrary to the intention of the Covenants and require continued care and fertilization. Native grasses and sedges, wildflowers, ferns and mosses living below the filtering canopy or in sunny areas are self-limiting in their growth and are the more suitable ground cover as can be seen in the Nature Preserve and on mountain trails. Septic tank fields in Stoney Creek can be restored to a non-invasive native plant meadow if desired.

FIRE CONSIDERATIONS

When living in a naturally wooded area, there is always a danger of forest fire. The 4000 acre developed area of Wintergreen is however different from the untouched wilderness surrounding Wintergreen. Wintergreen is protected by excellent fire service with well thought out plans for emergencies, adequate water resources, and road networks.

Every home owner should observe the following landscape precautions. Maintain a non-flammable area immediately around the house. Although mulch is laid down immediately after building to stabilize loose soil and prevent erosion resulting from construction, landscaping rocks near the foundation are safer. Lilacs, laurels, conifers and ornamental grasses are among the highly flammable plants that should be avoided near the house. Owners should keep hoses attached to outdoor spigots in the summer in case of small fires. Live hardwood trees, especially large ones, are resistant to fire but lower limbs (to 8') and branches overhanging homes should be removed. Ashes should be stored in metal containers and spark arrestors on chimneys must be maintained. Parking areas should be kept clear of leaves.

In the valley, there is only limited fire hydrant service, but the numerous ponds furnish an adequate source of water at lower altitudes. In addition lawn sprinklers are an outdoor fire deterrent. Septic fields are natural fire breaks. At higher altitudes in Stoney Creek, onsite water tanks can be installed in a cooperative effort between the owner and the Wintergreen Fire Department. The owner buys the 2500 gallon tank and the Fire Department will coordinate the installation.

In higher altitudes, it is a general principle that fire climbs from lower elevations to higher; thus the downhill side of a house should have an area clear of highly flammable material. In the densely

populated mountains, there are fire hydrants. The mountain has planned evacuation routes. Learn these routes. Maps are available in the WPOA office.

SPECIFICS ABOUT ECOLOGICAL AREAS AND NATIVE PLANTS

Four thousand years ago in the area that is now Wintergreen, the landscape as we now know it came into being. As the icy temperatures of the glacial period slowly warmed, the flora of the northern spruce and fir forest gave way to the one surrounding us now, the remnants of northern Appalachian forest along with southern Appalachian forest flora. Later, logging operations, although intense in many areas, did not destroy this spectacular assemblage of wildflowers, ferns, shrubs and trees. Most of the mountain areas were never put under the plow. Not until the construction associated with the making of Wintergreen was the native herbaceous growth disturbed in the mountains.

The Wintergreen Nature Foundation (TWNF) at Trillium House exists to encourage the understanding, appreciation and conservation of the natural resources of the Blue Ridge Mountains of Central Virginia. Their staff and volunteers are available to help identify plants in the wild and in mountain and valley gardens. The Plant Propagation Committee grows wildflowers, shrubs and ferns native to the mountain and offers them for sale. Staff and volunteers at the TWNF can help with advice about cultivation and transplantation for preservation of native plants on your site.

There are several species of native plants that should always be preserved at Wintergreen. Fruiting American chestnut trees that are resistant to the blight that wiped out almost all of these trees from the forest should be preserved. This also holds true for threatened butternuts and hemlocks. Special plants like orchids and lilies should be saved when possible.

Invasive plants are now common in Wintergreen, spring to fall. There are several invasive plants that should always be removed like Asian stilt grass and garlic mustard (white) that grow in sun and shade and threaten our forest herbaceous population. Other invasives include Dame's rocket (purple), common chickweed, dandelion, self-heal or heal-all (purple, low), plantains, ox-eye daisy, crown vetch (purple), galinsoga (low, tiny white), coltsfoot (looks like dandelion), and early watercress (yellow).

The virtues and values of using native plants in landscaping are aesthetic, economic, and pragmatic. Visits to the Trillium House garden or many of the lovely mountain and valley gardens make the first point, as the beauty of the matured gardens are evident. In terms of economics and pragmatics, native plants, once established, are in their sites to stay. Being acclimated to the soil, temperatures, and moisture levels, they thrive with little maintenance. They occupy their own long established ecological envelope or niche. Some purposefully introduced exotic plants, non-natives but also non-invasive, also have their place in Wintergreen gardens.

When landscaping on one's lot, there are several methods that may be successfully used, but gardens on the mountain should preserve their native herbaceous growth and be sensitive to the surrounding natural area. Zerolandscaping, removing invasive weeds and giving native flowers, grasses, sedges, mosses, ferns and shrubs space to survive, is adopted by some. A variation is ecolandscaping, introducing degrees of control and adding native species to the immediate landscape around the building. More formal gardens with beds and paths that make use of exotics and varietals as well as natives have

been created within the basic forest configuration.

Each season presents its own beauties. Spring ephemeral flowers bloom before the trees leaf-out and many are apparent then. In the dry woods of the mountain one finds bloodroot, trillium, bellwort, and lady-slippers. In moist areas of the valley, one finds skunk cabbage, spring beauties, hepatica, and others. Ferns are wonderful native plants and survive transplanting well. Deer do not eat them. Late summer and autumn plants that bloom in the mountain (and some in the valley) include sunflowers, asters and goldenrods (they do not cause hay fever). See Appendix I for an extensive list of the flora occurring naturally in two areas on the mountain. Other such lists will be completed in the future. TWNF offers a booklet showing many of the beautiful flowering plants and shrubs.

CONCLUSION

The above considerations do not replace the Covenants and Restrictions but comply with the Covenants and the rules and regulations based on the Covenants. When respected, they would assuredly result in preservation of quality of this beautiful natural setting and enhancement of the enjoyment of all property owners in Wintergreen

APPENDIX I

Two Ecological Niches in Wintergreen: Higher Altitudes

In Progress

The Nature Preserve at Shamokin Springs Trail and Blue Ridge Drive
Relatively level, 3200', wet with dry margins, rich soil

Trees: American basswood, American beech, American chestnut, white oak, chestnut oak, red oak, yellow birch, black birch, hop hornbeam, sassafras, cucumber magnolia, tulip poplar, red maple, sugar maple, striped maple, white ash, black ash, black locust, hemlock, black cherry, black gum, shagbark hickory.

Understory: speckled alder, Allegheny Minnie-bush, mountain laurel, pinxter azalea, rose azalea, winterberry, white alderberry, maple-leaved viburnum, spicebush, common service berry, hawthorn, climbing bittersweet, witch-hazel, poison ivy vine, Virginia creeper.

Herbaceous:

Wildflowers: May apple, wild ginger, white wood anemone, early meadow rue, rue anemone, Allegheny crowsfoot, Canada Mayflower, rosy twisted stalk, trillium, bellwort, smooth rock cress, toothwort, sweet cicely, great or star chickweed, bishop's-cap, rock cress, wood betony, wild geranium, common cinquefoil, lettuce-leaf saxifrage, Canada violet, marsh violet, round-leaf violet, common blue violet, Jack-in-the-Pulpit, Solomon's Seal, speckled wood lily, Indian cucumber root, plume lily, golden ragwort, squaw-root, heart-leaf Alexander, meadow-parsnip, Bowman's root, panicled hawkweed, narrow-leaved houstonia, galium, cleavers, sweet bedstraw, tassel rue, honewort, green-headed coneflower, Joe Pye weed, black cohosh, fly poison, bunchflower, basil balm, filmy angelica, water hemlock, St. Johnswort, daisy fleabane, one-flowered concerroot, tall meadow rue, enchanter's nightshade, spotted jewelwood, knotweed, Lowrie's aster, Turk's cap lily, Eastern spotted coralroot, ragweed, beggar-tick, white snakeroot, lettuces, sharp-leaved goldenrod, beechdrops, arrow-leaved tearthumb, monkshood, tall bellflower, turtlehead, entire-leaved false foxglove, aven, Indian tobacco, great blue lobelia, lemon-balm, white wood aster, Curtis's goldenrod, purple-stemmed aster, calico aster, blue aster.

Vines: American bittersweet, Virginia creeper, carrion-flower, wild yamroot, hog peanut, poison ivy.

Ferns: lady fern, silvery glade fern, marginal wood fern, intermediate wood fern, Christmas fern, New York fern, broad beech fern, hay-scented fern, sensitive fern, interrupted fern, cinnamon fern, rattlesnake fern.

Grasses: At least 16 native grasses.

Sedges: At least 16 native sedges.

Mosses: At least 12 identified native mosses.

Split Rock Trail
North facing Shamokin Springs Gorge: 3000' Dry, canopied, meager soil

Trees: oak chestnut oak, black birch, red maple, white ash, sprouts of American chestnut, red

oak, tulip poplar, white pine, black locust.

Understory: service berry, rhododendron, Minnie bush, blueberry, mountain laurel, striped maple, witch-hazel, pinxter azalea, rose azalea.

Herbaceous:

Wildflowers: pink lady-slipper, jack-in-the-pulpit, rattlesnake plantain, greenheaded coneflower, black-eyed Susan, daisy fleabane, 4 varieties of goldenrod, white wood aster, poverty aster, white snake root, Bowman's root, black cohosh, white snakeroot, wild ginger, sweet Cicely, Quaker lady or innocence, false foxglove, enchanter's nightshade.

Vines: Yamroot, Virginia creeper.

Ferns: Marginal wood fern, bracken ferns, sensitive fern, Christmas fern.

Sedges and grasses: Several native species.

Mosses: Several native species.