

# **CHAPTER 10:**

## **OPEN SPACE & ENVIRONMENTAL REGULATIONS**

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## **Chapter 10: Open Space and Environmental Regulations**

### **Section 10.1 Purpose** (Amended chapter-wide 3/11/15)

The purpose of this Chapter is to protect existing environmental resources and provide for public open space that is representative of the existing relationship of open space and “built/developed” space that exists within the Village today. Open space could include parks, greenways, golf courses, streams, wetlands, forest stands, grasslands/meadows, agricultural areas, wildlife areas, lakes, ponds and other significant natural areas.

### **Section 10.2 Environmental Assessment & Suitability of Land**

#### 10.2.1 Preservation of Trees & Natural Features

- A. Significant forest stands, natural vegetation, specimen trees, severe natural topography, drainage features and water courses will be preserved to the extent that is reasonable and practical while otherwise not reasonably prohibiting development.

#### 10.2.2 Existing Conditions Map

Existing Conditions Maps are required for all residential and non-residential developments. Identification of existing trees, known endangered species, wetlands, streams and creeks, floodplains, and topographical features on a site prior to the advanced preparation of development plans enables the reasonable and practical planned preservation of existing vegetation while considering unique site conditions. An Existing Conditions Survey is intended to identify forest stands, distinctive tree lines or forest edges, existing watercourses, and previously documented endangered species habitats. Photographs representative of the properties features may be included.

### **Section 10.3 Prohibition on Forestry Activity**

Forestry activity is defined in Chapter 16 of this Ordinance.

The Village of Whispering Pines will deny any requests for approval of a site plan or a subdivision plat for a period of:

- A. Three years after the completion of Forestry Activity if the Forestry Activity results in the removal of all or substantially all of the trees from the tract of land for which the permit or approval is sought.
- B. Five years after the completion of a Forestry Activity if the Forestry Activity results in the removal of all or substantially all of the trees from the tract of land for which the permit or approval is sought and the harvest was a willful violation of these regulations.

Notwithstanding any other provisions of this Ordinance, this Section does not regulate either:

- C. Forestry Activity on forestland that is taxed on the basis of its present-use value as forestland under Article 12 of Chapter 105 of the General Statutes.

- D. Forestry Activity that is conducted in accordance with a forest management plan that is prepared or approved by a forester registered in accordance with Chapter 89B of the General Statutes.

**Section 10.4 Open Space Requirements**

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10.4.1 Applicability

The requirements of this Section shall apply to new residential developments except for a single family dwelling on an existing platted lot and its accessory uses.

10.4.2 General Provisions for Open Space

- A. Land designated as open space on the approved development plan shall be dedicated to the Village and/or Owners Association and maintained as open space and may not be separately sold, subdivided, or developed.
- B. The dedicated or reserved land shall be located so as to reasonably serve the needs of the subdivision for which the dedication or reservation was made. As a general rule, such areas should be located so that every dwelling unit is within one quarter (1/4) mile of one or more such areas. Access from a street or public easement shall be provided to all designated open space with a minimum twenty five (25) foot wide access.
- C. The Existing Conditions Map may be used as a guide to determine the most appropriate type and placement of open Space.
- D. Open Space will not be accepted where it is placed in areas where above ground storm drainage facilities exist.

10.4.3 Minimum Open Space Dedication

A. Required Open Space

The developer of any subdivision shall provide twenty-five percent (25%) of the gross acreage of the development as open space as set forth in the table below.

**B. Open Space Ratios:**

The following ratios shall apply when calculating the minimum required open space dedication:

1. Natural areas shall count toward the open space requirement at a rate of 1.5:1 per required acre of open space.
2. Recreation areas shall count toward the open space requirement at a rate of 2:1 per required acre of open space.

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3. Lakes and pond areas shall count toward the open space requirement at a ratio of 0.5:1 per required acre of open space, provided that there is public access of at least thirty feet from the nearest road to the lake or pond.
4. Wetlands, dams, steep slopes and other non-buildable areas shall count toward the open space requirement at a ratio of 0.25 per acre of required of open space.

### Limitations on Contributions of Wetlands and other Non-buildable Areas to Open Space

Only 25% of the contributions to the required open space may consist of ‘un-buildable’ areas such as, but not limited to wetlands, dams, slopes steeper than 15 degrees or other areas upon which building is prohibited by this Ordinance, State or Federal regulations. Additional unbuildable areas may be contributed as open space, however; no credit with be given.

### C. Table for Computing Open Space

The following table is designed to assist developers in calculating the required open space. As seen from the table below, the actual acreage contributed to the required open space could be more or less than 25% of the total acreage. By way of example, if a developer has 100 acres and contributes all recreational land, then the actual acreage required to be contributes to meet the 25% requirement would be 12.5 acres, since a premium is given for recreational areas. Similarly, if the same developer decided to contribute a lake or pond, the required contribution would be 50 acres, since only 50% of the contributed lakes and ponds acreage is allowed open space credit.

Table for Computing Open Space

<u>Type of Land</u>	<u>Actual Acreage</u>	<u>Percentage of Acreage Applied to Open Space Requirement</u>	<u>Amount Open Space Dedicated</u>
<b>Recreation</b>	<b>Per One Acre</b>	<b>200%</b>	<b>2.0 Acres</b>
<b>Natural Areas</b>	<b>Per One acre</b>	<b>150%</b>	<b>1.5 Acre</b>
<b>Lakes and Ponds</b>	<b>Per One Acre</b>	<b>50%</b>	<b>0.5 Acres</b>
<b>Wetlands, Dams, Steep Slopes and Other Non-buildable areas</b>	<b>Per One Acre</b>	<b>25%</b>	<b>0.25 acres</b>

### **Fee in Lieu of Dedication:** (Amended 6/25/14)

In lieu of dedicating all or a portion of the minimum open space, the developer may offer, subject to Council approval, monetary compensation to the Village. The value of the fee in lieu shall be determined by the following formula: The most recent tax appraisal for all of the land in

the subdivision X one (1) plus the percentage of increase in the Consumer Price Index from the date of the most recent tax appraisal X one hundred fifty percent (150%) X the amount of open space divided by the total size of the subdivision or twenty five percent (25%). Fees collected in lieu of Open Space and any proceeds from such transactions or sales shall be accounted for by the Village and the funds shall be used by the Village for the purposes of acquiring and/or developing recreation, greenway, and open space area and for no other purposes. The depository for such funds may be the same as other permitted funds of the Village. Pending the expenditure in accordance with this section; such funds may be invested as are other funds of the Village. The Village may in its discretion add additional monies to the fund for the purposes of purchasing land to be used for open space or recreational purposes. All fees shall be transferred to the Village prior to the recordation of the subdivision final plat.

The formula is (tax appraised value) x (1 + percentage of consumer price increase from most recent valuation) x (150%) x  $\frac{\text{amount of open space}}{\text{total size of subdivision}}$

#### **10.4.4 Types of Open Space**

All required open space shall be classified in accordance with this Section. All required open space shall be deeded to a Property Owners Association or the Village. The required amounts of open space are described in 10.4.3 and fit into one or more of the following categories. The Existing Conditions Map should be used as a guide to determine the most appropriate open space type and location.

##### **A. Natural Area**

1. **Greenbelts:** Greenbelts run along the perimeter of a neighborhood, and serve to buffer a neighborhood from surrounding non-compatible uses such as a highway corridor or industrial district, or a developed area from agricultural areas or adjacent towns. Greenbelts differ from the other types of open spaces in that they are left natural, and are not intended for recreational use.
2. **Agricultural Preserve:** Open spaces designated as Agricultural Preserves shall be used for active farming in the form of crop cultivation or equestrian facilities. Agricultural Preserves are encouraged to protect areas of agricultural and rural heritage and promote compatible active agricultural operations.

Minimum size: 5 acres

3. **Nature Preserve:** Open spaces designated as Nature Preserves shall be left largely undisturbed except for the optional clearing of underbrush for the provision of a walking trail (natural material only). Nature Preserve areas are encouraged to protect large stands of trees, wildlife, and natural water features. Nature Preserves are the preferred form of open space for steep slopes in excess of 25 percent grade; however, those sections will only receive 25% credit.

Minimum size: 3 acres

**B. Recreation Area (Active & Passive)**

1. **Playground** - Playgrounds are for active recreational use and provide sunny and shaded play equipment and play areas for children as well as open shelter with benches. Playgrounds may be part of other types of open space, such as parks, or may stand alone.

Minimum Size: 10,000 square feet

Maximum Size: 40,000 square feet

2. **Park** - Parks may be designed for passive and/or active recreational use. There shall be vehicular access to parks with parking areas that comply with the parking requirements set forth in Chapter 9 of this Ordinance. Large parks should create a central open space which services an entire neighborhood or group of neighborhoods; or incorporates physical features which are an asset to the community (i.e. lake or river frontage, high ground, significant stands of trees). Undergrowth should be limited and landscaping shall be installed in a manner that promotes attractiveness and safety. Parks may be combined with greenways and greenbelts and may include golf courses and community gardens.

Minimum size: 1 acre

3. **Square** - Squares are areas for passive recreational use. Squares shall be bounded by streets on a minimum of 50 percent of their perimeter. Squares are encouraged to be entirely bounded by streets and/or lanes. Squares shall be planted parallel to all streets and shall contain at least four (4) canopy trees along each street frontage.

Minimum size: 2,000 square feet

Maximum size: 1 acre

4. **Green** - The green is an open space which is more natural. Like the square, it is small and surrounded by buildings. Unlike the square, it is informally planted and may have irregular topography. Greens are usually landscaped with trees at the edges and open lawns at the center. Greens should contain no structures other than benches, pavilions, and memorials; paths are optional. Greens shall contain four (4) canopy trees per 10,000 sq. ft.

Minimum size: 20,000 square feet

5. **Greenway** - Greenways are large, irregular open spaces designed to incorporate natural settings such as creeks and significant stands of trees within and between neighborhoods. Greenways are typically more natural and may contain irregular topography. Greenways shall be used for certain active recreational uses including, at a minimum, trails for walking, jogging, and biking. Greenways shall connect points of interest in the community such as schools, parks, and other civic uses.

C. Lake Area

Lake Area - A lake area is the “full pond” lake surface and does not include the lake depth, streams feeding the lake, dam area or wetlands that may be adjacent to the lake. While lakes are recreational in nature, only 50% credit is given.

**Section 10.5 Open Space Ownership and Maintenance**

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- A. The Village Council shall have the authority to accept or reject land dedications made as a requirement of this Chapter. Open space shall be dedicated to one of the following:
1. Fee simple ownership by the Village of Whispering Pines;
  2. Fee simple ownership by a Homeowners Association; or
  3. Non-profit Land Conservancy
- B. The owner of dedicated open space shall be responsible for its upkeep and proper maintenance.
- C. Subdivision preliminary and final plats shall contain notation regarding the dedication of open space.
- D. When dedicating open space to an HOA, the developer shall provide proof of registration of the Articles of Incorporation with the appropriate state agency for the formation of the Homeowners Association to the Administrator prior to final plat approval.
- E. Prior to final plat approval, the Homeowners' Association responsible for the maintenance and control of open space shall be established by the developer who shall record in the Register of Deeds a declaration of covenants and restrictions that will govern the association or similar legal entity. A copy of the recorded document shall be provided to the Administrator and such document shall include, but not be limited to, the following:
1. Provision for the establishment of the association is required before any lot in the development is sold or any building occupied. Membership shall be mandatory for each homeowner and any successive buyer.
  2. The HOA or non-profit land conservancy has clear legal authority to maintain and exercise control over such common open space areas.
  3. The HOA or non-profit land conservancy has the power to compel maintenance fees and assessments from the unit owners of the development to cover their proportionate shares of the costs associated with the maintenance and upkeep of such common areas. Further, assessments levied shall become a lien on the property if allowed in the master deed establishing the HOA or non-profit land conservancy.
  4. The open space restrictions must be permanent, not just for a period of years.

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5. The HOA or non-profit land conservancy shall be responsible for liability insurance, applicable taxes and the maintenance of the open space and other facilities under their control.
6. The HOA or non-profit land conservancy must be able to adjust the assessment to meet changing needs.
7. The HOA or non-profit land conservancy shall be responsible for maintaining all stormwater drainage systems and easements within the subdivision not being maintained by the Village, County, State or other approved entity.
8. It shall be expressly stated within the restrictive covenants/homeowners association documents that it will be the responsibility of the developer or successors or assigns to enforce such covenants or restrictions until such time as control has been transferred to the Homeowners Association. It shall be the sole responsibility of the developer or his successor or assigns to correct any deficiencies prior to transfer of control over to the Homeowners Association.

### Section 10.6 Stormwater Management

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#### 10.6.1. Purpose.

The management of stormwater is designed to serve three purposes. During the development stage, the objective is to control sedimentation and erosion. The provisions of Section 10.7 of the LDO serve that objective. When the development is completed, stormwater management regulations may be intended to deal with water quality issues or water quantity issues. The requirements of Chapter 5 are designed to deal with water quality issues.

In terms of water quantity issues, the objective of the regulations are limited to the extent to which the increased amount of impervious surface on a developed site will cause water to back up onto higher properties or cause downstream damage or flooding. Regulations dealing strictly with flooding issues are found in Chapter 5. The purpose of this Section is to establish regulations designed to minimize or prevent stormwater related damage to upstream or downstream properties resulting from the development of any site.

#### 10.6.2. Applicability and Basic Standards

- A. The requirements of this Section shall apply to any development that proposes to add more than ten percent of built-upon area to the existing development site.
- B. When the development in question is a subdivision containing more than 4 lots, then the stormwater management system that is installed to comply with the provisions of this Section shall be required to take into account not only the stormwater runoff from the subdivision if the lots so created remained undeveloped, but also the reasonably expected (according to generally accepted engineering standards) stormwater runoff from the development of all lots that are less than five acres in size within such subdivision. When



such lots are subsequently developed, they shall be exempt from further review under the provisions of this Section. However, lots within such subdivision that are five acres or more in size and that were not included in the stormwater calculations for purposes of designing a stormwater management system that satisfies the requirements of this Section shall be required to comply with the requirements of this Section when such lots are developed.

- C. Developments shall be constructed and maintained so that their stormwater management systems meet the following minimum standards:
  - 1. The post-development discharge rates shall be less than or equal to the predevelopment discharge rates for the 1-, 2-, 5-, 10-, and 25-year storms and 24 hour design storms.
  - 2. For upstream properties, the 1 percent chance flood elevation may not be increased.
- D. All buildings other than accessory building shall be required to direct roof downspouts onto the surface of the ground and directed away from driveways, roads, adjacent properties and waterbodies.

**Section 10.7 Soil Erosion and Sedimentation Control** (Amended 3/14/12)

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**10.7.1 Purpose**

This Section is for the purposes of:

- A. Regulating certain land-disturbing activity to control Accelerated Erosion and sedimentation in order to prevent the pollution of water and other damage to lakes, watercourses, wetlands, intermittent streams and other public and private property by sedimentation; and
- B. Establishing procedures through which these purposes can be fulfilled.

**10.7.2 Scope and Exclusions**

- A. Geographical Scope of Regulated Land-Disturbing Activity. Subject to subsection B, this Section shall apply to all land-disturbing activities undertaken by any person within the corporate limits of the Village or its extraterritorial zoning jurisdiction.
- B. Exclusions from Regulated Land-Disturbing Activity. This Section shall not apply to the following types of land-disturbing activity:
  - 1. An activity, conducted in accordance with best management practices adopted by the Department of Agriculture, including breeding and grazing of livestock, undertaken on agricultural land for the production of plants and animals useful to man, including but not limited to:
    - a. Forage and sod crops, grain and feed crops, tobacco, cotton and peanuts.

- b. Dairy animals and dairy products.
  - c. Poultry and poultry products.
  - d. Livestock, including beef cattle, sheep, swine, horses, ponies, mules and goats.
  - e. Bees and apiary products.
  - f. Fur producing animals.
2. An activity undertaken on forestland for production and harvesting of timber and timber products and conducted in accordance with best management practices set out in Forest Practice Guidelines Related to Water Quality, as adopted by the Department. If the land-disturbing activity undertaken on forestland for the production and harvesting of timber and timber products is not conducted in accordance with Forest Practice Guidelines Related to Water Quality, the provisions of this Section shall apply to such activity and related land disturbing activity on the tract.
  3. An activity for which a permit is required under the Mining Act of 1971, Article 7 of Ordinance 74 of the General Statues.
  4. An activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 113A-56(a).
  5. An activity which is essential to protect human life during an emergency.

### **10.7.3 Mandatory Standards for All Land-Disturbing Activity.**

Regardless of whether approval of an erosion control plan is required, no land-disturbing activity subject to regulation under this Section shall be undertaken except in accordance with the following mandatory standards:

A. **Buffer Zone.** No land-disturbing activity during periods of construction or improvement to land shall be permitted in the proximity to a lake or natural watercourse unless a buffer zone is provided along the margin of the watercourse of sufficient width to confine visible siltation within twenty-five percent (25%) of the buffer zone nearest the land-disturbing activity

1. **Projects On, Over or Under Water.** This subdivision shall not apply to land disturbing activity in connection with the construction of facilities to be located on, over, or under a lake or natural watercourse.
2. **Buffer Measurement.** Unless otherwise provided, the width of a buffer zone is measured horizontally from the edge of the water to the nearest edge of the disturbed area, with the twenty-five percent (25%) of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.

B. Graded Slopes and Fills. The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control devices or structures, generally not to exceed a 3:1 slope. Within a High Quality Zone (HQW) slopes left exposed must be stabilized in seven (7) calendar days. Outside the HQW, slopes left exposed must, within fourteen calendar days of completion of any phase of grading, be planted or otherwise provided with ground cover, devices, or structures sufficient to restrain erosion. The angle for graded slopes and fills must be demonstrated to be stable. Stable is the condition where the soil remains in its original configuration, with or without mechanical constraints.

C. Fill Material. Unless a permit from the North Carolina Department of Environmental Natural Resources Department's Division of Waste Management to operate a landfill is on file for the official site, acceptable fill material shall be free of organic or other degradable materials, masonry, concrete and brick in sizes exceeding twelve (12) inches, and any materials which would cause the site to be regulated as a landfill by the State of North Carolina.

D. Protection of Property. Persons conducting land-disturbing activity shall take all necessary measures, including but not limited to the installation or erosion and sedimentation control devices, that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the tract where such land disturbing activity takes place. The owner of the property where the land-disturbing activity takes place shall be responsible for restoring all waters, lands, streets, or culverts adversely affected by the failure to comply with the provisions of this subsection.

E. Control Measures Installed Before Construction. Whenever erosion control measures are necessary to comply with the provisions of this Section, the only land-disturbing activity that may take place before the erosion control measures are installed is that which is necessary to install such measures.

F. Other standards or requirements specifically made applicable to land disturbing activity regardless of whether approval of a plan is required.

#### **10.7.4 Recommended Erosion Control Measures Where Plan Approval Not Required**

When land disturbing activity does not require approval of an erosion control plan, the following measures are still suggested:

1. Silt fencing on all lower elevation perimeters.
2. A construction entrance.
3. Provision of ground cover sufficient to restrain erosion.
4. Provisions of temporary ground cover or covering of soil stockpiles sufficient to restrain erosion.

#### **10.7.5. Mandatory Standards Where Erosion Control Plan Required.**

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When land-disturbing activity requires approval of an erosion control plan, all standards and requirements set forth in this Section shall apply, including but not limited to those set forth in sections 10.7.3 and 10.7.8 through 10.7.10.

### 10.7.6 Grading Permit.

- A. No person may undertake any land-disturbing activity subject to regulation under this Section without first obtaining a grading permit from the Village, provided that no grading permit shall be required for any of the following:
1. Minor landscaping such as planting of individual shrubs and trees
  2. Vegetable gardens
  3. Flower beds
  4. Fence installation
  5. Accessory buildings
  6. Land disturbing activity that does not exceed a total of 500 square feet on any one site.
- B. If an erosion control plan must be approved prior to the initiation of land-disturbing activity, the grading permit shall be issued only after such plan is approved, the Village is assured that the proposed land-disturbing activity will be carried out in accordance with the approved plan, and all ownership and financial responsibility forms are completed. If no such plan approval is required, the permit shall be issued after the applicant acknowledges his or her responsibility to comply with the applicable provisions of this ordinance.
- C. If an erosion control plan is required, the applicant for the grading permit shall schedule a meeting at the site with the Erosion Control Inspector to discuss placement of erosion control measures. After this meeting, the applicant may clear enough land for placement of soil erosion control measures. If the inspector upon reinspection finds that the control measures are appropriately placed, the Village shall issue a grading permit. If the Erosion Control Inspector observes any violations of this Section or any failure to comply with an approved plan, then appropriate enforcement will be taken.
- D. A grading permit issued under this Section shall be prominently displayed at the primary entrance to the site of the land-disturbing activity before construction begins and remain until all construction is complete, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized. A copy of the approved plan and approval letter shall be kept on file at the job site.
- E. A grading permit shall be valid for a period of one (1) calendar year after issuance, unless it is revoked by the Village or the grading project is completed and a letter of completion is issued by the Village within the one (1) year period. The grading permit may be renewed for an additional one (1) year period, if adequately justified, by

making written request to the Village. No permit fee will be charged for re-issuance of a grading permit, unless the permit has been revoked.

### **10.7.7 Erosion Control Plans**

A. Plan Required. No person may undertake any land-disturbing activity prior to obtaining approval of an erosion control plan covering such work if:

- (1) More than one acre of land is disturbed; or
- (2) Any portion of the land disturbed is located within one hundred fifty (150) feet of a watercourse or wetland; or
- (3) Any portion of the land disturbed includes a slope of 3/1 or greater; or
- (4) Any portion of the land disturbed is located within a “critical area” identified on a map entitled “Erosion and Sedimentation Control Critical Areas,” which map is incorporated herein and a copy of which is available in the Village Hall.

B. Financial Responsibility and Ownership. Plans may be disapproved unless accompanied by an authorized statement of financial responsibility and ownership. This statement shall be signed by the person financially responsible for the land disturbing activity or his attorney in fact. The statement shall include the mailing and street addresses of the principal place of business of (1) the person financially responsible, (2) the owner of the land, and (3) any registered agents. If the person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving notice of compliance or non-compliance with the plan, the Act, this Section, or rules or orders adopted or issued pursuant thereto. If the applicant is not the owner of the land to be disturbed, the draft erosion control plan must include the owner’s written consent for the applicant to submit a draft erosion control plan and to conduct the anticipated land-disturbing activity. A copy of plans for a land disturbing activity that involves the utilization of ditches for the purpose of dewatering or lowering the water table of the tract must be forwarded to the Director of the Division of Water Quality.

C. Plan Review Processing Fee. A non-refundable plan review processing fee, based on the number of acres or any part thereof, of land to be disturbed, including off-site borrow and waste areas, and set in accordance with the Village’s fee schedule, is required to be paid at the same time an erosion control plan is initially submitted for review and approval. Each plan shall be deemed incomplete until the plan review processing fee is paid. The fee schedule shall consider the administrative and personnel costs incurred for reviewing the plans and for related compliance activities.

D. Environmental Policy Act Document. Any plan submitted for a land disturbing activity for which an environmental document is required by the North Carolina Environmental Policy Act (G.S. 113A-1, et seq.) shall be deemed incomplete until a complete environmental document is available for review. The Village shall promptly notify the person submitting the plan that the thirty (30) day time limit for review of the plan pursuant to this ordinance shall not begin until a complete environmental document is available for review.

E. Content. The plan required by this Section shall contain, but is not limited to, maps, calculations and narrative statements, as needed to adequately describe the proposed development of the tract and the measures planned to comply with the requirements of this ordinance. Plan content may vary to meet the needs of specific site requirements. A detailed checklist for plan preparation is available from the Village. As a minimum the plan shall include, but is not limited to, the following:

1. Legend: North arrow, Plan Scale
2. Property lines & Boundary of Total Tract
3. Existing and Proposed topographic lines
4. Limits of disturbed area (provide acreage total, delineate limits, and label)
5. Planned and Existing building locations and elevations
6. Planned & Existing road locations & elevations
7. Lot and/or building numbers
  - a. Geologic features: rock outcrops, seeps, springs, wetland and their limits, streams, lakes, Ponds and dams
  - b. Easements and drainage ways
  - c. Profiles of Streets, Utilities, Ditch lines
  - d. Stockpiled topsoil or subsoil locations
  - e. Construction drawings and details for temporary and permanent control measures

F. Timeline for Decisions on Plans.

1. The Village will review each complete plan submitted to it and within thirty (30) days of receipt thereof will notify the person submitting the plan that it has been approved, approved with modifications, approved with performance reservations, or disapproved. Failure to approve, approve with modifications, or disapprove a complete plan within thirty (30) days of receipt shall be deemed approval.

2. If it is determined by the Village that a plan needs to be revised, the Village will review each revised plan that is submitted and within fifteen (15) days of receipt thereof will notify the person submitting the plan in writing that it has been approved, approved with modifications, approved with performance reservations, or disapproved. Failure to approve, approve with modifications, or disapprove a revised Plan within fifteen (15) days of receipt shall be deemed approval.

G. Approval. The Village shall only approve a plan upon determining that it complies with all applicable State and local regulations for erosion and sedimentation control. Approval assumes the applicant's compliance with the Federal and State water quality laws, regulations and rules. The Village shall condition approval of plans upon the applicant's compliance with the Federal and State water quality laws, regulations and rules.

- H. Disapproval for Content. The Village may disapprove a plan or draft plan based on its content. A disapproval based upon a plan's content must specifically state in writing the reasons for disapproval.
- I. Other Disapprovals. The Village may disapprove a plan or draft plan if implementation of the plan would result in a violation of the rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters. The Village may disapprove a plan upon a finding that an applicant, or a parent, subsidiary or other affiliate of the applicant:
1. Is conducting or has conducted land-disturbing activity without an approved plan, or has received notice of violation of a plan previously approved by the Commission or a local government pursuant to the Act and has not complied with the notice within the time specified in the notice;
  2. Has failed to pay a civil penalty assessed pursuant to the Act or a local ordinance adopted pursuant to the Act by the time the payment is due;
  3. Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act or;
  4. Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to the Act. For purposes of this subparagraph (I), an applicant's record may be considered for only the two (2) years prior to the application date. In the event that a plan is disapproved pursuant to this subparagraph (I), the Village shall notify the Director of the Commission of such disapproval within ten (10) days. The Village shall advise the applicant and the Director in writing as to the specific reasons that the plan was disapproved.
- J. Notice of Activity Initiation. No person may initiate a land-disturbing activity before notifying the Village of the date that land-disturbing activity will begin.
- K. Required Revisions. After approving a plan, if the Village, either upon review of such plan or on inspection of the job site, determines that a significant risk of accelerated erosion or off-site sedimentation exists, or that the plan is inadequate to meet the requirements of this ordinance, the Village shall require a revised plan. Pending the preparation of the revised plan, work shall cease or shall continue under conditions outlined by the Village.
- L. Amendments to a Plan. Applications for amendments of a plan in written and/or graphic form may be made at any time under the same conditions as the original application. Until such time as said amendment is approved by the Village, the land-disturbing activity shall not proceed except in accordance with the plan as originally approved. No fee shall be charged for an amendment to a plan unless the amended plan contains an increase in the number of acres to be disturbed.
- M. Inspection. The landowner, the financially responsible party, or the landowner's or the financially responsible party's agent shall perform an inspection of the area covered by the plan after each phase of the plan has been completed and after establishment of temporary ground cover in accordance with G.S. 113A-57(2). The person who performs the inspection shall maintain and make available a record of the inspection at the site of the land disturbing

activity. The record shall set out any significant deviation from the approved erosion control plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. The record shall be maintained until permanent ground cover has been established as required by the approved erosion and sedimentation control plan. The inspections required by this subsection shall be in addition to inspections required by G.S. 113A-61.1.

### **10.7.8 Basic Control Objectives**

An erosion and sedimentation control plan may be disapproved if the plan fails to address the following control objectives:

**A. Identify Critical Areas.** On-site areas which are subject to severe erosion and off-site areas which are especially vulnerable to damage from erosion and/or sedimentation are to be identified and receive special attention.

**B. Limit Time of Exposure.** All land-disturbing activity is to be planned and conducted to limit exposure to the shortest feasible time.

**C. Limit Exposed Areas.** All land-disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time.

**D. Control Surface Water.** Surface water runoff originating upgrade of exposed areas should be controlled to reduce erosion and sediment loss during the period of exposure.

**E. Control Sedimentation.** All land-disturbing activity is to be planned and conducted so as to prevent off-site sedimentation damage.

**F. Manage Stormwater Runoff.** When the increase in the velocity of storm-water runoff resulting from a land-disturbing activity is sufficient to cause accelerated erosion of the receiving watercourse, plans are to include measures to control the velocity at the point of discharge so as to minimize accelerated erosion of the site and increased sedimentation of the watercourse.

### **10.7.9 Design and Performance Standards**

Erosion and sedimentation control measures, structures, and devices shall be so planned, designed, and constructed as to provide protection from the calculated maximum peak rate of runoff from the twenty-five year storm, as required in HQW zones.

1. **Limit on Uncovered Area.** Uncovered areas shall be limited at any time to a maximum total area of twenty (20) acres within the boundaries of the tract.
2. **Maximum Peak Rate of Runoff Protection.** Erosion and sedimentation control measures, structures, and devices shall be planned, designed and constructed to provide protection from the calculated maximum peak rate of runoff from the twenty-five (25) year storm.
3. **Settling Efficiency.** Sediment basins zones shall be designed and constructed such that the basin will have a settling efficiency of at least seventy percent (70%)



for the 40 micron (0.04 mm) size soil particle transported into the basin by the calculated maximum peak rate of runoff from the two (2) year storm.

4. **Grade.** Newly constructed open channels shall be designed and constructed with side slopes no steeper than 3 horizontal to 1 vertical if a vegetative cover is used for stabilization unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices or other acceptable ditch liners. In any event, the angle for side slopes shall be sufficient to restrain accelerated erosion.

5. **Ground Cover.** Ground cover sufficient to restrain erosion must be provided for any portion of a land-disturbing activity within fifteen (15) working days or sixty (60) calendar days following completion of construction or development, whichever period is shorter.

**10.7.10 Stormwater Outlet Protection**

**A. Intent.** Stream banks and channels downstream from any land disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land-disturbing activity.

**B. Performance Standard.** Persons shall conduct land-disturbing activity so that the post construction velocity of the ten (10) year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:

1. The velocity established by the table below of this Article; or
2. The velocity of the 10-year storm runoff in the receiving watercourse prior to development.

If conditions (1) or (2) of this Section cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the “prior to development” velocity by ten percent (10%).

**Maximum Permissible Velocity Table**

The following is a table for maximum permissible velocity for storm water discharges in feet per second (FPS) and meters per second (MPS):

<b>Material</b>	<b>F.P.S.</b>	<b>M.P.S.</b>
Fine sand (non-colloidal)	2.5	.8
Sandy loam (non-colloidal)	2.5	.8
Silt loam (non-colloidal)	3.0	.9
Ordinary firm loam	3.5	1.1
Fine gravel	5.0	1.5
Stiff clay (very colloidal)	5.0	1.5
Graded, loam to cobbles (non-colloidal)	5.0	1.5
Graded, silt to cobbles (colloidal)	5.5	1.7
Alluvial silts (non-colloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (non-colloidal)	6.0	1.8
Cobbles and shingles	5.5	1.7
Shales and hard pans	6.0	1.8

*Source - Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply allowable velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.*

**C. Acceptable Management Measures.** Measures applied alone or in combination to satisfy the intent of this Section are acceptable if there are no objectionable secondary consequences. The Village recognizes that the management of storm-water runoff to minimize or control downstream channel and bank erosion is a developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives, while not exhaustive, are to:

1. Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;
2. Avoid increases in storm-water discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and high velocity paved sections;
3. Provide energy dissipaters at outlets of storm drainage facilities to reduce flow velocities to the point of discharge. These may range from simple rip-rapped sections to complex structures;
4. Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining; and
5. Upgrade or replace the receiving device, structure, or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased velocity.

**D. Exceptions.** This rule shall not apply where it can be demonstrated that storm water discharge velocities will not create an erosion problem in the receiving watercourses.

#### **10.7.11 Borrow and Waste Areas**

When the person conducting the land-disturbing activity is also the person conducting the borrow or waste disposal activity, areas from which borrow is obtained and which are not regulated by the provisions of the Mining Act of 1971, and waste areas for surplus materials other than landfills regulated by the Department's Division of Solid Waste Management, shall be considered as part of the land-disturbing activity where the borrow material is being used or from which the waste material originated. When the person conducting the land-disturbing activity is not the person obtaining the borrow and/or disposing of the waste, these areas shall be considered a separate land-disturbing activity.

#### **10.7.12 Access and Haul Roads**

Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity shall be considered a part of such activity.

#### **10.7.13 Operations in Lake or natural Watercourses**

Land-disturbing activity in connection with construction in, on, over, or under a lake or natural

watercourse shall minimize the extent and duration of disruption of the stream channel. Where relocation of a stream forms an essential part of the proposed activity, the relocation shall minimize changes in the stream flow characteristics.

**10.7.14 Responsibility for Maintenance**

A. During the development of a site, the person conducting the land-disturbing activity shall install and maintain all temporary and permanent erosion and sedimentation control measures as required by the approved plan or any provisions of this ordinance, the Act, or any order adopted pursuant to this ordinance or the Act. After site development, the land owner or person in possession or control of the land shall install and/or maintain all necessary permanent erosion and sediment control measures, except those measures installed within a road or street right-of-way or easement accepted for maintenance by a governmental agency, and remove such temporary devices as may have been installed.

B. If maintenance of such devices is neglected and either on site or off site erosion and/or sedimentation occurs, the Village may require another erosion control plan to be submitted, approved, and implemented by the land owner or person in possession or control of the land.

**10.7.15 Additional Measures**

Whenever the Village determines that significant erosion and sedimentation is occurring as a result of land-disturbing activity, despite application and maintenance of protective practices, and regardless of the size of the disturbed area and whether or not a Plan was required, the person conducting the land-disturbing activity will be required to and shall take additional protective action.

**10.7.16 Existing Uncovered Areas**

A. All uncovered areas existing on the effective date of this ordinance which resulted from land-disturbing activity are subject to continued accelerated erosion and are causing off-site damage from sedimentation, shall be provided with a ground cover or other protective measures, structures or devices sufficient to restrain accelerated erosion and control off-site sedimentation.

B. The Village shall serve upon the landowner or other person in possession or control of the land a written notice to comply with the ordinance. The notice to comply shall be sent by registered or certified mail, return receipt requested, or other means as provided in GS 1A-1. Rule 4. The notice will set forth the measures needed to comply and will state the time within which such measures must be completed. In determining the measures required and the time allowed for compliance, the authority serving notice shall take into consideration the economic feasibility, technology and quantity of work required, and shall set reasonable and attainable time limits of compliance.

C. The Village reserves the right to require preparation and approval of a Soil and Erosion Control Plan in any instance where extensive control measures are required.

**10.7.17 Plan Appeals**

A. Except as provided in B below, the appeal of a disapproval or approval with modifications of a plan shall be governed by the following provisions:

1. The disapproval or approval with modifications of any proposed plan shall entitle the person submitting the plan to a public hearing by the Village council if such person submits written demand for a hearing within fifteen (15) days after receipt of written notice of the disapproval or approval with modifications.
2. A hearing held pursuant to this Section, shall be conducted by the Village Council within 30 days after the date of the appeal or request for a hearing.
3. The Village council shall render its final decision on any plan upon which a hearing is requested within twenty (20) days following the hearing.
4. If the Village council upholds the disapproval or approval with modifications of a proposed plan following the hearing, the person submitting the plan shall then be entitled to appeal the decision of the Village council to the North Carolina Sedimentation Control Commission as provided in G.S. 113A-61(c) and Title 15A NCAC 4B .0118(d).

B. In the event that a plan is disapproved, the applicant may appeal the Village disapproval of the plan directly to the Commission.

#### **10.7.18 Inspections and Investigations**

**A. Inspections.** Agents, officials or other qualified persons authorized by the Village will periodically inspect the sites of land-disturbing activity to determine compliance with the Act, this ordinance, or rules or orders adopted or issued pursuant to this ordinance, and to determine whether the activity is being conducted in accordance with an approved Plan and whether the measures required in the Plan are effective in controlling erosion and sediment resulting from land-disturbing activity. Notice of the right to inspect shall be included on the grading permit for each Plan.

**B. Willful Resistance, Delay or Obstruction.** No person shall willfully resist, delay, or obstruct entry or access to any authorized representative, employee, or agent of the Village who requests entry for purposes of inspection, and who presents appropriate credentials or while that person is in the process of carrying out his official duties.

#### **C. Notice of Violation.**

1. If the Village determines that a person engaged in land-disturbing activity has failed to comply with the Act, this ordinance, or rules or orders adopted or issued pursuant to this ordinance, a notice of violation shall be served upon that person. The notice may be served by any means authorized under GS 1A-1, Rule 4.
2. The notice shall specify a date, by which the person must comply with the Act, or this ordinance, or rules, or orders adopted pursuant to this ordinance, and inform the person of the actions that need to be taken to comply with the Act, this ordinance, or rules, or orders adopted pursuant to this ordinance. Any person who fails to comply within the time specified is subject to additional civil and criminal penalties for a continuing violation as provided in G.S. 113A-64 and this ordinance.

**D. Investigation.** The Village shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this ordinance, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating and inspecting the sites of any land-disturbing activity.

**E. Statements and Reports.** The Village shall also have the power to require written statements, or the filing of reports under oath, with respect to pertinent questions relating to land-disturbing activity.

#### **10.7.19 Injunctive Relief**

**A. Violation of Local Program.** Whenever the Village has reasonable cause to believe that any person is violating or threatening to violate this ordinance or any rule or order adopted or issued by the Village, or any term, condition, or provision of an approved Plan, it may, either before or after the institution of any other action or proceeding authorized by this ordinance, institute a civil action in the name of the Village, for injunctive relief to restrain the violation or threatened violation. The action shall be in the Superior Court of Moore County.

**B. Abatement of Violation.** Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter any orders or judgments as are necessary to abate the violation, to ensure that restoration is performed, or to prevent the threatened violation. The institution of an action for injunctive relief under this Section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violations of this ordinance.

#### **10.7.20 Stop Work Orders**

Stop work orders may be issued, enforced, and appealed in accordance with the provisions of Section 15.4.1 of this ordinance.

#### **10.7.21 Restoration after Non-Compliance**

A. The Village may require a person who engaged in a land-disturbing activity and failed to retain sediment generated by the activity, as required by G.S. 113A-57(3), to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by sedimentation. This authority is in addition to any other civil or criminal penalty or injunctive relief authorized under this ordinance.

B. In the event that sediment, soil, mud, stone, or other debris from a site is deposited on a public roadway, whether from erosion, sedimentation, tracking, other means, the person conducting the land-disturbing activity shall immediately take appropriate action to remove the debris and clean the roadway.

1. If the debris is not immediately removed and the roadway cleaned, the Village will issue a Notice of Violation specifying the date by which the debris must be removed and the roadway cleaned.

2. If the person fails to comply within the time specified, the Village will take action to remove the debris and clean roadway and invoice the Financially Responsible person for the entire cost at established rates.

**10.7.22 Penalty**

**A. Civil Penalties.** Any person who violates any of the provisions of this ordinance, or rules or orders adopted or issued pursuant to this ordinance, or who initiates or continues a land disturbing activity for which a plan is required, except in accordance with the terms, conditions, and provisions of an approved plan, is subject to a civil penalty.

**1. Civil Penalties for a Violation.** The maximum civil penalty amount that the Village may assess per violation is \$5,000. A civil penalty may be assessed from the date of the violation. Each day of continuing violation shall constitute a separate violation.

**2. Civil Penalty Assessment Factors.** The Village shall determine the amount of the civil penalty based upon the following factors:

- a. The degree and extent of harm caused by the violation;
- b. The cost of rectifying the damage;
- c. The amount of money the violator saved by noncompliance;
- d. Whether the violation was committed willfully; and
- e. The prior record of the violator in complying or failing to comply with this ordinance.

**3. Notice of Civil Penalty Assessment.** The Village shall provide notice of the civil penalty amount and basis for assessment to the person assessed. The notice of the assessment shall be served by any means authorized under G.S. 1A-1, Rule 4, and shall direct the violator to either pay the assessment or contest the assessment within 30 days after receipt of the notice of assessment by filing a petition for contested case in the Office of Administrative Hearings in accordance with Article 3 of Chapter 150 B of the General Statutes.

**4. Appeal of Decision of Administrative Law Judge.** The decision of the Administrative Law Judge may be appealed in writing within 10 business days after receipt of written notice of the decision. Such appeals are to be heard by the Village Council of Whispering Pines.

**5. Appeal of Final Decision.** Appeal from the final decision of the Village shall be to the Superior Court of Moore County by proceedings in the nature of certiorari. The petition for the writ of certiorari must be filed with the Moore County Clerk of Court within 30 days after a written copy of the decision has been mailed to the person assessed.

**6. Collection.** If payment is not received or equitable settlement reached within 30 days after demand for payment is made, the matter shall be referred to the Village attorney for institution of a civil action in the name of the Village in the appropriate division of the General Courts of Justice in Moore County for recovery of the penalty. A civil action must be filed within three years of the date the final decision was served on the violator.

**B. Criminal Penalties.** Any person who knowingly or willfully violates any provision of this ordinance, or rule or order adopted or issued pursuant to this ordinance, or who

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knowingly or willfully initiates or continues a land-disturbing activity for which a plan is required, except in accordance with the terms, conditions, and provisions of an approved Plan, shall be guilty of a Class 2 misdemeanor punishable by imprisonment not to exceed 90 days, or by a fine not to exceed \$5,000 or by both, in the discretion of the court as provided in G.S. 113A-64.