

**CHAPTER 10**  
**STREAM AND WETLAND PROTECTION ORDINANCE**  
**Lowland Conservancy Overlay District**

*The District has adopted the following Northeastern Illinois Planning Commission (NIPC) model ordinance regarding stream and wetland protection but will defer jurisdiction to the appropriate municipality or county if their ordinances are the same or more stringent.*

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### 10.01 **AUTHORITY**

The Lowland Conservancy Overlay District is adopted by the Board of Trustees under the authority of the Illinois Compiled Statutes.

### 10.02 **SHORT TITLE**

This Chapter 10 shall be known and may be cited as the Lake in the Hills Sanitary District Lowland Conservancy Overlay District Ordinance.

### 10.03 **PURPOSE and INTENT**

It is the purpose and intent of this Chapter 10 to promote the health, safety and general welfare of the present and future residents within the District and downstream drainage areas by providing for the protection, preservation, proper maintenance, and use of the watercourses, lakes, ponds, floodplain and wetland areas within the District. This Chapter 10 is more specifically adopted:

1. To prevent flood damage by preserving storm and flood water storage capacity;
2. To maintain the normal hydrologic balance of streams, floodplains, ponds, lakes, wetlands and groundwater by storing and providing for infiltration of wet period runoff in floodplains and wetlands, and releasing it slowly to the stream to maintain in-stream flow;
3. To manage stormwater runoff and maintain natural runoff conveyance systems, and minimize the need for major storm sewer construction and drainage way modification;
4. To improve water quality, both by filtering and storing sediments and attached pollutants, nutrients and organic compounds before they drain into streams or wetlands, and by maintaining the natural pollutant-assimilating capabilities of streams, floodplains and wetlands;
5. To protect shorelines and stream banks from soil erosion, using natural means and materials wherever possible;
6. To protect fish spawning, breeding, nursery and feeding grounds;
7. To protect wildlife habitat;
8. To preserve areas of special recreational, scenic or scientific interest, including natural areas and habitats of endangered species;
9. To maintain and enhance the aesthetic qualities of developing areas; and

10. To encourage the continued economic growth and high quality of life within the District which depends in part on an adequate quality of water, a pleasing natural environment and recreational opportunities in proximity to the District.

#### 10.04 DEFINITIONS

In addition to those terms defined in Appendix A of this Code, certain terms used in this Chapter 10 are defined as follows:

**Armoring:** A form of channel modification which involves the placement of materials (concrete, riprap, bulkheads, etc.) within a stream channel or along a shoreline to protect property above streams, lakes and ponds from erosion and wave damage caused by wave action and stream flow.

**Board of Trustees:** The corporate authorities of the Lake in the Hills Sanitary District.

**Bulkhead:** A retaining wall that protects property along water.

**Channel:** A natural or artificial watercourse of perceptible extent that periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. It has a definite bed and banks that serve to contain the water.

**Channel modification/channelization:** To alter a watercourse by changing the physical dimension or materials of the channel. Channel modification includes damming, riprapping (or other armoring), widening, deepening, straightening, relocating, lining and significant removal of bottom or woody vegetation. Channel modification does not include the clearing of debris or trash from the watercourse. Channelization is a severe form of channel modification involving a significant change in the channel cross-section and typically involving relocation of the existing channel (e.g., straightening).

**Conservancy District:** The Lowland Conservancy Overlay District as defined in Section 10.13 herein.

**Control structure:** A structure designed to control the rate of stormwater runoff that passes through the structure, given a specific upstream and downstream water surface elevation.

**Culvert:** A structure designed to carry drainage water or small streams below barriers such as roads, driveways or railway embankments.

**Depressional Area:** Any area which is lower in elevation on all sides than surrounding properties (i.e., does not drain freely), or whose drainage is severely limited such as by a restrictive culvert. A depressional area will fill with water on occasion when runoff into it exceeds the rate of infiltration into underlying soil or exceeds the discharge through its controlled outlet. Large depressional areas may provide significant stormwater or floodplain storage.

**Development:** The carrying out of any building, agricultural or mining operation, or the making of any change in the use or appearance of land, and the dividing of land into two or more parcels. The following activities or uses shall be taken, for the purposes of this Chapter 10, to involve development as defined herein:

1. Any construction, reconstruction or alteration of a structure to occupy more or less ground area, or the on-site preparation for same;
2. Any change in the intensity of use of land, such as an increase in the number of dwelling units on land, or a material increase in the site coverage of businesses, manufacturing establishments, offices and dwelling units, including mobile homes, campers and recreational vehicles, on land;
3. Any agricultural use of land including, but not limited to, the use of land in horticulture, floriculture, forestry, dairy, livestock, poultry, beekeeping, pisciculture, and all forms of farm products and farm production;
4. The commencement of drilling, except to obtain soil samples, or the commencement of mining, filling, excavation, dredging, grading or other alterations of the topography;
5. Demolition of a structure or redevelopment of a site;
6. Clearing of land as an adjunct of construction for agricultural, private residential, commercial or industrial use;
7. Deposit of refuse, solid or liquid waste, or fill on a parcel of land, or the storage of materials;
8. Construction, excavation or fill operations relating to the creation or modification of any road, street, parking facility or any drainage canal, or to the installation of utilities or any other grading activity that alters the existing topography;
9. Construction or erection of dams, levees, walls, fences, bridges or culverts; and
10. Any other activity that might change the direction, height or velocity of flood or surface waters.

**Erosion:** The general process whereby soils are moved by flowing water or wave action.

**Filtered view:** The maintenance or establishment of woody vegetation of sufficient density to screen developments from a stream or wetland, to provide for stream bank stabilization and erosion control, to serve as an aid to infiltration of surface runoff, and to provide cover to shade the water. The vegetation need not be so dense as to completely block the view. Filtered view

means no clear cutting.

**Floodplain:** That land adjacent to a body of water with ground surface elevations at or below the 100-year frequency flood elevation.

**Floodway:** That portion of the floodplain (sometimes referred to as the base floodplain or Special Flood Hazard Area) required to store and convey the base flood. The floodway is the 100-year floodway as designated and regulated by the Illinois Department of Natural Resources Office. The remainder of the floodplain which is outside the regulatory floodway is referred to as the flood fringe or floodway fringe.

**Hydraulic characteristics:** The features of a watercourse which determine its water conveyance capacity. These features include, but are not limited to: size and configuration of the cross-section of the watercourse and floodway; texture and roughness of materials along the watercourse; alignment of watercourse; gradient of watercourse; amount and type of vegetation within the watercourse; and size, configuration and other characteristics of structures within the watercourse. In low-lying areas the characteristics of the over bank area also determine water conveyance capacity.

**Lot:** An area of land, with defined boundaries, that is designated in official assessor's records as being one parcel.

**Lake/pond:** Any inland water body, fed by spring or surface water flow.

**Natural:** In reference to watercourses, it means those stream channels, grassed waterways and swales formed by the existing surface topography of the earth prior to changes made by unnatural causes. A natural stream tends to follow a meandering path; its floodplain is not constrained by levees; the area near the bank has not been cleared, mowed or cultivated; the stream flows over soil and geologic materials typical of the area with no alteration of the course or cross-section of the stream caused by filling or excavating.

**Ordinary high water mark (OHWM):** The point on the bank or shore up to which the presence and action of surface water is so continuous so as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristics.

**Qualified professional:** A person trained in one or more of the disciplines of biology, geology, soil science, engineering or hydrology whose training and experience ensure a competent analysis and assessment of stream, lake, pond and wetland conditions and impacts.

**Registered Professional Engineer:** A Professional Engineer registered under the provisions of *The Illinois Professional Engineering Act* and any act amendatory thereof.

**Retention/detention facility:** A facility that provides for storage of stormwater runoff and

controlled release of this runoff during and after a flood or storm.

**Runoff:** That portion of precipitation on the land that is not absorbed by the soil or plant material and which runs off the land.

**Sedimentation:** The processes that deposit soils, debris and other materials either on other ground surfaces or in water bodies or watercourses.

**Setback:** The horizontal distance between any portion of a structure or any development activity and the ordinary high water mark of a perennial or intermittent stream, the ordinary high water mark of a lake or pond, or the edge of a wetland, measured from the structure's or development's closest point to the ordinary high water mark, or edge.

**Stream:** A body of running water flowing continuously or intermittently in a channel on or below the surface of the ground. 7.5 minute topographic maps of the U.S. Geological Survey are one reference for identifying perennial and intermittent streams. For purposes of this Chapter 10, the term "stream" does not include storm sewers.

**Structure:** Anything that is constructed, erected or moved to or from any premise which is located above, on, or below the ground including, but not limited to roads, signs, billboards and mobile homes. Temporary recreational facilities including, but not limited to, tents, camper trailers and recreation vehicles are not considered structures when used less than 180 days per year and located landward of the minimum setback provided as a natural vegetation strip.

**Vegetation:** All plant growth, especially trees, shrubs, mosses and grasses.

**Watercourse:** Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, slough, gulch, draw, ditch, channel, conduit, culvert, swale, grass waterway, gully, ravine, wash, or natural or man-made drainage way, which has a definite channel, bed and banks, in or into which stormwater runoff and floodwater flow either regularly or intermittently.

**Wetland:** Those transitional lands between terrestrial and aquatic system where the water table is usually at or near the surface or the land is covered by shallow water. Classification of areas as wetlands shall follow the "Classification of Wetlands and Deepwater Habitats of the United States" as published by the U.S. Fish and Wildlife Service (FWS/OBS-79/31).

#### 10.05 SPECIAL USE PERMIT

To ensure that proposed development activity can be carried out in a manner which is compatible and harmonious with the natural amenities of the Lowland Conservancy Overlay District and with surrounding land uses, a request for a Special Use Permit for such development activity must be submitted for approval by the Board of Trustees.

No special use permit shall be issued unless the District finds that:

1. The development will not detrimentally affect or destroy natural features such as ponds, streams, wetlands and forested areas, nor impair their natural functions, but will preserve and incorporate such features into the development's site;
2. The location of natural features and the site's topography have been considered in the designing and citing of all physical improvements;
3. Adequate assurances have been received that the clearing of the site of topsoil, trees and other natural features will not occur before the commencement of building operations; only those areas approved for the placement of physical improvements may be cleared;
4. The development will not reduce the natural retention storage capacity of any watercourse, nor increase the magnitude and volume of flooding at other locations; and that in addition, the development will not increase stream velocities; and
5. The soil and subsoil conditions are suitable for excavation and site preparation, and the drainage is designed to prevent erosion and environmentally deleterious surface runoff.

There shall be no development, including the immediate or future clearing or removal of natural ground cover and/or trees, within the Lowland Conservancy Overlay District for any purpose, unless a special use permit is granted subject to the provisions of this Chapter 10.

Dumping, filling, mining, excavating, dredging or transferring of any earth material within the district is prohibited unless a special use permit is granted.

No ponds or impoundments shall be created nor other alterations or improvements shall be allowed in the Conservancy District for recreational uses, stormwater management, flood control, agricultural uses or as scenic features unless a special use permit is granted.

#### **10.06 APPLICATION for PERMIT**

Application for a special use permit shall be made by the property owner or his/her authorized agent, to the District on a form furnished for that purpose. Each application shall bear the name(s) and address(es) of the owner or developer of the site and of any consulting firm retained by the applicant together with the name of the applicant's principal contact at such firm, and shall be accompanied by a filing fee of \$125. Each application shall include certification that any land clearing, construction or development involving the movement of earth shall be in accordance with the plans approved upon issuance of the permit.

#### **10.07 APPLICATION SUBMISSIONS**

Each application for a special use permit shall be accompanied by the following information as specified in the sections cited:

1. General Provisions:

Site Development Plan, Section 10.16.  
Geologic and Soil Report, Section 10.17.  
Drainage Control Plan, Section 10.18.  
Site Grading & Excavation Plan, Section 10.19.  
Landscape Plan, Section 10.20.

2. Justification for Watercourse Relocation and Minor Modifications:

Stream Modification/Relocation Plan, Section 10.23.  
Channel and Bank Armoring, Section 10.24.  
Culverts, Section 10.25.  
On-Stream Impoundments, Section 10.26.  
Impact Assessment, Section 10.27 (at option of District)

Where a proposed development activity is less than 2½ acres in area the Manager, upon approval of the District Engineer, may waive or simplify any or all of the submission requirements (Sections 10.16 through 10.20) provided that the person responsible for any such development shall implement necessary protection measures to satisfy the purpose and intent set forth in Section 10.03 herein.

#### 10.08 **BONDS**

The applicant may be required to file with the District a faithful performance bond or bonds, letter of credit or other improvement security satisfactory to the District Attorney, in an amount deemed sufficient by the District to cover all costs of improvements, landscaping or maintenance of improvements and landscaping, for such period as specified by the District, and engineering and inspection costs to cover the cost of failure or repair of improvements installed on the site.

#### 10.09 **REVIEW and APPROVAL**

Each application for a special use permit shall be reviewed and acted upon according to the following procedures:

1. The District will review each application for a special use permit to determine its conformance with the provisions of this Chapter 10. The District may also refer any application to the McHenry County Soil and Water Conservation District and/or any other local government or public agency within whose jurisdiction the site is located for review and comments. Within 30 days after receiving an application, the District shall in writing:
  - a. Approve the permit application, if it is found to be in conformance with the provisions of this Chapter 10, and issue the permit;



- b. Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Chapter 10, and issue the permit subject to these conditions; or
  - c. Disapprove the permit application, indicating the deficiencies and the procedure for submitting a revised application and/or submission.
2. No special use permit shall be issued for an intended development site unless:
- a. The development, including but not limited to subdivisions and planned unit developments, has been approved by the District where applicable; or
  - b. Such permit is accompanied by or combined with a valid building permit issued by the District; or
  - c. The proposed development is coordinated with any overall development program previously approved by the District for the area in which the site is situated.
3. Failure of the District to act on an original or revised application within 30 days of receipt shall authorize the applicant to proceed in accordance with the plans as filed, unless such time is extended by agreement between the District and the applicant. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the District.

#### 10.10 PERMIT EXCEPTIONS

The provisions of this Chapter 10 shall not apply to:

- 1. Emergency work necessary to preserve life or property; when emergency work is performed under this section, the person performing it shall report the pertinent facts relating to the work to the District within 10 days after commencement of the work and shall thereafter obtain a special use permit and shall perform such work as may be determined by the District to be reasonably necessary to correct any impairment to the watercourse, lake, pond, floodplain or wetland (in terms of the purposes of Section 10.03);
- 2. Work consisting of the operation, repair or maintenance of any lawful use of land existing on the date of adoption of this Chapter 10;
- 3. Lands adjacent to farm ditches if:
  - a. Such lands are not adjacent to a natural stream or river; or
  - b. Those parts of such drainage ditches adjacent to such lands were not streams

before ditching; or

- c. Such lands are maintained in agricultural uses without buildings and structures.

Where farm ditches are found to contribute to adverse environmental impacts or hazards to persons or property, the District may include designated farm ditches in the Conservancy District. The District may also require that linings, bulkheads, dikes and culverts be removed to mitigate hazards, or that other mitigative measures be taken, such as the maintenance of a natural vegetation buffer strip.

#### **10.11 EFFECT on OTHER PERMITS**

The granting of a special use permit under the provisions herein shall in no way affect the owner's responsibility to obtain the approval required by any other statute, ordinance or regulation of any state agency or subdivision thereof, or to meet other District ordinances and regulations. Where state and/or federal permits are required, a special use permit will not be issued until they are obtained.

#### **10.12 GENERAL PROVISIONS: AREA AFFECTED**

This Chapter 10 applies to development in or near streams, lakes, ponds and wetlands within the District. Streams, lakes and ponds (including intermittent streams) are those which are shown on the U.S. Department of the Interior Geological Survey (USGS) 7.5 minute quadrangle maps and those additional streams, lakes and ponds delineated on maps adopted as part of this Chapter 10. Those maps are hereby made a part of this Chapter 10, and two copies thereof shall remain on file in the office of the Manager for public inspection. Within the jurisdiction of the District, all water bodies and watercourses are subject to the provisions of this Chapter 10. Wetlands are those designated in the U.S. Fish and Wildlife Service/Illinois Department Natural Resources wetland inventory and those additional wetlands delineated on maps adopted as part of this Chapter 10.

If new drainage courses, lakes, ponds or wetlands are created as part of a development, the requirements for setbacks and uses within setbacks, and the criteria for watercourse relocation and minor modification shall apply. The Conservancy District shall be amended as appropriate to include these areas.

#### **10.13 THE LOWLAND CONSERVANCY OVERLAY DISTRICT**

The Lowland Conservancy Overlay District shall be considered as an overlay to the zoning districts created by the municipalities and/or county having jurisdiction. In addition to the requirements of this Chapter 10, applicants for a special use permit within the Conservancy District shall meet all requirements of the underlying zoning districts. In the event of a conflict between the overlay district requirements and the underlying zoning district requirements, the most restrictive requirements prevail.

#### 10.14 CONSERVANCY DISTRICT BOUNDARY

The procedures, standards and requirements contained in this Chapter 10 shall apply to all lots within wetlands and streams, and all lots lying wholly or in part:

1. Within the Special Flood Hazard Area (SFHA) designated by the Federal Emergency Management Agency (FEMA); or
2. Within 100 feet of the ordinary high water mark (OHWM) of a perennial stream or intermittent stream, the ordinary high water mark of a lake or pond, or the edge of a wetland; or
3. Within depressional areas serving as floodplain or stormwater storage areas.

#### 10.15 MINIMUM SETBACK of DEVELOPMENT ACTIVITY from STREAMS, LAKES, PONDS and WETLANDS

Absolutely no development activity (except as provided below) may occur within the minimum setback which is defined as 75 feet from the ordinary high water mark of streams, lakes and ponds, or the edge of wetlands, or within a designated depressional area. In no case shall the setback be less than the boundary of the 100-year floodway as defined by FEMA. These setback requirements do not apply to a stream in a culvert unless the stream is taken out of the culvert as part of development activity. If a culvert functions as a low-flow culvert, where water is intended to periodically flow over it, the setback requirements apply.

The following development activities may be permitted, subject to issuance of a special use permit, within the minimum setback areas only if, as a practical matter, they cannot be located outside the setback area. Such development activities will only be approved based upon a report, prepared by a qualified professional, which demonstrates that they will not adversely affect water quality; destroy, damage or disrupt significant habitat area; adversely affect drainage and/or stormwater retention capabilities; adversely affect flood conveyance and storage; lead to unstable earth conditions; create erosion hazards; or be materially detrimental to other property in the area of the subject property or to the District as a whole, including the loss of open space or scenic vistas:

1. Minor improvements such as walkways, benches, comfort stations, informational displays, directional signs, foot bridges, observation decks and docks;
2. The maintenance, repair, replacement and reconstruction of existing highways and bridges, electrical transmission and telecommunication lines, poles and towers; and
3. The establishment and development of public and private parks and recreation areas, outdoor education areas, historic natural and scientific areas, game refuges, fish and wild-

life improvement projects, game bird and animal farms, wildlife preserves and public boat launching ramps.

Review of the proposed development activity within the minimum setback area will consider the following:

1. Only limited filling and excavating necessary for the development of public boat launching ramps, swimming beaches, or the development of park shelters or similar structures is allowed. The development and maintenance of roads, parking lots and other impervious surfaces necessary for permitted uses are allowed only on a very limited basis, and where no alternate location outside of the setback area is available.
2. Land surface modification within the minimum setback shall be permitted for the development of stormwater drainage swales between the developed area of the site (including a stormwater detention facility on the site) and a stream, lake or pond or wetland. Detention basins within the setback are generally discouraged, unless it can be shown that resultant modifications will not impair water quality, habitat or flood storage functions.
3. No filling or excavating within wetlands is permitted except to install piers for the limited development of walkways and observation decks. Walkways and observation decks should avoid high quality wetland areas, and should not adversely affect natural areas designated in the Illinois Natural Areas Inventory or the habitat of rare or endangered species.
4. Wetland area occupied by the development of decks and walkways must be mitigated by an equal area of wetland habitat improvement.
5. Modification of degraded wetlands for purposes of stormwater management is permitted where the quality of the wetland is improved and total wetland acreage is preserved. Where such modification is permitted, wetlands shall be protected from the effects of increased stormwater runoff by measures such as detention or sedimentation basins, vegetated swales and buffer strips, and sediment and erosion control measures on adjacent developments. The direct entry of storm sewers into wetlands shall be avoided. Environmental impact analysis of wetland modification may be required in accordance with Section 10.27.

An applicant for a special use permit (see Section 10.05 herein) must stabilize areas left exposed after land surface modification with vegetation normally associated with that stream or wetland. The planting of native riparian vegetation is recommended as the preferred stabilization measure. Other techniques should be used only when and where vegetation fails to control erosion. The preferred alternative is riprap, using natural rock materials where practicable, installed on eroding back areas in a manner that provides interstitial space for vegetative growth and habitat for macroinvertebrates and other stream organisms. Lining of the stream channel bottom is not

permitted.

The applicant shall minimize access to the applicant's proposed development activity within all or part of the Lowland Conservancy Overlay District where such access could adversely affect the stream, lake, pond, wetland or related environmentally sensitive areas.

#### 10.16 SITE DEVELOPMENT PLAN

A site development plan must be prepared for any proposed development within, or partly within, the Lowland Conservancy Overlay District and must indicate:

1. Dimension and area of parcel, showing also the vicinity of the site in sufficient detail to enable easy location, in the field, of the site for which the special use permit is sought, and including the boundary line, underlying zoning, a legend, a scale and a north arrow (this requirement may be satisfied by the submission of a separate vicinity map);
2. Location of any existing and proposed structures;
3. Location of existing or proposed on-site sewer systems or private water supply systems;
4. Location of any perennial or intermittent stream, lake or pond, and its ordinary high water mark;
5. Location and landward limit of all wetlands;
6. Location of setback lines as defined in this Chapter 10;
7. Location of the 100-year floodway;
8. Location of existing or future access roads;
9. Specifications and dimensions of stream, wetland or other water areas proposed for alterations;
10. Cross-sections and calculations indicating any changes in flood storage volumes; and
11. Such other information as reasonably requested by the District.

The applicant shall present evidence, prepared by a qualified professional, that demonstrates that the proposed development activity will not endanger health and safety, including danger from the obstruction or diversion of flood flow. The developer shall also show, by submitting appropriate calculations and resource inventories, that the proposed development activity will not substantially reduce natural floodwater storage capacity, destroy valuable habitat for aquatic or other flora and fauna, adversely affect water quality or ground water resources, increase

stormwater runoff velocity so that water levels on other lands are substantially raised or the danger from flooding increased, or adversely impact any other natural stream, floodplain, or wetland functions, and is otherwise consistent with the intent of this Chapter 10.

#### **10.17 GEOLOGIC and SOIL CHARACTERISTICS/GEOLOGIC and SOIL REPORT**

The site proposed for development shall be investigated to determine the soil and geologic characteristics, including soil erosion potential. A report, prepared by a licensed professional engineer, geoscientist or soil scientist experienced in the practice of geologic and soil mechanics, shall be submitted with every application for land development within the Lowland Conservancy Overlay District. This report shall include a description of soil type and stability of surface and subsurface conditions. Any area which the investigation indicates as being subject to geologic or soil hazards shall not be subjected to development, unless the engineer or soil scientist can demonstrate conclusively that these hazards can be overcome.

#### **10.18 HYDROLOGIC CONTROLS/DRAINAGE CONTROL PLAN**

A drainage control plan that describes the hydraulic characteristics of onsite and nearby watercourses as well as the proposed drainage plan, prepared by a registered Professional Engineer experienced in hydrology and hydraulics, shall be submitted with each application for land development within the Lowland Conservancy Overlay District. Unless otherwise noted, the following restrictions, requirements and standards shall apply to all development within the Lowland Conservancy Overlay District:

1. Natural open-channel drainage ways shall be preserved; and
2. Runoff from areas of concentrated impervious cover (e.g., roofs, driveways, streets, patios, etc.) shall be collected and transported to a drainage way (preferably a natural drainage way) with sufficient capacity to accept the discharge without undue erosion or detrimental impact. Vegetated drainage swales are preferred over conveyances constructed of concrete or other manufactured materials.

The drainage control plan shall identify appropriate measures, such as recharge basins and detention/retention basins, which will limit the quantitative and qualitative effects of stormwater runoff to predevelopment conditions.

#### **10.19 SITE GRADING and EXCAVATION PLAN**

This Section 10.19 applies to the extent that grading and excavation and erosion control plans, which satisfy the following requirements, are not already required by a jurisdiction. A site grading and excavation plan, prepared by a registered Professional Engineer, trained and experienced in civil engineering, shall be submitted with each application for a special use permit and shall include the following:

1. Details of the existing terrain and drainage pattern with one-foot contours;
2. Proposed site contours at one-foot intervals;
3. Dimensions, elevation and contours of grading, excavation and fill;
4. A description of methods to be employed in disposing of soil and other material that is removed from allowable grading and excavation sites, including location of the disposal site if on the property;
5. A schedule showing when each stage of the project will be completed, including the total area of soil surface to be disturbed during each stage, and estimated starting and completion dates. The schedule shall be prepared so as to limit, to the shortest possible period, the time soil is exposed and unprotected. In no case shall the existing natural vegetation be destroyed, removed or disturbed more than 15 days prior to initiation of the improvements; and
6. A detailed description of the revegetation and stabilization methods to be employed, to be prepared in conjunction with the landscape plan per Section 10.20. This description should include locations of erosion control measures such as sedimentation basins, straw bales, diversion swales, etc.

The grading and excavation plan must be consistent with all the provisions of this Chapter 10.

Unless otherwise provided in this Chapter 10, the following restrictions, requirements and standards shall apply to all development within the Conservancy District:

1. Every effort shall be made to develop the site in such a manner so as to minimize the alteration of the natural topography;
2. No grading, filling, cleaning, clearing, terracing or excavation of any kind shall be initiated until final engineering plans are approved and the special use permit is granted by the Board of Trustees; and
3. The depositing of any excavation, grading or clearing material within a stream, lake, pond or wetland area (i.e., within the Conservancy District) shall be prohibited.

In addition to locating all site improvements on the subject property to minimize adverse impacts on the stream, lake, pond or wetland, the applicant shall install a berm, curb or other physical barrier during construction, and following completion of the project, where necessary, to prevent direct runoff and erosion from any modified land surface into a stream, lake, pond or wetland. All parking and vehicle circulation areas should be located as far as possible from a stream, lake, pond or wetland.

The District may limit development activity in or near a stream, lake, pond or wetland to specific months, and to a maximum number of continuous days or hours, in order to minimize adverse impacts. Also, the District may require that equipment be operated from only one side of a stream, lake or pond in order to minimize bank disruption. Other development techniques, conditions and restrictions may be required in order to minimize adverse impacts on streams, lakes, ponds or wetlands, and on any related areas not subject to development activity.

#### **10.20 NATURAL VEGETATION BUFFER STRIP REQUIRED: VEGETATION and REVEGETATION/LANDSCAPE PLAN**

To minimize erosion, stabilize the stream bank, protect water quality, maintain water temperature at natural levels, preserve fish and wildlife habitat, to screen man-made structures and also to preserve aesthetic values of the natural watercourse and wetland areas, a natural vegetation strip shall be maintained along the edge of the stream, lake, pond or wetland. The natural vegetation strip shall extend landward a minimum of 25 feet from the ordinary high water mark of a perennial or intermittent stream, lake or pond and the edge of a wetland.

Within the natural vegetation strip, trees and shrubs may be selectively pruned or removed for harvest of merchantable timber, to achieve a filtered view of the water body from the principal structure and for reasonable private access to the stream, lake, pond or wetland. Said pruning and removal activities shall ensure that a live root system stays intact to provide for stream bank stabilization and erosion control.

A landscape plan, prepared by a professional landscape architect, shall be submitted with each special use permit application for development activity within the Lowland Conservancy Overlay District and contain the following:

1. A plan describing the existing vegetative cover of the property and showing those areas where the vegetation will be removed as part of the proposed construction; and
2. A plan describing the proposed revegetation of disturbed areas specifying the materials to be used.

The vegetation must be planned in such a way that access for stream maintenance purposes shall not be prevented.

#### **10.21 WATERCOURSE RELOCATION and MINOR MODIFICATIONS (INCLUDING CHANNELIZATION and RELOCATION)**

Watercourse relocation or modification is generally not permitted because these activities are not usually consistent with the purposes of this Chapter 10. Under certain circumstances, relocation and minor modification may be permitted through a special use permit where certain problems can be mitigated by relocation and/or minor modification, specifically when:



1. Off-site hydrologic conditions are causing erosion, flooding and related problems; or
2. On-site soil and geologic conditions are resulting in unstable conditions that pose hazards to life, health and existing structures or property; or
3. The quality of previously modified or relocated streams can be improved through restoration.
4. Officially adopted stormwater management plans call for placement of detention or retention facilities in a stream; or
5. Public utilities, including sanitary sewers, pipelines and roadways require stream crossing or relocation where there are not practical alternatives.

Modification of watercourses as a convenience for site design purposes is not permitted.

#### **10.22 CONDITIONS and RESTRICTIONS for PERMITTING STREAM MODIFICATION**

Stream modification, when permitted, is subject to the following conditions and restrictions:

1. Water quality, habitat and other natural functions must be significantly improved by the modification; no significant habitat area may be destroyed;
2. The amount of flow and velocity of a stream is not to be increased or decreased as the stream enters or leaves a subject property, unless this reflects an improvement over previous conditions in terms of reduced flooding, reduced erosion or enhanced low-flow conditions;
3. Prior to diverting water into a new channel, a qualified professional approved by the District shall inspect the stream modification, and issue a written report to the District that the modified stream complies with the requirements in Section 10.23; and
4. Stream channel enlargement, or other modifications that would increase conveyance, shall not be permitted if the intended purpose is to accommodate development activities in the floodplain.

#### **10.23 REQUIRED CONTENT of STREAM MODIFICATION/RELOCATION PLAN**

Stream modification, when permitted, is subject to the following conditions and restrictions:

1. Water quality, habitat and other natural functions must be significantly improved by the modification; no significant habitat area may be destroyed;

2. The amount of flow and velocity of a stream is not to be increased or decreased as the stream enters or leaves a subject property, unless this reflects an improvement over previous conditions in terms of reduced flooding, reduced erosion or enhanced low-flow conditions;
3. Prior to diverting water into a new channel, a qualified professional approved by the District shall inspect the stream modification, and issue a written report to the District that the modified stream complies with the requirements in Section 10.23; and
4. Stream channel enlargement, or other modifications that would increase conveyance, shall not be permitted if the intended purpose is to accommodate development activities in the floodplain.

Stream relocation may be permitted in accordance with a stream relocation plan which provides for:

1. The creation of a natural meander pattern, pools, riffles and substrate;
2. The formation of gentle side slopes (at least three feet horizontally per one foot vertically), including installation of erosion control features;
3. The utilization of natural materials wherever possible;
4. The planting of vegetation normally associated with streams, including primarily native riparian vegetation;
5. The creation of spawning and nesting areas wherever appropriate;
6. The re-establishment of the fish population wherever appropriate;
7. The restoration of water flow characteristics compatible with fish habitat areas, wherever appropriate;
8. The filling and revegetation of the prior channel;
9. A proposed phasing plan, specifying time of year for all project phases;
10. Plans for sediment and erosion control; and
11. Establishment of a low-flow channel which reflects the conditions of a natural stream.

#### **10.24 CRITERIA for PERMITTING ARMORING of CHANNELS AND BANKS**

Armoring in the form of bulkheads, riprap or other materials or devices is not permitted except in

accordance with the following:

1. Significant erosion cannot be prevented in any other way and the use of vegetation and gradual bank slopes has not sufficiently stabilized the shoreline or bank;
2. The bulkhead or other device is not placed within a wetland, or between a wetland and a lake or pond;
3. The bulkhead, riprap or other device will minimize the transmittal of wave energy or currents to other properties; and
4. The change in the horizontal or vertical configuration of the land must be kept to a minimum.

Where permission to install bulkheads or other armoring devices is requested as part of the special use permit application, documentation and certification pertaining to the items above must be submitted.

#### **10.25 CRITERIA for PERMITTING the USE of CULVERTS**

Culverts are not permitted in streams except in accordance with the following:

1. Where a culvert is necessary for creating access to a property; use of culverts as a convenience, in order to facilitate general site design, is not to be considered;
2. The culvert must allow passage of fish inhabiting the stream, and accommodate the 100-year flood event without increasing upstream flooding, except where a restricting culvert is desirable as part of an overall storm and floodwater management plan;
3. The culvert must be maintained free of debris and sediment to allow free passage of water, and if applicable, fish; and
4. The stream bottom should not be significantly widened for the placement of a culvert as this increases siltation; if multiple culverts must be installed, one culvert should be at the level of the bottom of the stream and the others at or above normal water elevation.

#### **10.26 CRITERIA for PERMITTING on STREAM IMPOUNDMENTS**

Impoundment of streams is not permitted except in accordance with the following:

1. The impoundment is determined to be in the public interest by providing regional stormwater detention, flood control or public recreation;
2. The impoundment will not prevent the upstream migration of indigenous fish species;

3. A non-point source control plan has been implemented in the upstream watershed to control the effects of sediment runoff as well as minimize the input of nutrients, oil and grease, metals and other pollutants;
4. Impoundments without permanent low-flow pools are preferred except where a permanent pool is necessary to achieve the intended benefits of the impoundment (e.g., recreation or water quality mitigation); and
5. Impoundment design shall include gradual bank slopes, appropriate bank stabilization measures, and a presedimentation basin.

#### **10.27 IMPACT ASSESSMENT**

The District may ask an applicant to submit a report prepared by a qualified professional, and approved by the District, in order to assess the potential impact of proposed development on a lake, stream or wetland and associated environmentally sensitive areas, including loss of flood storage potential, loss of habitat, changes in species diversity and quantity, impacts on water quality, increases in human intrusion, and impacts on associated streams, lakes, ponds, wetlands or downstream areas.

#### **10.28 BONDS**

The District may require the posting of a bond or surety to ensure compliance with any aspect of this Chapter 10.

#### **10.29 LIABILITY**

Prior to issuance of a construction permit, the applicant shall enter into an agreement with the District which runs with the property, in a form acceptable to the District Attorney, indemnifying the District for any damage resulting from development activity on the subject property which is related to the physical condition of the stream or wetland.

#### **10.30 SEPARABILITY**

Every section, provision, or part of this Chapter 10 is declared separable from every other section, provision or part; and if any section, provision or part thereof shall be held invalid, it shall not affect any other section, provision or part.

#### **10.31 RETROACTIVITY**

The requirements of this Chapter 10 apply to all platted and unplatted lands within the jurisdiction of the District.

## 10.32 ENFORCEMENT

Authority for administration of this Chapter 10 resides with the Manager.

## 10.33 STOP-WORK ORDER; REVOCATION of PERMIT

In the event any person holding a special use permit pursuant to this Chapter 10 violates the terms of the permit, or carries on site development in such a manner so as to materially and adversely affect the health, welfare or safety of persons residing or working in the neighborhood of the development site, or so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, the District may suspend or revoke the special use permit.

1. Suspension of a permit shall be by a written stop-work order issued by the District and delivered to the permittee or his agent or the person performing the work. The stop-work order shall be effective immediately, shall state the specific violations cited, and shall state the conditions under which work may be resumed. A stop-work order shall remain in effect until the next regularly scheduled meeting of the Board of Trustees, at which the conditions of paragraph 2 of Section 10.33 herein can be met.
2. No special use permit shall be permanently suspended or revoked until a hearing is held by the Board of Trustees. Written notice of such hearing shall be served on the permittee, either personally or by registered mail, and shall state:
  - a. The grounds for complaint or reasons for suspension or revocation, in clear and concise language; and
  - b. The time when and place where such hearing will be held.

Such notice shall be served on the permittee at least five days prior to the date set for the hearing. At such hearing, the permittee shall be given an opportunity to be heard and may call witnesses and present evidence on his/her behalf. At the conclusion of the hearing the Board of Trustees shall determine whether the permit shall be suspended or revoked.

## 10.34 VIOLATIONS and PENALTIES

No person shall undertake or continue any development activity contrary to or in violation of any terms of this Chapter 10. Any person violating any of the provisions of this Chapter 10 shall be deemed guilty of a misdemeanor, and each day during which any violation of any of the provisions of this Chapter 10 is committed, continued or permitted shall constitute a separate offense. Upon conviction of any such violation, such person, partnership, or corporation shall be punished by a fine of not more than \$500 for each offense. In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions of this Chapter 10 shall be required to restore the site to the condition existing

prior to commission of the violation, or to bear the expense of such restoration.