# Article 7: Development Standards Generally

## SECTION 1. AIR QUALITY

A. No development is permitted which will cause emissions of dust, ash, smoke, or other particulate matter likely to damage human or animal health, vegetation, or property, by reason of concentration or toxicity. Evidence that relevant state and federal regulatory requirements have been met shall be considered sufficient to meet this standard. This shall not be construed to regulate dust or odors generated by agricultural practices conducted using accepted Best Management Practices (BMP).

## SECTION 2. ACCESS TO PUBLIC STREETS

This section shall apply to all development requiring a permit that directly access streets classified Arterial or Collector. Compliance with this section shall not relieve the applicant of the need for permitting under State Access Management Regulation.

A. General Provisions.

1. The number of access points shall be the minimum necessary to assure safe and proper vehicular access to the site. As a general rule, no more than two access points onto any single road will be allowed. Where more than one road abuts the development site, the Planning Board may require the developer to access the site from the road with less potential for congestion and traffic hazard.

2. All streets which can be expected to carry traffic to and from the development shall have sufficient capacity or be suitably improved to accommodate the amount and types of traffic generated by the development. No development shall increase the volume to capacity ratio of any street above 0.8 nor reduce Level of Service to "D" or below on any street.

3. Access points shall be of a design and have sufficient capacity to avoid the stopping or standing of vehicles attempting to enter the development from the street. Where necessary to ensure safety of drivers and pedestrians and to avoid congestion, the developer shall install turning lanes, traffic directional islands, frontage roads, signalization, or other traffic controls within public streets. All such installations shall conform to standards in the *Manual on Uniform Traffic Control Devices* published by the American Traffic Safety Services Association.

4. The Planning Board may require the developer to plan or install direct access to adjoining properties where it will serve to reduce demand for vehicular movement on public roads.

6. In order to provide adequate visibility, all access points shall be kept free from visual obstructions, including signs, within a triangular area defined by legs of 25 feet measured along the driveway and street lines.

B. Location and Design of Access Points

1. Sight Distances: All access points shall be located to provide minimum sight distance of ten (10) feet for each mile per hour of posted speed limit in both directions. Sight

distance is measured from a point ten (10) feet behind the edge of the traveled way, with the height of the eye at 3.5 feet, to the top of an object 4.5 feet above the street surface.

2. Access points shall be designed and constructed to a standard consistent with their estimated volume as follows:

*Low Volume*: Peak hour volume of six (6) or fewer vehicles.
*Medium Volume*: Any access that is not a low volume or high volume.
*High Volume*: Peak hour volume of one hundred (100) or more vehicles.

a. Design Criteria.

All portions of an access point within the right-of-way of the street shall be paved with a bituminous concrete pavement. Paving shall consist of a minimum thickness of three (3) inches of bituminous concrete over a compacted subbase of gravel of at least 24 inches in thickness.

All access points entering a curbed street shall be curbed to the full radius of the access point to a minimum distance of fifty (50) feet back from the edge of the existing curbline

All access points shall intersect the road at an angle as nearly 90 degrees as site conditions permit, but in no case less than 75 degrees.

The curb radius for two-way access points shall be at least 20 feet. The curb radius for one-way access points or access points with median islands shall be between five and 10 feet on the inside corner and at least 30 feet on the outside corner.

The width of a low volume driveway shall be no more than 20 feet. The width of a medium or high volume driveway may be between 20 and 26 feet; For driveways with a median island, the width shall apply to each side. Where truck traffic is a major element, the width may be increased to 30 feet. The width of individual, “right turn only” channels shall be no more than 20 feet.

From the edge of the traveled way, the access point should not exceed a grade of 2 percent for a minimum of 40 feet, or, where a traffic study has been done, for the full distance of the predicted queue of vehicles at the peak hour.

b. Median and Channelization Islands

Medians or channelization island(s) are required for high volume access points and may also be required for medium volume access points at the discretion of the Planning Board. Median islands shall be between 6 feet and 10 feet in width and shall create a throat (entry lane) of adequate length based on the traffic study, but in no case less than 60 feet. All islands shall be curbed with sloped curbing, with proper signs installed to direct traffic.

c. Spacing Standards

No low or medium volume access point shall be located within one hundred (100) feet of

any street intersection. No high volume access point shall be within two hundred fifty (250) feet of any intersection. Distance shall be measured from the point of tangency forvem the intersection curb radius to the point of tangency for the access point curb radius.

The minimum separation distance between two low volume access points or a low- and a medium-volume access point is fifty (50) feet. The minimum separation distance between two medium volume access points or a high- and a medium-volume access point is seventy-five (75) feet. The minimum separation distance between two high volume access points is one hundred fifty (150) feet.

No access point shall be located within ten (10) feet of a property line.

d. Any access point which intersects an existing or planned sidewalks shall incorporate ramped access curbing in accordance with the Americans with Disabilities Act.

SECTION 3. EROSION CONTROL

A. All soil disturbance must be conducted in a manner which avoids sediment leaving the property. Development must employ best management practices (BMPs) for erosion control unless the Code Enforcement Officer certifies in writing that the nature of the site poses very little risk of erosion. Erosion of soil and sedimentation of watercourses, including intermittent drainage swales, and waterbodies shall be avoided by employing BMP's as established in "Maine Erosion & Sediment Control Handbook for Construction-Best Management Practices" Cumberland County SWCD & MDEP-March 1991.

B. The least possible amount of disturbance will occur during construction in regard to tree removal, de-vegetation, and soil disturbance**.** In particular, strips of naturally vegetated areas existing on the down slope side of the construction site shall be maintained as undisturbed buffer areas.

C. Exposed soils on slopes 10% or greater will be initially stabilized (i.e., mulched, covered, or reseeded) within two working days of disturbance. All exposed soils on slopes less than 10% shall be stabilized within 15 days of disturbance.

D. All watercourses, waterbodies and wetlands will be protected from sedimentation by the installation of silt fence barriers or other appropriate means. Such barriers shall be installed before digging, soil removal, the stripping of vegetation, scarification, or soil disturbance of any kind occurs within 500 feet of a watercourse, waterbody or wetland or on slopes greater than 10%. The barriers shall be installed at all points immediately down slope of soil exposing activities.

Hay bale barriers are not to be used as primary means of erosion control, but may be used as reinforcement or back-up to silt fencing or other effective primary erosion control. Erosion control mix placed as a berm may be used in lieu of silt fencing as a sediment barrier, especially on frozen ground.

E. All erosion controls must be inspected and repaired every week and before and after any significant rainfall events (0.5 inches or greater).

F. Ditches or swales with slopes from 0-3% need to be vegetated, those at 3-5% require a geotextile mat and appropriate seeding, and those at 5% or greater require stone lining with an appropriate

geotextile underlayment. All ditches not stabilized by vegetation before Oct. 15 shall be stone lined.

G. Areas within 500 feet of waterbodies must receive final stabilization within 5 days of final grading. Other disturbed areas must have final stabilizing measures in place within 10 days of final grading.

H. After September 15, or if construction activities are to be suspended for more than 30 days, additional stabilization measures must be installed which include seeding, and mulching (including securing of mulch), and water diversions necessary to minimize on site drainage contribution to erosion.

I. Whenever any portion of the designed impervious area falls within 500 feet of a watercourse, waterbody or wetland larger than one acre and the designed impervious area exceeds 10,000 sq. ft. in area, or whenever the Planning Board initiates a review in conjunction with the DEP, or other qualified water quality experts and it is determined that because of the slope, soil erodibility, designed impervious area, and site location there is a demonstrated need, temporary or permanent sedimentation control mechanisms shall be utilized by which sediment in run-off water shall be trapped by the use of debris basins, sediment basins, silt traps, or other acceptable methods as determined by the Planning Board, and in accordance with the current "Maine Erosion & Sediment Control Handbook for Construction-Best Management Practices" Cumberland County SWCD & MDEP-March 1991.

J. The top of a cut or the bottom of a fill section shall not be closer than ten feet to an adjoining property, except in the case of material extraction operations as provided in Section 8.2 of this ordinance..

## SECTION 4. HISTORIC AND ARCHEOLOGICAL RESOURCES

If any portion of the site has been identified, or is found to contain historic or archaeological resources, the development plan shall include appropriate measures for protecting these resources, including, but not limited to, modification of the proposed building and site layout and design.

## SECTION 5. MATERIALS STORAGE

A. All outdoor storage areas, including areas used for the storage or collection of solid waste, automobiles, auto parts, building materials, machinery, or other such items, shall have screening sufficient to minimize impact on roads, and neighboring and other properties in the area. Walls, fencing, dense plant material, or a combination of techniques can be used to achieve this intent. A dense evergreen hedge six (6) feet or more in height at the time of planting shall be the preferred means of attaining this standard.

B. Where a potential safety hazard to children is recognized by the planning board, a physical barrier sufficient to deter small children from entering the area shall be provided and maintained in good condition.

C. No bulk storage of flammable or explosive liquids, solids, or gases shall be permitted unless storage facilities are located at least seventy-five (75) feet from any property line if above-ground,

or forty (40) feet if underground. All materials shall be stored in compliance with requirements of the Maine Department of Public Safety and other appropriate Federal, State, and local regulations. Propane gas tanks in two hundred (200) pound cylinders or smaller and heating fuel tanks of 330 gallons or smaller are not considered bulk storage for the purpose of these standards except where three or more are aggregated.

All above-ground storage facilities for toxic, flammable, or explosive liquids shall be located on impervious surfaces and shall be completely enclosed by a dike high enough to contain the total capacity of the storage tank(s) plus the rain falling into the area during a twenty-five (25) year, 24-hour duration storm, or 150 percent of the volume of the storage facility, whichever is greater.

SECTION 6. NATURAL RESOURCE PROTECTION

A. Natural Features

Site development shall minimize, insofar as possible, disturbance of natural features. This shall be done by designating on the site plan the limits on development-related clearing. Outside of the limits, there shall be no tree removal, water channelization, soil disturbance, or grading and filling.

B. Habitat Protection

1. If any portion of the parcel has been identified as a critical natural area, or as containing threatened or endangered species of plants or animals, the subject areas shall be located outside of the clearing limits. The Planning Board may require a mitigation or management plan to be reviewed by the Maine Department of Inland Fisheries and Wildlife (IFW) or Natural Areas Program of the Department of Conservation as appropriate.

2. If any portion of the area to be developed includes areas mapped by the Maine IFW as Deer Wintering Areas, the developer shall consult with the Department on means to limit the impact of the development on the habitat, and incorporate those recommendations into the development plan insofar as practicable.

3. If any portion of the area to be developed includes wetland, as determined by the Town of Belgrade, The Maine DEP, or a certified soil scientist, the developer shall avoid, minimize, and mitigate impacts on the wetland both during and after construction.

C. Groundwater Protection

1. Any development which will generate a demand of 2,000 gallons per day or greater out of groundwater supplies shall not affect groundwater availability beyond the boundaries of the property. The developer shall demonstrate that groundwater will not be diminished in quantity or quality as a result of the project.

2. Within the area identified as Significant Sand and Gravel Aquifer by the Maine Geological Survey, no activity involving the production, use, or storage of hazardous or toxic chemicals or petroleum products shall be conducted except in accordance with a Spill Prevention and Management Plan developed at the time of application and approved by the Town of Belgrade.

SECTION 7. NOISE

A. The maximum permissible noise from any continuous, regular, or frequent source of sound within a development shall be no more than 55 decibels between the hours of 7 AM to 9:30 PM, and 45 decibels at other times. These levels specified may be exceeded by 10 dB for no more than 15 minutes per day.

B. Noise shall be measured by a meter set on the A-weighted response scale, slow response. The meter shall meet the American National Standards Institute (ANSI S1.4-1961) "Specification for General Purpose Sound Level Meters". Sound levels shall be measured at least 4 feet above ground at the property boundary.

C. Sounds emanating from safety signals, warning devices, emergency pressure relief valves, and other emergency or public safety devices are exempt from these provisions.

D. On sites abutting a residential use, development construction shall be staged so that exterior activities are not conducted between the hours of 9:30 p.m. and 7 a.m. The Planning Board may require additional measures for noise suppression.

## SECTION 8. OUTDOOR LIGHTING

A development may employ outdoor lighting which serves security, safety, and operational needs to the extent that it does not impair the vision of vehicle operators on adjacent streets or infringe on the enjoyment of neighboring properties. Lighting fixtures shall be shielded or hooded so that the lighting elements are not exposed to normal view by motorists, pedestrians, or from adjacent dwellings. Intensity should not exceed one (1) footcandle at the property line, and under no circumstances be located or directed so as to create a nuisance to abutting residential properties.

## SECTION 9. PARKING

A. General

No new or expanded development shall be permitted unless off street parking is provided in accordance with the following provisions.

B. Parking Lot Design Criteria

1. Location

All parking spaces and aisles shall be at least five (5) feet from any side or rear lot line. This shall not be construed to eliminate the requirement for screening, Subsection 10, below. Aisles and parking spaces will not be located within the right-of-way of the public road.

2. Interior Circulation

a. The entry lane(s) should be designed to allow continuous and uninterrupted traffic movement on the public road, through the provision of adequate throat length, deceleration lanes, or other measures. The entry lane shall not provide direct access to parking spaces.

b. Islands containing guardrails, curbs, fences, walls, or landscaping should be used to identify circulation patterns of parking areas and restrict driving movements diagonally across parking aisles, but shall be designed and placed so as not impede views of pedestrians and vehicles.

c. No parking spaces shall be directly accessible from the public road, nor shall motorists be required to use the public road to enter or exit a space. All spaces shall be accessible from an aisle without the necessity of moving other vehicles.

d. Parking aisles should be oriented perpendicular to stores or businesses for safer pedestrian access and visibility.

e. Any layout that utilizes vehicular access service ("drive-up")windows shall provide a minimum of five car lengths of queuing space on the incoming side of the first window. The required queuing space shall be designed so that it shall not interfere with parking and circulation on the remainder of the site.

3. Layout of Parking Stalls and Aisles

a. Parking stalls shall be a minimum of nine (9) feet in width by eighteen (18) feet in length. Stalls designated for handicapped use shall be a minimum of twelve (12) feet in width by eighteen (18) feet in length and marked appropriately. Stalls may be angled, provided aisles are designated one-way, and each stall contains the minimum rectangular dimensions. Stalls for parallel parking shall be no less than nine (9) feet in width by twenty-two (22) feet in length.

b. In paved lots, the planning board may require painted stripes to delineate parking stalls. If required, stripes should be a minimum of four (4) inches in width. Where double lines are used, they should be separated a minimum of twelve (12) inches on center.

c. Two-way aisles shall be a minimum of twenty-two (22) feet in width. One-way aisles shall be a minimum of eighteen (18) feet in width.

d. Bumpers or wheel stops shall be provided where improperly parked cars might restrict traffic flow or pedestrian movement on adjacent walkways, or damage landscape materials.

e. Oversized parking spaces may be designated in areas that ordinarily serve such vehicles as recreational vehicles, travel trailers, delivery trucks or tractor-trailer trucks.

C. Standards for Number of Parking Spaces

1. Basic Requirements for Parking Space

Adequate off-street parking shall be provided by the developer. The table below shall be interpreted as a guide, subject to adjustments in Subsection 2, following. For uses not listed, the publication *Parking Demand* (ITE, 1987 or most recent edition) shall be consulted. Within each development, at least one space, plus one additional space for every twenty-five (25) required, shall be designated as available for handicapped persons:

| **# of Spaces** | **Land Use Activity** |
|---|---|
| ***Places of Residence or Accommodation*** -- spaces per room or dwelling unit | |
| 1/3 | Dedicated Retirement Home, Nursing Care Facility |
| 1 | Overnight accommodations |

| | |
|---|---|
| 2 | Multifamily buildings |
| ***Places of Public Assembly*** -- spaces per seat based on maximum seating capacity | |
| 1/4 | Theater, with fixed seating |
| 1/3 | Church |
| 1/2 | Restaurant, Convention Center, Meeting Hall, Grange, Bottle Club |
| ***Places of Commerce and Industry*** -- spaces per 1,000 sq.ft. of gross floor area. | |
| 1 | Warehousing, Inside sales of motor vehicles |
| 1 1/2 | Industrial and Manufacturing Facilities, wholesaling |
| 3 | Grocery Stores over 5,000 sq.ft., Offices, professional, and personal services, except as noted. |
| 4 | Retail Sales except as noted |
| 5 | Banks, Medical and Dental Offices, Fitness Clubs, Child Care |
| ***Public and Institutional Facilities*** -- spaces per 1,000 sq.ft. of gross floor area | |
| 2 | Elementary Schools |
| 4 | Secondary School, Community Center, Municipal Office. |
| 6 | College, Hospital |
| ***Miscellaneous*** -- criteria as specified | |
| 1 per 1,000 sf | Indoor Sports Facility (Tennis, Fitness, etc.) -- no spectators |
| 1 per 4 seats, based on max seating capacity | Stadiums, Arenas, Racetracks, and other spectator sport venues |
| 30 per acre | Mini-golf, Go-Carts, and other Outdoor Amusements |
| 5 per lane | Bowling Alley |
| 3 per service bay +<br>1 per 10 vehicles displayed | Motor Vehicle Sales and Service |

2. Flexibility in Standards: The planning board is permitted to modify these standards as minimum requirements, under the following circumstances:

   a. By up to 10 percent, based upon a showing that similar uses under similar circumstances generate greater or less demand.

   b. In the Belgrade Lakes Village, as designated in the Belgrade Comprehensive Plan, the board may allow any use to meet its parking requirement through contributions to the development and maintenance of a municipal or public parking lot. Alternatively, the Board may reduce the required parking by up to 30 percent, upon the condition that provided off-street parking not be restricted to patrons/tenants of the development.

c. The following specified uses, because their peak hour/day varies from conventional parking demand, may meet up to 50 percent of their parking requirement through a shared-use agreement with another use: churches, clubs, restaurants, theaters, sports facilities.

d. A development may include as a portion of its parking requirement the provision of parking spaces not located on the same lot provided a)that the spaces are located within 250 feet of the property, b) that a written agreement is in place for long-term use of the spaces, and c) that the spaces would not be among the minimum required for the use already existing on that lot.

e. The provision of spaces for vehicles used in the ordinary conduct of the business, such as construction vehicles, tractor-trailers, and vehicles displayed for sale, shall not be included in the above calculations.

f. The planning board may waive the installation of parking spaces provided that adequate provision is made for the development of these spaces as needed in the future, specified by conditions of the permit. Such conditions may require permanent set-aside of adequate space, and provision of construction plans along with specified conditions under which the installation will be triggered.

3. Impact on Physical and Environmental Resources. Parking lots shall not be excessively large, nor contain an area more than 25 percent greater than the minimum set by these standards.

The planning board may require use of pervious or semi-pervious materials as an alternative to pavement in order to reduce quantity or improve quality of stormwater runoff.

4. Mixed Uses: Any portion of a building or lot with a use that is distinct from a principal use identified on the table above shall be considered as a separate use for the purpose of calculating spaces, if it exceeds in area or seating capacity 25 percent of the overall extent of the development. If a mixed use consists of any residential use combined with any commercial use, the planning board may waive or modify space requirements for the residential use unless it consists of more than 67 percent of the total floor space.

5. Loading bays shall be provided as necessary. Loading bays shall be a minimum dimension of twelve (12) feet by fifty-five (55) feet and be designed and delineated so as not to interfere with traffic flow or other parking spaces.

## SECTION 10. SCREENING OF STRUCTURES, PARKING LOTS, AND OTHER COMMERCIAL USES

A. Screening for Structures and Parking Lots.

Except in the Belgrade Lakes Village area, new commercial and multi-family developments shall be separated from the street by a vegetative screen. The buffer shall include a mixture of native shrubs and trees selected for adaptability to roadside conditions. The owner shall be responsible for maintenance of the buffer planting, and shall replace deceased plant material within one growing season. The buffer shall be designed as follows:

2. All buffer areas shall maximize the retention and use of naturally occurring woodland and shrubs, with minimal clearing, unless required by the planning board to be replaced or augmented with plantings to achieve reasonable visual screening from public ways.

3. Buffers shall be a minimum of thirty-five (35) feet in depth and extend along the entire frontage of the lot on public ways, except for access points or driveway lanes. The number and width of lanes shall be the minimum necessary to achieve safe and efficient passage of vehicles.

B. In cases where a parking lot exceeds one hundred fifty (150) spaces, additional landscaping shall be placed within the lot, sufficient to divide the lot into two (2) or more smaller units of no more than 100 spaces each. Landscaped islands shall consist of fifteen (15) feet planted width, except that a pedestrian walkway may be placed within the area, provided that it occupies no more than one-half the width.

C. Screening of Adjacent Properties

Screening shall be required wherever a proposed commercial use abuts a residential development or pre-existing home, and in other instances where the Planning Board determines uses may be incompatible.

1. Screening shall consist of a natural (preferred) or artificial visual buffer sufficient to ensure continuous year round screening. Screening shall be sufficient to minimize the impacts of large buildings, vehicle movements, outdoor storage areas, glare, and related commercial activity. Areas shall be maintained and vegetation replaced as necessary. The following is intended as a guide:

a. A fifty (50) foot minimum will be required if the buffer will consist of natural woodland, provided that the planning board may require supplemental plantings to achieve an effective visual screen.

b. A twenty-five (25) foot minimum will be required if the buffer will consist primarily of dense planting of native coniferous trees.

2. Where no vegetation can be maintained, or due to unusual site conditions, the planning board may approve a screen consisting of fences, walls, berms, or combinations thereof.

## SECTION 11. SIGNS

A. Purpose

The purpose of this section is to allow advertising and informational signs that will not, by their nature and location, endanger the safety of individuals, or confuse, mislead, or obstruct the vision necessary for traffic safety, or otherwise endanger the public health, safety, and welfare.

B. Abandoned Signs

Any free-standing sign which advertises a business conducted, product sold, or activity no longer in existence, or which, through lack of maintenance or other reason, becomes a hazard shall be removed by the owner, agent, or person responsible for the lot upon on which the sign is located.

C. Illuminated Signs

Signs may be illuminated internally or externally by lights which are shielded or hooded so that the light source is not a nuisance to traffic or neighboring properties. Lighting shall be constant in color, location, and brightness. Signs shall not give off or reflect light at an intensity greater than fifty (50) foot candles as measured one hundred (100) feet from the sign.

D. Sign Area and Placement

No more than two signs, projecting or free-standing, which in combination are not more than 32 square feet in size, shall be permitted per premise.

A sign may be placed in the front setback area but may not protrude beyond the property line. All signs must be mounted on buildings or secured to the ground in such a manner as to prevent them being dislodged by strong winds. Signs in the vicinity of an access point shall be placed so as not to obstruct driver vision. Such signs shall comply with standards in Subsection 2.B.1.

SECTION 12. STORMWATER MANAGEMENT

A. All new construction and development shall be designed to reflect or resemble, as nearly as possible, natural runoff conditions in terms of volume, velocity, and location of runoff. All systems shall be designed so as to have no significant adverse effect on neighboring properties, downstream water quality, soil stability, or the public drainage system. Where possible, existing natural features, such as berms, swales, terraces, and wooded areas shall be retained in order to control runoff and encourage infiltration of storm water.

B. Storm water drainage systems shall be designed to minimize the volume and rate of outflow from the development, including engineered measures and off-site improvements such that the downstream system can accommodate any additional runoff. The storm water management system shall be designed to accommodate the peak discharge of two (2) year, ten(10) year, and twenty-five (25) year frequency, twenty-four (24) hour duration storms.

1. Stormwater practices shall be as described in *Stormwater Management for Maine, Best Management Practices*, Maine DEP, 1995 or most recent edition.

2. A stormwater control plan prepared according to the requirements of DEP Regulation chapter 500, "Stormwater Management" and Chapter 502 "Direct Watersheds of Waterbodies most at Risk From New Development" shall be deemed suitable to meet these standards.

C. Within lake watersheds, stormwater systems shall include runoff from roof drains and camp roads to encourage infiltration and minimize phosphorus loading.

D. Stormwater systems shall be maintained as necessary to ensure proper functioning.

SECTION 13. WASTES

A. Solid Waste

The development shall provide for the disposal of all solid wastes on a timely basis and in an environmentally safe manner. The development will not produce wastes that exceed the capability of the transfer station, in either volume or type of waste. Any toxic, hazardous, or special waste must be disposed of in compliance with state and federal regulation and in a manner approved by

the Planning Board.

B. Sanitary and Liquid Wastes

1. A completed site evaluation form (HHE-200) which evidences adequate soil conditions for wastewater disposal shall be a prerequisite to approval.

2. At the time of application, the developer shall specify the amount and exact nature of all industrial or chemical wastes to be generated by the development, and a plan to discharge such wastes only and in such quantities and/or quality as to be able to be accepted into the disposal system or shipped to an approved facility off site. All such plans shall be in conformance with applicable State and Federal regulations.

SECTION 14: WATER QUALITY

A. General Standard

No activity shall locate, store, discharge, or permit the discharge of any treated, untreated, or inadequately treated liquid, gaseous, or solid materials of such nature, quality, toxicity, or temperature that run into or mix with surface or ground waters so as to contaminate, pollute, or degrade such waters with objectionable shore deposits, floating or submerged debris, oil, scum, color, odor, taste, or unsightliness, or be harmful to human, animal, plant, or aquatic life.

B. Impact on Groundwater.

1. The Planning Board shall require an assessment of the impact of a development on groundwater quality or quantity based on the proposed size or nature of the development in cases where the development is projected to generate demand of more than two thousand (2,000) gallons per day from groundwater sources. This assessment shall contain at least the following information:

   i. a map showing the basic soils types, and the location of any subsurface wastewater disposal systems and drinking water wells within the development and within three hundred (300) feet of the development boundaries.
   ii. depth to the water table at representative points throughout the development,
   iii. data on the existing groundwater quantity and quality, either from test wells or from existing wells on neighboring properties.
   iv. an evaluation of the effect of the development on groundwater. This evaluation shall, at a minimum, include a projection of post development nitrate-nitrogen concentrations at any wells within one thousand (1,000) feet from potential contamination sources.

2. The assessment shall demonstrate that the development will comply with the following standards:

   a. No development shall increase any contaminant concentration in the groundwater to more than one half (½) of the Primary Drinking Water Standards, nor to an amount to exceed the Secondary Drinking Water Standards as established by the Maine Dept. of Human Services at the time of the permit issuance.

b. If existing groundwater contains contaminants in excess of the primary standards, the applicant shall demonstrate no significant further deterioration. If groundwater contains contaminants in excess of the secondary standards, the development shall not cause the concentration of the parameters in question to exceed one hundred fifty (150) percent of the pre-existing concentration.

c. Groundwater withdrawals or alteration of surface recharge characteristics by a proposed development shall not lower the water table beyond the boundaries of the development. No proposed development shall result in a lowering of the water table at the development boundary by increasing runoff or decreasing infiltration.

3. Subsurface waste water disposal systems and drinking water wells shall be constructed as shown on the map submitted with the assessment. If any measures to reduce groundwater contamination and protect drinking water supplies are recommended in the assessment, those standards shall be included as a note on the Plan, and as restrictions in the deeds to the affected lots.

C. Impact on Lake Water Quality

Any new or expanded development within the scope of this ordinance shall be designed to limit the post development phosphorus export consistent with the following standards and practices.

5. Unless otherwise noted, methods and standards for review under this section will be the DEP manual Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development, revised May 1992 (hereinafter referred to as "Phosphorus Control Method").

6. Applicability: This section applies to

a.. commercial development resulting in more than 10,000 square feet of disturbed area
b. the creation of new roads/driveways in excess of 250 feet.

7. For the purposes of this section, "disturbed area" is any developed area resulting in new impervious surface, roads, or the permanent conversion of forest or predominantly shrub cover to lawn, gravel or other similar surface. Areas of lots converted from natural cover,or shrub/grassland, to disturbed area within the last five (5) years prior to applying for a permit under this section will be considered as part of the projects total disturbed area.

8. In the following watersheds, projects which have received approval for phosphorus and stormwater control under the state Maine Stormwater Management Law (38 MRSA § 420-D) and its accompanying regulations (DEP Chapter 500) shall be considered to comply with the phosphorus control portion of this ordinance: Great Pond, Messalonskee Lake (Snow Pond), Salmon Lake (Ellis Pond), McGrath Pond.

TABLE: Water Quality Categories and Phosphorous Export Established for Belgrade Lakes

| Lake | Water Quality Category<br>As defined by the Maine DEP | Allowable Phosphorus<br>Export/Acre in pounds* |
|---|---|---|
| Long Pond - North | Moderate-stable | 0.055 |

| Lake | Water Quality Category<br>As defined by the Maine DEP | Allowable Phosphorus<br>Export/Acre in pounds* |
|---|---|---|
| Long Pond - South | good | 0.067 |
| Salmon Lake | moderate-sensitive | 0.08 |
| McGrath Pond | moderate-sensitive | 0.049 |
| Messalonskee Lake | moderate-sensitive | 0.068 |
| Great Pond | moderate-sensitive | 0.088 |
| Hamilton Pond | moderate-sensitive | 0.055 |
| Stuart Pond | moderate-sensitive | 0.055 |
| Chamberlain Pond | moderate-sensitive | 0.024 |
| Penney Pond | moderate-sensitive | 0.071 |
| Joe Pond | moderate-sensitive | 0.033 |
| Wellman Pond | moderate-sensitive | 0.049 |
| | | |

* If the proposed development is greater than twenty-five (25) percent of the projected area of watershed development, the allowable phosphorus export per acre must be adjusted using Appendix F of the DEP manual *Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development*, revised May 1992.

The Code Enforcement Officer shall keep an accurate record of permits issued by watershed and estimated phosphorus load of developments covered under this ordinance.

5. This Ordinance provides for two options in controlling phosphorous export from development as follows:

   a. Standard Method: This method is the primary standard outlined in the "Phosphorous Control Method" cited above. The standard method applies to all commercial development except:

      9) Those specified in (b) below, (Simplified Phosphorous Method).

      10) Where the planning board finds that, due to unavoidable features or the unique nature of the development, the Phosphorous Control Method does not contain adequate or relevant design standards to meet the intent of this section. In these instances, the planning board may require alternative phosphorous control measures to the extent it deems feasible.

   b. Simplified Phosphorus Method**.** This method shall apply to commercial developments which result in total disturbed area of 30,000 square feet or less, including building, parking, driveway, lawn, subsurface wastewater disposal systems, and infiltration areas and new or upgraded roads and streets not exceeding three hundred fifty (350) linear feet.

The simplified phosphorous method assumes that the provision of a permanent, vegetative buffer located downhill from the developed portion of the lot(s) will meet the necessary standards for smaller developments.

A proposed development which creates lots which could be further divided such that five (5) or more lots may result shall be subject to the Standard Phosphorous Method unless there are deed restrictions prohibiting future divisions of the lots.

New developments which fall into either of these categories may meet their phosphorus control obligations by incorporating, to the maximum extent reasonably feasible given lot limitations, the following phosphorus control measures; and by maintaining these measures permanently.

6. Buffers.

a. Natural buffers must be left in place down gradient of developed areas such that runoff from as much of the lot's buildings, driveway, parking and lawn area as possible drain to the buffer in overland, unchannelized flow. The width (length of fall line through the buffer) of these buffer areas should be as follows:

If the watershed phosphorus budget is 0.05 lb/acre/yr or less,
Wooded buffer = 75 feet
Non-wooded buffer = 125 feet

If the watershed phosphorus budget is greater than 0.05 lb/acre/yr,
Wooded buffer = 50 feet
Non-wooded buffer = 100 feet

* The maximum lot area draining to a buffer may not exceed four (4) times the total buffer area.

b. Buffers must be clearly identified on a site plan of the lot and should be maintained in accordance with the DEP Phosphorus Control standards. Deed covenants and restrictions and/or conservation easements must be incorporated to insure long term protection of the buffer.

c. Driveways and parking areas must be designed and constructed so that (a) runoff is quickly shed from these areas to protected buffer areas (to the maximum extent reasonably feasible given lot limitations) and (b) disruption of natural drainage patterns is minimized. BMPs such as swales, ditch turnouts, water bars, broad based drainage dips, and proper grading of gravel drives should be used to prevent runoff from concentrating in the driveway and to divert it into buffer areas as quickly as feasible. These requirements must be incorporated into the lot's deed covenants and restrictions.

d. Roof runoff must be distributed over stable, well vegetated areas or be infiltrated into

the soil using dry wells or other infiltration systems. These requirements must be incorporated into the lot's deed covenants and restrictions.

7. Mitigation Fee Option for small Commercial Development: Commercial development resulting in less than 40,000 square feet of disturbed area and less than 20,000 square feet of new impervious area which cannot meet the phosphorus export standards of this ordinance may request to use the mitigation fee option.

   This option allows the developer of a new or expanded commercial project to offset a portion of the phosphorus reduction required for the project to meet its phosphorus budget by paying a compensation fee to the Town. The Town shall accumulate compensation fee funds in a dedicated account and will use these funds to provide long term solutions to priority chronic phosphorus sources within Belgrades's lake watersheds. The compensation rate is $10,000 per pound of algal available phosphorus.

   *(For example, this means that if a project's phosphorus budget was 0.5 lb P/yr and, after application of reasonable Best Management Practices (BMP's), the project export could only be reduced to 1.0 lb P/yr, the remaining 0.5 lb reduction required to meet the project's budget could be offset by a compensation fee payment of $5,000 (0.5 lb x $10,000 /lb).*

   Use of the compensation fee may only be used if the project's phosphorus export has been reduced by at least 50% through treatment using appropriate BMPs.

8. New Roads:

   a. For new or significantly upgraded permanent roads longer than 500 feet and not otherwise covered by phosphorus control standards of this ordinance, the following standards shall apply.

      Roads and ditches must be designed and constructed so that a) runoff is quickly shed to protected buffer areas and b) disruption of natural drainage patterns is minimized. BMPs such as swales, ditch turnouts, waterbars, broad based drainiage dips, and proper grading of gravel drives and roads should be used to prevent runoff from concentrating in the road and to get it into buffer areas as quickly and feasible.

   b. All new roads must be constructed and maintained using Best Managment Practices for Sediment and Erosion Control, (Cumberland County SWCD, 1991, or most recent edition)

9. Maintenance and Use Restrictions for Phosphorus Control Measures

   Provisions for monitoring, inspections, and maintenance of phosphorus control measures, including buffer strips and infiltration systems shall be established according to *Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development*, published by the Maine DEP, revised May, 1992.

# Article 8: Development Standards for Specific Activities

SECTION 1. ADULT BUSINESS

The purpose of this section is to permit the establishment of adult businesses, as defined, in such manner and location as will protect the general welfare and preserve the community standard.

A. Physical Separation: Adult businesses shall not be located within 250 feet of existing residences, nor within 500 feet of an existing educational or religious use.

B. Signs: In addition to the provisions of Section 7.11 of this ordinance, signs for adult business shall not depict the human figure in any unclothed or suggestive manner. No sexually explicit message, materials, or activity shall be visible outside the building.

SECTION 2. MATERIAL EXTRACTION OPERATIONS

A. Special Permit Requirements

Applications to the planning board for the five-year permit shall include the following elements:

1. A site plan including the following features:
    1. topography indicating not greater than ten (10) foot contour intervals, based on USGS data;
    2. the location and slope of grades existing and proposed upon completion of the extraction operation;
    3. proposed fencing, buffer strips, signs, lighting, parking and loading areas, entrances and exits.

2. A written statement of the proposed operating procedure and working hours.

3 A five-year plan, showing new areas to be mined, and old areas to be reclaimed, together with estimates of volumes to be extracted, and detailed plans for reclamation of completed excavation.

4. The planning board may require a hydrogeologic study to determine the effects of the proposed activity on groundwater movement and quality in the vicinity;

B. Development Standards

1. No part of any extraction operation shall be permitted within fifty (50) feet of any property or street line, except

    a. drainage ways to reduce run-off into or from the extraction area may be allowed provided suitable erosion control measures are in place. Natural vegetation shall be left and maintained on the undisturbed land.

b. As agreed to by abutting property owners.

2. *No slopes steeper than 2 feet horizontal to 1 foot vertical (2:1) shall be permitted at any extraction site unless provisions are made to limit access to such locations.

3. The sides and bottom of cuts, fills, channels, and artificial water courses shall be constructed and stabilized to prevent erosion or failure. Such structures are to be designed and built according to accepted Best Management Practices.

4. Lagooning shall be conducted in such a manner as to avoid creation of fish trap conditions. The developer shall obtain written approval from the Maine Department of Environmental Protection, and/or the Department of Inland Fisheries and Wildlife, as applicable.

5. The hours of operation at any extraction site shall be limited, if necessary to ensure operational compatibility with neighboring residences.

6. All access points from the extraction site to public roads shall be treated with suitable materials to reduce dust and mud for a distance of at least 100 feet from such public roads.

7. The five-year reclamation plan shall show that within twelve (12) months following the completion of extraction operations at a site, ground levels and grades shall be established so that the restored drainage exits the site resembling pre-development volumes and locations. "Completion" means when less than one hundred (100) cubic yards of materials are removed in any consecutive twelve (12) month period. Debris, stumps, boulders, and similar materials shall be removed and disposed of on the property in an approved location or, in the case of inorganic material, buried and covered with a minimum of two (2) feet of soil. Only materials generated on-site may be buried or covered.

   *Final slopes shall not exceed two feet horizontal to one vertical (2:1). All areas shall be properly restored to a stable condition adequate to meet the provisions of the *Maine Erosion and Sedimentation Control Handbook for Construction: Best Management Practices*, published by the Cumberland County Soil and Water Conservation District, 1991, or most recent edition. Any temporary shelters or structures erected for operations and equipment shall be removed within thirty (30) days following completion of extraction operations.

C. Existing Operations not Grandfathered

Any mineral extraction process in lawful operation as of the effective date of this Ordinance, must comply with the provisions for a permit within five (5) years. Within ninety (90) days of the enactment of this Ordinance, the Code Enforcement Officer shall notify, by certified mail, return receipt requested, the owners of all property which, to the best of his or her knowledge, contain existing operations, informing them of the requirements of this Section.

Discontinuation of any existing operation for a period of more than two (2) years shall result in the loss of grandfathered status for that operation. Discontinuation is defined as the excavation, processing, or movement of less than two hundred (200) cubic yards of material within any two (2)

year period.

## SECTION 3. OVERNIGHT ACCOMMODATIONS

A. Hotels, motels, rental cottages, and inns designed and constructed without individual kitchen facilities (except for Bed and Breakfast) are subject to the following requirements:

1. Except within the Belgrade Lakes Village, no part of any building shall be closer than fifty (50) feet to the front lot line, rear lot line, or either side line of such lot.

2. Each rental room shall be equipped with an approved, hardwired smoke detector.

B. Bed & Breakfast facilities shall comply with the following:

1. The application for permit shall include a scale drawing of the lot showing the location of: existing buildings, existing and proposed parking, and existing and proposed sewage disposal systems.

2. In addition to parking required by Section 7.9 of this Ordinance, two spaces shall be provided for the owners or operators of the business.

3. There shall be at least one bathroom provided for the rental rooms, in addition to the bathroom for the dwelling unit.

4. Each rental room shall be equipped with an approved, hardwired smoke detector.

C. Hotel, motel, or cottage units with self-contained kitchen and toilet facilities or otherwise designated as housekeeping accommodations are considered to be dwelling units and shall meet all applicable standards. In addition, the creation of three or more units may be subject to review under the Town of Belgrade Subdivision Ordinance.

## SECTION 4. TELECOMMUNICATIONS TOWERS

A. Location

Consideration shall be given to serving new communication service demands by use of existing towers (co-location) wherever practicable. Applicants for permits for new facilities shall demonstrate why location on an existing tower is not feasible. The planning board may condition new permits to require co-location of other new facilities which may be proposed, if feasible, and to ensure designs which facilitate co-location.

B. Design and Construction

1. No tower shall exceed 195 feet in height, as measured from the tip to the ground surface, including extensions and attachments.

2. New towers shall be designed in such a way as to facilitate co-location.

3. A new or expanded tower shall be placed on a lot owned by the operator of the facility or leased for a period of not less than ten (10) years, and shall be set back from all lot lines a minimum horizontal distance equivalent to the height of the tower, but in no case less than required setbacks for the district in which it is located.

4. New towers shall be constructed with materials and colors that match or blend in with the surrounding natural or built environment to the maximum extent practicable.
5. All towers and supporting structures must comply with structural standards established by the Electronic Industries Association/Telecommunication Industries Association. Compliance with these standards shall be certified by a registered professional engineer.

6. Any communication tower that is unused or out of service for a period of eighteen (18) continuous months shall be considered abandoned and shall be removed as soon as practicable. The Town of Belgrade is hereby authorized to contract for removal of the tower and assess the cost of said removal as a lien against the property.