

11. Placement of natural rock riprap, including associated grading of the shoreline and placement of a filter blanket, is permitted if the finished slope does not exceed three feet horizontal to one foot vertical, the landward extent of the riprap is within ten feet of the ordinary high water level, and the height of the riprap above the ordinary high water level does not exceed three feet.

E. Connections to public waters. Excavations where the intended purpose is connection to a public water, such as boat slips, canals, lagoons, and harbors, must be controlled by local shoreland controls. Permission for excavations may be given only after the commissioner has approved the proposed connection to public waters.

#### **5.4 Placement and Design of Roads, Driveways, and Parking Areas.**

5.41 Public and private roads and parking areas must be designed to take advantage of natural vegetation and topography to achieve maximum screening from view from public waters. Documentation must be provided by a qualified individual that all roads and parking areas are designed and constructed to minimize and control erosion to public waters consistent with the field office technical guides of the local soil and water conservation district, or other applicable technical materials.

5.42 Roads, driveways, and parking areas must meet structure setbacks and must not be placed within bluff and shore impact zones, when other reasonable and feasible placement alternatives exist. If no alternatives exist, they may be placed within these areas, and must be designed to minimize adverse impacts.

5.43 Public and private watercraft access ramps, approach roads, and access-related parking areas may be placed within shore impact zones provided the vegetative screening and erosion control conditions of this subpart are met. For private facilities, the grading and filling provisions of Section 5.32 of this ordinance must be met.

#### **5.5 Stormwater Management.**

The following general and specific standards shall apply:

##### **5.51 General Standards:**

A. When possible, existing natural drainageways, wetlands, and vegetated soil surfaces must be used to convey, store, filter and retain stormwater runoff before discharge to public waters.

B. Development must be planned and conducted in a manner that will minimize the extent of disturbed areas, runoff velocities, erosion potential, and reduce and delay runoff volumes. Disturbed areas must be stabilized and protected as soon as possible and facilities or methods used to retain sediment on the site.

C. When development density, topographic features, and soil and vegetation conditions are not sufficient to adequately handle stormwater runoff using natural features and vegetation, various types of constructed facilities such as diversions, settling basins, skimming devices, dikes, waterways, and ponds may be used. Preference must be given to designs using surface drainage, vegetation, and infiltration rather than buried pipes and manmade materials and facilities.

#### 5.52 Specific Standards:

A. Impervious surface coverage of lots must not exceed 25 percent of the lot area.

B. When constructed facilities are used for stormwater management, documentation must be provided by a qualified individual that they are designed and installed consistent with the field office technical guide of the local soil and water conservation districts.

C. New constructed stormwater outfalls to public waters must provide for filtering or settling of suspended solids and skimming of surface debris before discharge.

### 5.6 Special Provisions for Commercial, Industrial, Public/ Semipublic, Forestry, and Agricultural Uses.

#### 5.61 Standards for Commercial, Industrial, Public and Semipublic Uses.

A. Surface water-oriented commercial uses and industrial, public, or semipublic uses with similar needs to have access to and use of public waters may be located on parcels or lots with frontage on public waters. Those uses with water-oriented needs must meet the following standards:

1. In addition to meeting impervious coverage limits, setbacks, and other zoning standards in this ordinance, the uses must be designed to incorporate topographic and vegetative screening of parking areas and structures;

2. Uses that require short-term watercraft mooring for patrons must centralize these facilities and design them to avoid obstructions of navigation and to be the minimum size necessary to meet the need; and

3. Uses that depend on patrons arriving by watercraft may use signs and lighting to convey needed information to the public, subject to the following general standards:

a. No advertising signs or supporting facilities for signs may be placed in or upon public waters. Signs conveying information or safety messages may be placed in or on public waters by a public authority or under a permit issued by the county sheriff;



b. Signs may be placed, when necessary, within the shore impact zone if they are designed and sized to be the minimum necessary to convey needed information. They must only convey the location and name of the services available. The signs must not contain other detailed information such as product brands and prices, must not be located higher than ten feet above the ground, and must not exceed 32 square feet in size. If illuminated by artificial lights, the lights must be shielded or directed to prevent illumination out across public waters; and

c. Other outside lighting may be located within the shore impact zone or over public waters if it is used primarily to illuminate potential safety hazards and is shielded or otherwise directed to prevent direct illumination out across public waters. This does not preclude use of navigational lights.

B. Uses without water-oriented needs must be located on lots or parcels without public waters frontage, or if located on lots or parcels with public waters frontage, must either be set back double the normal ordinary high water level setback or be substantially screened from view from the water by vegetation or topography, assuming summer, leaf-on conditions.

#### **5.62 Agricultural Use Standards.**

A. General cultivation farming, grazing, nurseries, horticulture, truck farming, and wild crop harvesting are permitted uses if steep slopes and shore and bluff impact zones are maintained in permanent vegetation or operated under an approved conservation plan (Resource Management Systems) consistent with the field office technical guides of the local soil and water conservation districts or the United States Soil Conservation Service, as provided by a qualified individual or agency. The shore impact zone for parcels with permitted agricultural land uses is equal to a line parallel to and 50 feet from the ordinary high water level.

B. Animal feedlots must meet the following standards:

1. New feedlots must not be located in the shoreland of watercourses or in bluff impact zones and must meet a minimum setback of 300 feet from the ordinary high water level of all public waters basins; and

2. Modifications or expansions to existing feedlots that are located within 300 feet of the ordinary high water level or within a bluff impact zone are allowed if they do not further encroach into the existing ordinary high water level setback or encroach on bluff impact zones.

**5.63 Forest Management Standards.** The harvesting of timber and associated reforestation must be conducted consistent with the provisions of the Minnesota Nonpoint Source Pollution Assessment-Forestry and the provisions of Water Quality in Forest Management "Best Management Practices in Minnesota."

**5.64 Extractive Uses.** Extractive uses are not allowed.

**5.65 Mining of Metallic Minerals and Peat.** Mining of metallic minerals and peat, as defined in Minnesota Statutes, Sections 93.44 to 93.51 is not allowed.