

Article VI: Shoreland Overlay (SLO)

Section 1 Overlay District Establishment

- A. **Designated areas.** Trout streams, tributaries to trout streams, and the erosion hazard areas along the shore of Lake Superior are designated on the land use zone district map (see **Zone Map, page 2**).
- B. **Unclassified water courses.** Unclassified water courses with defined stream bottoms will be determined by the Planning Director.
- C. **Areas and setbacks.** **Table 5.2, page 52** identifies areas included in the Shoreland Overlay District (SLO) and setback requirements for each type of water body.

Section 2 Lake Superior Shoreland – All Areas

- A. **Activities Within Building Setbacks From Lakeshore.** The following standards apply to activities within the area defined by the building setback from the lakeshore.
 - 1. **Alterations below ordinary high water level (OHWL).** Any alterations below the ordinary high water level of public waters must first be authorized by the Minnesota Department of Natural Resources (MNDNR).
 - 2. **Filter strips.** The setbacks listed in **Table 5.2, page 52** function as filter strips. These strips provide a zone of infiltration that protects surface water by allowing remaining vegetation to remain essentially undisturbed, allowing the forest floor to trap sediment from adjacent land areas. Filter strips will be maintained as follows:
 - a. They will border and parallel the edge of the lakeshore.
 - b. Existing vegetation must be maintained, subject to the exceptions listed in “3” below.
 - c. Soil exposure is limited to less than 5% of surface area well distributed throughout the filter strip.
 - d. Cultivated lawns and lawn fertilizer are not permitted in the filter strip area.
 - e. Erosion control measures such as straw bales, mulch and silt fences will be used when an area of soil is exposed within the filter strip and sedimentation is likely to result. (see **Article III, Section 4, page 41, “Soil Erosion Control & Storm Water Management”**)
 - f. There shall be no commercial harvesting of trees within these filter strips.
 - 3. **Removal of vegetation in the SLO area.** The removal of natural vegetation is not allowed without first obtaining a permit from the Planning Commission. Removal of natural vegetation (i.e. trees, shrubs, and plants) is restricted and limited to the following:
 - a. The removal of dead, diseased, dangerous, and storm or fire damaged trees, shrubs, and plants.
 - b. The trimming and pruning of trees, shrubs and plants.
- B. **Activities within Shoreland Overlay.** The following standards apply to activities within Shoreland Overlay area.
 - 1. **Vegetation management plan.** A vegetation management plan will be required for total vegetation removal of over 10,000 square feet or 25% of the development site, whichever is less.
 - 2. **Removal of vegetation limited.** Removal of woody vegetation shall be restricted on bluffs, steep slopes and within the structure setback area to maintain stable soil conditions. (see, **Article III, Section 3, page 40, “Steep Slopes”**).
 - 3. **Vegetation as screening.** Removal of woody vegetation shall be limited so that vegetation serves as a screen for structures, parked vehicles or other facilities viewed from public roads and Lake Superior. Selective removal of woody vegetation shall be allowed to provide a reasonable view of Lake Superior from individual residences.

4. **Clear cutting not permitted.** Clear cutting shall not be permitted unless part of an approved site development plan with the exception of an authorized public service such as public roads and utilities.
5. **Best management practices.** Cutting, pruning and trimming of trees shall be based on sound horticultural and forest management practices for each individual tree species.
6. **Private drives and public utility lines.** Private driveways shall blend into the existing terrain as much as possible, and public utility lines to private landowners shall be buried if possible.
7. **Grading and filling, erosion control.** Grading and filling, erosion control shall comply with the following:
 - a. An erosion and sediment control plan is required for excavations exceeding 1,000 square feet or 100 cubic yards or fill exceeding 1,000 cubic yards, or 50 cubic yards within the structure setback area. Shoreland alterations done in connection with work authorized by permit shall be exempt from the plan requirement.
 - b. The South St. Louis County Soil and Water Conservation District and the Planning Director shall approve all plans prior to the commencement of any alteration work.
 - c. The approved erosion and sediment control plan shall be followed and is incorporated into any permit.
 - d. Mulches or similar materials must be used, where necessary, for temporary bare soil coverage. A permanent vegetative cover must be established as soon as possible.
 - e. Methods to minimize soil erosion and to trap sediment before they reach any surface water feature must be used. Such methods shall be in place before development occurs.
 - f. Altered areas must be stabilized to acceptable erosion control standards consistent with the Field Office Technical Guides of the local Soil and Water Conservation Districts and the U.S. Soil Conservation Service.
 - g. Fill or excavated material must be stabilized to prevent erosion and slope failure.
 - h. Fill or excavated material must not be placed on steep slopes, except as designated by qualified professionals.
 - i. Approved permanent erosion control practices should be maintained.
 - j. Alterations below the Ordinary High Water Level (OHWL) of lakes and streams shall follow accepted practices. Any alterations shall be first permitted by the Department of Natural Resources and the U.S. Army Corps of Engineers, as required.

Section 3 Lake Superior Shoreland – Erosion Hazard Areas

- A. **NSMB Designated Erosion Areas.** The North Shore Management Board (NSMB) has determined erosion Hazard Areas for land within the Town of Duluth along the shores of Lake Superior. These are defined as those areas of the North Shore where the long-term average annual rate of recession is one (1) foot or greater per year. The areas are those designated and mapped by the North Shore Management Board as of May, 2004 or subsequently designated by NSMB or another agency,
- B. **Erosion Area Requirements.** Those areas as identified must meet the following requirements:
 1. The Planning Director, at the time of permitting, will notify the property owner of the restrictions of this section.
 2. The burden of proof concerning the suitability of land in designated Erosion Hazard Area is the responsibility of the property owner.
 3. Site development plans shall be required and approved by the Planning Director for all new construction in the Erosion Hazard Area. The site plans shall include a description of the following: surface runoff including roof drains, subsurface runoff, vegetation removal including proposed landscaping, proposed sewage treatment systems, topography of site, structure and driveway location, potential bluff toe protection, slope alteration, and other pertinent information as requested.

Duluth Zoning Ordinance - Article VI: Shoreland Overlay District (SLO)

4. The site development plan shall include setback and shoreline erosion control recommendations, and shall comply with the shoreland alteration provisions of this

Ordinance.

5. Structures and soil absorption areas shall be set back one-hundred-twenty-five (125) feet from the top edge of the eroding bluff, and where slumping is evident, the setback shall be measured from the uppermost shear zone (point at which the soil separates and slumping begins). Sewage treatment systems shall not be located within the structure setback area. The above standard may be modified by variance if the landowner provides technical data proving a different recession rate or that the Erosion Hazard Area, although correctly estimated, can be mitigated by structural protection.

Section 4 All Trout Streams, Tributaries to Trout Streams, Other Public Watercourses and Unclassified Established Watercourses

A. Activities within setbacks of streams. The following standards apply to activities within the area defined by the setback requirements for streams.

1. **Alterations below OHWL.** Any alterations below the ordinary high water level of public waters must first be authorized by the Commissioner of the Minnesota Department of Natural Resources (MnDNR).
2. **Filter strips within setback from streams.** The setbacks listed in **Table 5.2, page 52** function as filter strips. These strips provide a zone of infiltration that protects surface water by allowing vegetation on the forest floor to trap sediment from adjacent land areas and provide shading for streams to maintain fish habitat. Filter strips will be maintained as follows:
 - a. They will border and parallel the edge of streams.
 - b. At a minimum, existing vegetation must be maintained within the setback requirements listed for each type of stream in **Table 5.2, page 52**. Dimensional
 - c. Soil exposure is limited to less than 5% well distributed throughout the filter strip
 - d. Cultivated lawns and lawn fertilizer are not permitted.
 - e. Erosion control measures such as straw bales, mulch and silt fences will be used when an area of soil is exposed within the filter strip and sedimentation is likely to result. (see **Article III, Section 4, page 41** "Soil Erosion Control & Storm Water Management")
 - f. There shall be no commercial harvesting of trees within these filter strips.
3. **Removal of vegetation within setback from streams.** The removal of natural vegetation (i.e. trees, shrubs, and plants) is restricted and limited to the following:
 - a. The removal of dead, diseased, dangerous, and storm or fire damaged trees, shrubs, and plants.
 - b. The trimming and pruning of trees, shrubs and plants in accordance with accepted horticultural and forest management practices to provide a view.
 - c. Removal of woody vegetation shall be limited so that vegetation serves as a screen for structures, parked vehicles or other facilities viewed from the stream.
4. **Setbacks within Bluff Area.**
 - a. **General Standards.** Unless other provisions have been established for specific soil conditions, the following standards shall apply in bluff areas:
 - (i) The land must slope toward a public water.
 - (ii) The land must rise a minimum of twenty-five (25) feet from the Ordinary High Water Level (OHWL).
 - (iii) The land has a slope of thirty percent (30%), but if at any location within the slope, that percent slope becomes eighteen percent (18%) or less over a fifty (50) foot run, or there is an obvious break in the slope, the bluff impact zone shall not include that area.
 - b. **Shallow Soils Bluff Standard.** This standard applies to a bluff where the soil depth over ledge rock averages twenty-four (24) inches or less. Where this condition exists, structures may be placed on the bluff at a setback from the Ordinary High Water Level

Duluth Zoning Ordinance - Article VI: Shoreland Overlay District (SLO)

(OHWL) that equals one-hundred fifty percent (150%) of the standard setback requirement (see **Article V, Table 5.2, page 52 and Section 3 of this Article**), provided all of the following conditions are met:

- (i) The parcel shall have suitable area set aside for a sewage treatment system and expansion area.
 - (ii) Erosion control standards consistent with Soil and Water Conservation Service guidelines are followed.
- c. Exception** from the one-hundred-fifty percent (150%) setback requirement. Structures may be placed between the standard and the one-hundred-fifty percent (150%) setback requirement of this sub-section if all the following conditions exist:
- (i) Approved sewage treatment and expansion exists.
 - (ii) Sufficient screening and vegetative filter strip exists.
 - (iii) Erosion control standards consistent with Soil and Water Conservation Service guidelines are followed.
- 5. Setback for Lake Superior Watershed Rivers.** The red clay areas of the Lake Superior watershed have been identified as having significant potential for erosion and such erosion would severely affect the streams that border these areas. Therefore, the following standards shall apply whenever they result in a greater structure setback than outlined in the general standards. The bluff impact zone shall be the vertical distance from the Ordinary High Water Level (OHWL), inland to a point where the slope levels to six percent (6%) over a one-hundred (100) foot run. The toe of the six percent (6%) slope shall serve as the point where the OHWL top of the bluff measurement shall be made. The vertical height from the OHWL to the start of the six percent (6%) slope shall be measured, and that height shall be multiplied by four (4). This distance shall serve as the bluff impact, and shore impact zone for the purposes of vegetation removal. The principal structure setback from the top of the bluff shall be thirty (30) feet. No water oriented accessory structures are permitted in this bluff impact zone.

B. Activities within Shoreland Overlay (SLO). The following standards apply to activities within the Shoreland Overlay.

- 1. Commercial timber harvest prohibited within SLO.** There will be no commercial harvesting of timber.
- 2. Permit required for alteration of topography within SLO.** Grading, filling, excavating, or any alteration of the natural topography requires a permit if the following levels of alteration are met or exceeded:
 - a.** Any alteration of the natural topography located within the shore impact zone, bluff impact zone, or on a steep slope, involving more than 10 cubic yards of material.
 - b.** Any alteration of the natural topography, located within 300 feet of the shore and not covered in "a" above, involving more than 50 cubic yards of material.
 - c.** The threshold standards listed above shall apply for the minimum lot area for the zone district where the alteration is taking place (i.e. if the minimum lot area is one (1) acre with a width of one-hundred-fifty (150) feet and the parcel in question has twice the minimum required lot area and width, an individual would be permitted, on each one-hundred-fifty (150) foot/one (1) acre segment, to make alterations under the thresholds identified in "a" and "b" above without receiving a permit.
 - d.** The following shall not require a permit of any type: Excavations; grading and filling associated with construction of permitted structures; driveways located at the building setback or greater; walking paths; sewage treatment systems; and gardens, provided that:
 - (i) It is done in a manner designed to minimize erosion, sedimentation, and surface runoff and the standards set forth in **Article III, Section 4, page 41**.
 - (ii) Permanent ground cover is established in as short a period of time as possible following completion of the project.

Duluth Zoning Ordinance - Article VI: Shoreland Overlay District (SLO)

- 3.** Structures are permitted in the Shoreland Overlay (SLO) area as long as setbacks are met. Reasonable clearing is permitted for construction and for protecting structures from wildfires.
- 4.** Reasonable clearing for trails is permitted.
- 5.** The removal of natural vegetation (i.e. trees, shrubs and plants) is limited to twenty-five percent (25%) of trees (greater than two (2) inches in diameter at breast height), shrubs and

plants. Note: This means that no more than twenty-five percent (25%) of the trees may be removed between the principal structure and the water body within the impact zone. Removal of trees, shrubs and plants shall be accomplished through human means (i.e. hands, axe, saw, etc.).

Section 5 Stairways and Lifts to a Shoreline

- A. Conditions for stairways.** Stairways to the shoreline may be allowed if the structure is necessary to access the shoreline because of steep slopes or wet, unstable soils.
- B. Location.** The structure shall be located to minimize earth disturbing activities and shoreline vegetation removal during construction and to be visually inconspicuous as viewed from the adjacent waterway and public thoroughfares.
- C. Maximum width.** The structure shall be no more than four (4) feet wide.
- D. Color.** Structures shall be inconspicuously colored.
- E. Maximum area.** Landings for stairways and lifts on residential lots must not exceed thirty-two (32) square feet.
- F. Canopies.** Canopies or roofs are not allowed on any stairways, lifts or landings in the bluff or steep slope areas.
- G. Railings.** Railings are permitted only where required by safety concerns.
- H. Erosion control.** Stairways, lifts, and landings may be constructed above the ground on posts or pilings, located on ledge rock, or designed in a manner that ensures control of erosion. Landings shall be located as close to the ground surface as feasible.
- I. Visual considerations.** Stairways, lifts, and landings, must be located in the most visually inconspicuous portions of lots as viewed from the surface water if location is suitable for such construction.
- J. Handicapped access.** Facilities such as ramps, lifts, or mobility paths for the physically handicapped are permitted provided the standards found above are followed and the requirements of state regulations relating to design and construction of such facilities are followed.
- K. Minimizing impacts.** Structures shall be constructed in accordance with best management practices for minimizing adverse impacts on the shoreland area and adjoining water.

Section 6 Water Oriented Structures in SLO District

- A. Allowed water oriented structures.** Specific water oriented accessory structures allowed in shoreland areas include saunas, fish cleaning houses, screen houses, gazebos, and detached decks.

Duluth Zoning Ordinance - Article VI: Shoreland Overlay District (SLO)

- B. Saunas.** The following standards apply to saunas.
 - 1. Saunas may be allowed fifty (50) feet from the shoreline of Lake Superior in non-erosion hazard areas and fifty (50) feet from trout streams, tributaries to trout streams, and other public watercourses.
 - 2. The maximum size shall be 200 square feet in floor area and twelve (12) feet in height.
 - 3. The structure may include a changing room, but this area may not be used for sleeping or cooking.

4. A deck is allowed, but it must meet setback requirements described in **item 1**, above, and it shall be included when calculating the maximum floor area.
5. The structure shall be served by a grey water septic system, approved by the St. Louis County Health Department.
6. The structure shall not be used to store combustible petroleum products, nor shall it be attached to a structure where such products are present.
7. The structure shall be stained or painted in unobtrusive colors.
8. The sauna shall be screened from the shore by natural means.

C. Fish Cleaning Houses. The following standards apply to fish cleaning houses.

1. May be constructed along the Lake Superior Shoreline and Streams. A conditional use permit is required.
2. The building shall be set back a minimum of thirty (30) feet from the Ordinary High Water Level (OHWL).
3. The building shall be limited in size to two-hundred (200) square feet of floor area and twelve (12) feet in height.
4. The building may not be constructed on slopes exceeding twenty percent (20%).
5. The building shall not be used for human habitation.
6. The building shall not have an attached deck.
7. Waste from fish cleaning houses must be disposed of in a manner that conforms to County regulations and policies regarding waste disposal.
8. The building shall be painted or stained in unobtrusive colors.
9. The building shall be substantially screened from the lake by natural means

D. Gazebos and Screen Houses. The following standards apply to gazebos and screen houses.

1. Gazebos and screen houses may be constructed along the Lake Superior Shoreline and Streams. A conditional use permit is required.
2. The building shall be limited to 150 square feet in size.
3. The building shall be limited to one (1) story and 12 feet in height.
4. The building shall not have pressurized water, nor kitchen or sanitary facilities.
5. The building shall be setback from the ordinary high water level a minimum of 50 feet.
6. The building shall not have decks.
7. The structure shall be painted or stained in an unobtrusive color.
8. The structure shall be substantially screened from the lake by natural means.

E. Boat docks and boat houses. Boat docks and boat houses are not permitted.