

CHAPTER 154: SHORELAND MANAGEMENT

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§ 154.001 STATUTORY AUTHORIZATION AND POLICY

(A) *Statutory authorization.* This shoreland chapter is adopted pursuant to the authorization and policies contained in M.S. Chapter 103F, Minnesota Regulations, Parts 6120.2500 - 6120.3900, and the planning and zoning enabling legislation in M.S. Chapter 462, as it may be amended from time to time.

(B) *Policy.* The uncontrolled use of shorelands of the City of Cambridge, Minnesota affects the public health, safety and general welfare not only by contributing to pollution of public waters, but also by impairing the local tax base. Therefore, it is in the best interests of the public health, safety and welfare to provide for the wise subdivision, use and development of shorelands of public waters. The Legislature of Minnesota has delegated responsibility to local governments of the state to regulate the subdivision, use and development of the shorelands of public waters and thus preserve and enhance the quality of surface waters, conserve the economic and natural environmental values of shorelands, and provide for the wise use of waters and related land resources. This responsibility is hereby recognized by the City of Cambridge.

§ 154.002 GENERAL PROVISIONS AND DEFINITIONS

(A) *Jurisdiction.* The provisions of this chapter shall apply to the shorelands of the public water bodies as classified in § 154.004. Pursuant to Minnesota Regulations, Parts 6120.2500 - 6120.3900, no lake, pond, or flowage less than ten acres in size in municipalities or 25 acres in size in unincorporated areas need be regulated in a local government’s shoreland regulations. A body of water created by a private user where there was no previous shoreland may, at the discretion of the governing body, be exempt from this chapter.

(B) *Establishment of official zoning map.* The boundaries of the district and zones within the district are superimposed on the zoning map and were compiled from the Flood Insurance Study, dated November 5, 2003 and the Flood Insurance Rate Map, Community Panel No. 27059C0160D, 27059C0170D, 27059C0180D, 27059C0185D, and 27059C0190D, all of which are effective November 5, 2003. The Cambridge Zoning Map and the source map noted above shall be kept on file in the Cambridge City Hall available for public inspection upon reasonable request.

(C) *Enforcement.* The Zoning Administrator is responsible for the administration and enforcement of this chapter. Any violation of the provisions of this chapter or failure to comply with any of its

requirements (including violations of conditions and safeguards established in connection with grants of variances or conditional uses) shall constitute a misdemeanor and shall be punishable as defined by law. Violations of this chapter can occur regardless of whether or not a permit is required for a regulated activity pursuant to § 154.003(A)(1).

(D) Interpretation. In their interpretation and application, the provisions of this chapter shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by state statutes.

(E) Severability. If any section, clause, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this chapter shall not be affected thereby.

(F) Abrogation and greater restrictions. It is not intended by this chapter to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter imposes greater restrictions, the provisions of this chapter shall prevail. All other ordinances inconsistent with this chapter are hereby repealed to the extent of the inconsistency only.

(G) Definitions. Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the same meaning as they have in common usage and so as to give this chapter its most reasonable application. For the purpose of this chapter, the words “must” and “shall” are mandatory and not permissive. All distances, unless otherwise specified, shall be measured horizontally.

Accessory Structure or Facility. Any building or improvement subordinate to a principal use which, because of the nature of its use, can reasonably be located at or greater than normal structure setbacks.

Bluff. A topographic feature such as a hill, cliff, or embankment having the following characteristics (an area with an average slope of less than 18% over a distance for 50 feet or more shall not be considered part of the bluff):

- (a) Part or all of the feature is located in a shoreland area;
- (b) The slope rises at least 25 feet above the ordinary high water level of the waterbody;
- (c) The grade of the slope from the toe of the bluff to a point 25 feet or more above the ordinary high water level averages 30% or greater; and
- (d) The slope must drain toward the waterbody.

Bluff Impact Zone. A bluff and land located within 20 feet from the top of a bluff.

Boathouse. A structure designed and used solely for the storage of boats or boating equipment.

Building Line. A line parallel to a lot line or the ordinary high water level at the required setback beyond which a structure may not extend.

Commercial Planned Unit Developments. Are typically uses that provide transient, short-term lodging spaces, rooms, or parcels and their operations are essentially service-oriented. For example, hotel/motel accommodations, resorts, recreational vehicle and camping parks, and other primarily service-oriented activities are commercial planned unit developments.

Commercial Use. The principal use of land or buildings for the sale, lease, rental, or trade of products, goods, and services.

Commissioner. The Commissioner of the Department of Natural Resources.

Conditional Use. A land use or development as defined by ordinance that would not be appropriate generally but may be allowed with appropriate restrictions as provided by official controls upon a finding that certain conditions as detailed in the zoning ordinance exist, the use or development conforms to the comprehensive land use plan of the community, and the use is compatible with the existing neighborhood.

Deck. A horizontal, unenclosed platform with or without attached railings, seats, trellises, or other features, attached or functionally related to a principal use or site and at any point extending more than three feet above ground.

Duplex, Triplex, and Quad. A dwelling structure on a single lot, having two, three, and four units, respectively, being attached by common walls and each unit equipped with separate sleeping, cooking, eating, living, and sanitation facilities.

Dwelling Site. A designated location for residential use by one or more persons using temporary or movable shelter, including camping and recreational vehicle sites.

Dwelling Unit. Any structure or portion of a structure, or other shelter designed as short- or long-term living quarters for one or more persons, including rental or timeshare accommodations such as motel, hotel, and resort rooms and cabins.

Extractive Use. The use of land for surface or subsurface removal of sand, gravel, rock, industrial minerals, other nonmetallic minerals, and peat not regulated under M.S. §§ 93.44 to 93.51, as they may be amended from time to time.

Forest Land Conversion. The clear cutting of forested lands to prepare for a new land use other than reestablishment of a subsequent forest stand.

Guest Cottage. A structure used as a dwelling unit that may contain sleeping spaces and kitchen and bathroom facilities in addition to those provided in the primary dwelling unit on a lot.

Hardship. The same as that term is defined in M.S. Chapter 462, as it may be amended from time to time.

Height Of Building. The vertical distance from the average elevation of the finished lot grade at the front of the building to the highest point of the coping of the flat roof, to the deck line of a mansard roof, or to the average height between the plate and the highest ridge of a gable, hip, or gambrel roof.

Industrial Use. The use of land or buildings for the production, manufacture, warehousing, storage, or transfer of goods, products, commodities, or other wholesale items.

Intensive Vegetation Clearing. The complete removal of trees or shrubs in a contiguous patch, strip, row, or block.

Lot. A parcel of land designated by plat, metes and bounds, registered land survey, auditors plot, or other accepted means and separated from other parcels or portions by said description for the purpose of sale, lease, or separation.

Lot Width. The shortest distance between lot lines measured at the midpoint of the building line.

Nonconformity. Any legal use, structure or parcel of land already in existence, recorded, or authorized before the adoption of official controls or amendments thereto that would not have been permitted to become established under the terms of the official controls as now written, if the official controls had been in effect prior to the date it was established, recorded or authorized.

Ordinary High Water Level. The boundary of public waters and wetlands, and shall be an elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the ordinary high water level is the elevation of the top of the bank of the channel. For reservoirs and flowages, the **Ordinary High Water Level** is the operating elevation of the normal summer pool.

Planned Unit Development. A type of development characterized by a unified site design for a number of dwelling units or dwelling sites on a parcel, whether for sale, rent, or lease, and also usually involving clustering of these units or sites to provide areas of common open space, density increases, and a mix of structure types and land uses. These developments may be organized and operated as condominiums, time-share condominiums, cooperatives, full fee ownership, commercial enterprises, or any combination of these, or cluster subdivisions of dwelling units, residential condominiums, townhouses, apartment buildings, campgrounds, recreational vehicle parks, resorts, hotels, motels, and conversions of structures and land uses to these uses.

Public Waters. Any waters as defined in M.S. § 103G.005, Subds. 15 and 18, as they may be amended from time to time.

Residential Planned Unit Development. A use where the nature of residency is nontransient and the major or primary focus of the development is not service-oriented. For example, residential

apartments, manufactured home parks, time-share condominiums, townhouses, cooperatives, and full fee ownership residences would be considered as residential planned unit developments. To qualify as a residential planned unit development, a development must contain at least five dwelling units or sites.

Semipublic Use. The use of land by a private, nonprofit organization to provide a public service that is ordinarily open to some persons outside the regular constituency of the organization.

Sensitive Resource Management. The preservation and management of areas unsuitable for development in their natural state due to constraints such as shallow soils over groundwater or bedrock, highly erosive or expansive soils, steep slopes, susceptibility to flooding, or occurrence of flora or fauna in need of special protection.

Setback. The minimum horizontal distance between a structure, sewage treatment system, or other facility and an ordinary high water level, sewage treatment system, top of a bluff, road, highway, property line, or other facility.

Sewage Treatment System. A septic tank and soil absorption system or other individual or cluster type sewage treatment system as described and regulated in §§ 154.005.

Sewer System. Pipelines or conduits, pumping stations, and force main, and all other construction, devices, appliances, or appurtenances used for conducting sewage or industrial waste or other wastes to a point of ultimate disposal.

Shore Impact Zone. Land located between the ordinary high water level of a public water and a line parallel to it at a setback of 50% of the structure setback.

Shoreland. Land located within the following distances from public waters: 1,000 feet from the ordinary high water level of a lake, pond, or flowage; and 300 feet from a river or stream, or the landward extent of a floodplain designated by ordinance on a river or stream, whichever is greater. The limits of shorelands may be reduced whenever the waters involved are bounded by topographic divides which extend landward from the waters for lesser distances and when approved by the Commissioner.

Significant Historic Site. Any archaeological site, standing structure, or other property that meets the criteria for eligibility to the National Register of Historic Places or is listed in the State Register of Historic Sites, or is determined to be an unplatted cemetery that falls under the provisions of M.S. § 307.08, as it may be amended from time to time. A historic site meets these criteria if it is presently listed on either register or if it is determined to meet the qualifications for listing after review by the Minnesota State Archaeologist or the director of the Minnesota Historical Society. All unplatted cemeteries are automatically considered to be significant historic sites.

Steep Slope. Land where agricultural activity or development is either not recommended or described as poorly suited due to slope steepness and the site's soil characteristics, as mapped and described in available county soil surveys or other technical reports, unless appropriate design and construction

techniques and farming practices are used in accordance with the provisions of this chapter. Where specific information is not available, steep slopes are lands having average slopes over 12%, as measured over horizontal distances of 50 feet or more, that are not bluffs.

Structure. Any building or appurtenance, including decks, except aerial or underground utility lines, such as sewer, electric, telephone, telegraph, gas lines, towers, poles, and other supporting facilities.

Subdivision. Land that is divided for the purpose of sale, rent, or lease, including planned unit developments.

Surface Water-Oriented Commercial Use. The use of land for commercial purposes, where access to and use of a surface water feature is an integral part of the normal conductance of business. Marinas, resorts, and restaurants with transient docking facilities are examples of such use.

Toe Of The Bluff. The lower point of a 50-foot segment with an average slope exceeding 18%.

Top Of The Bluff. The higher point of a 50-foot segment with an average slope exceeding 18%.

Variance. The same as that term is defined or described in M.S. Chapter 462, as it may be amended from time to time.

Water-Oriented Accessory Structure Or Facility. A small, above-ground building or other improvement, except stairways, fences, docks, and retaining walls, which, because of the relationship of its use to a surface water feature, reasonably needs to be located closer to public waters than the normal structure setback. Examples of such structures and facilities include boathouses, gazebos, screen houses, fish houses, pump houses, and detached decks.

Wetland. A surface water feature classified as a wetland in the United States Fish and Wildlife Service Circular No. 39 (1971 edition).

§ 154.003 ADMINISTRATION

(A) Permits Required.

(1) A permit is required for the construction of buildings or building additions (and including such related activities as construction of decks and signs), the installation and/or alteration of sewage treatment systems, and those grading and filling activities not exempted by § 154.005(D). Application for a permit shall be made to the Zoning Administrator on the forms provided. The application shall include the necessary information so that the Zoning Administrator can determine the site's suitability for the intended use and that a compliant sewage treatment system will be provided.

(2) A permit authorizing an addition to an existing structure shall stipulate that an identified nonconforming sewage treatment system, as defined by § 154.005(J), shall be reconstructed or replaced in accordance with the provisions of this chapter.

(B) *Certificate of zoning compliance.* The Zoning Administrator shall issue a certificate of zoning compliance for each activity requiring a permit as specified in division (A) of this section. This certificate will specify that the use of land conforms to the requirements of this chapter. Any use, arrangement, or construction at variance with that authorized by permit shall be deemed a violation of this chapter and shall be punishable as provided in § 154.002(C).

(C) *Variances.*

(1) Variances may only be granted in accordance with M.S. Chapter 462, as it may be amended from time to time. A variance may not circumvent the general purposes and intent of this chapter. No variance may be granted that would allow any use that is prohibited in the zoning district in which the subject property is located. Conditions may be imposed in the granting of a variance to ensure compliance and to protect adjacent properties and the public interest. In considering a variance request, the board of adjustment must also consider whether the property owner has reasonable use of the land without the variance, whether the property is used seasonally or year-round, whether the variance is being requested solely on the basis of economic considerations, and the characteristics of development on adjacent properties.

(2) The Board of Adjustment shall hear and decide requests for variances in accordance with the rules that it has adopted for the conduct of business. When a variance is approved after the Department of Natural Resources has formally recommended denial in the hearing record, the notification of the approved variance required in division (D)(2) below shall also include the board of adjustment's summary of the public record/testimony and the findings of facts and conclusions which supported the issuance of the variance.

(3) For existing developments, the application for variance must clearly demonstrate whether a conforming sewage treatment system is present for the intended use of the property. The variance, if issued, must require reconstruction of a nonconforming sewage treatment system.

(D) *Notifications to the Department of Natural Resources.*

(1) Copies of all notices of any public hearings to consider variances, amendments, or conditional uses under local shoreland management controls must be sent to the Commissioner or the Commissioner's designated representative and postmarked at least ten days before the hearings. Notices of hearings to consider proposed subdivisions/plats must include copies of the subdivision/plat.

(2) A copy of approved amendments and subdivisions/plats, and final decisions granting variances or conditional uses under local shoreland management controls must be sent to the Commissioner or the Commissioner's designated representative and postmarked within ten days of final action.

§ 154.004 SHORELAND CLASSIFICATION SYSTEM AND LAND USE DISTRICTS

(A) *Shoreland classification system.* The public waters of the City of Cambridge have been classified

below consistent with the criteria found in Minnesota Regulations, Part 6120.3300, and the Protected Waters Inventory Map for Isanti County, Minnesota.

(1) The shoreland area for the waterbodies listed in division (A)(2) shall be as defined in § 154.002 “Shoreland” and as shown on the Official Zoning Map.

(2) Lakes.

Name	Class	Section	Township	Range	Protected Waters Inventory ID #	Area (Acres)	Water Level
Joe’s Lake	NE	33, 34	36	23	30-55	49	952.4, Upper 952.0, Lower
Broberg’s Lake	NE	30, 31	36	23	30-54	57	Undetermined
Weisbrod	NE	6	36	23	30-37	93	Undetermined
Magnuson	NE	8	35	23	30-38	35	Undetermined
Unnamed	NE	17	35	23	30-39	59	Undetermined
Unnamed	RD	4	35	23	30-34	13	Undetermined
Mud Lake	RD	3, 4	35	23	30-33	17	Undetermined
Florence Lake	RD	4, 5, 8, 9	35	23	30-35	135	944.6
Elms Lake	RD	4, 9	35	23	30-36	53	944.6
Lake Fanny	RD	2, 3, 34, 35	35, 36	23	30-43	345	947.5
NE - Natural Environment RD - Recreational Development							

(B) Land use district descriptions.

(1) *Criteria for designation.* The land use districts in this section, and the delineation of a land use district’s boundaries on the official zoning map, must be consistent with the goals, policies, and objectives of the comprehensive land use plan and the following criteria, considerations, and objectives:

(a) General considerations and criteria for all land uses:

1. Preservation of natural areas;
2. Present ownership and development of shoreland areas;
3. Topographic characteristics;
4. Shoreland soil types and their engineering capabilities;
5. Vegetative cover;
6. In-water physical characteristics, values, and constraints;
7. Recreational use of the surface water;
8. Road and service center accessibility;

9. Socioeconomic development needs and plans as they involve water and related land resources;
10. The land requirements of industry which, by its nature, requires location in shoreland areas; and
11. The necessity to preserve and restore certain areas having significant historical or ecological value.

(b) Factors and criteria for planned unit developments:

1. Existing recreational use of the surface waters and likely increases in use associated with planned unit developments;
2. Physical and aesthetic impacts of increased density;
3. Suitability of lands for the planned unit development approach;
4. Level of current development in the area; and
5. Amounts and types of ownership of undeveloped lands.

(2) The land use districts provided below, and the allowable land uses therein for the given classifications of waterbodies, shall be properly delineated on the official zoning map for the shorelands of this community. These land use districts are in conformance with the criteria specified in Minnesota Regulation, Part 6120.3200, Subp. 3:

(a) Land use districts for lakes.

	<i>Recreational Development Lakes</i>	<i>Natural Environment Lakes</i>
<i>Special Protection District Uses (SSP)</i>		
Forest Management	P	P
Sensitive Resource Management	P	P
Agricultural: cropland and pasture	P	P
Parks and historic sites	C	C
Single residential	C	C
PUD Ref. § 154.008	C	C
<i>Residential District Uses (SR)</i>		
Single residential	P	P
Semipublic	C	C
Parks and historic sites	C	C
Forest management	P	P

PUD Ref. § 154.008	C	C
General Use District Uses (GD)		
Commercial uses as follows:		
Commercial recreation	C	C
Drive-in, drive through establishments	C	C
Hotels, motels	C	C
Vehicle, implement sales	P	P
Office buildings	P	P
Restaurants	P	P
Retail sales	P	P
Service stations	C	C
Public, semipublic	P	P
Parks and historic sites	C	P
PUD Ref. § 154.008	C	C

(C) When an interpretation question arises about whether a specific land use fits within a given “use” category, the interpretation shall be made by the Board of Adjustment. When a question arises as to whether a land use district’s boundaries are properly delineated on the official zoning map, this decision shall be made by the City Council.

§ 154.005 ZONING AND WATER SUPPLY/SANITARY PROVISIONS

(A) *Lot area and width standards.* The lot area (in square feet) and lot width standards (in feet) for single residential lots created after the date of enactment of this chapter for the lake are the following:

(1) Unsewered natural environment lakes:

	<i>Riparian Lots</i>		<i>Nonriparian Lots</i>	
	Area	Width	Area	Width
Single	80,000	200	80	200

(2) Unsewered recreational development lakes:

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	<i>Riparian Lots</i>		<i>Nonriparian Lots</i>	
	Area	Width	Area	Width
Single	40,000	150	40,000	150

(3) Sewered natural environment lakes:

	<i>Riparian Lots</i>		<i>Nonriparian Lots</i>	
	Area	Width	Area	Width
Single	40,000	125	20,000	125

(4) Sewered recreational development lakes:

	<i>Riparian Lots</i>		<i>Nonriparian Lots</i>	
	Area	Width	Area	Width
Single	20,000	75	15,000	75

(5) Additional special provisions.

(a) Residential subdivisions with dwelling unit densities exceeding those in the tables in divisions (A)(3) and (A)(4) can only be allowed if designed and approved as residential planned unit developments under § 154.008. Only land above the ordinary high water level of public waters can be used to meet lot area standards, and lot width standards must be met at both the ordinary high water level and at the building line. The sewer lot area dimensions in divisions (A)(3) and (A)(4) can only be used if publicly owned sewer system service is available to the property.

(b) Lots intended as controlled accesses to public waters or as recreation areas for use by owners of nonriparian lots within subdivisions are permissible and must meet or exceed the following standards:

1. They must meet the width and size requirements for residential lots, and be suitable for the intended uses of controlled access lots.
2. If docking, mooring, or over-water storage of more than six watercraft is to be allowed at a controlled access lot, then the width of the lot (keeping the same lot depth) must be increased by the percent of the requirements for riparian residential lots for each watercraft beyond six, consistent with the following table:

<i>Controlled Access Lot Frontage Requirements</i>	
Ratio of lake size to shorelength (acres/mile)	Required increase in frontage (percent)
Less than 100	25

100-200	20
201-300	15
301-400	10
Greater than 400	5

3. They must be jointly owned by all purchasers of lots in the subdivision or by all purchasers of nonriparian lots in the subdivision who are provided riparian access rights on the access lot; and

4. Covenants or other equally effective legal instruments must be developed that specify which lot owners have authority to use the access lot and what activities are allowed. The activities may include watercraft launching, loading, storage, beaching, mooring, or docking. They must also include other outdoor recreational activities that do not significantly conflict with general public use of the public water or the enjoyment of normal property rights by adjacent property owners. Examples of the nonsignificant conflict activities include swimming, sunbathing, or picnicking. The covenants must limit the total number of vehicles allowed to be parked and the total number of watercraft allowed to be continuously moored, docked, or stored over water, and must require centralization of all common facilities and activities in the most suitable locations on the lot to minimize topographic and vegetation alterations. They must also require all parking areas, storage buildings, and other facilities to be screened by vegetation or topography as much as practical from view from the public water, assuming summer, leaf-on conditions.

(B) Placement, design, and height of structures. Placement of structures on lots. When more than one setback applies to a site, structures and facilities must be located to meet all setbacks. Where structures exist on the adjoining lots on both sides of a proposed building site, structure setbacks may be altered without a variance to conform to the adjoining setbacks from the ordinary high water level, provided the proposed building site is not located in a shore impact zone or in a bluff impact zone. Structures shall be located as follows.

(1) Structure and on-site sewage system setbacks (in feet) from ordinary high water level*.

<i>Classes of public waters</i>	<i>Setbacks*</i>		
	<i>Unsewered Structure</i>	<i>Sewered Structure</i>	<i>Sewage Treatment System</i>
<i>Lakes</i>			
Natural Environment	150	150	150
Recreational Development	100	75	75
* One water-oriented accessory structure designed in accordance with division (C) may be set back a minimum distance of ten feet from the ordinary high water level.			

(2) Additional structure setbacks. The following additional structure setbacks apply, regardless of the classification of the waterbody.

<i>Setback From</i>	<i>Setback (in feet)</i>
top of bluff	30
unplatted cemetery	50
right-of-way line of federal, state or county highway	50
right-of-way line of town road, public street, or other roads or streets not classified	30
side yard setback	10 for residential, 10 plus 5 for each story above the first story for multiple family, 25 for all other
interior side yard setback for a residential attached garage	6
side yard adjacent to a street	15 for residential or multiple family and 25 for all other
public alley setback	14 from centerline or 6 from the property line, whichever is greater
rear yard setback	35 for residential except where yard abuts permanent open space in which case 20 shall suffice, 20 for multiple family, and 15 for all other

(3) Accessory building setbacks for non-riparian lots. Setbacks for accessory buildings on non-riparian lots shall be as specified in paragraph (2) above for: top of bluff; unplatted cemetery; right-of-way line of federal, state or county highway; right-of-way of town road, public street, or other roads or streets not classified; side yard adjacent to a street; and public alley setback. Setbacks for accessory buildings in all other cases shall comply with the setbacks of the zoning district in which the subject property is located.

(4) *Bluff impact zones.* Structures and accessory facilities, except stairways and landings, must not be placed within bluff impact zones.

(5) *Uses without water-oriented needs.* 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.

(C) *Design criteria for structures.*

(1) *High water elevations.* Structures must be placed in accordance with any floodplain

regulations applicable to the site. Where these controls do not exist, the elevation to which the lowest floor, including basement, is placed or flood-proofed must be determined as follows:

(a) For lakes, by placing the lowest floor at a level at least three feet above the highest known water level, or three feet above the ordinary high water level, whichever is higher;

(b) For rivers and streams, by placing the lowest floor at least three feet above the flood of record, if data are available. If data are not available, by placing the lowest floor at least three feet above the ordinary high water level, or by conducting a technical evaluation to determine effects of proposed construction upon flood stages and flood flows and to establish a flood protection elevation. Under all three approaches, technical evaluations must be done by a qualified engineer or hydrologist consistent with parts 6120.5000 to 6120.6200 governing the management of flood plain areas. If more than one approach is used, the highest flood protection elevation determined must be used for placing structures and other facilities; and

(c) Water-oriented accessory structures may have the lowest floor placed lower than the elevation determined in this item if the structure is constructed of flood-resistant materials to the elevation, electrical and mechanical equipment is placed above the elevation and, if long duration flooding is anticipated, the structure is built to withstand ice action and wind-driven waves and debris.

(2) *Water-oriented accessory structures.* Each lot may have one water-oriented accessory structure not meeting the normal structure setback in division (B) if this water-oriented accessory structure complies with the following provisions:

(a) The structure or facility must not exceed ten feet in height, exclusive of safety rails, and cannot occupy an area greater than 250 square feet. Detached decks must not exceed eight feet above grade at any point;

(b) The setback of the structure or facility from the ordinary high water level must be at least ten feet;

(c) The structure or facility must be treated to reduce visibility as viewed from public waters and adjacent shorelands by vegetation, topography, increased setbacks or color, assuming summer, leaf-on conditions;

(d) The roof may be used as a deck with safety rails, but must not be enclosed or used as a storage area;

(e) The structure or facility must not be designed or used for human habitation and must not contain water supply or sewage treatment facilities.

(3) *Stairways, lifts, and landings.* Stairways and lifts are the preferred alternative to major topographic alterations for achieving access up and down bluffs and steep slopes to shore areas. Stairways and lifts must meet the following design requirements:

(a) Stairways and lifts must not exceed four feet in width on residential lots. Wider stairways may be used for commercial properties, public open-space recreational properties, and planned unit developments;

(b) Landings for stairways and lifts on residential lots must not exceed 32 square feet in area. Landings larger than 32 square feet may be used for commercial properties, public open-space recreational properties, and planned unit developments;

(c) Canopies or roofs are not allowed on stairways, lifts, or landings;

(d) Stairways, lifts, and landings may be either constructed above the ground on posts or pilings, or placed into the ground, provided they are designed and built in a manner that ensures control of soil erosion;

(e) Stairways, lifts, and landings must be located in the most visually inconspicuous portions of lots, as viewed from the surface of the public water assuming summer, leaf-on conditions, whenever practical; and

(f) Facilities such as ramps, lifts, or mobility paths for physically handicapped persons are also allowed for achieving access to shore areas, provided that the dimensional and performance standards of subsections (C)(3)(a) through (C)(3)(e) are complied with in addition to the requirements of Minnesota Regulations, Chapter 1340.

(4) *Significant historic sites.* No structure may be placed on a significant historic site in a manner that affects the values of the site unless adequate information about the site has been removed and documented in a public repository.

(5) *Steep slopes.* The Zoning Administrator must evaluate possible soil erosion impacts and development visibility from public waters before issuing a permit for construction of sewage treatment systems, roads, driveways, structures, or other improvements on steep slopes. When determined necessary, conditions must be attached to issued permits to prevent erosion and to preserve existing vegetation screening of structures, vehicles, and other facilities as viewed from the surface of public waters, assuming summer, leaf-on vegetation.

(6) *Height of structures.* All riparian lot structures and all single family residential structures (riparian and nonriparian) shall not exceed 30 feet in height. Non-riparian multiple family and commercial buildings may exceed 30 feet in height with the issuance of a Conditional Use Permit (CUP). A CUP shall take into account, but not be limited to, the shoreland classification, sight lines, proximity to the lake, setbacks, and site and building design. Church steeples, public facilities, and nonresidential agricultural structures are exempt from the height requirements of this section.

(D) *Shoreland alterations.* Alterations of vegetation and topography will be regulated to prevent erosion into public waters, fix nutrients, preserve shoreland aesthetics, preserve historic values, prevent bank slumping, and protect fish and wildlife habitat.

(1) *Vegetation alterations.*

(a) Vegetation alteration necessary for the construction of structures and sewage treatment systems and the construction of roads and parking areas regulated by § 154.004 are exempt from the vegetation alteration standards that follow.

(b) Removal or alteration of vegetation, except for agricultural and forest management uses as regulated in divisions (G) and (H), respectfully, is allowed subject to the following standards:

1. Intensive vegetation clearing within the shore and bluff impact zones and on steep slopes is not allowed. Intensive vegetation clearing for forest land conversion to another use outside of these areas is allowable as a conditional use if an erosion control and sedimentation plan is developed and approved by the soil and water conservation district in which the property is located.

2. In shore and bluff impact zones and on steep slopes, limited clearing of trees and shrubs and cutting, pruning, and trimming of trees is allowed to provide a view to the water from the principal dwelling site and to accommodate the placement of stairways and landings, picnic areas, access paths, livestock watering areas, beach and watercraft access areas, and permitted water-oriented accessory structures or facilities, provided that:

a. The screening of structures, vehicles, or other facilities as viewed from the water, assuming summer, leaf-on conditions, is not substantially reduced;

b. Along rivers, existing shading of water surfaces is preserved; and

c. The above provisions are not applicable to the removal of trees, limbs, or branches that are dead, diseased, or pose safety hazards.

(2) *Topographic alterations/grading and filling.*

(a) Grading and filling and excavations necessary for the construction of structures, sewage treatment systems, and driveways under validly issued construction permits for these facilities do not require the issuance of a separate grading and filling permit. However, the grading and filling standards in this section must be incorporated into the issuance of permits for construction of structures, sewage treatment systems, and driveways.

(b) Public roads and parking areas are regulated by § 154.004.

(c) Notwithstanding subsection (D)(2)(a) and (D)(2)(b) above, a grading and filling permit will be required for:

1. The movement of more than ten cubic yards of material on steep slopes or within shore or bluff impact zones; and

2. The movement of more than 50 cubic yards of material outside of steep slopes and shore and bluff impact zones.

(d) The following considerations and conditions must be adhered to during the issuance of construction permits, grading and filling permits, conditional use permits, variances and subdivision approvals:

1. Grading or filling in any type 2, 3, 4, 5, 6, 7, or 8 wetland must be evaluated to determine how extensively the proposed activity would affect the following functional qualities of the wetland*:

- a. Sediment and pollutant trapping and retention;
- b. Storage of surface runoff to prevent or reduce flood damage;
- c. Fish and wildlife habitat;
- d. Recreational use;
- e. Shoreline or bank stabilization; and
- f. Noteworthiness, including special qualities such as historic significance, critical habitat for endangered plants and animals, or others.

*This evaluation must also include a determination of whether the wetland alteration being proposed requires permits, reviews, or approvals by other local, state, or federal agencies such as a watershed district, the Minnesota Department of Natural Resources, or the United States Army Corps of Engineers. The applicant will be so advised.

2. Alterations must be designed and conducted in a manner that ensures only the smallest amount of bare ground is exposed for the shortest time possible;

3. Mulches or similar materials must be used, where necessary, for temporary bare soil coverage, and a permanent vegetation cover must be established as soon as possible;

4. Methods to minimize soil erosion and to trap sediments before they reach any surface water feature must be used;

5. 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 United States Soil Conservation Service;

6. Fill or excavated material must not be placed in a manner that creates an unstable slope;

7. Plans to place fill or excavated material on steep slopes must be reviewed by qualified professionals for continued slope stability and must not create finished slopes of 30% or greater;

8. Fill or excavated material must not be placed in bluff impact zones;

9. Any alterations below the ordinary high water level of public waters must first be authorized by the commissioner under M.S. § 105.42, as it may be amended from time to time;

10. Alterations of topography must only be allowed if they are accessory to permitted or conditional uses and do not adversely affect adjacent or nearby properties; and

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.

(3) *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.

(E) *Placement and design of roads, driveways, and parking areas.*

(1) 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.

(2) 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.

(3) 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 division (D)(2) of this section must be met.

(F) *Stormwater management.* The following general and specific standards shall apply:

(1) *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 man-made materials and facilities.

(2) *Specific standards.*

(a) Impervious surface coverage of lots must not exceed 25% 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.

(d) Special provisions for commercial, public/semipublic, agricultural, and forestry.

(3) Standards for commercial, public, and semipublic uses.

(a) Surface water-oriented commercial uses and, 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 chapter, 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 establishment and the general types of goods or 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.

(G) Agriculture use standards. General cultivation farming, grazing, nurseries, horticulture, truck farming, sod 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.

(H) 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.”

(I) Conditional uses. Conditional uses allowable within shoreland areas shall be subject to the review and approval procedures, and criteria and conditions for review of conditional uses established community-wide. The following additional evaluation criteria and conditions apply within shoreland areas:

(1) *Evaluation criteria.* A thorough evaluation of the waterbody and the topographic, vegetation, and soils conditions on the site must be made to ensure:

(a) The prevention of soil erosion or other possible pollution of public waters, both during and after construction;

(b) The visibility of structures and other facilities as viewed from public waters is

limited;

(c) The site is adequate for water supply and on-site sewage treatment; and

(d) The types, uses, and numbers of watercraft that the project will generate are compatible in relation to the suitability of public waters to safely accommodate these watercraft.

(2) *Conditions attached to conditional use permits.* The City Council, upon consideration of the criteria listed above and the purposes of this chapter, shall attach such conditions to the issuance of the conditional use permits as it deems necessary to fulfill the purposes of this chapter. Such conditions may include, but are not limited to, the following:

(a) Increased setbacks from the ordinary high water level;

(b) Limitations on the natural vegetation to be removed or the requirement that additional vegetation be planted; and

(c) Special provisions for the location, design, and use of structures, sewage treatment systems, watercraft launching and docking areas, and vehicle parking areas.

(J) *Water supply and sewage treatment.*

(1) *Water supply.* Any public or private supply of water for domestic purposes must meet or exceed standards for water quality of the Minnesota Department of Health and the Minnesota Pollution Control Agency.

(2) *Sewage treatment.* Any premises used for human occupancy must be provided with an adequate method of sewage treatment, as follows:

(a) Publicly-owned sewer systems must be used where available.

(b) All private sewage treatment systems must meet or exceed the Minnesota Pollution Control Agency's standards for individual sewage treatment systems contained in the document titled, "Individual Sewage Treatment Systems Standards, Chapter 7080", a copy of which is hereby adopted by reference and declared to be a part of this chapter.

(c) On-site sewage treatment systems must be set back from the ordinary high water level in accordance with the setbacks contained in division (B)(1).

(d) All proposed sites for individual sewage treatment systems shall be evaluated in accordance with the criteria in divisions (J)(2)(d)1. - 4. If the determination of a site's suitability cannot be made with publicly available, existing information, it shall then be the responsibility of the applicant to provide sufficient soil borings and percolation tests from on-site field investigations.

Evaluation criteria:

1. Depth to the highest known or calculated ground water table or bedrock;
2. Soil conditions, properties, and permeability;
3. Slope;
4. The existence of lowlands, local surface depressions, and rock outcrops;

(e) Nonconforming sewage treatment systems shall be regulated and upgraded in accordance with § 154.006(C).

§ 154.006 NONCONFORMITIES

All legally established nonconformities as of the date of this chapter may continue, but they will be managed according to applicable state statutes and other regulations of this community for the subjects of alterations and additions, repair after damage, discontinuance of use, and intensification of use; except that the following standards will also apply in shoreland areas:

(A) Construction on nonconforming lots of record.

(1) Lots of record in the office of the county recorder on the date of enactment of local shoreland controls that do not meet the requirements of § 154.005(A) may be allowed as building sites without variances from lot size requirements provided the use is permitted in the zoning district, the lot has been in separate ownership from abutting lands at all times since it became substandard, was created compliant with official controls in effect at the time, and sewage treatment and setback requirements of this chapter are met.

(2) A variance from setback requirements must be obtained before any use, sewage treatment system, or building permit is issued for a lot. In evaluating the variance, the board of adjustment shall consider sewage treatment and water supply capabilities or constraints of the lot and shall deny the variance if adequate facilities cannot be provided.

(3) If, in a group of two or more contiguous lots under the same ownership, any individual lot does not meet the requirements of § 154.005(A) the lot must not be considered as a separate parcel of land for the purposes of sale or development. The lot must be combined with the one or more contiguous lots so they equal one or more parcels of land, each meeting the requirements of § 154.005(A) as much as possible.

(B) Additions/expansions to nonconforming structures.

(1) All additions or expansions to the outside dimensions of an existing nonconforming structure must meet the setback, height, and other requirements of § 154.005. Any deviation from these requirements must be authorized by a variance pursuant to § 154.003(C).

(2) Deck additions may be allowed without a variance to a structure not meeting the required setback from the ordinary high water level if all of the following criteria and standards are met:

(a) The structure existed on the date the structure setbacks were established;

(b) A thorough evaluation of the property and structure reveals no reasonable location for a deck meeting or exceeding the existing ordinary high water level setback of the structure;

(c) The deck encroachment toward the ordinary high water level does not exceed 15% of the existing setback of the structure from the ordinary high water level or does not encroach closer than 30 feet, whichever is more restrictive; and

(d) The deck is constructed primarily of wood, and is not roofed or screened.

(C) *Nonconforming sewage treatment systems.*

(1) A sewage treatment system not meeting the requirements of § 154.005(J) must be upgraded, at a minimum, at any time a permit or variance of any type is required for any improvement on, or use of, the property. For the purposes of this provision, a sewage treatment system shall not be considered nonconforming if the only deficiency is the sewage treatment system's improper setback from the ordinary high water level.

(2) The governing body of City of Cambridge has by formal resolution notified the commissioner of its program to identify nonconforming sewage treatment systems. The City of Cambridge will require upgrading or replacement of any nonconforming system identified by this program within a reasonable period of time which will not exceed two years. Sewage systems installed according to all applicable local shoreland management standards adopted under M.S. § 103.201, as it may be amended from time to time, in effect at the time of installation may be considered as conforming unless they are determined to be failing, except that systems using cesspools, leaching pits, seepage pits, or other deep disposal methods, or systems with less soil treatment area separation above groundwater than required by the Minnesota Pollution Control Agency's Chapter 7080 for design of on-site sewage treatment systems, shall be considered nonconforming.

§ 154.007 SUBDIVISION/PLATTING PROVISIONS.

(A) *Land suitability.* Each lot created through subdivision, including planned unit developments authorized under § 154.008, must be suitable in its natural state for the proposed use with minimal alteration. Suitability analysis by the local unit of government shall consider susceptibility to flooding, existence of wetlands, soil and rock formations with severe limitations for development, severe erosion potential, steep topography, inadequate water supply or sewage treatment capabilities, near-shore aquatic conditions unsuitable for water-based recreation, important fish and wildlife habitat, presence of significant historic sites, or any other feature of the natural land likely to be harmful to the health, safety, or welfare of future residents of the proposed subdivision or of the community.

(B) *Consistency with other controls.* Subdivisions must conform to all official controls of this community. A subdivision will not be approved where a later variance from one or more standards in

official controls would be needed to use the lots for their intended purpose. In areas not served by publicly owned sewer and water systems, a subdivision will not be approved unless domestic water supply is available and a sewage treatment system consistent with § 154.005(B) and (J) can be provided for every lot. Each lot shall meet the minimum lot size and dimensional requirements of § 154.005(A), including at least a minimum contiguous lawn area, that is free of limiting factors sufficient for the construction of two standard soil treatment systems. Lots that would require use of holding tanks must not be approved.

(C) Information requirements. Sufficient information must be submitted by the applicant for the community to make a determination of land suitability. The information shall include at least the following:

(1) Topographic contours at ten-foot intervals or less from United States Geological Survey maps or more accurate sources, showing limiting site characteristics;

(2) The surface water features required in M.S. § 505.02, Subd. 1, as it may be amended from time to time, to be shown on plats, obtained from United States Geological Survey quadrangle topographic maps or more accurate sources;

(3) Adequate soils information to determine suitability for building and on-site sewage treatment capabilities for every lot from the most current existing sources or from field investigations such as soil borings, percolation tests, or other methods;

(4) Information regarding adequacy of domestic water supply; extent of anticipated vegetation and topographic alterations; near-shore aquatic conditions, including depths, types of bottom sediments, and aquatic vegetation; and proposed methods for controlling stormwater runoff and erosion, both during and after construction activities;

(5) Location of 100-year flood plain areas and floodway districts from existing adopted maps or data; and

(6) A line or contour representing the ordinary high water level, the “toe” and the “top” of bluffs, and the minimum building setback distances from the top of the bluff and the lake or stream.

(D) Dedications. When a land or easement dedication is a condition of subdivision approval, the approval must provide easements over natural drainage or ponding areas for management of stormwater and significant wetlands.

(E) Platting. All subdivisions that create five or more lots or parcels that are 2-1/2 acres or less in size shall be processed as a plat in accordance with M.S. Chapter 505, as it may be amended from time to time. No permit for construction of buildings or sewage treatment systems shall be issued for lots created after these official controls were enacted unless the lot was approved as part of a formal subdivision.

(F) Controlled access or recreational lots. Lots intended as controlled accesses to public waters or

for recreational use areas for use by nonriparian lots within a subdivision must meet or exceed the sizing criteria in § 154.005(A)(5).

§ 154.008 PLANNED UNIT DEVELOPMENTS (PUD’S).

(A) *Types of PUD’s permissible.* Planned unit developments (PUD’s) are allowed for new projects on undeveloped land, redevelopment of previously built sites, or conversions of existing buildings and land. The land use districts in which they are an allowable use are identified in the land use district descriptions in § 154.004(B) and the official zoning map.

(B) *Processing of PUD’s.* Planned unit developments must be processed as a conditional use. Approval cannot occur until the environmental review process (EAW/EIS) is complete.

(C) *Application for a PUD.* The applicant for a PUD must submit the following documents prior to final action being taken on the application request:

(1) A site plan and/or plat for the project showing locations of property boundaries, surface water features, existing and proposed structures and other facilities, land alterations, sewage treatment and water supply systems (where public systems will not be provided), and topographic contours at ten-foot intervals or less. When a PUD is a combined commercial and residential development, the site plan and/or plat must indicate and distinguish which buildings and portions of the project are residential, commercial, or a combination of the two.

(2) A property owners association agreement (for residential PUD’s) with mandatory membership, and all in accordance with the requirements of division (F) of this section.

(3) Deed restrictions, covenants, permanent easements or other instruments that: (a) properly address future vegetative and topographic alterations, construction of additional buildings, beaching of watercraft, and construction of commercial buildings in residential PUD’s; and (b) ensure the long-term preservation and maintenance of open space in accordance with the criteria and analysis specified in division (F) of this section.

(4) When necessary, a master plan/drawing describing the project and the floor plan for all structures to be occupied.

(5) Those additional documents as requested by the Zoning Administrator or Planning Commission that are necessary to explain how the PUD will be designed and will function.

(D) *Site “suitable area” evaluation.* Proposed new or expansions to existing planned unit developments must be evaluated using the following procedures and standards to determine the suitable area for the dwelling unit/dwelling site density evaluation in division (E).

(1) The project parcel must be divided into tiers by locating one or more lines approximately parallel to a line that identifies the ordinary high water level at the following intervals, proceeding landward:

Shoreland tier dimensions:

	<i>Unsewered (feet)</i>	<i>Sewered (feet)</i>
Recreational development lakes	267	267
Natural environment lakes	400	320

(2) The suitable area within each tier is next calculated by excluding from the tier area all wetlands, bluffs, or land below the ordinary high water level of public waters. This suitable area and the proposed project are then subjected to either the residential or commercial planned unit development density evaluation steps to arrive at an allowable number of dwelling units or sites.

(E) Residential PUD density evaluation. The procedures for determining the “base” density of a PUD and density increase multipliers are as follows. Allowable densities may be transferred from any tier to any other tier further from the waterbody, but must not be transferred to any other tier closer.

(1) Residential PUD “base” density evaluation: the suitable area within each tier is divided by the single residential lot size standard for lakes or, for rivers, the single residential lot width standard times the tier depth, unless the local unit of government has specified an alternative minimum lot size for rivers which shall then be used to yield a base density of dwelling units or sites for each tier. Proposed locations and numbers of dwelling units or sites for the residential planned unit developments are then compared with the tier, density, and suitability analyses herein and the design criteria in division (F).

(2) Density increase multipliers:

(a) Increases to the dwelling unit or dwelling site base densities previously determined are allowable if the dimensional standards in § 154.005 are met or exceeded and the design criteria in division (F) are satisfied. The allowable density increases in division (E)(2)(b) below will only be allowed if structure setbacks from the ordinary high water level are increased to at least 50% greater than the minimum setback, or the impact on the waterbody is reduced an equivalent amount through vegetative management, topography, or additional means acceptable to the local unit of government and the setback is at least 25% greater than the minimum setback.

(b) Allowable dwelling unit or dwelling site density increases for residential or commercial planned unit developments:

<i>Density evaluation tiers</i>	<i>Maximum density increase within each tier (percent)</i>
First	50
Second	100

Third	200
Fourth	200
Fifth	200

(F) Maintenance and design criteria; Maintenance and administration requirements.

(1) Before final approval of a planned unit development, adequate provisions must be developed for preservation and maintenance in perpetuity of open spaces and for the continued existence and functioning of the development.

(2) Open space preservation. Deed restrictions, covenants, permanent easements, public dedication and acceptance, or other equally effective and permanent means must be provided to ensure long-term preservation and maintenance of open space. The instruments must include all of the following protections:

- (a) Commercial uses prohibited (for residential PUD's);
- (b) Vegetation and topographic alterations other than routine maintenance prohibited;
- (c) Construction of additional buildings or storage of vehicles and other materials prohibited; and
- (d) Uncontrolled beaching of watercraft prohibited.

(3) Development organization and functioning. Unless an equally effective alternative community framework is established, when applicable, all residential planned unit developments must use an owners association with the following features:

- (a) Membership must be mandatory for each dwelling unit or site purchaser and any successive purchasers;
- (b) Each member must pay a pro rata share of the association's expenses, and unpaid assessments can become liens on units or sites;
- (c) Assessments must be adjustable to accommodate changing conditions; and
- (d) The association must be responsible for insurance, taxes, and maintenance of all commonly owned property and facilities.

(G) Open space requirements. Planned unit developments must contain open space meeting all of the following criteria:

- (1) At least 50% of the total project area must be preserved as open space;

(2) Dwelling units or sites, road rights-of-way, or land covered by road surfaces, parking areas, or structures, except water-oriented accessory structures or facilities, are developed areas and shall not be included in the computation of minimum open space;

(3) Open space must include areas with physical characteristics unsuitable for development in their natural state, and areas containing significant historic sites or unplatted cemeteries;

(4) Open space may include outdoor recreational facilities for use by owners of dwelling units or sites, by guests staying in commercial dwelling units or sites, and by the general public;

(5) Open space may include subsurface sewage treatment systems if the use of the space is restricted to avoid adverse impacts on the systems;

(6) Open space must not include commercial facilities or uses, but may contain water-oriented accessory structures or facilities;

(7) The appearance of open space areas, including topography, vegetation, and allowable uses, must be preserved by use of restrictive deed covenants, permanent easements, public dedication and acceptance, or other equally effective and permanent means; and

(8) The shore impact zone, based on normal structure setbacks, must be included as open space. For residential PUD's, at least 50% of the shore impact zone area of existing developments or at least 70% of the shore impact zone area of new developments must be preserved in its natural or existing state. For commercial PUD's, at least 50% of the shore impact zone must be preserved in its natural state.

(H) *Erosion control and stormwater management.* Erosion control and stormwater management plans must be developed and the PUD must:

(1) Be designed, and the construction managed, to minimize the likelihood of serious erosion occurring either during or after construction. This must be accomplished by limiting the amount and length of time of bare ground exposure. Temporary ground covers, sediment entrapment facilities, vegetated buffer strips, or other appropriate techniques must be used to minimize erosion impacts on surface water features. Erosion control plans approved by a soil and water conservation district may be required if project size and site physical characteristics warrant; and

(2) Be designed and constructed to effectively manage reasonably expected quantities and qualities of stormwater runoff. Impervious surface coverage within any tier must not exceed 25% of the tier area, except that for commercial PUD's 35% impervious surface coverage may be allowed in the first tier of general development lakes with an approved stormwater management plan and consistency with ' 154.005(D).

(I) *Centralization and design of facilities.* Centralization and design of facilities and structures must be done according to the following standards:

(1) Planned unit developments must be connected to publicly owned water supply and sewer systems, if available. On-site water supply and sewage treatment systems must be centralized and designed and installed to meet or exceed applicable standards or rules of the Minnesota Department of Health and § 154.005(B) and (J). On-site sewage treatment systems must be located on the most suitable areas of the development, and sufficient lawn area free of limiting factors must be provided for a replacement soil treatment system for each sewage system;

(2) Dwelling units or sites must be clustered into one or more groups and located on suitable areas of the development. They must be designed and located to meet or exceed the following dimensional standards for the relevant shoreland classification: setback from the ordinary high water level, elevation above the surface water features, and maximum height. Setbacks from the ordinary high water level must be increased in accordance with division (E) of this section for developments with density increases;

(3) Shore recreation facilities, including but not limited to swimming areas, docks, and watercraft mooring areas and launching ramps, must be centralized and located in areas suitable for them. Evaluation of suitability must include consideration of land slope, water depth, vegetation, soils, depth to groundwater and bedrock, or other relevant factors. The number of spaces provided for continuous beaching, mooring, or docking of watercraft must not exceed one for each allowable dwelling unit or site in the first tier (notwithstanding existing mooring sites in an existing commercially used harbor). Launching ramp facilities, including a small dock for loading and unloading equipment, may be provided for use by occupants of dwelling units or sites located in other tiers;

(4) Structures, parking areas, and other facilities must be treated to reduce visibility as viewed from public waters and adjacent shorelands by vegetation, topography, increased setbacks, color, or other means acceptable to the local unit of government, assuming summer, leaf-on conditions. Vegetative and topographic screening must be preserved, if existing, or may be required to be provided;

(5) Accessory structures and facilities, except water oriented accessory structures, must meet the required principal structure setback and must be centralized; and

(6) Water-oriented accessory structures and facilities may be allowed if they meet or exceed design standards contained in § 154.005(B) and are centralized.

(J) Conversions. Local governments may allow existing resorts or other land uses and facilities to be converted to residential planned unit developments if all of the following standards are met:

(1) Proposed conversions must be initially evaluated using the same procedures for residential planned unit developments involving all new construction. Inconsistencies between existing features of the development and these standards must be identified.

(2) Deficiencies involving water supply and sewage treatment, structure color, impervious coverage, open space, and shore recreation facilities must be corrected as part of the conversion or as

specified in the conditional use permit.

(3) Shore and bluff impact zone deficiencies must be evaluated and reasonable improvements made as part of the conversion. These improvements must include, where applicable, the following:

(a) Removal of extraneous buildings, docks, or other facilities that no longer need to be located in shore or bluff impact zones;

(b) Remedial measures to correct erosion sites and improve vegetative cover and screening of buildings and other facilities as viewed from the water; and

(c) If existing dwelling units are located in shore or bluff impact zones, conditions are attached to approvals of conversions that preclude exterior expansions in any dimension or substantial alterations. The conditions must also provide for future relocation of dwelling units, where feasible, to other locations, meeting all setback and elevation requirements when they are rebuilt or replaced.

(4) Existing dwelling unit or dwelling site densities that exceed standards in division (E) of this section may be allowed to continue but must not be allowed to be increased, either at the time of conversion or in the future. Efforts must be made during the conversion to limit impacts of high densities by requiring seasonal use, improving vegetative screening, centralizing shore recreation facilities, installing new sewage treatment systems, or other means.