MINNESOTA DEPARTMENT OF NATURAL RESOURCES
CENTRAL REGION
1200 WARNER ROAD
SAINT PAUL, MN 55106
651-259-5800

Date: 08/19/2016

Steve Wensman
Planning Director, City of Lake Elmo
Lake Elmo City Hall
3800 Laverne Avenue North
Lake Elmo, MN 55042

RE: DNR Comments on the Concept PUD Plan for the Royal Golf Club at Lake Elmo

Steve:

The Royal Golf Club at Lake Elmo is a residential planned unit development (PUD) located at the site of the former Tartan Golf Course. The site includes shoreland district areas from four public waters: Lake Elmo (82010600), Horseshoe Lake (82007400), Rose Lake (82011200), and Downs Lake (82011000). There is an unnamed public watercourse that flows through the golf course. Since at least half of this public watercourse is in a pipe and the above ground section of the stream is entirely within the boundary of the golf course, this public watercourse has not been included in this shoreland concept PUD review. Unnamed public water wetland 82041800 is included in the City of Lake Elmo's current shoreland ordinance. However, the City is in the process of revising its shoreland ordinance and it is anticipated that this wetland, which has not been assigned a shoreland classification by MNDNR, will be removed from the City's shoreland district. Therefore, this wetland has also not been included in this shoreland concept PUD plan review.

Not enough information has been submitted with the concept plan to determine if the plan conforms to State shoreland PUD rules. In order to evaluate the PUD, a shoreland residential PUD analysis will need to be completed by the applicant. The PUD analysis is a site density evaluation (see the attached PUD evaluation sheet from DNR and MN Rules 6120.3800 for shoreland PUD standards). Please encourage the applicant to contact me prior to submittal of the preliminary PUD application for assistance on how to complete the residential PUD analysis, as a number of factors must be considered.

For the PUD analysis, the project parcel is divided into tiers (see the attached project sketch plan with tiers shown for the shoreland district areas in the PUD). First, the area in each tier that is suitable for development is calculated. Stormwater ponds may be included within the suitable area; wetlands and bluffs cannot be included in the suitable area calculation. Based on the suitable area and average lot size in each tier, the allowable base density is calculated. If there is 50 percent or more open space within the PUD, a density multipler may be used to increase density in each tier. Wetlands without a DNR shoreland classification may be included as open space; stormwater ponds and public waters and public

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
CENTRAL REGION
1200 WARNER ROAD
SAINT PAUL, MN 55106
651-259-5800

water wetlands with shoreland classifications cannot be included in the open space calculation. In addition, 70 percent of the shore impact zone (SIZ) must also be in open space.

The following are MNDNR's comments on the concept PUD plan:

- The concept PUD plan appears to meet or closely meet the 50 percent open space requirement, but a more detailed analysis of the open space calculations is needed to complete the shoreland residential PUD analysis.
- The bluff areas and wetlands within the shoreland districts for the public waters will need to be mapped. These areas must be located so that they are not included in the calculation for the area suitable for development in each tier. Also the bluff setback standard should be taken into account when planning the location of structures near bluffs.
- Additional design planning is required to develop a stormwater management plan. As part of the PUD analysis, the size and location of stormwater ponds will be required.
- The attached map shows the location of the 100-year floodplain in yellow. Proposed lots are located in the 100-year floodplain. Development within the floodplain will need to follow state and local floodplain regulations.
- Wetland Conservation Act (WCA) regulations must be followed for the WCA-delineated wetland basins on the site.
- Additional comments will be provided by MNDNR on the EAW for this proposed project.

Both the City of Lake Elmo's current shoreland ordinance and the draft shoreland ordinance amendment (currently being reviewed by DNR) require that DNR review and approve shoreland PUDs. DNR will work with the applicant on the residential PUD analysis and work with the City of Lake Elmo through the PUD review and approval process.

Thank you for the opportunity to comment on this PUD concept plan. If you have additional questions on these comments, please don't hesitate to contact me.

Sincerely,

Jenifer L Sorensen

Jenifer Sorensen
East Metro Area Hydrologist
DNR Central Region
1200 Warner Road
St. Paul, MN 55106
651-259-5754
jenifer.sorensen@state.mn.us

cc: Daniel Petrik, DNR

PUD/CLUSTER EVALUATION SHEET

Part 1. DNR In-house Information:

DNR Region and Area Number — Region____ Area_____

Checklist Preparer — _____ (Name)

Date Prepared — _____

DNR PUD Approval Required?* — ___Yes ___No

Date of Field Inspection (DNR field inspection required when the PUD is subject to DNR approval) — _____

*In shoreland areas, DNR approval is required when the local unit of government has not yet adopted planned unit development (PUD) standards compliant with 1989 Minnesota Rules, Parts 6120.2500 - 6120.3900 for shoreland areas. DNR approval is required for all wild & scenic rivers planned cluster developments (PCD). This form does not apply to the Lower St. Croix Wild and Scenic Riverway Designation.

Part 2. General Project Information:

Project Name — _____

Is this a Shoreland District PUD? — ___Yes ___No

Is this a Wild & Scenic River District PCD? — ___Yes ___No

Lake/Stream Involved (Include shoreland or wild & scenic rivers classification.) — _____ _____ (Classification)

City &/or County Name — _____ _____

The Project Proposal is for:

New Development ____

Resort Conversion ____

Redevelopment of existing site ____

Is the project one of the following:

A "residential" PUD? Residential planned unit development means 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, townhouses, cooperatives, and full fee ownership residences would be considered as residential planned unit developments. ___Yes ___No

A "commercial" PUD? 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. ___Yes ___No

NOTE: An expansion to an existing commercial PUD involving 6 or less new dwelling units or sites since the date the community adopted land use regulations compliant with the revised shorelandPUD standards in Part 6120.3800 is permissible as a permitted use (under DNR's shoreland rules), provided the total project density does not exceedthe density calculated in the project density evaluation calculations which follows in Part 5.

A combined "residential and commercial" PUD? For the purposes of this checklist, this is a development with a mixture of uses and a combination of residential/ commercial dwelling units or sites. The total project acreage must be divided between the respective tables on page 6 for residential density analysis and page 8 for commercial density analysis. If a portion of the project area is set aside for a strictly commercial activity not involving dwelling unitsor dwelling sites (e.g., a proposed/existingmarina, restaurants, etc.), then a portion of the lot must be excluded from the density evaluation noted in the preceding sentence - this would be an area equal to creating a hypothetical lot for these facilities such that all dimensional, sewage treatment and water supply, and performance standards could be satisfied assuming this development was standing on its own. ___Yes ___No

Conversion of a resort or other land use to a residential PUD? Resorts and other land uses may be converted to a residential PUD provided: 1) the proposed conversion has been initially evaluated in accordance with the criteria in Parts 5 and 6 which follow; and 2) remedial measures have been taken to correct project deficiencies as determined by the evaluation in Parts 5 and 6, all in accordance with Part 6120.3800, Subpart 5. (D) (See Attachment A, Part A). ___Yes ___No

___Yes ___No If this is a resort/other land conversion, have items 1 and 2 in the preceding paragraph been satisfied?

This checklist is designed so that an affirmative answer to the following questions will indicate that the PUD proposal meets applicable DNR shoreland/wild and scenic rivers rules. If a question is not applicable to a given PUD proposal, then an "N/A" should be entered into the "Yes" column (with an explanation, if necessary).

Part 3. Land Use District Compatibility:

Is the proposed land use permissible in the applicable zoning district? ___Yes ___No

If this is a residential PUD in a Shoreland District, does the development have at least 5 dwelling units or sites? If not, the proposal does not qualify as a residential PUD. ___Yes ___No

If this is a shoreland PUD, is the community requiring a Conditional Use application? ___Yes ___No

Part 4. Project Development Information:

Have the following project development documents been provided:

Documents that explain how the PUD will be designed and will function, as approved by the DNR/local unit of government (specify which of the following have been provided): ___Yes ___No

____ A master plan/drawing describing the project and the floor plan for all commercial structures to be occupied.

____ A property owners association agreement (for residential PUD's) with mandatory membership and all in accordance with the requirements of Part 6120.3800, subpart 5. (C) (See Attachment A, Part B); and

____ Deed restrictions, covenants, permanent easements or other instruments that: 1) properly address future vegetative and topographic alterations, construction of additional buildings, (uncontrolled) beaching of watercraft, and construction of commercial buildings in residential PUD'S; and 2) ensure the long-term preservation and maintenance of open space (in accordance with the criteria and analysis specified in Part 6. A. of this checklist).

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 (see discussion on combined residential and commercial PUD's). ___Yes ___No

The PUD applicant has satisfied all the necessary environmental assessment worksheet (EAW) or environmental impact statement (EIS) requirements. The DNR/local unit of government approval cannot occur until the environmental review process is complete. *If an EAW/EIS is required, do not answer this question "Yes" unless the required environmental review process is complete.* ___Yes ___No

In accordance with A.-C. below, attach a map or drawing which shows:

- how the project has been divided into tiers, and
- those areas 'unsuitable" for inclusion in the density calculation.

A. In a shoreland district, divide the parcel 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

	Unsewered (feet)	Sewered (feet)
General development lakes-first tier	200	200
General development lakes-second and additional tiers	267	200
Recreational development lakes	267	267
Natural environment lakes	400	320
All river classes*	300	300

B. In a wild and scenic river district, determine the tier depth dimensions for all tiers by dividing the minimum lot size by the minimum lot width requirement (NOTE: Certain urban reaches of wild and scenic rivers are managed by use of shoreland provisions which will require identifying tier depths as specified in A. above).

C. Calculate the "suitable area" for development within each tier, excluding all unsuitable areas such as wetlands bluffs, land below the ordinary high water level of public waters, controlled access lot type areas** , and the area set aside for commercial facilities not involving dwelling units or sites. This suitable area is then subjected to either the residential (subpart D below) or commercial (subpart E below) PUD density evaluation steps to arrive at an allowable number of dwelling units or sites. Include this suitable area figure in column 2 of the Residential PUD Table in subpart D or column 4 of the Commercial PUD Table in subpart E, as appropriate.

The total site acreage equals _____

Specify the total square feet/acreage of the site which is unsuitable due to:
Wetlands _____
Bluffs _____
Land below the Ordinary High Water Level _____
Controlled Access Lot Area _____
The area set aside for strictly commercial facilities _____.

** *See the discussion in Part 6. C. (4) of this checklist if it is desired to provide over-water mooring spaces for nonriparian residential lot owners. To do this, additional riparian open space area will have to be provided consistent with the controlled access lot sizing calculations in the shoreland rules and as explained in Attachment A, Part C.*

D. For Residential PUD's, determine the allowable density by tier in accordance with Steps 1-3 below:

1. In a Shoreland District, divide the suitable area within each tier 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. Complete columns 2 and 3 in the Residential PUD Table on the following page;
2. In a wild and scenic river district, divide the suitable area within each tier by the single residential lot size. Complete columns 2 and 3 in the Residential PUD Table in subitem 3 which follows; and

3. Complete the remainder of the table on the following page to the degree necessary to determine final allowable project density.

RESIDENTIAL PUD ANALYSIS

1	2	3	4	5	6	7	8	9
Tier	Suitable area/sq. ft*	Required Lot Size/ in sq. ft.	Allowable Base Density: divide Column 3 into Column 2	Density Increase Multiplier **	Total Allowable Density with Multiplier	Total Density Proposed	Cumulative Density Allowed ***	Cumulative Density Proposed ***
1				1.5				
2				2.0				
3				3.0				
4				3.0				
5				3.0				
Column Totals								

*Do not include as suitable area any wetlands, bluffs, land below the ordinary high water level, any land designated as controlled access lot area, or any land set aside for strictly commercial facilities.

**The total site acreage equals_____, and give the total square feet/acreage of the site which is unsuitable due to: Wetlands_____; Bluffs_____; Land below Ordinary High Water Level _____; Controlled access lot area_____: Land used strictly for Commercial Facilities_____ The density increase multiplier in this column can only be applied to the preceding column if the provisions of Subpart F. are satisfied.

***Use this column only if allowable density is being transferred from a given tier to another tier farther back from the waterbody. Please note that density may not be transferred from a tier farther back to a tier closer to the waterbody.

4. The proposed project density is consistent with the Residential PUD Analysis Table. ___Yes ___No

E. For commercial PUD's determine the allowable density of dwelling units or sites by completing the Commercial PUD Analysis Table in item 2 on the next page. Complete the Commercial PUD table, if necessary, concurrently with the more detailed explanation in item 1 below:

1. Density/base dwelling unit or dwelling site calculation:

   a) Determine the average inside living area size (i.e., average unit floor area) of dwelling units or sites within each tier, including both existing and proposed units and sites. Computation of inside living area sizes need not include decks, patios, stoops, steps, garages, or porches and basements, unless they are habitable space. Fill in column 2 of the table on the next page.
   b) Select the appropriate floor area ratio from the table included as Attachment B to this checklist and complete column 3 of the table below.
   c) Multiply the suitable area within each tier (in column 4) by the floor area ratio (in column 3) to yield a total floor area for each tier allowed to be used for dwelling units or sites and put the answer in column 5 of the table.
   d) Divide the "total floor area" for each tier in column 5 by the average inside living area size in column 2 to yield a base number of dwelling units or sites for each tier, put the answer in column 6.
   e) Complete the remainder of the Commercial PUD Analysis Table, as appropriate.

2. COMMERCIAL PUD ANALYSIS

1	2	3	4	5	6	7	8	9	10	11
Tier	Average Unit Floor Area/ sq. ft.	Floor Area Ratio/ From Appendix B	Suitable Tier Area/ sq. ft.*	Total Floor Area Pier Tier* Column 3 multiplied by Column 4 **	Base Density/ Divide Column 5 by Column 2 ***	Density Increase Multiplier ****	Total Allowable Dwelling Units/Sites with Multiplier	Total Number of Units/Sites Proposed	Cumulative Number of Units/Sites Allowed ******	Cumulative Number of Units/Sites Proposed ******
1						1.5				
2						2.0				
3						3.0				
4						3.0				
5						3.0				
Column Totals										

* *Do not include as suitable area any wetlands, bluffs, land below the Ordinary High Water lever, any land designated as controlled access lots, or any land set aside for strictly commercial facilities.*
The Total Site Area equals: _____
Give the total square footage/acreage of the site, which is unsuitable due to:
Wetlands: _____; Bluffs:_____; Land below the OHW level:_____;
Controlled Access Lot area:_____; Land for strictly Commercial Facilities: _____.

*** This is the total floor area for each tier allowed to be used for dwelling units or sites.*

**** This is the total number of dwelling units or sites allowable per tier without a density increase.*

***** The density increase multiplier in this column can only be applied to the preceding column if the provisions of Subpart F, which follow, are satisfied.*

****** Use this column only if allowable density is being transferred from a given tier farther back from the waterbody. Please note that density may not be transferred from a tier farther back to a tier closer to the waterbody.*

3. The proposed project density is consistent with the Commercial PUD Analysis Table. ___Yes ___No

F. **Density Increases:** Maximum density increases consistent with the density multiplier in the tables in subparts D and E above are permissible only when all of the design standards in Part 6 of this checklist are fully satisfied and one of the following provisions is satisfied: ___Yes ___No

The actual proposed structure setback(s) identified in Part 6. B. 5. c. of this checklist are equivalent to 150 percent of the minimum required structure structure setback; or ___Yes ___No

The actual proposed structure setback(s) identified in Part 6. B. 5. c. of this checklist are 125 percent of the required structure setback and the impact of reducing the structure setback from a 150 percent increase to a 125 percent increase is mitigated or reduced an equivalent amount through vegetative management, topography, or other methods acceptable to the local unit of government. ___Yes ___No

Part 6. Design and performance standards.

All PUD's must meet the following design and performance standards prior to final approval by the DNR/responsible local unit of government:

A. **Open Space Preservation and Management** ___Yes ___No

1. At least 50 percent of the total project area is preserved as open space and the following additional standards are met:
   a) 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 are not included in the computation of minimum open space.
   b) Open space does not include commercial facilities or uses (except open space may contain water-oriented accessory structures or facilities consistent with Part 6120.3300, Subpart 3, (H) (See Attachment A, Part D.) or recreational facilities for use by owners or occupants of the dwelling units or sites, or the public).
   c) Open space includes areas with physical characteristics unsuitable for development in their natural state, and areas containing significant historic sites or unplatted cemeteries.
   d) The appearance of open space areas, including topography, vegetation, and allowable uses, is preserved by use of restrictive deed covenants, permanent easements, public dedication and acceptance, or other equally effective and permanent means.
   e) All required open space areas are clearly identified or described in all final project drawings/plats and related project documents.

***NOTE**: Open space may include subsurface sewage treatment systems if the use of the space is restricted to avoid adverse impacts on the systems.*

2. The shore impact zone (SIZ), based on normal structure setbacks, is included as open space subject to the following:
   a) Determine SIZ depth by multiplying the normal minimum building setback of _____ feet by one-half to give a shore impact zone depth back from the ordinary high water level of_____ feet; and
   b) reserve the SIZ as open space as follows:
      - For new residential PUD'S, at least 70 percent of this SIZ area is preserved in its natural state.
      - For new commercial PUD'S, at least 50 percent of this SIZ area is preserved in its existing or natural state.
      - For existing developments/conversions, at least 50 percent of this SIZ area is preserved in its natural or existing state.

B. Centralization of Utilities and Structures **___Yes ___No**

1. The PUD is connected to a publicly-owned sewer or water supply system, if available.
2. If publicly-owned utility systems are not available, the on-site water supply and sewage treatment systems are centralized and will meet the applicable requirements of the State Department of Health or the Minnesota Pollution Control Agency, respectively.
3. The PUD applicant has either: 1) received any required State Minnesota Pollution Control Agency (MPCA) permit for the sewage treatment system; or 2) the applicant has received a written statement from the MPCA indicating that it is likely that there will be no anticipated problems in issuing a permit.
4. Sufficient lawn area free of limiting factors has been set aside for a replacement soil treatment system for each sewage treatment system that is constructed.

5. For residential PUD'S, all dwelling units or sites are clustered into one or more groups on suitable sites and are designed and located to meet or exceed the following standards for the relevant shoreland or wild and scenic river district classification:

	(1) Requirement of local ordinance	(2) Actual Proposal	(3) Percentage of that required by local ordinance
a) Minimum structure elevation above OHW*	_____	_____	NA_____
b) Maximum structure height	_____	_____	N/A_____
c) Minimum structure setback from the OHW	_____	_____	_____%**
d) Minimum structure setback from top of bluff, if applicable	_____	_____	_____%**

*Either state in number of feet or specify an elevation using a national geodetic vertical datum or assumed datum.

**Divide column 2 by column 1 and multiply by 100.

C. Placement of Shore Recreation Facilities

1. All swimming areas, docks and watercraft mooring areas and launching ramps are centralized in suitable locations.
2. The number of spaces provided for continuous over-water mooring, beaching or docking of watercraft does not exceed one for each first tier residential or commercial dwelling unit or site allowable in the applicable table in Part 5. D. or E. Commercial PUD'S can also include mooring sites authorized under a DNR protected water's permit for a commercial marina. Indicate the number of over-water spaces in this proposed development, and of this the number authorized under DNR permit for a commercial marina _____ _____.
3. Access to the lake or river for non-first tier property owners or for occupants of non-first tier commercial dwelling units or sites is provided only by a launching ramp. The launching ramp may include a small dock for the loading and unloading of equipment.
4. As an alternative to item 3 immediately above and for residential PUD'S only, nonriparian owners have been provided over-water mooring, beaching, or docking spaces in addition to those allowed for riparian first tier owners in item 2 immediately above. This is accomplished by providing additional "open space" in an amount (area) equal to the "controlled access lot" sizing requirements in the shoreland rules in Part 6120.3300, Subp. 2. E. (1) for the number of additional spaces proposed (complete the calculations in Attachment A, Part C). The additional open space also meets the following:

   a) A separate [controlled access] "lot of record" has not been created/subdivided, but: 1) the riparian area used for the controlled access lot sizing calculation has been clearly shown on the PUD drawings; and 2) the allowable project densities determined in Part 5. D. and E. have been redetermined to reflect the reduced riparian tier area now available for dwelling unit or dwelling site density calculations;
   b) This additional open space is treated consistent with the provisions of Part 6. A.1. a - e of this checklist; and
   c) If nonriparian dwelling units or sites are being provided with over-water mooring spaces, then indicate the total number of mooring spaces, and of this total the number

for: 1) residential/commercial first tier dwelling units or sites_____ ; 2) the number authorized under DNR permit for a commercial marina; and 3) the number of spaces for non first tier/nonriparian residential dwelling units or sites calculated on Attachment A, Part C of this checklist.

5. All launching ramps and on-water mooring structures/facilities for residential uses, within the meaning of Minnesota Rules, Parts 6115.0170, Subp. 20; 6115.0210; and 6115.0211, shall be exempt from a DNR permit if: 1) approved as part of a PUD consistent with Parts 6120.2500-6120.3900; and 2) designed and constructed in accordance with the criteria of the applicable DNR agency rule cited in this subpart.

D. Visibility. Structures, parking areas and other facilities will be treated to reduce visibility as viewed from the public water and adjacent shoreland. A specific plan/planning statement has been submitted by the applicant showing how this is to be accomplished by use of vegetation, topography, increased setbacks, color, or other means acceptable to the local unit of government/DNR, assuming summer, leaf-on conditions. ___Yes ___No

E. Erosion Control and Stormwater Management. To prevent erosion: ___Yes ___No

1) If necessary, time restrictions have been specified that limit the length of time bare ground can be exposed.
2) Temporary ground covers, sediment entrapment facilities, vegetated buffer strips or other appropriate techniques will be used to minimize erosion potential to surface waters.
3) If necessary because of special site conditions, an erosion control plan approved by the soil and water conservation district was required.
4) The project has been designed to effectively manage the quantity and quality of runoff. The project will not result in increased erosion, sedimentation or flood discharges or stages for runoff events up to and including the 100-year frequency event.
5) Impervious surface within any tier does not exceed 25 percent of the tier area (except that 35 percent impervious surface coverage may be allowed in the first tier of general development lakes with approved storm water management and vegetative control plans).

F. Accessory Structures: ___Yes ___No

1) All accessory structures and facilities, except those that are water-oriented, meet or exceed the normal structure setback standards.
2) Water-oriented accessory structures allowed within the normal building setback area are centralized and meet the standards in Parts 6120.3300, Subpart 3. B. (3) and 6120.3300, Subpart 3. (H) (See Attachment A, Part D).

Appendix 7B - Attachment A
SUPPLEMENTARY REGULATORY PROVISIONS

A. Resort Conversions
Part 6120.3800, Subpart 5. (D).

B. Provisions for Property Owners Association Agreement Documents
Part 6120.3800, Subpart 5. (C).

C. Nonriparian Over-Water Mooring/Controlled Access Lot Sizing
Part 6120.3300, Subpart E.

D. Accessory/Water Oriented Structures
Part 6120.3300, Subpart 3. (B)(3).
Part 6120.3300, Subpart 3. (H).

A. Conversions

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

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.

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:

___ Removal of extraneous buildings, docks, or other facilities that no longer need to be located in shore or bluff impact zones.

___ Remedial measures to correct erosion sites and improve vegetative cover and screening of buildings and other facilities as viewed from the water.

___ 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.

Existing dwelling unit or dwelling site densities that exceed the standards in Part 5 of this checklist 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.

B. Provisions for Property Owners Association Agreement Documents

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 reservation and maintenance of open space. The instruments must include all of the following protections:

____ Commercial uses are prohibited.

____ Vegetation and topographic alterations other than routine maintenance are prohibited.

____ Construction of additional buildings or storage of vehicles and other materials is prohibited.

____ Uncontrolled beaching of watercraft is prohibited.

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:

____ Membership is mandatory for each dwelling unit or site purchaser and any successive purchases.

____ Each member must pay a pro rata share of the association's expenses, and unpaid assessments can become liens on units or sites.

____ Assessments are adjustable to accommodate changing conditions.

____ The association are responsible for insurance, taxes, and maintenance of all commonly owned property and facilities.

C. Controlled Access for Nonriparian Owners/Over-Water Mooring Spaces

Nonriparian/non-first tier owners in residential PUD'S can be provided over-water mooring or docking spaces. Provisions of Part 6 C. of this checklist and the following provisions are satisfied.

Additional riparian open space equivalent to the width and size of a standard single residential lot is

provided for the first six additional watercraft allowed for nonriparian lots. For each additional watercraft above six, the width of the above-noted standard residential lot (using the same depth must be increased by the percentage from the following table and the calculations which follow:

CONTROLLED ACCESS FRONTAGE REQUIREMENTS

Ratio of lake size to shore length acres/mile)	Required increase in frontage (percent)
Less than 100	25
100-200	20
201-300	15
301-400	10
Greater than 400	5

CONTROLLED ACCESS SIZING REQUIREMENTS

1. Indicate the number of nonriparian/ non-Tier 1 over-water mooring spaces to be provided_____
2. Indicate the standard minimum single residential lot dimensions for this lake's classification. If 6 or less additional non-Tier 1 over-water mooring spaces are to be provided, the additional riparian open space to be provided must meet these dimensions and area. Recalculate the suitable area and allowable first tier densities in the table in Part 5. D. of this checklist to reflect the loss of suitable area due to this additional dedication of open spaces.

Width _____ Depth _____ Area _____

3. If more than 6 additional spaces are to be provided, then:
   a) Select the appropriate percentage increase multiplier from the table above ____%

   b) Multiply this multiplier in a) by the difference between the number of spaces proposed and six ___%

   c) Increase the lot width in 2. above by the total percentage multiplier calculated in b) immediately above. Assume the same lot depth in 2. above and recalculate the lot area. This is the area and dimensions for the additional open space and recalculate the figures in the table in Part 5. D of this checklist. Width _____ Depth _____ Area _____

D. Water-Oriented Accessory Structures

The structure or facility must not exceed ten feet in height, exclusive of safety rails, and detached decks must not exceed eight feet above grade at any point.

The setback of the structure or facility from the ordinary high water level must be at least ten feet.

The structure or facility 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.

The roof may be used as a deck with safety rails, but must not be enclosed or used as a storage area.

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

The structure cannot occupy an area greater than 250 square feet. As an alternative for general development and recreational development waterbodies, water-oriented accessory structures used solely tor watercraft storage, and including storage of related boating and water-oriented sporting equipment, may occupy an area up to 400 square feet, provided the maximum width of the structure is 20 teet as measured parallel to the configuration of the shoreline.

NOTE: Water-oriented accessory structures may have the lowest floor placed lower than the flood protection elevation determined if the structure is constructed of flood-resistant materials to the elevation, electncal 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.

Attachment B
COMMERCIAL PLANNED UNIT DEVELOPMENT

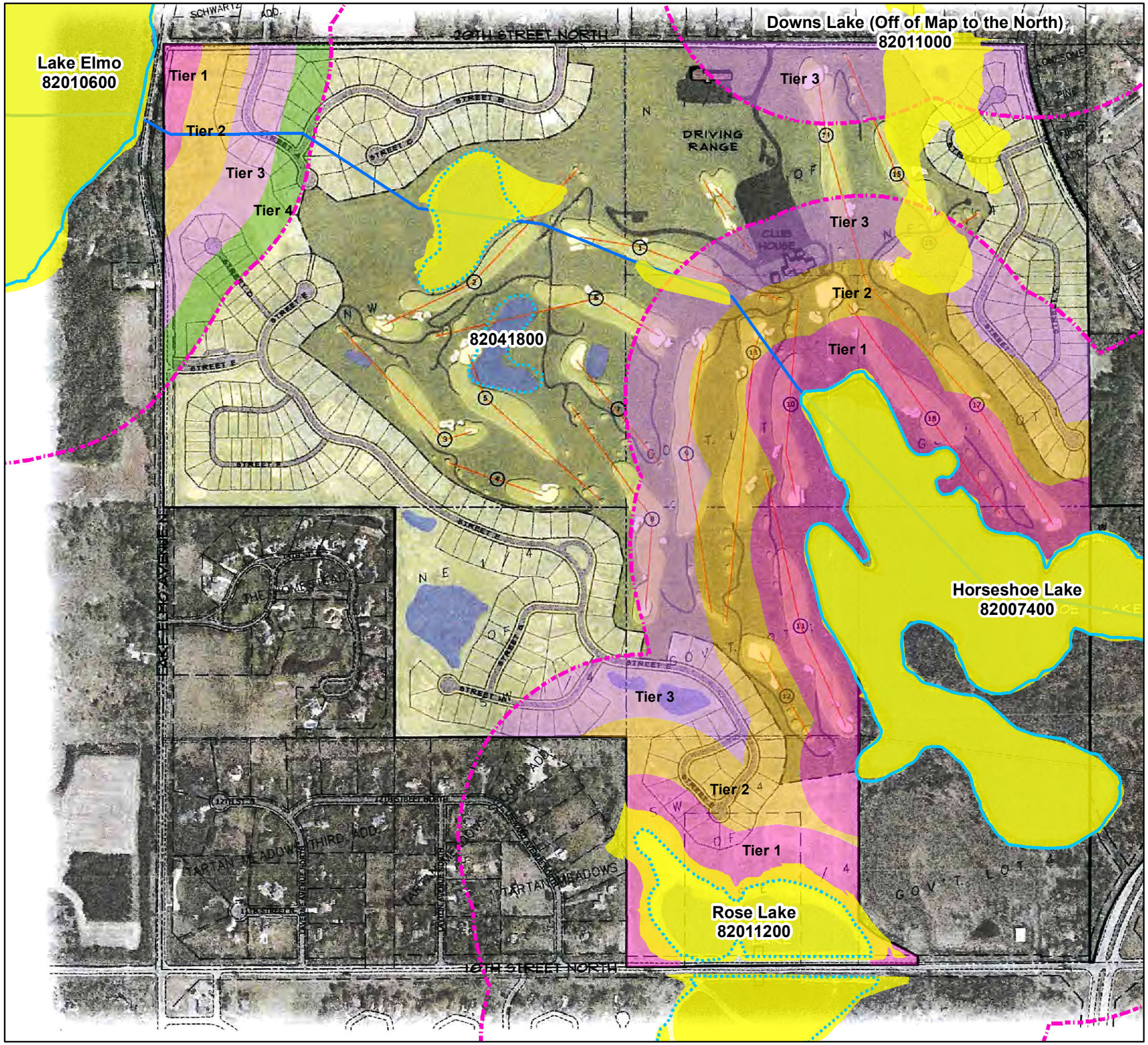
FLOOR AREA RATIOS*

Public waters classes

Average unit floor area (sq.ft.)	Sewered general development first tier on unsewered general development lakes; urban, agricultural, tributary river segments	Second and additional tiers on unsewered general development lakes; recreational development lakes; transition and forested river segments	Natural environment lakes; remote river segments
200	.040	.020	.010
300	.048	.024	.012
400	.056	.028	.014
500	.065	.032	.016
600	.072	.038	.019
700	.082	.042	.021
800	.091	.046	.023
900	.099	.050	.025
1,000	.108	.054	.027
1,100	.116	.058	.029
1,200	.125	.064	.032
1,300	.133	.068	.034
1,400	.142	.072	.036
1,500	.150	.075	.038

* For average unit floor areas less than shown, use the floor area ratios listed for 200 square feet. For floor areas greater than shown, use the ratios listed for 1,500 square feet. For recreational camping areas, use the ratios listed at 400 square feet. Manufactured home sites in recreational camping areas shall use a ratio equal to the size of the manufactured home, or if unknown, the ratio listed for 1,000 square feet.

Shoreland PUD Tiers for Royal Golf Club, Lake Elmo



Public Water Watercourse

Public Water Basin

Public Water Wetland

1000 Ft Shoreland District

PUD Shoreland Tier

Tier 1

Tier 2

Tier 3

Tier 4

100 Year Floodplain

Lake	SL Classification
Lake Elmo	Recreational Development
Horeshoe Lake	Natural Environment
Downs Lake	Natural Environment
Rose Lake	Natural Environment

N

0 250 500 1,000 Feet

MNDNR