

Carlson PLCD feedback from Susan Winsor, NRGW committee

Concerns:

***Fragility:** A large share of proposed lots lie in Conservancy Overlay District (see Sec. 12-137) and Shoreland Management Areas. Afton Sec 12-137 says “...*the Conservancy overlay district’s purpose is to manage areas unsuitable for development due to wet soils, steep slopes, ...unique areas of natural and biological characteristics....scenic views and other physical features of unique natural and biological characteristics in need of proper land use management. Such areas shall include the following:*

**Elements of local hydrologic system in need of protection and preservation.”* (My concerns are the steep slopes and the trout stream).

***Water quality:** Lake St. Croix (St Croix River) is listed on the Federal Impaired Waters List for excess phosphorus. (See <https://www.pca.state.mn.us/sites/default/files/wq-iw6-04e.pdf>). The Mn PCA calls for a 27% reduction in phosphorus contributions (loading). The steep slopes on the Eastern and Southern part of the Carlson proposed PLCD parcels are a concern because sediment (from erosion) carries phosphorus, which creates algae blooms beyond certain thresholds (stream and St. Croix River both a concern.) Stream erosion carrying phosphorus does not support a 27% reduction in St. Croix River phosphorus loading. Also, the trout stream is already impaired. (see PCA Assessment unit 82-0001-00). The section has a PCA TMDL plan for nutrient/eutrophication biological indicators.

**Sec. 12:46: 5. “Lake or stream frontage lots. All lots having frontage on a water body or lying within a Shoreland Management Area (part of this development) shall be subject to the regulations of the Shoreland Management ordinance, Article III of this chapter.” ...”All structures shall be set back a minimum of 20 ft. from the crest of all slopes exceeding 18% as determined by Zoning Administrator.:*

...Sec 12-1329 B. “Any plat proposed in a Shoreland Management District must have approval of the MN DNR...and the watershed district.”

**Carlson lots 1, 2, 3’s drainage is to the North, toward the trout stream. This trout stream is not only ecologically valuable in and of itself, but feeding into the St. Croix River to the East, a nationally designated Wild and Scenic River and does not currently meet federal water quality standards. The Minnesota PCA designates Lake St. Croix and the river to its south (that includes the part East of this development) as impaired.*

Table 49 of the PCA report below finds that the trout brook (see unnamed) exceed federal *e. coli* standards and is PCA-designated as “Outstanding Resource Value Water,” connoting high recreational and scenic value. (See <https://www.pca.state.mn.us/sites/default/files/wq-s6-48i.pdf>)(two unnamed creeks).

South Washington Watershed District (SWWD), the local watershed, says in its 2016 management plan: “*Excess nutrients in stormwater overwhelmingly drive water quality degradation in the SWWD. The source of those nutrients in SWWD is erosion.*”

-- SWWD Management Plan, page 10

Reference: <http://www.co.chisago.mn.us/DocumentCenter/View/4314>

Afton code 12:216 and 217 re slopes.

**Under LAND USE (Afton code), section D. “Within the Lower St. Croix River Bluffland and Shoreland Management District, no slopes of 12% or greater shall be disturbed (Section 12-70s).”*

Recommendations:

Superimpose the Conservancy Overlay District and the Shoreland District on this plat in order to fine tune these recommendations below, in order to reduce erosion and stream/river contamination:

*Remove Lots 1, 2, and 3 due to concerns about erosion into trout stream and river nutrient contamination. These appear to lie in the Conservancy Overlay District, and in part, in the Shoreland District.

*Convert Southwest corner of plat, South of stream, to Afton parkland as parkland dedication fee. Append any land that exceeds the 7.5% of land value stipulation to the Open Space Conservation Easement.

*Lots 4 & 5: Add parts with slopes above 13% to the 10-acre adjacent Open Space immediately to the West, and the remainder comprises one lot instead of two, if eligible per Afton zoning laws. These appear to lie in the Conservancy Overlay District, and in part, in the Shoreland District.

*Lots 9 and 10: Append to adjacent Open Space Conservation Easement for reasons of slopes above 13% grade.

*Lots 14, 15 and 16: Add those lot portions with slopes exceeding 13% to the adjacent Open Space to the North. Remaining portion comprises one lot, or whatever the remaining less steep landscape represents.

*Run plat past local watershed and Minn. DNR (Shoreland District part of it) for feedback on lot placement relative to slopes and trout stream.

*The revised plat map, after doing the above, is subject to review by MN DNR per Afton code pertaining to Shoreland Management District (Sec 12-1329) and relevant watershed district, especially relevant to concerns about erosion, slopes and trout stream integrity.