

Buffers

Several of the Design Criteria require buffers to be established in the subdivision or development process. The following table shows the dimensions of required buffers for those natural features using buffers in the Design Criteria.

| Buffer Widths | | | | | | | | | |
|---|--|-------------------------------------|---------------|--|---|-------------|---|-------------------------------------|-----------------------------------|
| Resource Priority Rank | | Minimum Buffer (in feet) | | | Avg. Buffer (if different from min.) | | Buffer Increase for Slopes | Bldg Setback from Buffer | |
| | | <i>Good</i> | <i>Better</i> | <i>Best</i> | <i>Better</i> | <i>Best</i> | | <i>Better</i> | <i>Best</i> |
| Lakes and Streams | | None | 50' | 60' | None | None | Add 25 feet for a slope at least 50' long and a grade of 10% | 50' | 90' |
| Wetlands* | | 25' | 25' | Exceptional MnRAM - 100', Otherwise 50 | 35' | 65' | Add 25 feet for a slope at least 50' long and a grade of 10% | 30' - front/rear 10' - side | 30' - front/rear 10' - side |
| Wildlife Habitat | | None | 40 - 100' | 40 - 100' | None | None | None | None | None |
| Upland Vegetation** | | None | 100' | 100' | None | None | None | None | None |
| Steep Slopes and Bluffs*** | | None | 50' | 50' | None | None | None | None | None |

* The presence of threatened or endangered species shall increase buffer to 200 feet

** The buffer is only necessary around areas within the Natural Resources Corridor.

*** Buffer (Bluff impact zone) extends 50' from top and toe of the bluff.

In addition to varying buffer sizes, other elements of buffers are used in the Design Criteria, as shown below.

| Buffer Requirements | | | | |
|--------------------------------|------------------------------------|--|-------------------------------|---|
| | Monumentation | Conservation Easement on Buffer | Vegetation Restoration | Buffer Design Criteria |
| Lakes and Streams | Required for primary buffer | Required for primary buffer | Required for new lots | Vegetation removal prohibited in primary buffer |
| Wetlands | Required every 200 feet | Required | Required for new lots | Prohibitions on vegetation removal plus additional restrictions. |
| Wildlife Habitat | Not required on buffers | Not required | Encouraged | Minimize the area converted to lawn. Lights shall be directed away from the corridor and wildlife area. |
| Upland Vegetation | Not required on buffers | Not required on the buffer | Encouraged | No buildings and roads. Vegetation removal prohibited. |
| Steep Slopes and Bluffs | Required for conservation easement | Required | Encouraged | No buildings and roads. Vegetation removal prohibited. |

Conservation Easements

Several of the Design Criteria require conservation easements to be established in order to permanently protect the natural feature. The following table describes the different applications for conservation easements.

| Conservation Easement Requirements | | |
|---|---|--|
| | Where | Allowed Activities |
| Lakes and Streams | Primary buffer of "Best" shoreland areas | Vegetation removal for a 20 x 15' access area at shore and a 6' wide path through primary buffer |
| Wetlands | Buffer | Unimproved access strip less than 20' wide. |
| Wildlife Habitat | May be required on habitat areas or corridors | Dependent on habitat survey |
| Upland Vegetation | High quality vegetation areas | Vegetative restoration. |
| Steep Slopes and Bluffs | Bluff area and impact zone. | Vegetative restoration. |

Surveys and Management Plans

The following chart summarizes where physical surveys or management plans are part of the Design Criteria.

| Surveys and Management Plans | | |
|--|---|--|
| | Submit a Plan for: | Type of Plan |
| Lakes and Streams | Vegetation removal in primary buffer | Vegetation Management Plan |
| Wetlands | Any filling, excavating or otherwise wetland altering activities | Wetland delineation report and replacement plan. |
| Woodlands | Removal of any Tree on a parcel of land containing a woodland. | Woodland Management Plan |
| Upland Vegetation | Vegetation removal within high quality upland area or buffer. | Vegetation Management Plan |
| Wildlife Habitat | Development on a site that includes or abuts a "better" or "best" wildlife habitat on the Natural Resources Corridor map. | Wildlife habitat survey |
| Endangered and Threatened Species | Development on a site that includes or abuts an area identified in the most recent version of the DNR Natural Heritage database | Habitat Site Survey |

Steep Slopes and Bluffs

Many of the natural features include steep slopes or bluffs. The following table summarizes how slope and soil type affect the size of required buffers.

| Steep Slopes and Bluffs | | | |
|---------------------------------------|----------------------------------|--|---|
| | > 18% | 10-18% | < 10% |
| Highly Erodible Soils | No development allowed | No development allowed | <50% of slope area shall be cleared or developed. |
| Low to Moderately Erodible Soils | | Impervious surface and non-native vegetation limited to <20% of the slope area. See Section 7 E.3 | Best Management Practices required. |
| Shoreland and Wetland Areas | No development allowed | Buffers and setbacks extended by 25' for a slope at least 50' in length and >10% slope | Buffers will be extended based on slope grade and length of slope area. |
| Visual Protection of Natural Features | See Section 7 of Design Criteria | Buildings must blend into slopes instead of sitting on top of slopes. High quality native vegetation MLCCS areas shall be protected. | No vegetation clearing allowed in areas with high quality native vegetation as identified by the MLCCS. |