



Designing Plats to Fit the Environment

Protecting Sensitive Waters and Shoreland Areas



Managing shoreland development helps maintain water quality and protects the scenic values of our shoreland. These qualities are not readily appreciated until they are lost, and are essentially irreplaceable. Lakes, wetlands, and streams are not adequately protected today; even adhering to minimum shoreland standards is not protecting our waters, especially the smaller, more fragile resources.

Plats must be designed to meet all dimensional standards. However, plats meeting the minimal shoreland standards do not always protect nearby waters. Some shoreland platting can result in high-density development in agricultural, rural, or otherwise low-density land use districts. Rezoning and platting will certainly alter the character and quality of our waters and surrounding lands in these cases.



Benefits of Creative Planning

A creative approach to land use planning for new plats along the water could add value to all the lots. Locating homes farther from the shore reduces impacts on water quality, habitat, and scenic values. Increased setbacks can also allow shared common space along the water for trails, picnic areas, or even beach areas for some subdivisions.

Designing creative plats can extend and preserve the benefits from being along the water to more than just a few riparian lots. Some plans create an outlot along the shore while others incorporate cluster developments to increase open space for trails, hunting, or even horseback riding. Providing all lots access to the water not only adds to the value but also may limit mowing, clearing, and other negative impacts on the shore or steep bluff areas. Details concerning the number of docks, moored boats, and other water-orientated facilities should be included in the plat process.

Evaluating Land for Platting, Sensitive Resources, and Stormwater Management

In reviewing plats, decision makers should evaluate the suitability of the land for development. Some land is unsuitable for platting, or at least platting in traditional lot/block subdivisions. Avoiding impacts on mature trees, wetlands, and floodplains can easily be accomplished with clustering of building sites. Other questions of suitability are subtler. Shoreland plats should require minimal land alterations for construction or development. Protection of the natural resources increases property values and maintains natural characteristics that draw people to our lakes, wetlands and rivers. Cluster developments have been increasingly used to preserve critical areas of natural resources, such as woodlands, wetlands, and prairies.



Many approaches to effective stormwater planning may be considered, depending on the soil types, topography, and the percentage of impervious surface area. In general, the best approach is to allow water to infiltrate in the affected area to the greatest extent possible through natural vegetative systems. Traditional stormwater plans that collect and route water offsite are not recommended because of the high cost of construction, the transfer of water problems to other properties, and the water quality impacts on our public waters. Instead, stormwater plans may include rain gardens, restoration of wetlands, or even temporary storage in small depressions

Designing Plats to Fit the Environment

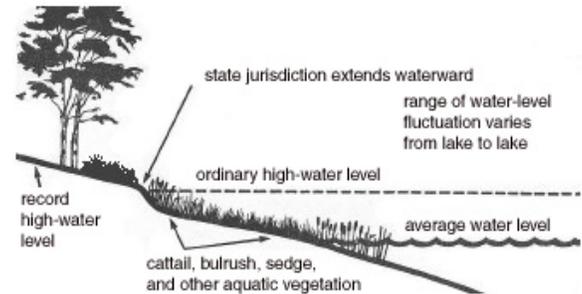
(dry ponds). Retaining stormwater storage on plats should be implemented to the greatest extent feasible. Wetlands and stormwater detention areas are critical in managing water quality and impacts on lakes and downstream waters. Any routed stormwater should be treated to provide settling and infiltration before it enters natural wetlands. The Department of Natural Resources (DNR) would object to stormwater plans that route runoff directly into public waters.

Wetlands Restrictions

Roads, driveways, and building pads should be planned without the need for filling of wetlands. Any activity below the ordinary high-water level (OHWL) that alters the course, current, or cross section of public waters or wetlands is under the jurisdiction of DNR and may require a DNR public waters permit.

Wetlands may be affected that are not under DNR jurisdiction, such as those regulated by the Minnesota Wetland Conservation Act and the U.S. Army Corps of Engineers (Corps). Minnesota Wetlands Conservation Act calls for first avoiding destruction of wetlands; if damage is unavoidable, it should be minimized. Only after attempting to avoid and minimize damage should replacement be considered.

The Corps has authority, under Section 404 of the federal Clean Water Act, to restrict activities on jurisdictional waters, including wetlands. Those activities may include discharge of fill material (concrete, dirt, rock, pilings) that may have the effect of replacing an aquatic area with dry land or raising the elevation of an aquatic area.



Shoreline cross section showing OHWL.

Easement and Deed Restrictions

Wetlands, stormwater ponds, bluffs, wooded areas, floodplains, and shore impact areas should be made outlots or have dedicated easements, covenants, or deed restrictions for their protection. The boundaries of these features should be marked with permanent monuments (signs, posts) to indicate clearly the boundary of the restricted area and to ensure that future landowners are aware of all restrictions.

Reminders of Construction-Related Restrictions

Appropriate erosion-control measures should be taken during the construction period. The construction plan should follow the guidelines in the Minnesota Construction Site Erosion and Sediment Control Planning Handbook (Board of Water and Soil Resources and Association of Metropolitan and Soil and Water Conservation Districts) or equivalent guidelines.

The *removal or destruction of aquatic plants* is a regulated activity under the Aquatic Plant Management Program. Any destruction of emergent or floating aquatic vegetation is *prohibited* unless authorized by an aquatic plant management permit from the Fisheries Division of the DNR.

If construction involves dewatering greater than 10,000 gallons per day or 1 million gallons per year, a water appropriations permit is needed DNR Waters. Processing the application and obtaining a permit takes approximately 60 days.

The comments in this brochure address jurisdictional matters and concerns of the DNR, Division of Waters. Please contact your DNR Area Hydrologist to discuss issues relating to your project or this brochure. More information is available at this website: <http://mndnr.gov/waters/shoreland.html>

