

Dane County Waterbody Classification Project

Urban Waters



Description

The Urban Waters category includes Dane County's lakes, ponds, rivers and streams that:

- have experienced the greatest direct and indirect impacts from human development to date;
- are naturally resilient in response to impacts from land use changes, or;
- a combination of both.

Urban waters are visible and accessible to a majority of the Dane County population. Consequently, they rank among the county's most highly-valued waters, and receive intensive, year-round recreational use. Water quality for urban waters may range from good to poor, with streams suffering the most from development while lakes are much more resilient. While biodiversity is generally low in streams, significant populations of sport and other fish may exist in large lakes.

Examples & Typical Characteristics



Lakes Monona and Mendota

Typical characteristics of urban lakes and ponds include:

- High development levels/impervious cover (limited opportunities)
- Low sensitivity/higher resiliency
- High flushing rates
- Larger size--more volume for dilution
- More circular shape--less shoreline developed per acre
- Nutrients--relatively less sensitive to phosphorus loads
- Shallow slopes--less vulnerable to erosion and sedimentation
- Septic suitability--developed areas are typically sewered



Starkweather Creek

Characteristics of Urban Rivers & Streams may include:

- High impervious cover (>25%)
- Poor stream quality and habitat
- Primarily a stormwater conduit
- Highly unstable stream channel
- Severe widening, downcutting, and erosion
- Diverse fish and aquatic community absent
- Spawning substrate lost
- High bacterial contamination
- High nutrient loads
- Dominated by pollution-tolerant insects and fish
- Stream ecology significantly/permanently altered
- May still possess other values such as open space, scenic beauty, trails, neighborhood identity, and terrestrial and wildlife habitat.

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Impacts Associated with Shoreland Development

- Construction site erosion from development and redevelopment.
- High-volume and flashy runoff due to high percentage impervious surfaces and loss of infiltration.
- Bank and channel erosion from concentrated runoff.
- Almost total loss of natural riparian habitat.
- Highly visible properties on heavily used waters, within an urbanized landscape.

Goals

- Improve water quality and near-shore habitat.
- Reduce or mitigate human impacts.
- Manage for multiple, appropriate, sustainable recreational uses.
- Improve aesthetics and amenity value.

Recommended Countywide Policies / Minimum Standards

1. Require an erosion control plan, meeting county standards¹, for any land disturbance in the shoreland zone, with provisions for a simplified checklist review for minor projects. (Consistent with current county Chapter 11.)
2. For new development, require a building or structure setback of at least 75 feet from the shore or from wetlands (consistent with current County Chapter 11, NR 115 and with RPC environmental corridor standards).
3. For areas with an existing pattern of development, require a variance before any building or structure setbacks could be reduced to less than 35 feet from the shore.
4. Limit removal of existing natural vegetation within 35 feet of the shore. (Consistent with state minimum standards under NR 115.)
5. Require permanent infiltration² and sediment³ practices for new development or redevelopment projects in the shoreland zone:
 - a. if total impervious surface area would exceed 4,000 square feet or 65% of the lot, or;
 - b. before approving a variance.
6. No minimum lot size other than those required under NR 115, Wisconsin Administrative Code or by municipal or county ordinance.

For more information, contact Brian Standing at standing@co.dane.wi.us or (608) 267-4115.



¹ Erosion control practices must limit soil loss to 7.5 tons/acre/year.

² Practices must be designed to infiltrate 75% of pre-development runoff volumes.

³ Practices must be designed to achieve a 40% reduction in sediment, compared with no controls.