

# Dane County Waterbody Classification Project

## Developing Waters



### Description

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

- are experiencing rapidly changing, direct and indirect impacts from human development associated with suburbanization and urbanization;
- due to their natural characteristics, are moderately sensitive to land use changes, or;
- have offsetting natural sensitivity and development conditions.

Current water quality and biodiversity for Developing Waters vary widely, but are typically declining over time – in some cases quite steeply. Because of their location on the urban fringe, lands near Developing Waters are projected to convert from agricultural and low-density residential uses to more intensive urban and suburban uses over time.

### Examples & Typical Characteristics



#### Marshall Millpond

Typical characteristics of Developing lakes and ponds include:

- Large land-locked lakes and shallow millponds
- Increased erosion and sedimentation from construction
- Increased nutrient and pollutant levels
- More frequent algae blooms
- Increased loss of shoreline habitat and structure
- Cumulative impacts results in lower fish abundance and diversity



#### Sugar River

Typical characteristics of Developing rivers and streams include:

- Intermediate and increasing impervious cover (10 to 25%)
- Significant impact at low development levels (sharp decline)
- Fair stream quality and habitat
- Greater fluctuations in water levels
- More sediment and pollutant delivery
- Spawning areas filled with silt, loss of shoreline vegetation
- Increased water temperatures and loss of coldwater species
- Decline in aquatic insect diversity
- Reduced natural reproduction and numbers of species

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### Impacts Associated with Shoreland Development

- Construction site erosion from development and redevelopment.
- Increases in variability of runoff due to increasing impervious surfaces and loss of infiltration.
- Bank and channel erosion from concentrated runoff.
- Impacts from development at site-scale not captured by current county stormwater or erosion control standards.
- Rapid loss of riparian habitat as farmland and natural vegetation removed and converted to residential and commercial turf.
- Changes in visual landscape and character from undeveloped to developed condition.

### Goals

- Protect and enhance existing natural resources.
- Reduce or mitigate human impacts.
- Provide for appropriate, sustainable recreational use and aesthetic enjoyment.

### Recommended Countywide Policies / Minimum Standards

1. Require an erosion control plan, meeting county standards<sup>1</sup>, 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. Require that new development or redevelopment meet specific water quality standards by either:
  - a. installing permanent infiltration<sup>2</sup> and sediment<sup>3</sup> practices (if not already in place), or;
  - b. meeting specific minimum lot size, setback and vegetative buffer standards<sup>4</sup>.
3. Require that new development or redevelopment immediately adjacent to the shore meet specific habitat<sup>5</sup> and visual impact standards<sup>6</sup> by either:
  - a. protecting, managing or re-establishing an onsite riparian buffer, with native vegetation, using any of a variety of approved practices;
  - b. providing compensating mitigation offsite, but along the same waterbody, or;
  - c. meeting specific minimum lot size, setback and vegetative buffer standards.

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



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

<sup>2</sup> Practices must be designed to infiltrate 90% of pre-development runoff volumes.

<sup>3</sup> Practices must be designed to achieve a 80% reduction in sediment, compared with no controls.

<sup>4</sup> 2 acres / 200' width; 100 ft. setback; 75-foot deep vegetative buffer

<sup>5</sup> Practices must score minimum of 75 points based on square feet protected or restored , location and quality of habitat.

<sup>6</sup> Practices must score minimum of 75 points based on habitat standards above, compliance with local design standards, and effectiveness of techniques to reduce visual impact.