

Dane County Waterbody Classification Project

Rural Waters



Description

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

- have experienced the least direct and indirect impacts from human development to date;
- due to their natural characteristics, are extremely sensitive to land use changes, or;
- a combination of both.

Based on adopted plans, agriculture, forestry, natural resource reserves and outdoor recreation will likely continue as predominate land uses in the shorelands and watersheds of Rural Waters. Current water quality and existing biodiversity are both very high, and generally stable over time. Rural Waters typically either already have, or have the potential for, natural vegetative buffers wide enough to provide maximum benefits for water quality, wildlife habitat and natural scenic character. Natural hydrology is largely intact, thanks to low impervious surface cover and low groundwater withdrawal rates.

Examples & Typical Characteristics



Hook Lake

Typical characteristics of rural lakes and ponds include:

- Low development levels/impervious cover in shoreland zone
- High environmental sensitivity
- Excellent shoreline structure
- Low flushing rates
- Smaller size--less volume for dilution
- Irregular shape--more shoreline developed per acre
- Nutrients--more sensitive to phosphorus loads
- Steep slopes--more vulnerable to erosion and sedimentation
- Septic suitability--high groundwater or excessive percolation rates



Black Earth Creek

Typical characteristics of rural rivers and streams include:

- Low impervious cover (<10%) throughout watershed
- Good stream quality and habitat
- Stable channels
- Diverse fish and aquatic insects
- Maximum groundwater discharge
- Minimum temperature fluctuations
- Natural stormwater peaks and volumes

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Impacts Associated with Shoreland Development

- Construction site erosion from development and redevelopment.
- Poor placement of agricultural or residential structures can result in serious runoff, manure concentrations or over-grazing, resulting in sedimentation or pollution.
- Highly sensitive natural systems and species can react strongly to even small changes in the landscape.
- Fragmentation and interruption of riparian habitat from removal of natural vegetation.
- Visual intrusions into predominately rural or undeveloped landscape.

Goals

- Protect existing natural resources and their ecological function.
- Minimize human impacts to prevent degradation.
- Provide for low-impact, sustainable recreational use and aesthetic enjoyment.

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. Require that new development or redevelopment meet specific water quality standards by either:
 - a. installing permanent infiltration² and sediment³ practices (if not already in place), or;
 - b. meeting specific minimum lot size, setback and vegetative buffer standards⁴.
3. Require that new development or redevelopment immediately adjacent to the shore meet specific habitat⁵ and visual impact standards⁶ 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 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 100% of pre-development runoff volumes.

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

⁴ 4 acres / 300' width; 200 ft. setback; 100-foot deep vegetative buffer

⁵ Practices must score minimum of 100 points based on square feet protected or restored , location and quality of habitat.

⁶ Practices must score minimum of 100 points based on habitat standards above, compliance with local design standards, and effectiveness of techniques to reduce visual impact.