

2026 Minnesota State Envirothon - Aquatic Ecology Study Guide

Traditional Ecological Knowledge (TEK) in Minnesota

Traditional Ecological Knowledge refers to knowledge held by Indigenous peoples such as the Ojibwe and Dakota, developed through generations of interaction with local ecosystems. TEK emphasizes relationships, sustainability, and long-term observation.

Resources:

[Unlocking Native Wisdom – Anton Treuer](#)

<https://glifwc.org/language-culture/indigenous-knowledge>

Eutrophication in Minnesota

Eutrophication occurs when excess nutrients, especially phosphorus, enter lakes and rivers, causing algal blooms and oxygen depletion.

Resources:

[Minnesota Pollution Control Agency - Harmful Algal Blooms](#)

[University of Minnesota Extension](#)

[Minnesota Efforts to Reduce Nutrient Enrichment - MPCA](#)

Aquatic Invasive Species (AIS) in Minnesota

AIS are non-native species that harm aquatic ecosystems by outcompeting native species.

Resources:

[Minnesota Aquatic Invasive Species Research Center](#)

[Minnesota Department of Natural Resources](#)

Contaminants of Emerging Concern (Including PFAS)

CECs include chemicals like pharmaceuticals and PFAS that may impact aquatic ecosystems and human health.

Resources:

[Minnesota Department of Health CEC Initiative](#)

[Minnesota Pollution Control Agency - Understanding Emerging Contaminants](#)

[MPCA- PFAS in Minnesota](#)