



# Weight-of-Evidence: Application for Transparent and Defensible Nutrient Criteria Development



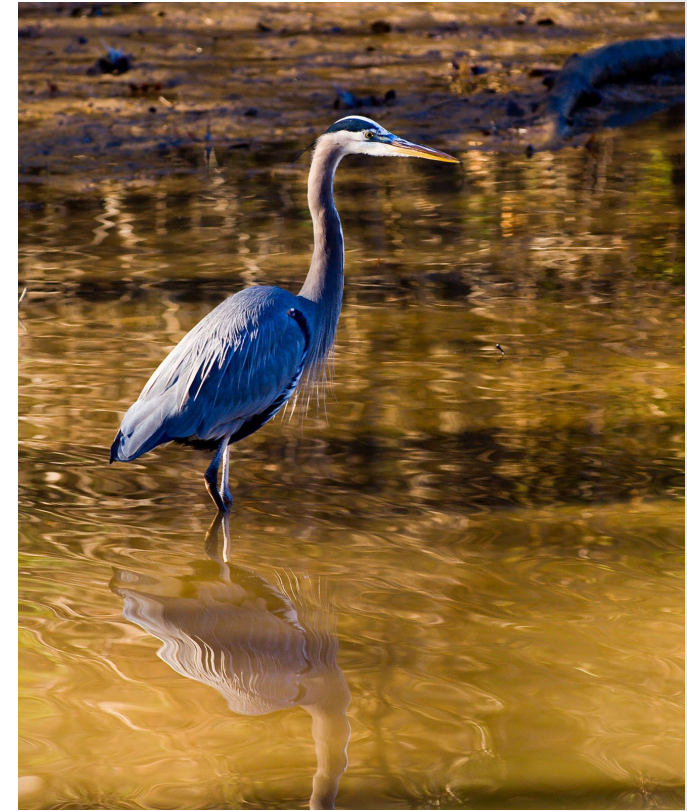
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**Problem:** Resources were not readily available for how to conduct weight-of-evidence (WoE) when developing numeric nutrient criteria (NNC), despite its value and recommendation by EPA.

**Action:** Develop materials with definitions, best practices, and examples to show how WoE can be used to combine diverse evidence applicable to NNC development.

**Result:** States, Tribes and Territories have additional tools that complement OW's N-STEPS program and other technical guidance that enable (1) maximum use of all available evidence during the criteria development process and (2) decisions about which WoE methods to use given unique evidence, resource, and timeline constraints.

**Impact:** States, Tribes and Territories further strengthen transparency and defensibility of NNC that protect designated uses.



# What is Weight-of-Evidence (WoE)?

Weight-of-evidence is a process in which evidence is assembled, evaluated, and integrated to make a technical inference in an assessment.

## Gather an unbiased base of information.

- Conduct studies and analyze data to produce evidence; search, screen and extract evidence from published literature; solicit evidence from experts and stakeholders.

## Determine the influence each piece of evidence should have on overall conclusions.

- Evaluate and score relevance, strength, and reliability of evidence; combine scores to determine weight.

## Combine individual pieces of weighted evidence to form lines of evidence and determine which hypothesis is supported and with how much confidence.

- Integrate evidence to produce weight of the body of evidence; interpret the body of evidence; explain discrepancies and uncertainties.







# Final Report Available Now!

<https://www.epa.gov/water-research/application-weight-evidence-methods-transparent-and-defensible-numeric-nutrient>

- Download a copy of the report!
- Future home of additional implementation resources
  - Templates
  - Short videos
- [Ridley.Caroline@epa.gov](mailto:Ridley.Caroline@epa.gov)



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## Application of Weight-of-Evidence Methods for Transparent and Defensible Numeric Nutrient Criteria



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