

**Objectives and Test Questions for the Presentation by Mick Micacchion on  
“Biological Components of Compensatory Mitigation Wetlands”**

**Objective #1** – Understand how the abiotic components impact the biotic components of a mitigation wetland.

**Objective #2** - Understand how to characterize reference condition.

**Objective #3** – Understand how to develop IBIs and set quantitative ecological performance standards that are achievable and reasonable.

**Five test questions**

1. What components are important for site selection? (select all that apply)
  - A. Correct texture and compactness of soils.
  - B. Correct type of hydrologic regime for wetland type.
  - C. Correct water chemistry.
  - D. Correct slopes, depths and microtopography.
  - E. Adequately wide buffers and low intensity surrounding land uses.

**Answer:** *All of the above*

2. Which of the following statements is false?
  - A. Ecological understanding gained from defining reference condition leads to development of reasonably achievable and quantifiable performance standards.
  - B. Expectations for performance standards change with differing classes of wetlands, ecoregions, plant community classes and watershed of a project.
  - C. Undisturbed reference wetlands may not exist in your state in which case you should select the least disturbed wetlands for reference.
  - D. A reference network of wetlands should be selected that represent the diversity of all wetland types.
  - E. Reference wetlands should be sampled to verify the level of performance desired on a trajectory to reaching reference condition.

**Answer:** *D*

3. Which statement below is true?
  - A. Your IBI score is unrelated to the gradient of human disturbance.
  - B. IBI scores should only be developed for wetland vegetation.
  - C. Native flora is genetically stronger and therefore better suited to thrive in disturbed wetlands than non-natives.
  - D. You should use the same IBI metrics for all taxa.
  - E. The biological species of wetlands and how they respond to stressors can be used to develop IBIs.

***Answer: E***

4. Monitoring of compensatory mitigation wetlands is needed to: (select all that apply)
- A. Take any necessary adaptive management actions.
  - B. Confirm that the mitigation site is on a trajectory to reach performance targets.
  - C. Compare reference wetlands to compensatory mitigation wetlands.
  - D. Watch for and manage invasive species infestations.
  - E. Track abnormal wildlife behavior.

***Answer: A, B, C and D***

5. Habitat needs for biotic elements on mitigation sites include: (select all that apply)
- A. Appropriate microtopography.
  - B. High level intensity surrounding land uses that incentivize migration of species onto the mitigation site.
  - C. Soils that hold water during the summer months.
  - D. Supply of plants and animals that make up targeted animal species diets.
  - E. Poor water quality.

***Answer: A and D***