

# USACE Great Lakes & Ohio River Division Water Management

**ORSANCO**  
Technical Committee Meeting  
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US Army Corps of Engineers  
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# Ohio River WQ Monitoring

- Developing LRD Op Order
  - ▶ Directs Districts to revise non-federal hydropower MOUs
    - Real-Time Data Collection
    - Parameters (D.O. & Temp.)
    - Upstream & Downstream Monitoring Locations
    - Web Availability
  - ▶ Timeframe for implementation - TBD



# Climate Change

- National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate
  - ▶ *“Work with States and interstate bodies (e.g., river basin commissions) to provide assistance needed to incorporate IWRM into their planning and programs, paying particular attention to climate change adaptation issue.”*
- *Pilot Project underway*
  - ▶ *Can regional mitigation/adaptation strategies be operationalized and deployed within the Ohio River Basin to encounter anticipated water resources, ecological and infrastructure impacts due to climate change?*
    - USACE – USGS – NOAA – TNC – Battelle – MU - Others



# Harmful Algae Blooms

- LRD HAB Response Strategy
  - ▶ Initial reliance on cell densities, not toxins
    - Toxin data may be used to inform decision making process.
  - ▶ Consistent with World Health Organization guidance.
  - ▶ BGA >20,000 cells/mL - - - ADVISORY
  - ▶ BGA >100,000 cells/mL - - - CAUTION
- LRD (Huntington District) – testing new analytical equipment for rapid algae identification/enumeration.
  - ▶ ‘trainable’ continuous imaging flow cytometer
  - ▶ Individual particle imaging and real time capabilities





Blue-green Algae Awareness Level

# ADVISORY

Elevated Risk of Adverse Health Effects

## BLUE-GREEN ALGAE BLOOMS ARE PRESENT

For Your Safety, The U.S. Army Corps of Engineers, \_\_\_\_\_ District  
Recommends the Following:

- DO NOT drink untreated lake water.
- Use caution when swimming, water skiing and coming into contact with water.
- Children and animals are more likely to get sick with exposure to or consumption of blue-green algae.
- Avoid areas with visible algae accumulation.

Symptoms from exposure may include nausea, vomiting, diarrhea, skin rash, eye irritation, respiratory problems or other unexplained illness.

For more information go to:



Report algae blooms to:

For additional information contact your local health department:



Blue-green Algae Awareness Level

# CAUTION

Elevated Risk of Adverse Health Effects

## BLUE-GREEN ALGAE BLOOMS ARE PRESENT

For Your Safety, The U.S. Army Corps of Engineers, \_\_\_\_\_ District  
Recommends the Following:

- DO NOT drink untreated lake water.
- Use caution when swimming, water skiing and coming into contact with water.
- Children and pets are more likely to get sick because of blue-green algae.
- Contact with the water is discouraged (e.g., swimming, wading, water skiing).
- Keep pets/livestock off of the beach and out of the water.
- Avoid areas with visible algae accumulation.

Symptoms from exposure may include nausea, vomiting, diarrhea, skin rash, eye irritation, respiratory problems or other unexplained illness.

For more information go to:



Report algae blooms to:

For additional information contact your local health department:



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# Water Control Manuals

- Districts to begin revising 2 manuals each year.
- If the plan is revised (water use changes) the public will have a chance to provide comments.



# *E*-flow study: Pittsburgh District

- In July 2011, the PA DEP funded TNC to develop basin-wide ecosystem flow recommendations for the sub-watersheds of the Ohio River Basin in Pennsylvania.
- Because the PA study did not include the upstream portion of the Monongahela River Basin located in West Virginia, the Pittsburgh District USACE (District) is working with TNC to expand the scope of the study to include the entire basin and also more detailed analyses of river reaches affected by reservoir storage and releases.
- Study results will be utilized to assess operations of District reservoirs located in the Monongahela River Basin (Youghiogheny, Stonewall Jackson, and Tygart River Lakes) and to update Water Control Manuals for these projects, and also to support the District's ongoing Monongahela River Watershed Assessment Plan .





# QUESTIONS?



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