

**Addressing Harmful Algal Blooms  
(HAB) and Reducing Nutrients in  
Wastewater:  
Community Loan Discounts and Grant  
Money for Equipment**

**June 23, 2015**

# WPCLF Program

- Below-market rate loans available for planning, design, and construction of wastewater infrastructure.
- Program administered by Ohio EPA, Division of Environmental and Financial Assistance (DEFA).
- Funds administered by the Ohio Water Development Authority (OWDA). Board meeting on last Thursday of the month (except November and December).

# WPCLF Nutrient Reduction Discount

- \$100 million in WPCLF loans at a zero (0) percent interest rate for WPCLF projects that include equipment and facilities to reduce the levels of phosphorus and other nutrients.
- 2015 nominations will be carried over into 2016.
- An additional \$100 million in 0 percent interest loans is expected to be available in 2016.

# Nominations

- Project nominations can be submitted throughout calendar year 2015 for planning, design, and construction loans.
- Nomination must include NRD Project Addendum.
- Electronic submissions only:

[epa.defamail@epa.ohio.gov](mailto:epa.defamail@epa.ohio.gov)

# Planning Loans

- The 0% interest NRD will be applied to 100% of a planning loan if the project description supports the conclusion that the project will result in nutrient reduction.

# Design Loans

- The 0% interest NRD will be applied to 100% of a design loan if facilities planning information supports the conclusion that the project will reduce nutrient discharge.

# Construction Loans

- The 0% interest NRD will be applied to a construction loan amount at the same percentage as the nutrient removal efficiency of the portions of the project attributable to nutrient reduction.

# Design Nutrient Removal Efficiency

- Estimate based on:
  - (1) **sampling and analysis** if data is available
  - (2) results of any **bench or pilot tests**
  - (3) **mass balance** if done as part of the design
  - (4) **engineering judgment** and available literature.

# New WWTPs, Major Upgrades & Expansions

- The NRD will apply to the bid cost of the WWTP (except processes that do not reduce nutrients) at the same percentage as the nutrient removal efficiency. If the WWTP will remove 80% of the nutrient, the NRD will apply to 80% of the cost (except for processes that do not reduce nutrients).

# Improvements to Individual WWTP Processes

- The NRD will apply to the cost of the treatment process at the same percentage as the nutrient removal efficiency. For example, if 15% of the phosphorus will be removed in the primary clarifiers, the NRD will apply to 15% of the cost of primary clarifier improvements.

# Individual Equipment Items for Nutrient Removal

- The NRD will apply at 100% for equipment items that have the purpose of nutrient reduction, such as chemical storage and metering pumps for phosphorus removal.

# General Equipment Items

- Equipment that is necessary for the overall reliability and/or operation of the WWTP (emergency generator, instrumentation, SCADA improvements, etc.). Apply the NRD to the equipment cost at the same percentage as the overall nutrient removal efficiency of the WWTP, whether or not the project will increase the design nutrient removal effectiveness of the plant.

# Harmful Algal Bloom Funding

- Loan program for infrastructure improvements
- Grant program for cyanotoxin testing equipment

# HAB Loan Program

- Additional \$50 million in 0% interest for 20 years, to address HAB issues at surface water treatment plants
- PY15 \$50 million accepted projects are being grandfathered into PY16, must proceed to award by March 1, 2016

# Eligible Projects

- Treatment processes to address toxins produced from HABs
- Projects that implement avoidance strategies such as interconnections with other water supplies
- New elevated storage facilities
- Installation of alternative sources of raw water

# Nomination Period

- Ohio EPA will be accepting nominations for projects until the fund has been fully allocated
- Nomination form can be found at:

<http://epa.ohio.gov/ddagw/financialassistance.aspx#113402734-drinking-waterbrassistance-fundbrnbsp>

# Examples of Projects Received

- Improved raw water sources
- Development of groundwater sources
- Enhancement of surface water treatment (Ozone, PAC, Potassium Permanganate)
- Emergency interconnections
- Additional finished water storage

# Cyanotoxin Testing Equipment Grant

- Ohio public water systems that utilize a surface water source are eligible to apply.
- Equipment obtained under the grant must be for the sampling and analysis of cyanotoxins.
- Satellite distribution systems are not eligible for these grants.
- Maximum of \$30,000 per public water system
- No match required

# Items eligible for reimbursement

- Microtiter plate reader spectrophotometer (ideally linked to computer for software analysis of results).
- Single and Multi (8) channel pipettes, pipette tips, plate covers, reagent basins, vials and glassware.
- ELISA method test kits for Microcystin (ADDA) and other cyanotoxins.

# Items eligible for reimbursement

- Microscope with an aperture diaphragm (contrast) control, mechanical stage, binocular eyepiece tube, and magnification from 200 times to at least 400 times (10x optic lens and minimum 20x and 40x objective lenses).
- Sondes with any or all of the following sensors: Phycocyanin, Chlorophyll, Conductivity, Temperature, and pH.
- Additional equipment associated with sonde use: wiper system for sensors, handheld device for data viewing, and connector cables.

# Items eligible for reimbursement

Sonde installation and telemetry. If a sonde will be mounted to an intake structure or buoy, installation costs and telemetry costs are eligible. Telemetry can include: data logger, cell modem, enclosure, solar panel, regulator, battery and one year subscription to a hosted website. If linking to an existing SCADA system, telemetry can also include adapter, cable, and a set of radios for data transmission. Buoy costs are also eligible.

# Items eligible for reimbursement

- Sampling equipment: integrated depth sampler, Van Dorn sampler, Wisconsin-sampler/phytoplankton nets.
- Training on any of the following topics: reservoir management, phytoplankton identification, treatment optimization for HABs, sonde operation/calibration, and ELISA analytical methods

# Application

- [http://www.epa.ohio.gov/HAB\\_funding.aspx](http://www.epa.ohio.gov/HAB_funding.aspx)
- Applications will continue to be accepted until the funds are depleted.
- Approximately \$500,000 is still available.

# More Information

[www.epa.ohio.gov/defa/EnvironmentalandFinancialAssistance.aspx](http://www.epa.ohio.gov/defa/EnvironmentalandFinancialAssistance.aspx)

<http://epa.ohio.gov/ddagw/HAB.aspx>

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