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Adopted Sept. 11, 2012

## Resolution: Priorities for Reducing Phosphorus Loadings and Abating Harmful Algal Blooms in the Great Lakes-St. Lawrence River Basin

**Whereas**, both point and nonpoint sources of pollution continue to impact the health of the Great Lakes-St. Lawrence River ecosystem; and

**Whereas**, over the past several years all five of the Great Lakes have experienced noticeable increases in algal growth with western Lake Erie reaching crisis levels in 2010 and 2011; and

**Whereas**, phosphorus has long been known as the critical element and limiting factor for aquatic plant growth in freshwater ecosystems and, when present in excessive amounts, causes oxygen depletion (hypoxia), leading to dead zones and unsightly and harmful algal blooms; and

**Whereas**, excessive nutrient loadings, especially inputs of phosphorus from agricultural lands, are again negatively impacting areas of the basin, especially western and central Lake Erie and certain nearshore areas and embayments of the other Great Lakes; and

**Whereas**, point source inputs of phosphorus from wastewater treatment plants and other permitted facilities are still a concern in some areas of the Great Lakes-St. Lawrence River basin; and

**Whereas**, the Great Lakes Commission, reacting to this problem took action at its 2011 Annual Meeting to form a Great Lakes-St. Lawrence River Phosphorus Task Force, comprised of agency officials from each of the Great Lakes states and provinces; and

**Whereas**, the charge to the task force was to: 1) develop a suite of recommendations for federal, state and provincial actions to reduce phosphorus, focused on priorities for clean water infrastructure, research, technical assistance, and outreach and education; 2) review opportunities for expanding and enhancing programs proposed as part of the reauthorized 2012 Farm Bill to reduce phosphorus and improve nutrient management for water quality improvement; and, 3) investigate opportunities to address critical nutrient management issues by working more closely with the NRCS-led technical committees in each state; and

**Whereas**, the task force has completed its report titled *Priorities for Reducing Phosphorus Loadings and Abating Harmful Algal Blooms in the Great Lakes-St. Lawrence River Basin*, which presents findings and recommendations to focus future phosphorus load reduction efforts related to: 1) policy and programmatic actions; 2) implementation of programs and practices; 3) research and science; 4) innovation of technologies and equipment; 5) improved communication and coordination; and 6) information, education and outreach; and

**Whereas**, the task force finds that government policies and programs dealing with nutrient management, especially those managed by the states and provinces, should be reviewed and evaluated for opportunities to be streamlined, combined and better coordinated to achieve phosphorus reduction goals; and

**Whereas**, the task force finds that government financial assistance and technical assistance programs will be more effective by targeting them toward priority watersheds where phosphorus loadings have been identified as a problem; and

**Whereas**, the task force finds that the Clean Water State Revolving Loan Fund (SRF) program is crucial to the states' efforts to help control point source discharges of phosphorus to the Great Lakes and must be funded at robust levels to ensure that phosphorus reductions goals are met; and

**Whereas**, the task force finds that there is a need for comprehensive information/education and outreach programs focused on phosphorus reduction and targeted at specific audiences such as landowners and fertilizer dealers; and

**Whereas**, the task force finds that there are many priority needs in the area of research, science and innovation that should be acted upon by appropriate lead agencies and include issues related to: 1) better understanding the relationship between total phosphorus and dissolved reactive phosphorus in aquatic ecosystems, 2) conducting a phosphorus mass balance study, 3) reviewing and evaluating the use and effectiveness of in-stream BMPs for phosphorus reduction, and 4) creating market-based incentives for development and use of new equipment for applying phosphorus fertilizer, among others.

**Therefore, Be It Resolved**, the Great Lakes Commission formally receives the report from the Great Lakes-St. Lawrence River Phosphorus Reduction Task Force and extends its appreciation to the members of the task force for its work and accomplishments to help protect the land and water resources of Great Lakes and St. Lawrence River; and

**Be It Further Resolved**, the Great Lakes Commission agrees to carefully consider the full suite of 50 recommendations presented under the six report categories and, where appropriate, will act upon them directly and communicate them to state, provincial and federal agency directors and decisionmakers; and

**Be It Further Resolved**, the Great Lakes Commission specifically recognizes the importance of the following recommendations from the report and will carefully consider them for early action:

- The U.S. Environmental Protection Agency, USDA's Natural Resources Conservation Service (NRCS) and other federal agencies should provide block grants to the Great Lakes states for large-scale watershed projects capable of achieving measurable reductions in loadings of phosphorus and other nutrients to the Great Lakes system. Similarly, the Great Lakes Restoration Initiative (GLRI) should support fewer but larger-scale nutrient reduction projects in priority watersheds, especially those where excessive phosphorus loadings have been identified as a problem. These larger projects should also be planned for a longer timeframe.
- NRCS should provide block grants to or establish cooperative agreements with the Great Lakes states to ensure that adequate technical assistance is available to deliver conservation treatment programs designed to reduce phosphorus. Some specific priorities include maintaining the Strategic Watershed Action Teams to provide adequate field personnel to deliver programs at the watershed scale; streamlining technical assistance agreements with the states to facilitate partnerships with Soil Conservation Districts to provide field staff in priority watersheds; and providing NRCS with the flexibility to use financial assistance funding to secure additional technical assistance in priority watersheds.

- Using Ohio as a model, the Great Lakes states should establish regulatory authority to designate stressed watersheds and trigger mandatory actions to reduce pollutant loadings.
- Appropriate government agencies should conduct a phosphorus mass-balance study for each of the Great Lakes and develop in-lake criteria for nutrient concentrations based on Great Lakes aquatic eco-zones, such as the western Lake Erie basin, Saginaw Bay and Green Bay. Research agencies and institutions should develop a dissolved (soluble) phosphorus fate and transport model with factors for subsurface drainage discharges. The U.S. Geological Survey and state partners should establish a comprehensive phosphorus monitoring network to guide implementation priorities and monitor progress in reducing nutrient loadings.
- NRCS should consider requiring soil testing (and making results available on a confidential basis to state agencies) for landowners receiving cost-share funding under Farm Bill conservation programs. Conservation plans should be modified if soil tests indicate high levels of phosphorus in the soil.
- All applications of phosphorus fertilizer on cropland in GLRI-designated priority watersheds should be applied below the soil surface or incorporated into the soil immediately after application in a non-erosive manner.
- USDA's Agriculture Research Service and farm equipment manufacturers should be charged with developing phosphorus fertilizer placement equipment that places the material under the soil surface in a non-erosive manner that virtually eliminates dissolved phosphorus runoff.

**Be It Further Resolved,** the Great Lakes Commission calls on Congress to reauthorize the U.S. federal Farm Bill and provide funding for the conservation title as close as possible to the current baseline average of \$6 billion annually, and that a new regional conservation partnership program should be included that enables states, regional organizations and watershed-based organizations to receive funding, on a competitive basis, to implement conservation treatment programs in priority watersheds and that, in the Great Lakes, highest priority should be afforded to programs that reduce phosphorus in priority watersheds; and

**Be It Finally Resolved,** the Great Lakes Commission calls for the states and provinces to be in continued dialogue and collaboration with Environment Canada, the U.S. Environmental Protection Agency, the U.S. Department of Agriculture – Natural Resources Conservation Service and the International Joint Commission to ensure that the interests of the states and provinces are given priority in the implementation of important regional initiatives with a phosphorus reduction emphasis such as the Great Lakes Water Quality Agreement, the Great Lakes Restoration Initiative, the Farm Bill and the Lake Erie Ecosystem Priority, among others.