



Compiled NOAA and EPA Preliminary Decisions on Indiana's Coastal Nonpoint Program Since Receiving Conditional Approval (July 14, 2016) – Allison Castellan, Coastal Management Specialist, National Oceanic and Atmospheric Administration

I. AGRICULTURE

CONDITION: Within five years, Indiana will demonstrate that it has programs in place to conform with the 6217 (g) guidance. Within five years, Indiana will submit a legal opinion and other supporting documents as described in the *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance* (October 1998) to demonstrate that it has adequate back-up authority to implement the agricultural management measures throughout the 6217 management area.

INTERIM DECISION: Indiana has fully satisfied these conditions. Indiana has demonstrated it has programs in place to conform to the 6217(g) guidance for all agriculture management measures (except for the irrigation management measure, which NOAA and EPA had previously granted an exclusion for). The State has also provided a legal opinion and supporting documentation that demonstrates it has adequate back-up authority to implement the agriculture management measures throughout the 6217 management area.

RATIONALE: Indiana has satisfied these conditions through a variety of regulatory and voluntary approaches, including its combined feeding operation rule, fertilizer and pesticide rules, and extensive outreach and technical assistance efforts through partnerships with the USDA National Resource Conservation Service (NRCS), local soil and water conservation districts, and Purdue Extension.

IDEM updated its combined feeding operation rule 327 IAC 19-12-14 in 2012 which brought it into conformity with the (g) guidance for both the large and small combined animal facility management management measures. Under the rule, all new manure storage structures for combined feeding operations must be designed, constructed, and maintained with a combined storage capacity of at least 180 days storage for all materials entering the storage structure. In addition, uncovered manure storage structures must include a 24-inch freeboard to manage rainfall and runoff from a 25-year, 24-hour precipitation event. The rules also provide requirements for storage structure design to ensure they are constructed and lined appropriately to protect human health and environmental safety (137 IAC 16-8-3).

Indiana has met the first six of the seven parts of the nutrient management measure through passage and implementation of the fertilizer rule 355 IAC 8 (which applies statewide). The rule

includes many components that are consistent with the 6217(g) guidance such as requirements for developing a fertilizer application plan that considers soil fertility, crop need, and availability of nutrients from other sources. The rule also has requirements for setbacks, staging, monitoring, and record keeping that also meet the 6217(g) guidance nutrient management measure.

Indiana addresses the seventh element of the nutrient management measure, proper calibration and operation of nutrient application equipment, through the state's training materials for and licensing of agricultural fertilizer applicators and the Field Office Technical Guide (FOTG) standard for nutrient management (#590). In order to legally use (apply, handle, transport) or supervise the use of commercial fertilizers or manure from a combined feeding operation for hire, a person must obtain a commercial fertilizer applicator license by passing the Category 14 Agriculture Fertilizer Application exam. The exam includes questions to test the applicators' knowledge about equipment calibration and other aspects of fertilizer application. The proper use of the right equipment is also a requirement of the Indiana Pesticide Law. Since many of the commercial and private applicators apply a combination of fertilizer and pesticides products at the same time, applicators must be in compliance with the pesticide law. FOTG #590 also calls for calibrating application equipment to ensure accurate distribution of nutrients at plan rates.

Indiana implements the erosion and sediment control management measure through an active voluntary technical and financial assistance effort that encourages the use of USDA Natural Resource Conservation Service (NRCS) Field Office Technical Guide (FOTG) best management practices such as conservation tillage/no till, conservation cover, contour farming and buffer strips, filter strips, and others, to reduce erosion and sediment runoff from agricultural practices which are consistent with the 6217(g) guidance. Soil and Water Conservation Districts (SWCDs) in the three Lake Michigan counties consistently identify soil erosion as a top agriculture resource concern and develop annual work plans to address these priority concerns within their counties. SWCDs partner with NRCS to educate farmers about best management practices to reduce erosion and control sediment from farm fields through presentations, field days, monthly board meetings, and annual meetings newsletters. They also make site visits to interested farmers to provide one-on-one technical assistance. During the site visits, SWCD/NRCS staff conduct site surveys and create property maps that feed into the development of a comprehensive Conservation Plan for each property. SWCD and NRCS staff then work with the farmer to identify problem areas and suitable best management practices to install, as well as cost-share funding opportunities from the state that can help offset the cost of implementing the best management practice. Projects that help to address priority concerns, such as erosion and sediment control, receive extra points for funding. State and federal farm programs also give priority funding to projects within the Lake Michigan watershed, further encouraging the implementation of erosion and sediment control best management practices within the coastal nonpoint management area.

SWCDs and NRCS also develop partnerships with other state, federal, and non-profit agencies, as well as private organizations, to fund and implement agricultural best management practices to improve water quality. For example, Lake County SWCD partnered with Lake County's MS4 program to fund several cover crop projects to reduce erosion and sedimentation. In 2013, Porter County SWCD combined Clean Water Indiana funding with a private donation to provide cost-

share assistance to help farmers plant over 500 acres of cover crops that resulted in a 525 ton sediment reduction.

Indiana addresses the pesticide management measure largely through its pesticide laws and regulations (I.C. 15-16-4 and I.C. 15-16-5), which require anyone who applies pesticides to follow pesticide label requirements. In addition, those wishing to apply restricted-use pesticides must pass a pesticide licensing exam to become a licensed applicator. Commercial agricultural pesticide applicators must pass additional exams specific to agricultural pest management. Due to liability concerns associated with using pesticides on agriculture land near residential areas, most large pesticide applications in the coastal nonpoint management area are provided by commercial applicators.

Consistent with 6217(g) guidance, commercial applicators are required to evaluate soil and physical characteristics of the site and take steps to prevent leaching and runoff of pesticides if the potential exists. In addition, commercial applicators must evaluate cropping history and previous pest control measures prior to applying pesticides. They must also follow pesticide mixing, loading and storage procedures consistent with the 6217(g) guidance.

The State partners with the Purdue University Extension Service to provide pest management training, licensing exams, and continuing education training for pesticide applicators. Private applicators must attend at least three private applicator recertification trainings over a five-year period to renew their licenses. Purdue Extension also holds local and regional workshops and field days and publishes a variety of newsletters, technical memoranda, and guidance documents to educate farmers about the latest in pesticide management and promote best practices consistent with the 6217(g) guidance. For example, the FOTG for Integrated Pest Management (IPM), associated IPM checklist and Agronomy Technical Note 4 discuss the need to regularly calibrate pesticide spray equipment and to apply pesticides only when an economic benefit to the producer will be achieved (i.e., applications based on economic thresholds). The “Managing Farm Chemicals” brochure referenced in the FOTG for IPM also notes that anti-back flow devices should be placed on all wells and other water sources.

Although Indiana estimates that less than 10 percent of the grazing livestock (less than 1,100 animals) in Lake, Porter and LaPorte Counties is located in the State’s coastal nonpoint management area, NOAA and EPA find that Indiana has a good voluntary outreach and technical assistance program in place to address nonpoint source pollution problems that may arise in this area. Through the Indiana Conservation Partnership, the State works closely with SWCDs, NRCS, Purdue Extension and others to provide training and technical assistance to the agricultural community related to grazing management. Similar to the assistance program for erosion and sediment control discussed above, the Indiana Conservation Partnership offers on-site technical assistance, planning, and cost-share assistance to help farmers adopt grazing best management practices consistent with the 6217(g) guidance, including the adoption of the FOTGs for range and pasture management.

Finally, Indiana has provided a legal opinion from its Attorney General asserting that the State has adequate back-up authority to require implementation of the 6217(g) measures, including the agriculture measures, as necessary. The Lake Michigan Coastal Management Program is working closely with the Indiana Department of Agriculture, SWCDs, NRCS, and IDEM to

coordinate the implementation of the 6217(g) agriculture management measures. To help track implementation, the Department of Agriculture, through the Indiana Conservation Partnership, has developed maps indicating where agriculture best management practices have been implemented within the coastal nonpoint management area and are using these maps to model nutrient and sediment load reductions to identify when and where additional nonpoint source pollution reduction efforts may be needed. The Indiana Department of Agriculture documented this approach in a report provided to EPA titled *Quantifying the Environmental Outcomes of Assisted, Voluntary Conservation Best Management Practices in Indiana: Indiana Conservation Partnership Data Consolidation, Quality Control and Mapping Utilizing the EPA Region 5 Load Reduction Model*.

II. URBAN

A. NEW DEVELOPMENT AND SITE DEVELOPMENT

CONDITION: Within five years, Indiana will demonstrate it has programs in place to implement the site development measure throughout the 6217 management area and demonstrate that areas within the 6217(g) management area not subject to NPDES Phase II MS4 permits will implement the new development management measure. Also within five years, Indiana will submit a legal opinion and other supporting documents as described in the *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance* (October 1998) to demonstrate that it has adequate back-up authority to implement the new and site development management measures throughout the 6217 management area.

INTERIM DECISION: Indiana has satisfied this condition.

RATIONALE: Indiana implements the new and site development management measures through its NPDES Stormwater Phase II program, stormwater quality manual, and local ordinances.

The Indiana Department of Environmental Management (IDEM) published the *Indiana Storm Water Quality Manual* in October 2007. The manual provides guidelines and specific best management practices for controlling post construction stormwater runoff and site clearing that are consistent with the (g) guidance for new and site development. For example, the manual calls for removing 80% of total suspended solids from stormwater runoff, ensuring that post development peak discharge rates and volumes do not exceed predevelopment levels, preserving natural vegetation, riparian buffers and natural drainage patterns, and limiting land disturbance activities and impervious surfaces.

While the statewide stormwater quality manual is voluntary, all three counties within the 6217 boundary, and many communities within those counties, are NPDES Phase II municipal storm sewer systems (MS4s) and must undertake specific actions to control stormwater according to 327 IAC 15-13. According to NOAA and EPA's 2002 memorandum, *Policy Clarification on Overlay of 6217 Coastal Nonpoint Programs with Phase I and II Storm Water Regulations*, urbanized areas subject to NPDES Phase II MS4 permits are no longer required to include the new development management measure.

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Nevertheless, all three 6217 counties have either adopted ordinances that require development projects of one acre or more to meet the performance and design criteria laid out in the *Indiana Storm Water Quality Manual* (LaPorte and Porter counties) or established its own stormwater management criteria for new development consistent to the statewide manual and (g) guidance (Lake county). In addition, the county ordinances also address site development requirements including preserving existing vegetation, minimizing impervious surfaces, and limiting disturbance of natural drainage natural patterns and erosion-prone areas.

Because the local ordinances, developed to comply with NPDES Phase II requirements, directly implement and enforce the (g) guidance requirements for new and site development, Indiana no longer needs to provide a legal opinion to demonstrate it has adequate back-up authority for these measures.

B. WATERSHED PROTECTION AND EXISTING DEVELOPMENT

CONDITION: Within five years, Indiana will demonstrate that it has programs in place to identify priority local and/or regional watershed pollutant reduction opportunities and develop a schedule for implementing appropriate controls. Within five years, Indiana will submit a legal opinion and other supporting documents as described in *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance* (October 1998) to demonstrate that it has adequate back-up authority to implement the watershed protection and existing development management measures throughout the 6217 management area.

INTERIM DECISION: Indiana has satisfied this condition.

RATIONALE: Since receiving conditional approval, Indiana has continued to develop and promote watershed planning to address the watershed protection and existing development measures (as well as other (g) measures) throughout the 6217 management area.

As noted in Indiana’s conditional approval findings, IDEM had already developed watershed planning guidance that lays out the requirements for a watershed plan. IDEM has updated the watershed checklist to further emphasize that watershed management plans developed within the 6217 management area should not only be consistent with EPA’s “9 Key Elements” for watershed planning but also the 6217 (g) guidance—including identifying priority pollutant reduction opportunities and a schedule for implementing appropriate controls. The checklist ensures that each plan includes interim measureable milestones for carrying out identified pollution reduction opportunities. In order to be eligible for EPA’s Clean Water Act Section 319 funding, watershed projects must meet the checklist requirements.

The 6217 management area is comprised entirely of the Little Calumet-Galien watershed. By 2018, the state plans to have approved watershed plans in place for each subwatershed within the Little Calumet-Galien watershed. With nearly 70% of the subwatersheds already covered by watershed plans, the State is well on its way to meeting its goal. The Coastal Nonpoint Program coordinator within IDNR’s Lake Michigan Coastal Program and IDEM’s watershed specialist assigned to the Little Calumet-Galien watershed provide technical assistance to watershed groups

to ensure they are on track for meeting their goal. They also work with the watershed groups to ensure the plans developed are consistent with the watershed planning guidance and checklist.

For example, the Lake Michigan Coastal Program funded six people to attend the Indiana Watershed Leadership Academy. The Academy focused on strengthening the capacity of local leaders to engage their organizations and communities in successful watershed management. The Coastal Nonpoint Program coordinator and IDEM approached a sponsored attendee from the LaPorte County Soil and Water Conservation District (SWCD) to lead the development of a watershed plan for the Galena River following interest by local residents. The State worked with the SWCD to secure an IDNR Lake and River Enhancement Program grant to develop a watershed plan and also provided additional data to inform the plan's development.

In addition to one-on-one assistance, the Lake Michigan Coastal Program is also expanding its services by gathering and summarizing data that can be incorporated into watershed management plans. The templates will incorporate common elements of a watershed plan that do not necessarily require public involvement and will be formatted to meet the IDEM watershed planning checklist requirements.

NOAA and EPA encourage the state to continue to move forward with these and other technical assistance efforts to further facilitate and promote watershed planning throughout the coastal area to address 6217 (g) requirements. While NOAA and EPA are supportive of Indiana's voluntary approach to watershed planning, the state should clarify how, through its technical assistance, it will ensure the watershed plans developed will include implementation schedules for carrying out identified pollution reduction opportunities.

Indiana has provided a legal opinion from its Attorney General asserting that the State has adequate backup authority through the Indiana Clean Water Act (IC 13-18-3) to require implementation of the 6217(g) measures, including the watershed protection and existing development measures, as necessary. The State has also described how the implementing agencies (IDNR, IDEM, and SWCDs) work with the enforcing agency (IDEM) to ensure enforcement action is taken when needed. Indiana provided examples of enforcement actions which demonstrates the State's commitment to using this backup authority when necessary. Indiana tracks implementation of its watershed planning program and actions to address polluted runoff for existing development through annual reporting of its Section 319 Nonpoint Source Management Program.

C. NEW AND OPERATING ONSITE DISPOSAL SYSTEMS (OSDS)

CONDITION: Within five years, Indiana will include in its program management measures and enforceable mechanisms and policies for inspection of existing OSDS. Within five years, Indiana will include in its program management measures and enforceable mechanisms and policies for protective separation distances to groundwater in conformity with the 6217(g) guidance for new OSDS. Finally, within five years, Indiana will include in its program management measures and enforceable mechanisms and policies for denitrifying systems where nitrogen-limited surface waters may be adversely affected by nitrogen loading from OSDS, in conformity with the 6217(g) guidance for new and operating OSDS.

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INTERIM DECISION:

- Indiana has met the condition regarding adequate separation distances and was exempted from the denitrifying systems requirement (see 2010 interim decision document).
- Indiana still needs to include in its program management measures and enforceable mechanisms and policies for inspection of existing OSDS.

RATIONALE: Indiana has proposed to address the inspection requirement for existing OSDS by working with county governments to adopt county ordinances and by developing and promoting a voluntary inspection and maintenance program. Indiana has made substantial progress in the development of programs to address the inspection requirement for existing OSDS over the past couple of years but has not yet demonstrated how its efforts combine to ensure routine inspections will occur throughout the coastal nonpoint management area.

Indiana has developed a model ordinance for septic operation and maintenance that if enacted would require homeowners to obtain an operating permit that must be renewed every one to five years depending on the type of treatment system. The state has encouraged the three coastal counties in the coastal nonpoint management area to adopt this ordinance. In January 2012, LaPorte County adopted a similar ordinance that requires systems installed after the ordinance was adopted to be inspected every three to five years, depending on the type of system. To address older systems installed before 2012, the LaPorte County Health Department also developed an additional ordinance that requires OSDS be inspected by a certified inspector at the time of property transfer. Although, the County Commission has not yet adopted this point of sale ordinance, it is still under consideration. NOAA and EPA encourage Indiana to continue to work with LaPorte County to support the passage of this ordinance that would require point of sale inspections for all OSDS within the county, consistent with the 6127(g) guidance.

The other two counties within Indiana's coastal nonpoint management area, Porter and Lake counties, also have taken steps to address existing OSDS but neither has requirements for routine inspections in place at this time. The Porter County Health Department is considering developing an ordinance to require either point of sale inspections or an operating permit that would ensure routine inspections of existing systems. NOAA and EPA are supportive of either approach for meeting the 6217(g) management measure requirements and encourage the County to adopt an OSDS inspection ordinance that will apply to all existing OSDS in the county.

Lake County, which is largely sewerred and only has smaller areas of OSDS that are mostly located in the southern part of the county, requires any seller whose property is served by an OSDS to sign an Affirmation of Operation Statement at the time of property transfer. By signing the statement, the seller asserts that "to the best of my knowledge" the system is working properly. Although this statement can provide some legal basis for dispute litigation if problems are identified after property transfer, the use of this mechanism does not ensure that the system has been inspected by a trained inspector nor does it provide any consistent assurance that the system is functioning as designed.

In addition to county-level efforts, some communities also have implemented free OSDS pump-out and inspection programs. In Porter County, the Town of Porter, with a population of approximately 5,000, pumps about 67 systems every three years and offers free inspections upon request. In Lake County, the Town of New Chicago, with a population of approximately 2,000, also pumps about 450-475 systems every five years and conducts operational inspections when systems are pumped.

To facilitate better OSDS management, the State also has developed an online tracking database for OSDS called iTOSS (modeled after EPA's TWIST database) and provided training to county health departments on the new tracking system. To help populate iTOSS, Indiana's Lake Michigan Coastal Program (LMCP) provided grant funding to the Lake and Porter County Health Departments to purchase GPS equipment for inspectors to inventory OSDS within the coastal area. LaPorte County is using iTOSS to track systems and inspections and Porter County is using another tracking database compatible with iTOSS. Lake County is working to convert its paper OSDS permit records to digital files and locating permitted systems on the county GIS map.

In 2013 the LCMP formed and began facilitating the Northwest Indiana Septic System Work Group. The workgroup, made up of federal, state, and local OSDS stakeholders, works to identify and address potentially failing OSDS within the coastal watersheds and to conduct an outreach and education program for OSDS and proper system maintenance. The workgroup is carrying out a variety of activities including: providing support and coordination for partnership efforts to fund sewer hook-ups and OSDS upgrades; providing technical assistance to county health departments for development of OSDS inspection ordinances; organizing annual statewide SepticSmart Weeks to raise awareness about OSDS; and developing a Septic System Outreach and Education Program to reach OSDS owners, local governments, and realtors to support the adoption of OSDS inspection and maintenance measures within the coastal nonpoint management area. The workgroup has also helped to address priority septic system failures within the coastal nonpoint management area which resulted in connecting nearly 150 homes to sewer. The workgroup also developed a pilot Septic System and Maintenance Program for realtor continuing education credits to be incorporated into the state realtors' continuing education program. In addition to these ongoing activities, over the next year, the workgroup also will conduct more specific mapping of OSDS located within 1,250 feet of surface waters so that the workgroup can effectively target education and outreach efforts to property owners whose systems may have the greatest potential to impact coastal waters. NOAA and EPA commend the LCMP and its Northwest Indiana Septic System Work Group partners for the robust OSDS technical assistance and education program it has developed and implemented in coastal Indiana. The federal agencies encourage the workgroup to continue its good work in this area.

Indiana has developed and continues to strengthen its OSDS program to promote voluntary inspections of existing OSDS. However, the State has not demonstrated how these voluntary efforts, coupled with county/local ordinances that require routine inspections of operating OSDS, will enable the State to inspect the majority of systems within the coastal nonpoint management area over the next 15 years. To fully satisfy the inspection component of the operating OSDS

management measure, the State should either work with coastal counties to adopt inspection ordinances that will directly achieve this coverage or describe how existing local ordinances, combined with its voluntary inspection program will achieve this coverage. If the State relies on voluntary efforts, it will also need to satisfy federal requirements for enforceable policies and mechanisms.

Per NOAA and EPA's 1998 *Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance*, states can use voluntary or incentive-based programs, backed by existing enforcement authorities if they provide: a legal opinion asserting that the state has adequate back-up authorities; describes the voluntary programs, including the methods for tracking and evaluating those programs over time, that states will use to encourage implementation of the management measures; and describe the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing enforcement authority. Indiana has already provided a legal opinion but still needs to describe how it will track implementation of these voluntary efforts and describe mechanism or process that links the implementing agency with the enforcement area and a commitment to use the existing enforcement authority.

RECOMMENDATIONS:

- Continue to work with the coastal counties to adopt ordinances that would require point of sale inspections or routine inspections (~3-5 years) of existing OSDS.
- NOAA and EPA recognize that Indiana plans to describe the enforceable policies and mechanisms aspect of this management measure in a later submittal. If Indiana would like to meet this management measure through a mix of directly enforceable policies and mechanisms (e.g., county ordinances) and voluntary efforts, in this later submittal, the State should:
 - More fully describe how the iTOSS and other databases will be used to track voluntary inspections throughout the coastal nonpoint management area. The State also should show what percentage of systems within the coastal nonpoint management area it expects to cover through this mix of required and/or voluntary inspection efforts over the next 15 years. NOAA and EPA have accepted inspection programs from other states that demonstrate they inspect or otherwise cover approximately 90 percent of the systems in the coastal management area.
 - Describe the mechanism or process that link the implementing agency with the enforcement agency and demonstrate the State is committed to using its existing enforceable authorities to ensure inspections occur, where necessary.
- Consider expanding and/or formalizing the Northwest Indiana Septic System Work Group's partnership with the Realtor Association to institutionalize regular training for relators on the importance of OSDS inspections and maintenance at the time of property transfer and develop other mechanisms realtors can use to help promote point of sale inspections, such as amending buyer-seller advisories to include recommendations for OSDS inspections at property transfer, and developing educational packets and maintenance instructions for new homeowners with OSDS, etc.
- Continue to document negative environmental or public health impacts that result from septic system failures in Northwest Indiana to educate local decision-makers about the

need for regular system inspections, system repair or replacement or upgrades or connection to centralized sewer systems. The State should provide its outreach strategy for educating local decision makers about the need for comprehensive septic management programs.

D. PLANNING, SITING, AND DEVELOPING ROADS AND HIGHWAYS; SITING, DESIGNING AND MAINTAINING BRIDGES; ROAD, HIGHWAY AND BRIDGE OPERATION AND MAINTENANCE; ROAD, HIGHWAY AND BRIDGE RUNOFF SYSTEMS

CONDITION: Within five years, Indiana will demonstrate it has programs in place to implement the planning, siting and developing measures for roads, highways and bridges for state and local roads. Also within five years, Indiana will develop programs to address the operation and maintenance and runoff control measures for local roads. Finally, within five years, Indiana will submit a legal opinion and other supporting documents as described in the *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance* (October 1998) to demonstrate that it has adequate back-up authority to implement all roads, highways and bridge management measures throughout the 6217 management area.

INTERIM DECISION: Indiana has satisfied this condition.

RATIONALE: Indiana uses the NPDES Phase II Stormwater Program, local ordinances, its stormwater quality manual, and watershed planning to address the roads, highways and bridges management measures for planning, siting, and developing state and local roads and bridges and for the operation and maintenance and runoff control for local roads.

First, as described under the new and site development section, all three coastal counties that comprise the 6217 management area (Lake, Porter and LaPorte) have adopted ordinances to manage stormwater runoff during site development, including the development of roadways and bridges, which is consistent with the (g) guidance. The ordinances require stormwater pollution prevention plans to include operation and maintenance procedures for all stormwater controls.

The three coastal counties are also designated MS4s under the NPDES Phase II stormwater management program. Therefore, Indiana is exempt from implementing the road, highway and bridge operation and maintenance and runoff system management measures for state and local roads. Effective December 20, 2002, NOAA and EPA have determined that in designated MS4 areas, the road, highway and bridge operation and maintenance and runoff system management measures are no longer subject to requirements of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) Section 6217 Coastal Nonpoint Pollution Control Program due to their coverage in the National Pollutant Discharge Elimination System (NPDES) stormwater permit program (Phase I and II).

In addition to the county ordinances and NPDES Phase II exemption, Indiana's *Indiana Storm Water Quality Manual* and associated training, as well as its watershed planning efforts, further support the road, highway and bridge management measures. Chapter 8 of the stormwater quality manual presents various best management practices for post construction stormwater control, including maintenance requirements. Chapter 9 also focuses on stormwater quality management and maintenance activities applicable to roadways including pesticide application, street cleaning, and road deicing.

As noted under the watershed protection and existing development section, IDEM developed a watershed planning checklist to help ensure that watershed plans within the 6217 management area are consistent with the 6217(g) guidance, including the roads, highways and bridges management measures. Nearly 70% of the subwatersheds within the 6217 management area are already covered by watershed management plans. Through directed technical and financial assistance, Indiana plans to complete watershed plans for the remaining subwatersheds by 2018.

The Trail Creek Watershed Management Plan exemplifies how the road, highway and bridge measures are implemented through the watershed planning process. Roadway and roadside ditch maintenance, siting, and design were identified as concerns in the Trail Creek Watershed Management Plan. Michigan City, within the Trail Creek basin, retrofitted stormwater basins by installing swirl collectors and vegetative swales to improve stormwater treatment. The Trail Creek watershed steering committee is also working with an engineering firm contracted for a highway improvement project to include stormwater retrofits during the redesign of this road segment.

The state is either exempt from the roads, highways and bridge management measures (operation and maintenance and runoff control systems) or relies on the counties to directly enforce them through their local ordinances (planning, siting and developing roads and highways; siting, designing, and maintaining bridges). Therefore, Indiana no longer needs to provide a legal opinion to demonstrate it has adequate back-up authority for these measures.

III. MARINAS AND RECREATIONAL BOATING

A. MARINA SITING AND DESIGN

CONDITION: Within five years, Indiana will demonstrate that it has programs in place to implement the shoreline stabilization, storm water runoff, and fueling station design.

INTERIM DECISION: Indiana has satisfied this condition.

RATIONALE: Indiana has developed and is implementing a clean marina certification program. As part of the program, the state has developed a Clean Marina Guidebook that recommends best management practices consistent with the 6217(g) guidance for all marina management measures, including shoreline stabilization, storm water runoff and fueling station design.

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State staff provide technical assistance to help marina become “clean marinas” through workshops and one-on-one assistance. Although the Indiana Clean Marina Program was just launched on May 28, 2008, two of the 18 marinas within the 6217 management area have already signed pledges to become clean marinas within a year. One of these pledged marinas is the largest marina along Indiana’s Lake Michigan coast, representing nearly a third of the slips within the coastal boundary.

NOAA and EPA congratulate Indiana on their hard work in developing this new clean marina certification program. The state has established a well thought out strategy for continuing to expand the program over the next 15 years.

B. MARINA AND BOAT OPERATION AND MAINTENANCE

CONDITION: Within five years, Indiana will demonstrate that it has programs in place to implement the petroleum control and boat cleaning management measures.

INTERIM DECISION: Indiana has satisfied this condition.

RATIONALE: As mentioned above, Indiana has developed and is implementing a clean marina certification program. Through the Clean Marina Guidebook and directed technical assistance, Indiana is promoting best management practices consistent with the 6217(g) guidance for all marina management measures, including the boat cleaning and petroleum control measures. See above for additional information about Indiana’s Clean Marina Certification Program.

IV. HYDROMODIFICATION

CONDITION: Within five years, Indiana will develop a process to improve surface water quality and instream and riparian habitat through the operation and maintenance of existing modified channels. Also within five years, the State will develop programs for the protection of surface water quality and instream and riparian habitat during the operation of dams and implement the management measure for eroding streambanks and shorelines. Finally, within five years, Indiana will submit a legal opinion and other supporting documents as described in the *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance* (October 1998) to demonstrate that it has adequate back-up authority to implement the hydromodification management measures throughout the 6217 management area.

INTERIM DECISION: Indiana has satisfied this condition.

RATIONALE: Indiana employs its voluntary watershed planning efforts to protect and improve surface water quality and instream and riparian habitat through the operation and maintenance of existing modified channels and dams as well as implement the management measure for the eroding streambanks and shorelines.

As described in earlier sections, IDEM revised its watershed checklist to ensure that all watershed plans developed within the 6217 management area are consistent with the 6217(g) guidance, including the hydromodification management measures. To help ensure the checklist is followed, only watershed planning activities that adhere to the checklist are eligible for Section 319 funding. In addition, IDEM and the Coastal Nonpoint Program Coordinator provide directed assistance to watershed planning groups to further reinforce that watershed plans within the 6217 management area and implement all hydromodification management measures, as appropriate.

For example, the Trail Creek Watershed Plan identified channel modification and dams as priority nonpoint source pollution concerns. To address these issues, the plan calls for preserving riparian corridors, identifying and prioritizing areas of streambank erosion, assessing the impacts of dams on water quality, habitat and fish passage, and identifying restoration projects. In addition to these broad goals, the plan identifies specific actions and a lead agency to carry them out.

Indiana's Lake Michigan Coastal Program, 319 Program, and Lake and River Enhancement Program have funded, and continue to fund, projects to implement priority hydromodification projects to improve surface water quality and instream and riparian habitat and stabilize eroding shorelines. Projects have included: developing an engineering and design study for the removal of a dam along the Little Calumet river to restore critical wetlands and downstream habitat and provide fish passage; daylighting Dunes Creek to restore the stream's natural hydrology; and stabilizing/restoring eroding shoreline along Lake George.

The watershed planning program, in combination with IDNR's regulatory programs, IDEM's water quality certification, and the Indiana Drainage Handbook (described in the conditional approval findings) enable Indiana to fully implement the programmatic elements of the hydromodification management measures. In addition, to support voluntary efforts, Indiana has provided a legal opinion from its Attorney General asserting that the State has adequate backup authority through its Clean Water Act (IC 13-18-3) to require implementation of the 6217(g) measures, including the hydromodification management measures, as necessary. Indiana provided examples of enforcement actions which demonstrates the State's commitment to using this backup authority when necessary. Indiana tracks voluntary implementation of the hydromodification management measures through annual reporting of its Section 319 Nonpoint Source Management Program.

V. WETLANDS, RIPARIAN AREAS AND VEGETATED TREATMENT SYSTEMS

CONDITION: Within five years, Indiana will demonstrate that it has programs in place for the protection and restoration of wetland and riparian areas. Also, within five years, Indiana will submit a legal opinion and other supporting documents as described in *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance* (October 1998) to demonstrate that it has adequate back-up authority to implement the wetland, riparian and vegetated treatment system management measures throughout the 6217 management area.

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INTERIM DECISION: Indiana has fully satisfied these conditions. Indiana has met the condition for the protection and restoration of wetlands and riparian areas and has demonstrated it has adequate back-up authority to implement the wetlands and riparian areas management measures throughout the 6217 management area.

RATIONALE: Indiana regulates activities in lakes, rivers, streams and wetlands through its 401 Water Quality Certification process to ensure that those activities maintain the chemical, physical, and biological integrity of these waters. These regulations are described in IDEM's *401 Water Quality Certification and Isolated Wetland Program* handbook. The handbook describes how the state assesses, avoids, and minimizes adverse impacts to waterways and important natural resources and botanic resources, such as wetlands and riparian areas, when projects are proposed, which is consistent with the 6217(g) guidance for protection of wetlands and riparian areas. Indiana also regulates construction in floodways through a permit process administered by IDNR. An IDNR bulletin provides guidance for floodway habitat mitigation.

As part of the IDNR permit review process, the Division of Water conducts an environmental review that considers the physical and hydraulic impacts of the project. Other divisions, such as the Division of Fish and Wildlife, also have an opportunity to comment to ensure impacts to habitat and aquatic life are minimized. Each division can include special provisions within the permit requirements to ensure protection of water quality, wetlands, and riparian areas. While the Division of Fish and Wildlife's reviews focus on species and habitat, and not specifically nonpoint source abatement functions, the special provisions to protect species and habitat often protect wetlands and riparian areas when they are part of the project site. Indiana has provided several examples of how this review process leads to the protection of wetland and riparian areas. For example, during the review of a planned bridge replacement, an IDNR biologist noted that nearby wetlands may be impacted during construction. As a result, the staging area and bridge construction was designed to minimize impacts such that less than 0.1 acre of wetlands was ultimately impacted. In another project involving the installation of a pipeline, IDNR staff worked with the applicant to identify wetlands impacted by the proposed route and worked with the applicant to apply directional boring under the wetlands to avoid impacts.

There are a number of other programs in the State that also help to protect wetlands and riparian areas. For example, the 2015 Indiana Wetlands Program Plan guides wetland conservation and restoration efforts in the State. The plan includes goals and action items to protect and restore wetlands, such as undertaking robust wetland mapping and promoting wetland conservation. As part of this planning effort, the State has developed a tool to identify and map high-priority wetland conservation sites. The tool improves tracking of existing high-quality wetland areas and helps to target these valuable areas for protection.

Indiana has also provided background information on a number of programs the State uses to promote the restoration of the preexisting functions in damaged and destroyed wetlands and riparian systems where they will serve a significant nonpoint source pollution abatement function throughout the coastal nonpoint program management area. The 2014 *Indiana State Nonpoint Source Management Plan* describes these programs and initiatives and the use of targeted CWA

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Section 319 funds, the USFWS Partners for Fish and Wildlife program, the NRCS Wetland Reserve (Enhancement) Program, the Volunteer Compensatory Mitigation tool, and the IDNR Lake and River Enhancement (LARE) program. All of these programs play important roles in promoting restoration of wetlands and riparian areas. Additionally, Indiana recently expanded eligibility of Clean Water State Revolving Funds to address nonpoint source problems, including for projects that restore wetlands.

The Lake Michigan Coastal Program (LMCP) will utilize the data collected from all of these groups to assess over time the extent to which implementation of management measures is reducing pollutant loads and improving water quality. LMCP will analyze the data specifically for the purposes of the coastal nonpoint program and suggest additional measures to include management practices. This information will be shared with watershed groups and local governments in a report to encourage the implementation of practices that will most effectively improve water quality in our region. The LMCP will coordinate with IDEM on the development of sampling plans, the selection of water quality parameters, and in the analysis of water quality data to ensure the monitoring under various programs is in accordance with 6217 objectives.

Lastly, IDNR is in the process of finalizing a statewide in-lieu fee program for wetland and stream mitigation that will lend further support to the State's permit review efforts to protect the function of wetland and riparian areas. Unlike many other mitigation programs, this program is designed to protect and preserve wetland and stream function by targeting larger ecologically valuable parcels on a landscape or watershed scale. The program involves scientific analysis and planning to ensure wetland functions are preserved, including the abatement of nonpoint source pollution. In the coastal region, wetland preservation, rather than mitigation, is the first priority. NOAA and EPA encourage Indiana to finalize this in-lieu fee program, which is scheduled to be adopted in the fall of 2016.

VI. CRITICAL COASTAL AREAS, ADDITIONAL MANAGEMENT MEASURES, AND TECHNICAL ASSISTANCE

CONDITION: Within five years, Indiana will develop a process for the identification of critical coastal areas and a process for developing and revising management measures to be applied in critical coastal areas and in areas where necessary to attain and maintain water quality standards. Within five years, Indiana will also develop a program to provide technical assistance in the implementation of additional management measures.

INTERIM DECISION: Indiana has satisfied these conditions.

RATIONALE: Indiana will use its watershed management planning process as the basis for identifying critical areas for the implementation of additional management measures and for the development and revision of management measures within critical coastal areas. Although voluntary, Indiana has demonstrated its commitment to promoting further watershed planning and implementation. In addition, Indiana's Coastal Nonpoint Program Coordinator actively participates in the development of many watershed plans within the 8-digit HUC Little Calumet-

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Galien Watershed, which forms the State's coastal nonpoint management area. The Indiana Department of Environmental Management (IDEM) Nonpoint Source Program provides funding for, and approves, watershed management plans developed by local groups. In the coastal nonpoint management area, all IDEM-approved watershed management plans must address the 6217(g) measures. Once a coastal watershed management plan is approved, IDEM conveys the approval information to the Lake Michigan Coastal Program. The Lake Michigan Coastal Program will then add the critical areas from each plan to its Master Critical Coastal Areas list. IDEM NPS staff is also in the process of mapping critical areas identified in the coastal area watershed plans to be able to easily illustrate these critical coastal areas.

The State's 2009 checklist instructions for developing and implementing watershed management plans lays out the process for identifying critical coastal areas; the process uses a combination of water quality data and potential pollution sources in the watershed. The checklist provides local project sponsors with the process by which IDEM approves watershed management plans and provides examples on how to identify critical areas. Chapter 7 of Indiana's Watershed Planning Guide lays out the process for identifying critical areas and how to meet the other required elements Indiana has provided examples of how these instructions are applied to identify critical coastal areas; the reason for identifying these areas as critical; and the BMPs or management measures that need to be addressed in these areas. Following development of a TMDL, resources are then prioritized to address these critical areas and implement additional management measures and BMPs. Specifically, IDEM relies on an RFP process to fund projects and prioritizes those that implement TMDLs and nine-element watershed based plans. The identified critical areas may be updated as nonpoint source issues are resolved and new issues are identified or lower priority areas move up in the ranks.

Indiana has a number of technical assistance programs in place to help local governments and the public implement additional management measures, when needed. For example, when new TMDLs are developed that expand the pollutants being addressed, IDEM and its partners work with local groups to update watershed management plans to include new management measures and actions to address these new areas of impairment. Through the Indiana Conservation Partnership (ICP), eight Indiana agencies, including IDEM, IDNR, ISDA Division of Soil Conservation, SWCDs, and NRCS, work together to provide technical, financial, and educational assistance to promote a common conservation goal and sound land and water stewardship decisions. ICP partners, principally the SWCDs, NRCS, and Perdue Extension, operate a robust technical assistance program to help agricultural producers reduce polluted runoff and improve water quality.

VII. MONITORING

CONDITION: Within five years, Indiana will develop a plan that enables the State to assess over time the extent to which implementation of management measures is reducing pollution loads and improving water quality.

INTERIM DECISION: Indiana has met this condition

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RATIONALE: Indiana has demonstrated its ability to meet the monitoring requirements by integrating IDEM's monitoring initiatives, which include probabilistic, fixed station, blue-green algae, baseline, and follow-up (success) monitoring, with other efforts in the State such as the Hoosier River Watch (citizen monitoring). IDEM monitoring activities and programs are coordinated with other state and federal agencies through the State's 2010 monitoring strategy, which has been designed to meet EPA's requirements for a State Comprehensive Monitoring and Assessment Program.

Indiana's probabilistic monitoring effort is a nine year rotating basins monitoring approach that allows the State to assess the condition of its waters for Clean Water Act (CWA) section 305(b) reporting and 303(d) listing purposes. The next probabilistic Great Lakes monitoring effort will occur in 2018. Other efforts such as fixed stations monitoring, baseline characterization for watershed management plans, follow-up success monitoring, water quality sampling for Total Maximum Daily Loads, and special projects provide site specific program support. A number of these targeted monitoring efforts are occurring in the Great Lakes Basin: Deep River, Salt Creek and Trail Creek. Water quality data collected as a requirement for State-approved nine element watershed management plans and through other grant funded actions is integrated within IDEM's overall environmental condition reporting efforts.

Indiana State Department of Agriculture, (ISDA) is responsible for tracking agricultural BMP implementation supported by the various local, state and federal Agencies in Indiana through the Indiana Conservation Partnership's (ICP) tracking efforts. Starting in 2014, the generalized HUC location and estimated load reductions calculated utilizing the Region 5 Model, will be shared annually with the ICP and interested parties. EPA Region 5 has committed to updating the Region 5 Model to incorporate additional water quality and quantity parameters and BMPs eligible for funding under CWA section 319.

The Lake Michigan Coastal Program (LMCP) will utilize data collected from all of these efforts to assess over time the extent to which implementation of the 6217(g) management measures is reducing pollutant loads and improving water quality. LMCP will analyze the data specifically for the objectives of the coastal nonpoint program and will suggest additional management measures and practices, as needed. This information will be shared with watershed groups and local governments in a report to encourage the implementation of those practices that will most effectively improve water quality in Indiana's 6217 management area. The LMCP will coordinate with IDEM on the development of sampling plans, the selection of water quality parameters, and the analysis of water quality data to ensure that monitoring under various programs is in accordance with 6217 objectives.