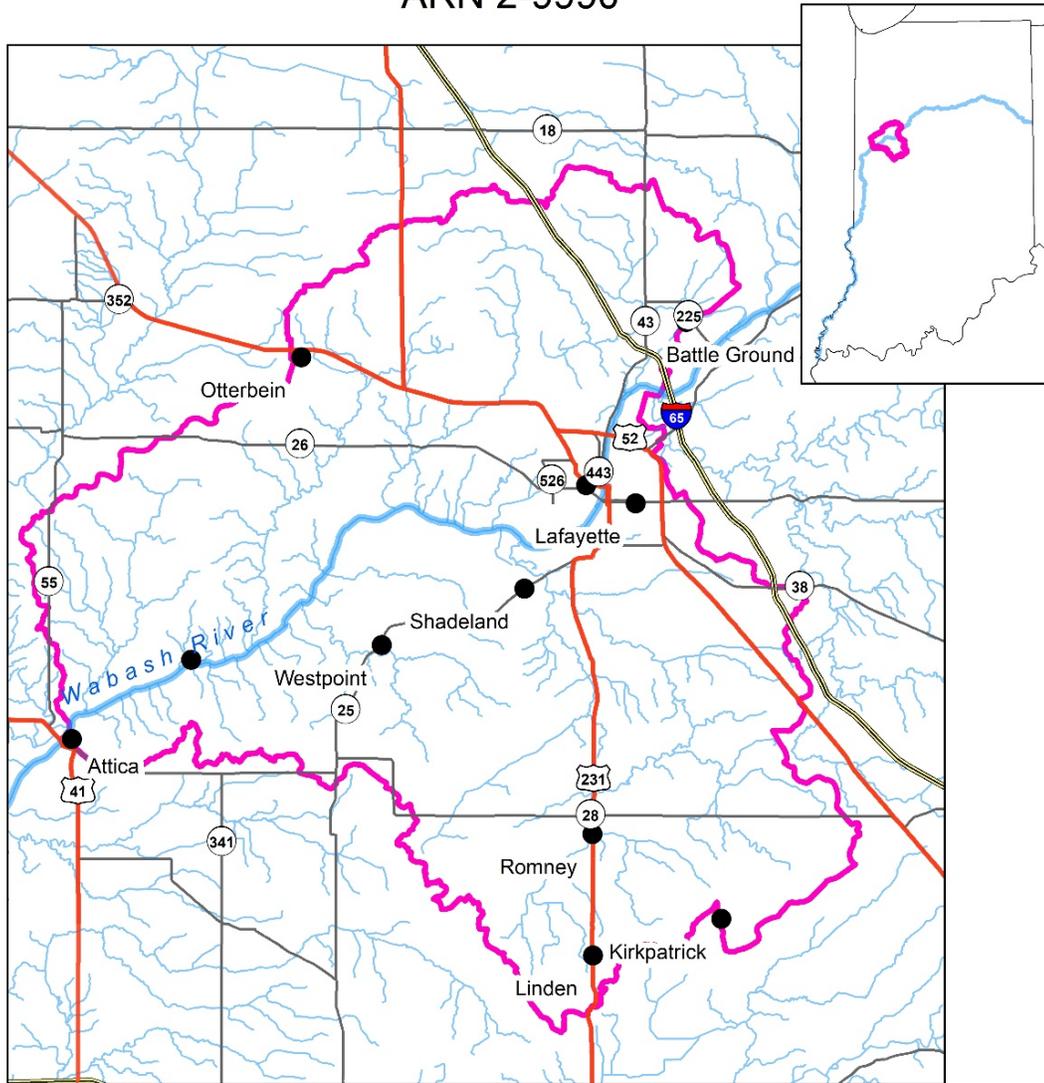
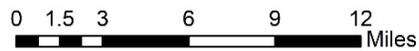


Region of the Great Bend of the Wabash River
Wabash River Enhancement Corporation
ARN 2-9990



 Region of the Great Bend of the Wabash River



Data Sources: Tippecanoe County,
IN Department of Transportation,
Wabash River Enhancement Corporation

**Region of the Great Bend of the Wabash River Watershed Implementation III
Section 319 Final Report (ARN 305-2-9990)**

December 9, 2016-December 8, 2019

**Report prepared by Shannon Stanis, Watershed Coordinator
Wabash River Enhancement Corporation (WREC)**

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1. Introduction

This report covers phase 3 of implementation of the Region of the Great Bend of the Wabash River Watershed Management Plan (RGBWR WMP). The RGBWR WMP was completed and approved by IDEM in 2011; and our stakeholders, committee members, and community at large have been cooperatively working to improve water quality continually ever since. The Wabash River Enhancement Corporation (WREC) is the project sponsor of this grant with operations handled by the Watershed Coordinator, Shannon Stanis.

Phase 3 of implementation covers the education and water quality monitoring program from December 9, 2016 to December 8, 2018 and the cost share program from December 9, 2016 to December 8, 2019. All of Phase 3 implementation was originally funded for two years. In 2018, WREC was awarded extra grant funds that required more time to allocate. WREC and IDEM reached an agreement for a time extension for the cost share program while education program and water quality monitoring requirements would not change.

Background

The RGBWR watershed is composed of three 10-digit Hydrologic Unit Codes (HUC): Wea Creek (HUC 0512010801), Burnett Creek-Wabash River (HUC 0512010802), and Kickapoo Creek-Wabash River (HUC 0512010805). The watershed extends along 29 miles of the mainstem of the Wabash River from downstream of the confluence with Wildcat Creek to upstream of the confluence with Big Pine Creek or from Battle Ground to Attica. The watershed covers 478 square miles in Benton, Fountain, Montgomery, Tippecanoe, Warren, and White counties. 75% of the watershed is agricultural row crops and pasture, ~12% is urban land, and ~13% is naturally covered.

Project goals

Goals for Phase III Implementation built off accomplishments made during prior implementation efforts to meet our 30-year WMP goals. The specific goals for this phase of implementation were:

- 1) Target the implementation of no less than 15 urban and 20 agricultural projects in the Elliot, Little Wea and Cedar Hollow sub watersheds resulting in a 333,175 lb. reduction in nitrogen (5.2%), 18,270 lb. reduction in total phosphorus (5.6%) and 2,210 ton reduction in total suspended solids (5.4%) loading to the Wabash River and so that no more than 20% of E. coli samples collected from the Wabash River exceed state standards.
- 2) Continue the award-winning education and outreach program to increase in awareness about and adoption rates of urban and agricultural BMPs that can positively impact water quality in the Wabash River and its tributaries.
- 3) Identify long-term funding strategies to create project sustainability.

2. Documentation of Completed Tasks

The project goals were formed into five specific tasks to be completed. All tasks were completed as follows.

Task A: Develop and promote a cost-share program to implement best management practices that address the water quality concerns outlined in the Region of the Great Bend of the Wabash River Watershed Management Plan. Once approved, provide technical assistance to landowners to facilitate BMP implementation and promote other conservation programs.

The steering committee reviewed and updated our cost share program from previous implementation phases. WREC submitted the cost share program to the state and it was approved on February 8, 2017.

WREC and our steering committee promoted our cost share program and other conservation programs regularly throughout the duration of the grant. WREC promoted the program with our newsletter, press releases, social media, and directly with attendees at educational events. Our steering committee members and other project partners promoted the cost share program within their networks through similar communication means. Together, we were able to reach a broader audience than any one entity could alone.

From this widespread promotion, WREC and our partners conducted site visits with potential applicants continuously throughout the grant period. During site visits, we provided technical information and assisted landowners/producers in determining what Best Management Practice (BMP) was most logical for their property and abilities for BMP maintenance.

In 2017, we received 10 urban and 4 agricultural applications for cost share funding. In 2018, we received 12 urban and 5 agricultural applications. In 2019, we received 9 urban and 12 agricultural applications. Applicants often encompassed more than one project (ex. Cover crops for 2 years, rain garden and rain barrels, etc.). All applications were ranked and reviewed by the urban and agricultural subcommittees.

Once projects were installed, we inspected them for proper installation and provided further guidance on long term maintenance. Site visits were a favorite for WREC staff and steering committee members. During this time, we made deep connections with individuals interested in improving water quality on their property. Our site visits with someone knowledgeable in a relaxed, one on one setting, were the catalyst needed to take the next step for cost share funding application and implementation.

Task B: Implement the approved cost-share program described in Task A.

In the three years of this grant's implementation phase, 319 funds were used to install: 10 rain barrels, 3 rain gardens, 1 bioswale, 102 Urban Trees, 2.7 acres of turf to native plantings, 600 acres of cover crops, 1930 ft of grassed waterways, 23.3 acres of conservation cover, 15,500 ft² of Heavy Use Area Protection, 1 grade bank stabilization structure, 37 acres of forage and biomass conversion from traditional two crop rotation, and 948 ft² of composting facility. These projects collective reduced 7,383 lb. nitrogen (N), 3,542 lb. phosphorous(P), and 3,164 tons of sediment (S) from entering the Wabash River. Additionally, 186 rain barrels were distributed in 2017 and 2018 total through the rain barrel program funded by

outside grants, contributions from the Cities of Lafayette and West Lafayette, and individual homeowners. Tree Lafayette and the West Lafayette Tree Friends planted an additional 1,035 urban trees from 2017-2018 utilizing other funding sources. Please see Appendix 1 for a listing of 319 funded projects with locations and load reductions and a summary of conservation practices implemented by Tippecanoe County NRCS and SWCD local offices (Note: 319 numbers are counted in these summaries and load reductions are not able to be calculated on NRCS funded practices).

All projects met the terms and conditions of the 319A or 319U forms and had a completed 319A/U form submitted to the state. We calculated load reductions for all projects using Region 5 or another approved model. Finally, all projects were geolocated and a GIS layer of the projects is included in this report.

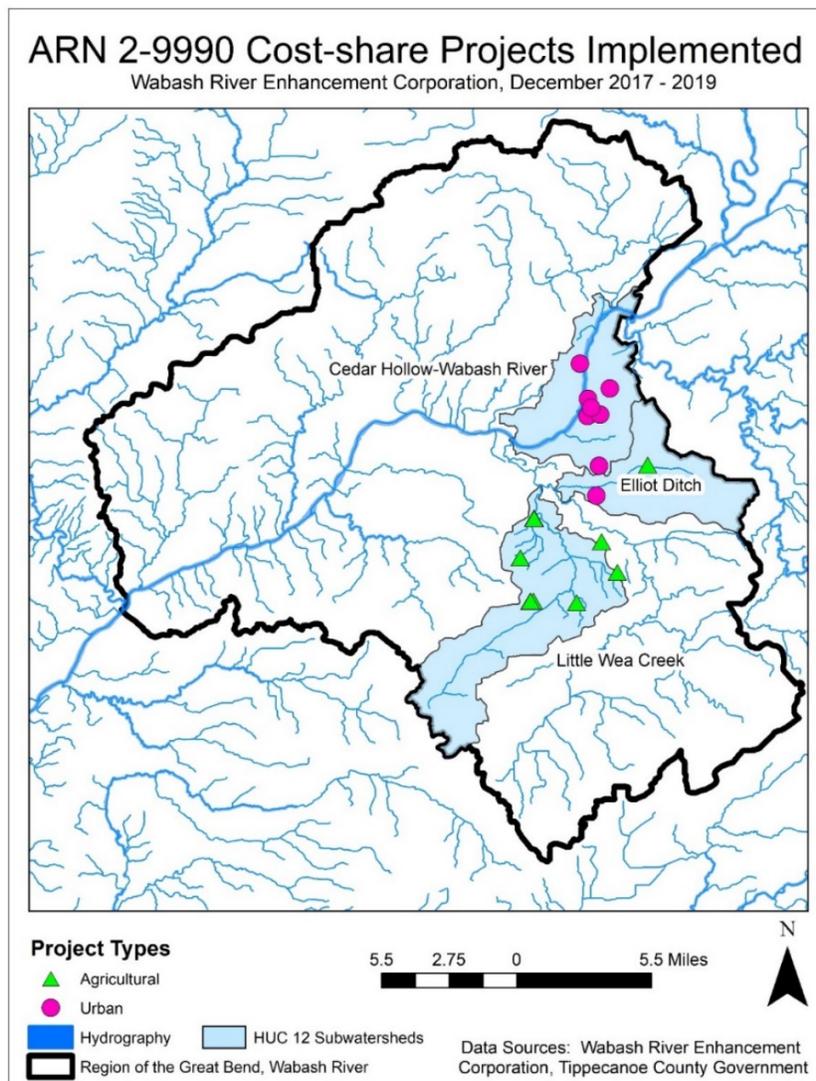


Figure 1. Projects installed from December 9, 2016-December 8, 2019 within the Region of the Great Bend of the Wabash River using ARN 306-2-9990 grant funds.

Task C: Conduct a monitoring program for educational purposes and to monitor water quality trends in the watershed. Conduct a photo monitoring program to document BMP installation and maintenance throughout the project. Develop a Quality Assurance Project Plan (QAPP) for the monitoring activities and submit it to the state for approval at least one month in advance of monitoring activities.

The QAPP for monitoring activities in this project was submitted to the state and approved on February 12, 2017.

Water Quality Monitoring:

The educational water quality monitoring program is referred to as the Wabash Sampling Blitz (blitz). The blitz takes place once each April and September. In this citizen science event, community volunteers sample water from nearly 200 streams and tributaries that lead to the Wabash River to collect a snapshot of water quality. Volunteers are put into groups and given instructions and directions for sampling. Each group visits 3-5 sites, where they measure temperature and transparency in stream and fill a water bottle for further testing. At a staging location, volunteers test their collected samples for pH, Nitrate+Nitrite, and orthophosphorus with trained water quality professionals. Volunteers then color in their measurements on large maps of the watershed, and discuss their experiences with staging location volunteers (made up of the steering committee and other partners). Samples are then sent to a laboratory for further analysis. The sampling blitz took place in the Fall of 2017 and Spring and Fall of 2018. Around 100 volunteers participated in each event. The Spring 2017 event was prohibited by heavy rain which made conditions unsafe for sampling. We rescheduled two times, but conditions were still unsafe during the make up dates. WREC partnered with the Tippecanoe County Partnership for Water Quality and the Wabash Riverkeeper to host a make-up event to clean up the river of physical trash and give volunteers a hands-on, feet-wet experience in the watershed called DeTrash the Wabash. We helped with DeTrash the Wabash on October 28, 2017 (1.67 tons of trash removed), April 28, 2018 (1.27 tons of trash removed), and October 27, 2018 (2.17 tons of trash removed).

The blitz began in the Fall of 2009 as a way to monitor water quality trends over time with this snapshot data collection. Blitz data show that the average field-measured stream water temperature has gradually risen over time. The lowest average stream temperature was just below 10° C in Spring 2012, while the highest average water temperature was above 20° C, during the fall 2018 Sampling Blitz. The fall Blitzes consistently have higher water temperatures than the spring Blitzes, which is consistent with average air temperatures in those months (Figure 2). Average *E. coli* counts by year (with outliers >2000 removed), show less of a trend. The average *E. coli* counts for the combined fall and spring Blitzes of 2015 had the highest average, while 2018 had the lowest average (Figure 3).

Short summaries of blitz data from this implementation phase:

Fall 2017: Temperature of streams was variable. Orthophosphate and pH levels were consistently good while ammonia levels were higher than ideal, but not poor. Field-measured nitrate levels overall were low, with only four of the 182 samples this event falling above the state water quality standards of 10 ppm. *E. coli* counts were highly variable during this event, with the highest being 2420 CFU/mL and the lowest being 5 CFU/mL. 58% of *E. coli* samples exceeded state standards (>125 CFU/mL).

Spring 2018: Temperature of streams was variable, but cooler than in the fall. pH levels were generally good but more sample sites had higher/lower pH levels than ideal compared to Fall 2017.

Orthophosphate levels were good throughout the watershed. Ammonia levels were very high. Field-measured nitrate levels were variable; approximately half of the samples from this event show nitrate

levels high enough to inhibit the aquatic community (greater than 2ppm). Field-measured transparency levels were variable, but fairly clear. Of the 179 readings taken, 167 were "fair" to "good" (>31 cm and >110 cm, respectively). The majority of the *E. coli* counts were within the range of "good" water quality (<60 CFU/100mL), with only seven out of 55 samples having "poor" quality in terms of *E. coli* counts ("poor" being over 200 CFU/100mL). 23% of *E. coli* samples exceeded state standards.

Fall 2018: Temperature levels were high throughout the watershed. pH levels were generally good but again more sample sites had lower than ideal pH levels than Fall of 2017. Transparency was variable was generally good or fair, with a handful of poor sites. Orthophosphate levels were generally good. Ammonia levels were higher than ideal, but not poor as they were in the Spring. Field-measured nitrate levels were lower overall during this sampling event as opposed to the spring 2018 event. Of the 173 samples, 109 had field-measured nitrate levels at or below 2ppm. Field measured transparency was very similar to the spring 2018 sampling event. Of the 170 samples taken, 159 had "fair" to "good" transparency readings. While this sampling event had fewer "good" *E. coli* counts compared to the spring 2018 Blitz, the majority of the *E. coli* results were still "good" (23 samples "good" out of 42 samples total). 24% of *E. coli* samples exceeded state standards.

All data from the Fall 2017, Spring 2018, and Fall 2018 blitz events are included in Appendix 2 of this report. Additional maps of the data can be found on our webpage:

<http://www.wabashriver.net/wabash-sampling-blitz/>

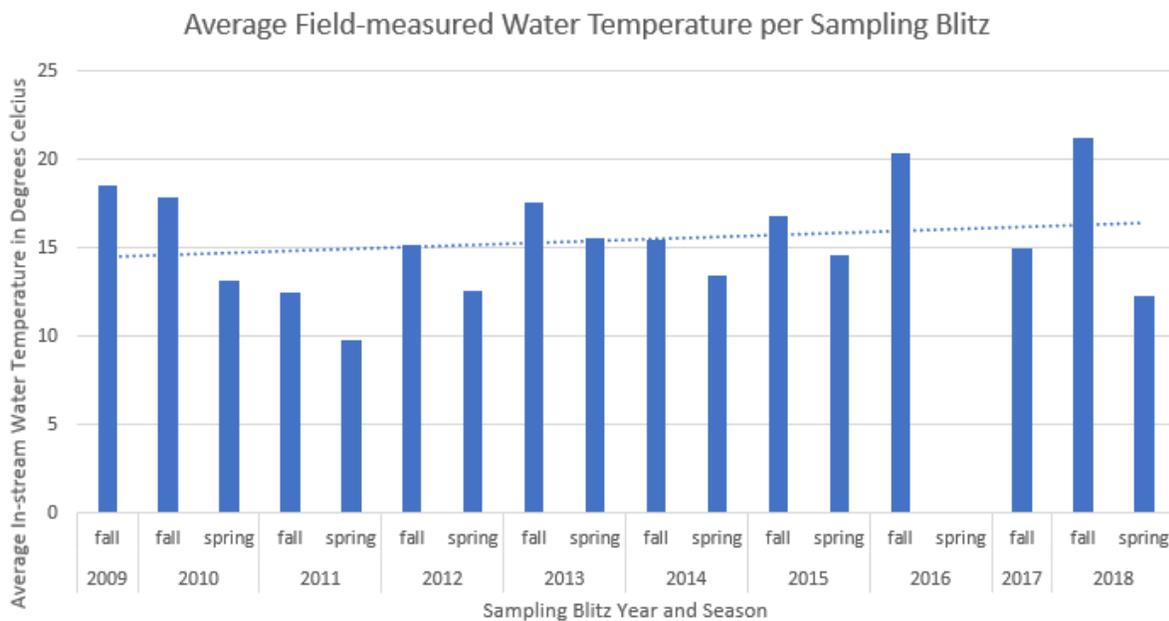


Figure 2. Average Field-measure Water Temperature per Sampling Blitz from Fall 2009-2018.

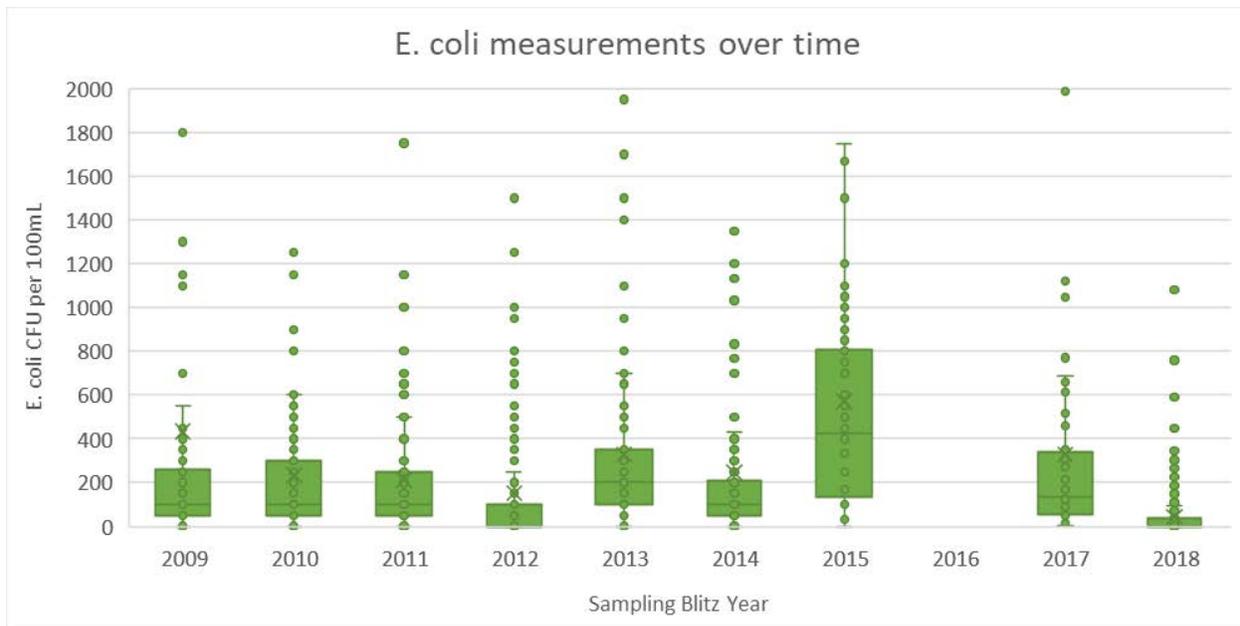


Figure 3. *E. coli* measurements during annual sampling blitz events (fall and spring data combined) from 2009-2018.

Photo monitoring:

WREC used photo monitoring to document the status of installed practices, determine if practices were maintained as per landowner agreements and to highlight changes in our community that may not yet be detectable from water quality monitoring data. WREC conducted the photo monitoring program throughout the duration of the project. WREC established photo points for all funded project locations. If project contain multiple features or practices, points were established to display all aspects of each project. Photographs were recorded in advance of project implementation, within 30 days of project implementation and annually following project completion. Once downloaded, all photo monitoring photos are relabeled and stored in WREC project files. Photo monitoring photos and other data can be found in Appendix 3.

All installed projects were still in the ground at one year follow up except for one tree that died. The landowner is working to rectify the issue that caused the tree to die, and a replacement tree will be planted this Spring utilizing their own funds. At one year follow up, one rain garden needed some end of the season maintenance. WREC provided technical assistance to the landowner and worked with them and community volunteers to successfully weed the rain garden. Due to staff turnover in the summer of 2017, not all “before” cover crop photos were taken. WREC consulted with IDEM about this and the omission of these before pictures was permitted. Agricultural photos were often difficult to capture from the same exact location and angle for before/after/one year follow up because of the remote nature of these projects. Parking is rather limited alongside country roads and traffic conditions were not always safe to stop in the same place again. Weather conditions also complicated retaking photos at the same location, as wet fields could make traversing impossible to do safely. All practices were still photographed; however, the portion of the same agricultural field may have changed to ensure the safety of our staff.

Task D: Implement an education and outreach program designed to bring about behavioral changes and encourage BMP implementation that will lead to reduced nonpoint source pollution in the watershed.

1. Conduct no less than eight (8) education and outreach committee meetings (of the previously formed committee) to direct all education and outreach efforts.
2. Conduct no less than four (4) steering committee meetings (of the previously formed steering committee) to direct the project and guide development and implementation of the cost-share program.
3. Conduct no less than two (2) agricultural and two (2) urban subcommittees meetings (of the previously formed committees) to guide the implementation of the cost-share program (4 meetings).

Committee meetings:

The steering and education committees met regularly as directed to plan and implement a robust project that included both implementation of practices to improve water quality and educational and outreach opportunities to engage the community. The agricultural and urban subcommittees met annually to review cost share applications and allocate funding to the projects described in task B.

4. Submit no less than eight (8) press releases to the local media to provide updates on the progress of implementing the WMP, opportunities for public involvement, and information on best management practices.

WREC submitted eight press releases to update the community on the implementation efforts and share opportunities to be involved (Appendix 4). Additionally, we were interviewed at least six times by local media about the education opportunities. We continued our relationship and interaction with the local, traditional TV, radio, and newspaper media and made new grassroots community connections. We were interviewed by a local podcast called Art Tap and local internet radio station called 765 Live about new additions to Wabash Riverfest. Both platforms allowed more time (1 hour and 20 minutes, respectively) to talk about the event, the role of the Wabash in our community, and opportunities to participate.

5. Coordinate the Wabash Riverfest and host a booth at the event and at the Tippecanoe, Fountain, and Warren county fairs or other community events on an annual basis (8 events).

Wabash Riverfest:

WREC coordinated Wabash Riverfest on July 8, 2017 and July 14, 2018. With substantial help from the education committee and our community partnerships, we increased attendance at this festival to 8,000 in 2017 and 10,000 in 2018. Wabash Riverfest was first held in 2001 as an event to bring attention to the Wabash River and its role in community of Tippecanoe County. The main attraction of the festival was dragon boat races. The festival has grown with water and land activities each year since. The dragon boats have since been replaced with replica voyageur canoes. The canoe races are still a big

attraction and provide an opportunity for community members to get out on the water. From 2001-2017 the festival was held along the Wabash River in Tapawingo Park, West Lafayette. In 2018, we expanded the festival footprint to include the Myer's Pedestrian Bridge and Lafayette's downtown riverfront section surrounding Riehle Plaza. WREC hosted an educational booth at each festival, and in 2018 WREC hosted two educational booths, one on each side of the river. Our participation numbers greatly increased, with 100 people running the 5K along the river and 100 kids participating in the Kid's Run on the pedestrian bridge in 2018. With the expansion of the festival footprint, we had many exciting new additions including: River Drawing Classes with Charcoal, Live Screen Printing and Tote Bag Crafting, 3 Fitness Classes, Bike Rides along the Wabash, Sand Volleyball Tournament, Instrument Petting Zoo, Lafayette Farmer's Market on the Pedestrian Bridge, Adult Tricycle Obstacle course around Rain Barrels, and live music featuring the Flying Toasters, the Green Room Rockers, Clave Caribe, and CircAfrique in Riehle plaza. The new events and footprint attracted more attendees, partnerships, and community sponsors and provided new ways to connect with the Wabash River.

Community event booths:

WREC hosted an educational booth at 8 additional community events throughout this grant project. We targeted different educational material with each event, based on the audience in attendance. We shared a booth with the Tippecanoe County Partnership for Water Quality at the Tippecanoe County Fair on July 25, 2017 and July 25, 2018. We attended "Mosey Down Main Street" on September 14, 2017 and June 2, 2018. We attended the local farmer's markets in Lafayette on June 16, 2018 and in West Lafayette on June 20, 2018. We attended the Tippecanoe County Latino Fest on September 29, 2018 and made seed balls with seeds from local native plants. Finally, we attended a neighborhood gathering called "Block Talk at the Park" on October 27, 2018. The neighborhood was gathered to talk about stormwater management. We met many folks in the neighborhood who later contacts us for site visits.

6. Update the www.wabashriver.net and www.TippEcoNow.com websites no less than quarterly with relevant watershed information including, but not limited to, the WMP, approved cost-share program, cost-share projects, events, and educational materials.

7. Continue to update the Wabash River Enhancement Corporation's Facebook page and distribute e-newsletters on a quarterly basis to provide updates, post events, and promote opportunities for the public to become involved with the project.

The websites and Facebook page were updated regularly, including blitz information, opportunities to be involved, and educational material. At the start of this grant, we had 1,500 followers on the WREC and Wabash Riverfest Facebook pages. This increased to 2,516 in December 2018 and 2,696 in December 2019. Regular e-newsletters were sent to ~4,500 individuals and can be found in Appendix 5.

8. Conduct no less than four (4) field days (outdoor educational activity) or workshops (indoor educational activity) to educate watershed residents, including producers and landowners, about nonpoint source pollution, water quality, and/or the importance of incorporating the BMPs outlined in the Region of the Great Bend Wabash River WMP.

WREC hosted 3 native plant transplanting workshops in May 2018 to educate residents of the watershed on this important technique. Attendees learned about native plants and their function in stormwater management, while also gaining a skill they could take home. WREC also hosted a rain barrel workshop on September 29, 2018. The workshop also served as a mini green tour, as we hosted it at the home of a former cost share recipient who had pervious pavement, native plants, a vast vegetable garden, many rain barrels, and newly installed solar panels. During the workshop, we covered background and function of rain barrels and did an installation demo. Workshop attendees participated in peer to peer learning as they discussed their experiences with rain barrels and other BMPs and asked questions. Flyers for events can be found in Appendix 6.

9. Host no less than two (2) Green Practices Tours to highlight BMPs and programs throughout the watershed.

In August of 2017 and 2018, WREC partnered with Grow Local (the local community garden network), Purdue Extension, Bicycle Lafayette (local bicycle advocates), Hanna Community Center, and numerous organizations connected with the Grow Local network to host a Green Tour on bicycles of urban stormwater BMPs and community gardens. In our community, many community gardens also have BMPs such as rain barrels, rain gardens, and bioswales. Along the way, we visited pervious pavement on roads nearby several community gardens. The list of sites was provided to the public and some community members drove themselves from site to site if they could not ride a bicycle. In year two, we partnered with Habitat for Humanity of Lafayette to lend bicycles to anyone that did not have their own. In year one, we had a meal prepared by Purdue Extension at the end of the tour. This provided time for attendees to connect more with one another and discuss what we had viewed and learned. Both years, we collected produce for the Food Finders food bank, donating over 35 lbs each tour from surplus food at the gardens.

10. Continue to implement the Eco Champion educational signage program and highlight no less than fifteen (15) urban BMPs with Eco Champion signs.

We regularly distributed Eco-champion signs to cost share recipients, workshop and tour attendees, and at our educational booths. We exceeded the minimum of 15 signs installed.

Task E. The Grantee shall develop a detailed plan for sustainable funding for the Region of the Great Bend Wabash River watershed project. A written copy of the final plan shall be included in the final report.

WREC has developed a detailed plan for sustainable funding for this watershed project utilizing local taxes and other grant opportunities. The complete plan can be found in Appendix 7.

3. Evaluation of Goal Achievement

The broad goals of this phase of implementation were to: implement the cost share program, continue education and outreach, and create a sustainable funding plan (specific goals stated in the introduction).

We determine goal achievement by the project outcomes and measures of success outlined in the grant application:

Outcome 1: Cost-share program promoted in target sub watersheds. Measures of success:

- Cost share program reviewed and approved (achieved)
- 70 Landowner meetings (achieved)
- 10% increase in educational event attendance over phase 2 numbers (achieved, attendance at Wabash Riverfest alone increased from 5 to 10 thousand attendees)

Outcome 2: Cost Share Program implemented in target sub watersheds. Measures of success:

- 2 Ag and 2 Urban committee meetings to review grant applications (achieved)
- 35 319A/U forms and load reductions submitted to IDEM for reimbursement (Nearly achieved, 23 forms were submitted for a total of 29 projects. However, all grant funds were allocated so we consider this goal achieved)
- Reduce Loads by 333,175 lbs. N, 18,270 lbs., P, and 2,210 Tons S. (Nearly achieved, load reductions were 7,383 lbs. N, 3,542 lbs. P, and 3, 164 Tons S. Goals for N and P were not met, but S goals were exceeded.)

Outcome 3: Increased knowledge about the Wabash River and appropriate ways to positively impact the River. Measures of success:

- 24 website updates (achieved)
- 4 conservation based educational events (achieved),
- 5% increase in attendees at educational events (achieved)
- 5% increase in volunteers and Blitz participants (achieved)

Outcome 4: Long term sustainable funding plan created. Measures of success:

- 5 grant opportunities identified (achieved)
- plan approved by WREC board (achieved)

Outcome 5: Complete reporting to IDEM. Measures of success:

- Quarterly and final reports submitted (achieved upon submission of this final report)

This phase of implementation successfully allocated all cost share funding, had a robust education and outreach program, and created a sustainable funding plan for the watershed program. To date, this watershed management project has reduced 658,918.85 lbs. N, 247,686.27 lbs. P, and 20,508.3 Tons S from reaching the Wabash River. These values reflect reductions of 13%, 90%, and 62% respectively of our 30-year WMP goals. We are making excellent progress towards our goals with continued implementation. The steering committee will continue to analyze these numbers and our progress towards meeting our 30 WMP goals during the next phase of implementation.

4. Public Participation and Partnerships

Public Participation was strong during this phase of implementation. Nearly 170 people participated in our workshops and green tours. Attendance at Wabash Riverfest was 8,000 in 2017 and 10,000 in 2018. Nearly 100 people volunteered during each blitz, DeTrash the Wabash, and Wabash Riverfest. We

estimate we spoke with at least 400 people while hosting educational booths at other community events. Due to high requests for site visits and cost share funds, we believe the education and outreach program was successful at increasing awareness of ways to positively impact the Wabash River.

Partnerships were the key to a successful phase of implementation! The Region of the Great Bend of the Wabash River has many partners advocating on its behalf. The time, energy, and financial contributions of all these partners is invaluable.

The steering committee included individuals with a variety of backgrounds and interests from organizations including: Tippecanoe County Soil and water Conservation District (SWCD) and Natural Resource and Conservation Service (NRCS) offices; Lafayette Renew (City of Lafayette stormwater department); City of West Lafayette stormwater, wastewater, engineering, and parks departments; Purdue University Physical Facilities; Purdue University Agricultural and Biological Engineering, Office of Engagement, and Environmental and Ecological Engineering Departments; Tippecanoe County Surveyor's office, Area Plan Commission, Solid Waste Management District, Parks Department; Tippecanoe County Partnership for Water Quality; NICHES Land Trust.

Many other partners contributed to the success of this phase of cost share and education implementation, including: Clinton, Carroll, and Howard County SWCDs, Grow Local, Purdue Extension, Bicycle Lafayette, Hanna Community Center, Habitat for Humanity, Food Finders Food Bank, Evangelical Covenant Church, Right Steps Child Development Center, Bauer Family Resources, Imagination Station, Cary Home for Children, Duke Energy, Virtuous Cycles, Greater Lafayette Commerce, and the United Way of Greater Lafayette.

The following partners hosted educational booths at Wabash Riverfest:

Indiana Native Plant Society, Sycamore Audubon Society, Tree Lafayette, West Lafayette Go Greener Commission, Tippecanoe Arts Federation, Indiana American Water, Bees Gone Wild, Bike Walk Greater Lafayette, Citizens Climate Lobby, City Bus, Coze Health, Green Indy Blog, Holistic Samantha, Hoosier Environmental Council, IU health, Lafayette Water Works, Mine-us Printing, Purdue entomology, Purdue Concrete, Purdue Health and Kinesiology Department, West Lafayette High School Robotic team, Tippecanoe County Parks and Public Library, Virtuous cycles, and the Wabash River Cycling Club. Additional booths were facilitated by steering committee member organizations. 40 community businesses/organizations sponsored Wabash Riverfest in 2018!

5. Lessons Learned: Successes and Challenges

Successes:

- All cost share funds were allocated and spent
- 29 BMPs implemented throughout the watershed with cost share funds
- High load reductions through BMP implementation
- Total program match was \$437,916 which exceed our requirements by \$243,066!
- Strong attendance at events and public participation
- Strong partnerships to help with promotion and implementation
- Recognition as Conservation Partner of the Year in 2018 by the Clinton County SWCD for our partnership on the Wabash Sampling Blitz
- Increase in social media followers and newsletter recipients

- Increase in community businesses sponsoring Wabash Riverfest
- Sustainability plan created and approved by the Board of Directors
- Additional grant funds allotted for this phase partway through the project
- Additional 319 funds for next round of implementation ongoing (March 2019-2021)

Success stories:

While attending “Block Talk at the Park”, we met the President of the HOA in the neighborhood across the street, who later applied for and was granted cost share funds to stabilize streambanks within the neighborhood! They spread the word to the next neighborhood over, who applied for and was granted cost share to improve their stormwater pond management system!

Leadership staff at Duke Energy (DE) were eager to organize a large volunteer event for their employees in 2017. We partnered with them to provide support at one of the Native Plant Transplanting Workshops. They provided nearly 40 volunteers to assist with the program and provided lunch for all attendees. DE employees also began to volunteer in every sampling blitz. DE leadership staff encouraged us to apply for the DE Foundation Nature Grant. WREC was awarded \$24,000 for the Wabash Sampling blitz 2019 program!

In 2018, we partnered with Habitat for Humanity of Greater Lafayette (HH) to provide bikes for the Green Tour attendees. HH staff attended the tour and were energized by the projects and possibilities in our community. HH staff then met with WREC staff about many potential projects in the communities they serve. They applied for cost share funds and a neighborhood project will begin in spring 2020!

Challenges:

- Some practices, like grassed water ways, took more than 1 year to implement. It can be difficult for producers to implement these practices quickly alongside other farm responsibilities and very wet weather conditions.
- Photo monitoring of installed practices proved to be a challenging task with small rewards. Agricultural pictures (particularly of cover crops) were generally underwhelming.
- Invasive species threaten both agricultural and urban projects. Every property we visited had issues with invasive species. Without diligent weeding, BMP function can be diminished, particularly in urban settings.

Lessons Learned:

- Photo monitoring of most urban projects were more useful than most agricultural projects. We would recommend photo monitoring only a subset of projects that groups would like to highlight rather than all practices. However, one year follow up of practices was an easy and useful way to stay in touch with cost share recipients and ensure that practices were being maintained.
- Begin large projects as soon as possible to ensure they are completed in the grant period.
- Show up for your partners! Partnerships are reciprocal relationships. It is important to make the time to attend events held by partners and volunteer for their efforts. Attending events held by partners is a great opportunity to meet more of the community and spread the word about water quality improvements.

- Trust and conservation take time to build! Great conservation practices can be implemented if you take the time to get to know your partners and community members.
- Widespread action on invasive species is required to improve environmental conditions. More resources and attention to this issue is necessary to meet the goals of our Watershed Management Plan.
- Our community cares about the Wabash River and its water quality. With guidance and opportunities, they can implement projects, change behaviors, and participate in efforts to improve environmental conditions.

6. Ongoing and Future Activity

Phase IV of Implementation is on-going with grant ARN 305-3-1213 operating from March 2019-March 2021. The goals of phase IV are similar to the goals of phase III: continue the cost share program to reduce non-point source pollution, monitoring water quality trends with the educational Wabash Sampling Blitz, and increase public knowledge through education and outreach. We have been preliminary approved for funding of Phase V of implementation. WREC is steadily working towards sustainable funding for implementation of the WMP utilizing the plan in this final report. We are optimistic for continued funding from a variety of sources to continue improve water quality in our reach of the Wabash River. We look forward to future projects, partnerships, volunteer engagement, and educational opportunities in the years to come!