



For use of award chairperson only



PROJECT REG. NO. _____

Received _____

DECLARATION OF INTENT TO SUBMIT FOR ACE CONSERVATION PROJECT ENGINEERING AWARDS

(This page is due by email by Sunday, September 13, 2020)

Date submitted: September 1, 2020

Note: Please furnish all information requested below for each entry. If additional forms are required, copy this format.

I intend to submit an entry to the Association of Conservation Engineers Design Awards Program in the following category and division designated.

Category (Check One)

A. Studies/Research Program

B. Conservation/Environmental _____

C. Special Projects _____

Budget Cost of Project: \$290,000 Scheduled Completion: September 2019

Actual Cost of Project: \$290,000 Actual Completion: September 2019

Name of Submitting Entity: Christopher B. Burke Engineering, LLC

Address: 115 W. Washington Street, Suite 1368 South Indianapolis, IN 46204

Contact Name: Jon Stolz Phone No: (317) 266-8000

E-mail: jstolz@cbbel-in.com Fax No: (317) 632-3306

Name of Project: Kankakee River Flood and Sediment Management Work Plan

Location: Indiana

Owner's Name: Kankakee River Yellow River Basin Development Commission

Note: Remember to get Owner's approval for use of project award nomination

Name of Consultant(s): Christopher B. Burke Engineering, LLC

(if applicable) May be the same as submitting entity

Note: The submitting entity or the owner of the project must be a member of the ACE organization or must have

KANKAKEE RIVER

YELLOW RIVER



BASIN DEVELOPMENT COMMISSION

August 27, 2020

Linda Logan, PE
ACE Committee Chairman
Association of Conservation Engineers

Dear Linda:

We are extremely enthused to submit our Kankakee River Flood and Sediment Management Work Plan for consideration for the Carl Anderson Conservation Engineering Project Awards competition, Project Category A - STUDIES / RESEARCH PROGRAMS. Likewise, we urge that the expert plan developed by the Christopher B. Burke Engineering team receive your organization's strongest consideration.

The Kankakee River Basin faces nearly a century's worth of mounting water resource challenges. The implications of early Twentieth Century drainage activities affect our region to this day, and relentless flooding and erosion within the basin have become increasingly unmanageable. In 2018, the State of Indiana and our Commission finally turned to Burke Engineering for solutions. Due to their work and innovation, our state now has a forty-year template for the economic and natural resource development for over a million acres in Northwest Indiana.

I also hope you will accept this letter from the Kankakee River Basin and Yellow River Basin Development Commission as permission to allow the publication of any feature or innovation found to be of interest to the members of the Association of Conservation Engineers. There is much to be learned.

I would be delighted to discuss our work plan and the efforts of the Burke team with you at any time at 219-861-7999 or sdpelath@gmail.com. Until then, we remain grateful for your close interest in the Kankakee River Basin.

Sincerely,

Scott D. Pelath
Executive Director
Kankakee River Basin and Yellow River Basin Development
Commission



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ACE 2020 DESIGN AWARDS DATA SHEET #1

(This page is due by email by Sunday, September 13, 2020)

PROJECT NAME: Kankakee River Flood and Sediment Management Work Plan

1. Agency / Firm Making Submittal: Christopher B. Burke Engineering, LLC

2. Address: 115 W. Washington Street, Suite 1368 South Indianapolis, In 46204

3. Contact Name: Jon Stolz Contact Phone No: 317-266-8000

E-mail: jstolz@cbbel-in.com Fax No: 317-632-3306

4. Project Location: Indiana

5. Project Category: A

6. Outside Consultant (s): Christopher B. Burke Engineering, LLC

7. If a winning entry, please give exact Project Information as it should appear on the plaque or certificate:

Name of Project: Kankakee River Flood and Sediment Management Work Plan

Project Owner &/or Consultants: Kankakee River Yellow River Basin Development Commission & Christopher B. Burke Engineering, LLC

Project Location: Indiana



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ACE 2020 DESIGN AWARDS DATA SHEET #2

(This page is due by email by Sunday, September 13, 2020)

PROJECT NAME: Kankakee River Flood and Sediment Management Work Plan

In approximately 500 words (total), write a short summary of the project features and solutions that best answer the following rating guidelines:

Note: *The unnecessary use of names of agencies, departments, consultants or individuals should be avoided. The name of the submitter(s) is removed prior to project review, so that the panel of judges may consider projects based on solely on merit.*

- | | |
|---|-------------|
| 1. Complexity of Program: | 15% |
| 2. Technical Value to Conservation Engineer’s Profession: | 15% |
| 3. Originality/Innovation/New Application of Existing Techniques: | 20% |
| 4. Meeting and Exceeding Owner’s Needs: | 25% |
| 5. Natural Resources & Environmental Considerations: | <u>25%</u> |
| Total: | 100% |

The Kankakee River Basin is one of the most extensively modified and heavily studied watersheds in Indiana. Since the draining of the Kankakee marsh in Indiana was “completed” in 1918, studies have been done almost every decade to address continuing problems with flooding along the channelized river. Climate change has increased the amount of rainfall received and the frequency of very heavy rains. The response to the higher rainfall has been to increase the number of drain tiles, upsize the tiles and drainage ditches, and erect more berms or make them higher, all of which has increased the amount of flow in the river even further. Flooding problems that were bad are now worse.

With every major flood in the Kankakee River, about 100,000 acres are inundated. So, the long-time question has been – how do we reduce the flooding? The volume is such that there is no way to get rid of the water or contain it within the banks, and the volume of water is going to increase. But, with a systems approach, there are ways to manage it more effectively.

But finding solutions to flooding and sediment problems in a multistate river basin requires more than just a new approach, it also requires a vision and leadership. Fortunately, that leadership came from the Kankakee River Basin Commission (KRBC) which changed their question from, “how do we control flooding” to, “is there a better way to manage this river system?”. That new question quickly attracted strong support from legislators and elected officials in Indiana and Illinois who requested that a work plan be developed to guide the implementation of strategies to better manage the Kankakee River. Key recommendations from the plan are:

Adapting to changing conditions by:

- understanding that flooding will continue.
- exploring where and how critical portions of the floodplain can be reattached
- providing strategic flood protection to critical facilities and key infrastructure
- adopting No Adverse Impact stormwater standards for new urban development
- adopting No Adverse Impact standards for new farm drainage and regulated drain projects
- developing flood response plans
- developing flood resilience plans

Mitigating existing problems by:

- reducing the sediment supply
- stopping maintaining and strategically breaching some berms, mitigating flooding using setback berms
- maintaining selected reaches of berms
- purposefully removing and relocating infrastructure from berm-reliant areas
- providing zone-specific access to the river for managing logjams
- restoring Yellow River sediment transport capacity
- managing large wood
- removing and/or replace restrictive bridges
- construction off-line retention or detention storage along laterals

While the Kankakee Basin is unique in how extensively modified it is, the systems management approach can be used to help address flooding in any stream or river. While every river system is different, with this approach to understanding the system, we can come up with the most appropriate, sustainable, and thus cost saving solutions while at the same time, avoiding those that can create adverse impacts.

The full work plan can be viewed at the Kankakee River Basin and Yellow River Basin Development Commission website: <https://kankakeeandyellowrivers.org>