

Impactful Resilient Infrastructure Science and Engineering (IRISE)

-Project Scope of Work- (FY 2022-23 (IRISE Year 5) Annual Work Program)

SUMMARY PAGE

Project Title: A Seminar Series on Innovative and Comprehensive Stormwater Management to Produce Multiple-Benefits in the Appalachian Plateau

Person Submitting Proposal: Daniel J. Bain

Proposed Funding Period: 10/01/2022 - 9/30/2023

Project Duration: 12 months

Project Cost: \$ 20,000

Project Title: A Seminar Series on Innovative and Comprehensive Stormwater Management to Produce Multiple-Benefits in the Appalachian Plateau

Problem Statement: Stormwater management in Southwestern Pennsylvania is challenging due to rugged terrain, complicated hydrogeology, and a long history of human modifications. These challenges are exacerbated by increasing and intensifying precipitation. In addition, future regulatory structures are uncertain. Drainage of transportation infrastructure contributes substantial amounts of stormwater runoff, and therefore presents a unique opportunity to address stormwater, as this infrastructure spans jurisdictions and creates regional benefit. Coordination in strategy and research will enhance stormwater management effectiveness as the region evolves.

Project Objectives: We propose a series of stormwater seminars held at the University of Pittsburgh. Sharing collective and emerging knowledge about storm water control technologies, particularly green infrastructural approaches, effective cross-jurisdictional strategies, and scenarios of climate and regulatory strategy is fundamental to successful management of stormwater challenges. Specifically, approaches that address multiple objectives (e.g., decrease water flow and improve quality) would benefit from open communication about emerging, and potentially unorthodox, methods.

Project Scope: This seminar would build upon the highly successful landslide capacity building seminars sponsored by IRISE in fall 2020. Experience suggests the format of the proposed stormwater seminar cannot be specified at this point. However, the seminar would build on the successes of the landslide seminar, with a focus on multiple sub-topics from invited presenters. The seminar topics, dates, times, speakers, etc. would be decided by an IRISE project panel including members from regional entities involved at the intersection of transportation, governance, and stormwater management: Allegheny County Conservation District, the Congress of Neighboring Communities (CONNECT), etc. Finally, building on landslide experience, we envision student participation to be a primary component of the seminar.

Task Statements:

This seminar will be realized through the completion of the following tasks:

Task A: Coordinate Planning of Seminar Themes, Speakers, and Schedule

This task will rely on input from a wide variety of IRISE members, University of Pittsburgh faculty, and local agency and industry experts in storm water infrastructure. We propose a seminar centered around the following topics:

- 1) Challenges in Stormwater Management: Climate, Geology, and Land Use
- 2) Emerging Stormwater Management Technologies: Maximizing Multiple Benefits
- 3) Management Across Jurisdictions: Conflicts and Synergies

Each topic will include several presentations. Time for informal interaction will be built into the seminar schedule and student professional development aspects emphasized.

The seminar is envisioned as a starting point for longer term collaborations on measurement of stormwater management implementation and effectiveness.

Task B: Execute Seminar

We will execute a seminar based on the outcome of the planning process outlined in Task A. We envision this seminar will take place at the University of Pittsburgh during the semester to maximize student participation.

Task C: Document Seminar and Archive Relevant Content

At a minimum, seminar schedule and presentation abstracts will be organized and placed on the IRISE website for future reference of participants and the wider community. Dependent on ultimate format and content, additional materials may be included in the archive.

Task D: Final Report

A *brief* report documenting the planning process (e.g., participants, important decision points), seminar content, budget details, and lessons learned will be submitted to IRISE approximately a month after the seminar occurs.

Deliverables:

Task A: Monthly reports to IRISE Steering Committee [begin immediately upon notice to proceed]

Task B: A seminar held at the University of Pittsburgh, focusing on storm water infrastructure [approximately 11 months from notice to proceed]

Task C: Web curation of seminar materials on IRISE website [12 months from notice to proceed]

Task D: A brief report documenting the planning process, seminar events, and lessons learned during the process. [12 months from notice to proceed]

Key Personnel:

Principal Investigator: Daniel J. Bain

Other Key Staff: N/A

Other Personnel:

Grad Students: N/A

Proposed Person-Hours by Task:

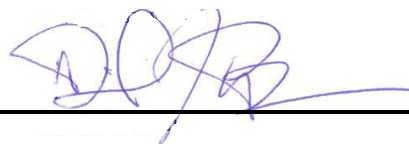
Team Member	Task A	Task B	Task C	Task D	Task E	Total
Key Project Team Members, Estimated Hours Per Task						
Daniel Bain	93	8	16	16		133
Total	93	8	16	16		133

Schedule:

Months	2022	2023			
	Q4	Q1	Q2	Q3	Q4
Task A:					
Task B:					
Task C:					
Task D:					

Budget: The total project cost is \$20,000.

Acknowledged By:



Daniel Bain
Principal Investigator