



The State of New Hampshire  
**Department of Environmental Services**

Robert R. Scott, Commissioner



103

July 20, 2023

His Excellency, Governor Christopher T. Sununu  
 and the Honorable Council  
 State House  
 Concord, New Hampshire 03301

**REQUESTED ACTION**

Authorize the New Hampshire Department of Environmental Services (NHDES) to amend a **SOLE SOURCE** Cooperative Project Agreement (PO# 1089258) with the University of New Hampshire, Sponsored Programs Administration (VC #315187-B083), Durham, NH, for the *NHDES Stormwater Manual Update* project, by: (1) extending the project completion date to June 30, 2024, from August 31, 2023, (2) increasing the contract award amount by \$20,000 to \$159,881 from \$139,881, and (3) revising the scope of work to include additional deliverables, effective upon Governor & Council approval through June 30, 2024. The original agreement was approved on August 17, 2022, Item #41. 100% Federal Funds.

Funding is available in the following account.

03-44-44-441018-4788-102-500731

FY 2024  
 \$20,000

Department of Environmental Services, CWSRF Loan Management, Contracts for Program Services

**EXPLANATION**

NHDES requests approval of an amendment to a **SOLE SOURCE** Cooperative Project Agreement (CPA) to extend the end date by 10 months and provide the University of New Hampshire (UNH) with additional funds to enhance the *NHDES Stormwater Manual Update* project. The original agreement with UNH was **SOLE SOURCE** because UNH will become the owner of this document and host it on the UNH website. In addition, the UNH Stormwater Center is a nationally recognized leader in the understanding of stormwater management and practice approaches to controlling urban runoff. This extension is being requested due to two factors. First, given the vast volume of material associated with the manual and the limited amount of staff time available, NHDES and other partners will need more time to review drafts. Second, NHDES requested some changes to the focus of the updated New Hampshire Stormwater Manual based on initial review of the draft. These changes will require additional time and funding to complete the tasks as describe in Exhibit A. Under this amended CPA, UNH will complete the activities approved in the original CPA and this amendment. A copy of the original agreement is included as Attachment A.

To date, \$15,737 of the approved agreement amount of \$139,881 has been spent. No match is associated with this agreement. NHDES will provide 100% of the project costs with federal funds. A budget breakdown is included in the Cooperative Project Agreement Amendment 1.

In the event that federal funds become no longer available, general funds will not be requested to support this project. The amendment has been approved by the Office of the Attorney General as to form, execution, and content.

We respectfully request your approval of this item.

Robert R. Scott, Commissioner

**AMENDMENT #1 to  
COOPERATIVE PROJECT AGREEMENT**

between the  
STATE OF NEW HAMPSHIRE, **Department of Environmental Services**  
and the

**University of New Hampshire of the UNIVERSITY SYSTEM OF NEW HAMPSHIRE**

The Cooperative Project Agreement, approved by the State of New Hampshire Governor and Executive Council on **August 17, 2022**, item # **41**, for the Project titled "**NHDES Stormwater Manual Update**," Campus Project Director, **James Houle**, is and all subsequent properly approved amendments are hereby modified by mutual consent of both parties for the reason(s) described below:

**Purpose of Amendment (Choose all applicable items):**

- ☒ Extend the Project Agreement and Project Period end date.
- ☒ Provide additional funding from the State for expansion of the Scope of Work under the Cooperative Project Agreement.
- ☐ Other:

**Therefore, the Cooperative Project Agreement is and/or its subsequent properly approved amendments are amended as follows (Complete only the applicable items):**

- Article A. is revised to replace the State Department name of \_\_\_\_\_ with \_\_\_\_\_ and/or USNH campus from \_\_\_\_\_ to \_\_\_\_\_.
- Article B. is revised to replace the Project End Date of **8/31/2023** with the revised Project End Date of **6/30/2024**, and Exhibit A, article B is revised to replace the Project Period of **August 17, 2022 – August 31, 2023** with **August 17, 2022 – June 30, 2024**.
- Article C. is amended to add Exhibit A by including the proposal titled, "\_\_\_\_\_", dated \_\_\_\_\_.
- Article D. is amended to change the State Project Administrator to \_\_\_\_\_ and/or the Campus Project Administrator to \_\_\_\_\_.
- Article E. is amended to change the State Project Director to \_\_\_\_\_ and/or the Campus Project Director to \_\_\_\_\_.
- Article F. is amended to increase funds in the amount of **\$20,000** and will read: See amendments to Exhibit A below.
- Article F. is amended to change the cost share requirement and will read:  
Campus will cost-share \_\_\_\_\_ % of total costs during the amended term of this Project Agreement.
- Article F. is amended to change the source of Federal funds paid to Campus and will read:
- Article G. is exercised to amend Article(s) \_\_\_\_\_ of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, as follows:

**Article \_\_\_\_\_** is amended in its entirety to read as follows:

**Article \_\_\_\_\_** is amended in its entirety to read as follows:

- Article H. is amended such that:

- ☐ State has chosen **not to take** possession of equipment purchased under this Project Agreement.
- ☐ State has chosen **to take** possession of equipment purchased under this Project Agreement and will issue instructions for the disposition of such equipment within 90 days of the Project Agreement's end-date. Any expenses incurred by Campus in carrying out State's requested disposition will be fully reimbursed by State.

- ☒ Exhibit A is amended as attached and noted with italics not bold (addition) and strikethrough (deletion).
- ☐ Exhibit B is amended as attached.

All other terms and conditions of the Cooperative Project Agreement remain unchanged.

This Amendment, all previous Amendments, the Cooperative Project Agreement, and the Master Agreement constitute the entire agreement between State and Campus regarding the Cooperative Project Agreement, and supersede and replace any previously existing arrangements, oral and written; further changes herein must be made by written amendment and executed for the parties by their authorized officials.

This Amendment and all obligations of the parties hereunder shall become effective on the date the Governor and Executive Council of the State of New Hampshire or other authorized officials approve this Amendment to the Cooperative Project Agreement.

IN WITNESS WHEREOF, the following parties agree to this **Amendment #1** to the Cooperative Project Agreement.

**By An Authorized Official of:**

**University of New Hampshire**

Name: Karen Jensen

Title: Director, Pre-Award Compliance

Signature and Date: Karen Jensen

Digitally signed by Karen Jensen  
Date: 2023.06.27 16:00:36 -0400

**By An Authorized Official of: the New  
Hampshire Office of the Attorney General**

Name: Joshua Harrison

Title: Asst. Attorney General

Signature and Date: [Signature] 8/2/23

**By An Authorized Official of:**

**Department of Environmental Services**

Name: Robert R. Scott

Title: Commissioner

Signature and Date: [Signature] 7/25/23

**By An Authorized Official of: the New  
Hampshire Governor & Executive Council**

Name:

Title:

Signature and Date:

## EXHIBIT A

A. **Project Title:** NHDES Stormwater Manual Update

B. **Project Period:** August 17, 2022 through ~~August 31, 2023~~ June 30, 2024

C. **Objectives:** Update the 2008 three volume Stormwater Manual

D. **Scope of Work:** Add three additional tasks. See attached.

E. **Deliverables Schedule:** See attached.

F. **Budget and Invoicing Instructions:** Campus will submit invoices to State on regular Campus invoice forms no more frequently than monthly and no less frequently than quarterly. Invoices will be based on actual project expenses incurred during the invoicing period, and shall show current and cumulative expenses by major cost categories. State will pay Campus within 30 days of receipt of each invoice. Campus will submit its final invoice not later than 60 days after the Project Period end date.

Task Description	Original Payment	Difference \	Revised Payment
Salaries and Wages	\$31,681	\$0	\$31,681
Task 1: Project Management and Coordination	\$4,518	\$0	\$4,518
Task 2: Develop SW Manual Outline	\$3,929	\$0	\$3,929
Task 3: Format Document into Single Manual	\$4,990	\$0	\$4,990
Task 4: Update Stormwater Manual Content (Draft)	\$67,659	\$0	\$67,659
Task 5: Update Stormwater Manual (Final)	\$11,684	\$0	\$11,684
Task 6: Publish Final Stormwater Manual	\$6,876	\$0	\$6,876
Task 7: Stakeholder Engagement and Public Comment	\$8,544	\$0	\$8,544
Task 8: Additional Project Team Meetings and Coordination	\$0	\$2,500	\$2,500
Task 9: Revise Draft Content	\$0	\$12,500	\$12,500
Task 10: Finalize New Content and Publish Manual	\$0	\$5,000	\$5,000
Total	\$139,881	\$20,000	\$159,881



## New Hampshire Stormwater Manual Update Project



NHDES requested a change in the focus of the current draft of the updated New Hampshire Stormwater Manual. Currently, the focus is on the AoT regulations while NHDES would prefer the Manual to represent the "State of the Practice." UNH Stormwater Center and CEI's recommendations for changing the focus of the Manual are provided below.

### **Task 8: Additional Project Team Meetings and Coordination**

*With the extended timeline, the team requires additional management and coordination time as well as three additional meetings to be held (virtually) to review deliverables with the Project Team. The team will provide review materials at least two weeks in advance of the meeting. This task also includes general project management (e.g., invoicing) and coordination.*

#### **Task 8 Deliverables**

- *Presentations/ materials to support Virtual Review Meetings*
- *Summaries of Virtual Review Meetings (including action items, scheduling adjustments, etc.) within one (1) week of each Meeting*

### **Task 9: Revise Draft Content**

*The team will update the New Hampshire Stormwater Manual based on the revisions to remove some of the focus from the Alteration of Terrain regulations to allow this manual to go above and beyond the current requirements.*

#### **Task 9 Deliverables**

- *Draft Stormwater Manual.*

### **Task 10: Finalize New Content and Publish Manual**

*The team will update the New Hampshire Stormwater Manual to address all comments from Task 2.*

#### **Task 10 Deliverables**

- *Final Stormwater Manual.*

### **Total Cost for SOW Changes for New Hampshire Stormwater Manual Update Project**

Task	Cost
Task 8: Additional Project Team Meetings and Coordination	\$5,100
Task 9: Revise Draft Content	\$13,410
Task 10: Finalize New Content and Publish Manual	\$6,590
<b>Total</b>	<b>\$20,000</b>



**Revised Project Schedule (remaining tasks – assumed start date of June 30, 2023)**

Title	2023									2024					
	A p r	M a y	J u n e	July	Aug	Sept	Oct	N o v	D e c	J a n	F e b	M a r	A p r	M a y	J u n e
Project Team Review Meetings	4/7/23														
Draft to Project Team for internal review				App A and B Intro and Examples	Chapters 1-6	All Fact sheets									
NHDES return Internal NHDES comments to CEI					App A and B Intro and Examples	Chapters 1-6									
CEI prepares draft for Expert Panel								Full document							
Expert Panel returns comments									Full document						
NHDES and UNHSWC return comments from Expert Panel to CEI											Full document				
CEI sends NHDES Public Comment version															
Release for Public Comment															
Publish Final Manual															



## New Hampshire Stormwater Manual Update Project



NHDES requested a change in the focus of the current draft of the updated New Hampshire Stormwater Manual. Currently, the focus is on the AoT regulations while NHDES would prefer the Manual to represent the "State of the Practice." UNH Stormwater Center and CEI's recommendations for changing the focus of the Manual are provided below.

### **Task 8: Additional Project Team Meetings and Coordination**

*With the extended timeline, the team requires additional management and coordination time as well as three additional meetings to be held (virtually) to review deliverables with the Project Team. The team will provide review materials at least two weeks in advance of the meeting. This task also includes general project management (e.g., invoicing) and coordination.*

#### **Task 8 Deliverables**

- *Presentations/ materials to support Virtual Review Meetings*
- *Summaries of Virtual Review Meetings (including action items, scheduling adjustments, etc.) within one (1) week of each Meeting*

### **Task 9: Revise Draft Content**

*The team will update the New Hampshire Stormwater Manual based on the revisions to remove some of the focus from the Alteration of Terrain regulations to allow this manual to go above and beyond the current requirements.*

#### **Task 9 Deliverables**

- *Draft Stormwater Manual.*

### **Task 10: Finalize New Content and Publish Manual**

*The team will update the New Hampshire Stormwater Manual to address all comments from Task 2.*

#### **Task 10 Deliverables**

- *Final Stormwater Manual.*

### **Total Cost for SOW Changes for New Hampshire Stormwater Manual Update Project**

<b>Task</b>	<b>Cost</b>
Task 8: Additional Project Team Meetings and Coordination	\$2,500
Task 9: Revise Draft Content	\$12,500
Task 10: Finalize New Content and Publish Manual	\$5,000
<b>Total</b>	<b>\$20,000</b>

Revised Project Schedule (remaining tasks – assumed start date of June 30, 2023)

	2023									2024					
Title	Apr	Ma y	Ju ne	July	Aug	Sept	Oct	N o v	Dec	J a n	Fe b	Ma r	A p r	Ma y	J u n e
Project Team Review Meetings	4/7/23														
Draft to Project Team for internal review				App A and B Intro and Examples	Chapters 1-6	All Fact sheets									
NHDES return Internal NHDES comments to CEI					App A and B Intro and Examples	Chapters 1-6									
CEI prepares draft for Expert Panel								Full document							
Expert Panel returns comments									Full document						
NHDES and UNHSWC return comments from Expert Panel to CEI											Full document				
CEI sends NHDES Public Comment version															
Release for Public Comment															
Publish Final Manual															





The State of New Hampshire  
**Department of Environmental Services**

Robert R. Scott, Commissioner



July 8, 2022

His Excellency, Governor Christopher T. Sununu  
and the Honorable Council  
State House  
Concord, NH 03301

**REQUESTED ACTION**

**APPROVED G & C**  
DATE 17 August 2022  
ITEM # 49

Authorize the Department of Environmental Services (NHDES) to enter into a **SOLE SOURCE** Cooperative Project Agreement with the University of New Hampshire, Sponsored Programs Administration (VC #315187-B083), Durham, NH, in the amount of \$139,881 for the *NHDES Stormwater Manual Update* project, effective upon Governor and Council approval through August 31, 2023. 100% Federal funds.

Funding is available in the following account:

	<u>FY 2023</u>
03-44-44-442010-7602-102-500731	\$139,881
Dept. of Environmental Services, Surface Water Quality PPG, Contracts for Program Services	

**EXPLANATION**

This agreement is **SOLE SOURCE** because the University of New Hampshire Stormwater Center (UNHSC) is the primary leader on stormwater practices in the northeast. They are a dynamic research, testing, and educational facility which serves as a stormwater technical resource for State agencies, municipalities, water managers, planners, and design engineers in New England, and throughout the United States. The updated Stormwater Manual will become an UNHSC-owned document, hosted on their website to provide public access and allow for continued updates and maintenance to the manual. The UNHSC will have the sole responsibility and ability to incorporate new science and understanding of stormwater management, system design, installation and maintenance, associated costs, and regulatory changes into the Stormwater Manual. UNHSC ownership of this document will allow critical updates and necessary maintenance to occur in a timely and efficient manner.

The purpose of this agreement is to enable UNHSC to update the 2008 New Hampshire Stormwater Manual Volumes 1-3 that New Hampshire stormwater practitioners have relied upon for the past thirteen years. The current manual requires updates to reflect the new science, understanding, and regulatory framework of stormwater management in the state. As part of the development of the updated manual, UNHSC will collaborate with NHDES to engage stakeholders that routinely use the current manual.

Total project costs for this agreement are \$139,881. A budget breakdown is provided in the Cooperative Project Agreement.

In the event that Federal funds become no longer available, general funds will not be requested to support this project.

We respectfully request your approval of this item.

  
Robert R. Scott, Commissioner

## COOPERATIVE PROJECT AGREEMENT

between the

STATE OF NEW HAMPSHIRE, **Department of Environmental Services**  
and the

**University of New Hampshire of the UNIVERSITY SYSTEM OF NEW HAMPSHIRE**

- A. This Cooperative Project Agreement (hereinafter "Project Agreement") is entered into by the State of New Hampshire, **Department of Environmental Services**, (hereinafter "State"), and the University System of New Hampshire, acting through **University of New Hampshire**, (hereinafter "Campus"), for the purpose of undertaking a project of mutual interest. This Cooperative Project shall be carried out under the terms and conditions of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, except as may be modified herein.
- B. This Project Agreement and all obligations of the parties hereunder shall become effective on the date the Governor and Executive Council of the State of New Hampshire approve this Project Agreement ("Effective date") and shall end on 8/31/23. If the provision of services by Campus precedes the Effective date, all services performed by Campus shall be performed at the sole risk of Campus and in the event that this Project Agreement does not become effective, State shall be under no obligation to pay Campus for costs incurred or services performed; however, if this Project Agreement becomes effective, all costs incurred prior to the Effective date that would otherwise be allowable shall be paid under the terms of this Project Agreement.
- C. The work to be performed under the terms of this Project Agreement is described in the proposal identified below and attached to this document as Exhibit A, the content of which is incorporated herein as a part of this Project Agreement.

**Project Title: NHDES Stormwater Manual Update**

- D. The Following Individuals are designated as Project Administrators. These Project Administrators shall be responsible for the business aspects of this Project Agreement and all invoices, payments, project amendments and related correspondence shall be directed to the individuals so designated.

**State Project Administrator**

Name: Theodore Diers

Address: 29 Hazen Drive  
Concord, NH

03301

Phone: 603-271-3289

**Campus Project Administrator**

Name: Kimberly Becker

Address: University of New Hampshire  
Sponsored Programs Administration  
51 College Rd. Rm  
Durham, NH 03824

Phone: 603-358-2443

- E. The Following Individuals are designated as Project Directors. These Project Directors shall be responsible for the technical leadership and conduct of the project. All progress reports, completion reports and related correspondence shall be directed to the individuals so designated.

**State Project Director**

Name: Deborah Loiselle

Address: 29 Hazen Drive  
Concord, NH  
03301

Phone: 603-271-1352

**Campus Project Director**

Name: James Houle

Address: Civil and Environmental Engineering  
Environmental Research Group  
Greg Hall Rm 342  
Durham, NH 03824

Phone: 603-767-7091

- F. Total State funds in the amount of \$139,881 have been allotted and are available for payment of allowable costs incurred under this Project Agreement. State will not reimburse Campus for costs exceeding the amount specified in this paragraph.

Check if applicable

☐ Campus will cost-share % of total costs during the term of this Project Agreement.

- ☒ Federal funds paid to Campus under this Project Agreement are from Grant/Contract/Cooperative Agreement No. 66.05 from U.S.EPA under CFDA# BG99127312. Federal regulations required to be passed through to Campus as part of this Project Agreement, and in accordance with the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, are attached to this document as Exhibit B, the content of which is incorporated herein as a part of this Project Agreement.

G. Check if applicable

☐ Article(s) of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002 is/are hereby amended to read:

- H. ☒ State has chosen not to take possession of equipment purchased under this Project Agreement.  
☐ State has chosen to take possession of equipment purchased under this Project Agreement and will issue instructions for the disposition of such equipment within 90 days of the Project Agreement's end-date. Any expenses incurred by Campus in carrying out State's requested disposition will be fully reimbursed by State.

This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties by their authorized officials.

IN WITNESS WHEREOF, the University System of New Hampshire, acting through the University of New Hampshire and the State of New Hampshire, Department of Environmental Services have executed this Project Agreement.

By An Authorized Official of:

University of New Hampshire

Name: Karen M. Jensen

Title: Director, Pre-Award Compliance

Signature and Date: Karen Jensen

Digitally signed by Karen Jensen  
Date: 2022.08.22 13:28:23  
+04'00'

By An Authorized Official of:

Department of Environmental Services

Name: Robert R. Scott

Title: Commissioner

Signature and Date:

*Robert R. Scott* 7/11/22

By An Authorized Official of: the New  
Hampshire Office of the Attorney General

Name: Joshua Harrison

Title: Asst. Atty. General

Signature and Date:

*Joshua Harrison* 7/25/22

By An Authorized Official of: the New  
Hampshire Governor & Executive Council

Name:

Title:

Signature and Date:

## EXHIBIT A

- A. **Project Title:** NHDES Stormwater Manual Update
- B. **Project Period:** Upon G&C approval through August 31, 2023
- C. **Objectives:** Update the 2008 three volume Stormwater Manual
- D. **Scope of Work:** See attached
- E. **Deliverables Schedule:** See attached
- F. **Budget and Invoicing Instructions:** Campus will submit invoices to State on regular Campus invoice forms no more frequently than monthly and no less frequently than quarterly. Invoices will be based on actual project expenses incurred during the invoicing period, and shall show current and cumulative expenses by major cost categories. State will pay Campus within 30 days of receipt of each invoice. Campus will submit its final invoice not later than 60 days after the Project Period end date.

Budget Items	State Funding	Cost Sharing (if required)	Total
1. Salaries & Wages	15,629	0	15,629
2. Employee Fringe Benefits	4,356	0	4,356
3. Travel	0	0	0
4. Supplies and Services	108,200	0	108,200
5. Equipment	0	0	0
6. Facilities & Admin Costs	11,696	0	11,696
Subtotals	139,881	0	139,881
In Kind Contribution		0	0
Total Project Costs: 139,881			



## **EXHIBIT B**

This Project Agreement is funded under a Grant/Contract/Cooperative Agreement to State from the Federal sponsor specified in Project Agreement article F. All applicable requirements, regulations, provisions, terms and conditions of this Federal Grant/Contract/Cooperative Agreement are hereby adopted in full force and effect to the relationship between State and Campus, except that wherever such requirements, regulations, provisions and terms and conditions differ for INSTITUTIONS OF HIGHER EDUCATION, the appropriate requirements should be substituted (e.g., OMB Circulars A-21 and A-110, rather than OMB Circulars A-87 and A-102). References to Contractor or Recipient in the Federal language will be taken to mean Campus; references to the Government or Federal Awarding Agency will be taken to mean Government/Federal Awarding Agency or State or both, as appropriate.

Special Federal provisions are listed here: ☒ None or Uniform Guidance issued by the Office of Management and Budget (OMB) in lieu of Circulars listed in paragraph above. .



## NHDES Stormwater Manual Update Proposed Scope of Work

### INTRODUCTION

The New Hampshire Department of Environmental Services (NHDES) Stormwater Manual was originally developed in 2008 to provide communities, developers, designers, and regulatory personnel with a reference guide for the selection, design, and application of measures to manage stormwater from newly developed and redeveloped properties while meeting environmental objectives in the New Hampshire regulatory setting. The original Manual was issued in three volumes:

1. Volume 1: Stormwater and Antidegradation
2. Volume 2: Post-Construction Best Management Practices Selection and Design
3. Volume 3: Erosion and Sediment Controls During Construction

As outlined in the 2020-2024 Nonpoint Source Pollution Management Program Plan, Milestone DL-4.2 requires updating or amending *"the New Hampshire Stormwater Manual Volumes 1-3 to reflect the new science and understanding of stormwater management, system design, installation and maintenance, as well as regulatory changes."* As a first step towards this update, a Needs Assessment was conducted in 2020 with the goal of identifying recommended next steps to update the NHDES Stormwater Manual.

The proposed budget for this project is provided in Table 1. The proposed schedule is provided in Table 2.

### TECHNICAL APPROACH

#### **Task 1. Project Management and Administration**

The UNH Stormwater Center and CEI (the "team") will work together to update the existing Manual with guidance from NHDES and other project partners (the "Project Team"). The Project Team is expected to include the following, though additional members may be added at NHDES's discretion:

Project Team	Ted Diers, NHDES
	Steve Landry, NHDES
	Deb Loiselle, NHDES
	James Houle, UNH Stormwater Center
	Bob Hartzel, CEI
	Dave Roman, CEI
	Emily DiFranco, CEI

All correspondence (emails, reports, etc.) will be addressed to the members of the Project Team. All deliverables and invoices will be submitted to NHDES by the UNH Stormwater Center.

#### **Subtask 1a. Kickoff Teleconference**

The team will coordinate with the NHDES Project Team leader to schedule a project kickoff teleconference to occur within one month of task order award and notice to proceed. Within one week following the



teleconference, the team will send NHDES a summary of key points, outcomes, and action items from the kickoff meeting.

***Subtask 1A Deliverables:***

- Kickoff teleconference within two (2) weeks of contract
- Kickoff teleconference summary (including action items, scheduling adjustments, etc.) within one (1) week of kickoff teleconference

***Subtask 1b. Project Team Review - Virtual Meetings***

Following the Kickoff Meeting, the team will provide for virtual meetings to review deliverables with the Project Team. Virtual meetings will be held approximately three times throughout the project period with a goal of reviewing deliverables and providing feedback to the team. The team will provide review materials at least two weeks in advance of the meeting. This task also includes general project management (e.g., invoicing) and coordination.

***Subtask 1B Deliverables***

- Presentations/ materials to support Virtual Review Meetings
- Summaries of Virtual Review Meetings (including action items, scheduling adjustments, etc.) within one (1) week of each Meeting

**Task 2: Develop Stormwater Manual Outline**

The team will develop an expanded outline for the updated Stormwater Manual. This outline will be based on the existing manual and the updates and new information identified during the 2020 New Hampshire Stormwater Manual Update Assessment project (Table 3). The outline will be submitted to the Project Team for review and comment.

***Task 2 Deliverables***

- Expanded outline for the updated Stormwater Manual.

**Task 3: Format Document Into Single Manual**

The team will combine the three separate manuals into one unified document. The manual will be formatted based on the outline developed in Task 2 and will follow the major sections in the current three volumes. All headings (with live links), fonts, figure styles, table styles, headers, footers, new cover, and page numbers will be updated with placeholders for new information.

***Task 3 Deliverables***

- Single formatted document for the updated Stormwater Manual

**Task 4: Update Stormwater Manual Content (Draft)**

The team will update the New Hampshire Stormwater Manual based on the outline and format developed in Tasks 2 and 3. Revisions to existing text will be made using redline markup. Select new content (e.g., new BMPs) will be provided to the Project Team in advance of the submission of the draft Stormwater Manual to minimize future revisions. See Table 3 for anticipated updates.



Source material for the updated manual and new material will be discussed during the kickoff teleconference. The following materials/resources are recommended:

1. Updated Massachusetts Stormwater Handbook
2. UNH Stormwater Center
3. 2017 Vermont Stormwater Management Manual Rule and Design Guidance
4. 2019 RIDOT Linear Stormwater Manual
5. Chesapeake Stormwater Network

**Task 4 Deliverables**

- Redline draft of Stormwater Manual

**Task 5: Update Stormwater Manual (Final)**

The team will update the New Hampshire Stormwater Manual to address all comments from Task 4. The final document will include Word and PDF versions.

**Task 5 Deliverables**

- Final redline and clean updated Stormwater Manual which will reflect Project Team comments and input

**Task 6: Publish Final Stormwater Manual Document**

The team will update the New Hampshire Stormwater Manual to address all comments from Task 5. This task includes ensuring document is ADA compliant. The final document will include Word and PDF versions.

The current Manual is offered as a printed document or it can be downloaded from the NHDES website as full pdf documents and as individual chapters. To continue to make the manual accessible, it is recommended that the updated manual be posted online. The team will work with the UNH Stormwater Center to develop a dedicated webpage to host the Manual. This webpage will have background information about the manual and live links to the complete manual and individual chapters in pdf format, similar to the current manual.

**Task 6 Deliverables**

- Final updated Stormwater Manual addressing any additional comments from Task 5
- ADA compliance
- Background information to be posted on webpage
- Updated Stormwater Manual (pdf) and instructions on how to post

**Task 7: Stakeholder Engagement and Public Comment**

The team will assist NHDES with public outreach and engagement for the updated Manual through the following tasks:

1. **Expert Panel:** We understand that NHDES will assemble an internal Expert Panel to provide technical review for the Manual update. It is anticipated that the Panel will have representatives



from NHDES, NHDOT, and other select practitioners. It is our understanding that (1) NHDES will organize and manage the Expert Panel, and (2) that technical comments provided by the Expert Panel on draft versions of the updated Manual will be reviewed and complied by NHDES prior to submission to CEI for inclusion in the updated Manual or revisions.

2. **Stakeholder Engagement:** The team will present specific items from the updated Manual to stakeholders previously identified during the Update Assessment project. These presentations will provide stakeholders with the opportunity to preview and discuss specific sections of the Manual as it is being developed. We anticipated that these meetings will occur two times during the project period.
3. **Response to Public Comment:** The team will work with NHDES to respond to public comment on the finalized Stormwater Manual. The team will meet with NHDES once to review the comments received and discuss the need for each to be addressed. It is assumed that NHDES will have previewed the comments before this meeting to streamline the process. Once the list of comments to be addressed is finalized, the team will address the comments and document how they were addressed. As the number of comments from the public is unknown at this time, we have budgeted for approximately 24 hours to address comments. Based on the number and complexity of public comments that NHDES determines to require a written response, the required level of effort may be revisited. Upon completion of the response to comments, the document will be finalized and ready for publication on the UNH Stormwater Center website (Task 6).

#### **Task 7 Deliverables**

- Prepare presentation materials (i.e., PowerPoint slides) for two stakeholder engagement meetings
- Organize, host, and attend two stakeholder engagement meetings
- Brief summary of stakeholder engagement meetings
- Attendance at one meeting to discuss public comments received
- Prepare draft and final responses to public comments
- Finalized document

UNH intends to issue the subaward to CEI on a fixed-price basis and is hereby requesting sponsor approval to do so. UNH will consider this fixed amount subaward approved if an award is made and no contrary guidance from the sponsor is included in the award notice. The proposed agreement will meet the conditions described in 2 CFR 200.201(b).





Table 1: Proposed budget for the NHDES Stormwater Manual Update

Contractor Tasks: UNH Stormwater Center	
General project coordination, invoicing, technical advisor	
	UNHSCC \$31,681
Subcontractor Tasks: CEI	
Task 1: Project Management and Coordination	
Kickoff meeting, three project check-in meetings, meeting minutes	\$4,518
Task 2: Develop SW Manual Outline	
Review existing manual, develop outline for new manual	\$3,928
Task 3: Format Document into Single Manual	
Combine three manuals into one manual, format existing information	\$4,990
Task 4: Update Stormwater Manual Content (Draft)	
As outlined in Table 3	\$67,659
Task 5: Update Stormwater Manual (Final)	
Incorporate comments into final manual	\$11,684
Task 6: Publish Final Stormwater Manual	
ADA Compliance, incorporate final comments, coordinate for online publication	\$6,876
Task 7: Stakeholder Engagement and Public Comment	
Organize, host, and attend two stakeholder meetings; Respond to public comment, Finalize document	\$8,544
	CEI \$108,200
30 days or more to close the award and submit a final invoice	
<b>Total Project Cost</b>	<b>139,381</b>



Table 2 – Proposed Schedule for the NHDES Stormwater Manual Update (assumed January 2022 start, 9-month project period)

Task	Title	2022								
		January	February	March	April	May	June	July	August	September
1	1A: Kickoff Meeting									
	1B: Review Meetings									
2	Develop Stormwater Manual Outline									
3	Format into Single Document									
4	Update Content (draft)									
5	Update Manual (final)									
6	Publish Manual									
7	Stakeholder Engagement/ Public Comment									



**Table 3 – Recommended Updates and New Material for the NHDES Stormwater Manual Update**

*(Source: Needs Assessment Memo, May 4, 2020; Revised November 2021)*

Volume	Title	Updates	New Material
General Updates		<ul style="list-style-type: none"> <li>Combine Manual into one unified document.</li> <li>Reformat Manual (i.e., headings with live links, fonts, figure styles, table styles, headers, footers, page numbers).</li> </ul>	
1	Stormwater and Antidegradation	<ul style="list-style-type: none"> <li>Regulations</li> <li>Antidegradation requirements</li> <li>Definition of Effective Impervious Cover</li> <li>General information on BMPs (<i>update based on information or BMPs modified, added or removed from Volume 2</i>)</li> <li>Add additional general information on site design</li> <li>BMP Removal Efficiency Curves/Pollutant Loading Calculations (<i>Update requirement to match MS4 Permit – i.e., 90% TSS and 60% TP removal; update calculations to be based on EPA Performance Curves and EPA BMP-BATT Tool; keep Simple Method for BMPs without EPA Performance Curve.</i>)</li> </ul>	<ul style="list-style-type: none"> <li>MS4 Regulations</li> <li>General information on new BMPs that are added to Volume 2</li> <li>Climate change (<i>add general section describing potential ongoing climate change impacts. Update peak rate design criteria for new rainfall data, see Volume 2</i>)</li> <li>Emerging contaminants (PFAS)</li> <li>Education and Outreach</li> <li>Asset Management (<i>add brief section that identifies what asset management is, describes the benefits, and provides references on how to develop an asset management program.</i>)</li> <li>TMDL</li> <li>Illicit Discharge Detection and Elimination</li> <li>Provide guidance and example on how to use EPA BMP-BATT tool vs Simple Method.</li> <li>Salt application rates/Green SnoPro</li> </ul>
2	Post-Construction Management	<ul style="list-style-type: none"> <li>Update guidance on Peak Control to use NOAA Atlas 14 Rainfall depth and distributions in lieu of TP40.</li> </ul>	<ul style="list-style-type: none"> <li>Add more information on site design/evaluation (i.e., step-by-step process).</li> <li>Performance expectations</li> </ul>



Volume	Title	Updates	New Material
		<ul style="list-style-type: none"><li>Do literature review of other regional resources (see list of anticipated sources) above, Task 4) and update site design schematics and select design criteria for up to 50 BMP Fact Sheets (e.g., new porous pavement design criteria from UNHSC, other state manuals).</li><li>Add photos of "good example" projects to up to 50 BMP Fact Sheets.</li><li>Inspection and maintenance of BMPs (expand discussion, focus on life cycle of BMP)</li></ul>	<ul style="list-style-type: none"><li>LID – add up to two additional practices under Section 4-1 (e.g., distributed small scale controls, tree canopy, planter boxes)</li><li>General BMPs – add up to two additional practices under Section 4-1 (e.g., automated "smart" stormwater controls, hybrid bioretention).</li><li>Add table of BMPs that are generally effective at treating specific pollutants (i.e., TN, TP, TSS, metals).</li><li>Stormwater retrofits (general, and reference pending Southeast New England Program (SNEP) Stormwater Retrofit Manual)</li><li>Provide guidance on determining seasonal high groundwater table</li><li>Incorporate MS4 requirements</li></ul>
3	Erosion and Sediment Control	<ul style="list-style-type: none"><li>Update Erosion and Sediment Control Plan section and incorporate SWPPPs</li><li>Add example photos for up to ten (10) properly installed E&amp;S BMPs</li></ul>	<ul style="list-style-type: none"><li>Incorporate MS4 requirements/SWPPPs/O&amp;M.</li><li>Update to current best practices by incorporating new wetlands rules Env-Wt-900, add up to five (5) new E&amp;S BMPs (e.g., use of wildlife friendly erosion control matting)</li></ul>

**Attachment A**  
**Budget Estimate**

<b>Budget Item</b>	<b>Grant Amount</b>
Salaries & Wages	\$31,681.00
Contractual	\$108,200.00
Travel and Training	\$0.00
Printing/ Supplies	<u>\$0.00</u>
<b>Total Grant Amounts</b>	<b>\$139,881.00</b>