Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

DEEP USE ONLY:
Date Received:
Project Number:

Part 1: Clean Water Fund Application Form

Please note that this application for funding consists of two parts:

- Part 1 is information to be sent to the **Department of Energy & Environmental Protection** at the address indicated in this form.
- Part 2 is information to be sent to the **Office of the State Treasurer** at the address indicated in this form.

Print or type unless otherwise noted.

Applications deemed incomplete will be rejected

Section 1: Project Contact Information

1. Applicant:

Name: **Brookfield WPCA**

Mailing Address: **53A Commerce Road, Unit 1**

City/Town: **Brookfield** State: **CT** Zip Code: **06804**

Business Phone: **203-775-7319** ext. Fax: **203-775-2614**

Email: **office@brookfieldwpca.com**

2. Authorized Representative (An official of the Community or wastewater system that is authorized to contractually obligate the applicant with respect to the proposed project.):

Name: **Nelson Malwitz** Title: **WPCA Chairman**

Mailing Address: **53A Commerce Road, Unit 1**

City/Town: **Brookfield** State: **CT** Zip Code: **06804**

Business Phone: **203-733-3190** ext. Fax:

Email: **nelson@brookfieldwpca.com**

3. Applicant Staff Contact (Community Representative to be contacted directly for information if different from authorized representative):

Name: **Kristi McPadden** Title: **Executive Administrator**

Mailing Address: **53A Commerce Road, Unit 1**

City/Town: **Brookfield** State: **CT** Zip Code: **06804**

Business Phone: **203-775-7319** ext. **1000** Fax: **203-775-2614**

Email: **kristi@brookfieldwpca.com**

4. Applicant Chief Financial Officer

Name: **Matt Allred, Accountant (Bliss, Allred & Company, LLC)**

Mailing Address: **153 South Main Street, Suite 6**

City/Town: **Newtown** State: **CT** Zip Code: **06470**

Business Phone: **203-744-1041** ext. Fax: **203-744-4040**

Email: **mallred@blissallred.com**

Section 1: Project Contact Information (continued)

5. Bond Counsel

Firm Name: **Hawkins, Delafield & Wood LLP**
Mailing Address: **20 Church Street**
City/Town: **Hartford** State: **CT** Zip Code: **06103**
Business Phone: **860-275-6261** ext. Fax: **860-527-5786**
Contact Person: **Laurie Hall** Title: **Counsel**
Email: **lhall@hawkins.com**

6. Consulting Engineer

Firm Name: **CDM Smith**
Mailing Address: **77 Hartland Street, Suite 201**
City/Town: **East Hartford** State: **CT** Zip Code: **06108**
Business Phone: **860-529-7615** ext. Fax: **860-290-7845**
Contact Person: **Joseph Laliberte** Title: **P.E., BEE**
Email: **lalibertejl@cdmsmith.com**

7. Other (Role)

Firm Name: **Langan Engineering (Support Engineer)**
Mailing Address: **707 Westchester Avenue, Suite 304**
City/Town: **White Plains** State: **NY** Zip Code: **10604**
Business Phone: **914-323-7400** ext. Fax: **914-323-7401**
Contact Person: **Chuck Utschig** Title: **P.E.**
Email: **cutschig@langan.com**

8. Other (Role)

Firm Name: **Allingham, Readyoff & Henry, LLC**
Mailing Address: **54 Bridge Street**
City/Town: **New Milford** State: **CT** Zip Code: **06776**
Business Phone: **860-350-5454** ext. Fax: **860-350-5457**
Contact Person: **Jeffrey Sienkiewicz** Title: **WPCA Attorney**
Email: **jsienkiewicz@allinghamlaw.com**

Section 2: Supporting Documents

Please check the attachments submitted as verification that ***all*** applicable documents have been submitted with this application form. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Section 2(a)(1), etc.) and be sure to include the applicant's name.

The following documents are required for all Projects:

☒ Section 2(a): Include the following:

- ☒ 1. All proposed sub-agreements for technical services, or a copy of the DEEP engineering approval letter for those services.
- ☒ 2. A resolution adopted by the applicant or its Water Pollution Control Authority authorizing a specific person to file the application and execute the agreement. The resolution must be certified and sealed by the Town/City clerk (current required format attached).
- ☒ 3. Incumbency Certificate for the authorized representative holding the title named in the authorizing resolution signed and sealed by the Town/City clerk (current required format attached)
- ☒ 4. A signed Clean Water Fund Memorandum to demonstrate a commitment to comply with all Minority Business Enterprise/Women's Business Enterprise (MBE/WBE) requirements for engineering services. Memoranda are available on the DEEP website
- ☒ 5. A schedule for the completion of the project work

If not already included in Section 2(a) the following *additional* documents are required for Planning Projects

☒ Section 2(b):

- ☒ 1. A Plan of Study which includes the proposed planning area, an identification of the entity or entities that will be conducting the planning, the nature and scope of the proposed planning project and public participation program, including a schedule for completion of specific tasks, and an itemized description of the estimated engineering report costs

The following *additional* documents are required for Design Projects and Construction Projects
(Section 2(a) must be submitted also):

Submit construction application no sooner than 60 days prior to bid opening

☐ Section 2(c): Include the following:

- ☐ 1. A bonding resolution for the total cost of the project certified and sealed by the Town/City clerk *(required for design and construction projects - only submit one copy, sample format attached)*
- ☐ 2. An engineering report meeting all the requirements set forth in section 22a-482-3(a) of the Regulations of Connecticut State Agencies or a copy of the DEEP engineering report approval letter justifying the project. *(required for design and construction projects - only submit one copy)*
- ☐ 3. Proposed or executed inter-municipal agreements, if necessary, for the construction and operation of the proposed pollution abatement facility for any facility serving or connecting two or more municipalities *(required for design and construction projects - only submit one copy)*
- ☐ 4. For any financial assistance from other funding sources as identified in Section 5, attach a summary of terms and a copy of the agreement(s). *(required for design and construction projects - only submit one copy)*

Section 2: Supporting Documents (continued)

The following *additional* documents are required only for Construction Projects: (Section 2(a) must be submitted also).

☐ Section 2(d): Include the following:

☐ 1. As provided by an attorney, a final legal opinion stating that the acquisition of all sites, easements or rights-of-way necessary to assure undisturbed construction and operation and maintenance of the proposed project have been or will be acquired. The cost of any real property eligible for funding assistance must reflect fair market value as determined by standard recognized appraisal methods

☐ 2. A copy of the DEEP plans and specifications approval letter

☐ 3. A copy of the DEEP approval letter for the user charge system developed in accordance with the requirements set forth in section 22a-482-3(e) of the Regulations of Connecticut State Agencies

☐ 4. If bids have been received:

a. Two (2) copies of a tabulation of all bids received.

b. Two (2) copies of the proposal of the bidder to whom you propose awarding the contract.

c. A letter, signed by the authorized representative of the Applicant, indicating the name of the bidder to whom you propose awarding the contract and the amounts involved.

d. Resubmittal of updated Sections 3 through 6.

e. One (1) copy of the bid advertisement for the project, with affidavit of publication.

f. One (1) copy of the most recent Clean Water Fund Memorandum completed and signed by the bidder to whom you propose awarding the contract. If this application is being submitted 14 days or more beyond the bid opening include Subcontractor Verification Forms for each MBE or WBE subcontractor to be employed in the completion of this contract along with a copy of the subcontractor's current, valid MBE/WBE certification.

g. One (1) copy of the State of Connecticut Department of Administrative Services Contractor Prequalification Certificate for the bidder to whom you propose awarding the contract.

h. One (1) copy of the State of Connecticut Department of Administrative Services Contractor Prequalification Update (Bid) Statement completed and signed by the bidder to whom you propose awarding the contract.

Section 3: Project Information

1. Type of Project (check all that apply): ☒ Planning ☐ Design ☐ Construction

2. Project Description: The Brookfield Water Pollution Control Authority is seeking to develop a Wastewater Facilities Plan evaluate the wastewater management needs of the community. The goal of the study is to:

- Review and document previous reports and mapping.
- Establish condition of collection system and pump stations.
- Develop life cycle costs for facilities.
- Evaluate sewer needs/extension areas
- Review of procedures and benchmarking
- Develop a Wastewater Facilities Plan that will include a capital improvement plan to serve as a road map for long-term operation and maintenance of the sanitary sewer system.

Section 4: Project Costs Summary

	A	B	C	D	E	F
	Total Project Cost	**Funding from Other Sources**	**Local Share**	**Eligible Project Cost**	**Grant Amount**	**Loan Amount**
Technical Services: Planning:	**$299,980**		**$134,991**	**$299,980**	**$164,989**	
Technical Services: Design:						
Technical Services: Construction Admin:						
Technical Services: Resident Representative:						
Technical Services: **Tech Serv at a later date:**						
Subtotal Tech Srvs:						
Legal						
Other:						
Subtotal Legal & Other						
Construction Contract No.:						
Contract No.:						
Contract No.:						
Later Contracts						
Equipment/ Materials						
Subtotal	**$299,980**		**$134,991**	**$299,980**	**$164,989**	
Contingency						
Interest During Construction						
Other:						
Other:						
Grand Total	**$299,980**		**$134,991**	**$299,980**	**$164,989**	

Section 5: Project Funding Summary

Clean Water Fund (check all that apply and provide amount)		Other Funding Sources (check all that apply and provide amount)	
☐ 20% Grant		☐ USDA – Rural Development	
☐ 25% Small Community Grant		☐ Utility Assistance Grant	
☐ 30% Nitrogen Grant		☐ Other (specify):	
☐ 50% CSO Grant		☐ Other (specify):	
☒ 55% Planning Grant	$164,989	☒ Local Share (where there may be project costs ineligible for any funding, or for balance of funding on a planning project, where no loan exists)	$134,991
☐ CWF Loan			
Total CWF Assistance	$164,989	Total Other Assistance	$134,991

Total Project Cost: $299,980

Section 6: Applicant Certification

The authorized representative must sign this section. An application will be considered incomplete unless the required signature(s) are provided.

"I hereby make application to the State of Connecticut for grants and/or loans for the project described herein.

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

I certify that this application is on complete and accurate forms as prescribed by the commissioner without alteration of the text."

Nelson Malwitz

Signature of Authorized Representative

MARCH 22, 2019

Date

NELSON MALWITZ

Name of Authorized Representative (print or type)

WPCA CHAIRMAN

Title (if applicable)

Note: **Part 1** is information for the Department of Energy & Environmental Protection. Please submit **two copies** of the completed **Part 1: Clean Water Fund Application Form** and all Supporting Documents to:

SUSAN HAWKINS, SUPERVISING ACCOUNTANT
BUREAU OF FINANCIAL AND SUPPORT SERVICES, 1ST FLOOR
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Clean Water Fund Application Form

Wastewater Facilities Plan

Town of Brookfield, CT

Part 1: Section 2(a)(1)

Copy of DEEP Engineering Approval Letter for Sub-Agreements

5700 form sent to CT DEEP on January 2, 2019 [also under Part 1: Section 2(b)(1) of this application], waiting on approval

Authorizing Resolution Required To Obtain Clean Water Fund Financing For Water Pollution Abatement Facilities

Be it resolved that in connection with the development of, and funding for, a Brookfield Sewer Service Facilities Plan, it is in the best interests of the Brookfield Water Pollution Control Authority to enter into contracts with the Department of Energy & Environmental Protection. In furtherance of this resolution, the Chairman of the Authority, currently Nelson Malwitz, is duly authorized to enter into, and sign said contracts on behalf of the Brookfield Water Pollution Control Authority. The Chairman is further authorized to provide such additional information and execute such other documents as may be required by the state or federal government in connection with said contracts and to execute any amendments, rescissions, and revisions thereto.

The Town Clerk, Andrea DiStephan is authorized to impress the seal of the Town of Brookfield on any such document, amendment, rescission, or revision.

I, Andrea DiStephan, the Clerk of the Town of Brookfield, do hereby certify this to be a true copy of the resolution duly adopted at the official meeting of the Brookfield Water Pollution Control Authority on March 27, 2019, and that it has not been rescinded, amended or altered in any way, **and that it remains in full force and in effect.**

[Town Clerk]

MAR 28 2019

Date

TOWN OF BROOKFIELD, CONNECTICUT SEAL

INCUMBENCY CERTIFICATE

I, Andrea DiStephan, the undersigned clerk of the Town of Brookfield, Connecticut, DO HEREBY CERTIFY as follows:

On the date of this certificate the officers of the Brookfield Water Pollution Control Authority listed below were duly chosen, qualified and acting officers of the Municipality, holding offices indicated in the official titles following their respective names with the terms of service indicated thereafter.

		Term of Service	
Name	Official Title	From	To
Nelson Malwitz	Chairman	2/5/18	2/7/22
Louise Trojanowski-Marconi	Vice Chairman	2/1/16	2/3/20
Tulio Lopez	Regular Member	2/1/16	2/3/20
Phillip Kurtz	Regular Member	2/1/16	2/3/20
Loretta Donovan	Regular Member	2/1/16	2/3/20
Matthew Brown	Alternate Member	2/5/18	2/7/22
James Murray	Alternate Member	2/5/18	2/7/22
Michael DelValle	Alternate Member	2/1/16	2/3/20

I further certify that the seal which has been impressed on said Agreement and upon this certificate is the legally adopted, proper and only official seal of the Town of Brookfield.

IN WITNESS WHEREOF, I have signed this certificate and impressed on this certificate the seal of the Town of Brookfield as of the 25th day of January, 2019.

[SEAL]

Clerk

Clean Water Fund Application Form

Wastewater Facilities Plan

Town of Brookfield, CT

Part 1: Section 2(a)(4)

Signed Clean Water Fund Memorandum

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Clean Water Fund Memorandum (2016-002)

Disadvantaged Business Enterprise (DBE) Subcontractor Participation on Clean Water Fund (CWF) Projects for Engineering Services

I. PURPOSE

The municipality, through its Engineering Consultant must make specified good faith efforts to attain the DBE goals as specified in this document in Section III. This is an administrative condition of the U.S. Environmental Protection Agency (EPA) Grant which funds Clean Water Fund Projects.

This memorandum supersedes the Clean Water Fund Memorandum dated June 24, 2014

II. GOVERNING STATUTE OR REGULATION

General Compliance (Federal), 40 CFR, Part 33: The municipality, through its Engineering Consultant must comply with the requirements of EPA's Program for Utilization of Small, Minority, and Women's Business Enterprises (MBE/WBE).

III. EPA REQUIREMENTS

The following clause shall be included in all Engineering Services contracts and contract amendments to be funded under the CWF:

The requirement for DBE subcontractor participation, expressed as a percentage of the total eligible contract amount, shall be a minimum of 8.0 percent with the following makeup: **MBE 3.0 percent WBE 5.0 percent**

This requirement shall apply to all Engineering Services contracts that originate with a value over $100,000. Within any phase of a project where the total of the original contract price plus all contract amendments is less than $100,000, then no MBE/WBE participation will be required.

IV. CERTIFICATION

A DBE must be certified at the time that the subcontract for their services is executed. A business that is pending new certification, recertification, or whose certification has expired cannot be counted toward the goals.

In the case where a subcontractor DBE is certified as both a MBE and a WBE:

1. The prime contractor may count the entire value of the subcontract as either a MBE or a WBE.

2. The prime contractor may choose to split the subcontract between the MBE and the WBE categories to fulfill both goals. If the prime contractor chooses this route:
   a. They must indicate the dollars to be apportioned to the categories either on the face of the copy of the fully executed subcontract submitted to the DEEP or by some other written method.
   b. The certification submitted to DEEP must indicate that the principal of the subcontractor is both a woman and a minority.
   c. For a certification that only identifies the subcontractor as a DBE, additional documentation is required as proof of dual status. In the case of ConnDOT, the detailed information page within their online database suffices as proof.

V. THE SIX GOOD FAITH EFFORTS AS SPECIFICALLY DEFINED BY EPA

The Six Good Faith Efforts are required methods employed by all DEEP Clean Water Fund recipients to ensure that all DBEs have the opportunity to compete for procurements funded by DEEP financial assistance dollars.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

5. Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

6. If the prime engineering consultant awards subcontracts, require the prime engineering consultant to take the above steps.

The prime engineering consultant's certification as a DBE has no effect on this requirement. Therefore, if the prime engineering consultant is a DBE, the Six Good Faith Efforts defined above must be employed in the procurement of subcontracts to be secured to achieve the MBE 3.0% and WBE 5.0% participation.

In the case where a DBE is certified as both a MBE and a WBE (a woman minority owed business), the DBE may be split between the MBE and the WBE Categories to fulfill both goals.

VI. ACCEPTABLE CERTIFICATION OPTIONS

1. **Connecticut Department of Administrative Services (DAS)** - DEEP will continue to accept DAS certification until such time as other State entities are identified whose certification processes meet the EPA criteria. DAS will only certify Connecticut based firms that meet the criteria under CGS 4a-60g. It is sometimes considered an acceptable practice to count a WBE as a MBE; however, it is at the DEEP Municipal Facilities Unit's discretion in cooperation with the DEEP Clean Water Fund Administration Unit as to whether or not this will be permitted. Requests concerning all such cases must be requested in writing through the DEEP Municipal Facilities Engineer assigned to the project for a determination.

2. **Connecticut Department of Transportation (ConnDOT)** - Companies that desire to do business with ConnDOT as well as the DEEP should seek ConnDOT certification which will be accepted by the DEEP. DBE firms are advised that the certification process can take 90 days to complete. ConnDOT will certify both in state as well as out of state firms.

3. **The Environmental Protection Agency (EPA)** – In the event an entity cannot be certified by ConnDOT as a DBE, that entity should seek certification with EPA. Such entities must provide EPA with evidence from ConnDOT denying certification.

4. **Small Business Administration (SBA-Federal)**-SBA certification is available to companies under the Woman Owned Small Business (WOSB) program and the SBA 8(a) Business Development Program (www.sba.gov/8abd/) which has a net worth ceiling of $250,000 for initial applicants.

5. **Other states certification-** Prime contractors and prime engineering consultants may utilize certification from other states. Such certification must specify the DBE designation. Where there is no DBE certification option within a state, the instance must be presented to the DEEP Financial Administrator assigned to the project for consideration on a per case basis.

VII. DBE COMPLIANCE PROCESS

The Engineering Consultant must submit DBE certification for each subcontractor. Two executed copies of the DBE subcontracts must be submitted to the municipality, who must then submit one copy to the DEEP Financial Administrator as demonstration of compliance with this memorandum.

No payment requests will be processed by DEEP until the executed copies of the subcontracts are on file in the DEEP office.

It is understood that the Engineering Consultant must make and document the good faith efforts as defined above. Should the Consultant not meet the goals, documentation of good faith efforts will be required to be submitted to the DEEP Municipal Facilities Engineer for consideration that the good faith effort was extensive enough to warrant the acceptance of a lower goal for the specific contract in question.

I hereby verify that I have read and understand the DBE requirements in this memorandum and will procure subcontracts whose percentages will meet or exceed the minimums listed above.

Contract Name BROOKFIELD WASTEWATER FACILITIES PLAN

Name of Engineering Firm CDM Smith

Name and Title of Authorized Officer JOSEPH L. LACHENTH, ASSOCIATE

Authorized Signature _____ **Date** 3/20/19

Town Official and Title NELSON MALWITZ, CHAIRMAN WPCA

Authorized Signature _____ **Date** 3/22/19

VIII. DEFINITIONS

CGS: Connecticut General Statutes

ConnDOT: Connecticut Department of Transportation

CWF: Clean Water Fund

DAS: Connecticut Department of Administrative Services

DBE: Disadvantaged Business Enterprise

DEEP: Department of Energy and Environmental Protection

EPA: Environmental Protection Agency (Federal)

MBE: Minority Business Enterprise

SBA: Small Business Administration (Federal)

WBE: Woman Business Enterprise

WOSB: Woman Owned Small Business (Federal program - SBA)

May 25, 2016
Date

Denise Ruzicka, Director
Planning and Standards Division
Bureau of Water and Protection and Land Reuse

Clean Water Fund Application Form

Wastewater Facilities Plan

Town of Brookfield, CT

Part 1: Section 2(a)(5)

Schedule for Completion of Project Work

Refer to Task Order in Part 1: Section 2(b)(1) for schedule

Clean Water Fund Application Form

Wastewater Facilities Plan

Town of Brookfield, CT

Part 1: Section 2(b)(1)

Plan of Study (Task Order)

EXHIBIT G

Engineer's Services, Owner's Responsibilities, Time for Performance, and Method of Payment

CDM Smith

Joe Laliberte, PE
Dan R Murphy, PE
Kate Biedron, PE

77 Hartland Street, Suite 201
East Hartford, CT 06108
860 529-7615
cdmsmith.com

EXHIBIT A
TO AGREEMENT BETWEEN
OWNER AND ENGINEER
Scope of Work

This is an exhibit attached to and made a part of the Agreement dated , between Brookfield Water Pollution Control Authority (OWNER) and CDM Smith Inc. (ENGINEER) for professional services.

1.0 ENGINEER'S SERVICES

1.1 Study and Report Phase

The duties and responsibilities of ENGINEER during the Study and Report Phase as set forth in this paragraph 1.1 are amended and supplemented as follows:

Background:

The Brookfield Water Pollution Control Authority (BWPCA) is seeking to develop a Wastewater Facilities Plan evaluate the wastewater management needs of the community. The goal of the study is to:

- Review and document previous reports and mapping.
- Establish condition of collection system and pump stations.
- Develop life cycle costs for facilities.
- Evaluate sewer needs/extension areas.
- Review of procedures and benchmarking.
- Develop a Wastewater Facilities Plan that will include a capital improvement plan to serve as a road map for long-term operation and maintenance of the sanitary sewer system.

The general theme of many of these tasks will be for ENGINEER to be provided with what is currently being done, review it, and provide suggestions for improvements, if necessary. Scope of work is as follows:

Task 1 – Document Existing Conditions

A. Project kickoff activities, including preparing for and facilitating kickoff meeting with BPWCA and submitting meeting minutes.

B. BPWCA, and their consultant Langan Engineering, has provided ENGINEER with available data, prior studies, mapping, plans, etc. applicable to this study. If additional data is available, it will be collected by ENGINEER at the kickoff meeting. All data will be review by ENGINEER. No time has been included in this proposal for collecting/copying/scanning information as the time is not needed/warranted.

ENGINEER will document physical features of the Town's existing wastewater facilities such as miles of pipe, age, diameter, pump station age, capacity, etc.

ENGINEER will summarize previous planning studies and intermunicipal agreements. Any known deficiencies will be noted.

Task 2 – Collection System Evaluation

A. BPWCA has noted that all the BWPCA pump station run times and wetwell levels, and in many cases flow rates, are captured in real-time and sent by phone connection via Mission Communications and viewable on-line. ENGINEER will review available flow data and pump runtime data previously collected through 2018 and utilize this information to perform a preliminary infiltration / inflow (I/I) analysis.

ENGINEER will estimate the base wastewater flows for each sewershed utilizing water consumption data obtained from Aquarion water company from about 20 percent of properties. For the other approximately 80 percent of properties where water consumption data is not available, ENGINEER will estimate water flows based on industry averages.

Prior analysis of the available flow data estimated that during rain events the I/I can reach 10 to 20 percent of normal flows, which is indicative of a new and very tight sewer system that would likely not warrant further I/I evaluations. ENGINEER will review the I/I study completed by Langan (March 21, 2017), including prior smoke testing results. We will analyze the pump station and in-line flow meter records through 2018 to identify the portion of the flow attributable to sanitary, inflow, and infiltration within each contributing area. The results of this analysis will be compared against the findings of the 2017 Langan study.

B. ***Optional task if needed.*** For areas identified in Task 2A of concern, ENGINEER will perform a detailed unit hydrograph analysis using the United States Environmental Protection Agency's (USEPA) Sanitary Sewer Overflow Analysis and Planning Toolbox (SSOAP) of up to 3 areas and characterize the short-, medium-, and long-duration rainfall-driven I/I response. This analysis will be completed for up to three representative storms that occurred during the metering period. This analysis will also consider seasonal fluctuations in the groundwater table. This analysis will either provide confirmation that no further I/I investigations is necessary, as previously concluded, or identify certain areas of the sewer collection system where further evaluations may be warranted.

C. ***Optional task if needed.*** If I/I investigations in certain areas appears to be necessary, for those areas ENGINEER will propose methods for the identification and elimination of extraneous I/I, and prioritize these investigations on a cost-effective basis. ENGINEER will prepare recommendations by sewershed and flow component for

further Sewer System Evaluation Survey (SSES) field investigations. These recommendations will identify the sewersheds that may benefit from additional investigations/study and those that require no further action.

D. ENGINEER will hire JKMuir (WBE) to coordinate, hire, oversee and review the results of a subtractor conducting cleaning and closed-circuit television (CCTV) inspection of the existing sewer mains on Federal Road and Gray's Bridge Road, up to 5,000 linear feet.

Included in this task is an allowance for two police details for up to 8 hours a day during the assumed 5 days of CCTV investigations. The upper limit for police details are $5,300.

Task 3 – Pump Station Evaluation

A. BWPCA owns and operates 14 wastewater pumping stations of varying age, style, capacity and condition. BWPCA has noted that half or more of the existing pump stations are new or refurbished in the last 10 years. It is anticipated that these new and refurbished stations will need minimal or no recommendations and that the primary focus of the condition assessment will be the other half of the pump stations that are not new or refurbished in the last 10 years.

The goal of evaluating the stations will be for ENGINEER to develop a prioritized long-term capital improvements plan. To accomplish this, ENGINEER will tour BWPCA's 14 wastewater pumping station sites over two consecutive days with a qualified team of three engineers experienced in condition assessments, engineering design and operational needs. A more detailed review of the Caldor, Route 133, and Silvermine stations has been included. Inspections of the stations will generally consist of the following criteria as applicable:

1) General:
   - Review site layout plot plan, as-built drawings, and available records of significant maintenance issues for all applicable pump stations.
2) Site/Civil:
   - Visually assess the site conditions, such as fencing, security, land area, aesthetics, odors, 100-year flood elevation, access from road and parking, room for snow removal or stockpile, and confined space access.
   - Assessment of permits, compile list of permit approvals likely to be required based on recommended improvements.
3) Process/Mechanical:
   - Review of the most current equipment operating and maintenance data and record drawings for the applicable pump stations.
   - Mechanical assessments at all stations, including bar screen, piping, gates, valves, pumps and support equipment.

- Summarize force main size, material, capacity, length, elevation change, condition, and availability of bypass provisions. ENGINEER will assess pipe material, history of issues, and age of force mains.
- Evaluate on-site/portable backup power generator. ENGINEER will evaluate portable generator connections at each site without on-site generator and provide recommendations for standardizing.

4) Electrical:
   - Review the record drawings and equipment data (if applicable) for all pump stations and perform a NEC, NFPA 70 and NFPA 820 code review.
   - Perform a conditional and compatibility assessment of the existing electrical equipment.
   - Equipment condition assessment shall include the existing motor control centers, variable frequency drives, automatic transfer switches, manual transfer switches (if applicable), switchgear, panel-boards, transformers, lighting, receptacles, conduit and wire.
5) Instrumentation and Controls:
   - Perform site automation assessment.
6) Architectural:
   - Provide a general assessment of the building (if applicable) components such as walls, doors, windows, louvers, gutters, and roof.
   - Assess the need for improvements to accommodate proposed modifications to mechanical equipment and electrical equipment.
7) Structural:
   - Provide a general assessment of the building (if applicable) components such as material type and foundation.
   - Perform a visual observation from above grade of the existing wet wells. No confined space entry will be included.
8) Plumbing:
   - Where applicable, plumbing will assess the water systems, fuel systems, potable water supply (presence of on-site hydrant), fire protection, sanitary systems, venting, roof drainage (if applicable) and sump pumps/sump pump discharge.
9) HVAC:
   - Where applicable, HVAC will assess the unit heaters, ventilators, and air handling units.
   - Perform a site assessment and conditional assessment of the existing HVAC equipment installed and compliance with NFPA 820.

B. ENGINEER will formally document pump station operation and maintenance activities. This will include developing standard operating procedures (SOPs), as needed. BWPCA will provide weekly/daily inspection sheets and reports that are stored in GIS for review/incorporating into SOP. SOP will be provided for each individual pump station for a total of 14 SOPs.

C. ENGINEER will prepare pump station inventory data sheets. Sheets will be two sided. On one side will be pertinent information to the existing pump station, such as site information, pump and motor size and type, electric services, generator information, etc. On the other side will be a map of the pump station showing the route of the force main and the sewer service area to the pump station. The inventory data sheets will be laminated for distribution to O&M staff for use in the field.

Task 4 – Evaluate Sewer Needs Areas

A. ENGINEER will review the prior Future Sewer Service Flow Projections study from 2012. Since that flow projection was completed, the treatment allotment for Brookfield to the Danbury Water Pollution Control Facility (WPCF) will be reduced from 500,000 gallons per day (GPD) to 380,000 GPD by 2022. ENGINEER will provide an update to that study that will supersede the prior study and be incorporated into the Wastewater Facilities Plan report.

The review will include evaluating the downstream sewer main and pump station/force main capacity from each of the potential sewer needs areas, individually and collectively.

B. ENGINEER will:

a. Review existing records of septic system construction/age and failures from Board of Health and available soil testing data.
b. Review lot size and intensity of development based on available GIS information.
c. Review published soil mapping regarding suitability for septic leaching.
d. Review public water supplies - Aquifer Protection Areas and community wells.
e. ENGINEER will review existing regulations regarding maintenance and upgrades of on-site (septic) systems and make recommendations for future enhancement, if warranted.

C. Engineer will update map of sewer needs area.

D. Consider if any potential sewer needs areas candidates for self-contained treatment systems, including groundwater discharge. Conduct a cursory site screening for facility and subsurface groundwater recharge. For the Candlewood Lake area we will coordinate with BWPCA's consultant performing the study who will provide ENGINEER with proposed flows and treatment options.

Review wastewater disposal options, which are anticipated to included:

a. Current allotment to Danbury WPCF up to 380,000 GPD.
b. Costs for additional allotment to Danbury beyond 380,000 GPD, if needed.
c. On-site treated wastewater disposal, such as groundwater discharge.
d. Costs for additional discharge to other communities, such as New Milford.

Task 5 – Review of Procedures/Standards and Benchmarking

A. ENGINEER will review current staffing levels for head count and positions and compare with other WPCA's of like-sized communities without a treatment plant, including benchmarking against available local, regional, and national statistics. This will be done for the existing collection system, as well as forecasting additional staffing levels as the sewer system continues to expand. Results of task, including future staffing recommendations, will be summarized in a technical memorandum that will be included in the appendix of the Wastewater Facilities Plan.

B. ENGINEER will review BWPCA's existing Rules and Regulations, compare them with other WPCA's in Connecticut and best practices nationally, and provide recommendations for changes, if necessary. Result of this task, including language recommendations, will be summarized in a technical memorandum that will be included in the appendix of the Wastewater Facilities Plan.

C. ENGINEER will review Brookfield's Ordinances, as they related to the wastewater collection system, benchmark them against other WPCA's and best practices nationally, and provide recommendations for changes, if necessary. Result of this task, including language recommendations, will be summarized in a technical memorandum that will be included in the appendix of the Wastewater Facilities Plan.

D. ENGINEER will review BPWCA's available standards for sewer design and construction, such as design details, technical specifications, developer guidelines, etc., and provide recommendations for developing/updating as necessary. Result of this task will be summarized in a technical memorandum, including attachments for details/standards that are available/developed, that will be included in the appendix of the Wastewater Facilities Plan.

Task 6 – Capital Planning

A. Review existing financial and budgetary data including operating budgets for past three years, capital expenditures, debt service schedules through maturity, customer rates and billings/collections for past three years.

Based on available data, develop a spreadsheet to project likely expenses for next 10 years to provide a baseline forecast.

B. ENGINEER will estimate the potential revenue that may be generated through new Benefit Assessments and/or connection fees on the properties served by the sewer extensions. Additionally, buildings along existing sewers that are not connected will be identified and summarized. ENGINEER will meet with appropriate Town staff to understand the potential magnitude of system expansion.

C. Based on the recommended facility plan improvements, develop two alternative projections of future revenue requirements and rates based on alternative implementation schedules for the capital projects and any other programs. The facility plan forecast will include the potential additional revenue from new customer connections.

   Prioritize recommendations to develop a phased implementation plan.

D. ENGINEER shall review BWPCA's billing classes versus the State classifications. ENGINEER will assess the BWPCA's current billing approach and evaluate the feasibility/desirability of moving from an ERU equivalency system to flow based rates for at least commercial accounts. This evaluation will require 2 to 3 years water consumption data for the 500 commercial accounts.

   ENGINEER shall coordinate with BWPCA to identify a standard meter (assumed to be identical with Aquarion) for the measurement of water use for commercial accounts and will make a recommendation of an appropriate meter reading system. ENGINEER will coordinate with BWPCA counsel who will update the existing ordinance as necessary.

Task 7 – Wastewater Facilities Plan Report

A. Allowance for up to eight total meeting(s).

B. The recommendations for future expansion will be reviewed in conjunction with the Town of Brookfield 2015 Plan of Conservation and Development and the State Office of Policy & Management's Conservation & Development Policies: The Plan for Connecticut (2013-2018). Areas of conflict will be identified for resolution, and the recommended mapping will be reviewed with the BWPCA.

C. The ENGINEER will prepare a draft written Wastewater Facilities Plan report describing the work completed in Tasks 1 through 6, the conclusions of the analysis, and recommendations. The report will provide long-term capital planning estimates and serve as a blueprint for long-term O&M of the sewer system.

   The Wastewater Facilities Plan will include photos of each pump station, a listing of any deficiencies identified, and a prioritized list of recommended improvements, such as necessary upgrades, rehabilitation, or replacement. Consideration will be given to: simplicity of operation, ease of maintenance, reliability, accessibility, age, and operation. ENGINEER will prepare planning-level cost estimates for improvements at

each station, identify which stations are most in need of improvements, and assist OWNER in developing a prioritization plan. Once approved, the report shall serve as the basis for future upgrades to the stations.

The ENGINEER will prepare for and present a summary of the comparative analysis to the OWNER at a BWPCA meeting. ENGINEER will revise the draft report based on the feedback from BWPCA.

Final draft report will be submitted to Connecticut Department of Energy and Environmental Protection (CT DEEP) for review and ultimate approval. ENGINEER will update the report with comments received from CT DEEP on the final draft submittal.

Task 8 – Marketing/Branding

A. ENGINEER will provide suggested brochures that could be used as bill inserts. Included in this task is preparing and providing informational pamphlets. It is assumed BWPCA will provide all effort associated with printing and mailing the brochures. Brochures that will be provided are:

   a. Water Conservation
   b. Illicit connections to the sewer system, such as sump pumps, foundation drains and roof leaders
   c. Fats, Oils and Grease (FOG)

B. ENGINEER will review BWPCA's customer communications model and provide recommendations for improvement that has been effective elsewhere to cast BWPCA brand in a positive way and to educate the public on BWPCA's mission and goals. ENGINEER will create a 5 to 10-minute video of the BWPCA's goals and topics listed above in Task 8A. This video will be able to play in BWPCA's lobby, local cable television, and posted on the internet.

2.0 OWNER'S RESPONSIBILITIES

2.1 Provide access to and make all provisions for ENGINEER to access wastewater collection system and pump stations as required for ENGINEER to perform services under this Agreement.

2.2 Provide information to ENGINEER as outlined above in Section 1.0.

3.0 TIME PERIOD FOR PERFORMANCE

The time periods for the performance of ENGINEER's services as set forth in Article 2 of said Agreement are as follows:

ENGINEER will provide a Draft Facilities Plan Report within (6) six months of Notice to Proceed.

ENGINEER will incorporate OWNER comments and submit Final Facilities Plan Report within (1) one month of receiving final review comments.

4.0 METHOD OF PAYMENT

The method of payment for Services rendered by ENGINEER shall be as set forth below:

HOURLY BILLING RATE

In the Basic Services performed under Section 1, the OWNER agrees to pay the ENGINEER as follows:

For work done by the ENGINEER at the hourly billing rate for the category of the individual performing the work, for all time directly chargeable to the project. The ENGINEER's schedule of Hourly Billing Rates is attached as Exhibit B.

Actual out-of-pocket expenses, including mileage charges, parking, tolls, printing and reproduction costs, and other miscellaneous costs, incurred specifically for this project will be billed at actual cost.

For work done by subcontract or consultants, at the actual cost to the ENGINEER of such services plus 5 percent.

The total cost of all Basic Services shall not exceed $299,980.

5.0 SPECIAL PROVISIONS

OWNER has established the following special provisions and/or other considerations or requirements in respect of the Assignment:

N/A

EXHIBIT G

Budget

Exhibit B
Brookfield, CT
Wastewater Facilities Plan
Budget

Task	Description	Personnel	Officer	Sr. Technical Spec	Project Manager	Senior Project Engineer	Engineer II	Engineer I	GIS Analyst	Operation Specialist	Hours	Labor	Outside Professionals	ODCs	Total
		Billable Hourly Rate	$240.00	$240.00	$210.00	$165.00	$120.00	$90.00	$105.00	$135.00					
Task 1	**Document Existing Conditions**														
A	Kickoff Meeting / Preperation		2		12	8	4				26	$4,800.00		$250.00	$5,050.00
B	Collect / Review Existing Data				8	20	20	26			74	$9,720.00			$9,720.00
	Task 1 Total		**2**	**0**	**20**	**28**	**24**	**26**	**0**	**0**	**100**	**$14,520.00**	**$0.00**	**$250.00**	**$14,770.00**
Task 2	**Collection System Evaluation**														
A	Analyze Exisitng Flow Data / Prior Studies			4	4	20	40	40	4		112	$13,920.00		$500.00	$14,420.00
B	SSOAP Analysis			2	2	10	30	30			74	$8,850.00			$8,850.00
C	Recommendations for Field Investigations					10		20	2		32	$3,660.00			$3,660.00
D	CCTV					10		10			20	$2,550.00	$25,000.00		$27,550.00
	Task 2 Total		**0**	**6**	**6**	**50**	**70**	**100**	**6**	**0**	**238**	**$28,980.00**	**$25,000.00**	**$500.00**	**$54,480.00**
Task 3	**Pump Station Evaluation**														
A	Field Inspections				12	24	24				60	$9,360.00		$1,000.00	$10,360.00
B	SOPs				2		8	14		64	88	$11,280.00			$11,280.00
C	Invetory Data Sheets				2	2	8	84	20		116	$11,370.00			$11,370.00
	Task 3 Total		**0**	**0**	**16**	**26**	**40**	**98**	**20**	**64**	**264**	**$32,010.00**	**$0.00**	**$1,000.00**	**$33,010.00**
Task 4	**Evaluate Sewer Needs Areas**														
A	Evaluate Future Sewer Service Flow Projections				12	40	20	100	8		180	$21,360.00			$21,360.00
B	Review Existing Records				2	16		56	12		86	$9,360.00			$9,360.00
C	Update Sewer Needs Map				2	4		12	20		38	$4,260.00			$4,260.00
D	Wastewater Disposal Options				4	20		20	20		64	$8,040.00			$8,040.00
	Task 4 Total		**0**	**0**	**20**	**80**	**20**	**188**	**60**	**0**	**368**	**$43,020.00**	**$0.00**	**$0.00**	**$43,020.00**
Task 5	**Review of Procedures / Standards and Benchmarking**														
A	Review Staffing Levels			6	16		40				62	$9,600.00			$9,600.00
B	Review Rules and Regulations			4	8		30				42	$6,240.00			$6,240.00
C	Review Ordinances			2	6		16				24	$3,660.00			$3,660.00
D	Review Standards			6	8	24	4				42	$7,560.00			$7,560.00
	Task 5 Total		**0**	**18**	**38**	**24**	**90**	**0**	**0**	**0**	**170**	**$27,060.00**	**$0.00**	**$0.00**	**$27,060.00**
Task 6	**Capital Planning**														
A	Review Existing Financial and Budgetary Data			2	4	4	8	36			54	$6,180.00			$6,180.00
B	Revenue Estimate			2	4	4	16				26	$3,900.00			$3,900.00
C	Alternative Projections of Revenue Requirements			5	4	4	20	28			61	$7,620.00			$7,620.00
D	Assess Current Billing Approach			16	4	40	48				108	$17,040.00			$17,040.00
	Task 6 Total		**0**	**25**	**16**	**52**	**92**	**64**	**0**	**0**	**249**	**$34,740.00**	**$0.00**	**$0.00**	**$34,740.00**
Task 7	**Wastewater Facilities Plan Report**														
A	Progress Meetings		4		32	16					52	$10,320.00		$800.00	$11,120.00
B	Conservation and Development Coordination					8		20	10		38	$4,170.00			$4,170.00
C	Wastewater Facilities Plan Report		12	16	40	80	100	80	40	16	384	$53,880.00			$53,880.00
	Task 7 Total		**16**	**16**	**72**	**104**	**100**	**100**	**50**	**16**	**474**	**$68,370.00**	**$0.00**	**$800.00**	**$69,170.00**
Task 8	**Marketing / Branding**														
A	Marketing / Branding				4	20			30		54	$7,290.00			$7,290.00
B	Video				4	40					44	$7,440.00	$9,000.00		$16,440.00
	Task 8 Total		**0**	**0**	**8**	**60**	**0**	**0**	**30**	**0**	**98**	**$14,730.00**	**$9,000.00**		**$23,730.00**
	TOTAL BASE TASKS		***18***	***65***	***196***	***424***	***436***	***576***	***166***	***80***	***1,961***	***$263,430.00***	***$34,000.00***	***$2,550.00***	***$299,980.00***

COST OF PRICE SUMMARY FOR SUBAGREEMENTS UNDER U.S. EPA GRANTS

(See accompanying instructions before completing this form)

Form Approved
OMB No. 158-R0144

PART 1 - GENERAL

1. GRANTEE	2. GRANT NUMBER
Town of Brookfield, Connecticut	TBD
3. NAME OF CONTRACTOR OR SUBCONTRACTOR	**4. DATE OF PROPOSAL**
CDM Smith Inc.	December 21, 2018
5. ADDRESS OF CONTRACTOR OR SUBCONTRACTOR (Include Zip Code)	**6. TYPE OF SERVICE TO BE FURNISHED**
77 Hartland St Suite 201 East Hartford, CT 06108	Consulting Services Wastewater Facilities Planning

PART II - COST SUMMARY

7. DIRECT LABOR (Specify labor categories)	ESTI-MATED HOURS	HOURLY RATE	ESTIMATED COST	TOTAL
Senior Project Manager / Technical Specialist	83	$80.00	$6,640.00	
Project Manager	196	$70.00	$13,720.00	
Senior Project Engineer	424	$55.00	$23,320.00	
Engineer II	436	$40.00	$17,440.00	
Engineer I	576	$30.00	$17,280.00	
GIS Analyst	166	$35.00	$5,810.00	
O&M Specialist	80	$45.00	$3,600.00	
DIRECT LABOR TOTAL:				$87,810
8. INDIRECT COSTS (Specify indirect cost pools)	**RATE**	**X BASE =**	**ESTIMATED COST**	
Direct Overhead, General & Administration	1.6675	$87,810.00	$146,423.18	
INDIRECT COSTS TOTAL:				$146,423
9. OTHER DIRECT COSTS				
a. TRAVEL			ESTIMATED COST	
(1) TRANSPORTATION			$2,400.00	
(2) PER DIEM			$150.00	
TRAVEL SUBTOTAL:			$2,550.00	
b. EQUIPMENT, MATERIALS, SUPPLIES (Specify Categories)	QTY	COST	ESTIMATED COST	
EQUIPMENT SUBTOTAL:				
C. SUBCONTRACTS			ESTIMATED COST	
JK Muir, LLC (WBE)			$25,000.00	
American View Productions (MBE)			$9,000.00	
SUBCONTRACTS SUBTOTAL:			$34,000.00	
d. OTHER (Specify Categories)			ESTIMATED COST	
OTHER SUBTOTAL:				
e. OTHER DIRECT COSTS TOTAL:				$36,550
10. TOTAL ESTIMATED COST				$270,783
11. PROFIT				$29,279
12. TOTAL PRICE				$299,980

Form Approved
OMB No. 158-R0144

PART III - PRICE SUMMARY

13. COMPETITOR'S CATALOG LISTINGS, IN-HOUSE ESTIMATES, PRIOR QUOTES (Indicate basis for price competition)			MARKET PRICE(S)	PROPOSED PRICE
				$299,980

PART IV - CERTIFICATION

14. CONTRACTOR CDM Smith Inc.

14a. HAS A FEDERAL AGENCY OR A FEDERALLY CERTIFIED STATE OR LOCAL AGENCY PERFORMED ANY REVIEW OF YOUR ACCOUNTS OR RECORDS IN CONNECTION WITH ANY OTHER FEDERAL GRANT OR CONTRACT WITHIN THE PAST TWELVE MONTHS?

[X] YES [ ] NO (If "Yes" give name and telephone number of reviewing office)

Massachusetts DOT
Ten Park Plaza, Suite 4160
Boston, MA 02116

14b. THIS SUMMARY CONFORMS WITH THE FOLLOWING COST PRINCIPALS: 41 CFR 1 - 15.2 and 1 - 15.4

14c.

This proposal is submitted for use in connection with and in response to (1) _____

Wastewater Facilities Planning This is to certify to the best of my knowledge and belief that the cost and pricing data summarized herein are complete, current, and accurate as of

(2) December 21, 2018 and that a financial management capability exists to fully and accurately account for the financial transactions under this project. I further certify that I understand that the subagreement price may be subject to downward renegotiation and/or recoupment where the above cost and pricing data have been determined, as a result of audit, not to have to been complete, current and accurate as of the date above.

(3) _____ DATE OF EXECUTION

_____ SIGNATURE OF PROPOSER

_____ TITLE OF PROPOSER

14. GRANTEE REVIEWER

I certify that I have reviewed the cost/price summary set forth herein and the proposed costs/price appear acceptable for subagreement award.

_____ DATE OF EXECUTION

_____ SIGNATURE OF REVIEWER

_____ TITLE OF REVIEWER

16. EPA REVIEWER (if applicable)

_____ DATE OF EXECUTION

_____ SIGNATURE OF REVIEWER

_____ TITLE OF REVIEWER