



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

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December 27, 2019

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

REQUESTED ACTION

Authorize the Department of Environmental Services (NHDES) to enter into a contract with Carollo Engineers, Inc. (VC #312691), Walnut Creek, CA, in the amount of \$120,000 to provide expert technical assistance consulting services for a water reuse demonstration project on Star Island, effective upon Governor and Council approval through June 30, 2021. 100% Clean Water Revolving Loan Management Funds.

Funding is available in the following account:

	<u>FY 2020</u>
03-44-44-441018-4788-102-500731	\$120,000
Department of Environmental Services, CWSRF Administration, Contracts for Program Services	

EXPLANATION

NHDES seeks to contract with Carollo Engineers Inc. (Carollo) to provide expert technical assistance for a water reuse demonstration project on Star Island. Star Island Corporation (SIC) is currently implementing an upgrade of the existing Star Island Wastewater Treatment Facility (WWTF). The proposed WWTF upgrade will produce an effluent that can either discharge to a permitted ocean outfall or potentially be re-used on site. SIC is challenged to consistently meet all resort water needs due to its remote island location, and desires recycle water to the maximum extent possible.

SIC submitted a proposal (March 2018) to NHDES for a demonstration program to use recycled water in areas with unrestricted public access (landscape irrigation, toilet flushing and fire suppression). Since NHDES does not currently have design or water quality standards for the proposed uses on Star Island, NHDES has approved the project subject to the provisions of Env-Wq 700 Standards of Design and Construction for Sewerage and Wastewater Treatment Facilities – Part 717 – Innovative and Alternative (I/A) Technologies. The Env-Wq 717 I/A process allows NHDES to carefully evaluate new technologies and treatment approaches in a controlled environment over several years, prior to broad application across NH.

NHDES seeks to draw upon proven experience in other regions of the U.S. where water reuse is well established (i.e., CA, FL, TX, AZ). A Request for Qualifications (RFQ) was prepared by NHDES for expert technical assistance for water reuse in NH. The RFQ was advertised on the Department of Administrative

Services (NHDAS) bid website (#RFQ DES 2019-07) and sent directly to four national engineering firms with extensive water re-use experience. Two qualifications packages were received (Carollo and Hazen & Sawyer). A panel of three NHDES staff reviewed the submittals and interviewed each firm. Carollo was the highest rated firm by the panel as detailed in Attachment A. Carollo's water reuse qualifications can be accessed on-line at https://www.carollo.com/sites/default/files/docs/WtrWW_07_WaterRecycling.pdf.

The Star Island Water Reuse Demonstration Project presents an opportunity to develop a comprehensive approach for design, permitting and implementation of water reuse practices in NH communities. Recurring droughts over the last several years have placed a heavy burden on water supplies in communities throughout NH. At the height of the severe drought in 2016-17, 166 NH water systems and 15 towns issued water use restrictions. The effects of future droughts can possibly be mitigated by reuse of highly treated wastewater. NHDES currently allows water reuse in applications with limited public access (e.g., agricultural irrigation). A much higher proportion of water supply could be recycled if a broader range of uses in public areas was permitted (e.g., landscape irrigation).

There is currently no statutory authority or regulations for protection of public health for proposed water reuse practices on Star Island. It is anticipated that a successful water reuse demonstration project may lay the groundwork for new statutes and regulations to enable a broad water reuse program in NH. An effective water reuse program would help the state to get the most from its existing water-resources while protecting public health.

This agreement has been approved as to form, substance, and execution by the Office of the Attorney General. In the event that designated funds no longer become available, general funds will not be requested to support this program.

We respectfully request your approval of this item.



Robert R. Scott
Commissioner

ATTACHMENT A

Star Island Water Reuse Demonstration Program – Expert Technical Assistance

NHDES RFQ and Interview Ranking Results

Scoring Category (Described in RFQ DES 2019-07)	# of Interview Questions	Total Possible Points	Rating Points by NHDES Panel (*)	
			Carollo Engineers	Hazen & Sawyer
(1) - Experience with Non-Potable Water Reuse Treatment and Management	6	35.0	28.0	28.5
(2) - Project Team and Management	3	25.0	19.5	21.5
(3) - Experience with Risk Based Water Quality Standards for Non-Potable Reuse	1	30.0	30.0	24.0
(4) - Proposal Clarity, Completeness and Conciseness	0	10.0	9.0	10.0
TOTAL SCORE		100.0	86.5	84.0
(*) Interviews were conducted by NHDES with both firms on 7/18/19. Each firm was asked 10 standard questions covering selection criteria described in the RFQ. The NHDES review panel scored the response to each question by consensus.				

NHDES Evaluation Team

Evaluation Team Members	Titles	Years of Experience
Dennis Greene, Ph.D., P.E	WWEB – Design Review Section	30+
Tracy Wood, P.E.	WWEB - Administrator	25+
Mitch Locker, P.G.	DWGB – GW Recharge Program	40+

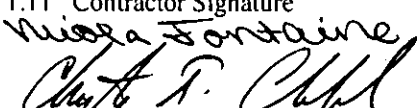
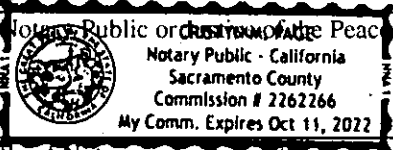
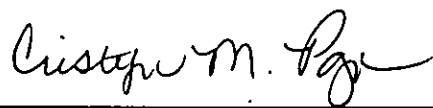
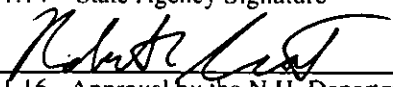
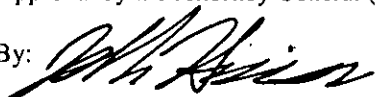
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name Department of Environmental Services		1.2 State Agency Address 29 Hazen Drive, Concord NH 03301	
1.3 Contractor Name Carollo Engineers, Inc.		1.4 Contractor Address 2700 Ygnacio Valley Road, Suite 300, Walnut Creek, CA, 94598	
1.5 Contractor Phone Number 916-565-4888	1.6 Account Number 03-44-44-441018-4788-102-500731	1.7 Completion Date June 30, 2021	1.8 Price Limitation \$120,000
1.9 Contracting Officer for State Agency Dennis Greene, Sanitary Engineer III.		1.10 State Agency Telephone Number 603 - 271 - 2980	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory Nicola A. Fontaine, Associate Vice President Chris Cleveland, Senior Vice President	
1.13 Acknowledgement: State of <u>California</u> , County of <u>Sacramento</u> On <u>November 15, 2019</u> , before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace <div style="display: flex; align-items: center;"> <div style="text-align: center;">  <p>[Seal]</p> </div> <div style="margin-left: 20px;">  </div> </div>			
1.13.2 Name and Title of Notary or Justice of the Peace <u>Cristyn M. Page, Notary</u>			
1.14 State Agency Signature 		1.15 Name and Title of State Agency Signatory Robert R Scott, Commissioner	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By:  On: <u>1/6/2020</u>			
1.18 Approval by the Governor and Executive Council (if applicable) By: _____ On: _____			

2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.18, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.14 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.

5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. This may include the requirement to utilize auxiliary aids and services to ensure that persons with communication disabilities, including vision, hearing and speech, can communicate with, receive information from, and convey information to the Contractor. In addition, the Contractor shall comply with all applicable copyright laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this

Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. TERMINATION. In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. CONTRACTOR'S RELATION TO THE STATE. In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS. The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice and consent of the State. None of the Services shall be subcontracted by the Contractor without the prior written notice and consent of the State.

13. INDEMNIFICATION. The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than thirty (30) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than thirty (30) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. **WAIVER OF BREACH.** No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. **NOTICE.** Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. **AMENDMENT.** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no

such approval is required under the circumstances pursuant to State law, rule or policy.

19. CONSTRUCTION OF AGREEMENT AND TERMS.

This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. **THIRD PARTIES.** The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. **HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. **SPECIAL PROVISIONS.** Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. **SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. **ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

EXHIBIT A

STAR ISLAND WATER REUSE DEMONSTRATION PROGRAM - TECHNICAL ASSISTANCE SCOPE OF SERVICES

The following technical assistance services will be provided to NHDES by CAROLLO ENGINEERS (Carollo) for the Star Island Water Reuse Demonstration Program.

BACKGROUND

Star Island Corporation (SIC) operates a seasonal resort on Star Island, Isles of Shoals, NH. SIC is currently implementing an upgrade of the existing Wastewater Treatment Facility (WWTF) that serves the resort. The proposed WWTF upgrade will utilize biologically active filters (BAFs) and will produce an effluent that can either discharge to a permitted ocean outfall or potentially be re-used on site. SIC is challenged to consistently meet all resort water needs due to its remote island location, and desires to recycle water to the maximum extent possible. A water re-use treatment system will be constructed to polish BAF effluent to sufficient water quality for desired uses.

SIC submitted a proposal (March 2018) to NHDES for a demonstration program to use recycled water in areas with unrestricted public access (landscape irrigation, toilet flushing and fire suppression). Since NHDES does not currently have design or water quality standards for the proposed uses on Star Island, NHDES has approved the project subject to the provisions of Env-Wq 717 – Innovative and Alternative (I/A) Technologies. The Env-Wq 717 I/A process allows NHDES to carefully evaluate new technologies and treatment approaches in a controlled environment over several years, prior to broad application across NH.

Since protection of public health and public acceptance is critical to the success of this and future water re-use projects in NH, NHDES seeks to draw upon proven experience in other regions of the U.S. where water re-use is well established, as well as recent national expert guidance promoted by USEPA (*Risk-Based Framework for the Development of Public Health Guidance for Decentralized Non-Potable Water Systems*, Water Environment Research Foundation (WERF), 2017). Accordingly, NHDES has retained Carollo through a competitive RFQ process to provide expert technical assistance for the Star Island Water Re-Use Demonstration Project.

SCOPE OF SERVICES

Task 1 - Development of water quality standards to support specific recycled water uses on Star Island that are protective of human health. It is anticipated that a risk based framework will be used for development of water quality standards for pathogens, as defined in the WERF 2017 guidance document. Pathogen targets may include virus, protozoa, and bacteria targets in the reclaimed water. Task 1 will be initiated with a

WebEx video conference between Carollo and NH DES to kick off the project and review risk based approaches and several state by state regulations. The proposed risk based approach and water quality standards for water reuse on Star Island will be documented in a draft technical memorandum.

Task 2 – Identification of reliable, proven treatment technologies and associated monitoring systems (treatment technology toolbox) to meet selected water quality standards for water reuse applications, including tertiary filtration and disinfection systems that can be coupled with the WWTP to meet the selected water quality standards. The treatment technology toolbox will be documented in a draft technical memorandum.

Task 3 – Discussion and refinement of Task 1 and Task 2 findings (and technical memoranda) at a workshop with NHDES and SIC project team. For budgeting purposes, we note that the workshop will be held in NH, with the specific location TBD. Budget has been included for three Carollo employees to attend the workshop. Task 1 and Task 2 technical memoranda will be finalized based on workshop discussions.

Task 4 – Development of a tailored water quality test program for secondary effluent of the upgraded Star Island WWTF, to establish specific design criteria and monitoring requirements for a recycled water treatment system on Star Island. The water quality test program will incorporate the findings of Task 1 and Task 2, and will be documented in a technical memorandum. For the purposes of clearly defining this scope and budget, the test program will include, at a minimum:

- Routine sampling of secondary effluent (e.g., weekly) for turbidity, TSS, and UVT, at a minimum
- Intensive sampling of secondary effluent followed by bench-scale testing, assumed to be conducted three times over a TBD period.
- Protocols and Standard Operator Procedures for sampling and laboratory quality control
- Bench-scale filtration testing, including microbiological testing and evaluation of water quality surrogates (e.g., turbidity, UV transmittance, particle counts)
- Bench-scale dose/response testing, focusing upon a minimum of three technologies (e.g., free chlorination, chloramination, UV disinfection).

Task 5 – Implementation of a water quality test program (based upon the test program developed under Task 4), which will be done entirely by SIC and NHDES, with the exception of 28 hours of Carollo phone and web-based technical support. For the purposes of clearly defining the NHDES scope, the following assumptions are made:

- Sampling of secondary effluent and benchtop testing will be performed by NHDES or SIC.
- Testing will be broken into two components, routine sampling and intensive sampling
 - Routine sampling:
 - Water samples will be sent to a commercial or NHDES laboratory for analysis.
 - Measurements include TSS, UVT, and turbidity, at a minimum.
 - Intensive sampling:
 - Sampling (and testing) to be conducted three times, at a minimum.
 - Water samples will be sent to a commercial or NHDES laboratory.
 - Testing will include specialized bench-scale filtration and disinfection testing as detailed in Task 4.
- Analytical costs for water quality analysis, including the parameters listed below, will be covered directly by NHDES or SIC.
 - Bacteria: Total coliform, fecal coliform, *e. coli*
 - Surrogates & other Parameters: UVT, turbidity, TSS, free and combined chlorine, particle size distribution, ammonia and other nutrients.
 - Specialty UV collimated beam testing: Samples will be sent to a UV Supplier for analysis (e.g., Trojan or WEDECO).
- NHDES will summarize all results of analytical and bench scale testing in a draft technical memorandum. Carollo will provide review and comment.

Task 6 – Development of design criteria based upon potential filtration and disinfection systems for the new water re-use treatment system on Star Island. Carollo will analyze data from Task 5 and assist with the development of design criteria and the treatment process approach, with conclusions regarding treatment performance and risk. Design criteria will be documented in a technical memorandum prepared by Carollo.

Task 7 – NHDES will summarize the major findings of Tasks 1 to 6 in a report. Carollo will review and comment on the report. All technical memoranda from previous tasks will be included as appendices with the summary report.

NF /
11-15-19

EXHIBIT B

**STAR ISLAND WATER REUSE DEMONSTRATION PROGRAM -
TECHNICAL ASSISTANCE**

PAYMENT SCHEDULE

NHDES shall reimburse CAROLLO ENGINEERS for work completed and expenses based upon receipt of monthly invoices in accordance with the following budget:

Task	Labor Cost	Direct Expenses	Total Cost
Task 1 – Effluent Quality Goals	\$28,546	\$0	\$28,546
Task 2 – Treatment Toolbox	\$14,850	\$0	\$14,850
Task 3 – Workshop	\$29,897	\$3,270	\$33,167
Task 4 – Water Quality Test Plan	\$16,034	\$0	\$16,034
Task 5 – Water Quality Testing	\$7,200	\$0	\$7,200
Task 6 – Design Criteria	\$13,451	\$0	\$13,451
Task 7 – Summary Report	\$6,752	\$0	\$6,752
TOTAL	\$116,730	\$3,270	\$120,000

Total budget for Tasks 1 to 7 shall not exceed \$120,000.

NF
11-15-19

EXHIBIT C

**STAR ISLAND WATER REUSE DEMONSTRATION PROGRAM -
TECHNICAL ASSISTANCE**

SPECIAL PROVISIONS

Add the following new sections to the end of the General Provisions:

25. STANDARD OF CARE. The Contractor shall complete the services required hereunder in accordance with the prevailing standard of care by exercising the skill and ability ordinarily required of consultants performing the same or similar services, under the same or similar circumstances, in the State of New Hampshire.

26. ACCESS. The State shall arrange for reasonable access to and make all provisions for the Contractor to enter upon public and private property as required for the Contractor to perform services hereunder.

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11-15-19

State of New Hampshire

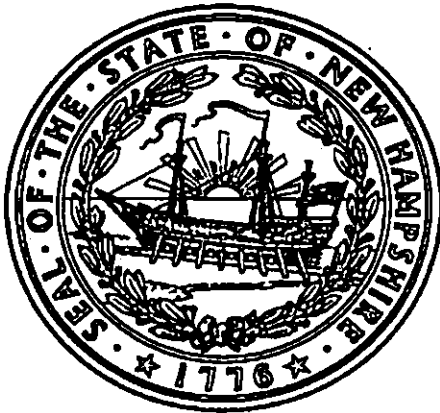
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that CAROLLO ENGINEERS, INC. is a Delaware Profit Corporation registered to transact business in New Hampshire on July 25, 2017. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 775519

Certificate Number: 0004613193



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 31st day of October A.D. 2019.

A handwritten signature in cursive script, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State



CERTIFICATION

This is to certify that the undersigned, Michael W. Barnes, as Corporate Secretary and General Counsel for **Carollo Engineers, Inc.**, is authorized to state and certify: That by corporate policy approved by the Board of Directors on 02/07/2011, Andrew T. Salveson, Vice President, and Nicola A. Fontaine, Associate Vice President, are authorized to execute engineering service agreements for the usual and customary engineering business of the company.

Dated: November 4, 2019

Michael W. Barnes
Corporate Secretary & General Counsel



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

12/19/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Risk Strategies Company 2040 Main Street, Suite 450 Irvine, CA 92614 www.risk-strategies.com CA DOI License No. 0F06675	CONTACT NAME: Risk Strategies Company PHONE (A/C, No., Ext): 949-242-9240 FAX (A/C, No.): E-MAIL ADDRESS: syoung@risk-strategies.com													
	<table border="1"> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Continental Insurance Company</td> <td>35289</td> </tr> <tr> <td>INSURER B: American Casualty Company of Reading, PA</td> <td>20427</td> </tr> <tr> <td>INSURER C: Valley Forge Insurance Company</td> <td>20508</td> </tr> <tr> <td>INSURER D: Continental Casualty Company</td> <td>20443</td> </tr> <tr> <td>INSURER E: National Fire Insurance Co of Hartford</td> <td>20478</td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Continental Insurance Company	35289	INSURER B: American Casualty Company of Reading, PA	20427	INSURER C: Valley Forge Insurance Company	20508	INSURER D: Continental Casualty Company	20443	INSURER E: National Fire Insurance Co of Hartford	20478	INSURER F:
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INSURED Carollo Engineers, Inc. 2795 Mitchell Dr. Walnut Creek CA 94598-1601														

COVERAGES **CERTIFICATE NUMBER: 53055485** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Deductible \$0 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			6050490317	12/31/2019	12/31/2020	EACH OCCURRENCE \$ \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ \$1,000,000 MED EXP (Any one person) \$ \$25,000 PERSONAL & ADV INJURY \$ \$1,000,000 GENERAL AGGREGATE \$ \$2,000,000 PRODUCTS - COM/POP AGG \$ \$2,000,000 \$
E	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			6050490267	12/31/2019	12/31/2020	COMBINED SINGLE LIMIT (Ea accident) \$ \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Ded: Comp/Collision \$ \$1,000
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			6050490270	12/31/2019	12/31/2020	<input checked="" type="checkbox"/> PER STATUTE <input checked="" type="checkbox"/> OTH-ER Deductible: \$0
C	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	6050490298	12/31/2019	12/31/2020	<input checked="" type="checkbox"/> E.L. EACH ACCIDENT \$ \$1,000,000 <input checked="" type="checkbox"/> E.L. DISEASE - EA EMPLOYEE \$ \$1,000,000 <input checked="" type="checkbox"/> E.L. DISEASE - POLICY LIMIT \$ \$1,000,000
D	Professional Liability Unlimited Prior Acts			AEH288354410	7/4/2019	7/4/2020	Each Claim: \$1,000,000 Aggregate: \$1,000,000 Deductible: \$400,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Projects as on file with the insured including but not limited to: Star Island Water Reuse Demonstration Program - Technical Assistance

CERTIFICATE HOLDER**CANCELLATION**

State of New Hampshire
 Dept. of Environmental Services
 29 Hazen Dr.
 Concord NH 03301

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Michael Christian

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NOTICE OF CANCELLATION TO CERTIFICATEHOLDERS

It is understood and agreed that:

If you have agreed under written contract to provide notice of cancellation to a party to whom the Agent of Record has issued a Certificate of Insurance, and if we cancel a policy term described on that Certificate of Insurance for any reason other than nonpayment of premium, then notice of cancellation will be provided to such Certificateholders at least 30 days in advance of the date cancellation is effective.

If notice is mailed, then proof of mailing to the last known mailing address of the Certificateholder on file with the Agent of Record will be sufficient to prove notice.

Any failure by us to notify such persons or organizations will not extend or invalidate such cancellation, or impose any liability or obligation upon us or the Agent of Record.

State of New Hampshire
Dept. of Environmental Services
29 Hazen Dr.
Concord NH 03301



NOTICE OF CANCELLATION TO CERTIFICATEHOLDERS

It is understood and agreed that:

If you have agreed under written contract to provide notice of cancellation to a party to whom the Agent of Record has issued a Certificate of Insurance, and if we cancel a policy term described on that Certificate of Insurance for any reason other than nonpayment of premium, then notice of cancellation will be provided to such Certificateholders at least 30 days in advance of the date cancellation is effective.

If notice is mailed, then proof of mailing to the last known mailing address of the Certificateholder on file with the Agent of Record will be sufficient to prove notice.

Any failure by us to notify such persons or organizations will not extend or invalidate such cancellation, or impose any liability or obligation upon us or the Agent of Record.

State of New Hampshire
Dept. of Environmental Services
29 Hazen Dr.
Concord NH 03301



NOTICE OF CANCELLATION TO CERTIFICATE HOLDERS

It is understood and agreed that:

If you have agreed under written contract to provide notice of cancellation to a party to whom the Agent of Record has issued a Certificate of Insurance, and if we cancel a policy term described on that Certificate of Insurance for any reason other than nonpayment of premium, then notice of cancellation will be provided to such Certificateholders at least 30 days in advance of the date cancellation is effective.

If notice is mailed, then proof of mailing to the last known mailing address of the Certificateholder on file with the Agent of Record will be sufficient to prove notice.

Any failure by us to notify such persons or organizations will not extend or invalidate such cancellation, or impose any liability or obligation upon us or the Agent of Record.

All other terms and conditions of the policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the policy issued by the designated Insurers, takes effect on the Policy Effective date of said policy at the hour stated in said policy, unless another effective date (the Endorsement Effective Date) is shown below, and expires concurrently with said policy unless another expiration date is shown below.

Form No: CC68021A (02-2013)	6050490270
Endorsement Effective Date: 12/31/2019	Policy No: 6050490298
Endorsement No:	Policy Effective Date: 12/31/2019
Underwriting Company: American Casualty Company of Reading, PA Valley Forge Insurance Company	

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Workers Compensation



PROFESSIONAL LIABILITY AND POLLUTION
INCIDENT LIABILITY INSURANCE POLICY

For All the Commitments you Make

INSURED: Carollo Engineers, Inc.
Policy AEH288354410

Effective 7/4/2019

Endorsement Number

NOTICE ENDORSEMENT -
CANCELLATION OR NON-RENEWAL

We agree with you that your Policy is amended to include the following additional provisions.

1. Your Policy will not be:

XX Cancelled by us until we provide at least:

10 days prior written notice if we cancel your Policy for Non-payment of Premium;

30 days prior written notice if we cancel your Policy for The following reasons:

Any reason other than non-payment of premium.

___ Non-renewed by us until at least ___ days prior written notice is given to the person or entity named in 2. below.

2. Person or Entity:

State of New Hampshire
Dept. of Environmental Services
29 Hazen Dr.
Concord NH 03301

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy and expires concurrently with said Policy unless another effective date is shown above.

By Authorized Representative James F. Willging
(No signature is required if issued with the Policy or if it is effective on the Policy Effective Date)

James F. Willging

Countersigned by Authorized Representative

256423

(Ed. 10/05)