



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

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September 16, 2024

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 execute a **SOLE SOURCE** amendment to the Agreement (PO# 1088134 and PO# 7003346) with Dubois & King, Inc., (Vendor Code #160381-B001), Randolph, VT, by increasing the contract by \$23,500 to \$959,819 from \$936,319 to provide funding for a confined space inspection and assessment of the existing spillway outlet pipe at the Baker River Flood Control Dam Site 8 (Baker 8) in Dorchester, NH, and to extend the end date of the contract from December 31, 2024 to September 30, 2025, effective upon Governor & Council approval. The original Agreement was approved by Governor & Council on August 17, 2022 (Item #43). Funding for this amendment is 100% Capital (General) Funds.

Funds are available in the account listed below.

FY 2025
03-44-44-442030-9309-034-500161 \$23,500.00
Dept. of Environmental Services, L21, 107:1:V-2, Dam Repairs & Reconstruction, Capital Projects

EXPLANATION

NHDES is responsible for the maintenance, repair and reconstruction of all state-owned dams per NH RSA 482:55-57. The Baker River Flood Control Dam Site 8 was originally constructed by the federal Natural Resources Conservation Service ("NRCS") between 1965 and 1967 under the authority of Public Law 566. The State of New Hampshire was the local sponsor for the project and assumed ownership of the dam following construction. In 2016, NHDES completed Rehabilitation Assessment Reports for the dam, with funding from NRCS. The Rehabilitation Assessment Report documented that the dam fails to meet NRCS safety and performance standards. NHDES established a contract with Dubois & King, Inc., to provide design services for the rehabilitation of Baker 8. Earlier this year, NHDES and Dubois & King, Inc., collaboratively determined that the spillway pipe at the outlet of the riser structure at Baker 8 needs to be extended to accommodate the rehabilitation design parameters, and that the spillway pipe must be inspected and assessed to ensure that an extension of the pipe is feasible, can be sealed, and can be stabilized long term. NHDES has determined that an inspection and assessment of the spillway pipe was not part of the originally approved scope of work under the Agreement, and that an extension of the end date of the contract is also necessary to provide adequate time after the spillway pipe inspection and assessment to complete the final design of the dam rehabilitation.

The total charges to this contract shall not exceed \$959,819.00. The Amendment has been approved by the Office of the Attorney General as to form, execution, and content. We respectfully request your approval.

Robert R. Scott, Commissioner

**AMENDMENT #1
TO AN
AGREEMENT BETWEEN THE
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
AND
DUBOIS & KING, INC.**

**PROFESSIONAL SERVICES – DESIGN SERVICES FOR THE
REHABILITATION OF THE BAKER RIVER FLOOD CONTROL DAM SITE 8**

WHEREAS the State of New Hampshire Department of Environmental Services (“NHDES”) has entered into an Agreement with Dubois & King, Inc., in the amount of \$936,319 to provide engineering design services for the rehabilitation of the Baker River Flood Control Dam Site 8 (Baker 8) in Dorchester, NH through December 31, 2024, which was approved by Governor and Council on August 17, 2022, as Item #43.

WHEREAS NHDES and Dubois & King, Inc., have collaboratively determined that the spillway pipe at the outlet of the riser structure at Baker 8 needs to be extended to accommodate the rehabilitation design parameters, and that the spillway pipe must be inspected and assessed to ensure that an extension of the pipe is feasible, can be sealed, and can be stabilized long term.

WHEREAS NHDES has determined that an inspection and assessment of the spillway pipe was not part of the originally approved scope of work under the Agreement, and that an extension of the end date of the contract is also necessary to provide adequate time after the spillway pipe inspection and assessment to complete the final design of the dam rehabilitation.

WHEREAS NHDES seeks to execute an Amendment to the original Agreement to increase the not-to-exceed amount to \$959,819 from \$936,319 to provide funding for the spillway pipe inspection and assessment, and to extend the end date of the Agreement to September 30, 2025, from December 31, 2024, upon Governor & Council approval.

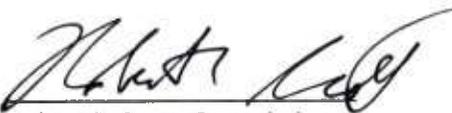
NOW THEREFORE, amend the original Agreement between NHDES and Dubois & King, Inc., as approved by Governor and Council on August 17, 2022, as Item #43, in the following manner:

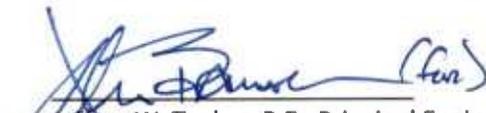
Change section 1.7 (Completion Date) to read: September 30, 2025; and,

Change section 1.8 (Price Limitation) in the General Provisions of the Agreement to read: \$959,819.

Change the first sentence of Exhibit C to read: The total cost of the Agreement shall be a lump sum, not to exceed \$959,819.

All other conditions outlined in the contract shall remain in effect.


Robert R. Scott, Commissioner
Department of Environmental Services


Jeffrey W. Tucker, P.E., Principal Engineer, CEO
Dubois & King, Inc.


Assistant Attorney General
Department of Justice
as to form, execution, and content

DuBois & King, Inc.

**Certificate of Vote
And
Certificate of Authority**

I, Melissa L. Stephen, hereby certify that I am duly elected Clerk of DuBois & King, Inc.

I, hereby certify the following is a true copy of a vote taken at a meeting of the Board of Directors of the Corporation, duly called and held on February 21, 2024, at which a quorum of the Board was present and voting.

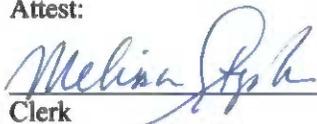
VOTED:

That the Chief Executive Officer of the Corporation (Jeffrey W. Tucker) is authorized and directed to execute and deliver, on behalf of the Corporation, any and all documents to include, but not by way of limitation, The Contract Agreement - Amendment 1, that in such officer's sole judgement are necessary or appropriate in connection with executing a Contract Agreement - Amendment 1 with the State of New Hampshire Department of Environmental Services to provide Professional Services for Design for the Rehabilitation of the Baker River Flood Control Dam Site 8 in Dorchester, NH.

I hereby certify that said vote has not been amended or repealed and remains in full force and effect as of August 28, 2024, and that Jeffrey W. Tucker is authorized to submit the Contract Agreement - Amendment 1 as detailed above for this Corporation.

Date: August 28, 2024

Attest:


Clerk

State of New Hampshire

Department of State

CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that DUBOIS & KING, INC. is a Vermont Profit Corporation registered to transact business in New Hampshire on June 04, 1970. 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: 766

Certificate Number: 0006758803



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 28th day of August A.D. 2024.

A handwritten signature in black ink, appearing to read "David M. Scanlan".

David M. Scanlan
Secretary of State



DUBOKIN-01

LARKA1

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

8/28/2024

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 Digital Insurance LLC- Rutland, VT 98 Merchants Row Rutland, VT 05701	CONTACT NAME: Karen Larocque PHONE (A/C, No, Ext): (800) 296-5722 53191 FAX (A/C, No): (802) 728-4625 E-MAIL ADDRESS: karen.larocque@onedigital.com	
	INSURER(S) AFFORDING COVERAGE INSURER A: Acadia Insurance	NAIC # 31325
INSURED Dubois & King, Inc. PO Box 339 Randolph, VT 05060	INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	

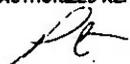
COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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	ADDITIONAL INSURED	SUBROGATION WAIVED	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 GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X		ADV5384525 - 15	8/7/2024	8/7/2025	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 Contractual Liab \$ Included
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	X		ADV5384525 - 15	8/7/2024	8/7/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0	X		ADV5384525 - 15	8/7/2024	8/7/2025	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WCA 5603165-10	8/7/2024	8/7/2025	<input checked="" type="checkbox"/> PER STATE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
States Listed Under Section 3A of the Workers Compensation Policy: ME, NH, NY, VT
No Excluded Officers

State of New Hampshire, its agencies, and its agents and employees have additional insured status with regards to the above referenced liability coverages as per written contract

CERTIFICATE HOLDER State of New Hampshire NH DES Dam Bureau 29 Hazen Drive, PC Box 95 Concord, NH 03302	CANCELLATION 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 
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The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

July 28, 2022

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 an Agreement with Dubois & King, Inc., (Vendor Code #160381-B001), Randolph, VT, in an amount not-to-exceed \$936,319 to provide engineering design services for the rehabilitation of the Baker River Flood Control Dam Site 8 in Dorchester, NH, effective upon Governor & Council approval through December 31, 2024. Funding is 91% Federal Funds, 9% Capital (General) Funds.

Funds are available in the account listed below.

FY 2023

03-44-44-442010-5421-046-500463	\$850,000.00
Dept. of Environmental Services, Dam Assessment and Rehabilitation, Engineer Consultants	
03-44-44-442030-9309-034-500161	\$86,319.00
Dept. of Environmental Services, L21, 107:1:V-2, Dam Repairs & Reconstruction, Capital Projects	

EXPLANATION

NHDES is responsible for the maintenance, repair and reconstruction of all state owned dams per NH RSA 482:55-57. The Baker River Flood Control Dam Site 8 was originally constructed by the federal Natural Resources Conservation Service ("NRCS") between 1965 and 1967 under the authority of Public Law 566. The State of New Hampshire was the local sponsor for the project and assumed ownership of the dam following construction. In 2016, NHDES completed Rehabilitation Assessment Reports for the dam, with funding from NRCS. The Rehabilitation Assessment Report documented that the dam fails to meet NRCS safety and performance standards. Specifically, during its design flood, the dam would experience early activation of the auxiliary spillway, potential breaching of the auxiliary spillway and overtopping. An analysis of the flooding due to dam failure indicates that 79 people are at risk of losing their lives and nearly \$6 million of property damage would occur if the dam were to fail.

In March 2020, a Supplemental Watershed Plan was completed, with funding from NRCS, which studied design alternatives to address known deficiencies. The dam needs to be modified to meet current dam safety standards. Significant funding assistance for modification of the dams (all engineering costs and 65% of the construction costs) is available from NRCS under the Watershed Rehabilitation Program (PL 106-472) upon the completion and approval of a Supplemental Watershed Plan. NHDES applied for, and was awarded, a cooperative grant and agreement in the amount of \$850,000 from NRCS in July 2020 to prepare engineering design documents for the Baker River Flood Control Dam Site 8.

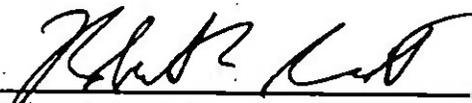
The procurement process for this Agreement, further detailed in Attachment A, was conducted in accordance with NH RSA 21-1:22. NHDES posted a Request for Qualifications ("RFQ") for a qualified engineering consulting firm to perform the work. The RFQ was posted on the Department of Administrative Services and the NHDES websites. Responses were received from the following nine firms, which were all deemed qualified:

- Tetra Tech, Inc. – Gahanna, OH
- Dubois & King, Inc. - Randolph, VT
- GZA GeoEnvironmental, Inc. - Bedford, NH
- Schnabel Engineering – Clifton Park, NY
- GEI Consultants – Woburn, MA
- Stephens Associates Consulting Engineers, LLC – Brentwood, NH
- Gomez and Sullivan Engineers, DPC – Utica, NY
- SLR International Corporation – Bedford, NH
- Rizzo International, Inc. – Pittsburgh, PA

The selection committee reviewed the responses to the RFQ from the nine qualified firms, and chose three firms; Dubois & King, Inc., GEI Consultants, and Schnabel Engineering; to interview for the project. The firms were ranked based on past firm experience with similar projects; specifically dam rehabilitation projects under NRCS's Watershed Rehabilitation Program, proposed staff experience with similar projects, proposed Scope of Work, estimated time for completion, and references. All members of the selection committee selected Dubois & King, Inc., as the most qualified for providing the engineering services needed for the project. NHDES has negotiated terms and conditions for the services to be provided for a lump sum, not-to-exceed cost for this Agreement with Dubois & King, Inc.

The total charges to this contract shall not exceed \$936,319.00. The Agreement has been approved by the Office of the Attorney General as to form, execution, and content.

We respectfully request your approval.



Robert R. Scott, Commissioner

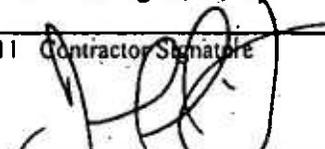
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

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

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name NH Department of Environmental Services		1.2 State Agency Address 29 Hazen Drive – PO Box 95 Concord NH 03302-0095	
1.3 Contractor Name Dubois & King, Inc.		1.4 Contractor Address 28 North Main Street Randolph VT 05060	
1.5 Contractor Phone Number (802) 728-3376	1.6 Account Number 03-44-442010-5421-046 500463 03-44-442030-9309-034- 500161	1.7 Completion Date December 31, 2024	1.8 Price Limitation \$936,319.00
1.9 Contracting Officer for State Agency James W. Gallagher, Jr., P.E.		1.10 State Agency Telephone Number (603) 271-1961	
1.11 Contractor Signature  Date: July 19, 2022		1.11 Name and Title of Contractor Signatory Jeffrey W. Tucker, P.E., Principal Engineer, CEO	
1.13 State Agency Signature  Date: 7/28/22		1.14 Name and Title of State Agency Signatory Robert R. Scott, Commissioner	
1.15 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.16 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By:  On: 8/2/2022			
1.17 Approval by the Governor and Executive Council (if applicable) G&C Item number: _____ G&C Meeting Date: _____			

2. 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 B 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 1.17, 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 1.13 ("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 affected by any state or federal legislative or executive action that reduces, eliminates or otherwise modifies the appropriation or availability of funding for this Agreement and the Scope for Services provided in EXHIBIT B, in whole or in part. 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 reduce or terminate the Services under this Agreement immediately upon giving the Contractor notice of such reduction or termination. The State shall not be required to transfer funds from any other account or source 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 C 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 applicable 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 employment opportunity laws. In addition, if this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all federal executive orders, rules, regulations and statutes, and with any rules, regulations and guidelines as the State or the United States issue to implement these regulations. The Contractor shall also comply with all applicable intellectual property 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. The Contractor 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 cured, 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 give the Contractor a written notice specifying the Event of Default and 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 give the Contractor a written notice specifying the Event of Default, treat the Agreement as breached, terminate the Agreement and pursue any of its remedies at law or in equity, or both.

8.3. 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.

9. TERMINATION.

9.1 Notwithstanding paragraph 8, the State may, at its sole discretion, terminate the Agreement for any reason, in whole or in part, by thirty (30) days written notice to the Contractor that the State is exercising its option to terminate the Agreement.

9.2 In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall, at the State's discretion, 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 B. In addition, at the State's discretion, the Contractor shall, within 15 days of notice of early termination, develop and

submit to the State a Transition Plan for services under the Agreement.

10. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

10.1 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.

10.2 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.

10.3 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.

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.

12.1 The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice, which shall be provided to the State at least fifteen (15) days prior to the assignment, and a written consent of the State. For purposes of this paragraph, a Change of Control shall constitute assignment. "Change of Control" means (a) merger, consolidation, or a transaction or series of related transactions in which a third party, together with its affiliates, becomes the direct or indirect owner of fifty percent (50%) or more of the voting shares or similar equity interests, or combined voting power of the Contractor, or (b) the sale of all or substantially all of the assets of the Contractor.

12.2 None of the Services shall be subcontracted by the Contractor without prior written notice and consent of the State. The State is entitled to copies of all subcontracts and assignment agreements and shall not be bound by any provisions contained in a subcontract or an assignment agreement to which it is not a party.

13. **INDEMNIFICATION.** Unless otherwise exempted by law, the Contractor shall indemnify and hold harmless the State, its officers and employees, from and against any and all claims, liabilities and costs for any personal injury or property damages, patent or copyright infringement, or other claims asserted against the State, its officers or employees, which arise out of (or which may be claimed to arise out of) the acts or omission of the

Contractor, or subcontractors, including but not limited to the negligence, reckless or intentional conduct. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. 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 continuously maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 commercial 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 or excess; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 10.2 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 ten (10) days prior to the expiration date of each insurance policy. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference.

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. The 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. **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.

17. **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.

18. **CHOICE OF LAW AND FORUM.** This Agreement shall be governed, interpreted and 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. Any actions arising out of this Agreement shall be brought and maintained in New Hampshire Superior Court which shall have exclusive jurisdiction thereof.

19. **CONFLICTING TERMS.** In the event of a conflict between the terms of this P-37 form (as modified in EXHIBIT A) and/or attachments and amendment thereof, the terms of the P-37 (as modified in EXHIBIT A) shall control.

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 or modifying provisions set forth in the attached EXHIBIT A 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 with respect to the subject matter hereof.

EXHIBIT A: SPECIAL PROVISIONS

I. APPLICABLE REGULATIONS

a. As a condition of this award, the recipient assures and certifies that it has and/or will comply and require subrecipients to comply with the requirements contained in the following statutes and regulations, as applicable. The full text of Code of Federal Regulations references may be found at <https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR> and <http://www.ecfr.gov/>.

(1) 2 CFR Part 25, "Universal Identifier and System of Award Management" (2) 2 CFR Part 170, "Reporting Subaward and Executive Compensation Information" (3) 2 CFR Part 175, "Award Term for Trafficking in Persons" (4) 2 CFR Part 180, "OMB Guidelines to Agencies On Governmentwide Debarment and Suspension (Nonprocurement)" (5) 2 CFR Part 182, "Governmentwide Requirements for Drug-Free Workplace (Financial Assistance)" (6) 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, And Audit Requirements for Federal Awards" (7) 2 CFR Part 400, "Uniform Administrative Requirements, Cost Principles, And Audit Requirements for Federal Awards" (8) 2 CFR 417, "Nonprocurement Debarment and Suspension" (9) 2 CFR Part 418, "New Restrictions on Lobbying" (10) 2 CFR Part 421, "Requirements for Drug-Free Workplace (Financial Assistance)" (11) 2 CFR 422, "Research Institutions Conducting USDA-Funded Extramural Research; Research Misconduct"

b. Allowable project costs will be determined in accordance with the authorizing statute, the purpose of the award, and, to the extent applicable, to the type of organizations receiving the award, regardless of tier. The following portions of the Code of Federal Regulations are hereby incorporated by reference. The full text of Code of Federal Regulations references may be found at <https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR> and <http://www.ecfr.gov/>.

(1) 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, And Audit Requirements for Federal Awards" (2) 48 CFR Part 31, "Contract Cost Principles and Procedures"

c. For corporate recipients, by accepting this award the recipient acknowledges: (1) that it does not have a Federal tax delinquency, meaning that it is not subject to any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, and (2) that it has not been convicted of a felony criminal violation under any Federal law within 24 months preceding the award, unless a suspending and debaring official of the USDA has considered suspension or debarment of the recipient corporation based on these convictions and/or tax delinquencies

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and determined that suspension or debarment is not necessary to protect the interests of the Government. If the recipient fails to comply with these provisions, the agency will annul this agreement and may recover any funds the recipient has expended in violation of the above cited statutory provisions.

II. SPECIAL PROVISIONS

a. The recipient assures and certifies that it will comply with the minimum-wage and maximum-hour provisions of the Federal Fair Labor Standards Act.

b. Employees of FPAC agencies will participate in efforts under this agreement solely as representatives of the United States. They may not participate as directors, officers, employers, or otherwise serve or hold themselves out as representatives of the recipient. They also may not assist the recipient with efforts to lobby Congress or to raise money through fundraising efforts. Further, FPAC employees must report to their immediate supervisor any negotiations with the recipient concerning further employment and must refrain from participation in projects or agreements with such recipients.

c. Employees of the recipient will not be considered Federal employees or agents of the United States for any purposes under this agreement.

d. Except in very limited circumstances (e.g., construction agreements), no agreement period of performance can exceed a total of five years, including extensions.

e. Recipients who engage or assist in scientific related activities on behalf of USDA must uphold the principles of scientific integrity established by Departmental Regulations 1074-001, Scientific Integrity. Covered activities include engaging in, supervising, managing, and reporting scientific work; analyzing and publicly communicating information resulting from scientific work; and utilizing information derived from scientific work in policy and decision making.

f. Recipients of awards under covered programs (as defined in Executive Order 13858, January 31, 2019) are hereby notified that they are encouraged to use, to the greatest extent practicable, iron and aluminum as well as steel, cement, and other manufactured products produced in the United States in every contract, subcontract, purchase order, or subaward that is chargeable under the award. "Covered program" means a program that provides financial assistance for the alteration, construction, conversion, demolition, extension, improvement, maintenance, construction, rehabilitation, or repair of an infrastructure project in the United States. However, it does not include programs for which a domestic preference is inconsistent with law or programs providing financial assistance that are subject to comparable domestic preferences.

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g. The recipient and its employees are prohibited from promoting, recommending, or discussing the availability of specific commercial products or services with FPAC agency clients in the course of carrying out activities under this agreement, including any products or services offered by the recipient, except as may be specifically allowed in the agreement.

III. PATENTS, INVENTIONS, COPYRIGHTS, AND ACKNOWLEDGEMENT OF SUPPORT AND DISCLAIMER

a. Allocation of rights of patents, inventions, and copyrights must be in accordance with 2 CFR Part 200.315. This regulation provides that small businesses normally may retain the principal worldwide patent rights to any invention developed with USDA support.

b. In accordance with 37 CFR Section 401.14, each subject invention must be disclosed to the Federal agency within 2 months after the inventor discloses it in writing to contractor personnel responsible for patent matters. Invention disclosure statements pursuant to 37CFR 401.14(c) must be made in writing to:

Farm Production and Conservation Business Center Grants and Acquisitions Division 1400
Independence Avenue, SW. Room 6819 South Building Washington, DC 20250

c. USDA receives a royalty-free license for Federal Government use, reserves the right to require the patentee to license others in certain circumstances, and requires that anyone exclusively licensed to sell the invention in the United States must manufacture it domestically.

d. The following acknowledgement of USDA support must appear in the publication of any material, whether copyrighted or not, and any products in electronic formats (World Wide Web pages, computer programs, etc.) that is substantially based upon or developed under this award:

“This material is based upon work supported by the U.S. Department of Agriculture, under agreement number [recipient should enter the applicable award number here].”

In addition, all publications and other materials, except scientific articles or papers published in scientific journals, must include the following statement:

“Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture. In addition, any reference to specific brands or types of products or services does not constitute or imply an endorsement by the U.S. Department of Agriculture for those products or services.”

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e. All publications printed with Federal Government funds will include the most current USDA nondiscrimination statement, available from the Public Affairs Division, Civil Rights Division, or on the USDA home page. If the material is too small to permit the full nondiscrimination statement to be included, the material must, at a minimum, include the statement:

“USDA is an equal opportunity provider and employer.”

The recipient is responsible for ensuring that an acknowledgement of USDA is made during new media interviews, including popular media such as radio, television, and news magazines, that discuss work funded by this award in a substantial way.

IV. PRIVACY ACT AND PROHIBITION AGAINST CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS

a. Activities performed under this award may involve access to confidential and potentially sensitive information about governmental and landowner issues. The term “confidential information” means proprietary information or data of a personal nature about an individual, or information or data submitted by or pertaining to an organization. This information must not be disclosed without prior written consent of FPAC.

b. The recipient’s personnel will follow the rules and procedures of disclosure set forth in the Privacy Act of 1974, 5 U.S.C. Section 552a, and implementing regulations and policies with respect to systems or records determined to be subject to the Privacy Act. The recipient’s personnel must also comply with privacy of personal information relating to natural resources conservation programs in accordance with section 1244 of Title II of the Farm Security and Rural Investment Act of 2002 (Public Law 107-171).

c. The recipient agrees to comply with the “Prohibition Against Certain Internal Confidentiality Agreements:”

1. You may not require your employees, contractors, or subrecipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting them from lawfully reporting that waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

2. You must notify your employees, contractors, or subrecipients that the prohibitions and restrictions of any internal confidentiality agreements inconsistent with paragraph (1) of this award provision are no longer in effect.

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3. The prohibition in paragraph (1) of this award provision does not contravene requirements applicable to any other form issued by a Federal department or agency governing the nondisclosure of classified information.

4. If FPAC determines that you are not in compliance with this award provision, FPAC:

i. Will prohibit your use of funds under this award, in accordance with sections 743 and 744 of Division E of the Consolidated Appropriations Act, 2016, (Pub. L. 114-113) or any successor provision of law;

ii. May pursue other remedies available for your material failure to comply with award terms and conditions.

This Agreement is funded under a grant to the New Hampshire Department of Environmental Services (NHDES), as approved by the Governor and Executive Council, from the federal government through the Department of Agriculture Natural Resources Conservation Service (NRCS), with the source of funds being the NRCS Watershed Rehabilitation Program (Public Law 106-472) identified under the Catalog of Federal Domestic Assistance (CFDA) number 10.916. The Federal Award Identification Number (FAIN) for this grant is NR201428XXXXC002. This Agreement is a subagreement of NRCS funds and any and all compliance requirements for use of NRCS funds are applicable to the Contractor.

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Date 7/19/2022

EXHIBIT B: SCOPE OF SERVICES AND ASSUMPTIONS

Dubois & King, Inc., shall perform the tasks as described in the attached detailed proposal titled "Scope of Work and Assumptions, Design for the Rehabilitation of the Baker River Flood Control Dam – Site 8", submitted by Dubois & King, Inc., dated July 8, 2022.

Contractor Initials JwT
Date 7/19/2022

July 8, 2022
Dubois & King, Inc.

Scope of Services and Assumptions

Design for the Rehabilitation of the Baker River Flood Control Dam - Site 8

ASSUMPTIONS

The associated fees and prices for the project are based, in part on the following assumptions:

All Phases:

1. The Price Proposal has been developed on the assumption that the Preferred Alternative as identified in the Final Supplemental Watershed Plan No. 2 and Environmental Assessment for the Rehabilitation of Floodwater Retarding Structure No. 8 of the Baker River Watershed, dated March 2020 (2020 SWP) and as described below will serve as the basis of design for this project.
 - Lower the crest of the ASW by 3.9 feet from the maximum reservoir level resulting from a 1,000-year, 24-hour storm and set the crest of the ASW at the peak of the 500-year, 24-hour storm (EL 1060.3). Note, all elevations will be updated based on site specific topographic survey and current NVD88 vertical datum.
 - Install a roller-compacted concrete chute with a bottom width of approx. 430 feet in the existing auxiliary spillway from the control section to the valley floor.
 - Extend the principal spillway conduit downstream by approx. 60 feet and construct a new stilling basin. The new stilling basin is assumed to be a Saint Anthony Falls (SAF) style concrete structure.
 - Construct a stability berm on the downstream toe of the dam, and on the upstream toe if confirmed to be required.
 - Excavate the foundation materials on the downstream toe of the dam and replace them.
 - Install a new toe drain with a graded filter.
 - Abandon the existing corrugated metal toe drain pipe in-place by grouting (or approved equivalent)
 - Utilize jet grouted shear walls to address foundation soil problems on the upstream toe of the dam. Note, the use of a jet grouted shear wall be discussed with NHDES and may be retained as described, modified, changed and/or eliminated based on the results of the geotechnical and geologic investigation.
2. No utility relocation design effort is included in the scope of services. Any privately-owned on-site utilities will be marked by NHDES prior to field survey work.

3. **Permitting and Regulatory Clearances:** There are no natural or cultural / historic resource inventory or field delineation, impact analysis, permitting and regulatory clearance efforts included in the scope of work. Any and all permit-related work effort is the not responsibility of Dubois & King, Inc., (D&K) unless D&K's scope of services and fee is specifically amended in writing. D&K assumes NHDES is responsible for obtaining all permits and conducting environmental clearance work efforts.
4. All NEPA work is assumed to be completed and accepted by appropriate officials.
5. There is no need for investigations of threatened or endangered species of concern. There are no cultural and or archaeological resources present within the project site or proposed work area.
6. This Fee Proposal has been prepared without D&K performing any preliminary hydrologic and hydraulic (H&H) analyses to verify the design of the Preferred Alternative. Should H&H analyses indicate that the Preferred Alternative is not feasible either due to technical issues or higher construction costs, and an alternative feasible option will result in additional design effort, we will notify the NHDES to discuss options and the impacts on this Price Proposal.
7. All project meetings and conferences shall be virtual unless specifically identified differently.

Phase I:

8. The geotechnical exploration is assumed to be conducted in July or August of 2022. Geotechnical exploration assumes 18 borings with an approximate total of 795 feet of soil drilling and 50 feet of rock coring. Three piezometers will be installed in the borings; one on the crest of the dam, one at the mid-slope on the downstream slope of the dam, and one at the downstream toe of the dam. The piezometers will be flush mounted. Eight Test pits will be advanced at a prospective borrow areas and to assess geotechnical conditions in the auxiliary spillway. The Owner will supply the excavator and operator to perform the excavation for the test pits.
9. Geotechnical exploration costs: D&K's drilling subcontractor has provided a draft fee estimate to D&K to conduct the field geotechnical exploration work as has been proposed by D&K, and serves as the basis of the fee estimate for subcontractor. Should site and subsurface conditions and weather conditions during exploration operations adversely affect exploration operations and slow the assumed production rate, any additional costs by the drilling subcontractor that exceed their fee estimate to D&K shall be passed through to NHDES for payment by NHDES. D&K shall promptly advise NHDES if adverse site conditions are identified, and NHDES will decide whether to modify the exploration operations to remain within budget or modify the contract to account for the additional costs, but drilling will continue and payment shall be made by NHDES unless D&K is advised to stop drilling work.
10. Drilling will be performed using 4-1/4-inch diameter hollow stem augers. Should drilling become difficult, flush joint casing will be placed inside of the hollow stem augers and drilled using the drive and wash method. A side discharge roller bit will be used, and the bit will not pass beyond the casing.
11. All soil borings are assumed to be continuously sampled by SPT with 2-inch sampler spoons.
12. NQ core will be completed using standard barrel.

13. The Owner will develop access roads and drilling pads on the downstream and upstream slopes of the dam prior to the drilling contractor arriving on site. The access roads and pads, and associated reclamation to repair equipment rutting and disturbance from the drilling and test pitting operations will be performed by the Owner. It is assumed that the Owner will provide a skid steer and operator to assist with drilling and test pitting activities.
14. The use of drilling fluids or mud rotary to control heave within the auger or casing is not necessary to perform the geotechnical borings.
15. Any required tree clearing to provide access for the soil boring drilling operations will be conducted by the Owner prior to mobilization of this equipment.
16. No property or boundary survey or right of way effort is included in the scope of work. NHDES is responsible for any required coordination with abutting property owners. Any required permanent rights and/or temporary construction easements are the responsibility of NHDES. Any visible property monuments within the expected limits of topographic survey will be field located.
17. Bathymetric survey will be conducted in the late spring/summer of 2022, when water temperature is higher and safer for people to access by a boat. The limits of the survey will be within 100-feet upstream from the estimated upstream toe of the embankment slope, and extend laterally to each shore line.
18. Existing data provided by NHDES and/or NRCS are accurate and can be relied upon to develop the project.
19. Past camera surveys of the principal spillway pipe and trench drain pipes are still reflective of current conditions and sufficient data exists to assess the pipes' conditions.
20. Both the 2020 SWP and the NHDES scope of work does not address the condition of the existing principal spillway riser nor do they identify and repair or replacement requirements. Therefore, no effort is included in this scope of work to conduct an inspection of the riser or include any repairs / rehabilitation measures to this structure.

Phase II:

21. Computational fluid dynamic simulations (3D hydraulic modeling) is assumed to be not required and is not included in the scope or fee. Should D&K and/or NHDES conclude a 3D hydraulic model is required, the scope and fee will be modified to add in this effort.
22. Any field staking to field check the 50% plans will not include any underwater staking or markings.
23. The drawing list shown in the scope of work is approximate and will be revised to be reflective of the specific design and construction requirements.

Design for the Rehabilitation of the Baker River Flood Control Dam – Site 8
Scope of Services and Assumptions – July 8, 2022

24. The existing principal spillway riser is understood to be in good condition and no significant rehabilitation is planned and none is included in the scope of work.
25. The modifications to the existing principal spillway include an extension of the low-level conduit and removal and replacement of the existing stilling basin with a new SAF-style stilling basin.

Phase III: No assumptions

Phase IV: No assumptions

Phase V: No assumptions

SCOPE OF WORK

The following scope of work has been prepared specific for the Baker 8 final design project and has the effect of incorporating the NHDES-provided scope of work, dated August 2021 in its entirety. The phrase D&K in the following scope of work is defined as DuBois & King, Inc, serving as the prime consultant and D'Appolonia serving as the lead subconsultant for this project.

I. Phase I—Data Collection and Evaluation: This phase includes collecting necessary physical data (topographic surveys, geological and geotechnical investigations, and biological and archaeological data) to determine the functional requirements of the structure and identify any site-specific constraints. The tasks to be completed follow.

1. **Kickoff Meeting:** Upon notification of authorization to proceed, D&K's Project Manager will coordinate with all appropriate parties and schedule a kickoff meeting. The purpose of the meeting is to establish NHDES expectations for the project and discuss the Plan of Work, schedule, and key technical issues. D&K is prepared to conduct the meeting in person or virtually, as deemed appropriate by NHDES. D&K staff will take notes to document the meeting and indicate key decisions. D&K will distribute meeting notes to the attendees.
2. **Plan of Work:** D&K will prepare a Plan of Work for the project. The Plan will include all tasks and subtasks and will be presented in a logical, project development-based sequence. Critical Plan of Work elements will include:
 - **Plan of Work Project Schedule (critical path):** D&K will share a Gantt-type schedule with NHDES to track progress. The schedule will include all task items, detail the subtask items, and outline a critical path schedule. The Plan will identify the responsible party, duration, and start and finish dates for tasks and subtasks, as well as anticipated hours and fees by task and subtask. D&K will incorporate project conferences, meetings with NHDES and NRCS-NH, and NHDES review time into the schedule. D&K anticipates completing the Plan of Work in 90 days from Notice to Proceed.
 - **Plan of Work Narrative:** D&K will prepare a narrative that will describe our understanding of NHDES's goals and objectives, criteria, and references for the work.
 - **Preliminary Engineer's Estimate:** Once the basis of design for the work is confirmed, D&K will prepare a preliminary itemized opinion of probable cost (OPC) spreadsheet, which will include primary construction elements (reinforced concrete, RCC, earthworks, internal drainage, etc.). D&K will obtain and include unit prices from local and regional database sources.

- **Confirming, Optimizing, and Refining the Selected Alternative:** D&K will optimize Alternative No. 3 and anticipates this will result in construction cost savings and/or relative similar costs, as recognized in the SWP.
3. **Field Surveys and Mapping:** All survey will be conducted under the direction of D&K's NH-licensed surveyor (NH-LS), and the detail will be suitable for the design and construction of the project. The survey work will be in accordance with the requirements of the "Statement of Work Attachment 1 - Requirements and Technical Specifications for Field Surveys and Maps" and as outlined below:
- D&K will conduct a topographic and bathymetric survey of the dam, spillway works, outlet channel, and abutment contact areas. Per NRCS guidance, the limits of the survey will extend beyond the constructed footprint of the dam and will accommodate the anticipated rehabilitated footprint. D&K surveyors will collect reservoir bathymetric data using a sonar probe and hand probes to affirm the depth of accumulated sediment within 100 feet of the bottom of the slope of the upstream embankment.
 - D&K will locate and include all accessible utilities within and adjacent to the project area on the base map. Our team will contact utility locators, such as DigSafe, to conduct locator marking services prior to conducting the survey and soil boring work.
 - D&K's LS will review existing information, such as property maps provided by NHDES and/or GRANIT-based GIS data layers, prior to conducting fieldwork and, when in the field, locate any visible property markers that may exist in the survey limits.
 - D&K's survey will establish multiple and redundant horizontal control points and vertical benchmarks suitable for design and construction. Our team anticipates using capped rebar to establish four benchmarks on the project site and eight horizontal control points.
 - The topographic survey maps and survey files will be provided in electronic format and include benchmark locations, elevations, and descriptions. Topographical maps will be prepared with contours and ground shots plotted on an aerial photo, including cross-sections and profiles, and will be compatible with Autodesk Civil 3D 2014 (.dwg) and in PDF.
 - All field notes, written narratives, and sketches taken during the survey will be scanned and submitted to NHDES in PDF along with completed benchmark sheets for each control point set. Electronic survey files will be submitted in formats compatible with Autodesk Civil 3D 2014 field book (.fbk) files. Any other digital files associated with the survey will be submitted to NHDES.

Design for the Rehabilitation of the Baker River Flood Control Dam – Site 8
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- Vertical and horizontal control will be based on the NH State Plane Coordinate System specific for Grafton County and will be transferred to the site via D&K's high-resolution RTK GPS survey equipment. The data are expected to include NAD83 units for horizontal datum and NAVD88 for vertical datum.
 - D&K will provide NHDES with three hard copies of the topographic site map, cross-sections, profiles, and other data developed under this phase that are considered necessary as a basis of design.
 - Field books containing the original survey notes and/or electronic survey data files will be available for review by NHDES and NRCS. The field books and/or files will be retained by D&K until the completion of the final design phase. At the completion of the final design, field books and/or files containing the original survey notes and original plots developed as a part of this phase will be furnished to the NHDES and NRCS.
 - D&K will provide NHDES with three signed and sealed letters certifying the survey data and a thumb drive containing:
 1. survey drawings in Autodesk Civil 3D 2014 format and PDF
 2. survey data in raw ASCII format
 3. scanned copies of field notes and all associated survey notes
 4. any other digital files associated with the survey
 5. completed benchmark survey data for each control point-set
 - Wetland Mapping and Report: D&K's NH-Certified Wetlands Scientist (CWS) will conduct a wetland delineation of the area within the constructed footprint and within a 100-ft radius of the anticipated construction and impact areas. Wetlands will be delineated in accordance with NHDES Wetland Bureau standards and requirements. The wetland limits will be field located via GPS and incorporated into the site plan for subsequent permitting use. D&K's CWS will prepare an accompanying wetland report per NHDES Wetland Bureau requirements.
4. **Geologic and Geotechnical Investigations:** A geologic and geotechnical investigation to characterize existing subsurface conditions will be a critical technical element of the rehabilitation design as it affects several significant elements of the dam, including foundation and embankment slope stability. D&K will conduct the geologic and geotechnical investigation as outlined herein and as revised/refined based on discussions with NHDES.

All work will be conducted under the supervision of D&K's NH-licensed Professional Geologist and our licensed Senior Geotechnical Engineer. The work shall be conducted in accordance with the "Statement

of Work Attachment 2 – Requirements and Technical Specifications for Geologic and Geotechnical Investigations” and as follows:

- **Geologic and Geotechnical Investigation Plan (GGIP):** D&K will prepare a geologic and geotechnical investigation plan. The GGIP will describe the purpose of the investigation as well as the proposed boring and test pit locations, sampling type and frequency, anticipated geotechnical laboratory testing, equipment and methods to be used, and site reclamation activities.

D&K’s GGIP will include a subsurface exploration plan which will present the soil boring and test pit locations and depths and other applicable information. The final GGIP will show the preliminary layout of the dam structure, its components, and the extent of the proposed investigation. The GGIP will clearly indicate the sources of information used to develop the plan and will demonstrate how the investigation will obtain the geotechnical information needed to evaluate and design the proposed rehabilitation measures.

- **Geologic and Geotechnical Field Investigation:** D&K will coordinate with our drilling subcontractor to conduct the geologic and geotechnical field investigation. D&K will provide full-time oversight of the investigation by a qualified individual experienced in the performance of geologic and geotechnical investigation at high-hazard dams.

The geotechnical field investigation will consist of six borings completed through the dam embankment and foundation, two borings completed at the downstream embankment toe, nine borings completed at the location of the proposed auxiliary spillway structure, six test pits completed within the proposed borrow areas, and two test pits completed within the auxiliary spillway approach channel.

The borings will be performed within the dam embankment and at the downstream embankment toe to better characterize the existing embankment fill, foundation soils, and bedrock and to aid in estimating geotechnical soil and rock properties; evaluating the liquefaction potential of the foundation soils, defining the limits of liquefiable soils within the embankment foundation, and performing static and seismic slope stability analyses and deformation analyses to evaluate if the proposed dam embankment configuration meets the required factors of safety.

The D&K team will complete borings within the auxiliary spillway to characterize subsurface conditions within the limits of the proposed RCC structure and stilling basin and to aid in estimating the properties of the material required for the final design of the structures.

The test pits within the proposed borrow areas and auxiliary spillway approach channel will be observed and logged by D&K to identify available borrow materials and to estimate the engineering properties of

the borrow materials. NHDES will provide qualified excavator operators and equipment to conduct the excavation work.

Based on D&K's review of the available information regarding subsurface conditions at the site, which includes the boring and test pit logs presented on the NRCS As-Built Drawings and the boring log for Boring B-1 completed in 2005, it is D&K's opinion that the proposed borings performed for the geologic and geotechnical field investigation can be completed using hollow stem augers for soil drilling. If difficult drilling conditions, such as the presence of significant amounts of cobbles and boulders, are encountered during the geotechnical field investigation, a second round of borings using sonic drilling methods may be required.

D&K does not propose using sonic drilling methods for the initial geotechnical field investigation due to the difficulty of performing standard penetration tests (SPTs), the inability to collect undisturbed soil samples, and the higher cost associated with sonic drilling.

When the geotechnical field investigation is completed, D&K will prepare a Geotechnical Field Investigation Report containing a description of the geotechnical field investigation methods and a summary of existing subsurface conditions at the site based on the findings of the investigation. D&K's report will include boring and test pit logs, as well as, drawings, sketches, and other graphical representations of the data obtained during the investigation. D&K will summarize conclusions and recommendations relevant to the design of the project in a separate report following the performance of subsequent laboratory testing and the completion of geotechnical evaluations.

- **Analysis of Subsurface Conditions:** D&K will conduct a geotechnical laboratory testing program on select recovered soil and rock samples that are representative of existing subsurface conditions and available borrow materials. Soil sample testing will consist of classification, shear strength, permeability, dispersion, consolidation, and compaction testing as necessary, while rock samples will undergo unconfined compressive strength and slake durability testing as necessary. D&K will prepare and submit to NHDES a soil mechanics testing report containing raw data of the samples collected, results of laboratory analyses, descriptions of the tests performed, and data sheets presenting computations made during testing.

TECHNICAL MODELING AND ANALYSIS

- **Identify Physical Site Constraints:** D&K will evaluate the results of the subsurface investigations and the geotechnical laboratory testing program and perform geotechnical evaluations of applicable site conditions that must be considered in the design of the project. The geotechnical evaluations will include the estimation of material properties for the existing embankment and foundation, proposed foundation, existing auxiliary spillway soils, and proposed fill materials. Additionally, the geotechnical

evaluation will include the assessment of the suitability and availability of borrow materials for use as fill, seismotectonic evaluation, seismic hazard assessment, and liquefaction and cyclic softening potential evaluations.

The seismotectonic evaluation and seismic hazard assessment will be completed using the United States Geological Survey (USGS) Earthquake Hazards Program (EHP) Unified Hazard Tool, USGS EHP Quaternary Faults database, USGS EHP Earthquakes Map, National Oceanic and Atmospheric Administration (NOAA) Global Significant Earthquake Database, and other available geological information for the project site location.

The evaluations of liquefaction and cyclic softening potential will be critical to the rehabilitation design project, since foundation soils encountered in previously completed borings B-1, DH-302, DH-303, DH-501, and DH-502 were identified during the Supplemental Watershed Plan and Environmental Assessment phase as having the potential to liquefy.

The evaluations of liquefaction and cyclic softening potential will be performed in general accordance with the draft NRCS Seismic Analysis Manual for Dams Final Submittal (September 2014) and the Interim Guidance for Seismic Hazard Data Collection and Evaluation for the Planning and Design of NRCS Structures (210-302-NI, 1st Ed., July 2021). The liquefaction potential of site soils will be initially evaluated based on corrected blow count values obtained by performing standard penetration tests (SPTs) during the geotechnical field investigation. If the initial evaluation indicates that liquefaction may occur, the liquefaction potential will be further evaluated by calculating the cyclic resistance ratio (CRR) and cyclic stress ratio (CSR) and computing a factor of safety against liquefaction for applicable soil samples.

The cyclic softening potential for clays and plastic silts will also be evaluated by calculating the CRR and CSR for applicable soil samples in accordance with the draft NRCS Seismic Analysis Manual for Dams Final Submittal (September 2014) and the Interim Guidance for Seismic Hazard Data Collection and Evaluation for the Planning and Design of NRCS Structures (210-302-NI, 1st Ed., July 2021). and will be based on the pocket penetrometer readings collected on soil samples during the geotechnical field investigation. Layers identified as being susceptible to liquefaction or cyclic softening will be assumed to undergo strength loss as a result of seismic events and will be assigned reduced strengths for post-earthquake slope stability and seismic deformation analyses.

D&K will prepare and submit geotechnical interpretations and conclusions in a report summarizing geotechnical site conditions and material parameters that will affect the design and will make recommendations concerning the geotechnical aspects of the project for design, construction, and monitoring of the structure. The report will also contain estimated quantities and properties of borrow materials available on site for the construction of the project

Phase I–Submittals and NHDES Review: D&K will submit all work and deliverables under Phase I in accordance with the requirements defined in the NHDES Scope of Work.

- As identified in the NHDES Scope of Work Section F, the Quality of Work is a key element of the submittals. D&K will provide NHDES with technical documents that are consistent with NRCS criteria and NHDES expectations.
- The timely and documented resolution of review comments is another critical element of a successful project. D&K will successfully lead this project by maintaining seamless communication between NHDES and D&K staff, including the discussion and resolution of technical issues at milestone submittals. Resolving individual work tasks as part of the submittal review process allows the project to build upon prior work to everyone's satisfaction.
- D&K has an established secure file-sharing site that, if acceptable to NHDES, can be used to submit and review submittals and responses. This is a high-capacity secured server that enables large technical files to be uploaded and downloaded.
- D&K has incorporated the review and response times identified in the NHDES Statement of Work Section G into our overall project schedule.

II. Phase II–Intermediate (50%) Engineering Design: During Phase II, D&K will focus on the development of the Intermediate (50%) design in sufficient detail to enable review and evaluation of the major design elements and in accordance with the NHDES-provided Statement of Work and as outlined below. Key components in this phase include the development of construction plans, technical and material specifications, an opinion of probable construction cost, basis of design calculations, and preparation of an Intermediate Design Report.

1. **Affirm Major Design Elements of the Preferred Alternative:** The first task in Phase II will be for D&K to affirm, in writing, the specific major design elements associated with the Preferred Alternative identified in the SWP. Using the results of our Phase I work, D&K will prepare a design memorandum and a concept drawing that highlights and documents the design our team will advance into Intermediate Design.
2. **Design Calculations:** D&K will conduct the following design calculations to serve as the basis for the sizing and layout of the earth and concrete structures. Our calculations will be based on both NRCS technical criteria as well as standard and sound engineering practice. D&K will compile the calculations for each structural element into the Preliminary Engineering Design Report (see Task 11).

D&K will build upon the calculations prepared as part of the SWP. D&K understands our professional responsibility to assume ownership of the conclusions of the prior calculations and/or ensure the conclusions are modified as required.

The calculations will include:

- Design narrative describing the layout and features
- Design criteria and standards with technical authority reference
- Calculations;(D&K anticipates these to be a combination of hand calculations and models.)

3. Hydrologic and Hydraulic Modeling and Size RCC and Stilling Basin Structures: D&K will conduct and prepare all required hydrologic and hydraulic calculations and will size the hydraulic elements of the dam as follows:

Use the control elevations and key geometry of the RCC-lined auxiliary spillway, discharge chute, and SAF stilling basin as defined in the Preferred Alternative as the starting point for the hydraulic models.

- Review the hydrology prepared under the SWP. Affirm rainfall values are up to date, revise if needed, and incorporate the final runoff hydrographs and basin values into the final design.
- Create an updated stage-storage surface based on field bathymetric and topographic data and the GIS contours around the basin and compute for use in the hydraulic modeling and flood routing of the various storm events in SITES and HEC-RAS.
- Prepare an updated HEC-RAS 2D (version 6.0) hydraulic model based on specific site survey and stage-storage surface. Incorporate the rehabilitated principal spillway hydraulic capacity into the model.
- Conduct multiple HEC-RAS runs to optimize the hydraulic capacity of the RCC-lined auxiliary spillway and meet NRCS performance criteria, including (but not limited to) freeboard for the 2.5Q100, pass the FBH without embankment overtopping.
- Refine the entrance and exit locations and overall configuration of the RCC-lined auxiliary spillway. Affirm the control section elevation and location. Optimize the RCC-lined spillway geometry for economic efficiency and review excavation and RCC volume design requirements.

- Coordinate the spillway layout with the soil boring results and confirm foundation suitability for the new structure.
 - Analyze and review tailwater conditions at the exit of the RCC-lined auxiliary spillway. Particular attention will be given to energy dissipation, converging flows, and water depths and potential scour from high tailwater impacts to the downstream embankment and exit channel.
 - Prepare an updated NRCS-SITES hydraulic model using the spillway configuration developed from the HEC-RAS modeling. Incorporate site-specific subsurface soil conditions into the model for scour and head cutting analyses.
 - Route the NHDES and NRCS requisite hydrographs (FBH, ASH, PSH, 2.5xQ100, etc.) and affirm model result consistency between HEC-RAS and SITES.
 - The hydraulic design of the new stilling basin will be prepared under this task. The SWP indicates an SAF-style stilling basin is to be used. The objective is to dissipate energy through the basin for flood events up to the 500-yr frequency. During this design, we will affirm—through HEC-RAS modeling—that the key hydraulic parameters, such as the hydraulic jump location, Froude Number, and velocities for the design storm frequencies are calculated and documented. Using this information, D&K will locate and size the SAF based on USACE basin geometry criteria.
 - Using SITES, affirm and document scour and head cutting under RCC-lined conditions and confirm the design applicability to address and resolve all spillway integrity concerns.
 - Using SITES, affirm and document the level of protection provided by the overall design and the hydraulic performance relative to NHDES and NRCS criteria for the requisite storm events.
 - Prepare a detailed H&H design report to include narrative, summary results, calculations, a hydraulic model, and applicable technical data.
4. **Conduct Intermediate Geotechnical Calculations:** D&K will complete geotechnical analyses to evaluate the proposed dam embankment configuration. The geotechnical analyses will include seepage, slope stability, and drain capacity, and filter criteria evaluations.

D&K will perform seepage analyses using the finite element modeling (FEM) module in the slope stability software Slide2 by Rocscience, Inc. The seepage analyses will establish phreatic surfaces for use in the slope stability analyses and to estimate seepage quantities for use in the drain capacity evaluation of the proposed internal drainage system. The limit equilibrium slope stability analyses will be performed using Spencer's method of slices in the slope stability software Slide2 by Rocscience, Inc. The

upstream and downstream slope stability analyses will evaluate the proposed dam embankment configuration under steady state, flood surcharge, rapid drawdown, seismic, and construction conditions in accordance with TR-60.

Seismic slope stability analyses will include pseudostatic, post-earthquake, and deformation analyses performed in general accordance with the draft NRCS Seismic Analysis Manual for Dams Final Submittal (September 2014). If an acceptable factor of safety is not achieved for the pseudostatic or post-earthquake analyses, Newmark deformation analyses will be completed using data from a minimum of five representative earthquakes to estimate the maximum amount of deformation that may occur to the dam embankment as a result of the design seismic event.

The D&K team will perform drain capacity analyses to confirm that the proposed internal drainage system is able to adequately convey the anticipated seepage to the final discharge points. The filter criteria evaluations will be performed to confirm the proposed filter and drain material gradations meet the required filter criteria as outlined in Chapter 26 of NEH Part 633, "Gradation Design of Sand and Gravel Filters".

D&K will prepare an embankment and foundation analysis report and submit it to NHDES. The report will summarize D&K's methods and results of the seepage, slope stability, drain capacity, and filter criteria analyses. The embankment and foundation analysis report will include the D&K team's conclusions and recommendations for the rehabilitation design based on the results of the geotechnical analyses. D&K will include the complete calculations for the geotechnical analyses as appendices to the embankment and foundation analysis report.

5. **Conduct Structural Calculations:** D&K will prepare structural calculations, such as stability of the principal spillway riser repairs, outlet conduit, headwall, and impact basin. To the extent applicable, the D&K team will utilize the following calculations:
 - RCC auxiliary spillway design (RCC mix design, general spillway layout, and features)
 - RCC step face, RCC underdrain, and layout
 - Principal Spillway Design (riser repairs, conduit extension, and impact basin)
 - Stability berm design

6. **Initiate Draft Intermediate (50%) Drawings:** As the sizing of the RCC structure, stability berm, and other rehabilitation elements are developed, D&K will begin preparing the 50% drawings. We will develop the geometry and layout of the auxiliary spillway, outlet structure, stability berm, cut and fill limits, and related work in specific engineering detail in order to facilitate a field check of the work (see task 7).

7. **Conduct Field Check of Draft 50% Design Drawings:** D&K will conduct a field review of the intermediate design and drawings. This will include a field review of the location and elevations of the proposed RCC structure in the auxiliary spillway, the stability berm, relocated outlet impact basin, general cut-and-fill limits, and related work. D&K will provide NHDES with a minimum 3-week notice of the field work and invite appropriate officials to review the laid-out work for discussion and concurrence.

The D&K team will conduct the field check to confirm that the proposed improvements will layout as anticipated and to reduce any unexpected issues as the project advances through design and into construction. With the support of D&K's surveyor, our Project Manager and Engineer will set grade stakes (with cut/fill markings to finished grade) and other field markers of key elements, such as center and edge lines of the RCC auxiliary spillway, approximate cut and fill limits, and the (above-water) footprint of the stability basin. Any modifications to the plans will be made during this stage so that D&K is confident that the improvements can be constructed as designed and meet the structure's design objectives.

8. **Complete Intermediate (50%) Design Drawings:** D&K will develop construction drawings to meet appropriate NRCS and NHDES technical standards and current engineering practices. The drawings will be revised and updated based on the field check, and the remaining drawings will be developed in accordance with the NHDES Scope of Work.

The Intermediate (50%) Drawings will clearly identify the layout, dimensions, and features of all of the project's improvements. Based on our current NRCS dam rehabilitation experience, D&K expects the Baker River Site 8 Dam Preliminary Planset to include the following drawings:

- Cover Sheet with project location map and list of engineering drawings
- Drawing Index
- General Notes, Symbols, and Abbreviations
- Existing Conditions Plan
- Utility Plan
- Auxiliary Spillway Existing Plan
- Ingress and egress routes for construction
- Horizontal and Vertical Survey Control sheet
- Geotechnical Soil Boring Locations and Logs Sheet
- Borrow Locations and Details
- Clearing and Grubbing Plans
- Contractor Work Areas, including Staging Areas for Equipment and Materials Proposed Conditions Plan
- Auxiliary Spillway Proposed Site Plan

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- Auxiliary Spillway Layout & Control Plan
- Auxiliary Spillway Sections (3-4 sheets)
- Auxiliary Spillway Details
- Auxiliary Spillway Drain Details
- Embankment and Principal Spillway Plan
- Dam Design Sections (3-4 sheets)
- Dam Longitudinal Profile
- Internal Drain Profiles
- Internal Drain Details
- Earthworks Details
- Erosion and Sediment Control plans (2-3 sheets)
- Erosion and Sediment Control Details (2-3 sheets)
- Erosion and Sediment Control Sequence
- Existing Structural Conditions
- Impact Basin Existing Conditions, Plan, Section, and Elevation
- Principal Spillway Conduit Extension Sections
- Impact Basin Structural Plan (2 sheets)
- Reinforcing Steel Schedule
- Structural Plans and Notes
- Standard Civil Details

9. **Prepare Intermediate (50%) Technical Specifications:** D&K will prepare a Construction and Material Specification List as part of the 50% design effort.

10. **Prepare Intermediate (50%) complete Opinion of Probable Cost:** D&K will prepare a Intermediate Opinion of Probable Construction Cost as part of the 50% design effort.

11. **Preliminary Engineering Design Report:** D&K will compile all of the above information into a Preliminary Design Report. This PDF report is expected to include:

- Cover Sheet
- Table of Contents
- Project Description & Project Objectives
- Basis of Design
- Hydrology
- Hydraulic Design and Proportioning
- Geotechnical Design
- Environmental Considerations

- Permitting
- Staging and Erosion and Sediment Control Plan
- Preliminary Structural Design Calculations
 - RCC Auxiliary Spillway Design (RCC mix design, general spillway layout and features, RCC step face, and RCC underdrain and layout)
 - Principal Spillway Design (riser repairs, conduit extension, and impact basin)
 - Stability Berm Design
- Intermediate (50%) Design Drawings
- Material and Technical Specification List
- Preliminary Construction Schedule
- Construction Cost Estimate
- Closing

Phase II–Submittals and NHDES Review and Response Process: D&K will submit all work under this phase electronically to NHDES in formats compatible with Microsoft Word 2016 format (.docx), and construction drawings will be submitted in PDF. Autodesk Civil 3D 2020-compatible drawings will be available upon request.

III. Phase III–Draft Final (90%) Engineering Design: D&K will advance Phase III only after NHDES has approved the Intermediate (50%) Design Report. Phase III work will advance the Intermediate (50%) Design to a draft Final (90%) Design level of completion.

D&K understands that the level of detail and completion of the 90% plans shall be considered final, such that if NHDES has no technical review comments, D&K's Engineer of Record will be prepared to seal the final design (plans, specifications, cost, calculations, etc.) and consider the documents bid-ready.

D&K will develop the draft Final Design in accordance with the NHDES provided Statement of Work and as outlined below. Key components in this phase include preparation of the final construction plans, technical and material specifications, Opinion of Probable Cost, Basis of Design calculations, and a draft Final Design Report.

6. **Address all NHDES and NRCS-NH Review Comments:** The first task is to address all applicable 50% design review comments and update the documents accordingly. D&K will address, in writing, all design document comments and incorporate the comments into the draft Final (90%) Plans, technical specifications, and associated documents.
7. **Final Design Calculations:** All design calculations will be finalized, formatted and compiled in this task. Examples include geotechnical slope stability, structural strength, and RCC and embankment filter calculations, following NRCS Technical References and, when appropriate, national standards such as

the Army Corps of Engineers. All calculations will be signed and dated by the designer and also by the checking engineer.

8. **Final (90%) Construction Drawings:** The draft Final planset will include all of the drawings listed under Phase II and additional detail sheets as required to reflect the final level of completion details.
9. **Final (90%) Material and Construction Technical Specifications:** D&K will prepare Material and Construction Technical Specifications for the project in accordance with NRCS's standard process.
 - a. Construction specifications (CS) will be based on the NRCS National Standard Construction Specification, Part 642 National Engineering Handbook. Each individual specification section (i.e., CS 94-Contractor Quality Control) will be augmented, as needed, using special provisions at the end of each standard spec.
 - b. Similarly, Material Specifications (MS) will be based on NRCS's National Standard Material Specification, Part 642, National Engineering Handbook and modified using special provisions as needed.
5. **Final (90%) Opinion of Probable Cost:** D&K will prepare a final Opinion of Probable Cost. This will be a itemized cost estimate which will be consistent with the Bid Schedule.
 - Individual project item quantities will be calculated and used in the estimate. Quantity calculations will be prepared for each item with sufficient detail to document the basis of the calculation and for use during construction, if necessary, to compare against any changed field conditions.
 - Unit prices for each pay item will be selected based on current bid history specific for New Hampshire and the immediate region. Unit prices will account for the magnitude of each estimated quantity.
 - The estimate will be tabulated in a clear and usable standard itemized spreadsheet format to allow for direct review by NHDES.
 - Where appropriate, work items, particularly for lump sum and subsidiary items, will be broken out and identified such that the bidding contractors have a clear understanding of all required work under each pay item.

6. **Bid Schedule:** D&K will prepare a Bid Schedule for the project. The schedule will mirror the items in the construction cost estimate and will be suitable for use as the bid form during advertising for construction. The Bid Schedule will include: 1) Bid Item Number, 2) Item Description, 3) Specification Number Reference, 4) Quantity, 5) Unit, 6) Unit Price, and 7) Total Cost. Primary sub-items will also be delineated in the schedule.
7. **Final Construction Performance Schedule:** D&K will prepare an Engineer's construction performance schedule. This schedule will be itemized and based on a Critical Path method using Microsoft Projects. The schedule will include primary and secondary construction milestones and will account for meetings, reservoir drawdown, earth and concrete works, final site restoration, and project closeout.
8. **Final Soils/Geologic Investigation Report:** The geological and geotechnical design will be finalized under this task. Final design calculations, such as slope stability, filter and foundation drains, borrow areas and related engineering, will be completed, checked, compiled, and included in the Final Design Report.
9. **Final Construction Quality Assurance Plan (QAP):** D&K will prepare a Field Construction Quality Assurance Plan (QAP) as part of the final design phase. The QAP will provide specifics regarding field inspections, laboratory and field materials testing, documentation and certifications, Record Drawings, quantities, and related items.
10. **Operations and Maintenance (O&M) Plan:** An Operations and Maintenance plan (O&M) for use by the owner will be prepared in Microsoft Word. A project-specific checklist will be prepared to itemize each area of operations and maintenance. The O&M will identify annual and routine maintenance issues, such as embankment mowing, tree maintenance, and measurement of toe drain discharge. The O&M will also include inspection requirements following unusual or infrequent loading events, such as major floods, seismic, ice, and others.
11. **Prepare Final Design Report Folder:** D&K will prepare and compile a Final Design Report Folder to include Items 2 through 10 above and the Final Design Report. The Report will be prepared in accordance with requirements indicated in the Statement of Work and all associated and referenced NRCS documents. This will be a detailed, comprehensive engineering report that summarizes and compiles the work identified above.
12. **Phase III: National Design, Construction & Soil Mechanic Center Review:** The Phase III 90% review also includes submissions to the NRCS National Design, Construction, and Soil Mechanics Center (NDCSMC) for review and comment. While the coordination is normally conducted by the state

NRCS, D&K is prepared to assist and facilitate the process. We have recent and direct experience coordinating with NDCSMC for our other NRCS dam rehabilitation projects.

Phase III Submittals and NHDES Review and Response Process: D&K will submit all work under this phase in an electronic version to NHDES and NRCS. Electronic data will be submitted in formats compatible with Microsoft Word 2016 format (.docx), and construction drawings will be submitted in PDF. Autodesk Civil 3D 2020-compatible drawings will be available upon request.

The deliverables for Phase III are identified above, under items 2 through 11. The deliverables will be compiled into a professionally prepared Final Design Report Folder.

IV. Phase IV—Final Engineering Design and Bid Documents: During Phase IV and following NHDES approval of the draft Final (90%) Design Report, D&K will advance the final engineering design and develop the bid documents to include addressing the 90% review comments received from NHDES. Our team will develop the Final Design (100%) documents in accordance with the NHDES Statement of Work and as outlined below.

1. Address and incorporate NHDES, NRCS-NH, and NRCS-NDCSMC comments from the draft final (90%) engineering design submission. D&K will document, in writing, the resolution of all final revisions.
2. The final design deliverables will include updated Preliminary Design deliverables and the following: (All final engineering documents will be sealed by D&K's Design Engineer of Record/NH-licensed professional engineer and by the technical lead engineers.)
 - a. Final (100%) Construction Drawings: The final plan set will include all of the drawings listed under Phase II and additional detail sheets as required to reflect the final level of completion details.
 - b. Final (100%) Construction and Material Specifications: The final specifications will include a complete listing of the required construction and material specification sections per NRCS National Standard Construction and Material Specifications, Part 642 National Engineering Handbook.
 - c. Final Opinion of Probable Construction Cost
 - d. Quantity calculations of all major project items
 - e. Bid Schedule
 - f. Construction Performance Schedule
 - g. Soils/Geologic Investigation Report
 - h. Construction Quality Assurance Plan (QAP)
 - i. Operations and Maintenance Plan
 - j. Final Design Folder: D&K will prepare the Final Design Report Folder in accordance with requirements indicated in the Statement of Work and all associated and referenced NRCS documents.

Phase IV Submittals and NHDES Review and Response Process: D&K will submit all work under this phase in an electronic version to NHDES and NRCS. Electronic data will be submitted in formats compatible with Microsoft Word 2016 format (.docx), and construction drawings will be submitted in PDF. Autodesk Civil 3D 2020-compatible drawings will be available upon request.

V. Meetings and Conferences: In consultation with NHDES, D&K will schedule, announce, facilitate, coordinate, attend, and provide follow-up documentation for the meetings and conferences as outlined in the NHDES Statement of Work as outlined below. Meetings will be in person at the offices of NHDES in Concord, NH, unless otherwise stated herein or at other locations agreed to by NHDES and D&K. Conferences may be in person or via tele/video conference based on the content that needs to be shared and discussed. NHDES may review and concur with work in writing if NHDES determines the work does not require a meeting or conference.

D&K will prepare minutes of all meetings and conferences summarizing discussions, and agreed-upon decisions and action items. We will provide a copy of the minutes to NHDES within seven calendar days of the meeting/conference.

1. Meetings:

- Internal—During the course of the work detailed in this Scope of Work, D&K will hold five internal meetings with NHDES in accordance with the specified time frames listed below.
- Project Kickoff—The project kickoff meeting will be used to get acquainted, discuss the details of the contract, review examples and guidance, develop a mutual understanding with NHDES regarding the scope of work, provide an opportunity for NHDES Staff and D&K to become familiar with the personnel involved in the project, and discuss day-to-day working arrangements and any items of concern. Per the NHDES Statement of Work, this meeting will be by videoconference.
- Phase I—The Phase I meeting shall be held prior to the completion of Phase I. The purpose of the meeting is to review project status and discuss any issues, problems, and opportunities identified during the inventory and analysis tasks. Per the NHDES Statement of Work, this meeting will be by video teleconference.
- Phase II—D&K will coordinate and hold this meeting after a review of the intermediate design has been completed by NHDES and NRCS. NHDES will provide D&K with a full list of comments from the review prior to the meeting. This meeting will be by video teleconference.

- Phase III—After the NHDES and NRCS-NH complete their review of the preliminary final design, D&K will organize and hold the Phase III meeting. NHDES will provide D&K with a full list of comments from the review prior to the meeting. Per the NHDES Statement of Work, this meeting will be by video teleconference.
- Phase IV—D&K will coordinate a Phase IV meeting after NHDES and NRCS-NH have reviewed the final design. Prior to the meeting, NHDES will provide D&K with a full list of comments from the review. Per the NHDES Statement of Work, this meeting will be by video teleconference.
- External—D&K understands that NHDES will initiate external meetings as needed. D&K will attend external meetings as needed to collect and impart information that is relevant to the project. NHDES will provide D&K with notes or minutes of an external meeting within ten calendar days of the meeting.
- Meeting Dates—D&K will coordinate with NHDES and set the meeting dates. D&K shall notify NHDES of the date, time, and location of the meeting at least fourteen calendar days in advance of each meeting. Seven calendar days in advance of each meeting, D&K will provide NHDES with a draft agenda, any draft presentations, and/or other materials for review prior to the meeting.

2. Conferences: D&K will coordinate with NHDES and be responsible for the scheduling and arrangements for project for conferences for the following purposes:

- Project Update—D&K will hold monthly conferences to keep NHDES informed on the progress of completing project phases and subsidiary items. D&K will submit draft agendas, presentations, and materials to NHDES at least seven calendar days prior to conferences. Per the NHDES Statement of Work, these will be video teleconferences.
- "As-needed"—D&K, NHDES, or NRCS may request conferences to discuss issues related to the project, work previously performed, and decisions made in order to expedite the completion of the contract. Per the NHDES Statement of Work, these conferences will be by video teleconference.

VI. Progress Reports: D&K will email a progress report to NHDES by the close of business on the last Friday of each month. D&K will include the following in the progress report.

1. Activities accomplished during the previous month
2. Problems, issues, or concerns encountered in the development of the design actions planned for the next month.

TABLE B-1

Dubois & King, Inc.
 Baker Dam Rehabilitation Design
 Labor & Fee Summary

prepared by: J. Tucker, P.E.
 date: 7/8/22

Item No.	Task Descriptions	Total Fee	Labor Fees	Labor Hours	Subconsultants & Expenses
Phase I - Data Collection and Evaluation					
I.1	Kick-off Meeting	\$ 2,025	\$ 2,025	12	\$ -
I.2	Plan of Work	\$ 8,379	\$ 8,379	52	\$ -
I.3	Field Surveys and Mapping	\$ 24,627	\$ 22,694	166	\$ 1,933
I.4.a	Geologic and Geotechnical Investigation Plan	\$ 176,728	\$ 58,102	499	\$ 118,626
I.4.b	Identify Physical Site Constraints	\$ 24,556	\$ 24,556	177	\$ -
	Total Phase I	\$ 236,315	\$ 115,756	906	\$ 120,559
Phase II - Intermediate (50%) Engineering Design					
II.1	Affirm Major Design Elements of the Preferred Alternative	\$ 170	\$ 170	1	\$ -
II.2	Design Calculations: Establish & Document Design Criteria	\$ 2,368	\$ 2,368	15	\$ -
II.3	Hydrologic & Hydraulic Modeling & Size RCC and Stilling Basin Structures	\$ 36,558	\$ 36,558	304	\$ -
II.4	Conduct Intermediate Geotechnical Calculations	\$ 47,462	\$ 47,462	355	\$ -
II.5	Conduct Structural Calculations	\$ 31,567	\$ 31,567	261	\$ -
II.6	Initiate Draft Intermediate (50%) Drawings	\$ 24,500	\$ 24,500	204	\$ -
II.7	Conduct Field Check of draft 50% Design Drawings	\$ 7,470	\$ 7,169	60	\$ 301
II.8	Complete Intermediate (50%) Design Drawings	\$ 110,891	\$ 110,891	908	\$ -
II.9	Prepare Intermediate (50%) Technical Specifications	\$ 3,744	\$ 3,744	23	\$ -
II.10	Prepare Intermediate (50%) Opinion of Probable Cost	\$ 13,718	\$ 13,718	112	\$ -
II.11	Preliminary Engineering Design Report	\$ 12,048	\$ 11,902	88	\$ 146
	Total Phase II	\$ 290,497	\$ 290,049	2,331	\$ 447
Phase III - Draft Final (90%) Engineering Design					
III.1	Address all NHDES and NRCS-NH Review Comments	\$ 42,963	\$ 42,963	321	\$ -
III.2	Draft Final Design Calculations	\$ 22,103	\$ 22,103	153	\$ -
III.3	Draft Final (90%) Construction Drawings	\$ 100,695	\$ 100,695	798	\$ -
III.4	Draft Final (90%) Material & Construction Technical Specifications	\$ 23,670	\$ 23,670	172	\$ -
III.5	Draft Final (90%) Opinion of Probable Cost	\$ 11,018	\$ 11,018	84	\$ -
III.6	Bid Schedule	\$ 5,282	\$ 5,282	32	\$ -
III.7	Final Construction Performance Schedule	\$ 5,282	\$ 5,282	32	\$ -
III.8	Final Soils / Geologic Investigations Report	\$ 6,366	\$ 6,366	44	\$ -
III.9	Final Construction Quality Assurance Plan	\$ 3,482	\$ 3,482	20	\$ -
III.10	Operations and Maintenance (O&M) Plan	\$ 3,482	\$ 3,482	20	\$ -
III.11	Prepare Final Design Report Folder	\$ 9,341	\$ 9,210	68	\$ 131
III.12	Phase III: National Design, Construction & Soil Mechanic Center Review	\$ 1,317	\$ 1,317	9	\$ -
	Total Phase III	\$ 235,001	\$ 234,870	1753	\$ 131
Phase IV - Final (100%) Engineering Design					
IV.1	Address & incorporate NDCS/MCR & NHDES 90% Review comments	\$ 54,881	\$ 54,881	408	\$ -
IV.2	Prepare 100% Construction Documents	\$ 75,049	\$ 74,561	571	\$ 488
	Total Phase IV	\$ 129,930	\$ 129,443	979	\$ 488
Phase V - Meetings and Conferences					
V.1	Meetings	\$ 22,728	\$ 22,728	132	\$ -
V.2	Conferences	\$ 21,848	\$ 21,848	126	\$ -
	Total Phase V	\$ 44,576	\$ 44,576	258	\$ -
	Total All Phases	\$ 936,319	\$ 814,694	6,227	\$ 121,625

Dobbs & King, Inc.
 Suber & Dorn Rehabilitation Design
 Phase 1 - Data Collection and Evaluation

Date: 1/17/77

Item No.	Task Description	Dobbs & King, Inc.				Dobbs & King, Inc. Position Classification																				
		Total Fee	Labor Price	Labor Hours	Subcontract Expenses	Project	Project	Supervisor	Supervisor	Supervisor	Structural	Structural	Structural	Structural	Structural	Structural	Structural	Structural	Structural	Structural	Structural	Structural	Structural			
						Pl-7	Pl-7	Pl-7	Pl-7	Pl-7	Pl-5	Pl-5	Pl-5	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4	Pl-4
Phase 1 - Data Collection and Evaluation																										
1.1	Site-off Meeting																									
1.a	Coordinate & attend	\$ 1,750	\$ 1,750	0	\$		4		2	2																
1.b	Prepare & distribute meeting notes	\$ 675	\$ 675	4	\$		2		1	1																
	Subtotal: Site-off Meeting	\$ 2,425	\$ 2,425	12	\$																					
Phase 2 - Plan of Work																										
2.a	Prepare Project Work Schedule	\$ 1,345	\$ 1,345	8	\$		8		2	1	1															
2.b	Prepare Plan of Work Narrative	\$ 1,345	\$ 1,345	8	\$		8		2	1	1															
2.c	Estimate labor hours for each task	\$ 1,774	\$ 1,774	12	\$		8		2	1	1															
2.d	Prepare Preliminary Engineer's Estimate for the Cost of Construction	\$ 1,345	\$ 1,345	8	\$		8		2	1	1															
2.e	Submit draft Plan of Work for review & comments	\$ 905	\$ 905	4	\$		2		1	1																
2.f	Address review comments	\$ 1,240	\$ 1,240	10	\$		8		2	1	1															
2.g	Submit final Plan of Work to MPOD	\$ 905	\$ 905	4	\$		2		1	1																
	Subtotal: Plan of Work	\$ 6,270	\$ 6,270	32	\$																					
Phase 3 - Field Surveys and Mapping																										
3.a	Topographic Survey	\$ 9,530	\$ 9,561	50	\$ 590																					
3.b	Reference Survey	\$ 2,214	\$ 2,210	12	\$																					
3.c	Base Map Preparation	\$ 3,830	\$ 3,830	24	\$																					
3.d	Prepare Survey Report (field notes, map etc., sketches, etc.)	\$ 2,991	\$ 2,991	14	\$																					
3.e	GNVC Review	\$ 4,130	\$ 3,807	20	\$																					
3.f	Submit draft Survey Report for review & comments	\$ 517	\$ 517	4	\$																					
3.g	Address review comments	\$ 1,415	\$ 1,415	10	\$																					
3.h	Submit final Survey Report to MPOD	\$ 571	\$ 571	5	\$																					
3.i	Complete and submit digital survey CAD files	\$ 375	\$ 371	5	\$ 54																					
	Subtotal: Field Surveys and Mapping	\$ 24,627	\$ 22,800	108	\$ 1,823																					
Phase 4 - Geologic and Geotechnical Investigation																										
4.a	Geologic and Geotechnical Investigation Plan	\$ 1,277	\$ 1,277	14	\$																					
	Outline and develop field drilling and soil laboratory testing plan of MPOD	\$ 930	\$ 930	7	\$																					
	Coordinate and schedule field drilling	\$ 99,777	\$	0	\$ 99,777																					
	Drilling Contractor	\$ 12,261	\$ 26,840	132	\$ 15,621																					
	Engineering field observations of field drilling & test sites	\$ 24,975	\$ 1,787	13	\$ 13,210																					
	Prepare Geologic and Geotechnical Investigation Report	\$ 10,677	\$ 10,677	65	\$																					
	Submit draft Report for review & comments	\$ 130	\$ 130	7	\$																					
	Address review comments	\$ 4,611	\$ 4,611	26	\$																					
	Submit final Geotechnical Investigation Report	\$ 774	\$ 774	5	\$																					
	Subtotal: Geologic and Geotechnical Investigation Plan	\$ 176,278	\$ 36,382	499	\$ 118,896																					
Phase 5 - Identify Physics of Site Conditions																										
5.a	Identify Physics of Site Conditions	\$ 2,287	\$ 2,287	17	\$																					
	Estimate material properties of existing settlement material and foundation conditions	\$ 2,287	\$ 2,287	17	\$																					
	Estimate material properties of existing auxiliary systems material and foundation conditions	\$ 2,287	\$ 2,287	17	\$																					
	Estimate material properties of proposed fill materials	\$ 2,287	\$ 2,287	17	\$																					
	Provide interpretation and write settlement differential	\$ 2,287	\$ 2,287	17	\$																					
	Provide civil engineering proposal for settlement class and site	\$ 2,287	\$ 2,287	17	\$																					
	Prepare draft Geotechnical Interpretation and Conclusion Report	\$ 5,961	\$ 5,961	43	\$																					
	Submit draft Report for review & comments	\$ 2,287	\$ 2,287	17	\$																					
	Address review comments	\$ 2,287	\$ 2,287	17	\$																					
	Submit final Geotechnical Interpretation and Conclusion Report	\$ 2,287	\$ 2,287	17	\$																					
	Subtotal: Identify Physics of Site Conditions	\$ 24,900	\$ 24,900	177	\$																					
TOTAL																										
Total Labor Hours:		0	00	12	150	8	7	7	7	7	0	516	11	0	20	64	47	0								
Subtotal Hourly Rates:		\$170.00	\$170.00	\$165.14	\$170.00	\$165.00	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	\$174.62	
Labor Fees:		\$0.00	\$11,710.00	\$1,081.68	\$25,600.00	\$1,230.00	\$2,492.24	\$2,492.24	\$2,492.24	\$2,492.24	\$0.00	\$33,266.76	\$1,178.21	\$0.00	\$2,242.40	\$11,634.48	\$4,740.36	\$122.34	\$0.00							

Contractor Initials JwT
 Date 7/19/2022

Dubois & King, Inc.
 Baker & Dam Rehabilitation Design
 Phase I - Data Collection and Evaluation

Item No.	Task Descriptions	Total Fee	Dubois & King, Inc.		Subcontractor Expenses	Dubois & King, Inc. Position Classification																		
			Labor Fees	Labor Hours		Project Principal & QA/QC	Project Manager	Supervisory Engineer (Structures)	Supervisory Engineer (Geotech)	Supervisory Engineer (H&H/Chill)	Structural Engineer	Geotech Engineer	H&H/Chill Engineer	Structural Engineer	Geotech Engineer	H&H/Chill Engineer								
						PL-7	PL-7	PL-7	PL-7	PL-7	PL-5	PL-5	PL-5	PL-4	PL-4	PL-4								
Phase I - Data Collection and Evaluation																								
Reimbursable Expenses																								
I. Travel:																								
	Survey Vehicles								600 Miles@	\$0.500 /Mile =	\$348													
	Staff Vehicles							1,950 Miles@	\$0.500 /Mile =	\$1,131														
	Rental Vehicles							0 @ \$75.00	\$75,000 /Mile =	\$0														
	Travel Air/Ground/Parking								Allowance =															
	Partial Per Diem							5 Days@	\$10.00 /Day =	\$50														
	Full Per Diem							20 Days@	\$50.00 /Day =	\$1,500														
	Hotel							30 Days@	\$100.00 /Day =	\$3,000			Travel Subtotal =	\$6,029										
II. Support Expenses																								
	Drawings (11 x 17)							0 sheets	\$0.35 sheet	\$0														
	Specs / Design Folder							20 sheets	\$0.20 sheet	\$4														
	8 1/2 x 11 paper							0 sheets	\$0.20 sheet	\$0														
	8 1/2 x 14 paper							0 sheets	\$0.22 sheet	\$0														
										\$0			Support Subtotal =	\$4										
III. Subcontractors																								
									Allowance for compaction testing and concrete testing =	\$0														
									Geotechnical Drilling =	\$99,777														
									Geotechnical Laboratory Testing =	\$13,218			Subtotal =	\$112,995										
IV. Equipment																								
									Computer Charges =	\$0														
									Plotting Charges =	\$0														
									GPS Equipment (GPS) =	\$200														
									Miscellaneous =	\$200			Subtotal =	\$400										
											Total Reimbursable Expenses = \$119,429													
<table border="1"> <tr> <td colspan="2">Fee Summary:</td> </tr> <tr> <td>Total Labor Fees =</td> <td>\$ 619,950</td> </tr> <tr> <td>Total Support Expenses =</td> <td>\$ 12,976</td> </tr> <tr> <td>Total Reimbursable Expenses =</td> <td>\$ 119,429</td> </tr> <tr> <td>Total Contract Price =</td> <td>\$ 743,355</td> </tr> </table>															Fee Summary:		Total Labor Fees =	\$ 619,950	Total Support Expenses =	\$ 12,976	Total Reimbursable Expenses =	\$ 119,429	Total Contract Price =	\$ 743,355
Fee Summary:																								
Total Labor Fees =	\$ 619,950																							
Total Support Expenses =	\$ 12,976																							
Total Reimbursable Expenses =	\$ 119,429																							
Total Contract Price =	\$ 743,355																							

Odeh & Elg, Inc.
Sakar Dam Rehabilitation Design
Phase 0 - Intermediate (50%) Engineering Design

doc. 17/22

Item No.	Task Description	Odeh & Elg, Inc.			Sub E Expenses	Odeh & Elg, Inc. Position Classification														V.P. 2021			
		Total Fee		Labor Hours		Project Principal & QAVC	Project Manager	Supervisory Engineer (Structural)	Supervisory Engineer (Geotech)	Supervisory Engineer (MSW/Chill)	Structural Engineer	Geotech Engineer	MSW/Chill Engineer	Structural Engineer	Geotech Engineer	MSW/Chill Engineer	Structural Engineer	Chill Engineer	Licensee Lead Engineer	Senior Engineer	Senior Technician	Senior Designer	Senior Checker
		Labor Fees	Overhead																				
Phase 0 - Intermediate (50%) Engineering Design																							
R.1	Admin Major Design Elements of the Preferred Alternative	\$ 170	\$ 170	1																			
	Subtotal:	\$ 170	\$ 170	1																			
R.2	Design Calculations: Location & Document Design Criteria																						
	MSW	\$ 340	\$ 340	2																			
	Structural	\$ 838	\$ 838	6																			
	Geotechnical	\$ 1,020	\$ 1,020	6																			
	QAVC	\$ 170	\$ 170	1																			
	Subtotal:	\$ 2,368	\$ 2,368	15																			
R.3	Hydrologic & Hydraulic Modeling & Flow RCC and Stilling Basin Structures																						
	Review hydrology	\$ 1,687	\$ 1,687	13																			
	Update spreadsheet for surface	\$ 1,687	\$ 1,687	13																			
	Prepare HECRAS model	\$ 2,401	\$ 2,401	20																			
	Conduct HECRAS runs to establish RCC flow ALU	\$ 2,401	\$ 2,401	20																			
	Review ALU clearance and exit locations	\$ 1,687	\$ 1,687	13																			
	Analysis & review tailwater conditions	\$ 2,401	\$ 2,401	20																			
	Update HECRAS model for revised ALU and hydrology conditions	\$ 2,401	\$ 2,401	20																			
	Run required hydrographs (FHM, ASH, PSH, Z-SuQDQ)	\$ 2,401	\$ 2,401	20																			
	HECRAS model of SAF stilling basin	\$ 2,401	\$ 2,401	20																			
	Use HECRAS to confirm head cutting	\$ 1,687	\$ 1,687	13																			
	Prepare MSW design report	\$ 2,774	\$ 2,774	23																			
	QAVC	\$ 1,218	\$ 1,218	10																			
	Subtotal:	\$ 26,558	\$ 26,558	204																			
R.4	Conduct Intermediate-Geotechnical Calculations																						
	Conduct bearing capacity analysis through embankment	\$ 8,509	\$ 8,509	65																			
	Conduct slope stability analysis of embankment	\$ 11,001	\$ 11,001	85																			
	Conduct drain capacity & permeability analysis	\$ 8,509	\$ 8,509	65																			
	QAVC	\$ 8,238	\$ 8,238	57																			
	Prepare Embankment & Foundation Analysis Report	\$ 11,706	\$ 11,706	83																			
	Subtotal:	\$ 47,962	\$ 47,962	355																			
R.5	Conduct Structural Calculations																						
	RCC ALU stability design	\$ 6,252	\$ 6,252	53																			
	RCC Stop Inlet, under drain & layout	\$ 6,252	\$ 6,252	53																			
	Finalized Stillway Design	\$ 6,252	\$ 6,252	53																			
	QAVC	\$ 6,559	\$ 6,559	49																			
	Stability berm design	\$ 6,252	\$ 6,252	53																			
	Subtotal:	\$ 31,567	\$ 31,567	261																			
R.6	Initial Draft Intermediate (50%) Drawings																						
	Develop ALU plan layout	\$ 6,125	\$ 6,125	51																			
	Develop SAF plan layout	\$ 6,125	\$ 6,125	51																			
	Develop Stability Berm plan layout	\$ 6,125	\$ 6,125	51																			
	Develop Can & PS Layout Plan layout	\$ 6,125	\$ 6,125	51																			
	Subtotal:	\$ 24,500	\$ 24,500	204																			
R.7	Conduct Field Check of draft 50% Design Drawings																						
	Field Station	\$ 3,178	\$ 3,091	26																			
	Field review of HECRAS	\$ 1,242	\$ 1,228	8																			
	Modify Plan Layout as Required	\$ 3,051	\$ 3,051	26																			
	Subtotal:	\$ 7,471	\$ 7,370	60																			
R.8	Complete Intermediate (50%) Design Drawings																						
	Prepare 50% plans	\$ 53,361	\$ 53,361	451																			
	Design Team QAVC	\$ 27,765	\$ 27,765	227																			
	Update 50% plans	\$ 27,765	\$ 27,765	227																			
	Subtotal:	\$ 110,091	\$ 110,091	905																			
R.9	Prepare Intermediate (50%) Technical Specifications																						
	Prepare detailed Specification Outline	\$ 2,530	\$ 2,530	15																			
	Design Team QAVC	\$ 1,214	\$ 1,214	8																			
	Subtotal:	\$ 3,744	\$ 3,744	23																			
R.10	Prepare Intermediate (50%) Outline of Probable Cost																						
	Identify Bid Form / P&M Items	\$ 1,250	\$ 1,250	11																			
	Complete Quantities	\$ 5,651	\$ 5,651	51																			
	Assemble Unit Prices & CPC	\$ 3,081	\$ 3,081	27																			
	Design Team QAVC	\$ 1,126	\$ 1,126	23																			
	Subtotal:	\$ 11,108	\$ 11,108	112																			
R.11	Preliminary Engineering Design Report																						
	Write Narrative	\$ 3,101	\$ 3,101	19																			
	Compile Preliminary Design Information into Report format	\$ 2,533	\$ 2,533	17																			
	Design Team QAVC	\$ 1,510	\$ 1,510	9																			
	Finalize Design Report	\$ 2,904	\$ 2,904	23																			
	Subtotal:	\$ 12,048	\$ 12,048	68																			

Contractor Initials *JW*
Date *7/19/2022*

Dubois & King, Inc.
Baker Dam Rehabilitation Design
Phase II - Intermediate (50%) Engineering Design

Item No.	Task Descriptions	Total Fee	Dubois & King, Inc.		Subs & Expenses	Dubois & King, Inc. Position Classification										
			Labor Fees	Labor Hours		Project Principal & QA/QC	Project Manager	Supervisory Engineer (Structures)	Supervisory Engineer (Geotech)	Supervisory Engineer (H&M/Civil)	Structural Engineer	Geotech Engineer	H&M/Civil Engineer	Structural Engineer	Geotech Engineer	H&M/Civil Engineer
						PL-7	PL-7	PL-7	PL-7	PL-6	PL-5	PL-5	PL-5	PL-4	PL-4	PL-4
Phase II - Intermediate (50%) Engineering Design																
Reimbursable Expenses																
	I. Travel:															
	Survey Vehicles					150 Miles@		\$0.580 /Mile =		\$87						
	Staff Vehicles					500 Miles@		\$0.580 /Mile =		\$174						
	Rental Vehicles					0 Miles@		\$75.00 /day =		\$0						
	Travel-Air/Ground/Parking							Allowances								
	Partial Per Diem					4 Days@		\$10.00 /Day =		\$40						
	Full Per Diem					0 Days@		\$55.00 /Day =		\$0						
	Hotel					0 Days@		\$110.00 /Day =		\$0				Travel Subtotal =	\$301	
	II. Support Expenses															
	Drawings (11 x 17)					75 sheets		\$0.35 sheet		\$26						
	Specs / Design Folder					0 sheets		\$0.20 sheet		\$0						
	8 1/2 x 11 paper					600 sheets		\$0.20 sheet		\$120						
	8 1/2 x 14 paper					0 sheets		\$0.22 sheet		\$0						
										\$0				Support Subtotal =	\$146	
	III. Subcontractors															
								Allowance for compaction testing and concrete testing =		\$0						
								Geotechnical Drilling =		\$0						
								Geotechnical Laboratory testing =		\$0				Subcontractors Subtotal =	\$0	
	IV. Equipment															
								Computer Charges =		\$0						
								Plotting Charges =		\$0						
								GPS Equipment (GPS) =		\$0						
								Miscellaneous =		\$0				Subtotal =	\$0	
											Total Reimbursable Expenses =				\$447	
											Fee Summary					
											Total Labor Fees =				\$ 250,000	
											Total Subcontractors =				\$ 0	
											Total Reimbursable Expenses =				\$ 447	
											Total Phase II Fee =				\$ 250,447	

Contractor Initials JwT
Date 7/19/2022

Dubois & King, Inc.
 Baker 8 Dam Rehabilitation Design
 Phase III - Draft Final (90%) Engineering Design

Item No.	Task Descriptions	Total Fee	Dubois & King, Inc.		Subs & Expenses	Dubois & King, Inc. Position Classification																		
			Labor Fees	Labor Hours		Project Principal & QA/QC	Project Manager	Supervisory Engineer (Structures)	Supervisory Engineer (Geotech)	Supervisory Engineer (H&M/Civil)	Structural Engineer	Geotech Engineer	H&M/Civil Engineer	Structural Engineer	Geotech Engineer	H&M/Civil Engineer								
						PL-7	PL-7	PL-7	PL-7	PL-6	PL-5	PL-5	PL-5	PL-4	PL-4	PL-4								
Phase III - Draft Final (90%) Engineering Design																								
Reimbursable Expenses																								
I. Travel:																								
	Survey Vehicles					0 Miles@		\$0.580 /Mile =		\$0														
	Staff Vehicles					0 Miles@		\$0.580 /Mile =		\$0														
	Vehicles					0 Miles@		\$0.580 /Mile =		\$0														
	Travel-Air/Ground/Parking							Allowance =																
	Partial Per Diem					0 Days@		\$6.00 /Day =		\$0														
	Full Per Diem					0 Days@		\$55.00 /Day =		\$0														
	Hotel					0 Days@		\$110.00 /Day =		\$0			Support Subtotal =	\$0										
II. Support Expenses																								
	Drawings (11 x 17)					60 sheets		\$0.35 sheet		\$21														
	Specs / Design Folder					100 sheets		\$0.20 sheet		\$20														
	8 1/2 x 11 paper					450 sheets		\$0.20 sheet		\$90														
	8 1/2 x 14 paper					0 sheets		\$0.22 sheet		\$0														
										\$0			Support Subtotal =	\$131										
III. Subcontractors																								
								Allowance for compaction testing and concrete testing =		\$0														
								Geotechnical Drilling =		\$0														
								Geotechnical Laboratory testing =		\$0			Subcontractor Subtotal =	\$0										
IV. Equipment																								
								Computer Charges =		\$0														
								Plotting Charges =		\$0														
								GPS Equipment (GPS) =		\$0														
								Miscellaneous =		\$0			Subtotal =	\$0										
Total Expenses =														\$131										
<table border="1" style="float: right; margin-top: 10px;"> <tr> <td colspan="2">Fee Summary</td> </tr> <tr> <td>Total Labor Fees</td> <td>\$ 724,000</td> </tr> <tr> <td>Total Subcontractor Fees</td> <td>\$ 0</td> </tr> <tr> <td>Total Reimbursable Expenses</td> <td>\$ 131</td> </tr> <tr> <td>Total Phase III Fee</td> <td>\$ 724,131</td> </tr> </table>															Fee Summary		Total Labor Fees	\$ 724,000	Total Subcontractor Fees	\$ 0	Total Reimbursable Expenses	\$ 131	Total Phase III Fee	\$ 724,131
Fee Summary																								
Total Labor Fees	\$ 724,000																							
Total Subcontractor Fees	\$ 0																							
Total Reimbursable Expenses	\$ 131																							
Total Phase III Fee	\$ 724,131																							

Contractor Initials *JWT*
 Date *7/19/2022*

Dubois & King, Inc.
Baker & Dam Rehabilitation Design
Phase IV - Final (100%) Engineering Design

Item No.	Task Descriptions	Total Fee	Dubois & King, Inc.		Expenses	Dubois & King, Inc. Position Classification												
			Labor Fees	Labor Hours		Project Principal & QA/QC	Project Manager	Supervisory Engineer (Structures)	Supervisory Engineer (Geotech)	Supervisory Engineer (HBH/Civil)	Structural Engineer	Geotech Engineer	HBH/Civil Engineer	Structural Engineer	Geotech Engineer	HBH/Civil Engineer	Senior Designer	Clerical
						PL-8	PL-7	PL-7	PL-7	PL-6	PL-5	PL-5	PL-5	PL-4	PL-4	PL-4	TL-1	CL
Phase IV - Final (100%) Engineering Design																		
IV.1	Address & Incorporate NOCSMCR & WHDCS 90% Review comments																	
	Update Plans	\$ 30,877	\$ 30,877	232	\$ -		16	16	16	16	24	24	24	32	32	32		
	Update Specifications	\$ 5,295	\$ 5,295	38	\$ -		8	2	2	2	4	4	4	4	4	4		
	Update OPC	\$ 4,378	\$ 4,378	34	\$ -		4	2	2	2				8	8	8		
	Update Calculations	\$ 5,842	\$ 5,842	40	\$ -		4	4	4	4	8	8	8					
	Design team QA/QC	\$ 8,489	\$ 8,489	64	\$ -		4	4	4	4	8	8	8	8	8	8		
	Subtotal:	\$ 44,881	\$ 44,881	408	\$ -													
Phase IV - Final (100%) Engineering Design																		
IV.2	Prepare 100% Construction Documents																	
	100% Construction Drawings	\$ 54,241	\$ 53,754	427	\$ 488	2	8	21	21	21	40	40	40	78	78	78		
	100% Construction & Material Specifications	\$ 5,512	\$ 5,512	38	\$ -		8	2	2	2	8	8	8					
	100% Opinion of Probable Cost	\$ 2,374	\$ 2,374	18	\$ -	2	4							4	4	4		
	Quantity calculations of all major project items	\$ 2,283	\$ 2,283	16	\$ -		8							4	4			
	Bid Schedule	\$ 1,362	\$ 1,362	10	\$ -		4							2	2	2		
	Construction Performance Schedule	\$ 1,012	\$ 1,012	8	\$ -		2							2	2	2		
	Soils/Geologic Investigation Report	\$ 2,778	\$ 2,778	18	\$ -		2		8			8						
	Construction Quality Assurance Plan	\$ 1,731	\$ 1,731	10	\$ -		4	2	2	2								
	Operations & Maintenance Plan	\$ 1,731	\$ 1,731	10	\$ -		4	2	2	2								
	Final Design Folder	\$ 2,024	\$ 2,024	16	\$ -		4							4	4	4		
	Subtotal:	\$ 75,049	\$ 74,561	571	\$ 488													
Total Labor Hours:						4	84	55	63	55	92	100	92	146	146	142	0	0
Billable Labor Rates:						\$175.10	\$175.10	\$170.09	\$175.10	\$169.95	\$128.36	\$128.36	\$128.36	\$110.32	\$110.32	\$110.32	\$73.72	\$76.21
Labor Fees:						\$780.40	\$14,708.40	\$9,351.61	\$11,027.62	\$9,341.68	\$11,846.60	\$12,873.47	\$11,846.60	\$16,061.86	\$16,061.86	\$15,670.57	\$0.00	\$0.00

Contractor Initials *JWT*
Date 7/19/2022

Dubois & King, Inc.
Baker & Dam Rehabilitation Design
Phase IV - Final (100%) Engineering Design

Item No.	Task Descriptions	Total Fee	Dubois & King, Inc.		Dubois & King, Inc. Position Classification																																																																																				
			Labor Fees	Labor Hours	Expenses	Project Principal & QA/QC	Project Manager	Supervisory Engineer (Structures)	Supervisory Engineer (Geotech)	Supervisory Engineer (H&H/Civil)	Structural Engineer	Geotech Engineer	H&H/Civil Engineer	Structural Engineer	Geotech Engineer	H&H/Civil Engineer																																																																									
						PL-8	PL-7	PL-7	PL-7	PL-6	PL-5	PL-5	PL-5	PL-4	PL-4	PL-4																																																																									
Phase IV - Final (100%) Engineering Design																																																																																									
Reimbursable Expenses																																																																																									
I. Travel:																																																																																									
	Vehicles (Item 10A)				0 Miles@		\$0.580 /Mile =		\$0																																																																																
	Vehicles (Item 10B)				0 Miles@		\$0.580 /Mile =		\$0																																																																																
	Vehicles				0 Miles@		\$0.580 /Mile =		\$0																																																																																
	Travel-Air/Ground/Parking						Allowance=																																																																																		
	Partial Per Diem				0 Days@		\$6.00 /Day=		\$0																																																																																
	Full Per Diem				0 Days@		\$55.00 /Day=		\$0																																																																																
	Hotel				0 Days@		\$110.00 /Day=		\$0				Travel Subtotal=	\$0																																																																											
II. Support Expenses																																																																																									
	Drawings (11 x 17)				250 sheets		\$0.35 sheet		\$88																																																																																
	Specs / Design Folder				1000 sheets		\$0.20 sheet		\$200																																																																																
	B 1/2 x 11 paper				1000 sheets		\$0.20 sheet		\$200																																																																																
	B 1/2 x 14 paper				0 sheets		\$0.22 sheet		\$0																																																																																
									\$0				Support Subtotal=	\$488																																																																											
III. Subcontractors																																																																																									
							Allowance for compaction testing and concrete testing =		\$0																																																																																
							Geotechnical Drilling =		\$0																																																																																
							Geotechnical Laboratory testing =		\$0				Subcontractor Subtotal=	\$0																																																																											
IV. Equipment																																																																																									
							Computer Charges=		\$0																																																																																
							Plotting Charges=		\$0																																																																																
							GPS Equipment (GPS)=		\$0																																																																																
							Miscellaneous=		\$0				Subtotal=	\$0																																																																											
Total Expenses =														\$488																																																																											
<table border="0" style="width: 100%;"> <tr> <td colspan="15" style="text-align: right;">Fee Summary</td> </tr> <tr> <td colspan="15" style="text-align: right;">Total Labor Fees = \$ 129,433</td> </tr> <tr> <td colspan="15" style="text-align: right;">Total Subcontractor Fees = \$ -</td> </tr> <tr> <td colspan="15" style="text-align: right;">Total Reimbursable Expenses = \$ 488</td> </tr> <tr> <td colspan="15" style="text-align: right;">Total Phase IV Fee = \$ 130,921</td> </tr> </table>															Fee Summary															Total Labor Fees = \$ 129,433															Total Subcontractor Fees = \$ -															Total Reimbursable Expenses = \$ 488															Total Phase IV Fee = \$ 130,921														
Fee Summary																																																																																									
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Contractor Initials *JWT*
Date *7/19/2022*

Dubois & King, Inc.
Baker & Dam Rehabilitation Design
Phase V - Meetings and Conferences

Item No.	Task Descriptions	Total Fee	Dubois & King, Inc.		Expenses	Dubois & King, Inc. Position Classification											
			Labor Fees	Labor Hours		Project Principal & O/A/C	Project Manager	Supervisory Engineer (Structures)	Supervisory Engineer (Geotech)	Supervisory Engineer (H&H/Civil)	Structural Engineer	Geotech Engineer	H&H/Civil Engineer	Structural Engineer	Geotech Engineer	H&H/Civil Engineer	Clerical
						PL-7	PL-7	PL-7	PL-7	PL-6	PL-5	PL-5	PL-5	PL-4	PL-4	PL-4	CL
Phase V - Meetings and Conferences																	
V.1 Meetings																	
	Project Kickoff (hours included in Phase I)	\$ -	\$ -	0	\$ -												
	Submittal Review meetings	\$ 15,098	\$ 15,098	88	\$ -		32	16	24	16							
	As-Needed meetings	\$ 7,630	\$ 7,630	44	\$ -		32		12								
	Subtotal:	\$ 22,728	\$ 22,728	132	\$ -												
V.2 Conferences																	
	Monthly Recurring Project Status conferences	\$ 15,606	\$ 15,606	90	\$ -		60		30								
	As-Needed meetings (assume 4)	\$ 6,242	\$ 6,242	36	\$ -		24		12								
	Subtotal:	\$ 21,848	\$ 21,848	126	\$ -												
Total Labor Hours:						0	148	16	78	16	0	0	0	0	0		
Billable Labor Rates:						\$173.40	\$173.40	\$168.44	\$173.40	\$168.30	\$127.11	\$127.11	\$127.11	\$109.25	\$109.25		
Labor Fees						\$0.00	\$25,663.20	\$2,695.08	\$13,525.20	\$2,692.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		

Contractor Initials *JWT*
Date *7/19/2022*

Dubois & King, Inc.
Baker B Dam Rehabilitation Design
Phase V - Meetings and Conferences

Item No.	Task Descriptions	Total Fee	Dubois & King, Inc.		Dubois & King, Inc. Position Classification																				
			Labor Fees	Labor Hours	Expenses	Project Principal & QA/QC	Project Manager	Supervisory Engineer (Structures)	Supervisory Engineer (Geotech)	Supervisory Engineer (H&H/Civil)	Structural Engineer	Geotech Engineer	H&H/Civil Engineer	Structural Engineer	Geotech Engineer	H&H/Civil Engineer									
						PL-7	PL-7	PL-7	PL-7	PL-6	PL-5	PL-5	PL-5	PL-4	PL-4	PL-4									
Phase V - Meetings and Conferences																									
Reimbursable Expenses																									
I. Travel:																									
	Vehicles (Item 104)				0 Miles@		\$0.580 /Mile =		\$0																
	Vehicles (Item 108)				0 Miles@		\$0.580 /Mile =		\$0																
	Vehicles				0 Miles@		\$0.580 /Mile =		\$0																
	Travel-Air/Ground/Parking						Allowance=																		
	Partial Per Diem				0 Days@		\$6.00 /Day=		\$0																
	Full Per Diem				0 Days@		\$55.00 /Day=		\$0																
	Hotel				0 Days@		\$110.00 /Day=		\$0				Travel Subtotal=	\$0											
II. Support Expenses																									
	Drawings (11 x 17)				0 sheets		\$0.35 sheet		\$0																
	Specs / Design Folder				0 sheets		\$0.20 sheet		\$0																
	8 1/2 x 11 paper				0 sheets		\$0.20 sheet		\$0																
	8 1/2 x 14 paper				0 sheets		\$0.22 sheet		\$0				Support Subtotal=	\$0											
III. Subcontractors																									
							Allowance for compaction testing and concrete testing =		\$0																
							Geotechnical Drilling =		\$0																
							Geotechnical Laboratory testing =		\$0				Subcontractant Subtotal=	\$0											
IV. Equipment																									
							Computer Charges		\$0																
							Plotting Charges		\$0																
							GPS Equipment (GPS)		\$0																
							Miscellaneous		\$0				Subtotal=	\$0											
															Total Expenses = \$0										
															<table border="1" style="float: right; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Fee Summary</td> </tr> <tr> <td>Total Labor Fees</td> <td style="text-align: right;">\$ 0.00</td> </tr> <tr> <td>Total Subcontractant Fees</td> <td style="text-align: right;">\$ 0.00</td> </tr> <tr> <td>Total Reimbursable Expenses</td> <td style="text-align: right;">\$ 0.00</td> </tr> <tr> <td>Total Phase V Fees</td> <td style="text-align: right;">\$ 0.00</td> </tr> </table>	Fee Summary		Total Labor Fees	\$ 0.00	Total Subcontractant Fees	\$ 0.00	Total Reimbursable Expenses	\$ 0.00	Total Phase V Fees	\$ 0.00
Fee Summary																									
Total Labor Fees	\$ 0.00																								
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Total Phase V Fees	\$ 0.00																								

Contractor Initials JWT
Date 7/19/2022

EXHIBIT C: CONTRACT PRICE AND METHOD OF PAYMENT

The total cost of the Agreement shall be a lump sum, not to exceed \$936,319. All services shall be performed to the satisfaction of DES before payment is made. All payments shall be made upon receipt and approval of stated outputs and upon receipt of an associated invoice. The billing is to be done on a monthly basis as a percentage completion of tasks as per the work program detailed in Exhibit B. Table B-1 in the proposal attachment of Exhibit B provides a detailed breakdown of costs for the project. Hourly labor rates (i.e., fully loaded) are based on direct labor rates with an effective multiplier of 3.196.

DES agrees to pay the invoices as submitted by the Contractor. Invoices are subject to the approval of the Contract Officer before payment is processed.

Contractor Initials JirT
Date 7/19/2022

State of New Hampshire

Department of State

CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that DUBOIS & KING, INC. is a Vermont Profit Corporation registered to transact business in New Hampshire on June 04, 1970. 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: 766

Certificate Number: 0005821156



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 6th day of July A.D. 2022.

A handwritten signature in black ink, appearing to read "D. Scanlan", is written over a faint circular stamp.

David M. Scanlan
Secretary of State

DuBois & King, Inc.

**Certificate of Vote
And
Certificate of Authority**

I, Melissa L. Stephen, hereby certify that I am duly elected Clerk of DuBois & King, Inc.

I hereby certify that the following is a true copy of a vote taken at a meeting of the Board of Directors of the Corporation, duly called and held on February 23, 2022, at which a quorum of the Board was present and voting.

VOTED:

That the Chief Executive Officer of the Corporation (Jeffrey W. Tucker) is authorized and directed to execute and deliver, on behalf of the Corporation, any and all documents to include, but not by way of limitation, The Contract Agreement, that in such officer's sole judgement are necessary or appropriate in connection with executing a Contract Agreement with the State of New Hampshire Department of Environmental Services to provide Professional Services for Design for the Rehabilitation of the Baker River Flood Control Dam Site 8 in Dorchester, NH.

I hereby certify that said vote has not been amended or repealed and remains in full force and effect as of July 7, 2022, and that Jeffrey W. Tucker is authorized to submit the Contract Agreement as detailed above for this Corporation.

Date: July 7, 2022

Attest:


Clerk



DUBO&KI-01

KLAROCQUE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/26/2022

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 Kinney Pike Insurance a One Digital Company 42 Meadow Lane Randolph, VT 05060	CONTACT NAME: Karon Larocque PHONE (A/C, No, Ext): (800) 296-5722 7716 FAX (A/C, No): (802) 728-4625 E-MAIL ADDRESS: klarocque@kinneypike.com	
	INSURER(S) AFFORDING COVERAGE	
INSURED Dubois & King, Inc. PO Box 339 Randolph, VT 05060	INSURER A: Acadia Insurance NAIC # 31325	
	INSURER B: Star Insurance Company 18023	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **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 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC. OTHER:	X		ADV538452513	8/7/2022	8/7/2023	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	X		ADV538452513	8/7/2022	8/7/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0	X		ADV538452513	8/7/2022	8/7/2023	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input checked="" type="checkbox"/> Y/N <input checked="" type="checkbox"/> N If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WC0871481	8/7/2022	8/7/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-PR E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedules, may be attached if more space is required)
States Listed Under Section 3A of the Workers Compensation Policy: ME, NH, NY, VT
No Excluded Officers.

State of New Hampshire, its agencies, and its agents and employees have additional insured status with regards to the general liability coverage as per written contract.

CERTIFICATE HOLDER

CANCELLATION

State of New Hampshire NH DES Dam Bureau 29 Hazen Drive, PO Box 95 Concord, NH 03302	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 
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DUBO&KI-01

KLAROCQUE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
6/27/2022

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).

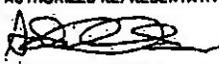
PRODUCER Kinney Pike Insurance a One Digital Company 42 Meadow Lane Randolph, VT 05060	CONTACT NAME: Karen Larocque PHONE (A/C, No, Ext): (800) 296-5722 7716 FAX (A/C, No): (802) 728-4625 E-MAIL ADDRESS: klarocque@kinneypike.com	
	INSURER(S) AFFORDING COVERAGE	
INSURED Dubois & King, Inc. PO Box 339 Randolph, VT 05060	INSURER A: Acadia Insurance NAIC # 31325	
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	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **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 INFO	SUBR Y/YD	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 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			ADV5384525	8/7/2021	8/7/2022	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			ADV5384525	8/7/2021	8/7/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0			ADV5384525	8/7/2021	8/7/2022	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/OWNER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WC0871481	8/7/2021	8/7/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
States Listed Under Section 3A of the Workers Compensation Policy: ME, NH, NY, VT
No Excluded Officers.

CERTIFICATE HOLDER State of New Hampshire NH DES - Dam Bureau 29 Hazen Drive, P.O. Box 95 Concord, NH 03302-0095	CANCELLATION 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 
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ATTACHMENT A
Procurement Process

The procurement process for this Agreement was conducted in accordance with RSA 21-I:22. In March 2021, NHDES posted on the Department of Administrative Services and the NHDES websites a Request For Qualifications (RFQ) from professional consultants to compete the design for the rehabilitation the Baker River Flood Control Dam Site 8 (Baker 8) in Dorchester, NH.

The following nine firms responded to the RFQ:

- Tetra Tech, Inc. – Gahanna, OH
- Dubois & King, Inc. - Randolph, VT
- GZA GeoEnvironmental, Inc. - Bedford, NH
- Schnabel Engineering – Clifton Park, NY
- GEI Consultants – Woburn, MA
- Stephens Associates Consulting Engineers, LLC – Brentwood, NH
- Gomez and Sullivan Engineers, DPC – Utica, NY
- SLR International Corporation – Bedford, NH
- Rizzo International, Inc. – Pittsburgh, PA

An internal NHDES selection committee reviewed and ranked the responses to the RFQ. The committee consisted of James Gallagher, Jr., P.E., the Chief Engineer for the Dam Bureau with more than 40 years of experience with dam design, contracting, construction and safety; Daniel Mattaini, P.E., Administrator of the Operations & Maintenance Section of the Dam Bureau who has over 30 years of experience as an engineer for hydrologic and dam related projects for the U.S. Geological Survey and the Dam Bureau; Corey Clark P.E., the Administrator of the Engineering & Construction Section of the Dam Bureau who has more than 15 years of experience as a geotechnical engineer and oversees the design engineering and construction sections of the Dam Bureau; Steve Doyon, P.E., Administrator of the Dam Safety Section of the Dam Bureau, who has over 30 years of experience in dam safety and operations; and Kent R. Finemore, P.E., Assistant Chief Engineer of the Dam Bureau, who has over 25 years of experience as an engineer for civil design and construction.

Three of the nine firms that submitted qualifications packages demonstrated substantial experience with NRCS watershed plans and dam design projects. The committee established a short-list of firms to complete an in-person interview based on criteria provided by the team. The short-list of firms who received, and accepted, an invitation to submit a draft Statement of Work and take part in a virtual interview included:

- Dubois & King, Inc. - Randolph, VT
- Schnabel Engineering - Clifton Park, NY
- GEI Consultants – Woburn, MA

In preparation for the interviews, the short-list firms were sent a Request For Proposals, a copy of the Supplemental Watershed Plan that had been prepared for the Baker 8 site, and a Statement of Work for the project. Guidelines for developing the Statement of Work for the dam rehabilitation design were provided by the NRCS. Each short-list firm provided proposals in response to the Statement of Work to the committee prior to the interviews. DES conducted virtual interviews of each firm in November 2021.

Members of the selection committee reviewed the proposals, conducted the interviews, and ranked the three firms. Rankings were based on:

- Past firm experience with similar projects, specifically dam rehabilitation projects under NRCS's Watershed Rehabilitation Program
- Proposed staff experience with similar projects
- Proposed Scope of Work
- Estimated time for completion
- References

The firm ranked first by the majority of the members of the Selection Committee would be the selected firm with whom NHDES would negotiate a final scope of work and price.

A scoring summary is provided in Table AT-1. As shown in the summary, five out of five members of the Selection Committee chose Dubois & King, Inc., and they were selected. Following the selection, NHDES, in consultation with the NRCS New Hampshire State Conservationist, commenced negotiations with Dubois & King, Inc., to establish a fee schedule for the Statement of Work as approved by NHDES and NRCS. The negotiated fees are fair and reasonable for the approved Statement of Work.

Table AT-1
Firm Rankings

Consultant Firm	Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 5	Final Rank
Dubois & King, Inc.	1	1	1	1	1	1
Schnabel Engineering	3	3	3	2	3	3
GEI Consultants	2	2	2	3	2	2