

April 4, 2022

Mr. Brandon Powell
 Buffalo Springs Lake
 9999 High Meadow Road
 Lubbock, Texas 79404

Dear Mr. Powell,

Freese and Nichols, Inc. (FNI) is pleased to submit this proposal for providing professional services to Buffalo Springs Lake (CLIENT) for Phase I of the McMillan Dam Rehabilitation. McMillan Dam (TX04027) impounds Buffalo Springs Lake.

Information about the dam is summarized in Table 1, based on data collected from the National Inventory of Dams (NID) and the Texas Commission on Environmental Quality (TCEQ) dam safety database.

Table 1: Dam Summary

Name	NID ID	Height	Maximum Pool Storage	Normal Pool Storage	TCEQ Size Classification	TCEQ Hazard Classification
McMillan Dam	TX04027	76 ft.	8,280 acre-ft.	4,200 acre-ft.	Intermediate	High

The scope presented herein is intended to assist CLIENT with rehabilitation of McMillan Dam and is envisioned as a phased approach, as summarized below.

Phase I – Preliminary Investigation

- Initial site visit to 1) visually assess the general condition of the dam and appurtenant structures, 2) document the inspection for TCEQ submittal, and 3) provide recommendations for future studies and budgetary estimates for repairs.
- A desktop analysis intended to determine 1) performance of the dam against minimum design flood requirements, and 2) conceptual alternatives to upgrade the dam to meet design flood requirements.

Phase II – Preliminary Design Services

- Further analyses to refine the selected rehabilitation alternative to upgrade the dam to meet design flood requirements (Phase I).
- Further analyses to refine the rehabilitation of issues noted during the initial site visit (Phase I).
- Additional investigations may include the following: detailed topographic survey, geotechnical site investigation (borings, laboratory testing, instrumentation), slope stability analysis, seepage analysis, site civil layout design, and other analyses deemed necessary.

Phase III – Final Design Services & Construction Management

- Preparation of construction drawings and specifications suitable for procuring the services of a qualified contractor.
- Environmental and TCEQ permitting coordination.
- Construction management and inspection services, if requested.

At this time, only tasks related to Phase I – Preliminary Investigation are detailed in the following scope items and associated proposed fee. Future phases will be negotiated as the project progresses and upon CLIENT's direction.

SCOPE OF BASIC SERVICES

PHASE I – PRELIMINARY INVESTIGATION

FNI will render the following professional services in connection with Phase I of the Project.

TASK 1 - PROJECT MANAGEMENT

1. Perform internal project setup and coordination, including project kickoff meetings and maintaining project schedule. Provide monthly status reports and invoices with backup documentation for the duration of the project. Perform quality assurance and quality control for the duration of the project. The assumed project duration is six (6) months.
2. Participate in up to three (3) project coordination meetings with CLIENT, via teleconference.

TASK 2 - DAM INSPECTION

1. Perform a one (1) day site visit to McMillan Dam to visually observe the dam, spillway and appurtenant structures. The spillway and intake tower will be observed from the embankment. The inspection will look for any items that might suggest potential dam safety concerns. If major concerns are noted, CLIENT will be notified immediately.
2. Prepare a bound inspection report suitable for submission to TCEQ. This report will document the conditions of all visible structures and appropriate observations made during the inspection and outline recommendations for any needed maintenance and repair items as well as any items of concern that will require additional investigation or testing to determine the causes or recommended repairs. Photos keyed to a copy of a plan view of the dam will be included. An electronic version (PDF format) of the draft report will be provided to the CLIENT for review.
3. Address CLIENT comments on the draft inspection report and prepare final reports. A final electronic copy (PDF version) and three (3) hard copies of the inspection report will be provided.

TASK 3 - HYDROLOGIC ASSESSMENT

Hydrologic models are used to analyze dam performance during a rainfall event. Per TCEQ regulations, dams are required to be evaluated for hydrologic capacity for minimum design flood based on the Probable Maximum Flood (PMF) event. The design flood for a given dam is based on both the size and hazard classification of the dam and is expressed as a percentage of the PMF. In Texas, the PMF is determined by hydrologic routing of the Probable Maximum Precipitation (PMP). Revised PMP depth data was released by TCEQ in January 2017, along with a GIS-based tool for optimizing the gridded PMP data across a given drainage area.

1. Research and gather historical information about the dam described in Table 1 from sources such as CLIENT files, TCEQ archives, online resources, and previous studies.
2. Generate PMP depths based on TCEQ PMP guidelines, released in January 2017, and in accordance with guidance in the Texas Administrative Code (TAC §299.15). Utilize the PMP temporal distributions defined by the TCEQ Hydrologic and Hydraulic Guidelines for Dams in Texas.
3. Develop hydrologic models for routing the PMF utilizing HEC-HMS. The design flood, expressed as a percentage of the PMF, will be determined based on hazard classification. In addition to the PMF analysis, evaluate frequency storms (2-year through 500-year) to support future rehabilitation design. Hydrologic model parameters will be developed based on standard engineering practice and in accordance with the TCEQ Hydrologic and Hydraulic Guidelines for Dams in Texas. Elevation-storage data will be computed based on available data from LiDAR topography data or state/national dam inventory data. No bathymetric or topographic survey is included in this scope.
4. Compute spillway discharge rating curve based on dimensions of the structure approximated during the site visit (Task 2), as-built plans, and elevation data from available LiDAR topography. Topographic survey is not included in this scope.
5. Evaluate the dam's existing capacity, expressed as a percentage of the PMF, to determine whether the dam complies with TCEQ criteria for hydrologic adequacy (TAC §299.15).
6. Present results of the hydrologic analysis in a technical report combined with all other project tasks. This report is described under Task 5 – Summary Technical Report.

TASK 4 - CONCEPTUAL ALTERNATIVES ANALYSIS

Per the 2011 TCEQ inspection report, McMillan Dam does not currently meet TCEQ design flood criteria and the dam will need to be structurally modified to safely pass the required design flood. The purpose of this task will be to evaluate conceptual rehabilitation alternatives to bring the dam into compliance with TCEQ regulations.

1. Evaluate up to two (2) rehabilitation alternatives to increase spillway and/or reservoir capacity to meet the required design flood, as defined by TCEQ under TAC §299.15. Alternatives will be developed related to modifying the existing spillway structure, constructing a new spillway, raising the top of dam elevation via earth embankment raise, parapet wall extension, etc., or some combination thereof.
2. Develop plan and profile views for the two (2) rehabilitation alternatives, including typical cross-sections of the embankment and spillway, as appropriate. The depictions of each alternative will be conceptual and will provide only enough detail to quantify costs and understand a likely methodology by which a qualified contractor may perform the work.
3. Develop opinions of probable construction costs (OPCC) for the two (2) rehabilitation alternatives evaluated. The OPCC will be developed in general accordance with the Association for Advancement of Cost Engineering (AACE) guidelines for a Class 4/5 estimate appropriate for feasibility assessment and planning purposes.
4. Present results of the alternatives analysis in a technical report combined with all other Phase I tasks. This report is described under Task 5.

TASK 5 - SUMMARY TECHNICAL REPORT

1. Develop conceptual budgetary estimates for major work items identified during the Dam Inspection (Task 2). The cost estimates will be developed in general accordance with the Association for Advancement of Cost Engineering (AACE) guidelines for a Class 4/5 estimate appropriate for feasibility assessment and planning purposes.
2. Prepare a combined draft technical report documenting the processes, assumptions and findings of the Dam Inspection (Task 2), Hydrologic Assessment (Task 3), and Conceptual Alternatives Analysis (Task 4).
3. Furnish one (1) digital copy of the draft report in PDF format to CLIENT for review. Upon receipt of comments, incorporate the commentes and furnish up to five (5) hard copies of the final report to CLIENT.

ADDITIONAL SERVICES

The following services are not included in the Scope of Basic Services. FNI is available to provide these services to the CLIENT. If requested, these will be considered additional services:

1. Visits to the site in excess of the number of trips included under Basic Services
2. Perform detailed structural inspections
3. Perform risk assessments
4. GIS mapping servides or assistance with these services
5. Field surveying required for the preparation of designs and drawings
6. Field layouts or furnishing of construction line and grade surveys
7. Geotechnical investigations, studies, and reports
8. Preliminary Design Services (Phase II)
9. Final Design Services & Construction Management (Phase III)

TIME OF COMPLETION

FNI is authorized to commence work on the Project upon execution of this Agreement and agrees to complete the services in accordance with the following schedule:

Table 2: Project Schedule

Dam Inspection	Perform a site visit to McMillan Dam on a mutually-agreeable date within one (1) month of Notice to Proceed (NTP).
DRAFT Dam Inspection Report	Two (2) months from Dam Inspection.
FINAL Dam Inspection Report	Within one (1) months of receiving final comments from CLIENT.
Hydrologic Assessment (verbal update)	Three (3) months from NTP.
Conceptual Alternatives (Verbal Update)	Four (4) months from NTP.
Draft Summary Technical Report	Five (5) months from NTP.
Final Summary Technical Report	Within one (1) month of receiving final comments from CLIENT.

If FNI’s services are delayed through no fault of FNI, FNI shall be entitled to equitable adjustment of rates and amounts of compensation and FNI shall be entitled to adjust contract schedule consistent with the number of days of delay.

RESPONSIBILITIES OF CLIENT

Client shall perform the following in a timely manner so as not to delay the services of FNI:

- A. Designate in writing a person to act as Client’s representative with respect to the services to be rendered under this Agreement. Such person shall have contract authority to transmit instructions, receive information, interpret and define Client’s policies and decisions with respect to FNI’s services for the Project.
- B. Provide all criteria and full information as to Client’s requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which Client will require to be included in the plans and specifications.
- C. Assist FNI by placing at FNI’s disposal all available information pertinent to the Project including previous reports and any other data relative to the Project.
- D. Arrange for access to and make all provisions for FNI to enter upon public and private property as required for FNI to perform services under this Agreement.
- E. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by FNI, obtain advice of an attorney, insurance counselor and other consultants as Client deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of FNI.

- F. Client shall make or arrange to have made all subsurface investigations, including, but not limited, to borings, test pits, soil resistivity surveys, and other subsurface explorations. Client shall also make or arrange to have made the interpretations of data and reports resulting from such investigations. All costs associated with such investigations shall be paid by Client.
- G. Provide such accounting, independent cost estimating and insurance counseling services as may be required for the Project, such legal services as Client may require or FNI may reasonably request with regard to legal issues pertaining to the Project.

DESIGNATED REPRESENTATIVES

FNI and CLIENT designate the following representatives:

CLIENT's Primary Contact	Name: _____
	Address: _____
	Phone: _____
	Email: _____

CLIENT's Accounting Contact	Name: _____
	Address: _____
	Phone: _____
	Email: _____

FNI's Primary Contact	Name: Mark Ickert
	Address: 801 Cherry Street, Suite 2800 Fort Worth, TX 76102
	Phone: (817) 735-7229
	Email: mai@freese.com

FNI's Accounting Contact	Name: Billy Metzger
	Address: 10431 Morado Circle, Bldg 5, Suite 300 Austin, TX 78759
	Phone: (512) 617-3177
	Email: Billy.Metzger@freese.com

COMPENSATION

The project tasks described in Basic Services, Phase I – Preliminary Investigation, are proposed to be executed for a total lump sum fee of **Ninety-Nine Thousand Two Hundred Fifty Dollars (\$99,250)**, as detailed below. All effort related to Project Management (Task 1) and the Summary Technical Report (Task 5) is prorated across the technical tasks.

If FNI sees the Scope of Services changing so that additional services are needed, FNI will notify the CLIENT before proceeding. Additional services shall be negotiated at that time.

Payment of the services shall be due and payable upon submission of a statement for services. Statements for services shall not be submitted more frequently than monthly.

PROJECT FEE BREAKDOWN BY TASK

Task 2 – Dam Inspection	\$26,835
Task 3 – Hydrologic Assessment	\$38,990
Task 4 – Conceptual Alternatives	\$33,425
PHASE I TOTAL	\$99,250

TERMS AND CONDITIONS OF AGREEMENT

We propose to furnish our services as described herein in accordance with Attachment TC, "Terms and Conditions of Agreement".

We appreciate this opportunity to submit this statement of qualifications, which is good for 60 days. If additional information or clarification is desired, please do not hesitate to contact us.

If you are in agreement with the services described herein and wish for FNI to proceed with this assignment, please sign below and return one copy of the agreement for our files. If you wish to authorize our services by a Purchase Order, please refer to this letter as an attachment on the face of the Purchase Order.

Yours very truly,

Approved:

FREESE AND NICHOLS, INC.

BUFFALO SPRINGS LAKE



Mark Ickert, P.E.
Project Manager

By: _____



Murphy Parks, P.E.
Principal/Vice President

Print Name

Title: _____

Date: _____

TERMS AND CONDITIONS OF AGREEMENT

1. **DEFINITIONS:** The term Client as used herein refers to the _____ Buffalo Springs Lake _____. The term FNI as used herein refers to Freese and Nichols, Inc., its employees and agents, and its subcontractors and their employees and agents. As used herein, Services refers to the professional services performed by FNI pursuant to the Agreement.
2. **CHANGES:** Client, without invalidating the Agreement, may order changes within the general scope of the work required by the Agreement by altering, adding to and/or deducting from the work to be performed. If any change under this clause causes an increase or decrease in FNI's cost of, or the time required for, the performance of any part of the Services, an equitable adjustment will be made by mutual agreement and the Agreement modified in writing accordingly.
3. **TERMINATION:** The obligation to provide Services under this Agreement may be terminated by either party upon 10 days' written notice. In the event of termination, FNI will be paid for all Services rendered and reimbursable expenses incurred to the date of termination and, in addition, all reimbursable expenses directly attributable to termination.
4. **CONSEQUENTIAL DAMAGES:** In no event shall FNI or its subcontractors be liable in contract, tort, strict liability, warranty, or otherwise for any special, indirect, incidental or consequential damages, such as loss of product, loss of use of the equipment or system, loss of anticipated profits or revenue, non-operation or increased expense of operation or other equipment or systems.
5. **INFORMATION FURNISHED BY CLIENT:** Client will assist FNI by placing at FNI's disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project. FNI shall have no liability for defects or negligence in the Services attributable to FNI's reliance upon or use of data, design criteria, drawings, specifications or other information furnished by Client and Client agrees to indemnify and hold FNI harmless from any and all claims and judgments, and all losses, costs and expenses arising therefrom. FNI shall disclose to Client, prior to use thereof, defects or omissions in the data, design criteria, drawings, specifications or other information furnished by Client to FNI that FNI may reasonably discover in its review and inspection thereof.
6. **INSURANCE:** FNI shall provide Client with certificates of insurance with the following minimum coverage:

Commercial General Liability	Workers' Compensation
General Aggregate \$2,000,000	As required by Statute
Automobile Liability (Any Auto)	Professional Liability
CSL \$1,000,000	\$3,000,000 Annual Aggregate
7. **SUBCONTRACTS:** If, for any reason and at any time during the progress of providing Services, Client determines that any subcontractor for FNI is incompetent or undesirable, Client will notify FNI accordingly and FNI shall take immediate steps for cancellation of such subcontract. Subletting by subcontractors shall be subject to the same regulations. Nothing contained in the Agreement shall create any contractual relation between any subcontractor and Client.
8. **OWNERSHIP OF DOCUMENTS:** All drawings, reports, data and other project information developed in the execution of the Services provided under this Agreement shall be the property of Client upon payment of FNI's fees for Services. FNI may retain copies for record purposes. Client agrees such documents are not intended or represented to be suitable for reuse by Client or others. Any reuse by Client or by those who obtained said documents from Client without written verification or adaptation by FNI, will be at Client's sole risk and without liability or legal exposure to FNI, or to FNI's independent associates or consultants, and Client shall indemnify and hold harmless FNI and FNI's independent associates and consultants from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom. Any such verification or adaptation will entitle FNI to further reasonable compensation. FNI may reuse all drawings, report data and other project information in the execution of the Services provided under this Agreement in FNI's other activities. Any reuse by FNI will be at FNI's sole risk and without liability or legal exposure to Client, and FNI shall indemnify and hold harmless Client from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom.
9. **POLLUTANTS AND HAZARDOUS WASTES:** It is understood and agreed that FNI has neither created nor contributed to the creation or existence of any hazardous, radioactive, toxic, irritant, pollutant, or otherwise dangerous substance or condition at the site, if any, and its compensation hereunder is in no way commensurate with the potential risk of injury or loss that may be caused by exposures to such substances or conditions. The parties agree that in performing the Services required by this Agreement, FNI does not take possession or control of the subject site, but acts as an invitee in performing the Services, and is not therefore responsible for the existence of any pollutant present on or migrating from

the site. Further, FNI shall have no responsibility for any pollutant during clean-up, transportation, storage or disposal activities.

- 10. **OPINION OF PROBABLE COSTS:** FNI will furnish an opinion of probable project development cost based on present day cost, but does not guarantee the accuracy of such estimates. Opinions of probable cost, financial evaluations, feasibility studies, economic analyses of alternate solutions and utilitarian considerations of operations and maintenance costs prepared by FNI hereunder will be made on the basis of FNI's experience and qualifications and represent FNI's judgment as an experienced and qualified design professional. It is recognized, however, that FNI does not have control over the cost of labor, material, equipment or services furnished by others or over market conditions or contractors' methods of determining their prices.
- 11. **CONSTRUCTION REPRESENTATION:** If required by the Agreement, FNI will furnish construction representation according to the defined scope for these services. FNI will observe the progress and the quality of work to determine in general if the work is proceeding in accordance with the Contract Documents. In performing these services, FNI will report any observed deficiencies to Client, however, it is understood that FNI does not guarantee the Contractor's performance, nor is FNI responsible for the supervision of the Contractor's operation and employees. FNI shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor, or the safety precautions and programs incident to the work of the Contractor. FNI shall not be responsible for the acts or omissions of any person (except its own employees or agents) at the Project site or otherwise performing any of the work of the Project. If Client designates a Resident Project Representative that is not an employee or agent of FNI, the duties, responsibilities and limitations of authority of such Resident Project Representative will be set forth in writing and made a part of this Agreement before the Construction Phase of the Project begins.
- 12. **GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT:** Client agrees to include provisions in the General Conditions of the Construction Contract that require Contractor to include FNI: (1) as an additional insured and in any waiver of subrogation rights with respect to such liability insurance purchased and maintained by Contractor for the Project (except workers' compensation and professional liability policies); and (2) as an indemnified party in the Contractor's indemnification provisions where the Owner is named as an indemnified party.
- 13. **PAYMENT:** Progress payments may be requested by FNI based on the amount of Services completed. Payment for the Services of FNI shall be due and payable upon submission of a statement for Services to CLIENT and in acceptance of the Services as satisfactory by the Client. Statements for Services shall not be submitted more frequently than monthly. Any applicable new taxes imposed upon Services, expenses and charges by any governmental body after the execution of this Agreement will be added to FNI's compensation.

If Client fails to make any payment due FNI for services and expenses within 30 days after receipt of FNI's statement for services therefore, the amounts due FNI will be increased at the rate of 1 percent per month from said 30th day, and, in addition, FNI may, after giving 7 days' written notice to Client, suspend services under this Agreement until FNI has been paid in full, all amounts due for services, expenses and charges.

- 14. **ARBITRATION:** No arbitration, arising out of or relating to this Agreement, involving one party to this Agreement may include the other party to this Agreement without their approval.
- 15. **SUCCESSORS AND ASSIGNMENTS:** Client and FNI each are hereby bound and the partners, successors, executors, administrators and legal representatives of Client and FNI are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of this Agreement.

Neither Client nor FNI shall assign, sublet or transfer any rights under or interest in (including, but without limitation, moneys that may become due or moneys that are due) this Agreement without the written consent of the other, except to the extent that any assignment, subletting or transfer is mandated by law or the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent FNI from employing such independent associates and consultants as FNI may deem appropriate to assist in the performance of Services hereunder.

- 16. **PURCHASE ORDERS:** If a Purchase Order is used to authorize FNI's Services, only the terms, conditions/instructions typed on the face of the Purchase Order shall apply to this Agreement. Should there be any conflict between the Purchase Order and the terms of this Agreement, then this Agreement shall prevail and shall be determinative of the conflict.