NM PRODUCED WATER RESEARCH CONSORTIUM MEMBERSHIP AGREEMENT

This Agreement between the Regents New Mexico State University (the “University”) and ___________________________________________ (“Collaborator”) (each individually, a “Party” and collectively, the “Parties”), takes effect on January 1, 20__ (“Effective Date”).

Background

• The New Mexico Environment Department (“NMED”) has designated University to undertake and oversee activities for an NM Produced Water Research Consortium (“Consortium” or “NM-PWRC”), under a Memorandum of Understanding No. 20 667 12200003, dated September 9, 2019 as set forth in Exhibit A (the “NMED MOU”) (attached and incorporated into the Agreement).

• The Parties intend to join together under the NM-PWRC to facilitate collaborative research and to foster interactions between each Party in advancing scientific research and technology development necessary to guide statewide regulation of treated produced water uses outside the oil and gas industry (the “Purpose”).

• University has invited Collaborator to obtain membership based on Collaborator’s research or direct capabilities applicable to the Purpose, for projects of mutual interest and benefit to University and to Collaborator.

• The Parties consider this Agreement’s activity to:
  o further University’s research and instructional objectives consistently with University’s status as a non-profit, tax-exempt, educational institution; and
  o present potential benefits for both Parties through data, improved methods and know-how, or discoveries that may result from the NM-PWRC.

Agreement

The Parties agree as follows:

I. Consortium Operation.

A. Definitions.

  1. “Management Plan” means the NM-PWRC’s official management plan as set forth in Exhibit B (attached and incorporated into the Agreement), as then-currently amended.

  2. “Member” means any entity that has then-current NM-PWRC membership status as set forth under this Agreement.

  3. “Sponsor” means a Member that provides support that under the Management Plan:
     a. specifically comprises NM-PWRC project funding; and
b. may also include any other resource specifically receiving approval as Sponsor support.

B. Membership Roles. As a Member, Collaborator must provide support to University and each other applicable NM-PWRC collaborator, as further set forth under this Agreement. That support in any Sponsor role specifically includes budgeted project funding.

C. Governance. Each Party accepts the Management Plan governing the NM-PWRC’s operation and the Party’s conduct applicable to that operation. This Agreement prevails upon any conflict between its provisions and the Management Plan, although the Agreement remains subject to the NMED MOU.

II. Membership. “Term” means a period during which the Agreement has effect.

A. Inception. Membership in the NM-PWRC is open to each invited party on an annual basis. Collaborator’s Member rights under the NM-PWRC take effect immediately when each Party has signed the Agreement and Collaborator has provided its first payment of dues as set forth under the Agreement.

B. Continuance. Despite any contrary provision, nothing under this Agreement obligates Collaborator to remain a Member or pay any amount beyond the first year under the Term. Because research of the type to be done by the NM-PWRC takes time – and research results may not be obvious immediately – the Parties understand that Member participation of less than two years may produce only a limited benefit.

III. Financial.

A. Amount Due. In exchange for each right or privilege set forth under the Agreement corresponding to Member status, Collaborator annually must pay to University nonrefundable annual membership dues according to Collaborator’s Sponsor or non-Sponsor status as set forth in Exhibit B. Collaborator is responsible for its own tax liability and must not hold University liable for any such tax.

B. Invoicing. University is entitled to submit an initial invoice to Collaborator for the payment of the first-year dues (prorated if applicable) no later than thirty days after each Party has signed this Agreement. For each later year during the Term, University is entitled to invoice Collaborator no later than June 30 of the then-current year under the Term.

C. Payment. Each invoice is due and payable in lump sum thirty days after Collaborator receives the invoice and before the NM-PWRC’s annual meeting. Collaborator must send each payment to Office of Strategic Initiatives, MSC 3Z, PO Box 30001, Las Cruces, NM 88003, with reference to “NM Produced Water Research Consortium” clearly indicated.
D. **Funds Use.** University has discretion to use each above amount first for funding of any NM-PWRC project according to University’s standard procedure for sponsored projects. The Parties acknowledge that University is entitled to any indirect cost allocation set forth under the Management Plan.

E. **No Refund.** University has no duty to provide to any affected Member any refund or waiver of any amount paid under the Agreement if, during the Term:

1. the Member terminates under the Agreement;
2. two or more Members merge with each other;
3. a Member is acquired by another Member; or
4. any combination of Member companies results from merger, acquisition or otherwise.

F. **Agreement Costs.** Each Party must bear its own costs and expenses under this Agreement, unless the Agreement specifies otherwise.

### IV. Term; Termination

A. **Duration.** The Term is one year, beginning on Effective Date, subject to renewal or earlier termination.

B. **Renewal.** The Term renews for successive one-year periods, upon Collaborator’s payment no later than August 31 before the then-current Term is set to expire.

C. **Expiration.** The Term expires on December 31 of any year during which University did not receive from Collaborator an applicable annual membership dues payment as of August 30 of that year.

D. **Termination.** If a Party commits any material breach of this Agreement, and has failed to remedy that breach as of thirty days after receipt of written notice of that breach from the other Party, then the other Party is entitled immediately to terminate this Agreement. That termination is in addition to any other remedy that the nonbreaching Party has at law or in equity.

1. **By University.** Upon any termination by University, Collaborator’s membership automatically ceases and Collaborator has no further rights under this Agreement. University also has a right immediately to terminate the agreement via at least 180 days’ written notice to Collaborator upon University’s decision to cease its NM-PWRC role or to discontinue the NM-PWRC otherwise.

2. **By Collaborator.** Collaborator also has a right to terminate this Agreement for convenience by giving University written notice no later than ninety days before a then-current Term’s expiration date.
V. **Proprietary Rights.**

A. **Definitions.**

1. “**Affiliate**” means:
   a. any legal entity owning, directly or indirectly, at least fifty percent of the voting capital shares of a Member;
   b. any legal entity of which a Member directly or indirectly owns at least fifty percent of the voting capital shares (or equivalent control); or
   c. any legal entity of which at least fifty percent of the voting capital shares (or equivalent control) is owned, directly or indirectly, by a legal entity owning, directly or indirectly, at least fifty percent of the voting capital shares of a Member.

2. “**DecisionPeriod**” means a ninety-day period after a Member has received an applicable invention disclosure from University.

3. “**FundingMember**” means a Member that has committed in writing to University to share the costs of filing, prosecuting and maintaining a patent application in respect of NMSUInvention (defined below).

4. “**Investigation**” means research supported solely by NM-PWRC membership dues. Investigation does not include research:
   a. carried out under separate contract;
   b. supported by public funds; or
   c. carried out independently by any party outside of any NM-PWRC activity.

5. “**Limited Exclusive License**” means a royalty-bearing license to make, have made, use and sell products or processes for commercial purposes including a right to sublicense.

6. “**MemberLicense**” means a non-exclusive, royalty-free license for internal use (but not to make, use, or sell any product or process for any commercial purpose) by any Member or Affiliate, with no right to sublicense.

7. “**NMSUInvention**” means any invention or discovery conceived and actually or constructively reduced to practice in performing Investigation.

8. “**Option Period**” means twelve months after an applicable patent application has been filed.

9. “**Use Field**” means a field of use of strategic interest to applicable FundingMembers under a Limited Exclusive License.
B. **Invention Ownership.** University holds title to any NMSUInvention. But University must grant to each Member whose membership dues are not then overdue on the date of the NMSUInvention’s first occurrence a MemberLicense in that NMSUInvention.

C. **Disclosure and Allocation.**

1. **University Duties.** University must:
   a. promptly on a confidential basis disclose in writing to each Member all NMSUInvention;
   b. file for and prosecute patent applications on behalf of NM-PWRC if each the then-current NM-PWRC participants determined that patent protection is desired; and
   c. consult with each Member regarding the manner and extent of filing and prosecuting the patent and its later maintenance.

2. **Member IP Right Notice.** Each Member within the DecisionPeriod must notify University in writing whether that Member elects to:
   a. acquire license rights beyond a MemberLicense; and
   b. become a FundingMember.

D. **FundingMember License Requirements.** Any Member that elects to become a Funding Member has an option through the Option Period to acquire a Limited Exclusive License in NMSUInvention that occurs while holding Member status.

1. **Joint Request.** Under that option, each FundingMember jointly in writing must specify to University a Use Field determined unanimously no later than six months after filing of a patent application claiming that NMSUInvention.

2. **Shared Costs.** Each FundingMember must pay an equal share of each cost of filing, prosecution and maintenance of each patent application claiming that NMSUInvention.

3. **Forfeited Right.** Any FundingMember that does not sign the Limited Exclusive License during the Option Period has no further right to that NMSUInvention.

4. **University Forbearance.** If at least one Limited Exclusive License is signed pertaining to an NMSUInvention, then University has no right to offer any additional license for that NMSUInvention as long as that Limited Exclusive License has effect.

E. **General Availability.** University has discretion to make available to any entity – for a license of any scope any NMSUInvention for which:
1. no Member within its Decision Period has provided notice to University to acquire license rights and support patent filings;
2. no Limited Exclusive License is granted during the Option Period; or
3. each Limited Exclusive License has terminated.

F. **Equipment.** Unless the Parties in writing specify otherwise, University retains title to any equipment purchased for NM-PWRC use with funds provided wholly or in part by Collaborator under this Agreement.

VI. **Publications; Publicity.**

A. **Definitions.**
1. “**Member Information**” means a Member’s nonpublic proprietary information.
2. “**Publication**” or “Publish” means the occurrence or existence of a public disclosure of an Investigation result - including a public use or sale of an invention based on that result – that could:
   a. bar the availability of patent protection in any foreign jurisdiction; or
   b. trigger a one-year grace period in the U.S. within which a U.S. patent application must be filed.
3. “**Review Period**” means four weeks before the time of presentation or submission to any journal or other publication.
4. “**Trade Identity**” means a Party’s trademark, logo, trade name or other source-identifying item.

B. **Preliminary Review.** For this paragraph’s purposes only, “Publication” does not mean a disclosure that reasonably has excluded detailed experimental results.

1. **Procedure.** With respect to any Publication comprising a presentation or manuscript that University intends to disclose or Publish (whether by teaching or otherwise) otherwise, University must:
   a. provide to each Member a confidential Publication copy no later than the beginning of the Review Period; and
   b. before presenting or submitting a Publication, comply with any Member’s request made during that period to redact any reference to or data regarding any Member Information in that Publication.
2. **Redaction Sufficiency.** Member is considered to have affirmed a redaction’s sufficiency if University has not received any further written redaction request from Member as of ten days after University has sent that redaction to Member.
C. **Internal University Disclosure.** Subject to the foregoing and Article V, and University’s duty not to take any action that could bar the availability of patent protection in respect of a Member’s joint or sole invention:

1. University is free to use any Investigation result for its own teaching and educational purposes without payment of royalties or other fees;
2. University is free to publish at its own discretion any Investigation result if the Member has provided prior written consent after having reviewed the full text proposed to be published.

D. **Student Thesis or Dissertation.** “Graduate Paper” means a student’s thesis or dissertation. Under no circumstance is publication of any Graduate Paper for which funds are derived from the NM-PWRC, subject to delay for longer than ninety days after conferral of the student’s degree. But to the extent that the Graduate Paper contains any reference to or data regarding a Member’s invention or Member Information:

1. University must disclose within sixty days of a NM-PWRC funded research project’s start date of any student’s intent to include a Graduate Paper as a product of any Investigation; and
2. Member has a right to request to (and University must) redact that reference, data and Member Information before Publication.

E. **Trade Identity.** Each Party must obtain the other Party’s written consent before using the other Party’s Trade Identity in any advertising or publication relating to this Agreement’s subject matter unless this paragraph specifies otherwise.

1. **Concerning Collaborator.** University has a right to reasonably use Collaborator’s Trade Identity for the sole and express purpose of identifying the Collaborator as a Member in any NM-PWRC communication.
2. **Concerning University.** Collaborator has discretion to use University's name without prior University approval when and as necessary for Member to supply any information that Member may be required to disclose in order to comply with applicable law. But Collaborator has no right to state or imply that University endorses or supports a particular investment, stock purchase, product, or treatment.

F. **Copyright.** University owns the copyright in any Publication, except to the extent that University in writing has committed otherwise, or has waived ownership of copyright in favor of authors under University's policy.

VII. **Confidentiality.** “Acquired Information” means confidential information of another Party or other Member. In the normal and routine operation of the NM-PWRC as
detailed in this Agreement and the NM-PWRC By-Laws, a need may exist for one party to disclose Acquired Information that is proprietary to a disclosing party.

A. **Notation.**
   1. **Written Disclosure.** For any written disclosure, the disclosing party must disclose that information in writing, and designate the information as confidential.
   2. **Unwritten Disclosure.** For any disclosure other than in writing, the disclosing party must:
      a. identify the information as confidential at the time of disclosure; and
      b. no longer than thirty days afterward, confirm in writing to each receiving party that the information is confidential.

B. **Restriction.** Unless the Agreement specifies otherwise, for a five-year period after the date of that disclosure, the receiving party must:
   1. use a reasonable degree of care to prevent its employees from any inadvertent, accidental, unauthorized or mistaken disclosure or use of confidential information disclosed under the Agreement;
   2. use the disclosing party’s confidential information only for this Agreement’s purposes; and
   3. not publish or disclose that information otherwise.

C. **Excluded Subject Matter.** The restrictions of this Article VII do not apply to information that is:
   1. known or becomes publicly known through no fault of the receiving party;
   2. learned from a third party that is entitled to disclose that information;
   3. already known to or developed by the receiving party before receipt from disclosing party, as shown by the receiving party’s prior written records;
   4. the subject of prior written permission from the disclosing party for the receiving party to publish;
   5. required to be disclosed by court order or operation of law including, without limitation: the New Mexico Inspection of Public Records Act; or
   6. independently developed by the receiving party’s personnel who are not privy to the disclosing party’s confidential information.

D. **Internal Dissemination.** A receiving party may disseminate Acquired Information to the receiving party’s employees and their Affiliate’s employees requiring
access for Agreement purposes. But making that dissemination, the receiving party or Affiliate must apprise each such employee of that employee’s duty to:

1. maintain that information in confidence; and
2. not use that information for any purpose other than in accordance with this Agreement.

E. Inadvertent Disclosure. A Party is not liable for any inadvertent disclosure of Acquired Information, but each Party must use reasonable efforts not to disclose Acquired Information. If a Party realizes that one party has inadvertently disclosed any Acquired Information to a third party, the Parties promptly must confer as to what course of action is appropriate under the circumstances. On written request, the Party that made the inadvertent disclosure must:

1. promptly notify the third party that an inadvertent disclosure had been made of confidential materials; and
2. request the third party promptly to return all copies of the disclosed Acquired Information.

F. Disposal. Upon the disclosing party’s written request, the receiving party must retrieve and return or destroy all material, including any copy, containing any of the disclosing party’s confidential information given to the receiving party under this Agreement. But the receiving party has a right to keep one for archival purposes only.

VIII. Liability Allocation.

A. Definitions.

1. “Economic Harm” means any consequential or special damage or indirect loss including, without limitation: any loss of profits, loss of production, or loss of use.
2. “Party” – for this Article’s purposes only - includes any applicable Affiliate of that Party.
3. “Warranty” means any representation or warranty, express or implied including, without limitation: any implied warranty of merchantability or fitness for a particular purpose

B. Warranty.

1. Limited Scope. Each disclosing party warrants that:
   a. it has a right and full authority to disclose its confidential information to a receiving party under the Agreement; and
b. performance of any NM-PWRC activity will not breach any other obligation of confidentiality or other obligation arising out of or in connection with that confidential information.

2. **Disclaimer.** Unless the Agreement sets forth otherwise, each Party:
   
a. expressly disclaims any Warranty in connection with any NM-PWRC deliverable or donated information that the Party provides under this Agreement; and

b. assumes no responsibility or obligation, or confers any right by implication, estoppel or otherwise.

C. **Responsibility.** Each Party is responsible for any harm arising from its activities relating to NM-PWRC and any use by that Party or that Party's licensee of any NM-PWRC deliverable.

1. **Separate Commitment.** This paragraph does not limit that Party's liability or obligation under any other commitment to which that Party is legally bound for the purpose of creating a NM-PWRC deliverable.

2. **Multiple Factors.** This paragraph applies whether the Party's negligence, fault or strict liability is a concurrent or contributory factor of an occurrence in question. The Party's obligations under this paragraph are intended to protect the Party against any consequence of the Party's own joint, concurrent or contributory negligence, fault or strict liability.

D. **Liability Disclaimer.** A Party is not liable to any other Party or Member in any action or claim for Economic Harm, irrespective of any foreseeability of that harm.

1. **Applicability.** The protection against that liability applies in any action whether based on contract, negligence, either sole or concurrent and strict liability or other tort, statute or otherwise.

2. **Waiver.** To the extent permitted by law, any statutory remedy that is inconsistent with this Agreement are waived.

E. **Risk of Loss.** Collaborator bears all risk of damage or loss to any equipment or supplies that Collaborator loans to University under this Agreement, unless the damage or loss results from any willful or intentional act of University. Collaborator must maintain any such equipment or supplies while in University's custody.

IX. **Other Projects.**

A. **Consortium-Related.** Nothing in this Agreement is considered to prevent NM-PWRC or any Member or any group of Members from entering into a separate sponsored research commitment, as outlined in the Management Plan. Upon any inconsistency between that separate commitment, the Management Plan
and this Agreement, that separate commitment takes precedence insofar as that separate commitment does not adversely affect the rights to intellectual property or confidentiality granted to the Member companies under this Agreement.

B. **External.** Nothing in this Agreement restricts or impairs the right of any Party to conduct its own research, either independently or in conjunction with others, even though that research may parallel or overlap Investigation. Any Party conducting that separate research has no obligation under this Agreement, with respect to the use or disposition of the results of that independent research including, without limitation: all information and data resulting from that separate research.

X. **Export Control.** “Export Laws” means the Export Administration Regulations (EAR), Title 15, sections 730-774 of the Code of Federal Regulations (CFR) or the International Traffic in Arms Regulations (ITAR), 22 CFR §§ 120-130. Collaborator does not anticipate exchanging any information, data or software that is Export Controlled under the Export Laws. In addition to the requirements of Article VII of this Agreement, Collaborator must give University fifteen days’ advance written notice of Collaborator’s intention to deliver any information, data, software, technology, or material that is Export Controlled. Each Party must take any measure that is necessary to ensure that any Export Controlled information, data, software or materials provided to University is not exported from the United States or re-exported to any other country without first complying with applicable Export Control laws and regulations.

XI. **Miscellaneous.** “Disclosure Exception” means a disclosure occurrence mandated under applicable law, to protect or pursue a legal right, or to enforce or challenge an award in any bona fide legal proceeding before a court or other judicial authority.

A. **Variation.** No addition to or variation of this Agreement is of any force or effect unless it is expressly recorded in writing signed by non-electronic hand-written signatures of both Parties.

B. **Governing Law.** This Agreement – and any claim relating to or arising out of the Agreement or its breach – is to be governed and construed according to the laws of the State of New Mexico, excluding that State’s choice-of-law principles.

C. **Disputes.**

1. **Notice and Cure.** If a dispute arises out of or relates to this Membership Agreement or its breach, an aggrieved Party must provide to the other Party notice of breach, with opportunity to cure to the extent practicable.

2. **Negotiation.** If the other Party fails to cure that noticed breach within any time period specified in the notice or no later than thirty days afterward if not so specified, then the parties in good faith must undertake settlement negotiation.
3. **Mediation.** If the Parties fail after a reasonable time to reach a negotiated settlement, then the Parties must try in good faith to settle the dispute by mediation administered by the American Arbitration Association under its Commercial Mediation Rules before resorting to arbitration.

4. **Arbitration.**
   a. Commencement. If the Parties after ninety calendar days of beginning mediation have not settled the dispute, then either Party may submit the dispute for final settlement by arbitration:
      i. by a single arbitrator; and
      ii. administered by the American Arbitration Association under its Commercial Arbitration Rules.
   b. Court Filing. The prevailing arbitration Party is entitled to enter any judgment on the award rendered by the arbitrator in any court having applicable jurisdiction.
   c. Venue. The place of arbitration is Las Cruces, New Mexico, unless the Parties in writing decide otherwise.
   d. Procedure. The Parties intend any decision of the arbitration to be in writing, reached no later than ninety days after an arbitrator is appointed and not to be made public.
   e. Confidentiality. Unless the Parties expressly decide in writing to the contrary or a Disclosure Exception applies, each Party must keep confidential:
      i. any award in any arbitration;
      ii. all materials in the proceedings created for the purpose of the arbitration; and
      iii. each other document that the Parties produce in the proceedings that is not in the public domain otherwise.
   f. Attorney’s Fees. The prevailing party in any such arbitration arising out of the interpretation or application of any provision of this Agreement may be awarded reasonable attorney’s fees, court costs and expenses, including those associated with any appellate or enforcement proceedings.

D. **No License or Entity Formation.** Other than with respect to Article V, nothing in this Agreement is considered to create in any Party any right with respect to information, operations, research, patents or publications owned, held, undertaken, or prepared by any other Party. The Parties do not intend to create a partnership, joint venture, association, or trust of any kind. The Parties’ duties,
obligations, benefits, and liabilities are several and not joint or collective, and each Party is individually responsible for its own obligations.

E. Compliance; Verification.

1. Ethics. Each Party must exercise reasonable care and diligence to prevent its personnel from making, receiving, providing or offering any substantial consideration for the purpose of improperly influencing the relationship between the Parties. This obligation applies to that Party’s activities in its relations with any other Party’s or Member’s employees, representatives and their families, and any vendor, contractor or consultant that performs NM-PWRC work. A Party must promptly notify the other Party of any violation of this paragraph.

2. Audit. Any representative authorized by a Party may (at that Party’s cost) audit any applicable record of the other Party for the sole purpose of determining whether the other Party has complied with this paragraph. Each Party must provide to the other Party access at all reasonable times to any NM-PWRC-related record during the period that the Party is obligated to preserve the record, for the purpose of verifying the record-holder’s Agreement compliance.

F. Assignability. This Agreement is assignable by each Party to an Affiliate or to the successor in title of its entire business and is subject to the acceptance by that Affiliate or successor of all of the Party’s obligations under the Agreement. Despite that assignment, the Party remains bound by each confidentiality requirement under Article VII.

G. Severability. If a tribunal of competent jurisdiction finds any part of this Agreement to be void or unenforceable, then the remaining provisions remain in full force and effect. Furthermore, in lieu of that invalid part, a provision as similar in terms to that invalid part as may be possible, legal, valid, and enforceable is to be automatically added to this Agreement.
H. **Entire Understanding.** This Agreement states the entire understanding between the Parties regarding its subject matter, and supersedes, cancels and merges any prior representation, understanding, covenant, or commitment, whether oral or written, with respect to NM-PWRC membership. No change, alteration, or modification to this Agreement has effect unless it is in writing and signed by an authorized representative of each Party.

Signed:

**New Mexico State University** ______________________ {Collaborator Name}

Typed Name: ______________________
Title: ____________________________
Date: ____________________________

Contact Information for University:

Telephone: _______________________
e-mail: _______________________

Contact Information for Collaborator:

Telephone: _______________________
e-mail: _______________________

Signed:
Exhibit A

MOU No. 20 667 12200003
MEMORANDUM OF UNDERSTANDING
BETWEEN
THE NEW MEXICO ENVIRONMENT DEPARTMENT
AND
REGENTS OF THE NEW MEXICO STATE UNIVERSITY

This MEMORANDUM OF UNDERSTANDING ("MOU") is entered into by and between the State of New Mexico, Environment Department, hereinafter referred to as the "Department" or "NMED," and Regents of the New Mexico State University, hereinafter referred to as "NMSU," and is effective as of the date of the last signatory authority.

WHEREAS, NMED is an executive agency of the State of New Mexico created under the Department of Environment Act, NMSA 1978, Sections 9-7A-1 to -15, and is authorized by NMSA 1978, Sections 74-1-6(B) to enter into this MOU to establish and manage a public-private Consortium to advance produced water research and policy;

WHEREAS, NMSU is a state institution of higher education established under Section 11 of Article XII of the Constitution of the State of New Mexico, and is authorized to implement the Produced Water Research Consortium, hereinafter referred to as the "Project";

WHEREAS, this MOU is exempt from the provisions of the Procurement Code in accordance with NMSA 1978, Section 13-1-98(A);

WHEREAS, NMED and NMSU desire to enter into this MOU to accomplish the Project in the most cost-effective and administratively efficient manner by designating NMSU on behalf of NMED to undertake and oversee Project activities in support of this MOU’s purposes; and

WHEREAS, the Parties desire findings from the Project to inform NMED of relevant factors to consider in fulfilling NMED’s regulatory mission.

NOW, THEREFORE, the parties mutually agree as follows:

1. Purpose.

House Bill 546, which includes the Produced Water Act, passed the New Mexico State Legislature in 2019 and was signed into law by the governor, for an effective date of July 1, 2019. The bill amended portions of the Water Quality Act (NMSA 1978, Sections 74-6-1 to -17). Pursuant to House Bill 546, the Water Quality Control Commission shall adopt regulations to be administered by the Department for “the discharge, handling, transport, storage, recycling or treatment for the disposition of produced water, including disposition in road construction maintenance, roadway ice or dust control or other construction, or in the application of treated produced water to land, for activities unrelated to the exploration, drilling, production treatment or refinement of oil or gas.” NMSA 1978, Section 74-6-4(P). In order to better understand the scientific and technical challenges and opportunities surrounding produced water, the Department seeks to collaborate with NMSU for oversight of the Project to fill scientific and technical gaps.
related to produced water.

2. **Roles and Responsibilities.**

NMED and NMSU shall ensure that the Project is conducted in compliance with all applicable laws and regulations. NMED and NMSU shall complete the Project in accordance with Attachment A, in any appropriate manner including associating any third party in fulfilling any project objective.

3. **Funding.**

   A. This MOU is not intended to affect a commitment or obligation of specific funds by the parties and does not include the reimbursement of funds between NMED and NMSU. Cooperative activities under this MOU shall be subject to the availability of funds and personnel. If sufficient funds or authorizations are not granted, this MOU shall be terminated upon written notice from either party, in accordance with paragraph 8.

   B. Subject to any applicable law and any reasonable NMED determination that an arrangement is contrary to NMED’s regulatory mandate, NMSU may require any third party to pay a certain fee in exchange for certain Project participation rights.

4. **Term.**

This MOU shall not take effect until signed and accepted by all parties. This MOU shall terminate on **September 30, 2022** unless amended pursuant to paragraph 7 or terminated pursuant to paragraph 8.

5. **Reporting Requirements.**

NMED and NMSU shall share available data regarding the Project, including reports, task completion progress, reasons for delay of task implementation (if any), and results of Project implementation, and shall make such information available to members of the public upon request. NMED and NMSU will each identify a lead point of contact for this MOU by September 30, 2019. By October 11, 2019, the lead points of contact shall develop an agreed upon process for sharing information, including routine meetings and summary reports, as appropriate.

6. **Access to Records.**

NMED and NMSU, through any authorized representative, shall be granted access to and have the right to examine all books, papers, or documents related to this MOU.

7. **Amendment.**

This MOU shall not be altered, changed or amended except by instrument in writing executed by the parties hereto.
8. Termination.

This MOU may be terminated by either of the parties upon written notice delivered to the other party at least thirty (30) days prior to the proposed termination date. By such termination, neither party may nullify obligations already incurred for performance prior to the date of termination. Upon termination, all obligations incurred under this MOU shall terminate.


The laws of the State of New Mexico shall govern this MOU, without giving effect to its choice of law provisions. Venue shall be proper only in a New Mexico court of competent jurisdiction in accordance with NMSA 1978, Section 38-3-1(G). By execution of this MOU, NMSU acknowledges and agrees to the jurisdiction of the courts of the State of New Mexico over any and all lawsuits arising under or out of any term of this MOU.

10. Liability.

Each party shall be liable for its own actions incurred as a result of its negligence, acts or omissions in connection with this MOU. Any liability incurred by either party in connection with this MOU is subject to the immunities and limitations of the New Mexico Tort Claims Act, NMSA 1978, Sections 41-4-1 to -30.


A. NMSU shall abide by all state and federal laws and regulations pertaining to equal employment opportunity. In accordance with these laws and regulations, NMSU shall assure that no person in the United States shall, on the grounds of race, color, national origin, sex, age, sexual preference or handicap, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity related to this MOU. If NMSU is found not to be in compliance with these requirements during the life of the MOU, NMSU agrees to take appropriate steps to correct these deficiencies.

B. Any person, group, or organization that signs this MOU shall comply with the following federal statutes: Title VI of the Civil Rights Act of 1964, Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972 and their implementing regulations at 40 C.F.R. Parts 5 and 7, where applicable.


This MOU in no way restricts NMSU or NMED from entering into other agreements with other public or private agencies, organizations, and individuals, or participating in similar projects.

13. Authority.
13. Authority.

The representatives of the public entities below represent that they have the authority to bind their department or agency, and that no further action, resolution, or approval is necessary to enter into this MOU.

THE PARTIES HERETO HAVE EXECUTED THIS MOU:

STATE OF NEW MEXICO, ENVIRONMENT DEPARTMENT

By: James C. Kenney, Secretary
New Mexico Environment Department
Date: 9/6/2019

By: Marlene Velasquez, Chief Financial Officer
New Mexico Environment Department
Date: 9/9/19

Approved as to Form and Legal Sufficiency:

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Date: 9/6/19

REGENTS OF THE NEW MEXICO STATE UNIVERSITY

By: Dan E. Arvizu, Chancellor
Date: Sept. 6, 2019
Exhibit B

Operating Plan for NM-PWRC
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Background

The New Mexico Environment Department ("NMED") and the Regents of New Mexico State University ("NMSU") entered into a Memorandum of Understanding (MOU 20 667 12200003, dated September 9, 2019) to create a produced water research consortium to support NMED’s implementation of New Mexico House Bill 546.

Goals

The New Mexico Produced Water Research Consortium ("NM-PWRC") is organized under that MOU to develop a research framework to fill scientific and technical knowledge gaps necessary to establish regulations and policies for the treatment of produced water. NMED requires any future regulation and policy for produced water management to be protective of public health and the environment, rooted in sound science and consistent with all applicable law. The NM-PWRC is also designed to strengthen and accelerate the development of public-private partnerships to build and grow future sustainable economic development opportunities in the State.

Value Proposition

Through the consortium, New Mexico intends to continue to lead the country in advancing scientific and technological solutions related to the treatment and reuse of produced water generated by the oil and gas industry. The MOU is also intended to stimulate economic investment opportunities in New Mexico under the leadership of NMSU, which will rely on public and private funding to carry out this research.

Participation

The NM-PWRC is an association of a university unit and two or more industrial companies, organizations, or government entities, with the objective of participating in a common activity or the pooling of resources to achieve a common goal in research and public service. Participant categories include, without limitation, the following:

• “Academic Institutional Member,” comprising any public or private institution, including higher education and K-12;

• “Corporate Member,” comprising any legally incorporated business or industry;

• “Member,” as defined in Article I of the NM-PWRC Member Agreement;

• “Non-Governmental Organization,” comprising any nonprofit organization that operates independently of any government -- typically one whose purpose is to address a social or political issue; and

• “Sponsor,” as defined in Article I of the NM-PWRC Member Agreement.
Article I: Consortium Organizational Structure

NMSU will manage NM-PWRC membership and process, operated under the umbrella of NMSU’s Office of Strategic Initiatives within the Office of the Chancellor. Membership status is established upon signature by both parties on the NM-PWRC Membership Agreement and payment of applicable membership fee. NMSU reserves discretion whether to accept a party as a member to ensure the integrity of the Consortium mission according to established research consortium practices.

The Government Advisory Board (“Board”), the NMSU Advisory Council (“Council”) and the Technical Research Committee (“TRC”) will support the NMPWRC. The organizational structure is designed to ensure broad engagement while leveraging the technical and regulatory resources and knowledge within and external to New Mexico.

The diagram below further illustrates the NMPWRC organizational structure.
Article II: Consortium Management and Operations Structure

Each **Member** is entitled to participation in the Council and to share equally in the results of any research funded by the Consortium. The Council is to include one representative from each Member.

The **Program Director** is the administrative head of the NMPWRC, and is responsible for coordination and oversight of the fiscal, personnel, research, reporting, and outreach efforts. The Program Director works closely with the Board, the Council and TAC, and program and research managers to ensure that:

- the research projects are focused on efficiently and cost-effectively accelerating the adoption of produced water treatment, reuse and reapplication technologies; and
- science-based regulations are protective of human health and the environment.

**Program and Research Managers** manage the alignment and coordination of research projects for the NM-PWRC with the goal of conducting “fit-for-purpose” water treatment research that provide guidance on policy, regulations, and the cost and performance associated to enhance each use or reuse of produced water. Those managers ensure outreach to the public, industry, regulatory agencies, and other stakeholder groups of developed technology improvements to ensure timely implementation and adoption of produced water treatment and reuse that will protect the environment and human health.

The **Board** who will provide oversight of the Consortium research and outreach efforts by reviewing and approving major program strategies and directions, verification of key resource budgets and allocations, and schedules and progress. Each year, the Board will report its findings to NMED and NMSU leadership, and the Council. The Board will be comprised of one senior-level representative from each of the following:

- New Mexico State University;
- NM Environment Department;
- NM Energy Minerals and Natural Resources;
- NM Department of Agriculture;
- NM Water Resources Research Institute
- NM Office of the State Engineer;
- Federal Agencies (TBD by NMED and NMSU)

Each **Sponsor** is expected to provide funding support to advance research in treatment and reuse of produced water generated by the oil and gas industry, with a commitment of 3-5 years. This multi-year commitment will ensure a robust research effort required to effectively
address scientific and technical knowledge gaps necessary to establish regulations and policies for the treatment of produced water. Pooled Sponsor funding will be used to support operational and research needs of the NM-PWRC. Each Sponsor entity will be granted automatic annual membership on the Council. Sponsorship levels noted below are reflective of cumulative (calculated annually) financial commitment in the NMPWRC as follows:

- Platinum Sponsor $2 million
- Gold Sponsor $1 million
- Silver Sponsor $500,000
- Bronze Sponsor $250,000
- Affiliate Sponsor $50,000

Financial commitments for Sponsorship may include cash and may also include any other resource specifically receiving approval as Sponsor support by the Board (e.g. in-kind resources such as vehicles and laboratory equipment).

The **Council** will serve to advise the Program Director on research roadmap priorities, including current research and technology gaps and emerging health and safety issues, opportunities for collaborative demonstration sites, environmental and regulatory considerations, and other relevant issues that impact the work of the Consortium. This Council will be supported by NM-PWRC Faculty Fellows and student Interns, who will provide administrative and technical support at public meetings, workshops, and will help compile and record NMPWRC findings as needed.

Each Faculty **Fellow** is an individual with technical subject matter expertise who serves as liaison between the NM-PWRC and Researchers, and mentors university student interns working on behalf of the NM-PWRC.

Each student **Intern** is invited from one of the three New Mexico research universities to assist in various aspects of the NM-PWRC as determined by the Program Director. The Intern can be paid directly by the NM-PWRC or involved through other means to be determined by each of the respective institutions.

The **TRC** will serve as an independent body to help establish Requests for Proposals (RFP), evaluate responses to submitted RFPs for funding, and review research and technology findings. The role of the TRC is to oversee the integrity and fairness of research opportunities, assess the quality and validation of the research results, and ensure a quality and focused research portfolio. In consultation with the Board, the Program Director identifies and invites to participate each TRC member based on recognized technical expertise in:

- produced water issues and management;
- produced water treatment and testing;
• produced water public safety and health issues; and
• relevant alternative use research challenges, applications, costs, and impacts on water supply security and resiliency.

Funding
Research can result from funding from any combination of membership dues, sponsorships, or as a part of externally funded research. Externally funded research leveraged by NM-PWRC funding must be approved by the Board prior to acceptance of an award, if and only if, NM-PWRC funding is included as a cost-share or in-kind requirement in the respective research grant award.

Participation
TRC membership includes about twenty-five NM-PWRC representatives selected equally from the following to ensure broad input and oversight of the research program and research projects:

• Academia including;
  • New Mexico State University;
  • University of New Mexico;
  • NM Institute of Technology; and
  • Others (2);
• Oil and Gas Industry (5);
• Midstream oil and gas water companies (5);
• State or federal agencies;
  • Los Alamos National Laboratory;
  • Sandia National Laboratories;
  • Water Resources Research Institute; and
  • Others (2); and
• Non-governmental entity stakeholders (5).

Any TRC member is expected to recuse itself from review of any proposal that originates in whole or in part from that TRC member or its Affiliate (as defined in the Membership Agreement).
Article III: Consortium Research Program

The NM-PWRC research program consists of a portfolio of research projects evaluated and approved by the TRC with the intent of fast-tracking treatment technology research and technology development that can:

- accelerate the implementation and acceptance of policies and regulations for the use of treated produced water in New Mexico;
- support policies and regulations that protect the environment and human health; and
- be used as models nationwide.

Funded Core research projects are subject to compliance with terms outlined in the Membership Agreement and the directions identified by the TRC and Board.

Research projects consist of Core projects and Enhancement projects. Core projects are funded from pooled membership dues paid by NM-PWRC members and pooled Sponsor funds. The TRC is responsible for selecting Core projects based on research roadmap priorities recommended by the Council. Enhancement projects are funded through additional financial means (but not membership dues or Sponsor pooled funding), specifically to enhance or accelerate a currently-funded Core project. In order to be included into the NM-PWRC, an Enhancement project must contribute to the knowledge development of the NM-PWRC and is subject to advance approval by the Program Director and the Board.

The NW-PWRC has an interest in ensuring that faculty participants in the NM-PWRC obtain recognition from their Deans and Department Heads for NM-PWRC-related research, public service and/or instructional activities. Consequently, each Core project proposal awarded by the NM-PWRC – and any resulting award or applicable rejection is subject to normal University procedures for processing that submission.

Article IV: Financial Management of Consortium

Pooled membership funding is used to support operational and research needs of the NM-PWRC. Annual membership dues are established as follows:

- Corporate Member $1,000
- Academic Institutional Member $500
- Non-governmental Organization Member $500

The annual period for paying membership is based on calendar (January 1 – December 31), and is the same for each Member. The NM-PWRC Program Director is responsible to ensure the timely payment of membership dues, as authorization to undertake work within the NM-PWRC is dependent on their collection. Each Member must pay its dues annually as a lump sum. The
NM-PWRC Program Director has sole discretion to waive annual membership fee based on the dual participation as a Member and a Sponsor.

Annual membership dues and pooled sponsorship funding must be deposited in a pooled (termed “public service”) account at NMSU. This prime account is used as a “holding” account for membership dues and sponsorship funds. Membership dues and pooled sponsorship are then utilized to fund research projects, the NM-PWRC’s administrative budget, and future encumbrances (e.g., planned procurement of large-scale instrumentation for the benefit of membership projects, etc.). A clear breakdown of how membership dues is allocated should be noted in the minutes of each annual NM-PWRC Council meeting.

Research projects are funded in an amount not to exceed $200,000 per year, not to exceed over twenty-four months’ duration, and not to be granted any no-cost extension request. Funded research project awards are limited to a twenty percent indirect cost rate, including Core and Enhancement research projects.