NMPWRC Information Sharing Plan
Attachment B

1. **Initial information requirements for all projects:**

a. **Name of the Company:** Infinity Water Solutions

b. **Address:** 1250 South Capital of Texas Hwy, Building 2-200, Austin, TX 78746

c. **Contact person and info:**
   - Chief Communications and Government Affairs Officer, Ashley Kegley-Whitehead, Ashley@water.energy
   - Chief Operating Officer, Peter Mercure, peter@water.energy

d. **Type of project (lab, bench scale, pilot, field, combination, other):** Field.

e. **Affirmation:**
There is no discharge of produced water or treated produced water to the surface of groundwater.
We affirm there will be no discharge of produced water or treated produced water to the surface of the ground.

Rather, in this proposed research study highly polished/treated produced water (<2 mg/L TOC, <400 mg/L TDS) will be applied to a hemp crop to assess the relative effects on the peripheral environmental, phytochemical content, and yield compared to an equivalent crop watered with local groundwater.

f. **Affirmation:**
The project will be conducted as a closed loop system.
Yes, our project will be conducted in a closed loop system.

g. **Basin of origin of produced water to be used:**
San Juan or Permian Basin: Permian Basin.

h. **Project:**
Does technology testing take place inside or outside of the oil and gas field?
The pretreatment and desalination of the produced water in question will be performed inside the oil field at a permitted recycling facility in Loving, New Mexico.

i. **Project:**

j. **Project:**
Proposed use of the treated produced water intended for use inside or outside of the oil and gas field? Is the proposed use directly related to oil and gas exploration, development, production?

The primary goal of this research is to assess the appropriateness of treated produced water for beneficial reuse within a field scale, agricultural pilot study.

k. Funding source and amount of PWRC funding (self-funded, PWRC funded (amount) or combination:
This study is self-funded by Infinity Water Solutions.

l. Company description/biography (experience, type of technology, primary work of company, website):
Infinity Water Solutions is an Austin, Texas-based water management and sustainability company focused on infrastructure and water recycling in the Permian Basin. As a pure-play recycler, our goal is to reuse 100% of what we gather, accelerating the pace at which many ESG goals are achieved, and reimagining how the industry (and beyond) approaches wastewater.

Collectively, our team has more than 60 years of experience in the energy sector. This includes extensive international experience in oil and water logistics, treatment technologies, and engineering/fabrication. We have leveraged this expertise through collaborations with leading scientists in the water treatment and analysis arena, including Drs. Zacariah Hildenbrand and Kevin Schug, to comprehensively characterize and optimize our current commercial system.

Since launching in 2019, Infinity has invested heavily in a robust water-sharing network covering more than 150,000 acres in Eddy County, New Mexico. Currently our team is treating produced water to a direct reuse standard using various pretreatment technologies, including a novel form of ozone delivery. To date, we have treated more than 4,796,524 barrels of raw produced water at a current throughput capacity of 125,000 bbl/day, and delivered similar volumes of recycled produced water back out to a variety of major operators across the Northern Delaware, some up to 22 miles away from Infinity facilities.

To learn more, visit https://water.energy/

m. Executive summary (one to two paragraphs describing the general purpose of the project and expected benefits of proposed technology process):
As industry leaders, we are fueled by passion, curiosity and sustainability. We evolve and adapt in ad finitum for the betterment of our community and the environment. As research, science and technology change, so too, does our thinking and our approach. In an effort to further regulators' (and the whole world's) body of knowledge on beneficial reuse to support Phase II of the Produced Water Act, we propose the following small scale pilot program using Infinity treated produced water.

Using the aforementioned pretreatment technologies in conjunction with a desalination system (distillation or membrane-based filtration), we plan to treat raw produced water to a non-potable fresh water state (<2 mg/L TOC, <400 mg/L

TDS). Once treated to this standard, the fresh water will be applied to a hemp crop to assess the effects on the peripheral environment, as well as the yield and phytochemical content of the crop.

Hemp is among the fastest growing plants on Earth and can be refined into a variety of commercial items, including paper, rope, textiles, clothing, biodegradable plastics and biofuel, to name a few. In addition to widespread uses, hemp is also a fast-growing regenerative crop that helps combat climate change through carbon dioxide removal.

To our knowledge, this research represents some of the first efforts to understand the appropriateness of using treated produced water for beneficial reuse within a field-scale agricultural crop.

n. Project goals (one to two paragraphs describing what the goals are for the project to accomplish- days operational, stability, quality & quantity of distillate, barrels of distillate produced, etc.)

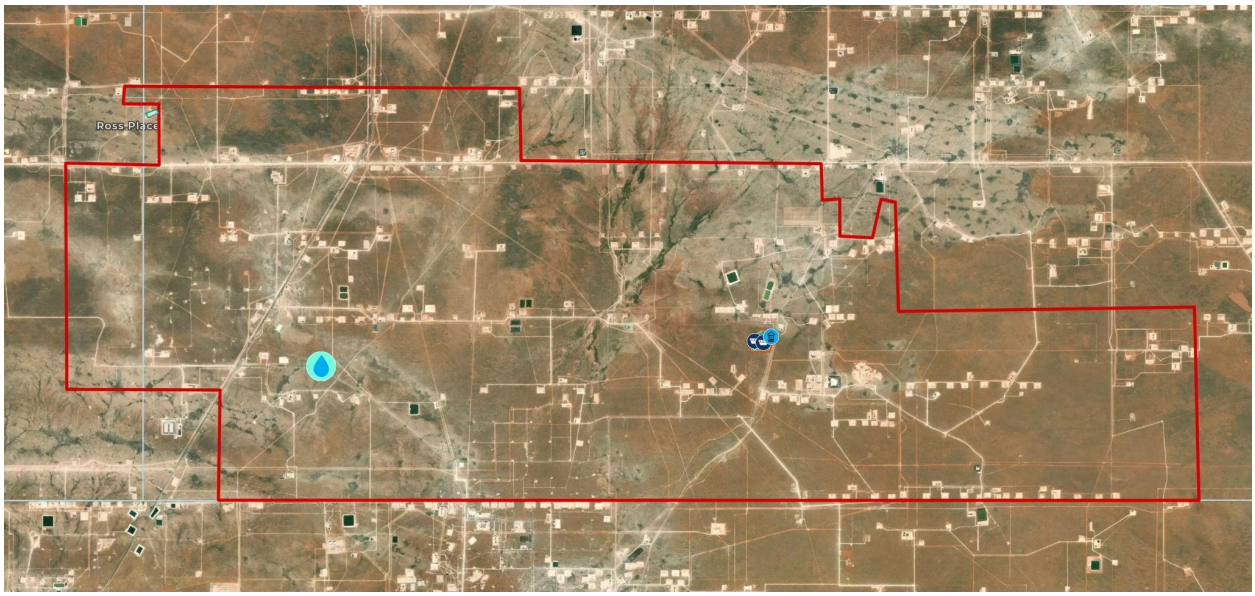
Approximately 1,500 bbls to raw produced water from the Permian Basin (~120,000 mg/L TDS, ~100 mg/L TOC, ~35 mg/L iron) will be treated to a clean brine standard (~120,000 mg/L TDS, <10 mg/L TOC, <5 mg/L iron) using our novel ozone treatment, which we refer to as hyperozonation.

This pretreated water will then be passed through an appropriate desalination treatment that will produce ~1,000 bbl of non-potable fresh water (<400 mg/L TDS, <2 mg/L TOC, non-detectable amount of iron). This effluent will be stored on site and used as needed to water a ¼ acre experiment plot of autoflowering hemp. This will be grown next to a ¼ acre control plot of the same hemp genetic grown in the same soil, only the control plot will be watered with local groundwater (~1,500 mg/L TDS, >50 NTU).

From seed to harvest, we anticipate our study to last roughly four to six months, given the condensed growth cycle of hemp and the variables at play.

o. Site location/identification (identify locations where all phases or parts of the project are to be conducted including address, section, township, range, GPS coordinates, site description). Include an aerial map with basic design features on the map, including adjacent roads, north arrow, scale, equipment, fencing and other pertinent information.

The study will be performed at Infinity's Battle Axe Ranch located at 2430 Battle Axe Rd, Jal, NM 88252



Produced water treatment efforts will occur at Infinity's flagship recycling facility, Milla Ranch 1. The Mills Ranch 1 Facility is located at 32.22107° N, 103.82411° W. The driveway is located off Wipp Road, near the intersection of highway 128.

p. Provide written driving instructions on how to reach the site from Albuquerque.

From Albuquerque, take I-40 E and US-285 S/US Hwy 285 S to NM-360 S in Eddy County (259 mi). Turn right onto NM-360 S (25 mi). Turn left onto US-180

E/US-62 E (14 mi). Take Louis Whitlock Rd, NM 128-E and J-1/Orla Rd to Battle Axe Rd/J-2 (43 miles).

q. **Site description: type of facility where all parts of the pilot are to be conducted-BGNDRF, university laboratory, permitted recycling facility, well pad, other).**
The Battle Axe Ranch is a privately-owned working ranch that houses various oil and gas activities.

r. **Land status: (identify, ownership status for all project locations (private federal, state, BLM, Tribal, USFS, other)** Private.

s. **Are any parts of the project conducted or sourced within the exterior boundaries of a Native American Reservation?** No.

t. **Provide list of all landowners adjacent to proposed project locations and provide confirmation that adjacent owners have been notified regarding the proposed project. Provide the source of the adjacent landowner data.**
The Battle Axe Ranch is a 33,000-acre grazing ranch. The current landowner is Cerberus Land and Cattle Company LLC. Our current point of contact, William Ditto, is owner/manager. His contact information is wditto@cerberuslcc.com. We have been working closely with Mr. Ditto on the development of this pilot application.

u. **Proposed schedule (dates of proposed testing, duration of testing, etc.)**
Initial water treatment will begin in April 2023, with seeding of the two ¼ acre hemp plots beginning in May of 2023. The hemp genetic in question is a single-stalk, autoflowering varietal that can be grown in a pit equipped with a leak protection liner, ultimately being harvested in less than 10 weeks.

As such, the crops will be harvested and analyzed by the end of July, with the results being interpreted and compiled into a manuscript for publication in a peer-reviewed technical journal.

Immediately following the harvest, all excess hemp material will be destroyed in compliance with the USDA guidelines for hemp destruction. Comprehensive soil and groundwater testing will be performed before and after the 8-10 week cultivation trial for both the experimental and control plots. Water quality testing of the treated produced water (non-potable fresh water) will be conducted through the treatment and utilization

v. **Technology performance objectives (treatment target goals: treated water recovery in bbls/day, daily operational target (hrs/day), treated produced water recovery target % of raw water feed, quality target, initial TDS and targeted TDS after treatment, source water date, basin, formation, and other pertinent data)** Approximately 2,000 bbl of raw produced water from the

Permian Basin (~120,000 mg/L TDS, 300 mg/L TOC, 300 NTU) will be treated with Infinity Water Solutions' proprietary hyperozonation treatment. The resulting clean brine (~120,000 mg/L TDS, <10 mg/L TOC, <10 NTU) will then be passed through a desalination system (TBD, either a distillation- or a membrane-based technology) that will yield approximately 1,000 bbl of non-potable fresh water (<400 mg/L TDS, <2 mg/L TOC, <2 mg/L NTU), which will be stored on site for use as needed on the experimental hemp crop plot. ~10 bbl of this highly treated non-potable fresh water will be used for daily watering of the experimental ¼ acre hemp plot.

w. **Treatment system design and process: (brief description of the general technology to be used, how the process will flow, expected results, site diagram of project set-up)** The entire treatment train will begin with the storage of raw Permian produced water in aboveground storage tanks (ASTs). This will then feed our hyperozonation system, which is equipped with filtration on the back end to remove flocculated and precipitated materials. The resulting clean brine will then be fed into a desalination system (technology TBD) to produce non-potable fresh water. This terminal effluent will be stored in water tanks for use as needed.

x. **Emergency response plan for spills or releases of produced water or treated produced water** If any of the aforementioned fluids (raw, pretreated, and desalinated produced water) are subject to rogue releases, the area in question will be excavated and the contaminated soil will be disposed of at a soils waste disposal site.

y. **Disposal and decommissioning plan (where will produced water and treated produced water be disposed of, where will soils, plant materials, other equipment used in project be disposed of? How will equipment used in project be decontaminated?**
The following equipment, water, material and soil solutions are planned.
    - **Equipment:** None - Reuse for testing at other sites
    - **Material**: Immediately following the harvest, all excess hemp material will be destroyed in compliance with the USDA guidelines for hemp destruction.
    - **Water:** Any unused water from the study will be returned to Infinity Water Solutions' Mills Ranch 1 facility where it can be recycled and reused for direct reuse within the oil and gas industry.
    - **Soil:** Any contaminated soil will be disposed of at approved soil restoration sites or approved landfills.

z. **Certification that applicant will fully comply with all consortium requirements and guidance documents related to the following:**
Infinity Water Solutions certifies that it will comply with all consortium requirements and guidance documents as outlined on January 30, 2023. Our

goal is to provide essential data for the development of protective permitting regulations for treatment and subsequent use of treated produced water as stated in HB 546. As such, we plan to share our findings with New Mexico regulators, the science and academia community and the public at large. However, there are elements of our technology that are proprietary in nature, and will remain so throughout the duration of this study.

aa. Guidance on Produced Water Sampling Procedure

Infinity will comply with the PWRC guidance or a comparable EPA sampling protocol.

bb. Guidance on Produced Water Treatment Research, Development, and Demonstration Testing and Evaluation.

Infinity will comply with the PWRC guidance re: research, development and demonstration testing and evaluation.