



EA Engineering, Science, & Technology, Inc., PBC
320 Gold Avenue SW, Suite 1300
Albuquerque, New Mexico 87102

July 13, 2021

Ms. Nancy McDuffie
New Mexico Environment Department
Ground Water Quality Bureau
121 Tijeras Avenue NE
Albuquerque, New Mexico 87102

Via E-Mail

**RE: S2AP ADDENDUM FOR REUSE OF PUMPED GROUNDWATER, REVISION 02
DEL ORO DAIRY, ANTHONY, NEW MEXICO**

Dear Ms. McDuffie:

On behalf of Del Oro Dairy, EA Engineering, Science, and Technology, Inc. PBC has prepared this revised addendum to the Stage 2 Abatement Plan (S2AP) Modification Proposal dated 26 July 2019 to facilitate on-site reuse of pumped groundwater and present changes to the monitoring protocol presented in the S2AP modification proposal. The S2AP modification proposal calls for pumping groundwater along the southwest boundary of the dairy to remove nitrate, chloride, and total dissolved solids (TDS) contamination. After investigation of several methods of groundwater reuse and disposal and based on input from the New Mexico Citizens Dairy Coalition, extracted groundwater will be used for milking parlor washdown. The locations of proposed extraction wells (red dots) and conveyance lines are shown in Figure 1. The extraction system will discharge to a dedicated storage tank used exclusively for milking parlor washdown. The wash water will enter drains in the milking parlor which will carry it to the manure waste management system and then to the lagoons.

In the event that the pumped groundwater cannot be conveyed to the storage tanks, it will be discharged temporarily to the western wastewater lagoon for evaporation. This will be facilitated by discharging to the northern storm water retention pond. Surface water collected in the northern storm water retention pond is transferred via pumping to the western wastewater lagoon under DP-692. As shown in the S2AP modification proposal, this lagoon has the capacity to store and evaporate the pumped groundwater. If this contingency plan should become necessary due to unforeseen circumstances, the unauthorized discharge will be reported to the New Mexico Environment Department (NMED) in accordance with 20.6.2.1203 NMAC. The unauthorized discharge will be managed by a corrective action plan in accordance with 20.6.2 NMAC Section 1203.A.5 which will specify system repairs to be made to resume reuse under this addendum.

A capture analysis will be performed within 60 days of extraction well network installation to verify that the plume is fully captured by the five extraction wells that will be installed along the downgradient perimeter of the Del Oro Dairy property. If an extraction well becomes inoperable, notification will be provided to NMED within 24 hours of its discovery. It is anticipated that if one

pumping well becomes inoperable, the remaining four wells will be adequate to capture the plume. If the capture analysis shows otherwise, a separate contingency plan will be developed and submitted to NMED.

In response to public comment, the following monitoring protocol will be followed:

- Individual extraction wells will be sampled and analyzed for all parameters agreed to in the final approved DAD S2AP on a quarterly basis when site-wide monitoring occurs. Concentrations for combined extracted groundwater will be calculated using individual extraction well concentrations and volumes.
- A totalizing meter will be used to track the volume of extracted groundwater from each extraction well. Totalized volume will be recorded monthly and reported on a quarterly basis.
- Weekly liquid depth measurements in the lagoon cells will be tabulated and submitted with the quarterly monitoring report.

A virtual townhall will be held to present and discuss the final proposed plan, which consists of the S2AP Modification Proposal dated 26 July 2019 and the S2AP Addendum for Reuse of Pumped Groundwater, Revision 02. Public notification will include an NMED press release which will be posted on the NMED website, notice to interested parties delivered by email, and flyers posted at conspicuous places in the community such as the local library. Additionally, a Spanish version of the final proposed plan will be posted on the NMED website.

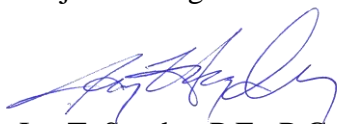
Please feel free to contact me at (505) 715-4279 if you need additional information or have any questions on the proposed S2AP Modification Proposal Addendum for Reuse of Pumped Groundwater.

Sincerely,

EA Engineering, Science, and Technology, Inc., PBC



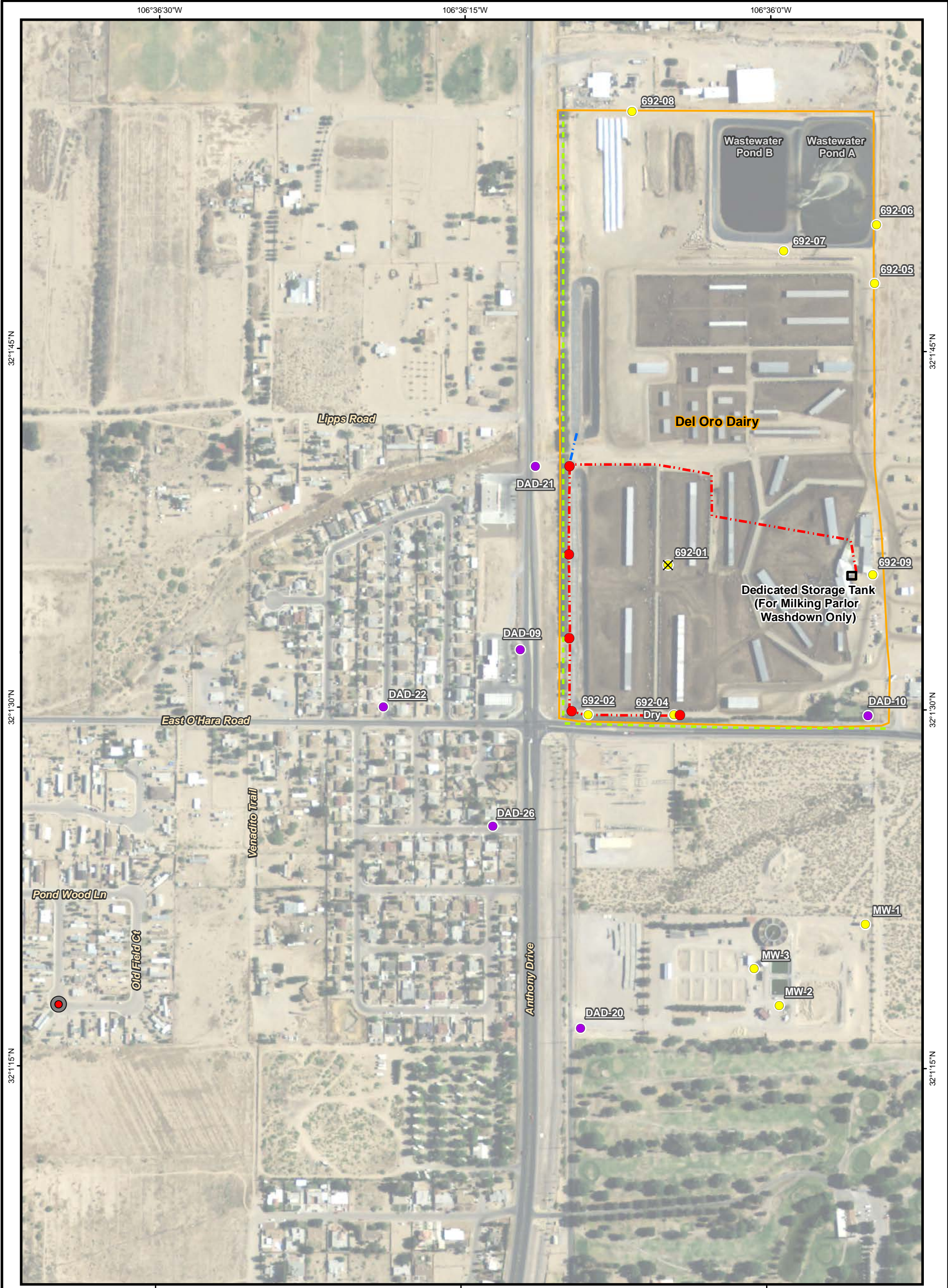
Gina Mullen
Project Manager



Jay T. Snyder, P.E., P.G.
Senior Hydrogeologist

Attachments: Figure 1 – Proposed Extraction System at Del Oro Dairy – Perched Aquifer

Cc: Linda Armstrong, Del Oro Dairy



- Proposed Abatement Plan Monitoring Well
- New Extraction Well
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- ⊗ Discharge Plan Monitoring Well
- - - Primary Conveyance Line
- - - Contingency Conveyance Line

- - - Overhead Electrical Line
- Land Owned by Dairies

0 100 200
 Feet
 1 INCH = 400 FEET
 WHEN PRODUCED AT 11X17IN



DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
PROPOSED EXTRACTION SYSTEM AT DEL ORO DAIRY SOUTHERN PORTION, PERCHED AQUIFER			
	PROJECT No. 1464105.01		SCALE AS SHOWN
	DESIGN NA	RM	
	GIS RM		
	CHECK		
REVIEW			FIGURE 1