

1 Charles M. Tebbutt, WSBA #47255  
Jonathan Frohnmayer, *pro hac vice*  
2 Law Offices of Charles M. Tebbutt, P.C.  
3 941 Lawrence St.  
Eugene, OR 97401  
4 Tel: (541) 344-3505  
5 Fax: (541) 344-3516

6 *Additional Counsel Identified on Signature Page*

7 IN THE UNITED STATES DISTRICT COURT  
8 FOR THE EASTERN DISTRICT OF WASHINGTON

9 COMMUNITY ASSOCIATION FOR  
RESTORATION OF THE  
10 ENVIRONMENT, INC., a Washington  
Non-Profit Corporation; FRIENDS OF  
11 TOPPENISH CREEK, a Washington Non-  
Profit Corporation,

12 *and*

13 CENTER FOR FOOD SAFETY, INC., a  
Washington D.C. Non-Profit Corporation,

14 Plaintiffs,

15 *v.*

16 AUSTIN JACK DECOSTER, an individual,  
17 DECOSTER ENTERPRISES, LLC, a  
Delaware limited liability company,  
18 AGRICULTURAL INVESTMENT-FUND  
II, a Delaware limited liability company,  
19 IDAHO AGRI INVESTMENTS, LLC, an  
Idaho limited liability company, IDAHO  
20 DAIRY HOLDINGS, LLC, and Idaho  
21 limited liability company, DRY CREEK  
DAIRIES, LLC, an Idaho limited liability  
22 company, WASHINGTON DAIRY  
HOLDINGS, LLC, a Washington limited  
23 liability company; WASHINGTON AGRI  
INVESTMENTS, LLC, a Washington

Case No. 1:19-cv-3110-TOR

[PROPOSED] CONSENT DECREE

1 limited liability company; DBD  
2 WASHINGTON, LLC, a Washington  
3 limited liability company; *and* SMD, LLC, a  
4 Washington limited liability company,  
5 Defendants.

6 **WHEREAS**, Plaintiffs Community Association for Restoration of the  
7 Environment, Friends of Toppenish Creek, and Center for Food Safety (collectively  
8 “Plaintiffs”) filed a Complaint on May 23, 2019, and a First Amended Complaint on  
9 November 8, 2021, in this Court seeking declaratory and injunctive relief, as well as  
10 attorney and expert witness fees and costs, against DBD Washington, LLC, SMD,  
11 LLC, Washington Dairy Holdings, LLC, Washington Agri Investments, LLC,  
12 Austin Jack DeCoster, DeCoster Enterprises, LLC, Agricultural Investment Fund-  
13 II, LLC, Idaho Agri Investments, LLC, Idaho Dairy Holdings, LLC, and Dry Creek  
14 Dairies, LLC (collectively “Defendants,” “DBD,” or the “Dairies”), alleging  
15 violations of the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*  
16 (“RCRA”). Plaintiffs’ Complaint for alleged RCRA violations was brought under  
17 the citizen suit provisions of Section 7002 of the Act, 42 U.S.C. § 6972(a)(1)(A) and  
18 (B);

19  
20  
21 **WHEREAS**, prior to filing their Complaints, Plaintiffs sent to Defendants  
22 Notices of Intent to Sue dated February 11, 2019, April 15, 2019, April 3, 2020, and  
23 December 23, 2020, in which they stated their intent to assert claims that Defendants

1 have violated and continue to violate Section 7002(a) of RCRA by contributing to  
2 the past and present handling, storage, treatment, transportation, and/or disposal of  
3 solid and hazardous waste in such a manner that may present an imminent and  
4 substantial endangerment to health and the environment. 42 U.S.C. § 6972(a);  
5

6 **WHEREAS**, Plaintiffs further assert that Defendants employ, and have  
7 employed, improper manure management practices that constitute the “open  
8 dumping” of solid waste in violation of Section 4005(a) of RCRA. 42 U.S.C. §  
9 6945(a);

10 **WHEREAS**, DBD Washington, LLC and SMD, LLC, Washington Agri  
11 Investments, LLC, and Washington Dairy Holdings, LLC are registered as limited  
12 liability companies in the State of Washington; Dry Creek Dairy, Idaho Dairy  
13 Holdings, LLC, and Idaho Agri Investments, LLC, are registered as limited liability  
14 companies in the State of Washington; DeCoster Enterprises, LLC and Agricultural  
15 Investment Fund-II, LLC are registered Delaware limited liability companies. These  
16 Defendants, along with Austin Jack DeCoster, collectively own and operate the  
17 dairies known as “DBD Washington,” “SMD,” and the “Heifer Ranch.” DBD  
18 Washington is located at or near 5111 Van Belle Road in Outlook, Washington;  
19 SMD is located at or near 211 Nichols Road in Outlook, Washington; and the “Heifer  
20 Ranch” is located across from SMD on the south side of Outlook Road;  
21  
22

23 **WHEREAS**, Defendants deny all claims, including that they violated and

1 continue to violate Section 7002(a) of RCRA by contributing to the past and present  
2 handling, storage, treatment, transportation, and/or disposal of solid and hazardous  
3 waste in such a manner that may present an imminent and substantial endangerment  
4 to health and the environment. 42 U.S.C. § 6972(a).

5  
6 **WHEREAS**, Defendants further deny that they employ, and have employed,  
7 improper manure management practices that constitute the “open dumping” of solid  
8 waste in violation of Section 4005(a) of RCRA. 42 U.S.C. § 6945(a); Defendants  
9 DBD and SMD further allege that they have at all times relevant to this matter held  
10 Concentrated Animal Feeding Operation Permits, and that all conduct during the  
11 relevant time frames has been subject to oversight, regulation and enforcement of  
12 such Permits by the Washington State Department of Ecology.

13  
14 **WHEREAS**, after consultation with their respective counsel, Plaintiffs and  
15 Defendants (collectively the “Parties”) hereby wish to settle this lawsuit to avoid the  
16 risks of further litigation and appeal and to resolve the controversy between them;  
17 and

18  
19 **WHEREAS**, the Parties acknowledge that this Consent Decree has been  
20 negotiated by the Parties in good faith and will avoid further litigation, and the Court,  
21 in entering this Consent Decree, finds that this Decree is fair, reasonable, and in the  
22 public interest.

23 **NOW, THEREFORE**, without the admission of any issue of fact or law

1 except as provided in General Provisions, and upon consideration of the mutual  
2 promises contained herein, it is **ADJUDGED, ORDERED, AND DECREED** as  
3 follows:

4  
5 **GENERAL PROVISIONS**

6 1. This Court has jurisdiction over the Parties and the subject matter of  
7 this lawsuit pursuant to 42 U.S.C. § 6972(a) and 28 U.S.C. § 1331. Venue is proper  
8 in this Court pursuant to 42 U.S.C. § 6972(a) and 28 U.S.C. § 13912(b). This Court  
9 shall have continuing jurisdiction over this lawsuit for the purposes of interpretation,  
10 enforcement, and, if necessary, modification of this Consent Decree.

11 2. The undersigned representative for each Party certifies that he/she is  
12 fully authorized by the Party whom he/she represents to enter into the terms and  
13 conditions of this Consent Decree and to legally bind the Party to it.

14 3. The terms “Dairies’ Facilities” and/or “Dairies” shall refer to the  
15 facilities commonly known as DBD, SMD, and the “Heifer Ranch,” as depicted on  
16 the maps attached hereto as Exhibit 1, and such property that may be acquired as part  
17 of Dairy Operations (defined below). These operations are collectively referred to  
18 herein as “DBD.”

19 4. The term “Dairy Operations” includes all aspects of the commercial  
20 production of milk from cows, including but not limited to the related operations of  
21 heifer raising, compost, manure management, manure application, manure storage in  
22  
23

1 lagoons and catch basins, the production and storage of silage and other animal feed  
2 materials, and the production of agricultural commodities that use manure products  
3 from the foregoing aspects of the commercial production of milk from cows.

4           5.       The Dairy Operations are operated jointly and constitute a large  
5 Concentrated Animal Feeding Operation (CAFO) under state and federal law.

6           6.       This Consent Decree shall apply to and be binding upon the Parties to  
7 this lawsuit and upon all successors and assigns of the Parties until termination. This  
8 provision is intended to require compliance with this Consent Decree so long as any  
9 portion of the Dairies is used by any person or entity in the course of conducting  
10 Dairy Operations or any other CAFO operation or manure processing or treatment  
11 facility. However, nothing herein shall prevent Defendants from discontinuing any  
12 or all Dairy Operations (whether independently or together) or from transferring any  
13 of the Dairies' Facilities to other owners for uses other than for CAFO Operations;  
14 this Consent Decree shall no longer apply to real property that is not being used for  
15 CAFO Operations or other agriculturally-related operations that involve the treatment  
16 and/or storage of manure. DBD, or any of their successors or assigns, may sell the  
17 Dairies' Facilities, or any of the real property upon which the Dairies or their  
18 operations may currently be conducted, without Plaintiffs' consent and without  
19 approval of the Court; provided, however, that DBD provide a copy of the Consent  
20 Decree to the new owner and provide written notice to Plaintiffs of the sale within  
21  
22  
23

1 thirty (30) days of closing.

2           7.       This Consent Decree constitutes the final, complete, and exclusive  
3 agreement and understanding of the Parties with respect to the settlement embodied  
4 in this Consent Decree and the subject matter of this lawsuit. The Parties hereby  
5 acknowledge that there are no representations or understandings relating to the  
6 lawsuit or its settlement other than those expressly contained within this Consent  
7 Decree. This Consent Decree expressly supersedes, extinguishes, and replaces all  
8 prior stipulations and agreements between the Parties.  
9

10           8.       This Consent Decree may not be modified in any material respect  
11 except by explicit written agreement of the Parties that is approved by the Court.  
12 Non-material modifications may be made by the Parties upon written consent.  
13

14           9.       This Consent Decree constitutes the full and complete settlement of all  
15 claims, rights, demands, and causes of action of any kind, alleged or unalleged,  
16 known or unknown, relating to DBD's Dairy Operations, through the date of entry of  
17 the Consent Decree, that Plaintiffs asserted or could have asserted against DBD in  
18 this lawsuit. Plaintiffs hereby release all such claims and covenant not to sue DBD in  
19 connection with them. This covenant not to sue in no way releases DBD from  
20 compliance with this Consent Decree or future compliance with other applicable law.  
21 Furthermore, this covenant not to sue shall in no way limit Plaintiffs' ability to  
22 enforce the terms of this Consent Decree or any future violations of law committed  
23

1 by DBD.

2           10. Each Party acknowledges and represents that it has relied on the legal  
3 advice of its attorneys, all listed at the end of the Consent Decree, who are the  
4 attorneys of its own choice, and that the terms of this Consent Decree have been  
5 completely explained to the Party by its attorney(s), and that the terms are fully  
6 understood and voluntarily accepted.

7  
8           11. In the event that any part of this Consent Decree is deemed by a court  
9 of competent jurisdiction to be unlawful, void, or for any reason unenforceable, and  
10 if that part is severable from the remainder of the Consent Decree without frustrating  
11 its essential purpose or imposing an inequitable result on any party, then the  
12 remaining parts of the Consent Decree shall remain valid, binding, and enforceable.

13  
14           12. If for any reason the Court should decline to approve this Consent  
15 Decree in the form presented, then the Parties agree to continue negotiations in good  
16 faith in an attempt to cure the objection(s) raised by the Court to entry of this Consent  
17 Decree.

18  
19           13. This Consent Decree may be signed in counterparts, and such  
20 counterpart signature page shall be given full force and effect.

21           14. The Dairies meet the federal and state law definitions of a large  
22 concentrated animal feeding operation or “CAFO.” 40 CFR § 122.23. In operating  
23 the Dairy Facilities, DBD shall abide by this Consent Decree, their combined CAFO



1 permit, Dairy Nutrient Management Plans (“DNMP”), and the Washington Dairy  
2 Nutrient Management Act, RCW 90.64, *et seq.* If any of the terms of this Consent  
3 Decree are stricter than the aforementioned laws, then the terms of this Consent  
4 Decree shall control. If any of these laws are stricter than the terms of the Consent  
5 Decree, either now or in the future, such stricter laws shall apply. Notwithstanding  
6 the foregoing, the Parties agree that nothing in this Consent Decree may be construed  
7 to obligate DBD to violate any law or regulation. In the event of any perceived  
8 conflict, the Parties agree to submit the matter to the dispute resolution process  
9 described in Paragraph 59.

### 11 LAGOONS

12  
13 15. Defendants hereby agree to either double-line or abandon DBD Lagoon  
14 Nos. 1, 2, 3, 4, and 5, SMD Lagoon No. 3, and any new lagoons constructed on the  
15 property. DBD agrees that all lined lagoons under this Consent Decree must use a  
16 drain liner that meets GRI – GM13 Standard Specification (e.g., AGRU “Drain  
17 Liner”) overlain by a 60-mil textured HDPE liner, with incorporated leak detection,  
18 as described in Exhibit 2. DBD agrees that lagoons to be abandoned shall strictly  
19 comply with the lagoon decommissioning specifications detailed in Paragraph 20.

20  
21 16. DBD Lagoon No. 5 and SMD Lagoon No. 3 are currently empty with  
22 manure liquid and solids removed and will remain empty until lined. DBD shall line  
23 DBD Lagoon No. 5 and SMD Lagoon No. 3, with such lining to be completed no

1 later than 6/30/24.

2 17. DBD Lagoon Nos. 1, 2, and 4 are currently utilized for manure storage.  
3 DBD Lagoons 1 and 2 will be emptied with solids removed by 8/1/2023. DBD  
4 Lagoon 4 will continue to be used until Lagoon 5's lining has been completed and  
5 put into service. Lagoon 4 shall be emptied and solids removed no later than  
6 9/30/2024. Following the removal of its contents, DBD Lagoons 2 and 4 shall remain  
7 empty until lined or abandoned pursuant to Paras. 15, 18 and 19. DBD shall crop  
8 DBD Lagoons 1, 2, and 4 with Triticale or Alfalfa, with no nutrient addition, and  
9 DBD shall take reasonable measures to timely remove accumulations of rainwater or  
10 runoff. DBD Lagoon 1 will be closed no later than December 31, 2025.  
11

12 18. DBD Lagoon No. 3 is currently empty with manure liquid and solids  
13 removed and shall remain empty until lined or abandoned. DBD shall crop DBD  
14 Lagoon 3 and plant with Triticale or Alfalfa, with no nutrient addition, in 2023. DBD  
15 shall take responsible measures to timely remove accumulations of rainwater or  
16 runoff. DBD Lagoon 3 shall remain empty until lined or abandoned pursuant to  
17 Paragraphs 15, 18 and 19. At DBD's option, Lagoon 3 may be combined with Lagoon  
18 2 prior to any lining. All further decisions on lining, including those of Lagoon Nos.  
19 2, 3 and 4, shall take into account whether the enzyme or oxygenation treatments, or  
20 both, used in the Pilot Projects shall be applied to those specific areas. No enzyme or  
21 oxygenation treatment shall be required if: 1) the average composite samples from  
22  
23

1 seven (7) borings in the soils above the water table do not exceed 45 ppm nitrate plus  
2 ammonium and ground water downgradient from the lagoon does not exceed 10 ppm  
3 nitrate plus ammonia or 1 ppm nitrite; 2) the soils exceeding 45 ppm nitrate plus  
4 ammonium are excavated and land applied properly; or 3) if the cropping removes  
5 the excess of 45 ppm nitrate plus ammonium. Upon completion of the Remediation  
6 Investigation, the Parties shall confer about whether excavation, pump and treat,  
7 enzymatic treatment, oxygenation treatment, or some combination thereof, or no  
8 further action, are best suited for each area.

10 19. Prior to lining, all liquids and organic solids shall be removed from the  
11 lagoons. Following removal of manure liquids and solids from the lagoons all lagoons  
12 being cropped will be irrigated with the enzyme technology.

14 ***Lagoon Decommissioning***

15 20. All Lagoon abandonment projects and closures shall be completed  
16 according to all the following terms:

- 17 a) *Lagoon Closure – Permanent Decommissioning* requirements of  
18 Section S4.B.1.f of the January 18, 2017, CAFO General Permit  
19 (combined), which is also S4.C.4.E. of the January 6, 2023, permit,  
20 issued by the Washington State Department of Ecology, or  
21 whatever more stringent protocol may be in place at the time;  
22  
23 b) Guidance provided by *NRCS Conservation Practice Standard*



1 the feasibility and efficacy of their respective visions for potential remediation of the  
2 excess nitrate and ammonium contamination of the soil and groundwater beneath the  
3 Dairy lagoons, excluding DBD Lagoon 5 and SMD Lagoon 3, each of which shall be  
4 double-lined. Plaintiffs envision oxidating the variable levels of ammonium in the  
5 soil profile in order to transform it into nitrate, speeding up leaching it into the aquifer,  
6 and then pumping it out as irrigation water. DBD envisions an enzyme/electrokinetic  
7 trial that may reduce or eliminate nitrate altogether. Plaintiffs have prepared a  
8 Remediation Investigation Plan (RI) that is attached hereto as Exhibit 3. DBD agrees  
9 to allow and cooperate with the provisions of the RI, subject to the following  
10 limitations: 1) the RI will not begin unless first permitted and authorized by  
11 Department of Ecology. The parties shall have one hundred-eighty (180) days from  
12 the entry of this Consent Decree to complete the RI; 2) the RI cost for Plaintiffs' work  
13 as outlined in the RI, to be paid by Defendants, shall not exceed \$80,000; and 3) the  
14 parties shall provide each other all the data, field notes, and analyses collected under  
15 the RI within thirty (30) days of receipt of such information, but in no case no later  
16 than 9/30/23 (unless delays contemplated by this Decree occur). Defendants shall  
17 provide all data collected during investigation or sampling activities at the Dairies.

21 23. Each Party's Pilot Program shall be conducted during 2023 through  
22 2025 with the expectation that the Pilot Programs may be able to be completed by the  
23 end of 2024. DBD shall pay for Plaintiffs' implementation of its proposed Pilot

1 Project. Plaintiffs shall undertake no Pilot Program activities, including no activities  
2 contemplated under the RI, unless first authorized and permitted by the Department  
3 of Ecology. Plaintiffs' representatives may visit their pilot area as often as reasonably  
4 necessary, provided that: Plaintiffs shall provide twenty-four (24) hours' notice  
5 before visiting their respective pilot area, including the names of the visitors and the  
6 approximate hours of visitation. No agents of Plaintiffs shall remain on the Dairy  
7 Facility before 8:00 a.m. or after 5:00 p.m., or on weekends, without the advance  
8 written permission from DBD. All costs for Plaintiffs' pilot program, separate from  
9 the RI, shall not exceed \$220,000 at DBD or SMD, such sum to be paid by  
10 Defendants. The Parties shall exchange the results of their respective Pilot Programs  
11 within ninety (90) days of completion, but in no case later than 12/31/2025. DBD  
12 shall additionally submit a report no later than such date analyzing the results of its  
13 other control, containment, and retrieval methods, including but not limited to its  
14 cropping of empty lagoons and its efforts to uptake ammonium through cropping.  
15  
16

17 24. After exchanging the results of their respective Pilot Programs, the  
18 Parties shall confer in good faith for a period of no more than ninety (90) days, as  
19 implementation of possible results of the Pilot Program may lead to earlier  
20 remediation of the ongoing contamination, about whether either Pilot Program should  
21 be utilized at the Dairies' Facilities to remediate the nitrate and ammonium  
22 contamination of the soils and groundwater underlying the Dairies' lagoon footprints.  
23

1 If the Parties are unable to agree, then the Parties shall submit their dispute to a neutral  
2 arbitrator for resolution. Should the Parties be unable to agree on a willing and  
3 available arbitrator within such ninety (90) days, they shall apply to the Court to  
4 appoint one. DBD shall pay the fees of the arbitrator. In evaluating the Parties'  
5 proposals, the Parties request that the arbitrator base their decision on the scientific  
6 results achieved by the respective Pilot Programs, the nitrogen levels still remaining  
7 beneath the respective footprints of the lagoons, and the relative costs of the proposed  
8 remediation. The mediator shall have discretion to award fees to Plaintiffs if they are  
9 the substantially prevailing party on any arbitrated issues. Should the Pilot Programs  
10 be delayed for good cause (such as permitting delays), the dates for lagoon lining and  
11 reporting may be adjusted by the Parties as minor modifications to this Consent  
12 Decree without approval of the Court.  
13  
14

### 15 GROUNDWATER MONITORING

16 25. DBD has installed thirteen (13) groundwater monitoring wells at  
17 locations generally depicted on the map attached hereto as Exhibit 4. Additional RI  
18 wells shall be installed by DBD under Plaintiffs' oversight. DBD shall monitor these  
19 wells on the same schedule until the Pilot Project is complete. Plaintiffs shall take a  
20 complete round of samples of all wells upon installation of the additional RI wells,  
21 which will count toward one of the quarterly samples noted below. The Dairies shall  
22 quarterly sample and analyze the wells within the Monitoring Well Network on the  
23

1 following schedule: June, September, December, and March. Following the first  
2 eight quarterly samples, sampling at the Monitoring Well Network shall occur on a  
3 semi-annual basis (twice per year; June and December) until four consecutive testing  
4 events show the average nitrate concentration in each well, calculated from the prior  
5 four sampling events from each well, is below the Maximum Contaminant Levels  
6 (MCL) of 10 ppm nitrate and 1 ppm nitrite. For purposes of the nitrate MCL number,  
7 “nitrate” shall include nitrate and ammonia together.  
8

9 26. The quarterly sampling for the Monitoring Well Network includes  
10 solely the parameters identified below:

11 Laboratory Parameters

- 12 • Nitrate (as nitrogen) by U.S. Environmental Protection Agency (EPA)  
13 Method 300.0  
14
- 15 • Nitrite (as nitrogen) by EPA Method 300.0  
16
- 17 • Chloride by EPA Method 300.0  
18
- 19 • Ammonia (as nitrogen) by EPA Method 350.1 or Standard Method 4500-  
20 NH3 G (methods are equivalent)  
21
- 22 • Total phosphorus by EPA Method 365.1 or Standard Method 4500-P E  
23 (methods are equivalent)
- Total Kjeldahl nitrogen by EPA Method 351.2 or Standard Method 4500-  
Norg C using colorimetric detection (methods are equivalent)



1 Field Parameters

- 2 • pH, dissolved oxygen, groundwater elevation, oxidation reduction  
3 potential, specific conductivity (using a field meter to determine when  
4 water is ready to be sampled).

5  
6 27. DBD agrees to provide to Plaintiffs, in electronic form, the laboratory  
7 results of each groundwater sampling event within fifteen (15) days of the date DBD  
8 receives the results. Results from the Dairies' selected, certified laboratory shall be  
9 the official results for determining compliance with the Consent Decree, unless a  
10 sampling or laboratory error makes the results inaccurate. In the event that the Dairies  
11 choose to use a different laboratory for monitoring well data capture, the Dairies shall  
12 so notify Plaintiffs. So long as the Dairies' selected laboratory is certified by the State  
13 of Washington Department of Ecology, Plaintiffs shall not unreasonably withhold  
14 agreement for DBD to change laboratories.

15  
16 **MANURE APPLICATION AND FIELD MANAGEMENT**

17 28. The provisions of this Section shall apply only to Application Fields  
18 owned, leased, or otherwise controlled by Defendants, including any Application  
19 Fields Defendants own, lease, or otherwise control after the Effective Date and during  
20 the term of this Decree. All such Application Fields owned, leased, or otherwise  
21 controlled by Defendants shall be addressed in Defendants' DNMP.

22  
23 29. For purposes of this Decree, Defendants shall be deemed to "control" an

1 Application Field to which manure is applied when (a) the manure is applied by  
2 Defendants’ employees or Defendants’ contractors using Defendants’ or  
3 Defendants’ contractor’s trucks or application equipment; (b) when the  
4 amounts/rates of application are not dictated by the recipient; and (c) when  
5 Defendants are not meaningfully compensated for such manure. For purposes of  
6 this subparagraph, reimbursement for fuel costs is not considered meaningful  
7 compensation.  
8

9 30. With respect to nitrogen, Defendants shall adhere to the following  
10 beginning in the Fall of 2023:

11 a. Defendant shall make nitrogen applications at or below  
12 agronomic rates based on Application Field-specific nutrient management budgets  
13 prepared by an agronomist.  
14

15 b. No later than January 31, 2025, Defendants shall have their  
16 agronomist conduct a retroactive review of their agronomic rate calculations and  
17 field nutrient performance data for crop years 2022-2024 and document that review  
18 in a report (“Agronomic Rate Report”). This review shall assess whether, taken as a  
19 whole, the agronomic rate calculations have adequately projected nutrient utilization  
20 within the bounds of good agronomic practice with the parallel goal of minimizing  
21 leaching potential to groundwater.  
22

23 c. Defendants’ agronomist’s review of nutrient utilization shall

1 include the mineralization of residual soil nitrogen, the availability of nitrogen from  
2 applied manure, the extraction of nitrogen by crops and the status and trends of  
3 residual nitrogen in the Application Fields.

4  
5 d. In the event that Defendants' management of manure in crop  
6 years 2022-2024 has followed its agronomist's recommendations based on  
7 agronomic rate calculations, evidence requiring adjustments to the agronomic rate  
8 calculations shall include excessive amounts of residual soil nitrogen (greater than  
9 15 ppm) occurring consistently in some application fields or failure to reach 15 ppm  
10 in twenty-five percent (25%) or more of Defendants' Application Fields.

11  
12 e. Defendants shall submit to Plaintiffs in accordance with the  
13 Notice provisions in Paragraph 62 a draft of the Agronomic Rate Report for  
14 Plaintiffs' review and comment no later than April 30, 2025. Defendants shall  
15 consider any comments Plaintiffs submit to Defendants on the draft Agronomic Rate  
16 Report if Plaintiffs deliver such comments to Defendants in accordance with the  
17 Notice provisions in Paragraph 62 no later than forty-five (45) calendar days after  
18 Defendants provide Plaintiffs with the draft Agronomic Rate Report. Defendants  
19 shall finalize the Agronomic Rate Report no later than July 30, 2025, and send a  
20 copy to Plaintiffs upon completion. If the conclusions of the finalized Agronomic  
21 Rate Report indicate a need to adjust the agronomic rate calculation assumptions,  
22 such conclusions shall be implemented by Defendants beginning with crop year  
23

2026 summer crop and through the termination of this Decree.

f. Defendants shall restrict their manure application in the manner described in the following Table 1:

**Table 1. Manure Application Restrictions for Nitrogen Control**

Fall Average Residual N in Upper 2 feet (NH <sub>4</sub> -N+NO <sub>3</sub> -N)	Nitrogen Application Restrictions Based on Measured Fall Average Residual Soil Nitrogen Levels (NH <sub>4</sub> -N+NO <sub>3</sub> -N)				Split Application Schedule for Manure Applied by Irrigation (Crop Year 2025+ Only)	
	Crop Year 2024 (Fall 2023)	Crop Year 2025 (Fall 2024)	Crop Year 2026 (Fall 2025)	Crop Year 2027+ (Fall 2026)	Portion of winter crop application made in fall (Oct-T200)	Portion of winter crop application made in spring (After T200)
≤ 15 mg N/kg	100% of agr. rate	100% of agr.	100% of agr.	100% of agr.	≤ 100%	Balance
15.1-25 mg N/kg	100% of agr. rate	100% of agr. rate	95% of agr. rate	90% of agr. rate	≤ 66%	Balance
25.1-35 mg N/kg	95% of agr. rate	85% of agr. rate	80% of agr. rate	75% of agr. rate	≤ 33%	Balance
35.1-45 mg N/kg	90% of agr. rate	80% of agr. rate	70% of agr. rate	60% of agr. rate	0%	Balance
> 45 mg N/kg	No appl.	No appl.	No appl.	No appl.	—	—

g. For purposes of interpreting Table 1:

i. Nitrogen agronomic rate limitation shall apply to both the winter and summer crop, unless follow-up soil nitrogen measurements fall into a lower category, or crop tissue (basal stem and leaf sampling) measurements show a deficiency in the crop tissue for nitrogen.

1           ii.       For crop year 2025 and thereafter, winter manure  
2 applications will be split into a fall and early spring application as indicated in Table  
3 1 for fields to which manure is applied by irrigation.

4           iii.       If a given Application Field exceeds 25 mg N/kg for three  
5 (3) years in a row after crop year 2025, then Defendants shall reduce the application  
6 limit for that field from 75% to 50% until the nitrogen level drops below 15 mg  
7 N/kg.

8           iv.       If a given Application Field exceeds 35 mg N/kg for two  
9 (2) years in a row after crop year 2025, then Defendants shall apply no manure to  
10 that field until the nitrogen level drops below 15 mg N/kg.

11           h.       Nitrogen levels used to determine compliance with Table 1 shall  
12 be measured by the average of nitrate-nitrogen plus ammonium-nitrogen in each of  
13 the top two feet of the soil column based on Fall post-harvest sampling results.

14           i.       Agronomic rate adjustments shown in Table 1 shall be applied  
15 after completing the standard agronomic rate calculation. For example, if a standard  
16 agronomic rate calculation indicates a need for 2.0 million gallons of manure, and if  
17 the restricted rate in Table 1 is “90 percent of agronomic rate”, then the maximum  
18 manure application for that Application Field will be 1.8 million gallons (2.0 million  
19 gallons x 90% = 1.8 million gallons).

20           j.       For the Application Fields to which Defendants apply manure via  
21  
22  
23

1 irrigation or blending, Defendants shall split the winter manure application into a  
2 fall and early spring application. The amount of the split shall be adjusted based on  
3 Fall residual soil nitrogen level as indicated in Table 1 for crop year 2025 and  
4 beyond.

5  
6 31. With respect to phosphorus, Defendants shall adhere to the following  
7 beginning on the Effective Date:

8 a. Defendants shall measure available phosphorus at the 0-1-foot  
9 and 1-2-foot levels in its Application Fields in parallel with fall soil nitrogen testing.

10 b. Defendants shall maintain their Application Fields in the low-  
11 risk category as measured using the current NRCS approved phosphorus index  
12 procedures.

13  
14 c. Defendants shall maintain phosphorus levels in its feed ration at  
15 a level less than 0.4% phosphorus measured on a total ration dry matter basis.

16 d. Defendants shall continue physical manure solids separation for  
17 enhanced solids recovery, as well as composting and exports to reduce on-Dairy  
18 applications of manure and wastewater.

19  
20 32. With respect to phosphorus, in addition to the requirements in  
21 Paragraph 31 above, and beginning in the crop season that commences after  
22 Defendants' Fall 2026 post-harvest sampling, Defendants shall restrict their manure  
23 application in the manner described in the following Table 2:

1 **Table 2. Manure Application Restrictions for Phosphorus Control**

2

3 Fall Average Available P in Upper 2 feet (mg Olsen P/kg)	Total annual application based on P (Crop Year 2027+)
4 < 40 mg P/kg	Control for N
5 41-100 mg P/kg	90% of crop extraction
6 101-180 mg P/kg	80% of crop extraction
7 181-300 mg P/kg	25% of crop extraction
> 300 mg P/kg	No application

8 a. Defendants shall apply the requirements in Table 2 to each of  
9 their Application Fields based on the average fall post-harvest measurements of  
10 available phosphorus measured in the top 2 feet of the soil column in each  
11 Application Field.

12 b. Defendants shall adhere to the requirements in Table 2 during the  
13 crop year following the Fall compliance measurements or until resampling has  
14 shown that the requirements in Table 2 are no longer required (e.g., an Application  
15 Field measuring 45 ppm P in fall is retested in spring and measures 38 ppm P).

16 c. Based on the Fall available phosphorus measurements, the  
17 requirements in Table 2 shall be implemented and followed for the duration of the  
18 Consent Decree.  
19

20 d. For purposes of Table 2, phosphorus extraction rate limitation  
21 shall apply to the full crop year, unless follow-up soil available phosphorus  
22 measurements fall into a lower category.  
23

1 e. The annual limits on phosphorus application listed in Table 2 are  
2 expressed as a function of the estimated annual phosphorus extraction rate of the  
3 crops (extraction rate = tons crop/acre x P content/ton crop) grown on each field  
4 during the crop year. The annual application amount will be based on the fall  
5 available P levels and will be split in most cases into multiple applications, with the  
6 total annual amount applied limited to the Table 2 values.  
7

8 33. Defendants shall implement a soil moisture monitoring program at the  
9 Application Fields in accordance with the following requirements:

10 a. For purposes of this paragraph, a “Soil Moisture Monitoring  
11 Period” begins two weeks prior to Defendants’ first irrigation or manure application  
12 event in each Application Field through at least two weeks after Defendants’ final  
13 irrigation or manure application event in each field. During most years, the Soil  
14 Moisture Monitoring Period will extend from mid-March through early November.  
15

16 b. During the Soil Moisture Monitoring Periods in 2023, 2024 and  
17 2025 (the “Three Year Test Period”), Defendants shall install and operate a set of  
18 irrigation sensors to monitor soil moisture levels in eight (8) representative  
19 Application Fields as illustrated in Exhibits 5a-b. For Application Fields that contain  
20 soils with significantly different nitrate leaching potential or water holding capacity,  
21 as indicated by the Natural Resources Conservation Service (“NRCS”), Defendants  
22 shall deploy and operate soil moisture sensors in each of two representative soil  
23



1 series. The locations of the soil moisture sensors are shown on the maps attached  
2 hereto as Exhibit 6.

3 c. Defendants shall install sensors in each location at the following  
4 three approximate depths (variable by +/- two inches): 0.5-foot, 1.5-feet and 2.5-  
5 feet. If rocky or indurated soil properties in any location preclude effective  
6 placement of the 2.5-foot sensor after three independent boring attempts, Defendants  
7 shall not be required to install the 2.5-foot sensor in that location(s), but shall  
8 document for each of those location(s) the total depth of soil to the point of boring  
9 refusal.  
10

11 d. To verify field capacity estimates, Defendants shall calibrate  
12 sensors at the time of installation using a gravimetric sample approach where soil  
13 water is measured on a weight basis. Soil bulk density measurements used in  
14 calibration shall be confirmed for each sensor location at each depth. Calibration  
15 shall be reported in the first Annual Report (described in Paragraph 33(h)) along  
16 with Application Field capacity estimates for each monitoring location at each depth.  
17

18 e. Defendants shall calibrate any replacement sensors in a similar  
19 manner as in Paragraph 33(d), and these calibrations shall be reported in the Annual  
20 Report (described in Paragraph 33(h)) for the year in which the sensors were  
21 replaced. Defendants shall have at least two (2) replacement sensors available at the  
22 Dairy in case of failure of installed sensors.  
23

1 f. Defendants shall use best efforts to maintain the sensors in an  
2 operational condition throughout the Soil Moisture Monitoring Period. Defendants  
3 shall implement necessary maintenance, repairs or replacement of the sensors with  
4 the goal of minimizing operational down-times to twenty-one (21) days for the two  
5 shallowest depths and fifteen (15) days for the sensors at 2.5 feet.  
6

7 g. During the Three-Year Test Period, Defendants shall use the soil  
8 moisture sensors to validate and, if necessary, adjust its irrigation rates to meet crop  
9 needs while minimizing exceedances of Application Field capacity in the 2.5-foot  
10 soil level as follows:

11 i. Defendants shall obtain weekly irrigation needs estimates  
12 from an agronomist using the Evapotranspiration method.  
13

14 ii. Defendants shall irrigate their Application Fields  
15 consistent with the recommended values unless soil moisture sensors indicate an  
16 exceedance of field capacity at the 2.5-foot level.

17 iii. If soil sensors from the prior week indicate exceedances of  
18 Application Field capacity at the 2.5-foot level, Defendants shall adjust the  
19 recommendation for future irrigation rates downward from what would otherwise be  
20 provided using the Evapotranspiration method, with the goal of decreasing and  
21 maintaining soil moisture levels below field capacity at the 2.5 foot level. Defendants  
22 shall track both the original and any adjusted recommendations on a weekly basis  
23

1 throughout the Three-Year Test Period.

2           iv.       For the first two fields with an irrigation-related  
3 exceedance of Application Field capacity at the 2.5 feet level during the Three-Year  
4 Test Period, Defendants' Fall soil monitoring shall include a one-time sampling on  
5 each such Application Field that shall extend to the 5-foot depth in that Application  
6 Field (or to the depth of refusal). For each sample, Defendants shall analyze at 3  
7 feet, 4 feet, and 5 feet for ammonia-N and nitrate-N and Olsen P. The resulting  
8 sampling data shall be provided to Plaintiffs consistent with the Notice provisions.  
9

10           h.       No later than February 28 in the year after the end of each Soil  
11 Moisture Monitoring Period during the Three-Year Test Period (i.e., for the 2023  
12 Soil Moisture Monitoring Period, this date would fall on February 28, 2024),  
13 Defendants shall provide Plaintiffs pursuant to the Notice provisions in Paragraph  
14 62 with an Annual Report containing Defendants' initial and adjusted weekly  
15 recommendations and the monitoring data for each soil moisture sensor in tabular  
16 format. Monitoring data provided for each sensor location shall consist of a complete  
17 digital file (.xlsx, .xls, or .csv) and a graphical readout showing measured moisture  
18 levels for the 0.5-foot, 1.5-foot and 2.5-foot sensors throughout each Soil Moisture  
19 Monitoring Period, with notes summarizing any encountered sensor performance  
20 issues, any completed repairs, and notes documenting the dates, amounts, and rates  
21 (gallons/acre) of irrigation water and manure applications in the Application Field  
22  
23

1 where the sensor is located. Defendants shall also provide in the Annual Report  
2 local daily precipitation data for the year using publicly-available weather data from  
3 the nearest reliable weather station.

4 i. If during the 2025 Soil Moisture Monitoring Period the moisture  
5 sensor readings show a pattern of ongoing irrigation-related exceedances of field  
6 capacity at the 2.5-foot depth (i.e., three or more exceedances, not counting  
7 exceedances immediately following precipitation events), then Defendants shall  
8 maintain moisture sensors in the Application Field where such sensor exceedances  
9 were reported until no more than one (1) exceedance is recorded in that field during  
10 the Soil Moisture Monitoring Period.  
11

12 34. Beginning on the Effective Date, Defendants shall for the duration of  
13 this Decree maintain application records of (a) any manure it hauls to and applies to  
14 an Application Field; and (b) any manure it applies to Application Fields through  
15 irrigation or blending. Such records shall include the Application Field ID; the  
16 manure quantity (volume); characteristics (blended or straight); date of application;  
17 and a link to the manure nutrient testing information. Defendants shall keep separate  
18 application records in the event they conduct multiple applications on different days.  
19

20 35. No later than January 31 of each year beginning in 2024 and for each  
21 year for the duration of the Consent Decree, Defendants shall provide to Plaintiffs  
22 PDF copies of manure management records for the prior crop year via electronic  
23

1 mail (at the addresses listed in Paragraph 62). Records that Defendants shall provide  
2 pursuant to this paragraph are listed in Exhibit 7.

3 36. Any manure management records routinely generated by Defendants in  
4 compliance with its CAFO permit and similar regulatory requirements shall be kept  
5 on-site at the Dairy for five (5) years from the date of generation. No more than once  
6 per calendar year, Plaintiffs shall have the right to request access to conduct an on-  
7 site review of the manure management records for which they have not been  
8 provided copies pursuant to Paragraph 35.

9  
10 37. Defendants shall use flow meters on all Application Fields to which  
11 they apply lagoon water through irrigation or blending.  
12

13 **UNDERGROUND CONVEYANCE INSPECTION**

14 38. No later than December 31, 2024, DBD shall inspect the wastewater  
15 and manure lines being utilized between the sump, settling basins, milking parlors  
16 and the lagoons at the Dairies as attached hereto as Exhibit 8. If the inspection shows  
17 that repairs need to be made in any of those lines, Defendants shall make the  
18 necessary repairs, which could include cutting and permanently capping such lines,  
19 no later than December 31, 2024.  
20

21 39. Inspection and any required repair work shall be performed by an  
22 experienced and qualified contractor.  
23

40. For gravity draining lines, the following equipment shall be used:

- Lines 6-inch or greater – jet and “crawler” camera
- Lines less than 6-inch – use a push camera.

41. Once inspection and any required repairs are completed, Defendants shall submit to Plaintiffs a written description of the activities Defendants undertook pursuant to Paras. 41-43, which shall include documentation of the lines inspected and the exact location(s) of any repair(s) made.

#### **SILAGE AREA**

42. DBD shall store all silage harvested in 2023 or after on asphalt or concrete pads at all times throughout the duration of the Consent Decree. DBD shall ensure that the silage pads are sloped to drain to a lined collection sump.

#### **SITE DRAINAGE**

43. DBD agrees to complete a Stormwater budget and Site Drainage Plan for SMD, the Nichols and Van Belle containment pens, and the Heifer Ranch facilities by no later than 6/30/24, and shall complete the site drainage improvements no later than 6/30/25, which shall include at least one lined lagoon at the heifer ranch to capture all site runoff.

44. DBD shall provide to Plaintiffs copies of the site improvement plans for each facility within fifteen (15) days of completion. Plaintiffs shall have forty-five (45) days to review and provide comments on the drainage plans. DBD shall incorporate Plaintiffs reasonable comments into the improvement plans. Any

1 disagreements shall be subject to the Paragraph 59 Dispute Resolution process.

2 **COMPOST AREAS**

3 45. Defendants shall compost manure only on the compost area (the  
4 “Area”), attached hereto as Exhibit 9.

5  
6 46. No later than December 31, 2023, DBD shall complete the following  
7 elements:

- 8 a) Survey the Area topography to 1-foot vertical contours.
- 9 b) Design a grading plan to provide and maintain a two (2) percent  
10 average slope for drainage over the Area with no negative slopes  
11 measured on a 10-foot distance and route stormwater and other  
12 liquids to specific collection locations such as ditches, swales,  
13 and/or sumps. The Parties acknowledge and agree that  
14 maintenance of windrows and normal operations may over time  
15 impact the slope in isolated points. Defendants nevertheless  
16 commit to the normal and customary maintenance of such area,  
17 and to timely identify and eliminate, as weather and conditions  
18 allow, any instances where the slope is lost and water is allowed  
19 to pond.
- 20 c) Collect five (5) bulk samples of soil from random  
21 locations within the Area for laboratory analysis. Samples will be  
22  
23

1 collected from the 0- to 12-inch depth interval below the final  
2 grade surface based on the grading plan. Final grade, and samples,  
3 shall be of native soils only.

4 d) Samples will be analyzed for: (1) particle size by ASTM D6913 –  
5 *Standard Test Methods for Particle-Size Distribution (Gradation)*  
6 *of Soils Using Sieve Analysis* and ASTM D 7928 – *Standard Test*  
7 *Method for Particle-Size Distribution (Gradation) of Fine-*  
8 *Grained Soils Using the Sedimentation (Hydrometer) Analysis*  
9 and; (2) compaction characteristics (“Proctor”) by ASTM D1557  
10 – *Standard Test Methods for Laboratory Compaction*  
11 *Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup>*  
12 *(2,700 kN-m/m<sup>3</sup>)).*

13 e) Following analysis, the five samples will be remolded and  
14 compacted to 95 percent of standard Proctor; the remolded  
15 samples will be analyzed for hydraulic conductivity by ASTM  
16 D5084 – *Standard Test Methods for Measurement of Hydraulic*  
17 *Conductivity of Saturated Porous Materials Using a Flexible Wall*  
18 *Permeameter* to determine if the soils achieve a permeability of  
19 less than  $1 \times 10^{-4}$  cm/s at 95 percent compaction.  
20  
21  
22

23 47. Prior to December 31, 2024, the Area will be graded according to plan



1 and compacted to meet specifications.

2 48. During compaction, soils will be tested in-place by ASTM D6938 –  
3 Standard Test Method for In-Place Density and Water Content of Soil and Soil-  
4 Aggregate by Nuclear Methods (Shallow Depth) at a frequency of one (1) test per  
5 25,000 sq. ft. of area to verify 95 percent compaction.  
6

7 49. Verification of a two percent average grade will be based on completion  
8 of post-grading survey at one-foot contour level.

9 50. Following grading, lined or asphalt concrete collection ditches or strip  
10 drains, and lined or concrete collection sumps, will be installed at approximately the  
11 locations depicted in Exhibit 10. (The lining details in Exhibit 10 are in reference  
12 only to the trenches, and not to the lagoons.)  
13

14 51. Once completed, DBD shall submit to Plaintiffs a written description  
15 prepared by a Washington State licensed professional engineer of the activities DBD  
16 undertook with respect to this work. The Licensed engineer shall certify and stamp  
17 that the site meets slope and compaction requirements of this agreement.  
18

19 **CLEAN DRINKING WATER PROJECT**

20 52. The purpose of the Clean Drinking Water Project (“CDWP”) payment  
21 is to provide alternative clean drinking water to residents in the area near the Dairies.  
22 All aspects of the program shall be managed by the CDWP; the Dairies’ only  
23 obligation is to provide the agreed-upon funding. Should anyone contact the Dairies

1 regarding alternative water supplies they shall be redirected to the CDWP, who will  
2 bear the sole responsibility for any such alternative supplies (except for properties  
3 owned by the Dairies, in which case the Dairies shall be solely responsible).

4 53. Defendants shall make a one-time payment of \$25,000 to CDWP within thirty  
5 (30) days of entry of this Decree.  
6

7 **ATTORNEYS' AND EXPERT WITNESS FEES AND COSTS**

8 54. Plaintiffs shall be considered the prevailing party for purposes of settlement.  
9 DBD shall wire Plaintiffs \$250,000 to the Law Offices of Charles M. Tebbutt, P.C.,  
10 941 Lawrence St., Eugene, Oregon 97401, ATTN: Charles Tebbutt, within seven (7)  
11 days of entry of this decree; provided Tebbutt has provided copies of billing records  
12 sufficient to establish fees and expenses of at least that amount. Within sixty (60)  
13 days of entry of this consent decree, at DBD's option, it may either pay Tebbutt the  
14 remaining sum owed consistent with the billing records heretofore provided and  
15 thereby resolve all costs and fees that could have been sought by Plaintiffs; or  
16 alternatively, DBD may demand that Plaintiffs file a motion for an award of  
17 attorneys' fees, expert witnesses' fees and costs incurred in this litigation. The Dairies  
18 shall have the right to respond to Plaintiffs' submission in the ordinary course and as  
19 per the Federal Rules of Civil Procedure and the Court's local rules. Any award of  
20 fees and costs to the Plaintiffs shall be reduced by the \$350,000 in payments already  
21 made by the Defendants with the balance due within thirty (30) days of the Court's  
22  
23

1 order.

2 55. DBD shall, in addition to payments made pursuant to Paragraph 54 above,  
3 pay Plaintiffs to monitor implementation of this Decree (“Monitoring Costs”) as  
4 indicated in the following Table 3:  
5

6 **Table 3. Monitoring Costs**

Date	Amount DBD Shall Pay to Plaintiffs
Within seven (7) days of entry of this Decree, for the remainder of 2023	\$30,000
1/01/2024	\$40,000
1/01/2025	\$40,000
1/01/2026	\$30,000
1/1/2027	\$30,000
1/1/2028	\$15,000
By 1/1 each year thereafter if termination has not occurred	\$2,000

7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17 56. Such Monitoring Costs do not include work performed by Plaintiffs’ experts  
18 with regard to the Remediation Investigation and the oxygenation Pilot Project, or  
19 implementation thereof. Defendants shall fund \$300,000 in an escrow account for  
20 payment of Plaintiffs’ RI and oxygenation Pilot Project within ten (10) days of  
21 approval of the work by Department of Ecology. The escrow funds shall be paid to  
22 and managed by the Law Offices of Charles M. Tebbutt. Payments for services shall  
23

1 be made from the escrow account within thirty (30) days of receipt of invoices unless  
2 Defendants object in writing to specific payment concerns. Any disputes shall be  
3 resolved through the Dispute Resolution process set forth in Paragraph 59. By  
4 January 15 of each year commencing in 2025, the Parties shall confer to determine  
5 whether additional escrow payments, and the amount thereof, shall be deposited until  
6 implementation of the Pilot Project decisions are complete. If the Parties cannot  
7 agree, the matter shall be submitted to Dispute Resolution per Paragraph 59.

9 57. The Parties shall use best efforts to minimize Plaintiffs' Monitoring Costs.  
10 For instance, the Parties shall maintain open communication with each other; DBD  
11 shall provide required documentation in a timely manner to Plaintiffs; and Plaintiffs  
12 shall attempt to bundle activities and associated site visits where possible.

### 14 **TERMINATION**

15 58. This Consent Decree and all obligations set forth herein shall terminate on  
16 December 31, 2028, if all determinative wells meet the requirements, and except for  
17 those obligations specifically noted herein to terminate at other times, including  
18 obligations based on construction schedules defined herein. Termination may occur  
19 earlier than 2027 if the determinative wells from all remediated areas show  
20 groundwater at less than 10 mg/l for nitrate (including ammonia) and 1 mg/L nitrite.

### 22 **DISPUTE RESOLUTION**

23 59. In the event of any dispute regarding implementation, interpretation, or

1 compliance with this Consent Decree, the Parties shall first attempt to informally  
2 resolve the dispute through meetings of the Parties. Any Party to this Consent Decree  
3 may initiate the informal dispute resolution process by serving, through its counsel,  
4 written notice of a request for a dispute resolution on the other Party's counsel. The  
5 Parties will attempt to have the Court appoint an arbitrator to resolve disputes that  
6 may arise as part of the implementation of this Consent Decree. Any costs of the  
7 arbitrator shall be borne by Defendants. If an arbitrator is agreed upon, then the  
8 Parties may each submit their respective positions to the arbitrator within thirty (30)  
9 days of a writing by either side that the Parties were unable to reach a resolution  
10 among themselves or as otherwise instructed by the arbitrator. If no arbitrator is  
11 agreed upon, and resolution of a dispute is not reached within thirty (30) calendar  
12 days of the date of that notice of a request for dispute resolution is served, then the  
13 Parties may resolve the dispute by filing motions with the Court.  
14  
15

16 **EFFECTIVE DATE**

17 60. The effective date of this Consent Decree shall be the date upon which  
18 the Court enters in the civil docket a copy of this Consent Decree signed by the Court.  
19

20 **FINAL JUDGMENT**

21 61. Upon approval and entry of this Consent Decree by the Court, this  
22 Consent Decree shall constitute a final, non-appealable judgment of the Court under  
23 Rules 54 and 58 of the Federal Rules of Civil Procedure.

**NOTICES**

1  
2 62. Whenever notice is required to be given or a document is required to be  
3 sent by one party to another under the terms of this Consent Decree, it shall be  
4 directed to the individuals at the addresses specified below, unless prior notice of a  
5 change has been given to the other Party. Notice under this Consent Decree shall be  
6 effective on the date of service through electronic mail.  
7

8 For Plaintiffs: Charles M. Tebbutt, [charlie@tebbuttlaw.com](mailto:charlie@tebbuttlaw.com)  
9 Jon Frohnmayer, [jon@tebbuttlaw.com](mailto:jon@tebbuttlaw.com)  
10 Daniel C. Snyder, [dsnyder@publicjustice.net](mailto:dsnyder@publicjustice.net)  
11

12 For DBD: Jay Carroll, [jcarroll@hnw.law](mailto:jcarroll@hnw.law)  
13 Scott Stephen, [scott.stephen@agrimgt.com](mailto:scott.stephen@agrimgt.com)  
14 John Glessner, [jwglessner@aol.com](mailto:jwglessner@aol.com)  
15 [Drboffice@embarqmail.com](mailto:Drboffice@embarqmail.com)  
16 [Drboffice2@embarqmail.com](mailto:Drboffice2@embarqmail.com)  
17

18 Any Party may change either the notice recipient or the address for providing  
19 notice to it by serving the other Parties with a notice setting forth such new notice  
20 recipient or address.  
21

22 ///

23 ///

///

1 **WE HEREBY CONSENT to the Entry of this Consent Decree.**

2

3 **Community Association for Restoration of the Environment, Inc.**

4 By: Helen Reddout

5 Name: Helen Reddout

6

7

8 **Friends of Toppenish Creek, Inc.**

9 By: \_\_\_\_\_

10 Name: \_\_\_\_\_

11

12

13 **Center for Food Safety, Inc.**

14 By: \_\_\_\_\_

15 Name: \_\_\_\_\_

16 *Plaintiffs*

17

18

19 **DBD Washington, LLC**

20 By: \_\_\_\_\_

21 Name: \_\_\_\_\_

22

23

1 **WE HEREBY CONSENT to the Entry of this Consent Decree.**

2

3 **Community Association for Restoration of the Environment, Inc.**

4

5 By: \_\_\_\_\_

6

7 Name: \_\_\_\_\_

8

9

10 **Friends of Toppenish Creek, Inc.**

11

12 By: Jean Mendoza

13

14 Name: Jean Mendoza

15

16

17 **Center for Food Safety, Inc.**

18

19 By: \_\_\_\_\_

20

21 Name: \_\_\_\_\_

22

23 *Plaintiffs*

**DBD Washington, LLC**

By: \_\_\_\_\_

Name: \_\_\_\_\_



1 **WE HEREBY CONSENT to the Entry of this Consent Decree.**

2

3 **Community Association for Restoration of the Environment, Inc.**

4

By: \_\_\_\_\_

5

Name: \_\_\_\_\_

6

7

8 **Friends of Toppenish Creek, Inc.**

9

By: \_\_\_\_\_

10

Name: \_\_\_\_\_

11

12

13 **Center for Food Safety, Inc.**

13

By:  \_\_\_\_\_

14

Amy van Saun

15

Name: \_\_\_\_\_

16

*Plaintiffs*

17

18

19 **DBD Washington, LLC**

19

By: \_\_\_\_\_

20

Name: \_\_\_\_\_

21

22

23

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23

**WE HEREBY CONSENT to the Entry of this Consent Decree.**

**Community Association for Restoration of the Environment, Inc.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

**Friends of Toppenish Creek, Inc.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

**Center for Food Safety, Inc.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

*Plaintiffs*

**DBD Washington, LLC**

By: Patsy Larson, Manager

Name: TATSY LARSON

[PROPOSED] CONSENT DECREE

1 **SMD, LLC**

2 By: Patsy Larson, Manager

3 Name: Patsy LARSON

4 **AUSTIN JACK DECOSTER**

5 By: [Signature]

7 **DECOSTER ENTERPRISES, INC.**

8 By: Patsy Larson, Manager

9 Name: PATSY LARSON

14 IT IS SO ORDERED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2023.

17 THOMAS O. RICE  
United States District Judge

19 Respectfully submitted this 9<sup>th</sup> day of June, 2023.

20 /s/ Charles M. Tebbutt  
21 Charles M. Tebbutt, WSBA #47255  
22 Jon Frohnmayer, *pro hac vice*  
23 Law Offices of Charles M. Tebbutt, P.C.  
941 Lawrence St.  
Eugene, OR 97401  
[charlie@tebbuttlaw.com](mailto:charlie@tebbuttlaw.com)

[PROPOSED] CONSENT DECREE

1 [jon@tebbuttlaw.com](mailto:jon@tebbuttlaw.com)

Tel: (541) 344-3505

2 Fax: (541) 344-3516

3 /s/ Daniel C. Snyder

4 Daniel C. Snyder, *pro hac vice*

PUBLIC JUSTICE

5 1620 L Street NW, Suite 630

Washington, DC 20036

6 Tel: (202) 861-5251

7 [dsnyder@publicjustice.net](mailto:dsnyder@publicjustice.net)

/s/ Andrea K. Rodgers

8 Andrea K. Rodgers, WSBA #38683

9 Law Offices of Andrea K. Rodgers

3026 NW Esplanade

10 Seattle, WA 98117

[andrearodgers42@gmail.com](mailto:andrearodgers42@gmail.com)

11 Tel: (206) 696-2851

12 /s/ Andrea K. Rodgers

ANDREA K. RODGERS

13 WSBA #38683

14 Law Offices of Andrea K. Rodgers

3026 NW Esplanade

15 Seattle, WA 98117

[andrearodgers42@gmail.com](mailto:andrearodgers42@gmail.com)

16 Tel: (206) 696-2851

17 /s/ Toby J. Marshall

18 Toby J. Marshall, WSBA #32726

Blythe H. Chandler, WSBA #43387

19 Terrell Marshall Law Group PLLC

936 North 34th Street, Suite 300

20 Seattle, Washington 98103-8869

21 [tmarshall@terrellmarshall.com](mailto:tmarshall@terrellmarshall.com)

[bchandler@terrellmarshall.com](mailto:bchandler@terrellmarshall.com)

22 Tel: (206) 816-6603

23 /s/ Amy van Saun

AMY VAN SAUN, *pro hac vice*

1 CENTER FOR FOOD SAFETY  
2 303 Sacramento Street, 2<sup>nd</sup> Floor  
3 San Francisco, CA 94111  
4 avansaun@centerforfoodsafety.org  
5 Tel: (415) 826-2770

6 *Counsel for Plaintiffs*

7 /s/ Gary H. Baise

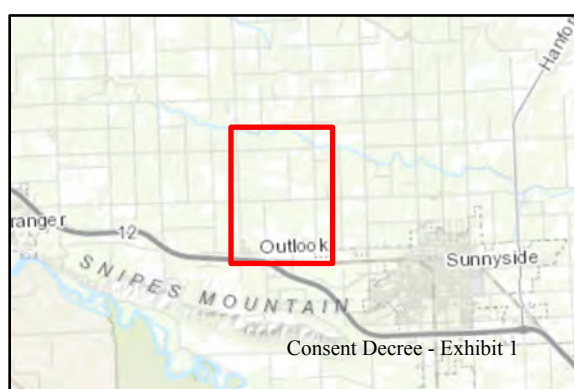
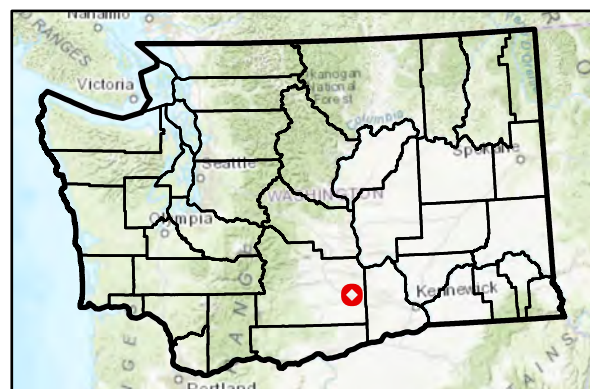
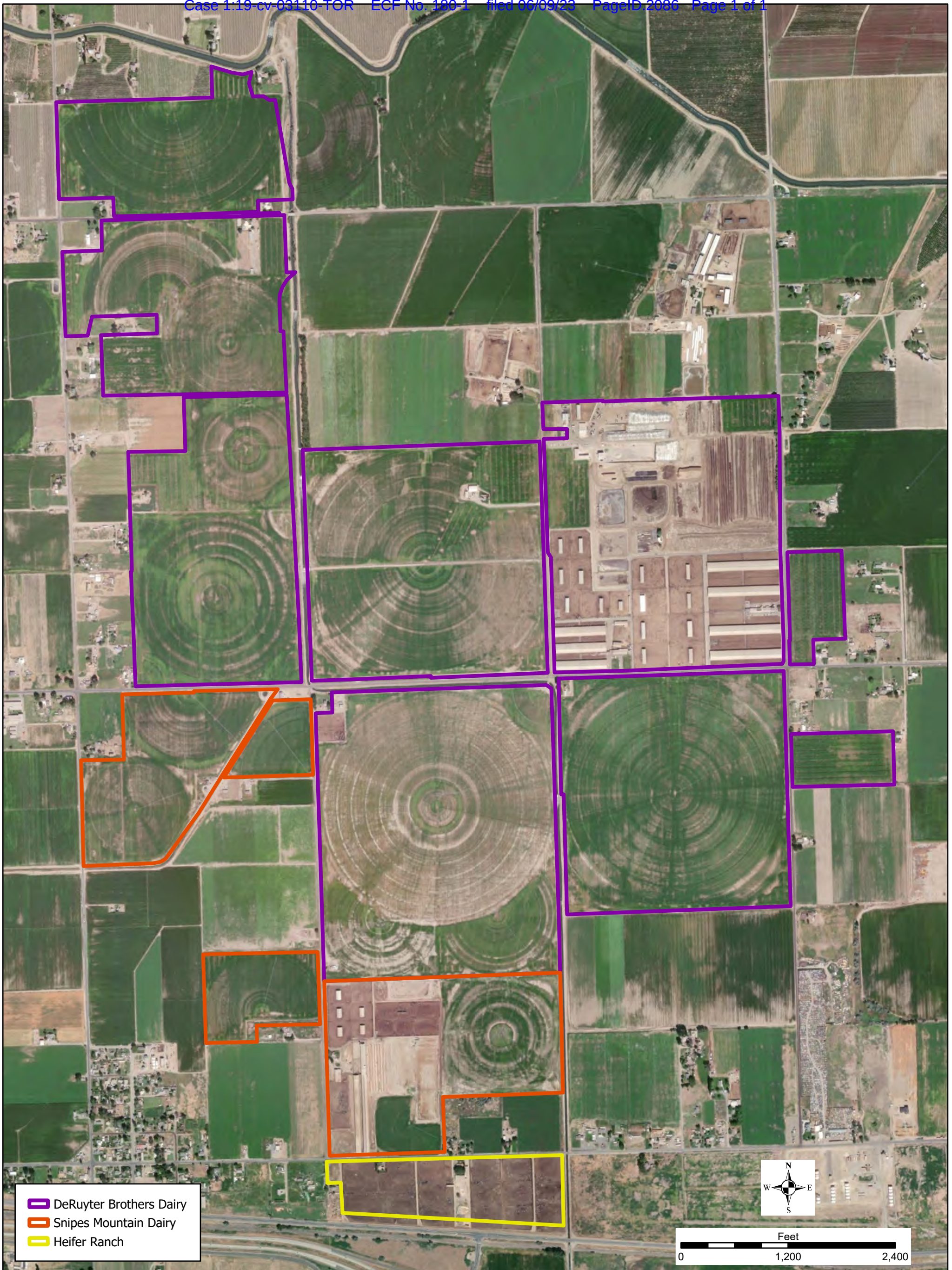
8 Gary H. Baise, pro hac vice  
9 D.C. Bar ID #194878  
10 2201 Great Falls Street  
11 Falls Church, VA 22043  
12 Tel: 202-320-6336  
13 Fax: 703-534-1753 vthedgerow@aol.com

14 /s/ J. Jay Carroll

15 J. Jay Carroll  
16 WSBA No. 17424  
17 HALVERSON | NORTHWEST LAW  
18 GROUP P.C.  
19 405 East Lincoln Avenue  
20 P.O. Box 22550  
21 Yakima, Washington 98907  
22 Tel: (509) 248-6030  
23 Fax: (509) 453-6880  
jcarroll@hnw.law

*Counsel for Austin Jack DeCoster and DBD, et al.*



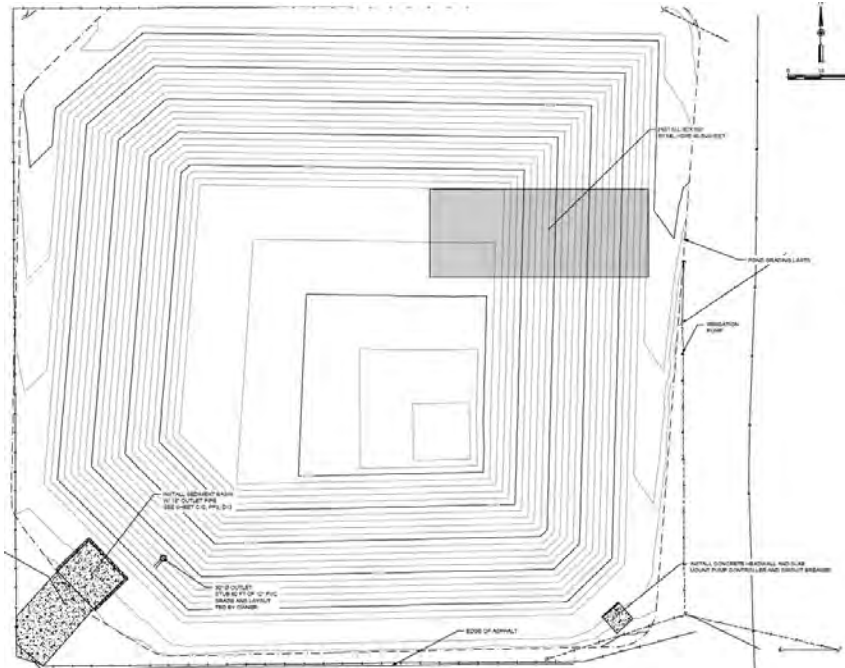


	
<b>SITE LOCATION</b>	
<b>Map of Facilities</b>	
Job#: CAFOM10	<b>EXHIBIT 1</b>
Date: 4/27/2023	
Path: M:\CAFO\CAFOM10\2023\SiteLocation\SiteLocation.aprx. Author: jhulla	

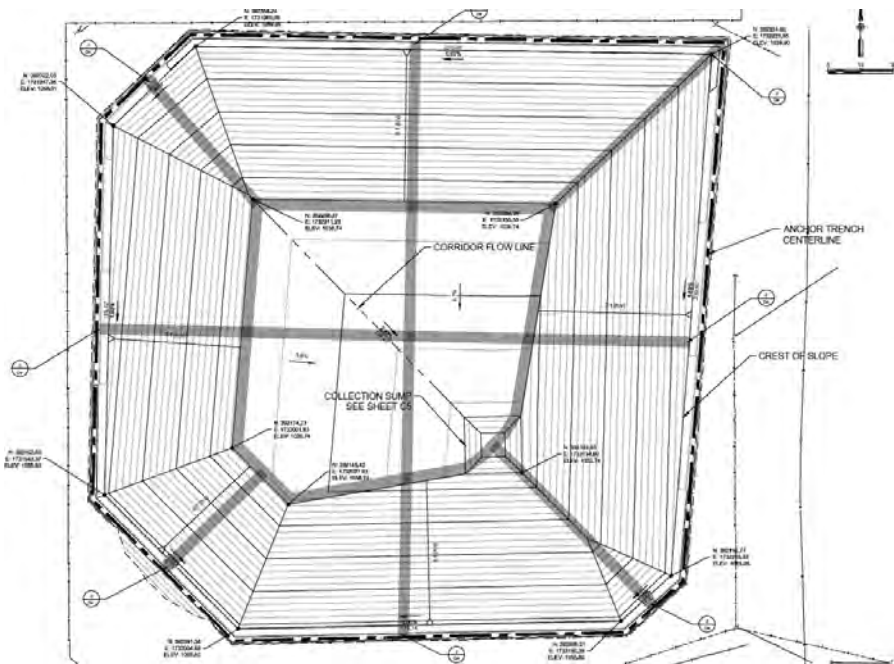


### Design Details

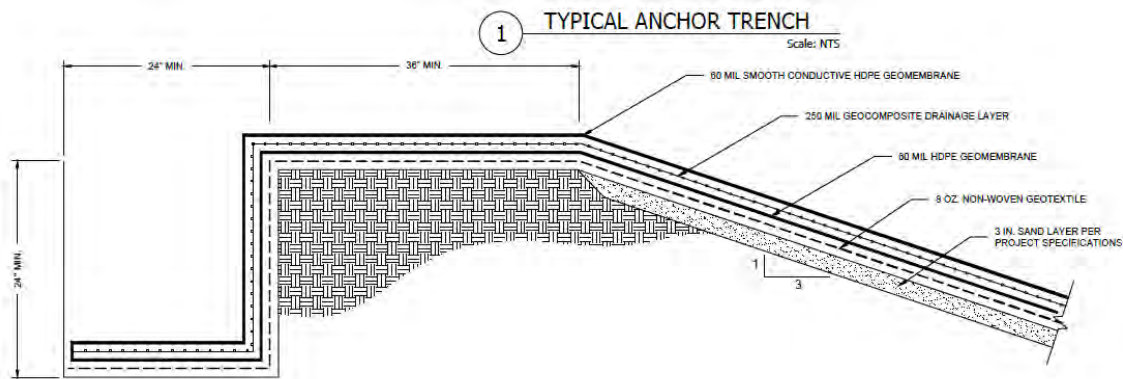
Lagoon bottom must have a slope to allow gas venting and drainage to a leak detection sump. See detail below as an example:



Gas venting location must be shown on the detail. 14+’ vent strips on 50’ centers should be adequate



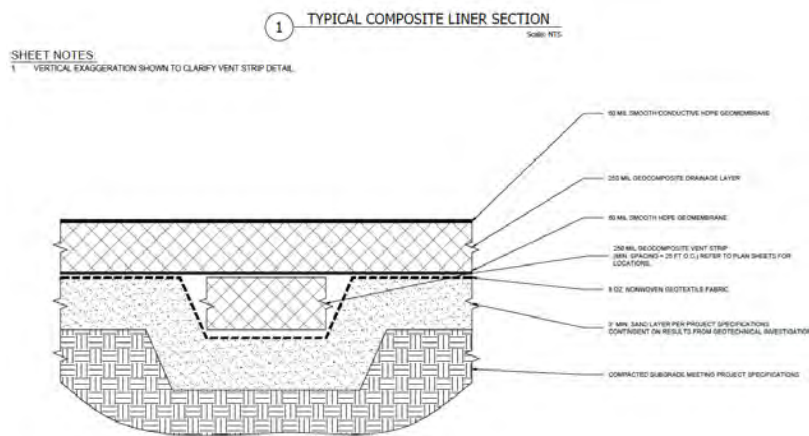
Liner cross section should be equivalent to the detail below:



The following description is equivalent:

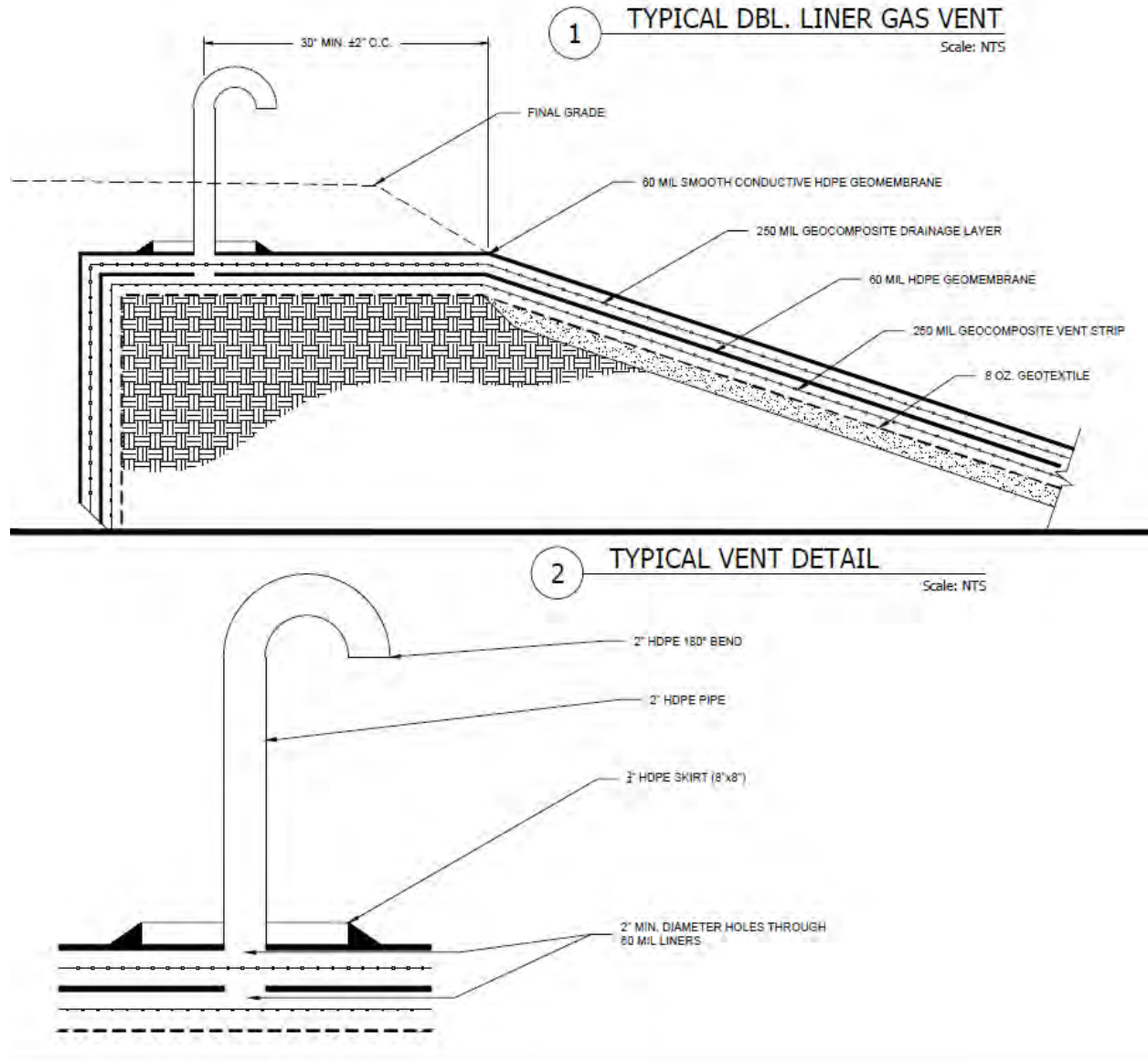
1. Cross section

- A. Subgrade: Biplanar geocomposite Vent strip: 14.5' on 50 ft centers
- B. 50 Mil Textured micro-drain. (drain studs face up)
- C. 60 Mil HDPE textured.

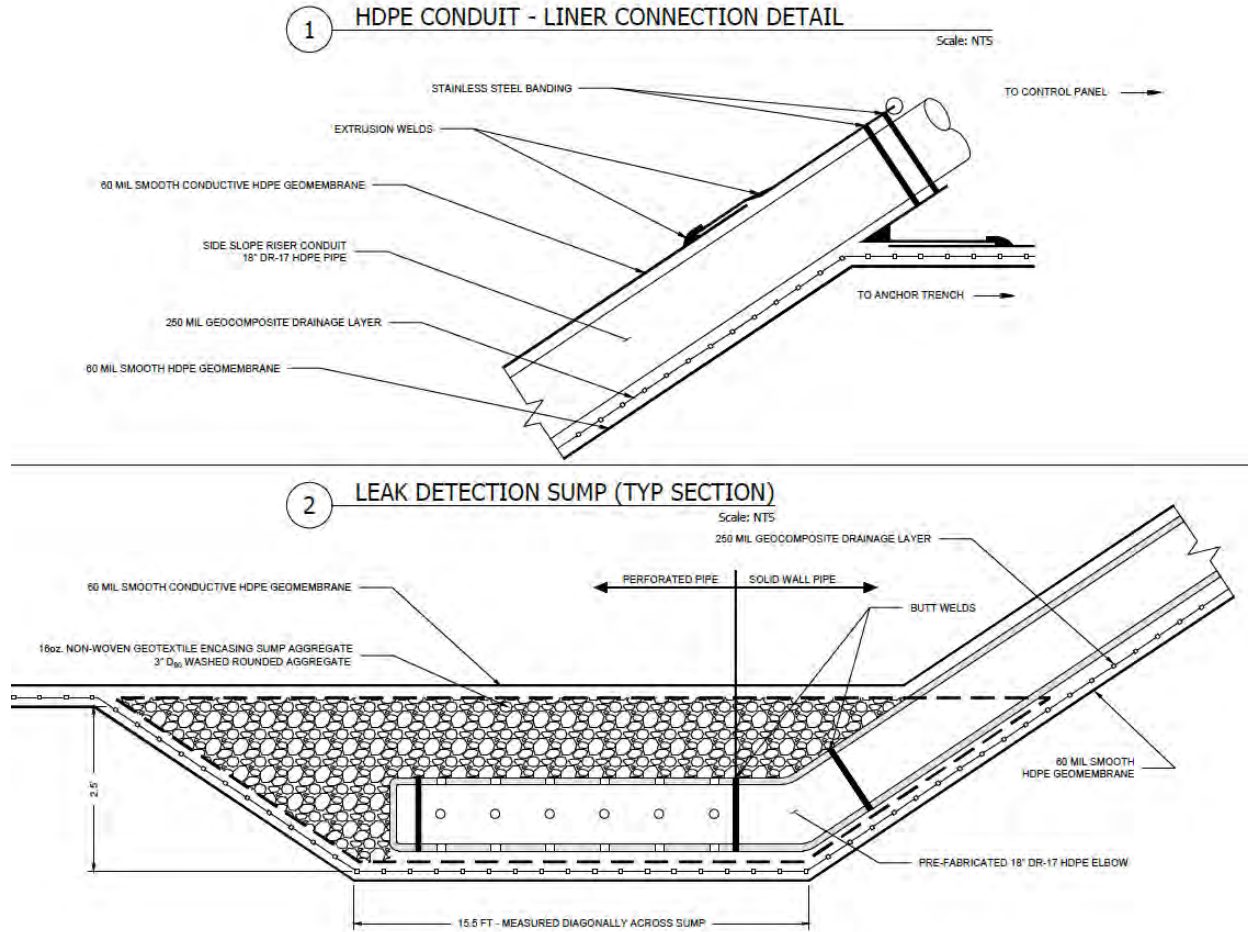




Gas venting details are provided that do not flood and are free venting. The vent must provide gas transfer from between the primary and secondary dimpled liner and from beneath the secondary liner where the vent strips are located:



Leak detection sump details should also be provided in the design:



An example of a complete lagoon design is attached.

### APPROVALS

---

David Erickson, PG  
Project Manager

Date

---

Jess Alexander  
Senior Scientist

Date

---

### REVISION HISTORY

<b>Revision#:</b>	<b>Author:</b>	<b>Description:</b>	<b>Issue Date:</b>
Rev. 0	JA	Internal Draft	8/9/2022
Rev. 1	JA	Revised Per J.G. Comments	2/3/2023
Rev. 2	JA	Revised Per 2/17/2023 Mtg.	2/20/2023

**TABLE OF CONTENTS**

**1.0 INTRODUCTION..... 4**

**2.0 OBJECTIVES ..... 4**

**3.0 SUPPLEMENTAL DATA REQUIREMENTS - SOIL ..... 5**

    3.1 Soil Profile Thickness ..... 5

    3.2 Soil Characteristics..... 6

    3.3 Nitrogen Species Concentrations ..... 6

**4.0 SUPPLEMENTAL DATA REQUIREMENTS - GROUNDWATER ..... 6**

    4.1 Groundwater Parameters ..... 6

    4.2 Shallow Aquifer Hydrology ..... 7

    4.3 Groundwater Nitrogen Specie Concentrations..... 7

    4.4 Groundwater Monitoring..... 7

**5.0 PROPOSED SOIL INVESTIGATION..... 7**

    5.1 DeRuyter Brothers Dairy ..... 8

    5.2 Snipes Mountain Dairy..... 8

    5.3 Supplemental Soil Sampling ..... 9

**6.0 PROPOSED GROUNDWATER INVESTIGATION ..... 9**

    6.1 DBD Washington LLC..... 9

    6.2 Snipes Mountain Dairy..... 10

**7.0 DATA INTERPRETATION AND REPORTING ..... 10**

**8.0 REMEDIAL INVESTIGATION SCHEDULE AND COST ..... 11**

**LIST OF FIGURES**

- Figure 1 Site Location Map
- Figure 2 DBD Lagoon Soil Investigation Areas
- Figure 3 SMD Lagoon Soil Investigation Areas
- Figure 4 DBD Lagoon Proposed Groundwater Monitoring Well Locations
- Figure 5 SMD Lagoon Proposed Groundwater Monitoring Well Locations

**LIST OF TABLES**

- Table 1 Costs Estimate

**LIST OF APPENCENCIES**

- Appendix A 2022 Monitoring Well Boring Logs

## **1.0 INTRODUCTION**

Water and Environmental Technologies, Inc. (WET) has prepared this Remediation Investigation Work Plan on behalf of the Law Offices of Charles M. Tebbutt, P.C. (Attorney) for the collection and analyses of groundwater and subsurface soils in and around the DBD Washington LLC. (DBD), and the SMD LLC. (SMD), collectively referred to as the Facilities. The Facilities are located north of Outlook, Yakima County, Washington, as shown in Figure 1.

## **2.0 OBJECTIVES**

Historical data suggests that the largest source of nitrate loading to groundwater at the Facilities is from the manure storage lagoons located on Facilities' properties. These lagoons were constructed without impermeable liner systems resulting in seepage of the manure wastes into their subsurface soils. Manure wastes have high concentrations of nitrogen species primarily in the form of ammonia which is sorbed to soil particles and organic matter as the waste infiltrates through the soil column. As a result, the soils beneath the lagoons are saturated with ammonia which acts as a long-term source of nitrate to groundwater. Without remediation, this source will continue to contribute nitrate to groundwater.

Pilot studies have been proposed to test the effectiveness of two remediation methods in mitigating the ammonia source beneath the lagoons and in reducing nitrate concentrations in groundwater. The first proposed remediation method uses enzymes to assimilate nitrogen into recalcitrant proteins that sorb to soil particles, significantly reducing nitrogen leaching through the soil and reducing nitrate groundwater contamination. The second proposed remediation method introduces oxygen to soil and groundwater containing high concentrations of nitrogen species under anoxic conditions. The introduction of oxygen under these conditions will allow the nitrification process to occur, converting sorbed ammonia to nitrate. The groundwater that receives the nitrate will be removed through extraction wells or trenches and used for irrigation. The oxidation remediation technology has been proven to effectively treat nitrate impacts to groundwater, however, its success is dependent on understanding the site conditions. The enzyme addition may be viable but warrants additional study to understand the optimal applications.

Although historical environmental investigations have successfully demonstrated impacts to soil and groundwater beneath the lagoons, there has not been enough data collected to adequately delineate the extent of impacts to soil and groundwater and to design the proposed pilot study remediation programs. Soil and groundwater data collected in the Facility's lagoon areas is limited.

Agrimanagement Inc. (Agrimanagement) and Anderson Environmental Contracting LLC. (AEC) installed eight (8) groundwater monitoring wells around the Facilities' lagoon areas on December 28<sup>th</sup>, 2022, and December 29<sup>th</sup>, 2022. The locations of these groundwater monitoring wells are provided on Figure 4 and Figure 5. The State of Washington Department of Ecology (Ecology)

Resource Protection Well Reports (Boring Logs) for these monitoring wells are provided in Appendix A. These groundwater monitoring wells were installed to be used as part of this remediation investigation.

Agrimanagement and AEC decommissioned groundwater monitoring wells FMW-1, FMW-2, FMW-3, and FMW-8 in December 2022. These wells were decommissioned because they were either damaged or their locations interfered with Lagoon operations. Agrimanagement submitted well decommissioning logs to Ecology as part of the closure process.

The objective of this Remediation Investigation (RI) is to collect the additional information required to perform the pilot studies. This information: 1) will determine which locations at the Facilities would be most suitable for performing the pilot studies, 2) provided data required for remediation design, and 3) establish a groundwater monitoring network designed to observe nitrate trends in groundwater as they respond to treatment. With these objectives in mind, WET and Agrimanagement have developed this investigation to concentrate soil boring and monitoring well locations to the lagoon areas expected to require remediation and have been deemed most likely to benefit from these remediation methods.

### **3.0 SUPPLEMENTAL DATA REQUIREMENTS - SOIL**

The design and successful implementation of both remediation options is highly dependent on additional soil data specific to within the lagoon areas. These soil data include:

#### **3.1 Soil Profile Thickness**

Advancing soil borings within the footprint of the lagoons will determine the thickness of the soil profile between the bottom of the lagoons and the top of the groundwater table. This information is critical to the design of both remediation options. For the enzyme treatment pilot study, this information is important in determining the most suitable pilot study location, the most appropriate method for applying the enzymes, and the estimated quantity of the enzymes that need to be applied.

For the oxygenation injection treatment pilot study, this information is important in determining the most suitable pilot study location the design of the system's infrastructure such as depth of the infiltration gallery and spacing of the perforated pipe, and the estimated quantity of oxygenation agents required for remediation.

For both treatment options, this information will be required to determine the mass of the nitrogen species present in the soil aiding in remediation timeline predictions.

### **3.2 Soil Characteristics**

Understanding the soil characteristics such as soil type, moisture content and percent organic matter will aid in the design of both remediation strategies. Additionally, these soil characteristics will help identify preferential pathways of nutrients beneath the lagoons. For example, if the soil characteristics in one area are observed to be coarse grained material that is saturated and contains high organic matter, this zone is a probable preferential pathway for nutrient loading and remediation can be focused to just this area. For the enzyme treatment pilot study this information is important in determining which location is most appropriate for this remediation method and in determining if the soil should be conditioned with water. For the oxygenation injection treatment pilot study, understanding the soil type is important in determining the most suitable location for treatment and in system design such as infiltration gallery depth and spacing, pump sizing and extraction well design.

### **3.3 Nitrogen Species Concentrations**

The soil sample analytical data will aid in determining the total mass of nitrogen species present in the soils within the treatment areas. Additionally, it will aid in the delineation of the lateral and vertical extent of the nitrogen impacts. This information will aid in determining which areas beneath the lagoons are the likely source of nitrate to groundwater. It will reduce remediation efforts to just the observed impacted areas and ultimately reduce total remediation costs.

Understanding the nitrogen species concentrations beneath the lagoons will be critical in the design of both remediation options. For the enzyme treatment, this data will determine the quantity and concentration of the enzymes and will aid in determining how the enzymes will be applied to the soil. For the oxygenation injection treatment, this information will aid in design of the infiltration gallery and in determining the concentration and quantity of the oxygenation agent. Finally, this data will provide a baseline for future monitoring to determine the effectiveness of the treatment options.

## **4.0 SUPPLEMENTAL DATA REQUIREMENTS - GROUNDWATER**

Groundwater data will be required in to adequately design and monitor both remediation strategies. These groundwater data include:

### **4.1 Groundwater Parameters**

Understanding groundwater parameters including, dissolved oxygen, turbidity, electrical conductivity, and pH is important to the design of both remediation options. For the enzyme treatment, these parameters will aid in determining if the groundwater conditions are conducive for the enzyme treatment, will aid in determining which location is most suitable the enzyme application, and will be required to determine if additional amendments are needed to improve the effectiveness of the application. For the oxygenation injection treatment, groundwater parameters



will aid in determining which location is most suitable for treatment, aid in the design of the treatment system, and will be required for the design of the injection solution.

#### **4.2 Shallow Aquifer Hydrology**

The newly installed groundwater monitoring network will provide hydraulic data for the shallow aquifer within the immediate vicinity of the lagoon areas. This information includes; depth to groundwater, seasonal fluctuations of the water table, local hydraulic gradients, and influence of surface water sources (i.e., irrigation canals, lagoons, etc.) on the local water table. Basic hydraulic testing on select monitoring wells will also aid in understanding the hydraulic conductivity of the aquifer. This data is critical in getting a better understanding of the residence time of the nitrate impacts, the design of the oxygenation injection system, and the design of the groundwater extraction system (i.e., well design and spacing, pump sizing, etc.).

#### **4.3 Groundwater Nitrogen Specie Concentrations**

Groundwater samples collected from this monitoring network will aid in better understanding the nature and extent of the plumes within the vicinity of the lagoons. This information will assist in determining which lagoons are the likely sources of the nitrate plumes, potentially reducing remediation efforts to just the areas that are contributing nitrate to groundwater. Additionally, these initial analytical results will provide baseline groundwater data for monitoring the effect both remediation options will have on nitrate concentrations in groundwater.

#### **4.4 Groundwater Monitoring**

The purpose of both remediation options is to ultimately reduce the concentrations of nitrates in groundwater. The current monitoring network is not sufficient to adequately monitor nitrate concentrations in groundwater in response to remediation. The groundwater monitoring network proposed in this Work Plan has been designed to identify and characterize nitrate impacts associated with manure liquid seepage from the lagoons at the Dairies. Additionally, select wells will be used to monitor the effectiveness of the remediation pilot programs. Once the locations of the remediation pilot programs have been selected, a portion of the wells deemed by WET and Agrimanagement as unnecessary for remediation monitoring will be abandoned.

### **5.0 PROPOSED SOIL INVESTIGATION**

The proposed soil investigation is limited to the lagoons 1, 2, 3, and 4 located on the DBD property and the former settling basin area, former lagoons 1 and 2, and the lagoon located south of the milking parlor located on the SMD property. The investigation will be conducted using a sampling grid in accordance with the schedule provided below. WET understands that some of the lagoons may be in use. Sampling will not be conducted in lagoons that are not accessible or in operation, but WET reserves the right to sample the lagoons when access is available.

Agrimanagement will use their drilling equipment to collect continuous core soil samples via direct push drilling methods. The soil borings will be advanced until either refusal is encountered or until the soil boring is a minimum of one foot below the soil/groundwater interface. Agrimanagement will collect a soil sample from each boring in accordance with the following:

- One soil sample will be collected in the upper 3 feet of the soil boring.
- One soil sample will be collected from the area demonstrating the highest evidence of impact.
- One soil sample will be collected from within 1 foot above the soil/groundwater interface.

The soil samples will be collected in laboratory approved sample containers, stored in coolers on ice, and transported to a qualified laboratory for analysis under chain-of-custody protocol. The soil samples will be analyzed for Nitrate as N, Ammonium as N, Total Kjeldahl Nitrogen (TKN), and Phosphorous. Agrimanagement will be responsible for the proper collection, storage, and transport of the soil samples. WET will provide a representative to observe drilling and to log the soil conditions.

We anticipate that the preliminary soil sampling program can be completed in four 10-hour working days. Upon review of the analytical data, both WET and Agrimanagement will remobilize to the Facilities to complete supplemental soil sampling in quadrants where exceedances occur. Based on the sampling schedule provided above, we have assumed that a total of 111 soil samples will be collected, however, this sample quantity should be reduced if access to a portion of the lagoons is not available.

Below outlines the sampling grids. The locations of these grids are provided in Figure 2 and Figure 3 attached to this document.

### **5.1 DeRuyter Brothers Dairy**

- Lagoon #1 will be divided into three equal quadrants, with one soil boring advanced in the center of each quadrant.
- Lagoon #2 will be divided into three equal quadrants, with one soil boring advanced in the center of each quadrant.
- Lagoon #3 will be divided into six equal quadrants, with one soil boring advanced in the center of each quadrant.
- Lagoon #4 will be divided into nine equal quadrants, with one soil boring advanced in the center of each quadrant.

### **5.2 Snipes Mountain Dairy**

- Former Lagoon #1 will be divided into four equal quadrants, with one soil boring advanced in the center of each quadrant.

- Former Lagoon #2 will be divided into four equal quadrants, with one soil boring advanced in the center of each quadrant.
- Former Settling Basin located in the northeast corner of the SMD property will be divided into four equal quadrants, with one soil boring advanced in the center of each quadrant.
- Former Lagoon Area located in the southwest corner of the SMD property will be divided into four equal quadrants, with one soil boring advanced in the center of each quadrant.

### **5.3 Supplemental Soil Sampling**

WET and Agrimanagement will review the laboratory results of the preliminary soil samples. Up to four additional soil borings will be advanced in each quadrant where analytical results demonstrate concentrations exceeding 45 parts per million (ppm) combined nitrate (NO<sup>3</sup>) and ammonia (NH<sup>4</sup>) in that quadrant. Soil samples will be collected in 1-foot intervals from ground surface to the soil/groundwater interface during the supplemental investigation. We cannot provide an estimate on the supplemental soil sampling program at this time, however, for costing purposes, we have assumed that the supplemental soil investigation will take three 10-hour working days. WET cannot predict the quantity of soil samples to be collected during the supplemental investigation.

## **6.0 PROPOSED GROUNDWATER INVESTIGATION**

Thirteen (13) additional groundwater monitoring wells, identified on Figure 4 and Figure 5, will be installed around the Facilities' lagoons as part of this remediation investigation. The groundwater monitoring wells will be installed within the lagoon areas by Agrimanagement using direct push drilling methods. The monitoring well locations have been pre-determined based on proximity to the lagoon areas, the known general hydraulic gradient and flow direction, and previous groundwater data. However, the location of these wells may change based on observed site conditions.

Agrimanagement will install the groundwater monitoring wells to approximately 5 feet below the soil/groundwater interface using direct push drilling methods. A WET field representative will observe and log the soil conditions as the wells are installed and collaborate with Agrimanagement on well screen depth intervals based on observed conditions. Upon completion, WET will develop the wells and collect an initial round of groundwater samples. The groundwater samples will be sent to a qualified laboratory for Nitrate as N, Nitrite as N, Nitrate + Nitrite as N, TKN, Ammonia as N, and total Phosphorous analysis.

### **6.1 DBD Washington LLC.**

Five groundwater monitoring wells will be installed within the DBD lagoon area as part of this Investigation. This quantity assumes that the new wells, installed by AEC, including AEC MW #1, AEC MW #2, AEC MW #3, and AEC MW #8 were installed in accordance with the attached

boring logs and can be utilized. This quantity also assumes that existing monitoring wells FMW-4, FMW-5, FMW-6, and FMW-7 are still functional and will not interfere with the reconstruction activities. If any of these wells need to be abandoned, then a replacement well should be installed in the abandoned well's general vicinity. The additional proposed groundwater monitoring well locations are provided on Figure 4.

WET anticipates that the five groundwater monitoring wells can be installed in one 10-hour working day, well development can be completed in one 10-hour working day, and groundwater sample collection from all of DBD's existing wells can be completed in two 10-hour working days. WET has assumed that a total of 13 groundwater samples will be submitted for laboratory analysis.

## **6.2 Snipes Mountain Dairy**

Eight groundwater monitoring wells will be installed within the SMD lagoon areas as part of this Investigation. This quantity assumes that the new wells, installed by AEC, including AEC MW #11, and AEC MW #12 were installed in accordance with the attached boring logs and can be utilized. This quantity also assumes that existing monitoring well FMW-9 is still functional and will not interfere with the reconstruction activities. If this well needs to be abandoned, then a replacement well should be installed in its general vicinity. The proposed groundwater monitoring well locations are provided on Figure 5.

WET anticipates that the groundwater monitoring wells can be installed in two 10-hour working days, well development can be completed in one 10-hour working day, and groundwater sample collection can be completed in two 10-hour working days. WET has assumed that a total of 11 groundwater samples will be submitted for laboratory analysis.

## **7.0 DATA INTERPRETATION AND REPORTING**

Upon completion of the field activities outlined above, WET will review the data and collaborate with Agrimanagement to determine the extent of environmental impacts within the investigation areas. This determination will be dependent on the analytical results of the soil and groundwater samples. Areas where combined  $\text{NO}^3$  and  $\text{NH}^4$  concentrations in soil are less than 45 micrograms per gram (ug/g) will be considered non-impacted. Groundwater samples with nitrate concentrations less than 10 milligrams per liter (mg/L) will be considered non-impacted.

WET, Agrimanagement, and the Facilities will collaborate to determine the most appropriate remediation strategies based on the data collected during the RI. WET reserves the right to perform Oxygenation Pilot Study programs on one Lagoon on the DBD property and one Lagoon on the SMD property. It is anticipated that Agrimanagement will perform Enzyme Pilot Study Programs on one Lagoon on the DBD property and one Lagoon on the SMD property. The selection of the Lagoons will be based on several factors including; analytical results, hydrogeological conditions, and the ability to monitor the effectiveness of the Pilot Study Programs.

WET will provide a Summary Report that details the findings of the RI. Additionally, WET will provide a Work Plan detailing the Oxygenation Injection Pilot Studies. This Work Plan will provide details including location, construction specifications, and cost estimates. WET anticipates that report drafts can be provided within 30 days upon receiving the laboratory analysis data.

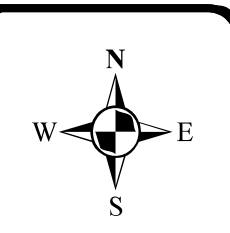
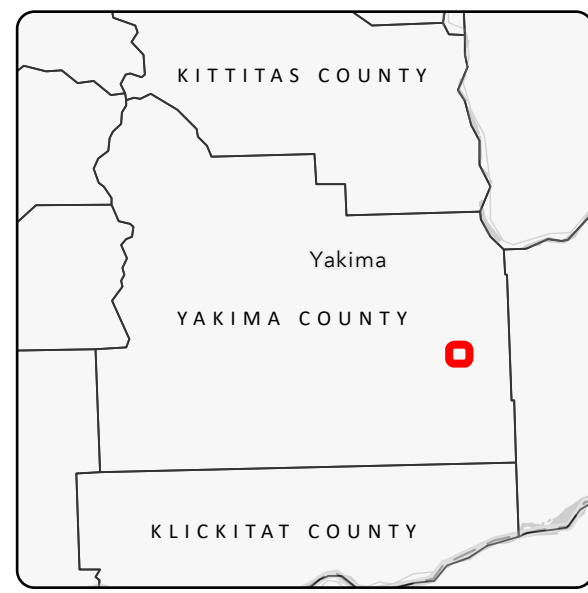
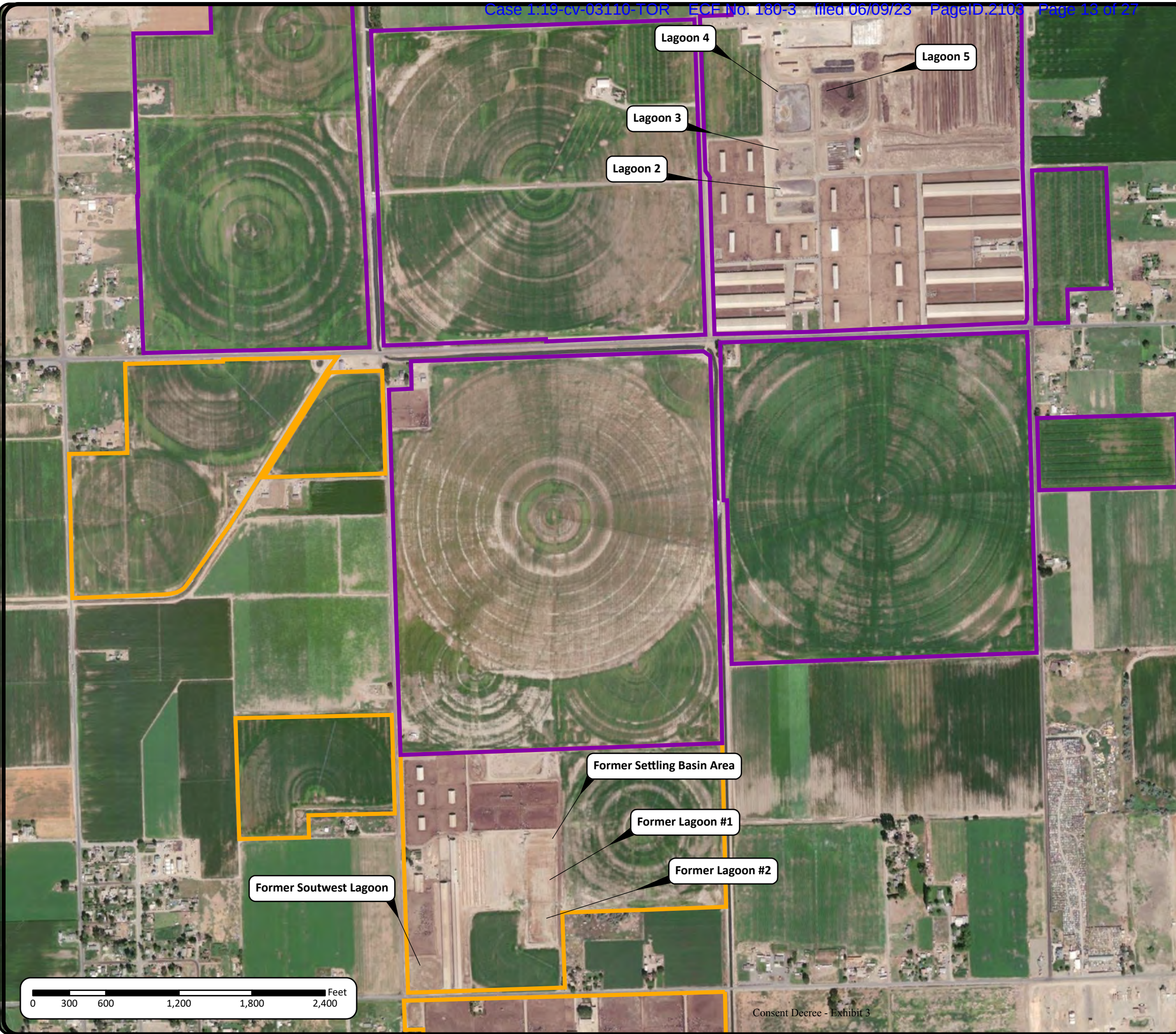
## 8.0 REMEDIAL INVESTIGATION SCHEDULE AND COST

Agrimanagement will be responsible for drilling the soil borings, installing the groundwater monitoring wells, and soil sample analysis. WET will provide one representative to oversee the soil borings and monitoring well installations, groundwater sampling, and groundwater sample analysis. WET anticipates that the RI field work can be completed in approximately two weeks. This estimate is based on assumed drilling and well installation production rates and may vary based on Agrimanagement's production rate. The cost to complete the above-described scope of work is summarized in the following Table 1.

<b>Table 1: Cost Estimate</b>			
<b>Tasks</b>	<b>Labor</b>	<b>Expenses</b>	<b>Total</b>
Task 1 – Project Management	\$5,510	\$0	\$5,510
Task 2 – Initial Mobilization	\$2,835	\$4,735	\$7,570
Task 2a – Supplemental Mobilization	\$2,048	\$2,319	\$4,367
Task 3 – Field Investigation	\$14,700	\$2,035	\$16,735
Task 3a – Supplemental (Soil) Investigation	\$3,150	\$500	\$3,650
Task 4 – Laboratory Analysis	\$710	\$4,286	\$4,996
Task 5 – Data Validation	\$2,260	\$0	\$2,260
Task 6 – Reporting	\$13,885	\$115	\$14,000
<b>Total</b>			<b>\$59,088</b>

## **FIGURES**





NO.	DESCRIPTION	DATE	DRAFT	REVIEW
1				
2				
3				
4				
5				

NOTES

**SAMPLING GRIDS**

DERUYTER BROTHERS DAIRY & SNIPES MOUNTAIN DAIRY

CAFOM10

DATE: 2/3/2023

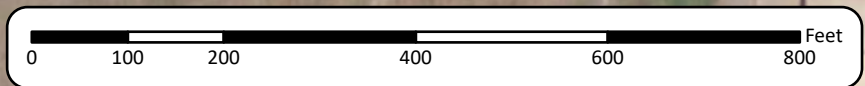
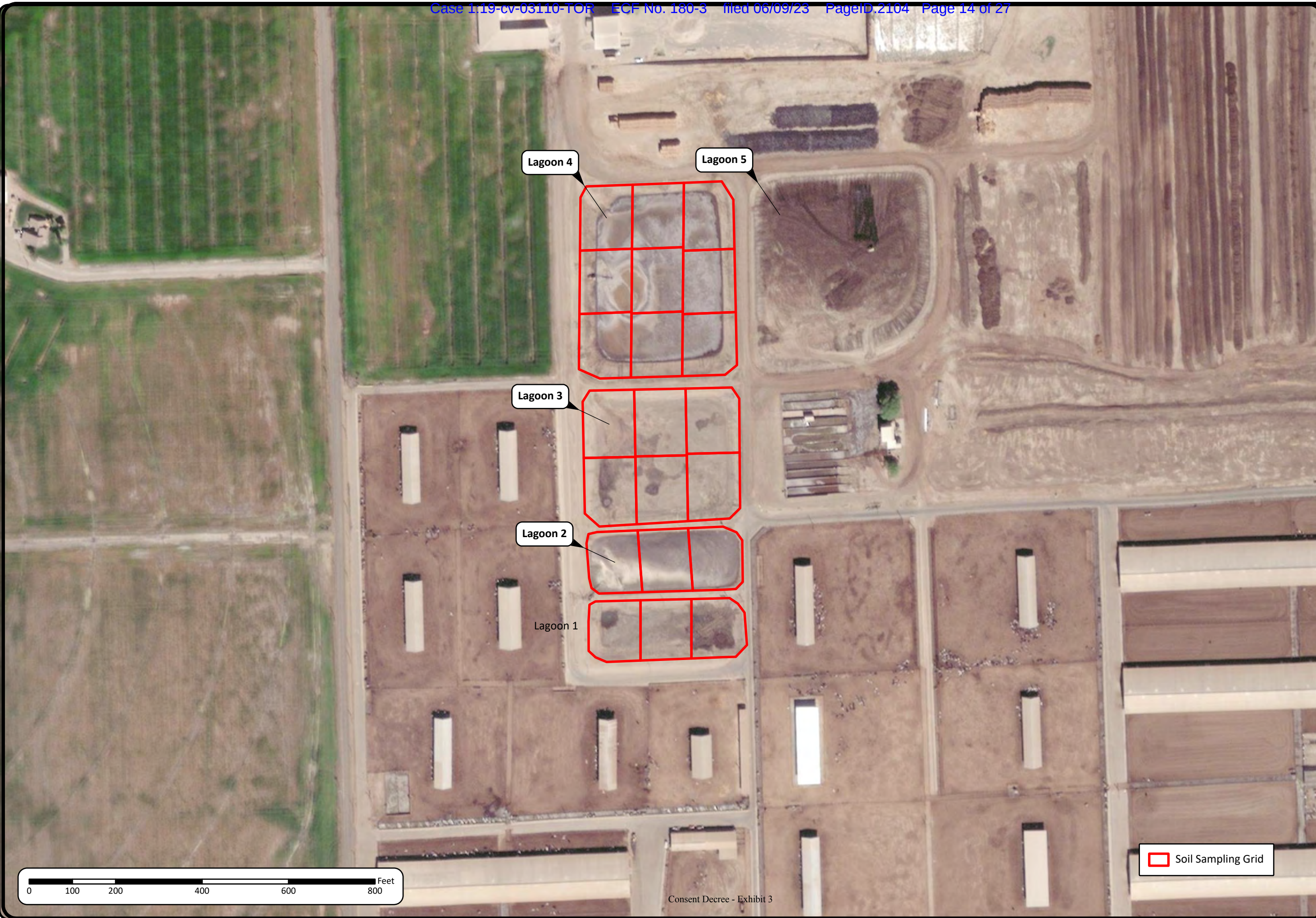
Path: M:\CAFOD\CAFOM10\2022\CAFOD\_maps.aprx, Author: jleprosse

**FIGURE 1**

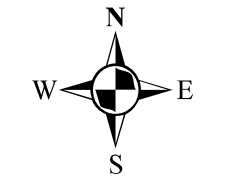
Snipes Mountain Dairy  
 DeRuyter Brothers Dairy







Soil Sampling Grid



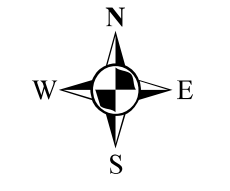
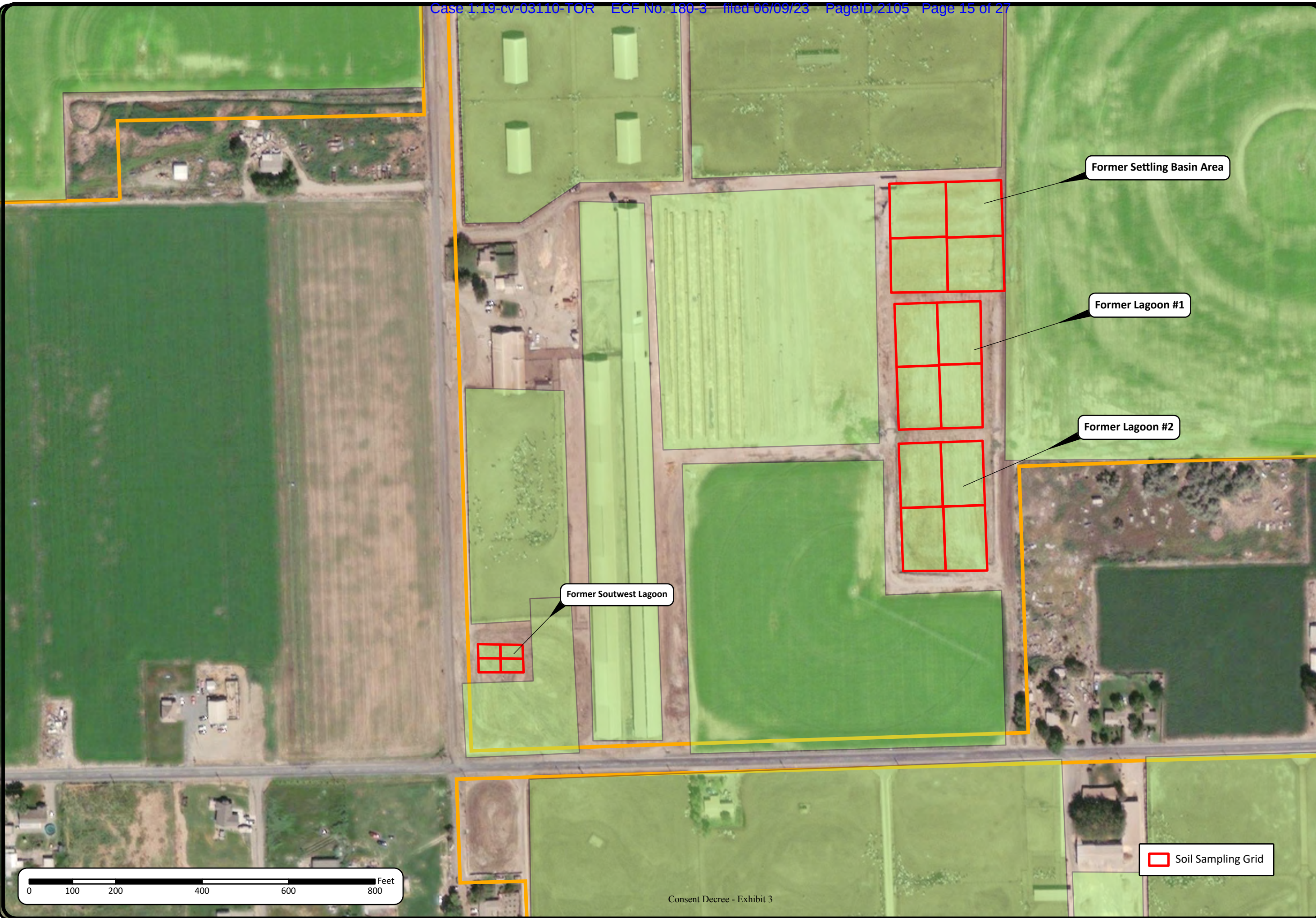
NO.	DESCRIPTION	DATE	DRAFT	REVIEW
1				
2				
3				
4				
5				

NOTES

**SAMPLING GRIDS**  
 DERUYTER BROTHERS DAIRY  
 CAFOM10  
**FIGURE 2**  
 DATE: 2/2/2023  
Path: M:\CAF0\CAFOM10\2022\CAFO\_maps\CAFO\_maps.aprx, Author: jleprosse



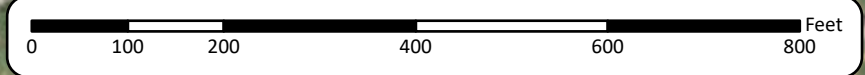




NO.	DESCRIPTION	DATE	DRAFT	REVIEW
1				
2				
3				
4				
5				

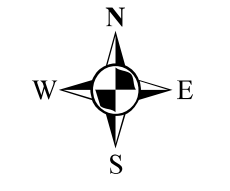
NOTES

**SAMPLING GRIDS**  
 SNIPES MOUNTAIN DAIRY  
 CAFOM10  
 DATE: 2/3/2023  
**FIGURE 3**  
 Path: M:\CAF0\CAFOM10\2022\CAFO\_maps\CAFO\_maps.aprx, Author: jleprosse



Soil Sampling Grid





NO.	DESCRIPTION	DATE	DRAFT	REVIEW
1				
2				
3				
4				
5				

NOTES

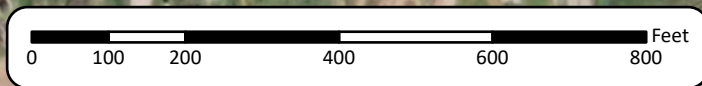
GROUNDWATER MONITORING WELLS  
 DERUYTER BROTHERS DAIRY  
 CAFOM10  
 DATE: 2/2/2023  
**FIGURE 4**  
Path: M:\CAFO\CAFOM10\2022\CAFO\_maps\CAFO\_maps.aprx, Author: jleprosse



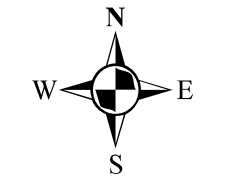
0 150 300 600 900 1,200 Feet

Existing Wells  
 Pilot Program Proposed Wells





- ◆ Existing Wells
- ◆ Pilot Program Proposed Wells



NO.	DESCRIPTION	DATE	DRAFT	REVIEW
1				
2				
3				
4				
5				

NOTES

**GROUNDWATER MONITORING WELLS**

SNIPES MOUNTAIN DAIRY

[CAFOM10] DATE: 2/2/2023

**FIGURE 5**

Path: M:\[CAFOM10]2022\CAFO\_maps\CAFO\_maps.aprx, Author: jleprosse

