

UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT

WASHINGTON STATE DAIRY	)	
FEDERATION, ADAM DOLSEN,	)	
COW PALACE, L.L.C., and THE	)	
DOLSEN COMPANIES	)	
	)	Case No. _____
Petitioners	)	
	)	PETITION FOR REVIEW
v.	)	
	)	
U.S. ENVIRONMENTAL	)	
PROTECTION AGENCY, and	)	
ANDREW WHEELER, as Acting	)	
Administrator of the United States	)	
Environmental Protection Agency,	)	
	)	
Respondents	)	

**PETITION FOR REVIEW**

Pursuant to 42 U.S.C.A. § 300j-7(a), 5 U.S.C.A. § 706, Federal Rule of Appellate Procedure 15(a), and the Constitution of the United States of America, Petitioners Washington State Dairy Federation, Adam Dolsen, Cow Palace, L.L.C, and the Dolsen Companies (collectively “Petitioners”) hereby petition the Court for review of the Administrative Order on Consent, Docket No. SDWA-10-2013-0080, entered on March 13, 2013, a proceeding under Section 1431 of the Safe Drinking Water Act, 42 U.S.C. § 300i(a); and the report *Relation Between Nitrate in Water Wells and Potential Sources in the Lower Yakima Valley* (EPA-910-12-003), issued on September 27, 2012, revised March 2013 (EPA-910-R-13-004), a

proceeding under Section 1431 of the Safe Drinking Water Act, 42 U.S.C. § 300i(a). Copies of these final actions are attached. (Attachments 1 and 2, respectively).

### **CORPORATE DISCLOSURE STATEMENT**

Pursuant to Federal Rule of Appellate Procedure 26.1, Petitioner Washington State Dairy Federation certifies that it has no parent corporations and that no publicly held corporation owns more than ten percent of Petitioner Washington State Dairy Federation.

Date: February 6, 2020

Respectfully Submitted,

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

In the Matter of:	)	ADMINISTRATIVE
	)	ORDER ON CONSENT
Yakima Valley Dairies	)	
	)	
Cow Palace, LLC;	)	Proceeding under Section 1431(a)
D & A Dairy, LLC (also known as D and	)	of the Safe Drinking Water Act,
A Dairy L.L.C.), George DeRuyter & Son	)	42 U.S.C. § 300i(a)
Dairy, L.L.C., and George & Margaret,	)	
L.L.C.;	)	
Liberty Dairy, LLC, and its associated Dairy	)	
Facility H & S Bosma Dairy	)	Docket No. SDWA-10-2013-0080
	)	
<u>Respondents</u>	)	

TABLE OF CONTENTS

I. STATUTORY AUTHORITY .....	2
II. STIPULATIONS.....	2
III. PARTIES BOUND .....	3
IV. DEFINITIONS .....	3
V. EPA’S FINDINGS OF FACT.....	4
VI. CONCLUSIONS OF LAW .....	7
VII. WORK TO BE PERFORMED .....	8
VIII. ADDITIONAL WORK.....	10
IX. ACCESS TO PROPERTY AND INFORMATION.....	10
X. RECORD RETENTION .....	12
XI. DISPUTE RESOLUTION.....	12
XII. FORCE MAJEURE.....	13
XIII. STIPULATED PENALTIES .....	14
XIV. RESERVATIONS AND GENERAL PROVISIONS .....	16
XV. MODIFICATIONS .....	17
XVI. TERMINATION AND SATISFACTION.....	18
XVII. INTEGRATION/APPENDICES.....	18
XVIII. EFFECTIVE DATE.....	18

## I. STATUTORY AUTHORITY

1. This Administrative Order on Consent (“Consent Order”) is entered into by the United States Environmental Protection Agency (“EPA”) and Cow Palace, LLC; D & A Dairy, LLC (also known as D and A Dairy L.L.C.), George DeRuyter & Son Dairy, L.L.C., and George & Margaret, L.L.C.; Liberty Dairy, LLC, and its associated dairy facility H & S Bosma Dairy (collectively “the Respondents”). This Consent Order provides for the performance of certain actions by Respondents in response to nitrate contamination in an underground source of drinking water in the Lower Yakima Valley, Yakima County, Washington.

2. This Consent Order is issued pursuant to the authority vested in the Administrator of the EPA by Section 1431(a) of the Safe Drinking Water Act (“SDWA” or “the Act”), 42 U.S.C. § 300i(a). The authority to issue this Consent Order was delegated to the Regional Administrator by Delegation No. 9-17, dated May 11, 1994. This authority was further delegated to the Director, Office of Compliance and Enforcement.

## II. STIPULATIONS

3. The EPA and Respondents recognize that this Consent Order has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Consent Order do not constitute an admission of fault or liability. EPA and Respondents have voluntarily entered into this Consent Order in lieu of alternatives available to the Parties, including litigation. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Consent Order, the validity of the findings of fact, conclusions of law, and determinations in Sections V and VI of this Consent Order. Respondents agree to comply with and be bound by the terms of this Consent Order and further agree that they will not contest the basis or validity of this Consent Order or its terms as specified herein.

4. Except as stated in Sections XI and XII, Respondents waive any and all claims for relief and otherwise available rights to or remedies involving judicial or administrative review that the Respondents may have with respect to any issue of fact or law set forth in this Consent Order, including, but not limited to, any right of judicial review under Section 1448 of the SDWA, 42 U.S.C. § 300j-7.

5. The Parties agree that nothing in this Consent Order is intended to impair or adversely affect the ability of Respondents to obtain federal or state grants or loans to finance an existing or future dairy digester or other projects.

### III. PARTIES BOUND

6. Notice of this Consent Order shall be given to any successor(s) in interest prior to transfer of any Dairy Facility or its operations.

7. Respondents shall provide a copy of this Consent Order to all contractors, subcontractors, laboratories, and consultants retained to conduct any portion of the Work performed pursuant to this Consent Order within seven (7) calendar days of the Effective Date of this Consent Order, or on the date of such retention; and Respondents shall condition all such contracts on compliance with the terms of this Consent Order. The provisions of this Consent Order shall apply to and be binding upon the Respondents, their officers, contractors, directors, agents, successors and assigns. Each Respondent shall give notice of this Consent Order to any successor in interest prior to such Respondent's transfer of any legal interests within the Dairy Facilities that are the subject of this Order. Any change in ownership or corporate status of a Respondent, including but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Consent Order. Action or inaction of any persons, firms, contractors, employees, agents, or corporations acting under, through or for the Respondents, shall not excuse any failure of the Respondents to fully perform their obligations under this Consent Order.

8. Each Respondent shall be responsible for carrying out the actions required by this Consent Order on the property owned or operated by it within the boundaries depicted on Appendix A and the actions required by this Consent Order on those properties described in Sections III.D. and F.7 of the Statement of Work. This Consent Order is intended to include the property owned and operated by Respondents within the boundaries depicted on Appendix A. Except for shared responsibilities under this Consent Order, one Respondent's failure to comply with this Consent Order shall not in any way affect or establish liability to EPA for any other Respondent. Each Respondent shall give notice to the EPA at least thirty (30) calendar days prior to transfer of ownership and/or operation of the Dairy Facility owned or operated by it.

### IV. DEFINITIONS

9. Unless otherwise expressly provided in this Consent Order, terms used in this Consent Order which are defined in the SDWA or in regulations promulgated under the SDWA shall have the meaning assigned to them in the SDWA or in such regulations. Whenever terms listed below are used in this Consent Order, the following definitions shall apply:

“Consent Order” means this Administrative Order on Consent and all appendices attached hereto (listed in Section XVII). In the event of conflict between this Consent Order and any appendix, this Consent Order shall control.

“Dairy Facility” or “Dairy Facilities” means the facility or facilities owned or operated by Respondents and depicted on Appendix A.

“Day” means a calendar day unless otherwise specified. In computing any period of time under this Consent Order, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

“Downgradient” means in the direction of the flow of groundwater in the aquifer.

“Effective Date” shall be the effective date of this Consent Order as provided in Section XVIII.

“Paragraph” means a portion of this Consent Order identified by an Arabic numeral.

“Parties” means EPA and the Respondents.

“Respondents” means the following entities, each of which is a Respondent: Cow Palace, LLC; D & A Dairy, LLC (also known as D and A Dairy L.L.C.), George DeRuyter & Son Dairy, L.L.C., and George & Margaret, L.L.C.; Liberty Dairy, LLC, and its associated Dairy Facility H & S Bosma Dairy.

“Section” means a portion of this Consent Order identified by a Roman numeral.

“Silage” means fermented, high-moisture fodder that can be fed to ruminants (cud-chewing animals like cattle and sheep) and has high nutrient content.

“Statement of Work” or “SOW” means the statement of work for implementation of the work required under this Consent Order, as set forth in Appendix B to this Consent Order, and any modification made thereto in accordance with this Consent Order.

“Work” means all activities Respondents are required to perform under this Consent Order.

## V. EPA’s FINDINGS OF FACT

10. The following findings of fact and conclusions of law are set forth solely for the purpose of establishing jurisdiction for this Consent Order. Respondents do not admit any finding of fact or conclusion of law stated herein. Based on the information in its possession, particularly that contained in the Administrative Record, the EPA makes the following findings of fact:

a. Cow Palace, LLC, (one of the Respondents) owns or operates a Dairy Facility which includes two dairy barns commonly referred to as Cow

Palace I and Cow Palace II. The dairy farm is located at 1631 N. Liberty Road, Granger Washington, 98932, and depicted on Appendix A.

b. George DeRuyter and Son Dairy, L.L.C., (one of the Respondents) owns or operates a Dairy Facility located at 5121 Dekker Road, Outlook, Washington 98938, and depicted on Appendix A. George and Margaret, L.L.C. owns buildings at the Dairy Facility.

c. D & A Dairy LLC (also known as D and A Dairy, L.L.C.), (one of the Respondents) owns or operates a Dairy Facility located at 5121 Dekker Road, Outlook, Washington 98938, and depicted on Appendix A. George and Margaret, L.L.C. owns buildings at the Dairy Facility.

d. Liberty Dairy, LLC, (one of the Respondents) owns or operates a Dairy Facility located at 5860 E. Zillah Drive, Granger, Washington, with a mailing address at 4300 Beam Road, Zillah, Washington 98953 and depicted on Appendix A.

e. H & S Bosma Dairy owns or operates a Dairy Facility located at 823 N. Liberty Road, Granger, Washington, with a mailing address at 4300 Beam Road, Zillah, Washington 98953 and depicted on Appendix A.

f. Dairy cows produce a considerable amount of manure which contains nitrogen in organic and inorganic forms. Nitrogen compounds move in air, surface runoff, and through percolating groundwater.

g. Percolating water and leachate from leaky lagoons and other animal waste storage facilities may transport nitrate to groundwater.

h. Liquid manure from the dairies is sprayed onto farm fields to grow crops. Ammonia from the manure converts to nitrite and then to nitrate. Crops uptake a certain amount of nitrate. Quantities of nitrate and nitrite in the soil in excess of levels which can be used by crops may migrate to the water table, contaminating groundwater. Nitrate is highly mobile, especially through highly permeable soils, where it moves easily with water downward through the soil profile to groundwater.

i. The hydrological setting in the vicinity of these Dairy Facilities consists of fine- and coarse-grained sediments overlying a sequence of three major basalt flows. The structural setting is created by bounding ridges such as the Rattlesnake Mountains, Ahtanum Ridge, Toppenish Ridge, and Horse Heaven Hills. The uppermost basalts of the Saddle Mountain Unit of the Columbia River Basalt Group are typically exposed in these upland ridges. This unit averages more than 500 feet thick. The underlying Wanapum unit averages 600 feet thick.

These units are separated by the Mabton Interbed, with an average thickness of 70 feet.

j. There are two main aquifer types underlying the area. They include a surficial unconfined to semi-confined alluvial aquifer and an extensive basalt aquifer of great thickness underlying the sedimentary deposits. The basalt aquifer is believed to be semi-isolated from the surficial aquifer and stream systems. Groundwater flow within the surficial aquifer generally follows topography, with natural recharge occurring within the headlands and on the sides of the valley and discharge occurring to the Yakima River. Flow within the uppermost portions of the underlying basaltic aquifer also generally follows this pattern.

k. The highest levels of nitrate generally occur in the shallow alluvial aquifer. Water-bearing zones in the upper basaltic layers that underlie the alluvial aquifer may be vulnerable to contamination from the shallow aquifer. Basaltic layers develop significant fracture permeability as they cool after volcanic eruption. They are often referred to as “fractured basalts.”

l. Examination of available well logs in the vicinity of these Dairy Facilities indicates that residential wells are typically screened in the shallow alluvial aquifer or in the upper basalt layers. Wells screened in these zones are particularly vulnerable to anthropogenic contamination. The fractured condition of the shallow basalts often means the water-bearing layers between the shallow basaltic layers are likely to be in communication with the shallow aquifer. A well pump set in a shallow basaltic water-bearing zone could, depending on conditions, pull contaminated water down through the shallow upper layers.

m. Potential sources of nitrogen at Respondents’ Dairy Facilities include pens, manure piles, manure lagoons, and application fields.

n. The SDWA maximum contaminant level (“MCL”) for nitrate measured as nitrogen is 10 mg/L, which is equivalent to 10 parts per million. See 40 C.F.R. § 141.62.

o. In February and April 2010, and in December 2011, the EPA collected samples from residential drinking water wells located in the area of the Dairy Facilities. Several households within one mile downgradient of the Dairy Facilities were found to have a residential drinking water well with nitrate above the 10 mg/l MCL.

p. The MCL for nitrate under the National Primary Drinking Water Regulations is 10 mg/L as nitrogen. See 40 C.F.R. § 141.62. The EPA has established this drinking water standard to protect against the adverse effects of nitrate. Concentrations of nitrate that are above 10 mg/L pose a health threat to



the population in general, and an acute health threat to children less than 6 months of age. This level was based on human case studies in which fatal poisonings have occurred following the ingestion of well water containing nitrate concentrations greater than 10 mg/L. Therefore, above the concentration of 10 mg/L in drinking water, nitrate may present an imminent and substantial endangerment to the health of persons.

q. The EPA has communicated with Washington State and local authorities to confirm the correctness of the information regarding the nitrate contamination found in the underground source of drinking water, and to ascertain what action the State is or will be taking. Neither Washington State nor local authorities are or will be taking the steps described in this Consent Order to address the nitrate contamination in the underground source of drinking water.

## VI. CONCLUSIONS OF LAW

11. Based upon the foregoing Findings of Fact and the Administrative Record supporting this Consent Order, the EPA hereby concludes that:

a. Each Respondent is a “person” as defined by Section 1401(12) of the SDWA, 42 U.S.C. § 300f(12).

b. Nitrate is a “contaminant” within the meaning of Section 1401(6) of the SDWA, 42 U.S.C. § 300f(6).

c. The aquifers in the area of the Respondents’ Dairy Facilities are underground sources of drinking water within the meaning of 40 C.F.R. § 144.3.

d. The EPA has information that contaminants, including nitrate, are present in or are likely to enter an underground source of drinking water and that it may present an imminent and substantial endangerment to the health of persons, and that appropriate State and local authorities have not acted to protect the health of such persons, in accordance with Section 1431(a) of the SDWA, 42 U.S.C. § 300i(a).

e. The EPA has determined that the actions required by this Consent Order are necessary to protect the health of persons who are currently consuming or who may consume or use water from the contaminated portion of the aquifer.

f. The EPA has consulted with the State and local authorities in order to confirm the correctness of the information on which this Consent Order is based and to ascertain the action which such authorities are or will be taking, in accordance with Section 1431 of the SDWA, 42 U.S.C. § 300i.

## VII. WORK TO BE PERFORMED

12. Based on the foregoing Findings of Fact, Conclusions of Law, and the Administrative Record, pursuant to Section 1431(a) of the SDWA, 42 U.S.C. § 300i(a), Respondents agree to and are hereby ORDERED to comply with all the provisions of this Consent Order, including, but not limited to all attachments to this Consent Order and all documents incorporated by reference into this Consent Order.

13. Designation of Contractor and Project Coordinators

a. For those actions that entail routine farming and dairying activities, Respondent may choose to undertake those actions using Dairy Facility personnel. Otherwise, Respondents, individually or collectively, shall retain one or more contractors to perform the actions specified in the Statement of Work and shall notify the EPA of the name(s) and qualifications of such contractor(s) within ten (10) days of the Effective Date. Respondents shall also notify the EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least twenty (20) days prior to commencement of such Work.

b. Within ten (10) days after the Effective Date, each Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by the corresponding Respondent required by this Consent Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. Receipt by each Respondent's Project Coordinator of any notice or communication from EPA relating to this Consent Order shall constitute receipt by the corresponding Respondent.

c. The EPA has designated Eric Winiecki as EPA's Project Coordinator. Except as otherwise provided in this Consent Order, Respondents shall direct all communications, including submissions required by this Consent Order, to EPA's Project Coordinator. Mr. Winiecki's contact information is:

Eric Winiecki  
EPA Project Coordinator  
U.S. Environmental Protection Agency, Region 10  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101  
206-553-6904  
[Winiecki.Eric@epa.gov](mailto:Winiecki.Eric@epa.gov)

d. The EPA and each Respondent shall have the right, subject to Paragraph 13b., to change their respective designated Project Coordinator. Respondents shall notify the EPA twenty (20) days before such a change is made. The initial notification may be made orally, but shall be promptly followed up by a written notice.

14. Actions Required and Submissions

a. Respondents shall perform, at a minimum, all actions necessary to implement the Statement of Work.

b. The EPA may approve, disapprove, require revisions to or modify the submissions in whole or in part, consistent with the Statement of Work. If the EPA requires revisions, Respondents shall submit a revised submission as specified in the EPA's letter requiring revisions. Respondents shall implement each plan or document as approved in writing by the EPA in accordance with the schedule approved by the EPA.

c. Once approved, or approved with modifications, each plan, schedule, any other document submitted, and any subsequent modification shall be incorporated into and shall be fully enforceable under this Consent Order.

d. Respondents shall not commence any Work except in conformance with the terms of this Consent Order. Respondent shall not commence implementation of Work until receiving written approval pursuant to this Paragraph.

e. Prior to the EPA's written approval, no plan, report, or schedule shall be construed as being approved and final. Oral advice, suggestions, or comments given by the EPA representatives do not constitute approval, nor shall any oral approval or oral assurance of approval be considered binding.

15. All submissions pursuant to this Consent Order shall be submitted in .pdf and in manipulable electronic format to the following email addresses: [Winiecki.Eric@epa.gov](mailto:Winiecki.Eric@epa.gov), [Fuentes.Rene@epa.gov](mailto:Fuentes.Rene@epa.gov), and [MacDonald.Jennifer@epa.gov](mailto:MacDonald.Jennifer@epa.gov). Hard copies shall also be mailed to the EPA's Project Coordinator in accordance with Paragraph 13.c. and to Rene Fuentes in the Office of Environmental Assessment, and Jennifer MacDonald in the Office of Regional Counsel at the following address:

U.S. Environmental Protection Agency, Region 10  
1200 6<sup>th</sup> Avenue, Suite 900  
Seattle, WA 98101-3140

16. Each submission shall include reference to the docket number of this Consent Order.

17. All plans, reports, notices, or other documents submitted by Respondents pursuant to this Consent Order, which make any representation concerning Respondents' compliance or noncompliance with any requirement of this Consent Order, shall be accompanied by the following statement signed by Respondents:

“I certify under the penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquiry of any and all persons directly responsible for gathering and analyzing the information obtained, I certify that the information contained in or accompanying this submittal is to the best of my knowledge and belief, true, accurate and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

18. The certification shall also include the name, title, date and signature of the person or persons completing the certification.

#### VIII. ADDITIONAL WORK

19. Any of the Respondents may propose that certain tasks, including investigatory work, engineering evaluation, or procedure/methodology modifications, are necessary in addition to or in lieu of the tasks included in any EPA approved plan, to meet the purposes set forth in this Consent Order, including the SOW. Upon EPA's approval of a work plan, the Respondent or Respondents shall implement such work plan in accordance with the schedule and provisions contained therein.

#### IX. ACCESS TO PROPERTY AND INFORMATION

20. Property

a. Respondents shall, commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to property owned or possessed by Respondents for the purpose of

conducting any activity related to this Consent Order. EPA shall endeavor to provide notice to Respondents of its need for access at least three (3) days in advance.

b. Where any action under this Consent Order is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use best efforts to obtain all necessary access within the time period specified in the SOW. Respondents shall immediately notify EPA if after using its best efforts it is unable to obtain such access. Respondents shall describe in writing their efforts to obtain access.

c. Notwithstanding, any provision of this Consent Order, the EPA retains all of its access authorities and rights, as well as all of its rights to require land use restrictions, including enforcement authorities related thereto, under SDWA, CERCLA, RCRA and any other applicable statutes or regulations.

21. Information

a. Respondents shall provide to the EPA, upon request, copies of all documents and information within their possession or control or that of their contractors, employees or agents relating to the implementation of this Consent Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, correspondence, or other documents or information relating to the Work.

b. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to the EPA under this Consent Order to the extent permitted by and in accordance with 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by the EPA will be afforded the protection specified in 40 C.F.R Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA, or if EPA has notified Respondents that the documents or information are not confidential under the standards of 40 C.F.R Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents.

c. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege or protection recognized by Washington or federal law. If Respondents assert such a privilege in lieu of providing documents, they shall provide the EPA with the following: i) the title of the document, record or information; ii) the date of the document, record or information; iii) the name and title of the author of the document, record or information; iv) the name and title of each addressee and recipient; v) a description of the contents of the document, record or information; and vi) the privilege asserted by

Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Consent Order shall be withheld on the grounds that they are privileged.

d. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Dairy Facilities relating to the Work.

## X. RECORD RETENTION

22. Until ten (10) years after Respondents' receipt of the EPA's notification pursuant to Section XVI (Termination and Satisfaction), Respondents shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work, regardless of any corporate or business retention policy to the contrary. Until ten (10) years after Respondents' receipt of the EPA's notification pursuant to Section XVI (Termination and Satisfaction), each Respondent shall also instruct its contractors, employees and agents to preserve all documents, records, and information of whatever kind, nature or description relating to the performance of the Work.

23. At the conclusion of this document retention period, Respondents shall notify the EPA at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by the EPA, Respondents shall deliver any such records or documents to the EPA. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege or protection recognized by Washington or federal law. If Respondents assert such a privilege in lieu of providing documents, it shall provide the EPA with the following: a) the title of the document, record or information; b) the date of the document, record or information; c) the name and title of the author of the document, record or information; d) the name and title of each addressee and recipient; e) a description of the contents of the document, record or information; and f) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Consent Order shall be withheld on the grounds that they are privileged.

## XI. DISPUTE RESOLUTION

24. Unless otherwise expressly provided for in this Consent Order, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Consent Order. The Parties shall attempt to resolve any disagreement concerning this Consent Order expeditiously and informally.

25. If Respondents object to any EPA action taken pursuant to this Consent Order, Respondents shall notify the EPA in writing of its objection within ten (10) days of such action, unless the objection has been resolved informally. The EPA and Respondents shall have thirty (30) days from EPA's receipt of Respondents' written objections to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of the EPA.

26. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by both Parties, be incorporated into and become an enforceable part of this Consent Order. If the Parties are unable to reach an agreement within the Negotiation Period, the Director of the Office of Compliance and Enforcement, EPA Region 10, will issue a written decision on the dispute. This decision shall be incorporated into and become an enforceable part of this Consent Order. Respondents' obligations under this Consent Order shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with the EPA's decision, whichever occurs.

## XII. FORCE MAJEURE

27. Respondents agree to perform all requirements of this Consent Order within the time limits established under this Consent Order, unless the performance is delayed by a force majeure. For purposes of this Consent Order, a force majeure is defined as any event arising from causes beyond the control of the Respondents, or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Consent Order despite the Respondents' best efforts to fulfill the obligation. Force majeure does not include increased cost of performance, changed economic circumstances, normal climatic conditions, or failure to obtain federal, state or local permits if such failure is due to unjustified delay or negligence on the part of Respondents.

28. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Order, whether or not caused by a force majeure event, Respondents shall notify the EPA orally within ten (10) days of when Respondents first had knowledge that the event might cause a delay. Within ten (10) days thereafter, Respondents shall provide to the EPA in writing an explanation and description of the reasons for the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a force majeure event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health. Failure to comply with the above requirements regarding an event shall preclude Respondents from asserting any claim of



force majeure regarding that event, provided, however, that if the EPA, despite the late notice, is able to assess to its satisfaction whether the event is a force majeure under Paragraph 27 and whether Respondents have exercised their best efforts under Paragraph 27, the EPA may, in its unreviewable discretion, excuse in writing Respondents' failure to submit timely notices under this Paragraph.

29. If the EPA agrees that the delay, or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Order that are affected by the force majeure event will be extended by the EPA for such time as is necessary to complete those obligations. If the EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, the EPA will notify Respondents in writing of its decision. If the EPA agrees that the delay is attributable to a force majeure event, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event. If the EPA disagrees that the delay or anticipated delay has been or will be caused by a force majeure event, then Respondents have the right to invoke the Dispute Resolution provisions of Section XI above to resolve the force majeure event issue. Respondents shall also have the right to invoke the Dispute Resolution provisions if they disagree with the EPA's decision as to the length of extension, if any, for performance of the obligations affected by the force majeure event. An extension of the time for performance of obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation.

### XIII. STIPULATED PENALTIES

30. Each Respondent shall be liable to the EPA for stipulated penalties in the amounts set forth below for its failure to comply with the requirements of this Consent Order as specified below, unless excused under Section XII (Force Majeure). "Compliance" by each Respondent shall include completion of the activities required for each Respondent under this Consent Order in accordance with this Consent Order, any plan or other document approved by the EPA, and all applicable requirements of law, and within the specified time schedules established by and approved under this Consent Order.

31. Stipulated Penalty Amounts – Work, including documents. The following stipulated penalties shall accrue per violation per day for a Respondent's failure to complete the actions called for in the Statement of Work in the time period or in the manner required by the EPA-approved document or schedule, and for failure to submit timely or adequate reports or other written documents:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 300	1st through 14th day
\$ 500	15th through 30th day
\$ 1,000	31st day and beyond



32. Stipulated Penalty Amounts – Other. The following stipulated penalties shall accrue per violation per day for a Respondent’s failure to comply with any other requirement of this Consent Order, including for example, select a Project Coordinator and contractor, and in the time period or manner required pursuant to this Consent Order.

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 100	1st through 14th day
\$ 300	15th through 30th day
\$ 500	31st day and beyond

33. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: a) with respect to a deficient submission under Section VII (Work to be Performed), during the period, if any, beginning on the thirty-first (31st) day after the EPA’s receipt of such submission until the date that the EPA notifies Respondent of any deficiency; and b) with respect to a decision by the Director of the Office of Compliance and Enforcement, EPA Region 10, under Paragraph 26 of Section XI (Dispute Resolution), during the period, if any, beginning on the twenty-first (21st) day after the Negotiation Period begins until the date that the Director of the Office of Compliance and Enforcement, EPA Region 10, issues a final decision regarding such dispute. Nothing in this Consent Order shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Order.

34. Following the EPA’s determination that a Respondent has failed to comply with a requirement of this Consent Order, the EPA may give Respondent written notification of the failure and describe the noncompliance. The EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether the EPA has notified Respondent of a violation.

35. All penalties accruing under this Section shall be due and payable to the EPA within thirty (30) days of Respondent’s receipt from the EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XI (Dispute Resolution). All payments to the EPA under this Section shall be paid by certified or cashier’s check(s) made payable to the EPA shall be mailed to:

**U.S. Environmental Protection Agency  
Fines and Penalties  
Cincinnati Finance Center  
PO Box 979077  
St. Louis, MO 63197-9000**

All payments shall also indicate that the payment is for stipulated penalties, and shall reference EPA Region 10 and the EPA Docket Number SDWA-10-2013-0080, and the name and address (city, state and zip code), point of contact person and phone number of the party making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to the EPA as provided in Paragraph 15.

36. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Consent Order.

37. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until fifteen (15) days after the dispute is resolved by agreement or by receipt of the EPA's decision.

38. If a Respondent fails to pay stipulated penalties when due, the EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made by EPA. Nothing in this Consent Order shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Consent Order or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 1431(b) of the SDWA, 42 U.S.C. § 300i(b). Notwithstanding, any other provision of this Section, the EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Consent Order.

#### XIV. RESERVATIONS AND GENERAL PROVISIONS

39. Nothing in this Consent Order shall limit the power and authority of the EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare or the environment.

40. The EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondents' failure to comply with any of the requirements of this Consent Order, including without limitation the assessment of penalties under 1431(b) of the SDWA, 42 U.S.C. § 300i(b). This Consent Order shall not be construed as a covenant not to sue, release, waive, or limit any rights, remedies, powers, and/or authorities, civil or criminal, which the EPA has under the SDWA, or any other statutory, regulatory, or common law authority of the United States. Nothing in this Consent Order shall diminish, impair, or otherwise adversely affect the authority of the EPA to enforce the provisions of this Consent Order.

41. This Consent Order shall not limit or otherwise preclude the EPA from taking additional enforcement action pursuant to the SDWA, or any other available legal

authority, should the EPA determine that such action is warranted and necessary to protect human health and the environment.

42. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, State, and federal laws and regulations. Respondents shall obtain or cause its representatives to obtain all permits and approvals required under such laws and regulations to perform work pursuant to this Consent Order and shall submit timely applications and requests for any such permits and approvals. Respondents may seek relief under the provisions of Section XII (Force Majeure) for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval required for the Work, provided that they have submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals.

43. Respondents agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work or this Consent Order, including, but not limited to any claim under the United States Constitution, the Washington Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, Section 1448 of the SDWA, 42 U.S.C. § 300j-7, as amended, or at common law. Respondents shall indemnify and save and hold harmless the EPA, its agents, and employees from any and all claims or causes of action arising solely from, or on account of, acts or omissions of Respondents or its officers, employees, agents, independent contractors, receivers, trustees, and/or assigns. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondents, the EPA, or the United States under their various contracts.

44. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Consent Order. Neither Respondents nor any such contractor shall be considered an agent of the United States.

## XV. MODIFICATIONS

45. If Respondents seek permission to deviate from any approved document or schedule or the Statement of Work, Respondents' Project Coordinator shall submit a written request to the EPA for approval outlining the proposed modification and its basis. Respondents may not proceed with the requested deviation until receiving oral or written approval from the EPA's Project Manager. Any oral modification will be memorialized in writing by the EPA promptly, but shall have as its effective date the date of the EPA Project Coordinator's oral direction. Any other requirements of this Consent Order may be modified in writing by mutual agreement of the Parties.

46. No informal advice, guidance, suggestion, or comment by the EPA's Project Coordinator or other EPA representatives regarding reports, plans, specifications,

schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Consent Order, or to comply with all requirements of this Consent Order, unless it is formally modified.

#### XVI. TERMINATION AND SATISFACTION

47. The provisions of this Consent Order, with the exception of Section X (Record Preservation) and actions required to continue as specified in the Statement of Work, shall terminate upon Respondents' receipt of written notice from the EPA that Respondents have demonstrated that the terms of this Consent Order have been satisfactorily completed.

#### XVII. INTEGRATION/APPENDICES

48. This Consent Order and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Order. The Parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Consent Order. The following appendices are attached to and incorporated into this Consent Order:

A – Aerial Photo and Site Diagram

B – Statement of Work

#### XVIII. EFFECTIVE DATE

49. This Consent Order shall be effective on the day that it is signed by the Director of the Office of Compliance and Enforcement in Region 10 of EPA, who shall be the last signatory to this Consent Order.

It is so AGREED:

For Cow Palace, LLC:

By: R. William Dolsen  
Signature

March 5, 2013  
Date

R. William Dolsen  
Print Name

President  
Print Title or Affiliation

For D & A Dairy, LLC (also known as D and A Dairy, L.L.C.), and George DeRuyter & Son Dairy, L.L.C.:

By: Dan DeRuyter  
Signature

3/5/13  
Date

Dan DeRuyter  
Print Name

member  
Print Title or Affiliation

For George & Margaret, L.L.C.:

By: George De Ruyter  
Signature

3-5-13  
Date

George De Ruyter  
Print Name

Member  
Print Title or Affiliation

**For Liberty Dairy, LLC and its associated Dairy Facility H&S Bosma Dairy:**

By:   
Signature

March 5<sup>th</sup>, 2013  
Date

Henry Bosma  
Print Name

Partner  
Print Title or Affiliation



It is so ORDERED and Agreed:

For the U.S. Environmental Protection Agency

BY: 

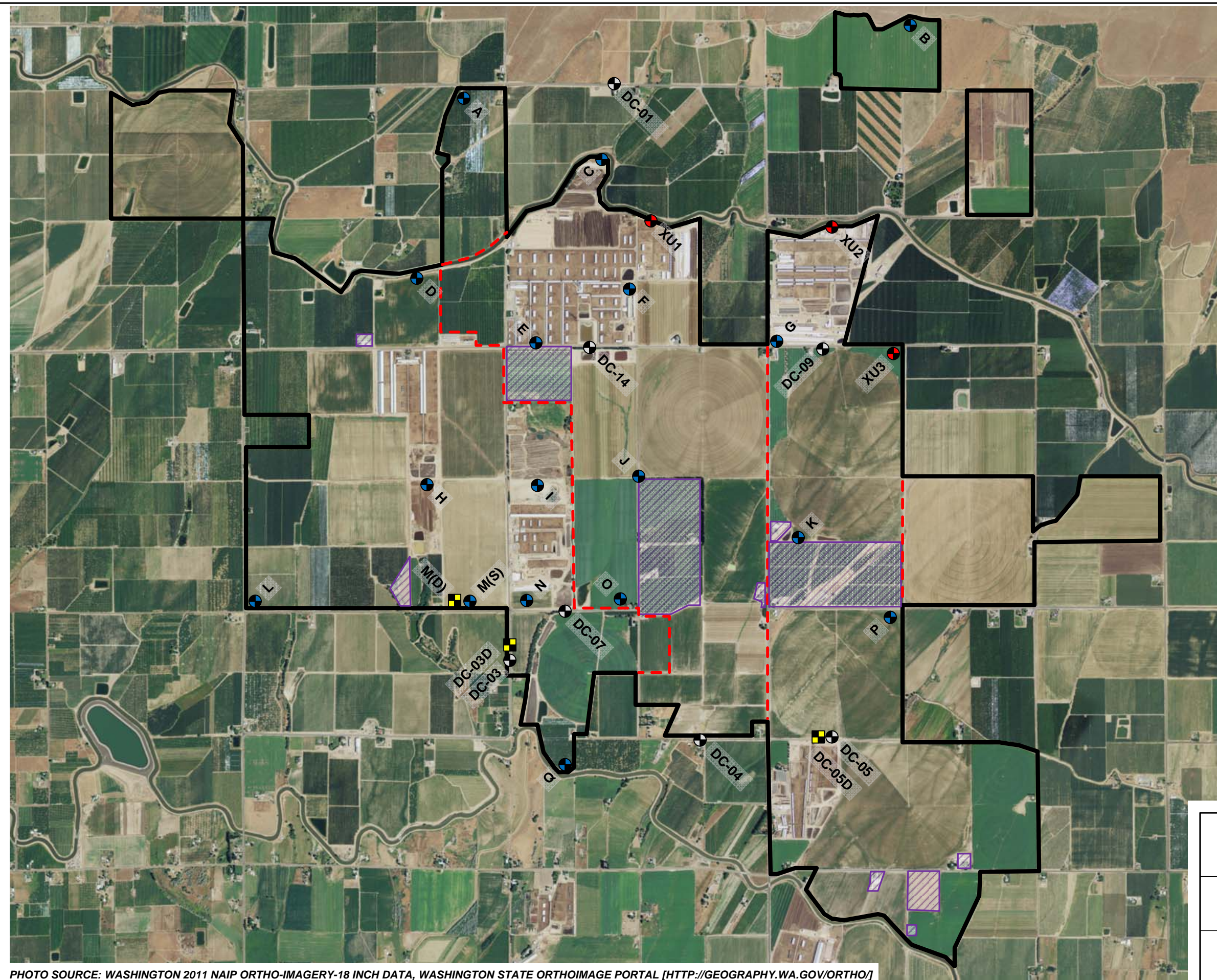
DATE: 3/19/2013

Edward J. Kowalski, Director  
Office of Compliance and Enforcement  
U.S. Environmental Protection Agency, Region 10










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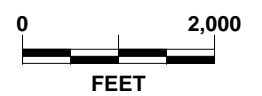
SDWA-10-2013-0080 APPENDIX A



**LEGEND**

-  APPROXIMATE BOUNDARY OF DAIRY FACILITIES
-  EXISTING EPA WELL (7) (LOCATION APPROXIMATE)
-  "SHALLOW" SURFICIAL AQUIFER MONITORING WELL (17)
-  "DEEP" SURFICIAL AQUIFER MONITORING WELL (3)
-  ADDITIONAL UPGRADIENT "SHALLOW" SURFICIAL AQUIFER MONITORING WELL [AT RESPONDENTS DISCRETION] (3)
-  LAND WITHIN BOUNDARY NOT OWNED OR OPERATED BY RESPONDENTS
-  RESPONDENTS OWNERSHIP BOUNDARIES

**APPROXIMATE SCALE**



SDWA-10-2013-0080

APPENDIX A

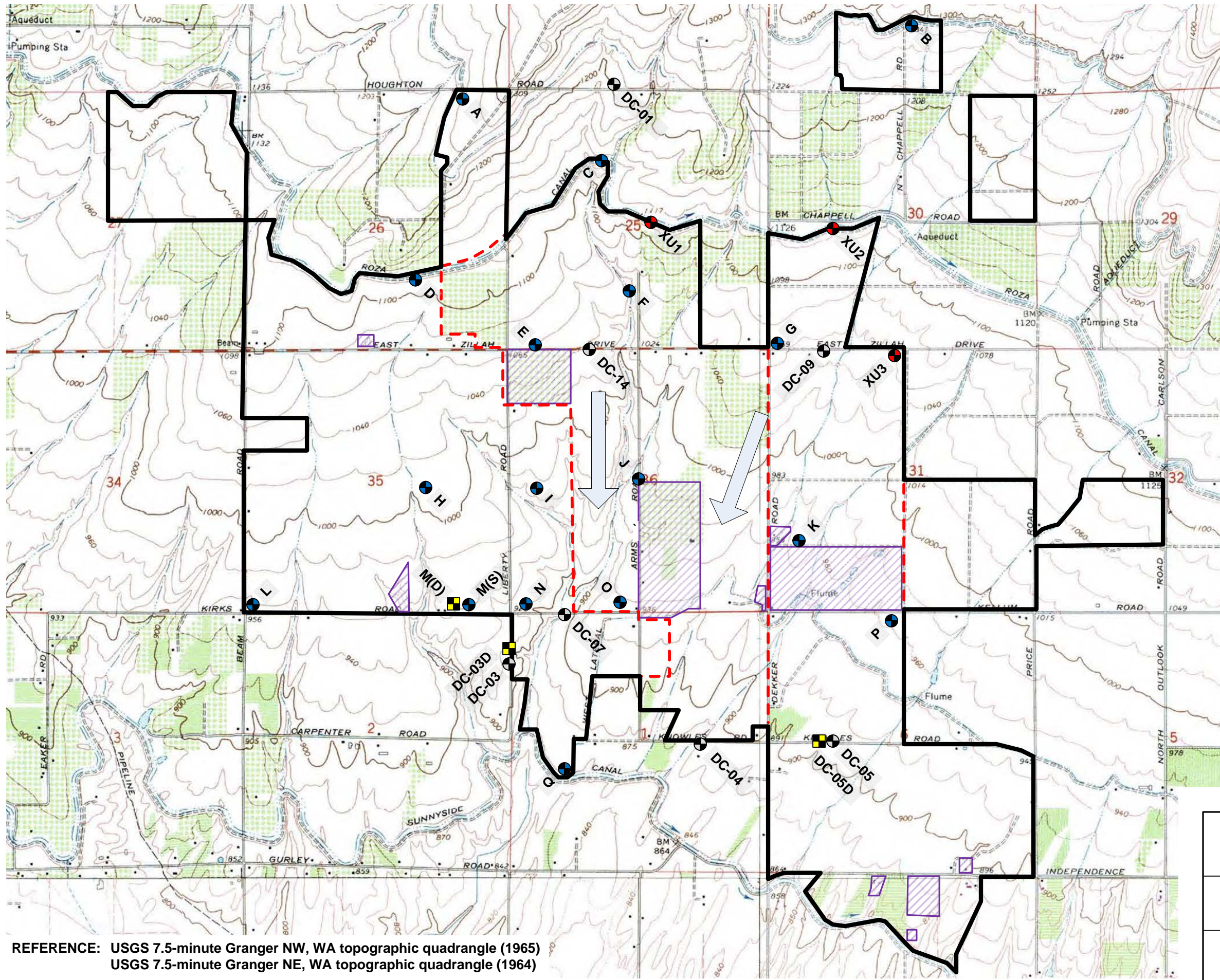
AERIAL PHOTOGRAPH

PHOTO SOURCE: WASHINGTON 2011 NAIP ORTHO-IMAGERY-18 INCH DATA, WASHINGTON STATE ORTHOIMAGE PORTAL [HTTP://GEOGRAPHY.WA.GOV/ORTHO/]











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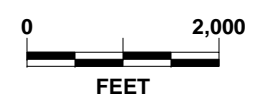
SDWA-10-2013-0800 APPENDIX A



**LEGEND**

-  APPROXIMATE BOUNDARY OF DAIRY FACILITIES
-  EXISTING EPA WELL (7) (LOCATION APPROXIMATE)
-  "SHALLOW" SURFICIAL AQUIFER MONITORING WELL (17)
-  "DEEP" SURFICIAL AQUIFER MONITORING WELL (3)
-  ADDITIONAL UPGRADIENT "SHALLOW" SURFICIAL AQUIFER MONITORING WELL [AT RESPONDENTS DISCRETION] (3)
-  GENERAL SURFICIAL AQUIFER GROUNDWATER FLOW DIRECTION
-  LAND WITHIN BOUNDARY NOT OWNED OR OPERATED BY RESPONDENTS
-  RESPONDENTS OWNERSHIP BOUNDARIES

**APPROXIMATE SCALE**



REFERENCE: USGS 7.5-minute Granger NW, WA topographic quadrangle (1965)  
 USGS 7.5-minute Granger NE, WA topographic quadrangle (1964)

SDWA-10-2013-0800
APPENDIX A
SITE DIAGRAM



**APPENDIX B  
STATEMENT OF WORK  
ADMINISTRATIVE ORDER ON CONSENT  
EPA DOCKET NO. SDWA-10-2013-0080**

**I. INTRODUCTION AND PURPOSE**

This Statement of Work (SOW) defines the response actions and obligations that Respondents are required to perform to implement the work (“Work”) under the Administrative Order on Consent, Docket No. SDWA-10-2013-0080 (the “Consent Order”), issued by the U.S. Environmental Protection Agency (EPA) to address sources of nitrate contamination in groundwater near and downgradient of Respondents’ Dairy Facilities. All Work described in this Statement of Work shall be conducted in accordance with local, state, and federal regulations. The goal of this Consent Order is to achieve drinking water quality that meets the EPA maximum contaminant level (“MCL”) for nitrate of 10 mg/L in the drinking water aquifer beneath and downgradient of the Dairy Facilities. Attachment 1 to this SOW is a Schedule of Tasks. In the event of conflicts between the Schedule of Tasks and the SOW, the SOW shall control.

**II. OBJECTIVES**

The objectives of this Statement of Work are to:

- A. Expediently provide a permanent, safe alternative drinking water supply to residents using private drinking water wells that exceed the MCL for nitrate (nitrate as nitrogen or “NO<sub>3</sub>-N”) and are on, or within one mile downgradient of the Dairy Facilities.
- B. Take specific actions to further control potential sources of nitrogen at the Dairy Facilities.
- C. Establish a network of monitoring wells to measure the effectiveness of the nitrogen source reduction actions on water quality in the shallow, alluvial aquifer which serves as an underground source of drinking water.
- D. Ensure effective nutrient management at the Dairy Facilities to reduce the introduction of nitrate to an underground source of drinking water.

**III. REQUIRED ACTIVITIES AND SUBMISSIONS**

As specified below, most of the Work required of Respondents by this Consent Order shall be conducted pursuant to EPA-approved plans. Each plan shall describe the activities to be performed by Respondents. Respondents are also required to submit reports relating to the Work to EPA for review and approval, as specified below.

**A. Quality Assurance Project Plan**

- 1. Before Respondents commence any monitoring, sampling, field measurements, or laboratory sample analysis under this Consent Order, Respondents shall submit to the EPA a Quality

Assurance Project Plan (“QAPP”) that shall ensure that all information, sample collection, analytical data and resulting decisions are technically sound, scientifically valid, and properly administered. Each QAPP submitted by Respondents shall be consistent with the Consent Order, including the SOW, and applicable EPA guidance documents. Each QAPP shall describe all data collection activities, contain a schedule for activities to be conducted pursuant to the QAPP, and describe and provide a schedule for submission of the report of the Work to be conducted in accordance with the QAPP. All data collected shall be submitted to the EPA in an electronic, manipulable format. Respondents shall ensure that all field methodologies utilized in collecting samples for analysis pursuant to the Consent Order are conducted in accordance with the procedures set forth in the QAPP approved by the EPA.

2. For each sampling activity required, Respondents shall submit to the EPA a QAPP that 1) describes the project objectives and organization, functional activities, and quality assurance and quality control (“QA/QC”) protocols that shall be used to achieve the desired data quality objectives (“DQOs”), and 2) ensures that sample collection and analytical activities are conducted in accordance with technically acceptable protocols and that the data generated will meet the established DQOs. Each QAPP shall be prepared in accordance with the “Guidance for Quality Assurance Project Plans (QA/G-5)” (EPA/240/R-02/009, December 2002), and “EPA Requirements for Quality Assurance Project Plans (QA/R-5)” (EPA/240/B-01/003, March 2001, reissued May 2006), and any amendments to these documents. The project DQOs should be developed for use in the QAPP in accordance with the “Guidance on Systematic Planning Using the Data Quality Objectives Process (QA/G-4)” (EPA/240/B-06/001, February 2006). The QAPP shall be written so that a field sampling team unfamiliar with the project would be able to gather the samples and field information required.

3. To provide quality assurance and maintain quality control, Respondents shall:

a. Use only a certified drinking water laboratory to analyze the groundwater samples for drinking water contaminants.<sup>1</sup> For the non-drinking water contaminants and the application field samples, use a laboratory that has been accredited by the State of Washington, National Environmental Laboratory Accreditation Program (NELAP) or equivalent as determined by the EPA. Application fields are those fields on which the Respondents apply solid or liquid animal waste.

b. Provide written instructions to each laboratory to be used by Respondents to perform analyses in accordance with approved analytical methods. Accepted methods for the analytes of interest per matrix for this project will align with DQOs approved by the EPA and shall consist of, at a minimum, the following:

Groundwater samples:

- Nitrate as Nitrogen (NO<sub>3</sub>-N) – EPA Method 300.0
- Nitrite as Nitrogen (NO<sub>2</sub>-N) – EPA Method 300.0
- Ammonia – EPA Method 350.1
- Total Phosphorus – EPA Method 365.1
- Total Kjeldahl Nitrogen – EPA Method 351.2
- Inorganic Anions (i.e., chloride, fluoride, sulfate) – EPA Method 300.0
- Metals (i.e., calcium, potassium, magnesium, sodium) – EPA Method 200.7

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<sup>1</sup> See <http://water.epa.gov/scitech/drinkingwater/labcert/analyticalmethods.cfm#approved>.

- Alkalinity (Total and Bicarbonate) – Standard Method 2320B

Application field samples:

- Ammonia (NH<sub>3</sub>)
- Nitrate as Nitrogen
- Phosphorus
- Potassium
- pH
- Electrical Conductivity
- Soil Organic Matter

Respondents shall propose, for EPA approval, analytical methods for application fields consistent with the goals of the Work. Respondents may use analytical methods other than those listed above with prior approval from the EPA.

c. Instruct the laboratory in writing to allow EPA personnel and its authorized representatives access to the laboratory and personnel utilized by Respondents for analyses.

d. Notify EPA not less than fourteen (14) days in advance of any sample collection or other field activity. At the request of the EPA, Respondents shall allow split or duplicate samples to be taken by the EPA or its authorized representatives, of any samples collected by Respondents with regard to the Work or pursuant to the implementation of this Consent Order. In addition, the EPA or its authorized representatives shall have the right to take any additional samples that the EPA deems necessary.

e. All results of measurements, sampling, tests, modeling, or other data (including raw data) generated by Respondents, or on Respondents' behalf, related to this Consent Order and during the period that this Consent Order is in effect, shall be incorporated in the report of the data collection activity or field activity submitted to the EPA. Except as specified below:

- (1) Respondents shall submit validated groundwater nitrate analytical results to the EPA within 30 days of sample collection;
- (2) Respondents shall submit a report of the data collection or other field activity and all validated data within 60 days of the date of last sample collection or field activity, whichever is later.

These requirements must be reflected in the QAPP schedule.

## **B. Health and Safety Plan**

At least 14 days in advance of initial field work for each task, including sampling domestic water and provision of alternative drinking water, Respondents shall submit to EPA a Health and Safety Plan ("HASP") that is compliant with the Occupational Safety and Health Act and its implementing regulations. The HASP shall identify specific to each task to be conducted: physical and chemical hazards that workers may encounter conducting Work under the Consent Order, identify how the safety of personnel will be ensured, and shall name a qualified site safety officer. The HASP shall identify any personal protective equipment that personnel shall wear during different site tasks,

including specific materials or properties of materials necessary to ensure appropriate protection. The proper safety equipment and instrumentation must be on site during all project activities. Respondents shall submit revised HASPs as necessary to address new field tasks.

**C. Public Involvement**

Within 30 days of the Effective Date, Respondents shall notify EPA of their interest in participating in the public involvement process.

**D. Provision of Water**

1. As described below, Respondents shall offer to provide reverse osmosis (RO) treatment systems, or other alternative water if mutually approved by EPA and Respondents, to each residence where testing shows that the drinking water supply exceeds the nitrate MCL of 10 mg/L and that is within:

- a. the boundary of the Dairy Facilities (depicted on Appendix A to the Consent Order), or
- b. one mile downgradient of the boundary of the Dairy Facilities (See Figure 1), if that residence does not already have a RO treatment system or other alternative water.

2. Within 21 days of the Effective Date, Respondents shall submit to EPA a Residential Well Sampling QAPP for testing residential drinking water wells. The Residential Well Sampling QAPP may include an option of Hach nitrate test strips for water well screening. The Residential Well Sampling QAPP shall specify that if Hach nitrate test strips are used, then for each well where the Hach test strip indicates 5 mg/L nitrate or above, Respondents shall collect a sample and submit that sample to a laboratory for analysis. The Residential Well Sampling QAPP shall include a schedule of activities related to accomplishing this task.

3. Within 60 days of EPA approval of the Residential Well Sampling QAPP, Respondents shall endeavor to test each drinking water well at the residences situated within the boundary of the Dairy Facilities and those residences that are located within one mile downgradient of the Dairy Facilities (Figure 1). After providing advance notice via postcard, Respondents shall make at least one visit per house. If no one is home at the time of Respondents' visit, then Respondents shall leave a note, pre-approved by EPA, that contains sufficient information regarding the reason for the visit, an invitation for response by occupants, and contact information for both EPA and the Respondents.

4. Results of testing using the Hach test strip shall be provided to the resident at the time of the testing, as well as documented in writing and included in the report required below in Paragraph 6. Preliminary laboratory results shall be submitted to EPA within 14 days from the date of the sample collection. Validated laboratory analytical results for those drinking water wells from which Respondents collected a sample to send to a laboratory must be provided to each resident and to the EPA within 21 days of sample collection.

5. Within 30 days of submittal to the EPA of the validated laboratory analytical data for drinking water wells, for each residence where the nitrate concentration exceeds 10 mg/L and

the occupant accepts Respondents' offer for alternative water, Respondents shall supply that residence with a RO treatment system or some other form of alternative water approved by the EPA.

6. Within 150 days of EPA approval of the Residential Well Sampling QAPP, Respondents shall submit a report to the EPA documenting the efforts made by Respondents, including identifying those residences contacted by Respondents, results of testing the well water, and whether the residence received a RO treatment system, already had a RO treatment system, did not respond to the offer, or rejected the offer.

7. So long as the Consent Order is in effect, if a resident located within the boundary of the Dairy Facilities (Appendix A to the Consent Order) or within the one mile radius as depicted on Figure 1 makes a request to EPA or Respondents for testing and a RO treatment system, then Respondents shall test the drinking water well and provide a RO treatment system to such resident if the nitrate concentration exceeds 10 mg/L.

8. For every alternative drinking water supply provided by Respondents, and for any property that already has a point-of-use system installed to treat drinking water for nitrate, Respondents shall provide professional maintenance service for that alternative water supply if a professional maintenance service for the alternative water supply is not already being provided.

9. Respondents shall continue to provide and maintain the alternative water supply so long as the property is occupied, and will resume provision and maintenance of alternative water supply if the property is occupied after a vacant period and Respondents are made aware of the re-occupation, regardless of whether there is a change in ownership or occupancy of the property.

10. Respondents may discontinue provision of alternative water supply to a residence if Respondents demonstrate to EPA that the nitrate level in a drinking water well is consistently below the MCL over a two-year period, as measured on a quarterly basis (8 quarters).

**E. Groundwater Monitoring**

**1. Groundwater Monitoring QAPP**

Within 60 days of the Effective Date, Respondents shall submit to EPA a Groundwater Monitoring QAPP. The objectives of the Groundwater Monitoring QAPP are to establish a baseline of groundwater quality information at the Dairy Facilities to evaluate whether actions taken to reduce nitrogen loading are effective over time, and to collect information to supplement and verify existing information on the environmental setting at the Dairy Facilities, including further clarification of the hydraulic gradient of the aquifer beneath the Dairy Facilities. The components of the Groundwater Monitoring QAPP shall include:

**a. Environmental Setting**

The Groundwater Monitoring QAPP shall provide available information regarding the environmental setting at the Dairy Facilities. In addition, the Groundwater Monitoring QAPP shall include provisions to collect information to supplement and verify existing information on the environmental setting at the Dairy Facilities. Information collected in accordance with the Groundwater Monitoring QAPP shall be



reported in the Groundwater Monitoring Installation Report and the Groundwater Monitoring Data Reports. The following shall be provided regarding hydrogeology:

(1) A short description of regional and site-specific geologic and hydrogeologic characteristics affecting groundwater flow and contaminant migration beneath the Dairy Facilities. This description shall include, but not be limited to, regional and site-specific stratigraphy. At a minimum, this shall include a detailed lithologic description of the area of the Dairy Facilities from the surface to fifteen feet below the water table of the drinking water aquifer at the time of monitoring well installation.

(2) A description of the regional and site-specific hydrogeologic flow regime for the alluvial aquifer. At a minimum, the groundwater hydrogeologic flow description shall include water level contour and/or potentiometric surface maps using measurements from EPA approved wells. These maps shall include contour maps that incorporate representative data obtained from water level or fluid pressure measurements from all groundwater monitoring wells used to fulfill the requirements of this Consent Order.

(3) A description of human influences, including off-site structures and conditions, that may affect the hydrogeology of and migration of any contaminants at or from the Dairy Facilities, identifying:

(a) Active and inactive local water withdrawal wells with the potential to affect groundwater flow at the Dairy Facilities, and approximate pumping schedules, and;

(b) Structures including, but not limited to, pipelines, french drains, creeks, ditches, unlined ponds, septic tanks, NPDES outfalls, sewer pipes, stormwater drains, tile drains and wastewater or surface water retention areas, etc.

(4) A description of surface water flow regimes, both regional and on/near the Dairy Facilities, based on present and historical conditions since operations began on the Dairy Facilities. At a minimum, this description must include a description and map of surface water channels (named or unnamed) as identified in published reports by the United States Geologic Survey (USGS) regarding Yakima County.

b. Groundwater Monitoring Well Installation

The Groundwater Monitoring QAPP shall include a conceptual site model in accordance with EPA guidance, DQOs, and a detailed description of the monitoring well installation and groundwater sampling and analysis. Data to be collected shall include the date, time and location of sampling, environmental conditions during sampling, media sampled, field parameters, contaminant concentrations, and the identity of the individuals performing the sampling and analysis. The Groundwater Monitoring QAPP shall, at a minimum, provide the following information:

(1) Provisions for installation of all groundwater monitoring wells needed to establish a baseline of nitrate contamination in the underlying aquifer. The Groundwater Monitoring QAPP shall define the design and installation procedures to be used. The proposed groundwater monitoring system and monitoring well network shall be capable of operating for a period

of time sufficient to provide representative groundwater samples during the implementation of actions to control nitrogen migration to groundwater at the Dairy Facilities pursuant to this Consent Order.

(2) The conceptual site model shall include a figure and a flow chart developed from available information. The conceptual site model shall be consistent with the following guidance document: Environmental Cleanup Best Management Practices: Effective Use of the Project Life Cycle Conceptual Site Model, EPA 542-F-11-011, July 2011. The conceptual site model shall be periodically updated as appropriate, based on new information.

(3) As the wells are drilled, the soil borings shall be logged by a qualified, state-registered geologist. Respondents shall submit the credentials of the qualified, state-registered geologist to EPA in accordance with Section VII.13.a. of the Consent Order. The Groundwater Monitoring QAPP shall document the procedures to be used in making the above determinations (e.g., well design, well construction, etc.).

(4) Lithologic descriptions shall include, but not be limited to, items such as grain size and sorting, depositional environment, and description according to the Unified Soil Classification System.

(5) The monitoring well data shall enable development of a baseline of nitrate concentrations in the drinking water aquifer against which progress in addressing nitrate contamination can be measured. At a minimum, Respondents shall install groundwater monitoring wells at the approximate locations indicated on Appendix A, or at alternative locations approved by EPA. Well locations must be sufficient to meet EPA approved DQOs.

(6) The shallow monitoring wells must have screens that provide access to sampling the uppermost zone of the surficial aquifer and are within the range of the variability of the water table in the area to be monitored. For each shallow well, a 20-foot section of well screen must be installed across the water table as determined at the time of monitoring well installation. The bottom of the screen must be installed 15 feet below the water table; the top of the well screen must be positioned 5 feet above the water table at the time of monitoring well installation. The deep monitoring wells shall have 10 foot screens, the top of which must be set at 45 feet below the water table elevation as measured at the time of monitoring well installation.

(7) The wells shall be monitored on a quarterly basis in accordance with the EPA approved QAPP. Monitoring shall include all field parameters (temperature, pH, turbidity, depth to water, water elevation, etc.), and the analytes listed in Section III. A above. Monitoring shall continue for a period of eight (8) years (i.e., 32 rounds) from the date of the first sampling event unless the Parties agree to extend that time if no downward trend is apparent at the end of the eight (8) years as described in III.G. below.

(8) At any time after the initial round of sampling, at the EPA's unreviewable discretion, frequency and parameters for subsequent sampling events may be reduced.

(9) Pressure transducers with data loggers shall be installed in up to six wells within the boundary of the Dairy Facilities to measure fluctuations in the water table. Measurements from these instruments shall be collected once a week until the EPA determines that these measurements may cease.

(10) Within 5 days of completion of installation of monitoring wells, Respondents shall commence groundwater sampling.

(11) Respondents shall collect information sufficient to support submission of well construction and lithologic logs in the Groundwater Monitoring Well Installation Report.

(12) Description of well development methods and procedures. Respondents shall use the method in the *Monitoring Well Development Guidelines for Superfund Project Managers*, April 1992, unless Respondents propose and EPA approves an alternative method.

(13) Respondents shall complete a land survey, to be performed by a Washington State licensed professional land surveyor, of the well locations and elevations.

(14) Any non-EPA existing monitoring wells on or near the Dairy Facilities may be included in the monitoring well network, depending on their location and construction characteristics, if the EPA approves their use.

(15) Prior to termination of this Consent Order, if Respondents can demonstrate to the EPA that the nitrate level in a downgradient monitoring well has remained below the MCL for eight (8) consecutive quarters, upon notice from the EPA, Respondents may cease to sample that well. Prior to termination of this Consent Order, upgradient well sampling may cease as determined by the EPA.

## 2. Groundwater Monitoring Well Installation Report

The Groundwater Monitoring QAPP shall specify the outline, format and schedule for the Groundwater Monitoring Well Installation Report. The Groundwater Monitoring Well Installation Report shall include, at a minimum, the following information for all groundwater monitoring wells used to meet the project objectives described in Section II of this SOW, and shall be updated and resubmitted to include any wells installed pursuant to this Consent Order:

a. A description and map showing all well locations, including each well's surveyed surface reference point and vertical reference point elevation surveyed by a Washington State licensed surveyor. Wells shall be surveyed using, or existing well elevations converted to, the National Geodetic Vertical Datum (NGVD), 1929, or updated to North American Vertical Datum of 1988 (NAVD88) to an accuracy of within 0.01 feet. Horizontal surveying accuracy shall be within 1.0 foot and must include the Washington State Coordinate System of each location. The table which provides these data must reference the datum used for all measurements. Additional Regional guidance on constructing maps and formatting tabulated data will be provided by the EPA.

b. Respondents shall prepare a base map to identify the monitoring locations in reference to the potential source areas which are present. Base maps prepared from aerial photographs must reference: source of the photograph, date, north arrow, scale, altitude, name, photograph number or identification code, photo provider, camera calibration, etc. Image maps should be based on orthorectified or geo-registered imagery.

c. Site maps must show the locations of major features such as structures (buildings, tanks, lagoons, irrigated fields, fertilized fields, manure piles, unlined corrals, etc.), natural

features, monitoring wells, other sampling locations, major surface topography characteristics, spill areas, discharge points (pipes, culverts, weirs, etc.), scale, roads (including names), property and fence lines, etc. They must also include the base map reference, date of latest revision, project name and number, site location, north arrow, scale, and legend with the appropriate information depicted on the map.

d. The boring and casing diameter and depth of each well; description of well intake design, including screen slot type, size and length, depth of screen, filter pack materials, and method of filter pack emplacement.

e. As-built descriptions of the well casing and screen materials. Well construction materials shall be chosen based on parameters to be monitored, and the nature of contaminants that could potentially exist and migrate at or from the Dairy Facilities. Well materials shall: (1) minimize the potential of adsorption of constituents from the samples, and (2) not be a source of sample contamination. Wells shall be constructed for the purpose of long term monitoring in accordance with all applicable federal, state, and local laws.

f. Documentation of methods used to seal the well from the surface to prevent infiltration of water into the well and downward migration of contaminants through the well annulus.

g. Description of well development methods and procedures, including volume purged and parameter measurements.

h. Documentation that all boring, well installation, and well abandonment procedures comply with all applicable federal, state, and local laws, and were conducted by a well driller licensed in the State of Washington.

### 3. Groundwater Monitoring Data Reports

The Groundwater Monitoring QAPP shall also specify the outline and format for Quarterly and Annual Groundwater Monitoring Data Reports to present the findings of the groundwater monitoring Work. These specifications shall include, but are not limited to, the following:

a. Each Quarterly Groundwater Monitoring Data Report shall contain tabular displays that present the field parameters and validated data with qualifiers if applied, and complete analytical data package for constituents monitored in groundwater for monitoring events undertaken during that quarterly event. Each quarterly report shall include figure(s) that depict, at a minimum, water level elevations and gradient, and constituent concentrations. The second Quarterly Groundwater Monitoring Data Report shall include all of the information, interpretation, and cumulative data presentation and be formatted to be representative of an Annual Groundwater Monitoring Data Report. Each Quarterly Groundwater Monitoring Data Report shall be submitted to the EPA after each quarterly data collection effort as required in Section III.A. above.

b. Each Annual Groundwater Monitoring Data Report shall contain the same information contained in the Quarterly Groundwater Monitoring Data Reports, but must include a cumulative presentation of all data collected to date.

c. Each Annual Groundwater Monitoring Data Report must contain a chart for each sample parameter at each well. The charts will display time along the “x” axis and the measured amount along the “y” axis. The charts will include all historical data collected from each well that is depicted on Appendix A. Piper diagrams will also be included at intervals specified in the QAPP.

d. Each Annual Groundwater Monitoring Data Report shall be submitted as part of the Annual Report described in Section III.K.2. below.

**F. Immediate Source Control Actions** – Respondents shall conduct the following activities on the schedule indicated. Documentation of compliance, including photographs and diagrams, shall be provided in the Annual Report described in Section III.K.2. below.

**1. Application Fields**

a. Beginning on the Effective Date, Respondents shall apply animal waste and synthetic fertilizer in accordance with the current NRCS Practice Standard 590.

b. Within 60 days of the Effective Date, Respondents shall submit a Dairy Facility Application Field Management Plan that meets the requirements in Section III.A. above. The Dairy Facility Application Field Management Plan shall present the quality assurance project plan for representative sampling of the application fields and will be consistent with the following:

(1) Representative samples will be collected from a Sampling Unit (SU). A SU may correspond to a particular application field or, at the discretion of Respondent in consultation with a certified nutrient management planner, agronomist, or soil scientist, application fields may be subdivided into Management Units. Respondents shall submit the credentials of the certified nutrient management planner, agronomist, or soil scientist to the EPA in accordance with Section VII.13.a. of the Consent Order.

(2) If an application field is divided into Management Units, then the SUs will correspond to the particular Management Units contained by that application field.

(3) Representative samples will be collected from a SU using the following methodology:

(a) A single composite sample, produced from a defined number of subsamples, will be collected from the SU for each target depth to be sampled.

(b) A minimum of 20 subsamples will be collected from discrete locations within a SU of 25 acres or less. For SUs between 25 to 50 acres in size, 25 subsamples will be collected. For SUs greater than 50 acres in size, 30 subsamples will be collected.

(c) The subsample locations within the SU will be determined using a random method. The sampler will meander or zig-zag throughout the SU, making sure to distribute subsample sites throughout the SU.

(d) The target depth subsamples will be collected concurrently from the same subsample location.

(e) The subsamples will be of consistent volume and not less than 30 grams (approximately 1 ounce).

(4) This representative sampling procedure is consistent with generally-accepted professional agricultural practice and guidance for agricultural field sampling presented in Soil Sampling, University of Idaho College of Agriculture Cooperative Extension System Bulletin 704 (revised); Monitoring Soil Nutrients in Dryland Systems using Management Units, Oregon State University Extension Publication EM 8920-E; and Soil Sampling, USDA NRCS Fact Sheet MN-NUTR3 (revised July 2002).

(5) The composite soil samples shall be sent to a North American Proficiency Testing-accredited laboratory for the analysis specified in Section III.A above.

c. In accordance with the Dairy Facility Application Field Management Plan, Respondents shall take representative spring “pre-planting” and fall “post-harvest” soil samples at 12” and 24” depths below ground surface (bgs) from each sampling unit in accordance with practices as set forth in Respondent’s Nutrient Management Plan using NRCS soil sampling guidance.

d. For each field where the “pre-planting” or “post-harvest” representative soil sample collected at the 24” depth bgs exceeds 45 ppm NO<sub>3</sub>-N, Respondents shall employ a certified nutrient management planner, agronomist, or soil scientist to manage the field with the goal of achieving 45 ppm NO<sub>3</sub>-N at the 24” depth. Respondents shall submit the credentials of the certified nutrient management planner, agronomist, or soil scientist to EPA in accordance with Section VII.13.a of the Consent Order.

e. In accordance with the Dairy Facility Application Field Management Plan, Respondents shall collect “post-harvest” representative soil samples at 36” depth bgs from each sampling unit. The purpose of these samples is to provide information regarding the soil nitrate concentrations below the crop root zone.

f. Within six months and twelve months of the Effective Date and within a month of the anniversaries of those dates for eight years, Respondents shall collect samples of manure liquids and solids twice each year from each Dairy Facility in accordance with the EPA-approved Dairy Facility Application Field Management Plan.

g. Respondents will consider planting crops with longer root zones. If crops with longer root zones are planted, Respondents shall submit an amendment to the Dairy Facility Application Field Management Plan that describes changes to required soil sampling to ensure samples will be collected from approximately one foot below the new, deeper root zone.

2. **Irrigation Water Management** – Working with the assistance of a professional irrigation consultant, Respondents shall prepare and submit an Irrigation Water Management Plan (“IWM Plan”) that describes a system for irrigation water management. Respondents shall submit the credentials of the professional irrigation consultant to the EPA in accordance with Section VII.13.a. of the Consent Order. The IWM Plan shall describe flow metering to measure the volume of liquid applied to specific fields, and the installation of electronic sensors at the bottom of the root zone in each application field to provide for automatic shut off of the irrigation system to minimize water movement

below the root zone. Respondents shall submit the IWM Plan within 90 days of the Effective Date. Within 30 days of approval by the EPA, Respondents shall implement the IWM Plan.

3. **Silage Storage** - Within 60 days of the Effective Date, Respondents shall take actions to reduce nitrate contributions from silage storage at the Dairy Facilities. Actions shall include minimizing the ponding of leachate to reduce infiltration of leachate by directing leachate to storage ponds or lagoons.

4. **Solid Separator** – Within 60 days of the Effective Date, Respondents shall take actions to reduce nitrate contributions from solid separators operated at the Dairy Facilities. Actions shall include the following:

- a. Locate on an impervious surface.
- b. Berm and contain area receiving solids.
- c. Direct leachate to storage pond or lagoon.

5. **Backflow Prevention System** – Within 30 days of the Effective Date, Respondents shall install and maintain backflow prevention devices to protect all wells at the Dairy Facilities.

6. **Lagoons** – Within 60 days of the Effective Date, Respondents shall submit to the EPA a Lagoon Review Report that provides documentation, i.e., plans and specifications signed by a WA licensed engineer, that shows that existing lagoons are constructed to current WA NRCS 313 standards, including a soil permeability rate not to exceed  $1 \times 10^{-6}$  (“NRCS 313 standard”)<sup>2</sup>. For the purposes of this Consent Order, the term “lagoon” includes animal waste lagoons, and animal waste management or storage ponds. If any lagoons are not constructed to the current NRCS 313 standard, within 60 days of EPA approval of Lagoon Review Report, Respondents shall submit a plan for conducting an evaluation of each such lagoon at the Dairy Facilities. The purpose of this evaluation shall be to determine whether each such lagoon meets the current NRCS 313 standard (“Lagoon Evaluation Plan”). This evaluation shall include leak detection or water balance tests to determine that each such lagoon is not leaking beyond the current NRCS 313 standard. Within 60 days of the EPA’s approval of the Lagoon Evaluation Plan, Respondents shall complete the evaluation of each such lagoon at the Dairy Facilities. The Lagoon Evaluation Plan shall include a schedule for submitting a Lagoon Evaluation Report and a Lagoon Work Plan, if needed. For each lagoon that does not meet the current NRCS 313 standard, the Lagoon Work Plan shall describe, at Respondents election, measures to address leakage or how Respondents will line those lagoons to meet the current standard at the rate of one lagoon per Dairy Facility per year.<sup>3</sup>

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<sup>2</sup> Washington NRCS Practice Standard 313 states: Soil permeability rate of the ponds wetted surface shall not exceed  $1 \times 10^{-6}$  cm/s. The effects of manure sealing will provide approximately one order of magnitude of additional protection resulting in a liner permeability of  $1 \times 10^{-7}$  cm/s. If the foundation permeability rate exceeds  $1 \times 10^{-6}$  cm/s, a compacted clay, amended soil liner or synthetic liner is required. Refer to NRCS Conservation Practice Standard 521A-D.

<sup>3</sup> For purposes of this provision only, the Liberty Dairy, LLC and its associated Dairy Facility H&S Bosma shall be treated separately. That is, each Dairy Facility (Liberty Dairy LLC and H & S Bosma) may elect to line the lagoons to meet the current standard at the rate of one lagoon per Dairy Facility per year, subject to Section III.F.6.



7. **Manure Management** – Respondents shall manage solid animal waste stored or managed on site to minimize generation of leachate. Respondents shall also endeavor to avoid transporting manure to locations where groundwater is known by Respondents to currently exceed 10 mg/L nitrate. Applications of manure on crop fields in such areas is allowed only if “post-harvest” soil sample is 45 ppm NO<sub>3</sub>-N or lower at the 2 foot depth. Respondents shall maintain records of locations to which manure is transported off of the Dairy Facilities. Respondents shall submit those records in the Annual Report submitted to EPA.

8. **Furrow Irrigation** – Respondents shall eliminate all furrow irrigation at the Dairy Facilities within two years of the Effective Date.

9. **Dry wells** – Respondents shall decommission all dry wells at the Dairy Facilities in accordance with Washington Department of Ecology regulations (WAC 173-160-381 Standards for Decommissioning Wells).

10. **Cow Pens** – Respondents shall minimize the ponding of liquid in the cow pen areas to reduce infiltration of nitrogen-rich water.

11. **Roof Runoff** – Respondents shall confirm that all roof runoff is not allowed to pond on the ground and infiltrate; roof runoff must either be kept separated from contaminated areas or directed to lagoons.

12. **Respondent Liberty Dairy, LLC only** – As the nearest Dairy Facility and without admission of fault or causation, Respondent Liberty Dairy, LLC agrees to conduct an assessment of the area surrounding monitoring well DC-03 (190 mg/L nitrate level obtained in January 2013). Respondent Liberty Dairy, LLC shall retain an Environmental Professional to perform a review of present conditions of the property surrounding DC-03 and evaluate any likely causes for the well contamination. Within 60 days of the Effective Date, Respondent Liberty Dairy, LLC shall prepare and submit to EPA for approval a plan for this evaluation and a schedule for a follow-up report.

#### **G. Additional Source Control Actions**

The Annual Report that is submitted after collection of the 32 rounds of monitoring well samples (after eight years and so the “Year Eight Report”), shall include a complete set of the eight years of data collected from the monitoring wells and a chart showing nitrate concentrations in each well over time. After the EPA’s notification based on the information presented in the Year Eight Report, Respondents shall follow the steps set forth below:

1. After eight years of monitoring (or longer period as agreed by the Parties), for those monitoring wells downgradient of the Dairy Facilities, where nitrate levels were at any time above the MCL, if nitrate levels show a downward trend considering upgradient well data; and where nitrate levels were below the MCL, the trend is not increasing; then, no further work is required. Upon notice by the EPA, the Consent Order will be terminated.

2. If, after eight years of monitoring (or longer period as agreed by the Parties), there is no downward trend in one or more downgradient wells that exceed the nitrate MCL,



considering the upgradient well data, or the wells that were below the nitrate MCL show increasing nitrate levels, then Respondents shall take either of the following actions at each Respondent's discretion:

a. Within 45 days of EPA approval of the Year Eight Report, Respondents shall submit to the EPA a Source Investigation QAPP that identifies each downgradient monitoring well where nitrate levels exceeded the MCL at any time and did not trend downward. For each of these wells, the Source Investigation QAPP shall identify all of the potential sources that are upgradient of these monitoring wells. The sources shall also be categorized by the type of source (e.g. lagoons of similar construction, application fields on the same soil type where the same crop is grown and irrigation and fertilizer rates are similar, etc.). The Source Investigation QAPP shall identify a representative source for each type of source. The Source Investigation QAPP shall describe further monitoring at each such representative source. This further monitoring shall include at least one upgradient and two to three downgradient wells (which could include existing wells) at each type of source that is representative (e.g., lagoons of similar construction, fields where similar crops have been grown, etc.). The monitoring well installation, sampling, and reporting described in the Source Investigation QAPP shall comply with the requirements set forth in Section E. (Groundwater Monitoring) of this SOW. The Source Investigation QAPP shall include a schedule for implementation, describe the Source Investigation Report, as well as provide for submission and implementation of subsequent mitigation plans (Supplemental Source Control Plans) to be submitted based on the results of the source investigation. Any Supplemental Source Control Plan required based on the source investigation shall pertain to each source within the Dairy Facilities that is similar to the representative source investigated.

OR

b. Within 45 days of EPA approval of the Year Eight Report, Respondents shall submit to the EPA a Supplemental Source Control Plan that shall include a schedule for implementation of source control actions and provide for a Supplemental Source Control Actions Report. Respondents shall implement control actions at each source upgradient from those monitoring wells that exceed the nitrate MCL and where a downward trend considering upgradient well data was not achieved and at every similar type of source throughout the Dairy Facilities, in accordance with the EPA approved Supplemental Source Control Plan and the following:

- (1) **Silage** – Ensure that the bottom of each silage storage area is impermeable and leachate is routed to a lagoon or waste storage pond.
- (2) **Lagoons** –
  - (a) Line lagoons to the current NRCS 313 standard at the time of lining, but not less than  $1 \times 10^{-6}$  cm/sec, at the rate of two per year per Dairy Facility;
  - (b) Use enhanced solids separator to minimize lagoon usage; or
  - (c) Sufficiently reduce herd size to eliminate the need for a particular lagoon; or
  - (d) Take a lagoon out of service. For any lagoon once used by a Respondent that is no longer in use, Respondents shall submit a closure plan to EPA to ensure that each such inactive lagoon is not contributing nitrate.
- (3) **Cow Pens** – Improve management of manure in cow pens. Minimize the ponding of liquid (e.g., direct ponding liquid to lagoons).

(4) **Application Fields** – Consider any additional measures to further reduce amount of NO<sub>3</sub>-N migrating past the root zone, such as crop changes, reduction of amount of manure applied, application splits (applying fertilizer three times in smaller amounts to fields instead of two larger applications), additives/treatments to further denitrify lagoon water, nitrogen stabilizers for the fields, and other measures designed to help reduce the amount of NO<sub>3</sub>-N getting past the root zone.

(5) Submit plan to investigate surface water retention basins (e.g., tail water ponds) for possible contribution of nitrate. Submit and implement mitigation plan, if determined to be a source.

#### **H. Alternative Termination**

Upon completion of supplemental source control actions, EPA approval of the Supplemental Source Control Actions Report, and notice by EPA, this Consent Order will be terminated.

#### **I. Three Year Review**

At Respondents' election, Respondents and the EPA may elect to conduct a review approximately three years after the Effective Date – regardless of the monitoring results. The purpose of this review will be to discuss whether the Consent Order should be amended at Respondents' request based on new developments or technologies, such as:

1. Digester developments;
2. GWMA actions;
3. State/federal legislative actions; or
4. USGS report on groundwater in the Yakima Valley.

#### **J. Continuation of Source Control Actions**

After this Consent Order terminates, each Respondent shall continue source control actions that are undertaken pursuant to this Consent Order as long as Respondent continues to operate a Dairy Facility at the location depicted on Appendix A.

#### **K. Reporting**

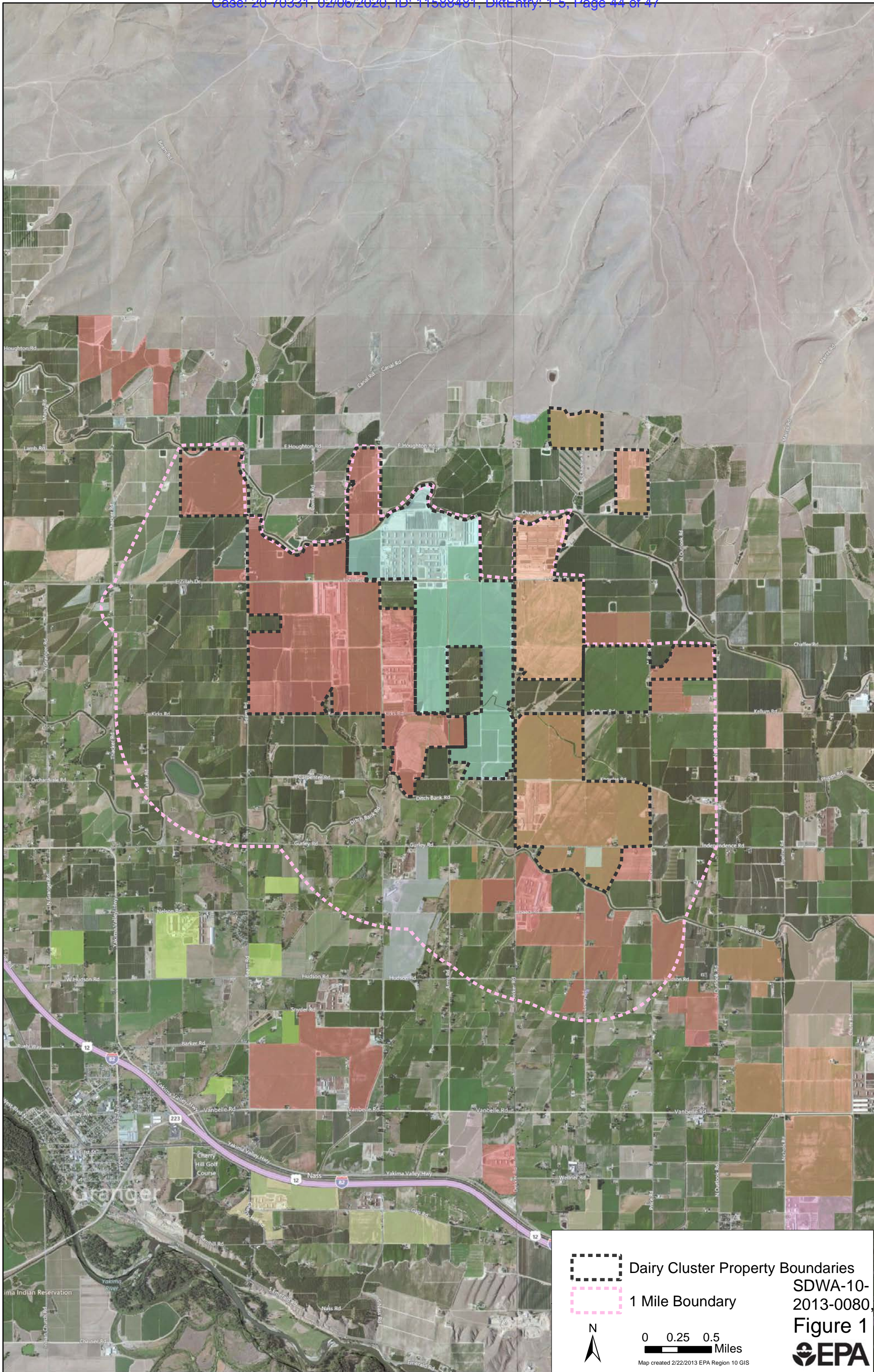
##### **1. Monthly Progress Reports**


Monthly progress reports shall include, at a minimum and in this order: (1) identify major accomplishments and issues that arose during the previous month; (2) briefly describe all other actions which have been taken to comply with this Consent Order during the prior month; (3) describe all work planned for the next sixty (60) days with schedules relating to such work to the overall project schedule for completion of the Work; and (4) describe all problems encountered and any anticipated problems and actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.


2. Annual Reports


No later than March 1 of each year after the Effective Date, beginning in 2014, Respondents shall provide to the EPA an Annual Report which shall describe all activities undertaken pursuant to this Consent Order over the prior year. All data shall be presented with cumulative results reflecting prior years and shall be summarized and presented in tabulated form. Data shall be organized by Dairy Facility and type of data. For example, soil data shall be organized by Dairy Facility and application field at that Dairy Facility, etc. The Annual Report shall include, at a minimum, a table and a chart for each application field that displays the measured nitrogen soil levels for the current year and all previous years for which data is available, so that a trend, if any, may be observed at each sampling depth. The Annual Report shall include the Groundwater Monitoring Data Report for each year which shall contain the complete set of data collected from the monitoring wells to date and a chart showing nitrate concentrations in each well over time. Respondents may cease submitting these Annual Reports to the EPA upon termination of the Consent Order.

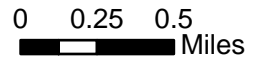





 Dairy Cluster Property Boundaries

 1 Mile Boundary

 N

 0 0.25 0.5 Miles

Map created 2/22/2013 EPA Region 10 GIS

**SDWA-10-2013-0080**  
**Figure 1**  




**ATTACHMENT 1  
SCHEDULE OF TASKS  
STATEMENT OF WORK  
ADMINISTRATIVE ORDER ON CONSENT  
EPA DOCKET NO. SDWA-10-2013-0080**

<b>TABLE 1: SCHEDULE OF TASKS</b>		
<b>Task Number</b>	<b>Task Title</b>	<b>Time to Complete</b>
	<b>GENERAL TASKS</b>	
1	Identify Project Coordinator (Consent Order 16. b.) and Contractor (notification of subsequent contractors must be provided to EPA 20 days prior to commencement of Work) (Consent Order 16.a.)	Within 10 days after Effective Date
2	Submit a QAPP for EPA review and approval (III.A.)	Prior to commencing monitoring, sampling, field measurements, laboratory analysis.
3	Submit Health and Safety Plan (III.B.)	At least 14 days prior to initial field work for any task.
4	Notify EPA regarding interest in participating in the public involvement process (III.C.)	Within 30 days of the Effective Date
	<b>PROVISION OF WATER (III.D.)</b>	
5	Submit Residential Well Sampling QAPP (III.D.2.)	Within 21 days of the Effective Date
6	Test each residential drinking water well within the Dairy Facilities boundary and within one mile downgradient of the Dairy Facilities (III.D.3.)	Within 60 days of EPA approval of the Residential Well Sampling QAPP
7	Provide residents results of Hach test strip (III.D.4.)	At the time of testing
8	Provide preliminary results of laboratory analysis of residential drinking water well samples to EPA (III.D.4.)	Within 14 days of sample collection
9	Provide validated laboratory analytical results to each resident and to EPA (III.D.4.)	Within 21 days of sample collection
10	Provide reverse osmosis treatment system (or other EPA approved alternative water supply) to each owner/occupant that accepts offer for alternative water (III.D.5)	Within 30 days of submitting validated laboratory analytical results to EPA
11	Submit Residential Well Sampling Report	Within 150 days of EPA approval of Residential Well Sampling QAPP
	<b>GROUNDWATER MONITORING (III.E.)</b>	
12	Submit Groundwater Monitoring QAPP (III.E.1.)	Within 60 days of the Effective Date



13	Submit Groundwater Monitoring Well Installation Report (III.E.2.)	In accordance with the schedule in the EPA-approved Groundwater Monitoring QAPP, but not later than 60 days after monitoring well installation
14	Report validated groundwater nitrate analytical results (III.A.3.e.(1))	Within 30 days of collecting last sample of each sampling event
15	Quarterly Groundwater Monitoring Data Reports (III.E.3.)	Within 60 days of each quarterly monitoring event for at least the first year, with later adjustment allowed by EPA.
16	Annual Groundwater Monitoring Data Report (III.E.3.)	No later than March 1 of each year after the Effective Date beginning in 2014 (as part of the Annual Report described in III.K.2.)
	<b>IMMEDIATE SOURCE CONTROL ACTIONS (III.F.)</b>	
17	Submit Dairy Facility Application Field Management Plan (III.F.1.)	Within 60 days of the Effective Date
18	Submit Dairy Facility Application Field Reports (III.A.3.e.(2))	Within 60 days of collecting last sample of each sampling event
19	Submit Irrigation Water Management Plan (III.F.2.)	Within 90 days of the Effective Date
20	Implement Irrigation Water Management Plan (III.F.2.)	Within 30 days of approval by EPA
21	Take action to reduce nitrate contributions from silage storage (III.F.3.)	Within 60 days of the Effective Date
22	Take action to reduce nitrate contributions from solid separator (III.F.4)	Within 60 days of the Effective Date
23	Install backflow prevention system (III.F.5)	Within 30 days of the Effective Date
24	Submit Lagoon Review Report (III.F.6.)	Within 60 days of the Effective Date
25	Submit Lagoon Evaluation Plan (III.F.6).	Within 60 days of EPA's approval of the Lagoon Review Report
26	Submit Lagoon Evaluation Report and Lagoon Work Plan (III.F.6)	In accordance with the schedule in the EPA-approved Lagoon Evaluation Plan
27	Submit records of locations to which manure is transported off of the Dairy Facilities (III.F.7)	In the Annual Report
28	Eliminate furrow irrigation (III.F.8.)	Within two years of the Effective Date
29	Submit Plan for assessment of area surrounding monitoring well DC-03 (III.F.12.)	Within 60 days of the Effective Date

	<b>ADDITIONAL SOURCE CONTROL ACTIONS (III.G.)</b>	
30	Submit Year Eight Report (III.G.)	After eight years (32 rounds) of monitoring well sample collection
31	Submit Source Investigation QAPP (III.G.2.a.)	If triggered, within 45 days of EPA approval of the Year Eight Report
32	Submit Source Investigation Report and Supplemental Source Control Plan(s) (III.G.2.a.)	In accordance with the schedule in the EPA-approved Source Investigation QAPP
33	Supplemental Source Control Plan (III.G.2.b.)	Within 45 days of EPA approval of the Year Eight Report
	<b>REPORTING (III.K.)</b>	
34	Monthly Progress Reports (III.K.1.)	No later than the 15 <sup>th</sup> day of each month after the Effective Date beginning in April 2013
35	Annual Reports (III.K.2.)	No later than March 1 of each year after the Effective Date beginning in 2014