

Monthly Progress Report

December 15, 2017

To: Eric Winiiecki, U.S. Environmental Protection Agency, Region 10
From: Mark Larsen and Nicole LaFranchise, Anchor QEA, LLC
cc: Rene Fuentes and Jennifer MacDonald, U.S. Environmental Protection Agency, Region 10
Henry Bosma, Liberty Dairy, LLC
Dan DeRuyter, George DeRuyter & Son Dairy, LLC
Adam Dolsen, Cow Palace, LLC
Lori Terry Gregory, Foster Pepper PLLC
Brendan V. Monahan, Stokes Lawrence, P.S.
Patrick W. Ryan, Perkins Coie LLP

**Re: Docket No. SDWA-10-2013-0080; Yakima Valley Dairies
November 2017 Monthly Progress Report**

This progress report describes activities performed in compliance with Docket No. SDWA-10-2013-0080 between November 11 and December 10, 2017. This progress report is submitted on behalf of the Yakima Valley Dairies (Dairies), including: 1) Cow Palace, LLC; 2) George DeRuyter & Son Dairy, LLC, D&A Dairy, LLC (also known as D and A Dairy, LLC), and George & Margaret, LLC; and 3) Liberty Dairy, LLC, and its associated dairy facility H&S Bosma Dairy.

1. Major Accomplishments and Issues

- The lagoon lining project for Cow Palace Lagoon No. 2 is being implemented by the selected contractor (Hilmes Construction, Inc.) consistent with permitting approvals. Physical construction is ongoing and will extend through late December. Lining installation has been completed. Ongoing construction work includes backfill of the anchor trenches, completion of leak detection/leachate pump-out panels, and incidental work. Review of Cow Palace Lagoon No. 2 by the Dam Safety Office will be completed prior to returning that lagoon to service. That review is anticipated by early January. Additional updates will be provided directly to the U.S. Environmental Protection Agency (EPA) by Water & Environmental Technologies.
- Lagoon lining work for the Liberty/H&S Bosma Dairies and the George DeRuyter & Son/D&A Dairies is complete, and the lagoons have been returned to service. A survey using the Permanent Electrical Leak Monitoring (PELM) system is being completed in mid-December (conducting the survey requires liquid in the lagoon). Remaining owner-performed work includes the construction of fence or barrier systems. Completion reports are in preparation for submittal to EPA in early 2018.

- EPA comments have been received by each of the Dairies regarding the proposed 2018 lagoon activities. Supplemental letters are to be provided by the Liberty/H&S Bosma Dairies and George DeRuyter & Son/D&A Dairies prior to December 31, 2017.
- The Third Quarter 2017 Quarterly Groundwater Monitoring Data Report was submitted to EPA on November 27, 2017. As described in that report, groundwater nitrate concentrations are currently stable or decreasing in all but two wells (YVD-08 and YVD-11).

2. Other Actions Taken to Comply with the Administrative Order on Consent

On November 20, 2017, Anchor QEA notified EPA that fourth-quarter groundwater monitoring was scheduled for December 4 through 8, 2017. Sampling field activities were conducted on schedule. One groundwater transducer was malfunctioning and will require repair.

Preparation of the 2017 Post-Harvest Dairy Application Field Reports for Cow Palace Dairy, Liberty/H&S Bosma Dairies, and George DeRuyter & Son/D&A Dairies is in progress. Those reports will be submitted to EPA by December 22, 2017, in accordance with the requirements of the Administrative Order on Consent (AOC).

Pre-design testing activities are in progress at the Liberty/H&S Bosma Dairies and the George DeRuyter & Son/D&A Dairies, including surveys and physical soil analysis. These data will be used to support the 90% design submittals for those dairies.

3. Work in Progress

Table 1 outlines the updated deliverable schedule.

Table 1
Deliverable Schedule

Deliverable Name or Event	Date of Most Recent EPA Comment Letter (If Any)	Current Due Date (If Any) Established by AOC/Date Indicated in EPA Comment Letter	Anticipated Start/End Date	On Track to Meet Due Date/Start or End Date? (Yes/No; If No, Explain in Item 4)
GROUNDWATER MONITORING (III.E)				
First Quarter 2017 Quarterly Groundwater Monitoring Data Report (Revised)	7/25/2017 (EPA Letter 154)	8/22/2017 (Revised per EPA Letter 154)	Complete	Submitted to EPA on 8/18/2017 (Cover: August 22, 2017)
Second Quarter 2017 Quarterly Groundwater Monitoring Data Report (Draft)	—	—	Complete	Submitted to EPA on 08/07/2017

Deliverable Name or Event	Date of Most Recent EPA Comment Letter (If Any)	Current Due Date (If Any) Established by AOC/Date Indicated in EPA Comment Letter	Anticipated Start/End Date	On Track to Meet Due Date/Start or End Date? (Yes/No; If No, Explain in Item 4)
Third Quarter 2017 Quarterly Groundwater Monitoring Data Report (Draft)	—	11/27/2017 (60 days from last sample collected)	Complete	Submitted to EPA on 11/27/2017
IMMEDIATE SOURCE CONTROL ACTIONS (III.F)				
2017 Post-Harvest Dairy Application Field Reports	—	12/22/2017 (60 days from last sample collected)	12/22/2017	Yes
REPORTING (III.K)				
Monthly Progress Report	—	15th of each month (AOC)	15th of each month	Yes
2013 Annual Report (Revised)	12/30/2015 (EPA Letter 95)	2/27/2016 (EPA Letters 104, 116, 121, and 128)	Complete	Submitted to EPA on 11/18/2016
2014 Annual Report (Revised)	2/2/2016 (EPA Letter 101)	4/1/2016 (EPA Letters 109 and 128)	Complete	Submitted to EPA on 11/18/2016
2015 Annual Report (Revised)	1/3/2017 (EPA Letter 133)	1/31/2017 (EPA Letter 133)	Complete	Submitted to EPA on 1/31/2017
2016 Annual Report	—	3/1/2017	Complete	Submitted to EPA on 3/1/2017

4. Encountered Issues and Anticipated Actions

No new issues were encountered.

5. List of Completed Administrative Order on Consent Work

Table 2 lists AOC work that has been completed and is approved by EPA.

Table 2
Work Product Status Update

Work Product	Submission Date (Report Cover Date)	Status
PROVISION OF WATER (III.D)		
Residential Well Sampling QAPP (III.D.2)	4/26/2013	APPROVED
Residential Well Sampling Report	12/20/2013	APPROVED
GROUNDWATER MONITORING (III.E)		
Groundwater Monitoring Well Installation Report (III.E.2)	10/06/2014	APPROVED
Data Usability Report (III.A.3.e.(1)) ¹		
Third Quarter 2013	10/14/2015	APPROVED

Work Product	Submittal Date (Report Cover Date)	Status
Fourth Quarter 2013	10/14/2015	APPROVED
First Quarter 2014	10/14/2015	APPROVED
Second Quarter 2014	10/14/2015	APPROVED
Third Quarter 2014	10/14/2015	APPROVED
Fourth Quarter 2014	5/21/2015	APPROVED
First Quarter 2015	5/21/2015	APPROVED
Second Quarter 2015	10/14/2015	APPROVED
Quarterly Groundwater Monitoring Data Report (III.E.3)		
Third Quarter 2013	1/14/2016	APPROVED
Fourth Quarter 2013	1/14/2016	APPROVED
First Quarter 2014	1/14/2016	APPROVED
Second Quarter 2014	9/4/2015	APPROVED
Third Quarter 2014	1/14/2016	APPROVED
Fourth Quarter 2014	1/14/2016	APPROVED
First Quarter 2015	1/14/2016	APPROVED
Second Quarter 2015	1/14/2016	APPROVED
Third Quarter 2015	12/14/2015	APPROVED
Fourth Quarter 2015	3/31/2016	APPROVED
First Quarter 2016	5/31/2016	APPROVED
Second Quarter 2016	9/6/2016	APPROVED
Third Quarter 2016	3/20/2017 (Cover: March 2017)	APPROVED 4/3/2017
QAPP Addendum No. 1	11/10/2016 (Cover: November 2016)	APPROVED 1/13/2017
Fourth Quarter 2016	5/1/2017 (Cover: May 1, 2017)	APPROVED 5/26/2017
IMMEDIATE SOURCE CONTROL ACTIONS (III.F)		
Dairy Facility Application Field Management Plan(s) (III.F.1)	11/18/2013	APPROVED; Revised DFAFMPs submitted to EPA on 5/31/2016
2013 Post-Harvest Dairy Application Field Reports	8/29/2015	APPROVED
2014 Pre-Plant Dairy Application Field Reports	8/13/2015	APPROVED
2014 Post-Harvest Dairy Application Field Reports	8/14/2015	APPROVED
2015 Pre-Plant Dairy Application Field Reports	3/27/2017	APPROVED
2015 Post-Harvest Dairy Application Field Reports	3/27/2017	APPROVED
2016 Pre-Plant Dairy Application Field Reports	3/27/2017	APPROVED
2016 Post-Harvest Dairy Application Field Reports	1/3/2017 (Cover: January 3, 2017)	APPROVED 3/27/2017
2017 Pre-Plant Dairy Application Field Reports	7/31/2017 (Cover: July 2017)	APPROVED 8/1/2017

Work Product	Submittal Date (Report Cover Date)	Status
Irrigation Water Management Plan(s) (III.F.2)	8/15/2014	APPROVED
Lagoon Review Report(s) (III.F.6)	8/22/2013	APPROVED
Lagoon Evaluation Plans (III.F.6)	2/6/2015	NOT REQUIRED; Dairies elected to line lagoons
Cow Palace Lagoon Work Plan (III.F.6)	3/11/2016	APPROVED
Cow Palace Lagoon QAPP (III.F.6)	3/11/2016	APPROVED
Cow Palace NW Catch Basin 100% Design (III.F.6)	6/20/2016	APPROVED
Liberty/H&S Bosma Dairies Modified Lagoon Work Plan (III.F.6)	11/10/2016 (Cover: November 2016)	APPROVED 1/6/2017
George DeRuyter & Son/D&A Dairies Lagoon Work Plan (III.F.6)	11/10/2016 (Cover: November 2016)	APPROVED 1/6/2017
Final Basis of Design Report, Liberty Dairy Consolidated Lagoon No. 15, 100% Design	7/20/2017 (Cover: July 19, 2017) 08/17/2017 (Mods cover: August 11, 2017)	APPROVED WITH MODIFICATIONS 7/25/2017
Final Basis of Design Report, D&A Dairy Consolidated Lagoon No. 3, 100% Design	7/20/2017 (Cover: July 19, 2017) 08/17/2017 (Mods cover: August 11, 2017)	APPROVED WITH MODIFICATIONS 7/25/2017
Liberty/H&S Bosma Dairies Lagoon Pre-Design Data Collection QAPP (III.F.6)	1/27/2017 (Cover: January 26, 2017)	APPROVED 2/2/2017
George DeRuyter & Son/D&A Dairies Lagoon Pre-Design Data Collection QAPP (III.F.6)	1/27/2017 (Cover: January 26, 2017)	APPROVED 2/2/2017
REPORTING (III.K)		
Monthly Progress Reports (III.K.1)	15th of the following month	Current through December 15, 2017
Health and Safety Plan	9/13/2016 (Cover: September 2016)	Current version ²

Notes:

1. Following the second quarter of 2015, Data Usability Reports are no longer required as separate deliverables.
2. This is the current version of the project Health and Safety Plan. EPA does not provide formal review and approval of the Health and Safety Plan, though it is provided for use. The Health and Safety Plan will be updated periodically if applicable to address additional work or field activities.

DFAFMP: Dairy Facility Application Field Management Plan

QAPP: Quality Assurance Project Plan