

# Monthly Progress Report

February 15, 2022

To: Eric Winiiecki, U.S. Environmental Protection Agency, Region 10

From: Mark Larsen and Kristi Geris, Anchor QEA, LLC

cc: Don Clabaugh and Jennifer MacDonald, U.S. Environmental Protection Agency, Region 10  
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**Re: Docket No. SDWA-10-2013-0080; Yakima Valley Dairies  
Revised January 2022 Monthly Progress Report**

This progress report describes activities performed in compliance with Docket No. SDWA-10-2013-0080 between January 11, 2021 and February 10, 2022. This progress report is submitted on behalf of the Yakima Valley Dairies (Dairies), including the following: 1) George DeRuyter & Son Dairy, LLC; D&A Dairy, LLC (also known as D and A Dairy, LLC); and George & Margaret, LLC; 2) Liberty Dairy, LLC, and its associated dairy facility H&S Bosma Dairy; and with respect to the groundwater monitoring and RO system maintenances program, 3) Cow Palace, LLC. Please refer to the separate progress report from Landau Associates (Landau) submitted on behalf of Cow Palace. That progress report discusses activities for Cow Palace's lagoon program, application field management activities and annual reporting activities.

## 1. Major Accomplishments and Issues

Major accomplishments during the current reporting period include the following:

- The eight years of groundwater monitoring stipulated in the AOC were completed as of Second Quarter 2021. Counsel for the Dairies submitted a written proposal to EPA to conduct supplemental nitrate monitoring beyond the required eight years. That proposal was documented in letters dated October 4<sup>th</sup>, November 11<sup>th</sup> and December 10<sup>th</sup>. EPA responded in writing January 25<sup>th</sup> (EPA Letter 276). In that letter EPA stated that groundwater monitoring is not required under the AOC at this time, but that ongoing nitrate monitoring is aligned with the goals of the AOC. In the meantime, the Dairies proactively implemented groundwater nitrate monitoring at selected monitoring wells during early December 2021. A report containing the results of that monitoring was submitted to EPA on February 15<sup>th</sup>, 2022.
- Agrimanagement implemented repairs to irrigation sensors damaged during crop harvest following completion of the 2021 irrigation season. Repair of these sensors has been

impacted by ongoing COVID-19 related supply chain issues. These have included 1) ongoing supply shortages; 2) delays in shipment of parts; and 3) defects in parts received (i.e., parts do not work upon arrival). Attachment A summarizes the status of these repairs.

Agrimanagement is using best efforts to complete remaining repairs prior to the startup of the 2022 irrigation season.

- The 2021 lagoon lining and manure treatment projects were implemented according to approved schedules as described below.

### **Liberty/H&S Bosma Dairies Lagoon Upgrades**

- Lagoon 18 was emptied of manure and liquids in October 2020, and soils were sampled and found to contain an average of 11.1 mg N/kg, well below the target levels (45 mg N/kg, measured as the sum of ammonia and nitrate nitrogen) contained in the EPA-approved lagoon abandonment plan. As described in the previous progress report, backfilling of the lagoon is in progress and is expected to be complete within the next reporting period.
- Anchor QEA received EPA approval of the H&S Bosma Dairies Consolidated Lagoon No. 4 Project-Specific Liner Construction Plans (EPA Letter 249). Lagoons 4a, 4b and 5 have been consolidated and liner installation has been completed. The completion report for lagoon lining activities is being prepared and will be submitted to EPA in February in compliance with the approved schedule.
- Anchor QEA developed a revision of the Lagoon 3 Abandonment Plan which was submitted to EPA on January 18th. That plan documented the results of soil testing and included a plan for in situ treatment of soils containing elevated nitrogen levels. That plan remains under review by EPA.
- On December 31st, Anchor QEA submitted on behalf of Liberty and Bosma Dairies a proposed schedule for 2022 lagoon construction activities and is awaiting EPA approval. This includes abandonment of Lagoon 1 and Lagoon 2, the final two lagoons at the Liberty and Bosma Dairies. Use of the lagoons will be terminated by June 2022, and the lagoons will be emptied of manure and liquids by August 31st, 2022. Soils will then be tested for nutrient concentrations and treated in place as needed to reduce soil nutrient concentrations to target levels.

### **George DeRuyter & Son/D&A Dairies**

- EPA issued conditional approval of the Take-Up Pond Abandonment Plan on November 30, 2021 (EPA Letter 261). The Take-Up Pond was emptied and cleaned out in preparation for soil nutrient sampling, which was conducted on December 17, 2021. Soil testing data were received from the laboratory in mid-January and were provided to EPA in an interim data transmittal letter on January 20, 2022, as called for in the abandonment plan. The data

indicated the need for between 1.5 and 3.5 feet (varies by location) of soil removal prior to lagoon backfilling. The excavation work was completed in late January, and lagoon backfill is ongoing and anticipated to be completed during February as weather conditions allow.

- The Project-Specific Liner Construction Plans for George DeRuyter & Sons Lagoon Nos. 1, 2 and 3 was approved by EPA on January 19, 2022. To date the lining of Lagoon Nos. 2 and 3 have been completed, and a construction completion report is being prepared for submittal to EPA in mid-February. Construction activities at Lagoon No. 1 are ongoing. The lagoon has been emptied of manure, and the NDN treatment equipment is being removed from the lagoon to permit completion of lining activities. Lining activities for Lagoon No. 1 are expected to be completed in late February or early March depending on weather conditions encountered. A completion report will then be submitted to EPA documenting the performance of that work.
- The NDN system previously operating in George DeRuyter & Sons Lagoon 1 has been taken offline and the lagoon is being emptied to prepare it for lining. The equipment will be reinstalled within the lined lagoon on completion to support future NDN operations.
- The manure digester at GDS Dairy remains in operation. The biogas is cleaned and injected using the on-site pipeline extension.

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

The Dairies continue to maintain the source control measures defined in the AOC.

Following completion of the 8-year groundwater monitoring program required under the AOC, the Dairies have proposed a modification and extension of groundwater monitoring activities. Counsel for the Dairies submitted letter proposals to EPA on October 4<sup>th</sup> and November 11<sup>th</sup>. In letters dated December 10<sup>th</sup> and December 17<sup>th</sup> counsel for the Dairies requested that EPA enter formal negotiations regarding future groundwater monitoring provisions, consistent with Paragraph 25 of the AOC. EPA provided a written response to that request on January 25<sup>th</sup>, 2022, clarifying that continued groundwater monitoring is not currently required under the AOC. A technical meeting between the Dairies and EPA has been proposed to discuss groundwater trends and future groundwater monitoring options.

Preparation of the Fourth Quarter 2021 Quarterly Groundwater Monitoring Report was submitted to EPA on February 15, 2022 containing the data collected by the Dairies consistent with the October 4<sup>th</sup> written proposal submitted to EPA. The Dairies have informed EPA that they intend to continue nitrate monitoring at selected wells until the next steps under the AOC have been determined.

Preparation of the 2021 fall application field monitoring report is in progress, with a planned submittal to EPA on February 25, 2022, per the EPA-approved deadline extension.

Preparation of the 2021 Annual Report is in progress, with a planned submittal to EPA on March 1, 2022. This report is being prepared in coordination with Landau and Agrimanagement, as a single consolidated report covering all three Dairies, as requested by EPA.

### 3. George DeRuyter & Son Dairy NDN System Update

The manure digester at George DeRuyter & Son Dairy continues to operate efficiently and produce low-carbon biogas. The cleaned biogas is now directly injected into the pipeline installed for this purpose, eliminating the need for truck transportation of the finished biogas.

The DAF system continues to operate as intended in line with the manure digester. The NDN has been temporarily removed from operation to prepare Lagoon 1 for lining. After lining installation has been completed, the NDN treatment system will be reinstalled within the lined lagoon.

### 4. Work in Progress

Table 1 outlines the updated deliverable schedule. Please note that completed deliverables referenced in Table 1 have been submitted to EPA but remain in Table 1 pending confirmation from EPA.

**Table 1**  
**Deliverable Schedule**

<b>Deliverable Name or Event</b>	<b>Date of Most Recent EPA Comment Letter (If Any)</b>	<b>Current Due Date (If Any) Established by AOC/Date Indicated in EPA Comment Letter</b>	<b>Anticipated Start/End Date</b>	<b>On Track to Meet Due Date/Start or End Date? (Yes/No; If No, Explain in Item 5)</b>
<b>GROUNDWATER MONITORING (III.E)</b>				
Final Groundwater Monitoring QAPP	2/28/2018 (Conditional Approval, EPA Letter 164)	4/1/2018	Complete	QAPP revised and resubmitted to EPA on 3/8/2018
Third Quarter 2020 Quarterly Groundwater Monitoring Data Report (Revised Draft)	12/22/2021 (EPA Letter 264)	1/22/2022	Complete	Submitted to EPA on 2/15/2022
Fourth Quarter 2021 Quarterly Groundwater Monitoring Data Report	—	2/14/2022	Complete	Submitted to EPA on 2/15/2022

<b>Deliverable Name or Event</b>	<b>Date of Most Recent EPA Comment Letter (If Any)</b>	<b>Current Due Date (If Any) Established by AOC/Date Indicated in EPA Comment Letter</b>	<b>Anticipated Start/End Date</b>	<b>On Track to Meet Due Date/Start or End Date? (Yes/No; If No, Explain in Item 5)</b>
<b>IMMEDIATE SOURCE CONTROL ACTIONS (III.F)</b>				
2019 Post-Harvest Dairy Application Field Report Memorandum	1/4/2022 (EPA Letter 267)	1/31/2022	Complete	Revised report resubmitted to EPA on 1/12/2022
2021 Pre-Plant Dairy Application Field Report Memorandum	1/4/2022 (EPA Letter 267)	1/31/2022	Complete	Revised report resubmitted to EPA on 1/12/2022
2021 Post-Harvest Dairy Application Field Report Memorandum	2/11/2022 (Email approval of extension request)	2/25/2022 (per approved extension request)	2/25/2022	Yes
Liberty Dairy Red Water Pond BODR – 100% Design	10/22/2018 (EPA Letter 185)	11/19/2018	Complete	Submitted to EPA on 11/19/2018
Liberty Dairy Red Water Pond OMMP	10/22/2018 (EPA Letter 185)	11/19/2018	Complete	Submitted to EPA on 11/19/2018
H&S Bosma Dairy Lagoon No. 6 Basin of Design Report 100% Design Submittal	9/4/2019 (EPA Letter 214)	8/30/2019	Complete	Submitted to EPA on 10/2/2019
H&S Bosma Dairy Lagoon No. 6 and Consolidated Lagoon No. 10 Completion Report	1/5/2022 (EPA Letter 269)	2/2/2022	Complete	Submitted to EPA on 2/15/2022
H&S Bosma Dairy Lagoon Nos. 8, 9, 19, and 20 Lagoon Abandonment Completion Report	4/1/2021 (EPA Letter 243)	4/29/21	Complete	Revised report submitted to EPA on 6/1/2021
Revised Liberty Dairy Lagoon 18 QAPP and Lagoon Abandonment Completion Report	7/14/2021 (EPA Letter 246)	The Lagoon is being backfilled and re-graded consistent with the EPA-approved abandonment plan. The completion report will be updated and resubmitted following completion of the work. Submittal of this report is currently expected by March 1 <sup>st</sup> , 2022.		
H&S Bosma Abandonment Plan for Lagoon 3	7/2/2021 (EPA Letter 247)	8/3/2021	Complete	Submitted to EPA on 01/18/2022
<b>REPORTING (III.K)</b>				
Monthly Progress Report	10/18/2018 (EPA Letter 184)	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

<b>Deliverable Name or Event</b>	<b>Date of Most Recent EPA Comment Letter (If Any)</b>	<b>Current Due Date (If Any) Established by AOC/Date Indicated in EPA Comment Letter</b>	<b>Anticipated Start/End Date</b>	<b>On Track to Meet Due Date/Start or End Date? (Yes/No; If No, Explain in Item 5)</b>
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
2017 Annual Report (Revised)	3/21/2018 (EPA Letter 166)	4/18/2018	Complete	Submitted to EPA on 4/17/2018
2020 Annual Report	1/24/2022 (EPA Letter 274)	2/23/2022	2/23/2022	Yes
2021 Annual Report	—	3/1/2022	3/1/2022	Yes

Notes:

—: not applicable

BODR: Basis of Design Report

OMMP: Operations, Maintenance, and Monitoring Plan

## 5. Encountered Issues and Anticipated Actions

As described in Section 1 the laboratory used for soil nutrient testing (Soil Test, Moses Lake) has been experiencing COVID-19 related staffing shortages. This has affected the time required to complete the Fall 2021 application field monitoring report and the soil testing for the DeRuyter Take-Up Pond. A request for extension was submitted and approved by EPA for the application field monitoring report submittal date. Soil data for the Take-Up Pond have now been received and will be included in a transmittal memo to EPA. Work will then resume on final soil excavation and backfill consistent with the EPA-approved abandonment plan.

## 6. List of Completed Administrative Order on Consent Work

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

**Table 2**  
**Work Product Status Update**

<b>Work Product</b>	<b>Submittal Date (Report Cover Date)</b>	<b>Status</b>
<b>PROVISION OF WATER (III.D)</b>		
Residential Well Sampling QAPP (III.D.2)	4/26/2013	APPROVED

<b>Work Product</b>	<b>Submittal Date (Report Cover Date)</b>	<b>Status</b>
Residential Well Sampling Report	12/20/2013	APPROVED
<b>GROUNDWATER MONITORING (III.E)</b>		
Groundwater Monitoring Well Installation Report (III.E.2)	10/06/2014	APPROVED
Data Usability Report (III.A.3.e.(1)) <sup>1</sup>		
Third Quarter 2013	10/14/2015	APPROVED
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
First Quarter 2017	8/18/2017 (Cover: August 22, 2017)	APPROVED 8/19/2019
Second Quarter 2017	08/07/2017 (Cover: August 7, 2017)	APPROVED 8/19/2019
Third Quarter 2017	11/27/2017 (Cover: November 27, 2017)	APPROVED 8/19/2019

<b>Work Product</b>	<b>Submittal Date (Report Cover Date)</b>	<b>Status</b>
Fourth Quarter 2017	Uploaded to FTP 9/11/2019 (Cover: February 2, 2018)	APPROVED 8/19/2019
First Quarter 2018	Uploaded to FTP 9/10/2019 Cover: May 21, 2018	APPROVED 8/19/2019
Second Quarter 2018	Uploaded to FTP 9/11/2019 Cover: August 10, 2018	APPROVED 8/19/2019
Third Quarter 2018	Uploaded to FTP 9/11/2019 Cover November 9, 2018	APPROVED 8/19/2019
Fourth Quarter 2018	2/11/2019 (Cover: February 11, 2019)	APPROVED 8/19/2019
First Quarter 2019	5/21/2019 (Cover: May 20, 2019)	APPROVED 8/19/2019
Second Quarter 2019	8/05/2019 (Cover: August 5, 2019)	APPROVED 8/19/19
Third Quarter 2019	1/15/21 (Cover: January 15, 2021)	APPROVED 1/25/2021
Fourth Quarter 2019	1/15/21 (Cover: January 15, 2021)	APPROVED 1/25/2021
First Quarter 2020	2/3/21 (Cover: February 3, 2021)	APPROVED 12/22/2021
Second Quarter 2020	2/3/21 (Cover: February 3, 2021)	APPROVED 12/22/2021
Fourth Quarter 2020	5/13/2021 (Cover: May 13, 2021)	APPROVED 12/22/2021
First Quarter 2021	4/28//2021 (Cover: April 28, 2021)	APPROVED 12/22/2021
Second Quarter 2021	8/9/2021 (Cover: August 9, 2021)	APPROVED 12/22/2021
<b>IMMEDIATE SOURCE CONTROL ACTIONS (III.F)</b>		
Dairy Facility Application Field Management Plan(s) (III.F.1)	11/18/2013	APPROVED; revised DFAFMPs submitted to EPA on 5/31/2016; updated DFAFMPs submitted to EPA on 5/15/2018
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



<b>Work Product</b>	<b>Submittal Date (Report Cover Date)</b>	<b>Status</b>
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
2017 Post-Harvest Dairy Application Field Reports	Uploaded to FTP 9/13/2019 (Cover: December 2017)	APPROVED 8/30/2019
2018 Pre-Plant Dairy Application Field Reports	Uploaded to FTP 9/13/2019 (Cover: July 2018)	APPROVED 8/30/2019
2018 Post-Harvest Dairy Application Field Report Memorandum	Uploaded to FTP 9/12/2019 Cover: January 1, 2019)	APPROVED 8/30/2019
2019 Pre-Plant Dairy Application Field Report Memorandum	Uploaded to FTP 9/12/2019 (Cover: August 10, 2019)	APPROVED 8/30/2019
2020 Pre-Plant Dairy Application Field Report Memorandum	Uploaded to FTP 2/2/2021 (Cover: February 2, 2021)	APPROVED 2/11/2021
2020 Post-Harvest Dairy Application Field Report Memorandum	Uploaded to FTP 2/2/2021 (Cover: February 2, 2021)	APPROVED 2/11/2021
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)	1/3/2017 (Cover: December 15, 2016)	APPROVED 1/6/2017
George DeRuyter & Son/D&A Dairies Lagoon Work Plan (III.F.6)	1/3/2017 (Cover: December 15, 2016)	APPROVED 1/6/2017
Final BODR, 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 BODR, 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
H&S Bosma Dairy Abandonment Plan for Lagoon Nos. 8, 9, 19, and 20	8/29/2018 (Cover: August 29, 2018)	APPROVED 9/18/2018

<b>Work Product</b>	<b>Submittal Date (Report Cover Date)</b>	<b>Status</b>
H&S Bosma Dairy Lagoon No. 10 OMMP	8/29/2018 (Cover: September 18, 2018)	APPROVED WITH EPA-MODIFIED VERSION 9/18/2018
George DeRuyter & Son Dairy Stormwater Catch Basin and D&A Dairy Lagoon Nos. 1 and 2 Modified BODR – 100% Design Submittal	8/29/2018 (Cover: September 18, 2018)	APPROVED WITH EPA-MODIFIED VERSION 9/18/2018
George DeRuyter & Son Dairy Stormwater Catch Basin and D&A Dairy Lagoon Nos. 1 and 2 Modified OMMP	8/29/2018 (Cover: September 18, 2018)	APPROVED WITH EPA-MODIFIED VERSION 9/18/2018
Cow Palace Abandonment Plan for Northeast Catch Basin	9/10/2018 (Cover: September 11, 2018)	APPROVED 9/12/2018
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
George DeRuyter & Son Dairy Stormwater Catch Basin NDN QAPP	10/30/2018 (Cover: October 2018)	APPROVED 3/21/2019
George DeRuyter & Son Dairy As-Built Report for Stormwater Catch Basin	3/15/21 (Cover: March 15, 2021)	APPROVED 1/5/22
Cow Palace Safety Debris Catch Basin 100% Basis of Design Report	7/10/2019 (Cover: June 25, 2019; Modified cover: July 17, 2019)	APPROVED WITH MODIFICATIONS 7/17/2019
H&S Bosma Dairy Modified Lagoon No. 10 BODR – 100% Design Submittal	7/10/2019 (Cover: July 10, 2019)	APPROVED WITH MODIFICATIONS 7/17/2019
Uniform Lagoon Lining Basis of Design Report – Bosma and DeRuyter Dairies	8/27/2020 (Cover: 8/24/2020)	CONDITIONALLY APPROVED 7/31/2020
Liberty/H&S Bosma Dairies Lagoon No. 14 and Consolidated Lagoon No. 7 Project Specific Liner Construction Plans	8/27/2020 (Cover: 8/17/2020)	CONDITIONALLY APPROVED 7/31/2020
D&A Dairy Consolidated Lagoon No. 1 Project Specific Liner Construction Plans	8/27/2020 (Cover: 8/17/2020)	CONDITIONALLY APPROVED 7/31/2020
D&A Consolidated Lagoon No. 3 Completion Report	3/15/21 (Cover: March 15, 2021)	APPROVED 1/5/22
D&A Dairy Lagoon No. 4 Project Specific Liner Construction Plans	11/3/2020 (Cover: October 29, 2020)	APPROVED 11/16/2020

<b>Work Product</b>	<b>Submittal Date (Report Cover Date)</b>	<b>Status</b>
Liberty Dairy Consolidated Lagoon No. 15 Completion Report	3/15/21 (Cover: March 15, 2021)	APPROVED 1/5/22
Liberty Dairy Lagoon No. 18 Abandonment Plan	11/3/2020 (Cover: November 3, 2020)	APPROVED 11/16/2020
Revised H&S Bosma Consolidated Lagoon No. 4 Project-Specific Plans	11/12/21 (Cover: November 12, 2021)	CONDITIONALLY APPROVED 11/17/22
Revised D&A Dairy Take-Up Pond Abandonment Plan	12/12/21 (Cover: 12/21/21)	APPROVED WITH MODIFICATIONS 12/27/21
Liberty Dairy As-Built Report for Lining of Red Water Pond	3/15/21 (Cover: March 15, 2021)	APPROVED 1/5/22
Cow Palace Completion Report for Northeast Catch Basin Abandonment	1/31/2019 (Cover: February 15, 2019)	APPROVED 2/2/2021
Revised George DeRuyter & Son Dairy Lagoons 1, 2 and 3 Project-Specific Plans	Submitted to EPA on 01/12/2022	APPROVED 1/19/2022
<b>REPORTING (III.K)</b>		
Monthly Progress Reports (III.K.1)	15th of the following month	Current through the current month
Health and Safety Plan	9/13/2016 (Cover: September 2016)	Current version <sup>2</sup>
2018 Annual Report	3/6/2020 (Cover: March 6, 2020)	APPROVED 2/6/2020
2019 Annual Report	9/1/2020	APPROVED WITH MODIFICATIONS 9/17/2020

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.

BODR: Basis of Design Report

DFAFMP: Dairy Facility Application Field Management

OMMP: Operations, Maintenance, and Monitoring Plan

**Attachment A**

**2022 Pre-Season Irrigation Sensor Status - DeRuyter and Liberty/Bosma Dairies**

Field ID	Individual Station ID	3-Foot Sensor Operational as of January 31, 2022	Corrective Measures in Progress
<b>George DeRuyter &amp; Son/D&amp;A Dairies</b>			
GDS-SU01	GDS-SU01-I-1	Yes	
	GDS-SU01-I-2	Yes	
GDS-SU02	GDS-SU02-I-1	<b>No</b>	Logger scheduled for repair
	GDS-SU02-I-2	<b>No</b>	Logger scheduled for repair
GDS-SU03	GDS-SU03-I-1	Yes	
	GDS-SU03-I-2	Yes	
GDS-SU04	GDS-SU04-I-1	Yes	
	GDS-SU04-I-2	Yes	
	GDS-SU04-I-3	Yes	
GDS-SU05	GDS-SU05-I-1	Yes	
	GDS-SU05-I-2	Yes	
	GDS-SU05-I-3	Yes	
GDS-SU06	GDS-SU06-I-1	Yes	
	GDS-SU06-I-2	Yes	
GDS-SU07	GDS-SU07-I-1	<b>No</b>	3-ft sensor repair needed
	GDS-SU07-I-2	Yes	
	GDS-SU07-I-3	<b>No</b>	3-ft sensor repair needed
GDS-SU08	GDS-SU08-I-1	Yes	
	GDS-SU08-I-2	Yes	
	GDS-SU08-I-3	Yes	
GDS-SU09	GDS-SU09-I-1	Yes	
	GDS-SU09-I-2	Yes	
GDS-SU10	GDS-SU10-I-1	Yes	
	GDS-SU10-I-2	Yes	
	GDS-SU10-I-3	Yes	
GDS-SU11	GDS-SU11-I-1	Yes	
	GDS-SU11-I-2	Yes	
GDS-SU12	GDS-SU12-I-1	Yes	
	GDS-SU12-I-2	Yes	
GDS-SU13	GDS-SU13-I-1	Yes	
	GDS-SU13-I-2	Yes	
	GDS-SU13-I-3	Yes	
GDS-SU14	GDS-SU14-I-1	Yes	
	GDS-SU14-I-2	Yes	
	GDS-SU14-I-3	Yes	

**Attachment A**

**2022 Pre-Season Irrigation Sensor Status - DeRuyter and Liberty/Bosma Dairies**

Field ID	Individual Station ID	3-Foot Sensor Operational as of October 7, 2021	Corrective Measures in Progress
<b>Liberty/H&amp;S Bosma Dairies</b>			
LD-SU02	LD-SU02-I-1	Yes	
	LD-SU02-I-2	Yes	
	LD-SU02-I-3	Yes	
LD-SU03	LD-SU03-I-1	Yes	
	LD-SU03-I-2	Yes	
LD-SU04	LD-SU04-I-1	<b>No</b>	Logger damaged; needs to be replaced
	LD-SU04-I-2	Yes	
LD-SU05	LD-SU05-I-1	Yes	
	LD-SU05-I-2	<b>No</b>	3-foot sensor to be replaced
	LD-SU05-I-3	Yes	
LD-SU06	LD-SU06-I-1	<b>No</b>	3-foot sensor to be replaced
	LD-SU06-I-2	Yes	
LD-SU07	LD-SU07-I-1	<b>No</b>	3-foot sensor to be replaced
	LD-SU07-I-2	Yes	
LD-SU08 N	LD-SU08N-I-1	Yes	
	LD-SU08N-I-2	Yes	
	LD-SU08N-I-3	Yes	
LD-SU08 S	LD-SU08S-I-1	Yes	
	LD-SU08S-I-2	Yes	
LD-SU09	LD-SU09-I-1	Yes	
	LD-SU09-I-2	Yes	
LD-SU10	LD-SU10-I-1	Yes	
	LD-SU10-I-2	Yes	
	LD-SU10-I-3	<b>No</b>	3-foot sensor to be replaced
LD-SU14	LD-SU14-I-1	Yes	
	LD-SU14-I-2	Yes	
LD-SU16	LD-SU16-I-1	Yes	
	LD-SU16-I-2	Yes	
LD-SU17	LD-SU17-I-1	Yes	
	LD-SU17-I-2	<b>No</b>	Logger scheduled for assessment

**Notes:**

- Agrimanagement will assess the non-operational loggers and repair/replace damaged loggers as soon as supplies are available.