



INLAND EARTH SCIENCES

September 15, 2014

Project 14-07YVD

Mr. Eric Winiecki
EPA Project Coordinator
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

SUBJECT: DOCKET NO. SDWA-10-2013-0080, Yakima Valley Dairies
August 2014 Monthly Progress Report

Dear Mr. Winiecki:

Please find attached the Yakima Valley Dairies Monthly Progress Report for the period August 11 to September 10, 2014, submitted on behalf of: (1) Cow Palace, LLC; (2) D & A Dairy, LLC (also known as D&A Dairy L.L.C.), George DeRuyter & Son Dairy, L.L.C., and George & Margaret, L.L.C; and (3) Liberty Dairy LLC and its associated dairy facility H&S Bosma Dairy. If you have any questions or comments, please do not hesitate to call. Thank you.

Very Truly Yours,

INLAND EARTH SCIENCES CORPORATION

Kevin M. Freeman
YVD Project Coordinator
kfreeman@inlandearth.com | (509) 981-4747 Direct

Attachments:

Monthly Progress Report, August 11 to September 10, 2014

Copies:

Adam Dolsen, Cow Palace LLC
Dan DeRuyter, George DeRuyter & Son Dairy LLC
Henry Bosma, Liberty Dairy LLC
Rene Fuentes, EPA
Jennifer MacDonald, EPA
Patrick W. Ryan, Perkins Coie LLP
Lori Terry Gregory, Foster Pepper PLLC

YAKIMA VALLEY DAIRIES (YVD)

Docket No, SDWA-10-2013-0080

Monthly Progress Report [per Consent Order (CO) Statement of Work (SOW) III.K.1]

Period: August 11 to September 10, 2014

Task Number	Task Title	Actions Completed During Reporting Period	Work Planned for Next 60 days	Problems Encountered/Anticipated and Solutions Developed/ Implemented
GENERAL TASKS				
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.)	TASK COMPLETE		
4	Notify EPA regarding interest in participating in the public involvement	TASK COMPLETE		
PROVISION OF WATER (III.D.)				
5	Submit Residential Well Sampling QAPP (III.D.2.)	TASK COMPLETE		
6	Test each residential drinking water well within the Dairy Facilities boundary and within one mile downgradient of the Dairy Facilities (III.D.3.)	TASK COMPLETE		
7	Provide residents results of Hach test strip (III.D.4.)	TASK COMPLETE		
8	Provide preliminary results of laboratory analysis of residential drinking water well samples to EPA (III.D.4.)	TASK COMPLETE		
9	Provide validated laboratory analytical results to each resident and to EPA	TASK COMPLETE		
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)	TASK COMPLETE		
11	Submit Residential Well Sampling Report	TASK COMPLETE		

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	GROUNDWATER MONITORING (III.E.)			
12	Submit Groundwater Monitoring QAPP (III.E.1.)	Scheduled Third Quarter 2014 sampling event to begin September 22, 2014.	Complete Third Quarter 2014 sampling event September.	ARCADIS U.S. will perform groundwater sample collection.
13	Submit Groundwater Monitoring Well Installation Report (III.E.2.)	Received conditional approval for Report from EPA on September 4, 2014.	Submit Final Report addressing EPA comments by September 19, 2014.	EPA requested that Final Report be submitted by September 12, 2014. However, e-mail was sent to YVD Project Coordinator's previous e-mail address. Report will be delivered by date indicated.
14	Report validated groundwater nitrate analytical results (III.A.3.e.(1))	Submitted Draft Second Quarter 2014 Data Usability Reports to EPA on August 6,	Revise 4Q2013, 1Q2014, and 2Q2014 Data Usability Reports based on EPA	
15	Quarterly Groundwater Monitoring Data Reports (III.E.3.)	Submitted revised Third Quarter 2013 Report on July 30, 2014. Preparing Draft 2Q2014 GWM Report.	Submit Draft 2Q2014 by September 30, 2014. Revise 4Q2013 and 1Q2014 GWM Reports based on EPA comments.	
16	Annual Groundwater Monitoring Data Report (III.E.3.)	Submitted 2013 Annual Report to EPA on May 1, 2014.	Revise 2013 Report based on EPA comments.	

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IMMEDIATE SOURCE CONTROL ACTIONS (III.F.)				
17	Submit Dairy Facility Application Field Management Plan (III.F.1.)	TASK COMPLETE		
18	Submit Dairy Facility Application Field Reports (III.A.3.e.(2))	Prepare Draft 2014 Pre-Plant Application Field Management Report.	Submit Draft 2014 Pre-Plant Application Field Management Report. Revise 2014 Pre-Plant Data Usability Reports based on EPA comments.	EPA requested that the following information be attached to this Progress Report; "...list each application field that exceeded the 45 ppm standard at the 24" depth, and briefly summarize the management strategy for bringing each back down to no more than 45 ppm (e.g., transitioning to alfalfa, cessation of nitrogen application, etc.)." [September 8, 2014 e-mail from E. Winiecki] Attached are planned action steps as developed by Agrimanagement for Respondents' fields.
19	Submit Irrigation Water Management Plan (III.F.2.)	Submitted revised conditionally-approved ("Final") Plans to EPA on August 19, 2014.	TASK COMPLETE	EPA and Respondants discussed IWMP implimentation at August 19, 2014 technical meeting.
20	Implement Irrigation Water Management Plan (III.F.2.)	Completed soil field capacity (FC) sampling and testing of Liberty Dairy fields 6, 7, and 8N and George DeRuyter & Son Dairy fields 2 and 14.	Continue soil field capacity testing of fields as harvested. Install moisture sensors as FC testing is completed.	IES and Agrimanagement will provide a technical memorandum to EPA describing preliminary results of FC testing and presenting any issues requiring corrective actions based on the field observations.
21	Take action to reduce nitrate contributions from silage storage (III.F.3.)	TASK COMPLETE		
22	Take action to reduce nitrate contributions from solid separator (III.F.4)	TASK COMPLETE		
23	Install backflow prevention system (III.F.5)	TASK COMPLETE		
24	Submit Lagoon Review Report (III.F.6.)	TASK COMPLETE		

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Task Number	Task Title	Actions Completed During Reporting Period	Work Planned for Next 60 days	Problems Encountered/Anticipated and Solutions Developed/ Implemented
25	Submit Lagoon Evaluation Plan (III.F.6).	Discussed current status of Lagoon Evaluation Plans at August 19, 2014 meeting with EPA. Presented technical memorandum to EPA outlining proposal for physical testing at the meeting. Received letter from EPA on August 27, 2014 responding to physical testing technical memorandum. Sent response to EPA letter on September 5, 2014. Requested technical meeting with EPA to discuss physical testing strategy for lagoons.	Prepare and submit Lagoon Evaluation Plan QAPP to EPA by September 24, 2014.	IES requested meeting with EPA on September 9, 2014 to discuss physical testing approach for the lagoons.
26	Submit Lagoon Evaluation Report and Lagoon Work Plan (III.F.6)	None	None	
27	Submit records of locations to which manure is transported off of the Dairy Facilities (III.F.7)	Provided 2013 information to EPA as part of 2013 Annual Report	Work with respondents to collect and tabulate 2014 records.	
28	Eliminate furrow irrigation (III.F.8.)	TASK COMPLETE		
29	Submit Plan for assessment of area surrounding monitoring well DC-03 (III.F.12.)	None	Develop a conceptual work plan to complete the DC-03 investigation requirement based on EPA's letter of	
REPORTING (III.K.)				
34	Monthly Progress Reports (III.K.1.)	Submitted July MPR on August 15, 2014. Prepared August MPR.	Prepare and submit September and October MPR.	
35	Annual Reports (III.K.2.)	Submitted 2013 Annual Report to EPA on May 1, 2014.	Revise Report based on EPA comments.	



Liberty Dairy

Field	Acres	Crop	Date	Planned action steps			Action steps
				NO3-N (ppm)			
				1'	2'	3'	
SU02	68.5	Triticale-Silage corn	9/24/2013	50	46	70	Fall 2014 Triticale-Summer Triticale-Fall 2015 Alfalfa
		Triticale-Silage corn	5/10/2014	53	54		
SU03	11.8	Triticale-Silage corn	9/20/2013	36	21	16	No significant changes -- to utilize wireworm control in Spring 2015
		Triticale-Silage corn	5/19/2014	15	25		
SU04	7	Triticale-Silage corn	9/20/2013	7	51	46	No significant changes -- to utilize wireworm control in Spring 2015
		Triticale-Silage corn	5/19/2014	37	39		
SU05	143.9	Triticale-Silage corn	10/18/2013	83	85	98	No significant changes planned, reduced application
		Triticale-Silage corn	5/14/2014	40	46		
SU06	38.9	Triticale-Silage corn	10/2/2013	67	54	34	Fall 2014 Alfalfa
		Triticale-Sudangrass	5/16/2014	39	55		
SU07	94.6	Triticale-Silage corn	10/4/2013	78	107	159	Summer Sudan, then Fall 2014 Alfalfa, no application
		Triticale-Sudangrass	5/23/2014	82	129		
SU08N	78.1	Triticale-Silage corn	9/20/2013	99	96	95	Summer 2014 Triticale transitioning into Fall Alfalfa, No application
		Triticale-Triticale	5/6/2014	108	104		
SU08S	79.1	Triticale-Silage corn	10/1/2013	63	66	66	No significant changes planned; reduced application
		Triticale-Silage corn	5/6/2014	47	52		



Liberty Dairy

Field	Acres	Crop	Date	Planned action steps			Action steps
				NO3-N (ppm)			
				1'	2'	3'	
SU09	59.4	Alfalfa	10/1/2013	12	5	4	Possibly rotate out of Alfalfa into Fall Triticale, followed by summer sudan then back to Alfalfa
		Alfalfa	5/16/2014	6	6		
SU10	155	Triticale-Silage corn	10/4/2013	59	80	51	No significant changes planned; reduced applicaton
		Triticale-Silage corn	5/12/2014	45	46		
SU14	40.3	Triticale-Silage corn	10/2/2013	76	49	15	No significant changes planned
		Triticale-Silage corn	5/16/2014	43	28		
SU16	16.3	Triticale-Silage corn	9/20/2013	67	30	25	No significant changes planned
		Triticale-Silage corn	5/10/2014	71	30		
SU17	38.4	Triticale-Silage corn	9/27/2013	29	57	71	No significant changes planned
		Triticale-Silage corn	5/19/2014	13	17		

George DeRuyter & Sons

Field	Acres	Crop	Date	Planned action steps			Action steps
				NO3-N (ppm)			
				1'	2'	3'	
SU01	17.8	Alfalfa	10/9/2013	12	7	5	2014 Fall Alfalfa
		Alfalfa	14-May	11	11		
SU02	99.1	Triticale-Sudangrass	10/17/2013	19	24	14	No significant changes planned
		Triticale-Sudangrass	6-May	8	4		
SU03	28.4	Alfalfa	10/15/2013	9	4	3	No significant changes planned
		Alfalfa	14-May	16	9	8	
SU04	135.6	Triticale-Silage corn	10/14/2013	184	166	173	Fall Triticale possibly followed by summer Triticale, then to Fall Alfalfa; no application
		Triticale-Silage corn	8-May	183	197		
SU05	100.6	Triticale-Silage corn	10/9/2013	263	254	263	Rotated in to Alfalfa Fall 2013; no application
		Triticale-Alfalfa	8-May	226	237		
SU06	84.5	Triticale-Silage corn	10/16/2013	47	82	102	No significant changes planned
		Triticale-Sudangrass	5/6/2013	56	56		
SU07	76.6	Alfalfa	10/9/2013	31	74	76	No significant changes planned
		Alfalfa	14-May	11	32		
SU08	165.5	Triticale-Silage corn	10/17/2013	161	161	139	Fall Triticale possibly followed by summer Triticale, then to Fall Alfalfa; no application
		Triticale-Silage corn	9-May	219	159		

SU09	34.6	Alfalfa	10/14/2013	25	28	27	No significant changes planned
		Triticale-Silage corn	5/6/2014	55	30		
SU10	38.5	Triticale-Silage corn	10/15/2013	49	38	22	No significant changes planned
		Alfalfa		58	56		
SU11	8.1	Alfalfa	10/16/2013	39	38	31	No significant changes planned
		Alfalfa	22-May	24	15		
SU12	40.5	Triticale-Silage corn	10/7/2013	168	125	95	No significant changes planned
		Triticale-Silage corn	9-May	91	50		
SU13	47	Triticale-Sudangrass	10/15/2013	10	7	8	Fall 2014 Alfalfa
		Triticale-Sudangrass	9-May	40	49		
SU14	65.2	Triticale-Sudangrass	17-Oct	37	32	21	Fall 2014 Alfalfa
		Triticale-Sudangrass	6-May	4	7		



Cow Palace Dairy

Field	Acres	Crop	Date	Planned action steps			Action steps
				NO3-N (ppm)			
				1'	2'	3'	
SU01	69	Triticale-Silage corn	9/24/2013	89	65	67	No significant changes planned
		Triticale-Silage corn	5/13/2014	30	37		
SU02	71.7	Triticale-Silage corn	9/27/2013	66	53	58	No significant changes planned
		Triticale-Silage corn	5/14/2014	30	34		
SU03	155.4	Triticale-Silage corn	9/27/2013	50	45	63	No significant changes planned
		Triticale-Silage corn	5/23/2014	33	34		
SU04A	71	Alfalfa	9/17/2013	20	15	18	No significant changes planned
		Alfalfa	5/23/2014	18	14		
SU04B	40.1	Alfalfa	9/17/2013	15	40	66	No significant changes planned
		Alfalfa	5/23/2014	15	25		
SU05	37.1	Alfalfa	9/17/2013	12	5	5	Rotating out of Alfalfa to Fall Triticale with Tillage Radish, then back to late spring Alfalfa
		Alfalfa	5/23/2014	29	20		
SU06	85	Triticale-Silage corn	10/1/2013	67	54	34	No significant changes planned; reduced application
		Triticale-Silage corn	5/13/2014	36	50		