

June 25, 2015

Ms. Rita Miller
City of Santa Rosa
Utilities Department
4300 Llano Road
Santa Rosa, California 95407

Re: Credit Verification and Annual Monitoring and Reporting for Beretta Dairy BMPs Nutrient Offset Project SRNO-1H

Dear Ms. Miller,

The following constitutes the annual monitoring and reporting for the Beretta Dairy per the Sonoma Resource Conservation District (SRCD) contract with the City of Santa Rosa SRNO Task 1H. BMPs #2 and #3 were implemented and/or properly managed as proposed during this time period. BMP#1 has not been implemented to date. BMPs and associated credits for the Beretta Dairy Nutrient Offset Project approved as part of the City of Santa Rosa's Nutrient Offset Program by the Regional Water Quality Control Board (RWQCB), North Coast Region are listed in Table 1 below.

Table 1: Project Elements Approved by RWQCB¹

Approved Crediting Options	BMP Elements	Annual Phosphorus Credits (lbs. TP/yr.)	Annual Nitrogen Credits (lbs. TN/yr.)	BMP Eligibility Period
BMP 1: Concrete Staking Pad	Concrete Staking Pad	184	1,010	20 years
	Buffer	7	293	20 years
BMP 2: Heavy Use Area Upgrades	Fencing and Cattle Crossing	86	115	2.5 years
	Buffer	34	50	20 years
BMP3: Relocate Heavy Use Area	Relocation of use area to interior field	174	945	20 years
<i>Total Credits</i>		485	2,359	

¹: Information taken from City of Santa Rosa Offset Credit Proposal for Beretta Dairy BMPs, June 2012.

Project Implementation

BMP #2 consists of the installation of an animal alleyway, fencing, and clean water culvert and was installed in September 2014. BMP#3 consists of new water troughs and fencing and was installed in

September 2014 and June 2015, respectively. Some of the fencing for BMP#3 is currently being installed, though relocation of the heavy use area through management changes has already occurred. Both of the BMPs were implemented or are being implemented as proposed with the exception of a larger buffer given to the clean water drainage in BMP#2. The entire pasture acts as a buffer to the clean water drainage and is managed by flash grazing instead of a 30' buffer. BMP# 1 consists of a manure stacking pad and is scheduled for implementation in the fall of 2015.

BMP Inspection

RCD staff inspected installed BMP #2 on several occasions in September 2014 and April 2015, and June 2015 and all components were found to be functional and properly maintained and managed.

RCD staff inspected installed BMP#3 in June 2015 and observed that the areas have been managed as proposed with some internal fencing still being installed. Even with some of the fencing yet to be installed per plans, the heavy use area was relocated to an interior field and the former heavy use area is used as rotational grazing paddocks by use of temporary electrical fencing.

Credit Verification

Based on site inspections made by the RCD staff, the SRCD verifies the following:

- Mass of P controlled and credits eligible during the previous 12 months (July 1, 2014- June 30, 2015) =294 lbs
- Mass of N controlled and credits eligible during the previous 12 months (July 1, 2014- June 30, 2015) = 1,110 lbs

Table 2: Proposed Credits for 2014-2015

Approved Crediting Options	BMP Elements	Annual Phosphorus Credits (lbs. TP/yr.)	Annual Nitrogen Credits (lbs. TN/yr.)	BMP Eligibility Period
BMP 1: Concrete Staking Pad	Concrete Staking Pad	0	0	20 years
	Buffer	0	0	20 years
BMP 2: Heavy Use Area Upgrades	Fencing and Cattle Crossing	86	115	2.5 years
	Buffer	34	50	20 years
BMP3: Relocate Heavy Use Area	Relocation of use area to interior field	174	945	20 years
<i>Total Credits</i>		294	1,110	

Conclusions

BMP #2 of the Beretta Dairy BMPs Nutrient Offset Project was successfully implemented and subsequent monitoring found that the installed BMP was found to be functional and properly maintained. BMP#3 is functioning as planned from a water quality perspective, though some fencing is still being installed. Monitoring of the former heavy use area has shown that the area is now functioning as a rotational grazing paddock, as proposed.

If you have any questions, please contact me at 707-569-1448 ext. 101 or at kwester@sonomarcd.org.

Thank you,

Kari Wester
Project Manager
Sonoma Resource Conservation District

Appendix A: Photo Plates

Beretta Dairy Beneficial Management Practices
Nutrient Offset Project- Photo Monitoring 2014-2015



Figure 1: BMP#2 before, looking north.



Figure 2: BMP#2 before, looking south.



Figure 3: BMP#2 after, looking south. Buffer on left.



Figure 4: BMP#2 after, looking north.



Figure 5: BMP#2 before, clean water crossing, looking west.



Figure 6: BMP#2 after, clean water crossing, looking west.

Beretta Dairy Beneficial Management Practices
Nutrient Offset Project- Photo Monitoring 2014-2015



Figure 7: BMP#2 after, clean water culvert at inlet. Vegetated buffer managed by flash grazing.



Figure 8: BMP#2 after, clean water culvert at outlet and vegetated buffer managed by flash grazing.



Figures 9 & 10: BMP#3 after, new water troughs for relocation of heavy use area.



Figures 11 & 12: BMP#3 after, former heavy use area near Roseland Creek. Now used as rotational grazing paddocks.