

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE**  
**2020 Alternative Manure Management Program**  
 Applications Submitted to CDFA  
 Updated in September 2020

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#	Operation	Description*	County	GHG Emission Reduction Over 5 Years (MTCO <sub>2</sub> e)**	Requested Grant Funds	Matching Funds	Management Practice(s)
1	Adamscows Dairy	The proposed project is to build a bedded pack compost barn, approximately 79 feet wide and 330 feet long, with an irrigated exercise pasture to replace the current open lot housing. The purpose of the irrigated pasture is to create an exercise area for the herd without the risk of creating Particulate Matter (PM) from bare soil, as well as reduce the manured area that produces runoff to the lagoon that forms methane. An additional benefit of this project is the reclamation of farmland that is currently our feed storage area, and the four corrals to the west of the proposed facility; this would increase our farm-able acres as well as reduce the amount of manured area that drains to the lagoons in the winter, further reducing risk to ground water. Finally, replacing the dry-lot corrals with this new facility and an irrigated exercise pasture, will result in a reduced risk to water quality and reduce GHG by containing all manure in a covered structure, and speeding up the time and distance to feed cows by two hours/day. It will also further reduce GHG through the conversion of carbon dioxide into oxygen by the biological processes of the additional acreage gained by planting the reclaimed farmland. The pack barn will reduce 480 MTCO <sub>2</sub> e, and the reduction in diesel use results in large ROG, NOx, PM2.5, and Diesel PM reductions. The first 5 years of the project is estimated to save 24,575 gallons of diesel.	Fresno	480	\$ 540,774.00	\$ 34,000.00	Compost Bedded Pack Barn
2	Agresti Heifer Ranch	Agresti Heifer Ranch would like to amend its current manure solids removal practices to Partial Flush and Partial Vacuum Truck. We propose shutting off the flush system for a full 24 hours and then vacuum scraping the concrete lanes in the freestall barn (Dry Cow/Heifer freestall barn with no exercise pens) and open lots lanes 150 days per year or 3 times per week, equivalent of 5 months per year. We then will spread the slurry onto windrows of dried manure and turn windrows intensively until they are dry. The manure drying area will be located on a cement slab for year-round access. Dry manure will be reused as bedding in the freestall barn. We would be collecting 100% of the manure generated from the previous 24 hours in the freestall barn because there are no exercise pens. For the heifers in the open lot corrals, we estimate we would be able to collect 20% of the manure generated from the previous 24 hours.	Stanislaus	8,674	\$ 485,271.00	\$ 350,000.00	Flush-to-Scrape, Composting
3	Albert Mendes Dairy	The AM3 Dairy proposes to construct a compost bedded pack barn with a scraped feed lane and move animals from a flushed freestall barn. This project will significantly reduce the amount of manure from the milk cows going into the anaerobic lagoon at the dairy and therefore the amount of methane emitted from manure storage at the dairy.	Stanislaus	15,753	\$ 749,999.00	\$ 106,763.00	Compost Bedded Pack Barn
4	Alfredo C. Nunes Dairy	The Alfredo C. Nunes Dairy proposes to build a compost bedded pack barn to reduce manure methane emissions.	Stanislaus	15,687	\$ 750,000.00	\$ 602,006.00	Compost Bedded Pack Barn
5	Alves & Son Dairy	Installation of a double curved & sloped screen mechanical separator with vibrator assembly, screw press and fixed stacking belt conveyor to replace existing old, low functioning mechanical separator. Also installing manure storage slab and octagon flush water processing pit with all the needed electrical upgrades and transfers. This will improve our separation efficiency to an estimated 59.7% removal of total solids and 65.7% of the volatile solids (based on Clemson University research) from conveyance to our storage ponds. The processing pit will be used to reduce the total amount of flushed water sent through the separator every day, as milk barn wash water will be directed to the pit and used for flushing activities instead of lagoon water. Cleaner flushing water will reduce the flushing time, thereby reducing energy costs and improving the efficiency of the separator. The manure storage pad will be for temporary open solar drying until it can be moved to our existing composting area where it will be composted and used for bedding, land applications and exports.	Stanislaus	7,671	\$ 651,761.00	\$ 40,261.00	Solid Separation, Composting

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6	Backroad Ranch	The proposed project at Backroad Ranch is to build a 600' by 200' compost bedded pack barn to house milking cows, relocated from an open lot and a freestall on site. By relocating the milking animals to the pack barn 1056 ft <sup>3</sup> (7899.43 gallons) of manure will be eliminated from the lagoon waste stream. In addition, the compost bedded pack barn should eliminate the use of one small lagoon that often sits in anaerobic conditions for a long period of time. By removing 48% of the potential methane producing manure from the lagoon system, a reduction of 13,639 mtCO <sub>2</sub> e is projected for the first 5 years of the project lifespan. This GHG reduction should continue for several more decades, as a properly managed pack barn should remain functional for 20+ years. The project has several co-benefits from ROG, NOx, PM2.5 and diesel PM decreases, as well as 1310.2 dry tons of compost being produced under covers and not potentially rewetted by rainfall.	Tulare	13,639	\$ 750,000.00	\$ 190,800.00	Compost Bedded Pack Barn
7	Blakes Landing Farms	Blakes Landing Farm proposes to eliminate the flushing system and replace it with robotic manure vacuums. Additionally, the dairy will intensively windrow separated solids with an electric loader, substantially reducing diesel fuel use.	Marin	132	\$ 718,400.00	\$ 65,000.00	Flush-to-Scrape, Composting
8	Blue Sky Dairy #2	Blue Sky Dairy #2 proposes construction of Two Compost Bedded Pack Barns to eliminate the need for flushing, with a total coverage of manured areas to be utilized for heifer housing, with scrape only operations that will provide easier and economical manure management in addition to significant greenhouse gas reductions, improved animal comfort and reduce the need for anaerobic storage in the existing storage pond.	Merced	7,112	\$ 749,918.00	\$ 717,575.00	Compost Bedded Pack Barn
9	Borba and Sons Dairy	The proposed project at Borba and Sons Dairy is to construct a compost bedded pack barn, capable of housing milking Holsteins that will be moved from the flushed free stall barn. Cows are projected to have 100 to 120 ft <sup>2</sup> of pack space each, decreasing time on the flush lanes due to increased loafing on the pack. Manure in the flush lane will be scraped into the pack daily and rototilled in during the daily aeration till. The compost barn will be cleaned out twice per year, consisting with corral cleanout. The barn is projected to produce 1401.2 dry tons of compost, (Co-benefits Summary of CARB Benefits Calculator Tool for AMMP) should be adequate to treat 60.3 acres annually. Moving this portion of the herd into the proposed management system will reduce the amount of manure going to the settling pond and anaerobic conditions by 53%, reducing a total of 12,141 MTCO <sub>2</sub> e over a 5-year period for the animals under the project scope. The reduced diesel usage and improved manure management will reduce ROG, NOx, PM2.5 and Diesel PM emissions from the dairy.	Tulare	12,141	\$ 740,880.00	\$ -	Compost Bedded Pack Barn
10	Borba Dairy	The proposed project at Borba Dairy is to convert the flushed open lot corrals to a 600 by 180-foot-long compost bedded pack barn. Cows are projected to have 100 to 120 ft <sup>2</sup> of pack space each. Manure in the standing lane will be scraped into the pack daily and rototiller during the daily aeration till. Moving this portion of the herd into the proposed management system will reduce the amount of manure going to the settling pond and anaerobic conditions by 61%, reducing a total of 15,376 MTCO <sub>2</sub> e over a 5-year period for the animals under the project scope. The producer is also projecting that separator manure transfer equipment reduction will reduce the amount of diesel used by 10%. In addition, 2.48 acres of manured areas on the facility will now be under roofs with drains that will divert storm water from the lagoon system. An additional 10% of the facilities area runoff will be diverted from the lagoon system, approximately 1 million gallons of water annually.	Tulare	15,376	\$ 737,856.00	\$ -	Compost Bedded Pack Barn

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11	Brian James Jongsma Dairy	Installation of a GEA/Houle separator with 2 slope screens with integrated xpress for higher dry matter output, efficient design and simple operation. Also, an octagon reception/processing pit for cleaner and more efficient flushing, and proper conveyance of flush water through the GEA/Houle separator. For proper storage and open solar drying of the separated solids, installation of a manure stacking pad is also proposed. All components of the project are to help reduce greenhouse gases, benefit socially disadvantaged communities, address socioeconomic factors, and protect from groundwater contamination	Tulare	4,988	\$ 750,000.00	\$ 161,150.00	Solid Separation, Open Solar Drying
12	California Cloverleaf Farms	California Cloverleaf Farms is applying for AMMP funds to construct a compost-bedded pack barn and a concrete solar drying pad coupled with composting in passive windrows. This project will transform the current manure management practices at the dairy and increase cow health. The compost-bedded pack barn will be built over the existing feed lanes and open bedded areas to house milking and dry cows in a clean and dry environment. Manure will be rototilled daily into the dry almond shell bedding, and cleaned out twice yearly to be spread as compost onto our 270 acres of irrigated pastures. In addition, our AMMP project proposes that our feed lanes that currently deliver waste directly into the wastewater storage pond will instead be scraped to a concrete drying pad measuring 70'x200'. Manure will then be composted in passive windrows on-site, then spread on nearby pasture. Both these practices will reduce our greenhouse gas emissions and odor by keeping our manure dry and out of the anaerobic lagoon. Additionally, because manure solids will not be entering the lagoon, we will reduce our problems with frequent clogging of irrigation lines that feed from the lagoon. Finally, our compost-bedded pack barn will increase cow health and productivity by providing important shade from the heat of summer and the rains of winter.	Merced	2,073	\$ 747,000.00	\$ 2,300.00	Compost Bedded Pack Barn
13	Capstone Ranch	The proposed project at Capstone Ranch is to build a compost bedded pack barn, capable of housing milking Holsteins that will be moved from the furthest flushed free stall barn. Cows are projected to have 120 ft2 of pack space each, decreasing time on the flush lanes due to increased loafing on the pack. Manure in the flush lane will be scraped into the pack daily and rototilled in during the daily aeration till. The compost barn will be cleaned out twice per year or on a as needed basis. The barn is projected to produce 1266.5 dry tons, and should be adequate to treat 54.5 acres annually. Capstone Ranch also has several sources of compostable byproducts as part of its farming operations that may be utilized as bedding that may be included in the pack, such as nut hulls. This will increase the amount of compost produced in the barn, as well as improve conditions for the housed animals. They plan on experimenting with organic matter additions to the two sides of the barn to determine the best composting formula for cow health and management. Moving this portion of the herd into the proposed management system will reduce the amount of manure going to the settling pond and anerobic conditions by 16%, reducing a total of 13,064 MTCO <sub>2</sub> e over a 5-year period for the animals under the project scope.	Madera	13,266	\$ 748,125.00	\$ -	Compost Bedded Pack Barn
14	Carvalho Dairy	The Carvalho Dairy proposes to build two compost bedded pack barns to reduce manure methane emissions.	Stanislaus	2,315	\$ 350,195.00	\$ 25,000.00	Compost Bedded Pack Barn
15	Coppini Lane Jerseys	Our project is designed to increase our milking strings time on pasture during our grazing season. Our grazing season averages 8 months, from March through November. We propose building a milking barn, to replace the structure built in 1948. Currently we can milk 12 cows at once, taking up to 12 hours per day. Cows are corralled these 12 hours and manure produced during this period is sent to the lagoon and stored under anaerobic conditions. Constructing a more efficient barn will enable us to decrease milking time, therefore increasing time on pasture. This decreases fuel consumption for manure management and decreases milking time from 12 hours per day to just 4 hours, tripling our milking efficiency. Less time milking, and less time scraping will lower our GHG emissions.	Humboldt	1,282	\$ 749,975.00	\$ 177,331.00	Pasture-Based Management

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16	Correia Dairy	Correia Dairy proposes to install a screw press solid separator to remove solids from the manure lagoon. Solids will be transferred to an in-vessel composter to quickly compost and be available as cow bedding and soil amendment.	Sonoma	1,738	\$ 750,000.00	\$ 14,170.00	Solid Separation, Composting
17	Cross Creek Dairy	Installation of a US Farms Mechanical Separator with sloped screens, screw press and swing stacking conveyor belt, for additional moisture removal. Separated solids will be composted on a proposed composting pad, which will also serve as a composting site for a neighboring dairy whom I have collaborated with to obtain maximum benefits from our individual projects. The project will be constructed at my dairy facility in Hilmar, California that is currently leased out to Cross Creek Dairy, allowing myself as owner and Cross Creek Dairy as operator to reap the benefits of an improved manure management system.	Merced	7,839	\$ 636,264.00	\$ 6,182.00	Solid Separation, Composting
18	Desert International Horse Park	The Coachella Horse Park, dba Desert International Horse Park, is located in Thermal California. It is the premier West Coast horse show facility and one of the elite venues in the country. They support 15 weeks of horse shows per year. All manure management is done on the 239 acre site with a rudimentary row system. The potential value of the product is not realized and the best environmental precautions are not met with the current system. The DIHP is committed to being a leader in the industry with onsite composting of stable waste for stables and agricultural event centers in California and across the nation. To do that they will build a state of the art compost system that includes concrete pads for the input storage, processing, curing and output storage. The processing will be done in bays with an auger system, aeration, moisture addition, and leachate capture. The material produced will be Certified Organic and offer the benefits of healthy soils to the growers of the Coachella Valley. The Thermal location is a propriety population as it sits within a low income community and is bordered on two sides by disadvantaged communities. It also is identified as an area with high pollution burdens and population sensitivities. This project will address those factors with job creation, community engagement and increased environmental stewardship.	Riverside	1,587	\$ 655,845.00	\$ 363,105.00	Compost Bedded Pack Barn
19	Diamond D Dairy	The proposed project will be to replace a 20+ year old two stage curved sloped screen separator system, currently operating at approximately 25% efficiency, with two new curved sloped screen separators and 2 HD screw press separators, estimating a 60% efficient in solids removal; for a total of 35% reduction of solids to the storage lagoon. The GHG reduction will be 13,543 MTCO <sub>2</sub> e/year. Currently, the storage pond system is partially cleaned annually to keep up with the solids loading. After the project installation, cleaning of the storage ponds will rotate on a 3 year rotation because of the reduction of solids into the ponds. The proposed project is 100% committed to be completed before the end of the grant contract period. There is also a commitment to the required maintenance and repair of the system to allow for the expected life of 10 years of operation. All appropriate schematics, figures, graphics and plans are attached to this grant proposal. The grant request is \$392,657 with an 11% match commitment of \$48,136 for a total estimated project budget of \$440,793.	Kings	13,543	\$ 392,657.00	\$ 48,136.00	Solid Separation, Composting
20	Diamond M Dairy	Diamond M Dairy proposes to construct a compost bedded pack barn to house dairy cows 6 months of the year, replacing dry lot housing.	Sonoma	689	\$ 712,013.00	\$ 450,000.00	Compost Bedded Pack Barn

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21	Diamond M Valley Dairy	Diamond M Valley Dairy proposes to install automatic scrapers in one freestall barn to reduce diesel fueled manure scraping. Scraped manure will enter a new reception pit to be separated and enter an in-vessel composter. Composted solids can then be used as bedding and fertilizer.	Sonoma	1,364	\$ 749,999.00	\$ 5,433.00	Solid Separation, Composting
22	Double L & N Dairy	Construction of a compost bedded pack barn over existing corrals, installation of a Houle 2 stage manure separator with roller press, and installation of a concrete manure pad for composting activities.	Merced	5,633	\$ 750,000.00	\$ 76,167.00	Compost Bedded Pack Barn
23	Droogh Dairy	The proposed project at Droogh Dairy is to convert from flushed freestalls to vacuum scrape manure collection, and process collected manure through the existing separator, or solar dry on a newly constructed drying slab. Solids from both the drying slab and separator will then be composted in aerated windrows and used for plant nutrients on the farm or exported to other producers. This project is estimated to reduce 27,179 MTCO <sub>2</sub> e over 5 years and produce 4430 dry tons of compost for agricultural use. In addition, the reduction in the use of heavy equipment currently utilized for manure management is estimated save 300 gallons and reduce ROG, NOx, PM <sub>2.5</sub> , and Diesel PM.	Kings	27,179	\$ 651,979.00	\$ -	Flush-to-Scrape, Composting
24	Ed Souza & Son Dairy	The project is the implementation of a solid manure separation system to remove solid manure from the flush stream prior to entering the anaerobic storage lagoon.	Tulare	3,571	\$ 334,793.00	\$ -	Solid Separation, Open Solar Drying
25	Fanelli Family Dairy	Installation of an additional Albers Mechanical Separator (2 screens) with roller press, to work in conjunction with our current separators; as well expand our current manure storage pad for composting, purchase Case tractor and composter to begin composting activities, and additional Case tractor and slurry tanker with pumping facilities to allow for consistent slurry removal from our storage ponds and direct injection activities on our cropland. Also, work with neighboring dairy to utilize their composting pad to compost solids removed from our separator, as well as remove slurry from their ponds for land applications in a collaborative effort to maximize greenhouse gas reductions.	Merced	4,408	\$ 750,000.00	\$ 31,666.00	Solid Separation, Composting

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26	Fernjo Farms	This proposed project for Fernjo Farms, through the use of mechanical separation, and cement stacking pad, will enable us to separate and stack manure solids that would normally enter into our settling ponds. Currently all flush lanes in our milking and dry cow pens flush to a single cement constructed collection pit, and then pumped into existing settling ponds. This project would involve replacing existing transfer pump with a new agitator pump in existing collection pit that would pump all flushed water/solids to an adjacent constructed mechanical separator. The manure solids would conveyer up and drop on to a new cement constructed stacking pad. the remaining flush water after exiting Separator would then flow into existing lagoon.	Tulare	5,330	\$ 429,741.00	\$ 45,000.00	Solid Separation, Composting
27	Ferreira Dairy	Ferreira Emissions Reduction Project is a comprehensive upgrade to the manure management system on the dairy, and it is categorized primarily as conversion from uncovered holding, feeding, and loafing area to a covered compost bedded pack barn	Humboldt	291	\$ 749,423.00	\$ 2,360.00	Compost Bedded Pack Barn
28	Frank Borba Dairy	Frank Borba Dairy proposes to install a Houle 2 Stage Manure Separator with roller press with reception/processing pit to increase the life expectancy of the separator, as well as improve flushing activity efficiencies. Along with the separator, we propose to construct several compost drying pads and to allow for manure storage of the separated solids and composting activities. New electrical connections and services will be required with the proposed project. This will allow for an expected 39.9% separation of total solids from entering the storage ponds, reducing significant greenhouse gases and providing many additional environmental benefits.	San Joaquin	9,425	\$ 750,000.00	\$ 57,026.00	Solid Separation, Composting
29	Frank Gwerder Dairy	Frank Gwerder Dairy Inc. is proposing the construction of a compost bedded pack barn as an alternative manure treatment and storage practice through the AMMP Grant Program as a means to reduce methane emissions on the dairy facility. The proposed barn is planned to house milk cows and dry cows that are currently housed in three existing freestall barns. The conversion from freestall housing to a compost bedded pack barn will lead to a decrease in the amount of manure flushed into anaerobic storage ponds and thus reduce greenhouse gas emissions and reduce odor. With less manure being flushed to storage ponds, manure and urine will instead be combined with dry bedding and rotated frequently to create compost within the barn.	Stanislaus	12,049	\$ 750,000.00	\$ 196,954.00	Compost Bedded Pack Barn
30	Gabriel Machado & Sons Dairy	Installation of a ValMetal US Farms curved and sloped screen separator with vibrator assembly and stainless steel swing stacking belt conveyor with drain. To compliment the system, a separator stand, processing pit, sand trap and manure drying slab will also be constructed.	Merced	6,345	\$ 750,000.00	\$ 73,941.00	Solid Separation, Open Solar Drying

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31	Genasci Dairy	Installation of Modern Dairy double curved/sloped screen stationary mechanical separator with incline screw press and swing stacking belt conveyor. As well as concrete pad for open solar drying and manure and sand processing pits. These practices will allow us to convey flush water from our mature animals (milking and dry cows) housing lanes and growing heifers, through our existing processing pit and then through the proposed separator system, and reduce an estimated 80% solids from the waste stream.	Stanislaus	16,044	\$ 749,999.00	\$ 31,026.00	Solid Separation, Open Solar Drying
32	Gillian's Dairy	The Gillian's Dairy Compost Bedded Pack Barn Project in Sonoma County is designed as a final stage upgrade to the manure management system on the dairy, and it is categorized primarily as a conversion from a scrape manure handling system to a Compost Bedded Pack (CBP) barn. An existing freestall barn with scrape manure handling system will be decommissioned and a new CBP barn will be constructed. This project is well-aligned with other recent improvements including the construction of a 40-cow Deep Bedded Pack (DBP) barn in 2016 and the conversion of a 40-cow DBP barn in 2017 to a CBP with forced aeration system. By decommissioning the freestall barn and converting all remaining barn housing to compost bedded pack the dairy will significantly improve manure management and storage practices by providing the infrastructure needed to reduce volumes of manure solids to a more readily composted, stable nutrient product that can be applied to pastures. The project shows quantifiable GHG emission reductions as calculated using the California Air Resources Board Greenhouse Gas Emission Reduction Calculator. Estimated GHG emission reductions are 76 MTCO <sub>2</sub> e over 5 years. Gillian's Dairy is committed to the full installation of all project features. This project will position Gillian's Dairy to remain sustainable, help contribute to the effort to reduce GHG emissions in California, and continue to contribute to the economic strength of the dairy industry in California.	Sonoma	76	\$ 605,295.00	\$ 4,250.00	Compost Bedded Pack Barn
33	Godinho Dairy Heifer Ranch	Installation of a ValMetal US Farms Systems Double Curved and Sloped Screen Mechanical Separator System with Screw Press, Vibrator Assembly, and Swing Stack Belt Conveyor, along with concrete components for the separator system and manure storage. Also proposed is the purchase of two 28' high cube side dump manure trailers to allow for transportation to a neighboring composting area. Cost sharing on the project to be towards land preparation and all electrical services. The proposed project is to remove 59.7% total solids, and 65.7% of volatile solids, from the waste stream currently entering our storage ponds providing significant reduction of greenhouse gases, as well as benefits to ground water, socially disadvantaged and low income communities; which will also reduce exposure to local environmental contaminants in socially sensitive communities.	Merced	1,248	\$ 657,891.00	\$ 59,336.00	Solid Separation, Composting
34	Grand View Dairy	The project is the implementation of a solid manure separation system to remove solid manure from the flush stream prior to entering the anaerobic storage lagoon.	Merced	7,399	\$ 749,999.00	\$ 196,383.00	Solid Separation, Open Solar Drying
35	Hath Dairy	The proposed project at Hath Dairy is to convert several open flushed dry lot corrals to a compost bed pack barn, capable of housing milking Holsteins moved from an existing flushed free stall barn and from open lots, dry cows and heifers. Moving the cows into the proposed dry scrape compost bed pack barn will reduce the amount of manure going to the wastewater system which will in turn lead to a reduction in methane emissions. Consequently, the wet manure from the dry scraped lanes will be pushed onto the proposed manure stacking area where it will go through a passive solar drying process. Material located in the compost bed pack barn will be rototilled daily and removed twice per year coinciding with current corral cleanouts and land applications.	Merced	9,305	\$ 749,995.00	\$ 165,296.00	Compost Bedded Pack Barn

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36	Joe and Ana DaSilva Dairy	The proposed project on conversion from flush to scrap system of manure collection with open solar drying will be carried out at the Joe and Ana DaSilva dairy. Currently, the manure management practice used is flushing with water and collecting the water with manure in lagoons which causes Green House Gases (GHG) emission to the environment. Additionally, excess water is used to flush the free stalls which increases the electricity consumption by pumps. The project will use a manure vacuum to scrape the manure from free stalls and the manure will be solar dried in an open concrete drying platform. The conversion from flush to scrape system will reduce the water pumping, time for manure collection and power. The project will cost \$290,325 and will be completed in 9 months. Implementing the project will provide a saving of 7,640 MT of CO <sub>2</sub> e in the next five years. In addition, the use of solids separator will enable the DS farm facility to collect the solids and dry/compost them. The solid manure can be utilized by applying to the fields as fertilizer.	San Joaquin	7,650	\$ 290,325.00	\$ -	Flush-to-Scrape, Composting
37	Joe O Rocha Dairy	The proposed project at Joe O. Rocha Dairy is to convert a portion of the central corrals to compost bedded pack barns, capable of housing milking Holsteins that will be moved from the flushed free stall barn. Moving this portion of the herd into the proposed management system will reduce the amount of manure going to the settling pond and anaerobic conditions by 48%, reducing a total of 14,221 MTCO <sub>2</sub> e over a 5-year period for the animals under the project scope. The producer is also projecting that settling pit clean out intervals will increase, offsetting the GHG production from tillage operations in the pack barn by reducing the need for heavy equipment needed to clean out the basin and move wetted manure for export and spreading. Extending the settling pond clean out is projected to save 250 gallons of diesel use annually from the increased interval. The reduced diesel usage and improved manure management will reduce ROG, NOx, PM <sub>2.5</sub> and Diesel PM emissions from the dairy.	Merced	14,221	\$ 749,695.00	\$ 29,400.00	Compost Bedded Pack Barn
38	John Brasil Dairy #1	Installation of 2 Albers Primary Mechanical Separator with roller press, to replace an existing low functioning separator, installation of a 55,000 square foot manure composting slab, and purchase of a Nuhn 10,000 gallon liquid manure spreader with S-Tine injectors and Volvo loader to be used in a cluster project with John Brasil Dairy #3.	Stanislaus	7,930	\$ 750,000.00	\$ 22,495.00	Solid Separation, Composting
39	John Brasil Dairy #3	Installation of 2 Albers Primary Separators with roller press to replace existing non function separator and concrete manure drying pad to be utilized for composting activities. Purchase of a Case Magnum Tractor, 12' Compost Turner, loader and side dump trailer for composting activities to be utilized in a cluster project with John Brasil Dairy #1.	Stanislaus	5,823	\$ 747,029.00	\$ 35,919.00	Solid Separation, Composting
40	John Jongsma Dairy	John Jongsma Dairy will install a two stage GEA/Houle Mechanical Separator with two 8' X 12' stainless steel slope screens. In addition, a concrete pad will be constructed allowing for the capture of the removed solids and open solar drying. This will eliminate the current management practice of excavating the solids from the storage ponds and storing them on the pond embankments for drying and then transporting to an earthen storage pad; reducing heavy equipment traffic and allowing for quicker drying with the open solar drying practice. Purchasing of a Peterbilt manure truck is also proposed to help manage the separated solids by transporting them to composting facilities.	Tulare	7,262	\$ 750,000.00	\$ 32,992.00	Solid Separation, Open Solar Drying



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41	John Silveira Dairy	John Silveira Dairy proposes to construct a four chamber weeping wall separation project as well as a concrete pad measuring 59,554 square feet for open solar drying of manure removed from the weeping wall system. The weeping wall proposes to remove 35% of the solids produced and currently flushed to the storage ponds.	Merced	32,466	\$ 750,000.00	\$ 124,319.00	Solid Separation, Open Solar Drying
42	John Toste Dairy	The John Toste Dairy is proposing to install a GEA/Houle two Stage Sloped Screen Separator system to collect methane forming volatile solids prior to their entrance into the storage ponds. The proposed mechanical separator will handle all flush water from the free stall barns. The proposed separator includes two roller presses designed to direct excess liquid back into Wastewater Storage Pond 1. The project includes a 250' x 150' concrete pad to solar dry the separated manure.	Merced	10,871	\$ 433,124.00	\$ 30,633.00	Solid Separation, Composting
43	Kooistra Dairy	Installation of a 2 stage slope screen manure separator with roller presses, a processing pit for cleaner and more efficient flushing activities and a composting drying slab for manure composting. The pad will be utilized for both Kooistra Dairy and Kooistra Heifer Facility as a collaboration (cluster) project.	Stanislaus	7,103	\$ 512,293.00	\$ -	Solid Separation, Composting
44	Kooistra Heifer Facility	Construction of two compost bedded pack barns over existing corral with measurements of 55' wide by 380' long. Collaboration with Kooistra Dairy, also an AMMP applicant, to provide compost material when needed for pack barn, and to allow for transport of excess manure produced from heifer facility for composting at Kooistra Dairy.	Stanislaus	32	\$ 269,974.00	\$ -	Compost Bedded Pack Barn
45	Langworth Dairy	A sloped screen manure separation system and stacking pad is proposed for this grant application. The proposed installation of this system will provide several benefits: reduction of greenhouse gas emissions and odors, removal of excess nutrients from irrigation/application water, and production of dry manure solids that can be readily composted, dried, or spread as fertilizer or reused as bedding for cows. "This project will provide a system with durable, high quality materials that will perform for many years with minimal maintenance." (Letter of Commitment, US Farm Systems, paragraph 2) The concrete stacking pad will provide a non-permeable area for solar drying and storing separated solids while diverting excess liquids to wastewater storage. This will help keep wastewater from leaching into the groundwater.	Stanislaus	6,909	\$ 389,859.00	\$ -	Solid Separation, Open Solar Drying

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46	Luis Dairy	Installation of a ValMetal US Farms Systems curved and sloped screen mechanical separator with screw press and swing stacking belt conveyor as well as a flushing water pit, processing pit, sand trap and manure storage pad for storage and open solar drying. Our project proposes to reduce 59.7% of the solids currently conveyed to our storage ponds, as well as 65.7% of the volatile solids. It helps reduce greenhouse gases which provides health benefits to the community surrounding us as well as helps protect groundwater from contamination by reducing excessive solids stored in our storage ponds and subsequently applied to our cropland. The processing pit, flushing water pit, and sand trap will help capture and remove sand and foreign material from entering the separator systems helping to reduce damage, costly repairs and lengthening the life expectancy of the project. The open solar manure drying pad will allow us to store and dry the manure on an impermeable surface helping to protect ground water from nitrate leaching that can occur if stored on earthen surfaces	Merced	12,832	\$ 750,000.00	\$ 108,604.00	Solid Separation, Open Solar Drying
47	Manuel & Jeanette Borges Dairy #2	A Two-Stage mechanical manure separator with a roller press as well as a manure stacking pad will be installed to provided several benefits: reduction of greenhouse gases and odor, removal of excess nutrients from irrigation/application water, production of manure solids that can be readily dried, spread, exported or used as bedding. This project will also help increase wastewater storage capacity in the existing lagoon and return basin by decreasing the solids scraped into storage. The concrete storage pad will also help keep wastewater from leaching into the groundwater. Flush water will be directed to a processing pit prior to mechanical separation. The separation system uses a 1.5 HP motor for lower power consumption.	San Joaquin	638	\$ 467,012.00	\$ -	Solid Separation, Open Solar Drying
48	Manuel C. Leal & Son Dairy	An upgraded manure management system consisting of a processing pit, dual slope screen separators with screw press and elevator for dewatering, and a concrete pad for storage and solar drying of solids. The system will bypass the current settling pond, and allow it to be used as liquid storage. The new system will prevent volatile solids from entering the lagoon system, thereby decreasing GHG emissions produced. The separated manure will be solar dried and used for bedding as well as applied to cropland as needed.	Tulare	23,379	\$ 746,208.00	\$ 5,500.00	Solid Separation, Open Solar Drying
49	Manuel Cardoso & Sons Dairy	Installation of a ValMetal US Farms Systems Curved & Sloped screen mechanical separator with screw press and swing stacking belt conveyor, as well as a reception pit and overflow pit and manure storage pad for storage and open solar drying. Our project proposes to reduce 59.7% of the solids currently conveyed to our storage ponds, as well as 65.7% of the volatile solids. It helps reduce greenhouse gases which provides health benefits to the community surrounding us as well as helps protect groundwater from contamination by reducing excessive solids stored in our storage ponds.	Merced	9,865	\$ 747,080.00	\$ 10,800.00	Solid Separation, Open Solar Drying
50	Martins View Jersey Dairy	Installation of a Houle 2 Stage Mechanical Separator with roller press, a processing pit for more efficient flushing activities, a 24' high side dump manure trailer and 12' composter for composting activities on a proposed concreted composting pad. With the removal of volatile solids and 39.9% removal of total solids from our waste stream, many benefits to our local socially disadvantaged and low income communities will occur, such as: reduction of significant greenhouse gases, protection of water quality, providing quality jobs and job training for many employees, and supporting California small businesses. The practice of composting the manure removed will provide a quality fertilizer that when applied to cropland helps increase moisture holding capacity, and increase soil organic matter, as well as reducing pathogens and bacteria in the manure. The purchase of the composter and side dump trailer will allow for decreased manure management traffic, providing significant decreases in fuel usage.	Merced	7,985	\$ 714,391.00	\$ 35,000.00	Solid Separation, Composting

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51	Meirinho West Inc.	Meirinho West is proposing the construction of a bedded compost pack barn as an alternative manure treatment and storage practice through the AMMP Grant Program as a means to reduce methane emissions on the dairy facility. The proposed barn is planned to house milk cows that are currently housed in existing freestall barns. The conversion from freestall housing to compost bedded pack barn will lead to a decrease in the amount of manure flushed into anaerobic storage ponds and thus reduce greenhouse gas emissions and reduce odor. With less manure being flushed to storage ponds, manure and urine will instead be combined with dry bedding and rotated frequently to create compost within the barn.	Stanislaus	16,012	\$ 750,000.00	\$ 66,000.00	Compost Bedded Pack Barn
52	Miranda Family Organic Dairy	Conversion from flush to scrape	Humboldt	9,447	\$ 749,036.00	\$ 319,580.00	Flush-to-Scrape, Composting
53	Monster Dairy	Installation of a Houle 2 Stage Manure Separator with Roller Press, processing pit with agitator pump, concrete for manure storage and the purchase of a John Deere 6145M cab tractor with 12' composter and 24' side dump trailer to allow for composting activities on an existing concrete pad.	Stanislaus	5,688	\$ 714,257.00	\$ 16,332.00	Solid Separation, Composting
54	N & C Silveira Dairy	Installation of Houle 2 Stage mechanical separator with roller press, manure storage and manure composting pad, purchase of a 12' composter and manure side dump trailer. With my proposed project significant greenhouse gases will be reduced as well as many additional benefits: prevention of groundwater contamination, reduction in fuel usage, production of compost as a valuable soil amendment and fertilizer, provide jobs throughout the installation phase to employees of socially disadvantaged and low income communities, provide job security for my existing employee base, and reduce exposure to local environmental contaminants	Stanislaus	5,298	\$ 749,841.00	\$ 21,000.00	Solid Separation, Composting
55	Nunes and Sons Dairy	The proposed project at Nunes and Sons Dairy is to construct a compost bedded pack barn, capable of housing milking Jerseys that will be moved from the oldest flushed free stall barns. Moving this portion of the herd into the proposed management system will reduce the amount of manure going to the settling pond and anaerobic conditions by 36%, reducing a total of 15,495 MTCO <sub>2</sub> e over a 5-year period for the animals under the project scope. The producer is also projecting that by reducing the amount of manure entering the sand settling lane and the ageing slope screen separators, the operation will see a reduction in 1800 gallons of diesel usage annually. The reduced diesel usage and improved manure management will reduce ROG, NOx, PM2.5 and Diesel PM emissions from the dairy. Waste management on the dairy will also be improved by removing the oldest freestalls that were designed and built in the 70's from active use. By moving the portion of the herd that was housed in these old facilities to pack barn management, the producer is both eliminating the barns with the greatest environmental risk, as well increasing cow and worker comfort at the same time.	Tulare	15,495	\$ 749,912.00	\$ 68,120.00	Compost Bedded Pack Barn

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56	Oakview Dairy	The project planned at Oakview facility includes collecting all manure produced by the dairy from the flush lanes by utilizing a Loewen Honey Vac system twice a day. The manure the Honey Vac collects shall be transported to a 32x32x16ft concrete octagon processing pit. Manure will be discharged into the pit, agitated and processed through a custom Valmetal US farms separator system. The Valmetal system includes sloped screens and screw press to maximize separation of any particulate organic material. The system will process the deposited manure within 24 hours so that any organic solids are removed to avoid the formation of anaerobic conditions. The process waste water will be discharged into the current collection pit, then go through a second screening on the sloped screen separator that will increase the separation of fine organic material prior to entering the lagoon system.	Tulare	32,407	\$ 708,815.00	\$ -	Flush-to-Scrape, Composting
57	Pacheco Family Dairy	Pacheco Family Dairy (PFD) is a 230-acre farm located in Petaluma in Sonoma County. PFD seeks to implement specific practices to improve its efficiency and productivity, including (a) collecting manure from multiple farm areas and installing windrows to coordinate a comprehensive composting program and (b) purchasing compost spreaders to fertilize the farm's grazing areas and improve soil nutrient quality. Specifically, PFD is proposing to fertilize 200+ acres of grazing area using compost developed on site through Conversion from Flush to Dry Scrape with introduction of Composting in Intensive Windrows. PFD has for many years utilized dry scrape to collect manure generated by dairy animals in its covered barn. PFD is proposing to extend this practice to dry scrape in the holding pen for milking cows and goats, which has previously been flushed into a 12-foot deep receiving pit at the eastern end of the plant. To collect enough manure for its composting program, dry scrape from the holding pen will be combined with manure generated in three areas: the covered barn, replacement calf feeding areas and several designated herd feeding stations located near grazing areas for beef and dairy cows. Manure will be accumulated for composting in intensive windrows which will be turned daily. Fertilizer will be spread to boost grazing performance for better milk quality and yield. Conversion from flush to scrape will reduce methane levels. This overall project will accomplish improved soil nutrition and reduction in GHG emissions with only a slight increase in dairy operating costs.	Sonoma	624	\$ 116,970.00	\$ 228,880.00	Flush-to-Scrape, Composting
58	Pareira Dairy	The Pareira Dairy proposes to install a mechanical solid manure separator to remove some of the solid manure from the flush water before it enters an anaerobic pond to reduce the amount of methane produced from manure at the dairy.	Merced	7,448	\$ 737,421.00	\$ 41,486.00	Solid Separation, Composting
59	Pedretti Ranches	Pedretti Ranches is looking to add a US Farm Systems Curved and Sloped Screen Separator to our operation. The system will include a curved and sloped screen separator, incline screw press to help reduce the amount of water in the manure, a 24" by 38' fixed stacking belt conveyor and two belt driven stationary agitator pumps. The agitator pumps will stir the processing pit and pump the flush water into the separator. To support the separator system a concrete pedestal will be built along with electrical upgrades. Pedretti Ranches will be windrow composting the manure after its gone through the separator and is applying for a HCL windrow compost turner to improve the efficiency of the composting of the manure. We will still be using the same flush lanes and processing pit that was built with our existing separator system. A map has been provide of our flush system. Pedretti Ranches is hoping to improve the sustainability of our family's operation.	Merced	2,797	\$ 380,975.00	\$ 24,397.00	Solid Separation, Composting
60	Pete Postma & Sons Dairy	Pete Postma & Sons Dairy GP is proposing to install an Albers Dual Stage Separator and roller press with the goal of removing up to 50% of manure solids from the waste stream prior to entering the wastewater storage ponds. The proposed separator will be used as a means to reduce methane emissions on the dairy facility. A sand lane, collection pit, and concrete drying pad are also part of the proposed project. Solids removed from the proposed separator will composted in windrows.	Stanislaus	13,430	\$ 348,208.00	\$ 3,512.00	Solid Separation, Composting

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61	PH Ranch	PH Ranch currently uses a flush to scrape manure management system. We want to increase the capacity of the solids we collect in order to reduce the anaerobic solids going into our lagoons. Purchasing a Sloped Separator Screen will enable us to achieve our primary goal. A secondary purpose of our project will be to scale up our current vermicomposting system by increasing the amount of separated material that goes into our TAP (Turned Aerated Pile) system. The TAP system is a combination of static aerated pile windrows and intensive windrows. Currently we commit less than three percent to a small vermicomposting facility. We wish to build an identical vermicomposting barn next to our current operation as well as a new TAP system. The TAP system prepares the food for the worms. The aeration and turning produces beneficial fungal and bacterial microbiology. The feed is then fed into flow-thru bins that house thousands of worms. The end result is a proven organic, sustainable and highly desired soil amendment produced from the vermicomposting system. By doing this we will be able to commit 40% of all solids coming from separator to vermicomposting. The vermicompost is scientifically proven to promote healthy soils as well as reduce water usage for major crops.	Merced	41	\$ 750,000.00	\$ 575,383.00	Solid Separation, Composting
62	Robert Giacomini Dairy	Robert Giacomini Dairy proposes to install secondary separation and an in-vessel composter. This project will reduce diesel usage on the farm from composting manure solids.	Marin	169	\$ 523,714.00	\$ -	Solid Separation, Composting
63	Sarvinski Dairy	The Sarvinski Dairy Methane and Fossil Fuel Emissions Reduction Project is a comprehensive upgrade to the manure management system on the dairy, and it is categorized primarily as conversion from a scraped and flushed manure handling system to an increase in a composting system by installing a compost bedder pack barn. This project creates a sustainable manure management plan that will eliminate 400 gallons of diesel fuel use and reduce GHG emissions by 184 MTCO <sub>2</sub> e over a 5-year period.	Humboldt	184	\$ 305,529.00	\$ 8,120.00	Compost Bedded Pack Barn
64	SB Farms	A Liquid-Solid Separation System with a concrete stacking pad is planned as part of the Alternative Manure Management Program project. Installation of the mechanical separation system and stacking pad will provide several benefits: reduction of greenhouse gasses and odor, production of manure solids that can be readily dried, spread as fertilizer, used as quality bedding for the herd and will increase the marketability of the separated solids as an exportable commodity. Solids leaving the separator system have an even consistency and nutrient load compared to unprocessed manure. The separation process will also remove solids from effluent deposited in the wastewater lagoons to increase storage volume. The stacking pad will provide a non-permeable area for the separated solids to dry as the excess liquids are diverted to wastewater lagoons. Another part of this project will be the Alley-Vac Truck. This piece of equipment will be used to clean the feed lanes rather than flush them. Use of the Alley-Vac will allow this dairy to do more to decrease greenhouse gas emissions and will remove more solids build-up in the lanes. The Nuhn Self-Propelled Alley-Vac has Dual Magnum 400 Vacuum Pumps and a full length auger to achieve this objective.	Sacramento	19,864	\$ 750,000.00	\$ 80,324.00	Solid Separation, Open Solar Drying
65	Silvas Dairy	Silvas Dairy is applying for an alternative manure treatment and storage practice which is the construction of a compost bedded pack barn measuring 130' W x 360' L. With the completion of the proposed barn the dairy plans to move milk cows from freestall housing into the bedded pack barn.	Stanislaus	7,852	\$ 373,800.00	\$ -	Compost Bedded Pack Barn

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66	Silveira Dairy Inc	Construction of a compost bedded pack barn over existing corrals, and demolition of existing heifer corrals to install concrete manure pad for composting activities and construction of a manure/sand trap. Pack barn will be utilized for higher milk producing Holstein milk cows that are currently housed in a flushing free stall barn. Manure pad will be used for composting of manure removed from my existing mechanical separator, and manure/sand trap will remove foreign objects and sand, allowing for a longer life expectancy of my recently installed mechanical separator.	Merced	5,441	\$ 750,000.00	\$ 38,160.00	Compost Bedded Pack Barn
67	Silveira Farms	This project includes the installation of a weeping wall and concrete slab and walls in two locations at the end of each barn to prevent manure solids from being scraped into ponds, as well as incorporating the practice of composting in windrows. Silveira Farms will also be purchasing a compost turner, a loader, spray boom and a water wagon to keep the compost moisture at the correct level and turn it periodically to spread on their orchards and pasture land.	Glenn	5,632	\$ 749,655.00	\$ 56,867.00	Solid Separation, Composting
68	South Creek Dairy	Installation of GEA two stage slope screen separator with two 8' x 12' screens, roller press and integrated Xpress for higher dry matter output, as well as construction of a 57,200 square foot open solar drying manure storage pad. Purchasing of a Peterbilt dump truck is also proposed for manure transport to offsite composting facilities, once manure has been open solar dried sufficiently.	Tulare	35,768	\$ 750,000.00	\$ 55,144.00	Solid Separation, Open Solar Drying
69	Souza Brothers Dairy	Installation of a Houle separator system with anticipated 39.9% total solids removal, as well as a processing pit to allow for more efficient flushing activities and proper conveyance of solids through the separator system. Electrical upgrades will be necessary and also, the construction of a concrete manure storage pad for open solar drying.	Merced	7,823	\$ 750,000.00	\$ 52,160.00	Solid Separation, Open Solar Drying
70	Temple Creek Dairy	Installation of a Houle 2 stage mechanical separator system with two screens, a processing pit with pumping components, and two manure storage pads. One to capture the solids removed from the separator system and for temporary open solar drying and a second for long term storage and composting activities.	San Joaquin	20,005	\$ 750,000.00	\$ 28,750.00	Solid Separation, Composting

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71	TH Mello & Sons Dairy #1	A Liquid-Solid Separation System is planned for the Alternative Manure Management Program project. Installation of the separator will replace an existing small and inefficient system that is in place. The new system will reduce problems with flush wastewater storage in the receiving basin. More solids will be removed from the effluent making it a usable source of nutrients for the existing cropland. This project will also provide: a reduction of greenhouse gases and odor, a production of manure solids that can be readily dried, spread as fertilizer or used as quality bedding for the cows and as export to help with whole farm balance and supply a marketable fertilizer.	Sacramento	5,850	\$ 748,825.00	\$ -	Solid Separation, Open Solar Drying
72	Tony & Fatima Garcia Dairy	Tony & Fatima Garcia Dairy is proposing the construction of a compost bedded pack barn as an alternative manure treatment and storage practice through the AMMP Grant Program as a means to reduce methane emissions on the dairy facility. The proposed barn is proposed to house milk cows that are currently housed in an existing freestall barn. The conversion from freestall housing to a compost bedded pack barn will lead to a decrease in the amount of manure flushed into anaerobic storage ponds and thus reduce greenhouse gas emissions and reduce odor. With less manure being flushed to storage ponds, manure and urine will instead be combined with dry bedding and rotated frequently to create compost within the barn.	Stanislaus	10,465	\$ 476,210.00	\$ 12,000.00	Compost Bedded Pack Barn
73	Tri Bak Dairy	The proposed project at Tri-BAK Dairy is to convert a portion of the eastren corrals to compost bedded pack barns, capable of housing milking Holsteins. Moving this portion of the herd into the proposed management system will reduce the amount of manure going to the settling pond and anaerobic conditions by 48%, reducing a total of 6,940 MTCO <sub>2</sub> e over a 5-year period for the animals under the project scope. The producer is also projecting that the reduction in settling pond cleanout activities will reduce the amount of diesel used by 23%. The reduced diesel usage and improved manure management will reduce ROG, NOx, PM <sub>2.5</sub> and Diesel PM emissions from the dairy. By utilizing the existing flush lanes, stanchions, and structures, the producer will also be limiting the GHG production from concrete production and transport, steel production and transport, and reducing other air quality impacts and GHG production from demoing and pouring virgin materials. In addition, 2 acres of manured areas on the facility will now be under roofs with drains that will divert storm water from the lagoon system. This will decrease risks to water quality and groundwater in the area, as well as the compost being produced in the barns footprint not being rewetted by rainfall.	Tulare	6,940	\$ 749,999.00	\$ 32,300.00	Compost Bedded Pack Barn
74	Ulys Dairy	Ulys Dairy is proposing to install a mechanical separator through the AMMP Grant Program as a means to reducing methane emissions on the dairy facility. The dairy is proposing to install a US Farm Systems dual screen separator with a goal of removing 55% of the solids from the waste stream. A manure stacking pad is also proposed as part of the project.	Solano	11,860	\$ 727,970.00	\$ 12,000.00	Solid Separation, Composting
75	Van Foeken Dairy #2	Installation of a Houle 2 stage mechanical separator with processing pit, and manure slab for open solar drying.	Merced	9,175	\$ 663,142.00	\$ -	Solid Separation, Open Solar Drying

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76	Vevoda Dairy	The Humboldt manure injection is designed as a comprehensive upgrade to the manure management system on the dairy and includes a new solid separation system that will achieve a significantly higher separation efficiency than the old existing solid separator system. The proposed installation of the sloped screen separator system will provide several benefits: reduction of greenhouse gases and odor; removal of excess nutrients from irrigation water; production of dry manure solids that can be readily composted, dried, or spread as fertilizer or reused as bedding for cows; and provide a system built with durable, high quality materials that will perform for many years with minimal maintenance. The project also proposes to increase pasture time by installing an improved manure handling system.	Humboldt	3,618	\$ 723,000.00	\$ -	Pasture-Based Management
77	Vitoria Farms	This project includes the installation of a mechanical separation system with a manure stacking pad. It will be used to reduce Greenhouse Gas Emissions and the amount of manure solids stored in the dairy's wastewater lagoons. The separated solids will be exported for use as fertilizer on crop land. Exports are necessary for this dairy to meet compliance with the 1.4 balance for Nitrogen needed to meet Water Board Regulations. The separation process will minimize moisture in the manure solids which will decrease the time it takes to solar dry the manure prior to export. Solar drying will occur on the stacking pad.	Madera	4,846	\$ 747,917.00	\$ -	Solid Separation, Open Solar Drying
78	York Ranch	The site of York Ranch has been a cattle ranch since 2004, however this land has sustained continuous cattle operations for the last 100 years. Our current management practices include pasture based management and solid storage. This pasture based management includes the drying and spreading of manure, by use of a small drag. Currently because of lack of needed equipment we only process approximately ten percent of our total manure production on fifty percent of available pasture. The remaining is stored in solid storage in open feed lots. The award of this grant would increase our processing by ninety percent and increase the total available pasture spread by seventy two percent.	Modoc	87	\$ 444,435.00	\$ -	Pasture-Based Management
79	Zeolite	This funding submission is for the utilization and application of natural zeolite, for the purpose of reducing greenhouse gas emissions from dairy, swine, poultry and other livestock in California. Any funds received will go toward the distribution and application of the naturally sourced mineral 'clinoptilolite zeolite' in order to introduce reluctant dairy men, and open up a supply chain that reduces the cost for small businesses. Naturally sourced zeolite of this variety has been shown to reduce CO <sub>2</sub> and methane emissions from both livestock and manure.	Stanislaus	100,000	\$ 500,000.00	\$ 500,000.00	Compost Bedded Pack Barn
<b>Total</b>				<b>774,884</b>	<b>\$ 50,852,668</b>	<b>\$ 6,974,794</b>	