NMP Technical Review
New Mexico General Permit No. NMG010000

Facility Name: Cottonwood Springs Dairy
491 West Funk Road
Lake Arthur, New Mexico 88253

Permit No.: NMG010052

Type (ex: dairy, non-dairy cattle, etc): Dairy Cattle (Large CAFO)

County: Eddy/Chavez (Crop Data Summary - Appx E.)

If located in Bernalillo, Chavez, Eddy, Sandoval, San Juan, or Valencia county, is EAP and metals testing included in NMP in accordance with Part III.D.8.

All CAFOs in the counties of Bernalillo, Chavez, Eddy, Sandoval, San Juan and Valencia must develop and implement soil sampling of land application sites once every five (5) years for the metals selenium, copper and zinc. The sampling may be performed concurrently with required phosphorus sampling.

Previously permitted: Yes

Noteworthy enforcement action: No
If no, previous permit no.: NMG010052

Receiving stream: Cottonwood Creek to Pecos River

Impaired waterbody: No

If so, for what pollutant(s): N/A

EPA approved or established TMDL: No

Antidegradation: No
Stream listed as Tier 2/2.5: No
Stream listed as Tier 3: No

NMP developed by certified specialist: Yes

NMP elements (other than land application and adequate storage) technically complete: Yes

Employee Training: Yes

Additional comments: No

NOI/NMP Administrative Review Check List
New Mexico General Permit No. NMG010000

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NOI (Form 2B) administratively complete: Yes
NMP included: Yes
NMP administratively complete: Yes

FEDERAL REGULATIONS	LOCATION IN NMP / COMMENTS
40 CFR Part 122.42(e)(1)(i): Ensure adequate storage of manure, litter, and process wastewater	A. Storage Needs B. Manure generated annually by the facility: 12,486 tons C. Litter generated annually at the facility: NA tons D. Green water generated annually by the facility: 51,100,000 gallons E. No nutrients are imported from external sources. The NMP includes calculations and a table for Lagoon A, B, and C, for the run-off pond and the catchment basin.
40 CFR Part 122.42(e)(1)(ii): Mortality management.	Animal mortalities are hauled off as needed by County Services for rendering. In the event of catastrophic animal mortality, dead cows will be disposed of through one of the multiple options explained in the "Winter Storm Cull Livestock and Carcass Disposal Options" released by the New Mexico Livestock Board. Animals may be picked up by county services for rendering, moved offsite to the local land fill, composted with manure, or disposed of through on-premises burial.
40 CFR Part 122.42(e)(1)(iii): clean water diversion.	Storm water from the corrals flows to one of two runoff ponds. Runoff from the southeastern corrals drains directly into a drainage channel, which directs flow into the Runoff Pond. Runoff from corrals located on the northeast end of the corral area drains into the Runoff Catchment. All storm water at the Cottonwood Springs Dairy production area is contained in the Runoff Pond and Runoff Catchment. If necessary, the ponds are pumped out within 14 days after a storm event in order to avoid long term storage. Storm water is either directly applied to land application fields or pumped to the green water lagoon, provided adequate storage. Berms prevent contaminated runoff water from leaving the property. If any potential runoff areas are found in the future, berms will be constructed.
40 CFR Part 122.42(e)(1)(iv): Prevent direct contact of animals with water of US.	All animals are contained within corrals, preventing any contact with Waters of the US.
40 CFR Part 122.42(e)(1)(v): Chemical handling.	Chemicals are stored in proper containers. Chemicals are stored in the original containers provided by the manufacturer. For large volume applications, chemicals are transferred directly to the machinery or system used for the application. Chemicals are segregated by hazardous characteristic in order to avoid potentially dangerous situations due to container failure. Chemicals are properly disposed of that have expired or will not be used. The volume of chemicals stored at the dairy is monitored to prevent the accumulation of expired or unused chemicals.

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	Chemical containers are properly disposed. Chemical containers must be completely empty with no residue in the container. Containers with water-soluble chemicals are triple rinsed and the rinsate added to the use cycle. Containers should be air-dried when possible. Where possible, empty containers are returned to the supplier for reuse. If the supplier will not recycle empty containers, then the rinsed container is disposed at an approved solid waste facility. Chemical storage areas are self-contained (no drains or other pathways for spilled chemicals to exit storage area). The milk production areas, where chemicals are stored, have concrete floors with sumps that accumulate any surface discharge and permit the ability to control and contain any spill. Chemical storage areas are covered to prevent contact with rain and snow. Chemicals are stored in milking parlor/animal hospital. Gas, diesel and hydraulic fluid are stored in the garage. Storage areas for chemicals used in milk production are interior areas of the dairy buildings (milking parlor) or application areas such as pipe access locations. Fuels and lubricants are stored in shed areas with the heavy equipment used at the facility. Emergency procedures and equipment are in place to contain and clean up chemical spills. The dairy has an emergency response plan for general operation associated with lagoons, diversion structures, fire, and pipe systems. As part this plan, the dairy has various equipment for containment of spills based on scale and type. For larger spills, the dairy has a front-end loader, backhoe, and trailer mounted pumps. Temporary containment of spills on the soil in open areas can be excavated and placed on a constructed containment pad using 6-mil thick plastic with bermed sides. Chemical handling and equipment wash areas are designed and constructed to prevent contamination of surface waters, green water, storm water storage and treatment systems. Equipment washing is primarily associated with the milking parlor (milking equipment, preparation of milking cows, etc.). Chemicals from the milking operation are confined to the lagoon system used for the green water retention. All other chemicals, such as petroleum products for equipment, are handled in the garage/shop area. Washing of vehicles and heavy equipment on-site is limited to only the necessary portion of the equipment being repaired Chemicals are handled according to the label. Employees are provided training for proper use and storage of chemicals. The dairy maintains an MSDS binder that is available to all personnel.
40 CFR Part 122.42.(e)(1)(vi): conservation practices, including buffers to control runoff	Because of the close proximity of the facility to surface water drainages, Field 7 has been and will continue to lay fallow. A retention structure with associated berm and a capacity far exceeding that required for a 25-yr 24-hr storm events will prevent all runoff from reaching Cottonwood Creek. These practices meet or exceed requirements for the protection of Waters of the United States. Within the facility grading will be maintained to prevent clean water coming in contact with the production area and to divert all runoff to the retention structures. Run-on

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	from adjacent land is controlled by roadways, berms, and grading. Because of the generally flat topography, no erosion concerns exist.
40 CFR Part 412.4(c)(5): Setback requirements for down-gradient surface waters, open tile line intake structure, sinkhole, agricultural well head, or other conduit to surface water: 100 ft setback, 35 ft vegetative buffer, or compliance alternative.	Field 6: > 100 ft vegetated setback and 1.5 to 3 foot earthen berm and swale structure. Production area: 6 ft earthen berm on property perimeter.
40 CFR Part 122.42(e)(1)(vii): protocols for testing of manure, soil, litter, or process wastewaters.	Manure sampling is conducted in accordance with 20.6.6.25.D NMACC Green water sampling is conducted in accordance with 20.6.6.25.C NMACC Manure sampling is conducted in accordance with 20.6.6.25.K-L NMACC
40 CFR Part 412.4(c)(2): NMP must incorporate determination of application rates	The New Mexico NRCS Conservation Practice Standard 590 (Nutrient Management) shall be used for calculating these rates (see Appendix D).
40 CFR Part 122.42(e)(1)(viii): protocols for land application.	Section VI describes this facilities land application protocols
40 CFR Part 412.4(c)(4): NMP must incorporate inspection of land application for leaks	Inspection of land application equipment is included
40 CFR Part 122.42(e)(1)(ix): record keeping.	Record keeping requirements are included
Legible site map: of the production area (including, at a minimum, the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment area), and the land application area. The map must also include flow direction, an outline of drainage areas to the process wastewater retention or control structures, structural controls, and surface water bodies.	Facility Map NFIP Flood Insurance Map Potential conduits to Waters of the US
Signature. The NMP shall be signed by the owner/operator or other signatory authority in accordance with Part VI.E (Signatory Requirements) of this permit.	Owner/Operator signature included