

# DEPARTMENT OF NATURAL RESOURCES

## MISSOURI CLEAN WATER COMMISSION



# MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No.: MO-0118877

Owner Name: Johnson County Egg Farm, LLC  
Owner's Address: 1275 Southwest Y Highway, Knob Noster, MO 65336

Operating Authority: Same as above  
Operating Authority's Address: Same as above

Facility Name: Johnson County Egg Farm  
Facility Address: 1275 Southwest Y Highway, Knob Noster, MO 65336

Legal Description: See Attached

Receiving Stream: See Attached  
First Classified Stream and ID: See Attached  
USGS Basin & Sub-watershed No.: See Attached

is authorized to discharge from the operation described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

### **FACILITY DESCRIPTION**

Outfalls #001 – 014 and SM1-SM3 – Animal Waste – SIC #0252

No Discharge – CAFO Class 1A

One 3 cell earthen storage basin/six concrete storage pits/one dead animal composter/land application system/egg wash water/truck wash/storm water runoff/domestic wastewater piped to cell #1/two 2-story buildings over concrete pits/three pullet houses and one storage-compost building.

Design flow is 62,285 gallons/day (0.0623 MGD). 22,734,025 gallons/year

Design biosolids is 605,860 cu.ft./year. 9,202 tons per year.

Design number of animals is 1,940,000 Layer Hens and 709,920 Pullets (76,499 animal units).

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

March 20, 2012

Effective Date

  
Sara Parker Pauley, Director, Department of Natural Resources

March 19, 2017

Expiration Date

  
John Madros, Director of Staff, Clean Water Commission

**OPERATION DESCRIPTION (continued)**

**Total Number of Useable Acres Available for Land Application (excluding setbacks):**

<u>Percent Slope</u>	<u>Land Owned by Permittee</u>
0-10%	568

**FACILITY DESCRIPTION**

The poultry egg laying and pullet operation consists of twelve confinement buildings, each containing 120,000 birds, two 2-story buildings over concrete pits each containing 250,000 birds, three pullet confinement houses, an egg processing building, dead animal composting building, a manure storage/composting building, a truck maintenance building, an office building, a feed mill and two employee break buildings. Wastes from twelve buildings are collected and stored in a three-cell earthen storage basin and 6 concrete pits. All domestic wastes from the laying operation's employees and the wastes from the egg processing buildings are piped to the three cell earthen storage basin. Contaminated storm water from the production buildings and feed mill is diverted to the 3-cell storage basin. Uncontaminated storm water is diverted to a fresh water earthen storage basin.

Waste from buildings 13 and 14 are removed from the buildings approximately every year and sold to local landowners for fertilizer. Wastes are removed from the poultry confinement buildings using a mechanical scraper. The poultry wastes are scraped into a concrete collection gutter at the end of the confinement buildings and then scraped out of the confinement buildings into concrete manure storage pits. Each existing pit serves two confinement buildings. Wastes from the manure storage pits are pumped to the three-cell earthen storage basin. Wastes removed from the storage basin are land applied by five center pivot irrigation systems.

The three pullet buildings each house 236,640 birds. The manure drops onto conveyor belts where air is constantly blown to dry the manure. The manure is transported to enclosed conveyor belts, which move the manure to the storage building. The manure is loaded onto trucks inside the manure storage building. Mortalities are composted in bins inside the manure storage building. The employee domestic waste is pumped to the layer facility lagoons.



Outfall #004 – Storm Water – Unnamed Tributary to Long Branch at property line

Legal Description: NW ¼, SE ¼, Sec. 1, T45N, R24W, Johnson County

UTM Coordinates: X = 455647, Y = 4285234

Receiving Stream: Unnamed Tributary to Long Branch (U)

Classified Receiving Stream: Long Branch (C) (00857) 303d

USGS Basin & Sub-watershed No.: 10300103-0402

Outfall #005 – Deleted - Stream Monitoring (now SM2)

Outfall #006 – Deleted - Storm Water

Outfall #007 – Deleted - Storm Water

Outfall #008 – Storm Water – Unnamed Tributary to Long Branch at property line

Legal Description: SE ¼, NW ¼, Sec. 12, T45N, R24W, Johnson County

UTM Coordinates: X = 454952, Y = 4284020

Receiving Stream: Unnamed Tributary to Tributary to Long Branch (U)

Classified Receiving Stream: Tributary to Long Branch (C) (03502)

USGS Basin & Sub-watershed No.: 10300103-0402

Outfall #009 – Deleted - Storm Water

Outfall #010 – Storm Water - Drainage Ditch north of lagoon

Legal Description: NE ¼, NE ¼, SE ¼, Sec. 1, T45N, R24W, Johnson County

UTM Coordinates: X = 456128, Y = 4285361

Receiving Stream: Unnamed Tributary to Long Branch (U)

Classified Receiving Stream: Long Branch (C) (00857) 303d

USGS Basin & Sub-watershed No.: 10300103-0402

Outfall #011 – Deleted - Stream Monitoring (now SM3)

Outfall #012 – Deleted - Stream Monitoring

Outfall #013 – Buildings 13 and 14. Two 2-story buildings over concrete pits  
Legal Description: NW ¼, SE ¼, SE ¼, Sec. 1, T45N, R24W, Johnson County  
UTM Coordinates: X = 455790, Y = 4284977  
Receiving Stream: Unnamed Tributary to Long Branch (U)  
Classified Receiving Stream: Long Branch (C) (00857) 303d  
USGS Basin & Sub-watershed No.: 10300103-0402  
Design Number of and type of Animals: 500,000 layers (250,000 each house)  
Biosolids Volume: 374,815 cu.ft./yr. 6,372 tons per year  
Design storage: 365+ days  
Total pit depth: 9 feet above bottom of pits  
Upper Operating Level: 5 feet above bottom of pits

Outfall #014 – Three pullet buildings and one manure storage building  
Legal Description: SE¼, NW¼, Sec. 12, T 45N, R24W, Johnson County  
UTM Coordinates: X = 454872, Y= 4284113  
Receiving Stream: Unnamed Tributary to Tributary to Long Branch (U)  
Classified Receiving Stream: Tributary to Long Branch (C) (03502)  
USGS Basin & Sub-watershed No: 10300103-0402  
Design Number of Animals: 709,920 pullets (236,640 per house)  
Design Waste Volume: 231,045 cu. ft./yr.; 2,830 Tons per year  
Design storage: one (1) 80' x 150' x 25' building, with 9' concrete walls, supplying about 180 days of storage. Trucks will be loaded inside the buildings and mortalities will be composted in bins inside the building.

SM1 – Stream Monitoring (former Outfall #003) – Upstream – Long Branch at property line.  
Legal Description: NW ¼, SW ¼, NW ¼, Sec. 1, T45N, R24W, Johnson County  
UTM Coordinates: X = 454576, Y= 4285866  
Receiving Stream: Long Branch (C)  
Classified Receiving Stream: Long Branch (C) (00857) 303d  
USGS Basin & Sub-watershed No.: 10300103-0402

SM2 – Stream Monitoring (former Outfall #005) – Long Branch at property line.  
Legal Description: E ½, NE ¼, SW ¼, Sec. 6, T45N, R23W, Pettis County  
UTM Coordinates: X = 456841, Y = 4285135  
Receiving Stream: Long Branch (C)  
Classified Receiving Stream: Long Branch (C) (01843)  
USGS Basin & Sub-watershed No.: 10300103-0402

SM3 – Stream Monitoring (former Outfall #011) – Muddy Creek at Highway Y at property line.  
Legal Description: SW ¼, NW ¼, SW ¼, Sec. 3, T45N, R23W, Pettis County  
UTM Coordinates: X = 461107, Y = 4284718  
Receiving Stream: Muddy Creek (C)  
Classified Receiving Stream: Muddy Creek (C) (00853) 303(d)  
USGS Basin & Sub-watershed No.: 10300103-0403

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS		PAGE NUMBER 6 of 15		
		PERMIT NUMBER MO- 0118877		
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	MONITORING REQUIREMENTS		
		REQUIREMENTS	MEASUREMENT FREQUENCY	SAMPLE TYPE
<b>Outfalls # 001, 002, 013, and 014 - Unauthorized Discharge Monitoring</b>				
Flow	MGD	Comply with Water Quality Standards.	once/day during discharge	24 hr. estimate
Dissolved Oxygen	mg/L		once/day during discharge	grab
Ammonia Nitrogen as N	mg/L		once/day during discharge	grab
Biochemical Oxygen Demand <sub>5</sub>	mg/L		once/day during discharge	grab
pH – Units	SU		once/day during discharge	grab
Temperature	°C		once/day during discharge	grab
Duration	hours		once/day during discharge	grab

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS		PAGE NUMBER 7 of 15		
		PERMIT NUMBER MO-0118877		
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	MONITORING REQUIREMENTS		
		REQUIREMENTS	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfalls # 004, 008, and 010 Production Sites - Storm Water Runoff Limits from Production Sites				
Flow	MGD	No discharge of process waste.  Discharge Maximum: 2.5	4/year	24 hr estimate
pH – Units	SU		4/year	grab
Ammonia Nitrogen as N	mg/L		4/year	grab
Nitrate/nitrite as N	mg/L		4/year	grab
Total Phosphorus as P	mg/L		4/year	grab
Total Suspended Solids	mg/L		4/year	grab
Temperature	°C		4/year	grab
<u>SM1, SM2, and SM3</u> - Stream Monitoring				
Flow	MGD	Samples shall be collected on a pre-determined sampling date. Collect 4 samples per year, once during March, May, August, and October on the 17 <sup>th</sup> day of the month.  Samples shall be only collected from flowing water. Samples from riffles are preferred. Do not collect a sample from pools that do not have water flowing into or out of the pool. If there is no flow on the 17th day of the month, alternate date(s) shall be chosen.  Monitoring requirement only.	4/year	24 hr estimate
pH – Units	SU		4/year	grab
Ammonia Nitrogen as N	mg/L		4/year	grab
Nitrate + Nitrite as N	mg/L		4/year	grab
Total Phosphorus as P	mg/L		4/year	grab
Temperature	°C		4/year	grab
Dissolved Oxygen	mg/L		4/year	grab

**B. GENERAL CONDITIONS**

1. Standard Conditions

In addition to other conditions stated herein, this permit is subject to the attached Part I STANDARD CONDITIONS dated October 1, 1980, and hereby incorporated as though fully set forth herein.

2. Definitions

Definitions are as listed in the “Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard” and in State Regulations under 10 CSR 20 Chapter 2 and Chapter 6.300.

3. Permit Exemptions

- (a) All wastewater systems and major system modifications shall be constructed in accordance with a construction permit. As allowed in state regulations under 10 CSR 20-6.300 (2)(B), certain minor modifications and piping changes are exempted from the requirement for a construction permit. Minor modifications would include small sections of buried pipelines, normal repair or replacement of existing wastewater lines, installation of manholes, wet wells, and any other minor change that does not significantly impact the normal operation of the waste management system.
- (b) In accordance with 10 CSR 20-6.300(2)(B)4, permits are not required for storage buildings for dry litter, compost, or similar materials, if the storage structure is roofed and has impermeable floors.

4. Effluent Limitations

The permittee is authorized to discharge process wastewater and storm water in accordance with the effluent limitations in this permit. The effluent limitations shall become effective upon issuance and remain in effect until such time this permit is no longer effective. Such discharges shall be managed, controlled, limited and monitored by the permittee as specified below.

(a) CAFO Production Area

- (1) Requirements applicable to all CAFO production area(s):

The Production Area is that part of an operation which includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. Also included is any area used in the storage or treatment of animal mortalities or material containing mortality products.

There shall be no discharge of manure, litter, or process wastewater into waters of the state from production area point sources except as provided in subsection b. below.

A chronic weather event is a series of wet weather conditions that can delay planting, harvesting, and prevent land application and dewatering practices at wastewater storage structures. When wastewater storage structures are in danger of an overflow due to a chronic weather event, CAFO owners shall take reasonable steps to lower the liquid level in the structure through land application, or other suitable means, to prevent overflow from the storage structure. Reasonable steps may include, but are not limited to, following the department’s current guidance on “Wet Weather Management Practices for

**B. GENERAL CONDITIONS (continued)**

CAFOs". These practices shall be designed by the department to specifically help minimize or eliminate water quality impacts from CAFOs during extreme wet weather periods. The Missouri Climate Center will determine, within a reasonable timeframe, when a chronic weather event is occurring for any given county in Missouri. The Climate Center's determination will be based upon an evaluation of the 1 in 10 year return rainfall frequency over a 10-day, 180-day and 365-day operating period.

Manure, litter or wastewater management activities occurring outside of the discrete point sources structures, barns or areas but upon land controlled by the permittee shall be identified in the permittees Nutrient Management Plan (NMP). Activities that should be addressed include, but are not limited to, winter feeding areas, stockpiling of raw materials, manure, or litter or other animal feeding related items that have the potential to contribute pollutants to waters of the state. As necessary, the NMP shall identify controls, measures or BMPs to manage stormwater runoff and meet applicable water quality standards. This paragraph applies only to activities on land that is under the control of the CAFO owner or operator, whether it is owned, rented, or leased.

(2) Additional Requirements for Uncovered Liquid Storage Structures:

Whenever a precipitation related event causes an overflow of manure, litter, or process wastewater; pollutants may be discharged through the emergency spillway of the lagoon or uncovered storage structure provided:

- (a) The storage structure is properly designed, constructed, operated and maintained to contain all manure, litter, process wastewater plus the runoff and direct precipitation from the 25-year, 24-hour design storm event for the location of the CAFO.
- (b) The design storage volume is adequate to contain all manure, litter, and process wastewater accumulated during the storage period including the following:
  - (1) The volume of manure, litter, process wastewater, and other wastes accumulated during the storage period;
  - (2) 1 in 10 year 365 day annual rainfall minus evaporation during the storage period;
  - (3) 1 in 10 year 365 day normal runoff during the storage period;
  - (4) The direct precipitation from the 25-year, 24-hour storm;
  - (5) The runoff from the 25-year, 24-hour storm event;
  - (6) A minimum treatment volume for treatment lagoons.
- (c) Discharge is allowed via overflow through the emergency spillway of the lagoon or uncovered storage structure when caused by a storm event that exceeds the design storm event(s). Only that portion of storm water flow, which exceeds the design storm event(s) may be discharged. Process wastewater discharge is not allowed by pumping, siphoning, cutting of berms, or by any other method, except as authorized herein, unless prior approval is obtained from the department.

**B. GENERAL CONDITIONS (continued)**

- (d) Upper and Lower Storage Operating Levels:
- (1) During normal weather conditions, the liquid level in the storage structure shall be maintained below the upper operating level, as identified in the FACILITY DESCRIPTION, so that adequate storage capacity is available for use during adverse weather periods when conditions are not suitable for proper land application. The lower operating level shall be used as an operational guideline; however, under normal operating conditions the level should not be lower than two feet above the lagoon floor.
  - (2) The liquid level in the storage structure should be lowered on a routine schedule based on the design storage period and Nutrient Management Plan. Typically this should be accomplished prior to expected seasonal wet and winter climate periods.
  - (3) The upper operating level for uncovered storage structures is one foot below the emergency overflow level unless specified otherwise in the FACILITY DESCRIPTION.
  - (4) The operation shall be managed so that the level of liquids in the storage structure does not exceed the upper operating level except when a 25-year, 24-hour storm or a 1 in 10-year chronic storm occurs, in accordance with General Conditions 4.(a)(2)(e)(1), below.
- (e) Storage Safety Volume:
- (1) When a chronic or catastrophic design storm event occurs, the “safety volume” may be used to contain the stormwater until conditions are suitable for land application.
  - (2) The required safety volume shall be maintained between the overflow level and the upper operating level.

(b) CAFO Land Application Areas

The Land Application Area is agricultural land which is under the control of the CAFO owner or operator, whether it is owned, rented, or leased, to which manure, litter or process wastewater from the production area is or may be applied.

There shall be no discharge of manure, litter, or process wastewater to waters of the state from a CAFO as a result of the land application of manure, litter or process wastewater to land application areas under the direct control of the CAFO, except where it is an agricultural storm water discharge. When manure, litter, or process wastewater has been land applied in accordance with this permit, a precipitation related discharge of manure, litter or process wastewater from land areas under the control of the CAFO is considered to be an agricultural storm water discharge.

**B. GENERAL CONDITIONS (continued)**

5. Nutrient Management Plan

In accordance with 10 CSR 20-6.300(3)(G), the permittee shall implement a Nutrient Management Plan that at a minimum addresses the following.

- (a) Ensures adequate storage of manure, litter and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities.
- (b) Ensures proper management of mortalities.
- (c) Ensures that clean water is diverted from the production area.
- (d) Prevents direct contact of confined animals with waters of the state.
- (e) Ensures that chemicals and other contaminants handled on site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
- (f) Identifies appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state.
- (g) Identifies protocols for appropriate testing of manure, litter, process wastewater, and soil.
- (h) Establishes protocols to land apply manure, litter, or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater.
- (i) Identifies specific records that will be maintained.

6. Nutrient Management Technical Standard

The permittee shall follow Attachment A - "Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard" (NMTS), on CAFO land application areas as identified in the Nutrient Management Plan. The NMTS, dated March 4, 2009, is hereby incorporated as though fully set forth herein.

7. Transfer of Manure, Litter, and Process Wastewater to Other Persons

In cases where CAFO-generated manure, litter, or process wastewater is sold, given away, or applied on land not under the direct control of the CAFO, the permittee must comply with the following conditions:

- (a) Maintain records showing the date and amount of manure, litter, and/or process wastewater that leaves the permitted operation.
- (b) Record the name and address of the recipient. (The recipient is the broker or end user, not merely the truck driver.)
- (c) Provide the recipient(s) with representative information on the nutrient content of the manure, litter, and/or process wastewater.
- (d) These records must be retained on-site, for a period of five (5) years.
- (e) Provide the recipient with a copy of the NMTS.

8. Mortality Management

There shall be no-discharge from dead animal collection areas or holding areas. Animals shall be disposed of in a manner to prevent contamination of waters of the state or creation of a public health hazard. Management of mortalities will be as described in the nutrient management plan.

**B. GENERAL CONDITIONS (continued)**

9. Water Quality Standards

Any discharges to waters of the state, including those discharges allowed for within this permit, shall not cause a violation of the state water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.

General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- (e) There shall be no significant human health hazard from incidental contact with the water;
- (f) There shall be no acute toxicity to livestock or wildlife watering;
- (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;

Waters shall be free from scrap tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247

10. Reopener Clause

This permit may be reopened and modified, or alternatively revoked and reissued, to:

- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
  - (i) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
  - (ii) controls any pollutant not limited in the permit.
- (b) Incorporate new or modified State of Missouri Statutes or Regulations.
- (c) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
- (d) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

*The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.*

## C. SPECIAL CONDITIONS

### 1. Nutrient Management Plan

The permittee shall submit an updated nutrient management plan (NMP) that complies with the requirements listed in this permit within six months of the effective date of this permit. The NMP shall include operation and maintenance procedures for waste handling systems as necessary to maintain compliance with the terms and conditions of this permit. As operational changes are made to site's waste handling systems, the permittee shall amend applicable portions of the NMP within three months of said changes. Upon receipt of the plan, the department will conduct a review and, if needed, will submit a comment letter regarding any deficiencies within the nutrient management plan. All comments shall be responded to within 30 days of receipt of a letter. The updated NMP shall be followed beginning in the 2012 growing season.

### 2. Inspections

The following minimum visual inspections shall be conducted by the CAFO operator.

- (a) Daily inspections must be conducted of water lines including wastewater, drinking water, and cooling water lines that can be visually observed within the production area. The inspection of the drinking water and cooling water lines shall be limited to the lines that possess the ability to leak or drain to wastewater storage structures or may come in contact with any process waste.
- (b) Daily inspections of the collection or holding areas for dead animals.
- (c) Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the process wastewater storage.
- (d) Weekly inspections of the manure, litter, and process wastewater impoundments. Quarterly inspections, prior to use, of equipment used for land application of manure or process wastewater.
- (e) Inspections during land application shall include monitoring of the perimeter of the application fields to insure that applied wastewater does not run off the fields where applied. Any deficiencies found as a result of inspections shall be documented and corrected as soon as practicable.

### 3. Record Keeping

The following records shall be maintained by the CAFO operator for a period of five (5) years from the date they are created and be made available to the department upon request:

- (a) A copy of this permit including a current copy of the facility's Nutrient Management Plan and documentation of changes/modifications made to the Nutrient Management Plan.
- (b) The daily visual inspections required in Special Condition #2, shall be logged/recorded once per week.
- (c) Records documenting any actions taken to correct deficiencies. Deficiencies not corrected within thirty (30) days shall be accompanied by an explanation of the factors preventing immediate correction.
- (d) Records of mortalities management used by the operation.
- (e) Records of the date, time, location, duration and estimated volume of any emergency or unauthorized process waste discharge. Note: Monitor the discharge at the point immediately prior to the receiving stream or at the property boundary, whichever occurs first. Report flow as cubic feet per second (CFS) based on an instantaneous estimate of the flow at the time of sampling.  $CFS = \text{flow width in feet} \times \text{flow depth in feet} \times \text{flow velocity in feet per second}$ . Estimates of stream channel width and depth may be used and flow velocity can be measured

**C. SPECIAL CONDITIONS (continued)**

by timing how many feet a floating object moves within a one-second interval. Small flows may also be estimated based on gallons per minute (GPM) measurement using a container and stop watch; 450 gpm = 1.0 CFS. Other similar means of estimating may also be used.

- (f) Additional record keeping requirements are found in Attachment B, "Nutrient Management Technical Standard" that document implementation of appropriate Nutrient Management Plan protocols. In addition to the requirements found in the Nutrient Management Technical Standard, the CAFO shall also test and record the potassium levels in the soils while testing nitrogen and phosphorus.

**4. Reporting Requirements**

- (a) Any wastewater discharge into waters of the state shall be reported to the Department as soon as practicable but no later than 24 hours after the start of the discharge.
- (b) An Annual Report shall be submitted by January 28 of each year for the previous growing season from October 1 through September 30 or an alternate 12 month period approved by the Department. The report shall include:
- (i) The number and type of animals confined at the operation.
  - (ii) The estimated amount of manure, litter, and process wastewater generated in the previous twelve months.
  - (iii) The estimated amount of manure, litter, and process wastewater transferred to other persons in the previous twelve months.
  - (iv) The total number of acres for land application covered by the Nutrient Management Plan.
  - (v) The total number of acres under control of the operation that were used for land application of manure, litter and process wastewater in the previous twelve months.
  - (vi) A summary of all manure, litter, and process wastewater discharges from the production area that have occurred in the previous twelve months, including date, time, and approximate volume. Report as no-discharge, if a discharge did not occur during the monitoring period.
  - (vii) A statement indicating whether the current Nutrient Management Plan was developed or approved by a certified nutrient management planner.
  - (viii) The crops planted and expected yields, the amount and nutrient content of the manure, litter, and process wastewater applied to the land application area(s) and the results of any soil testing from the previous twelve months.
  - (ix) All monitoring results from Section A. Effluent Limitations and Monitoring Requirements.
- (c) The reports shall include a cover sheet with an original signature of a company representative. The reports may be printed or alternatively, may be saved as pdf files or locked spreadsheets and burned onto two compact discs (CDs). The CDs may be sent via mail with the cover sheet to the Kansas City Regional and the Jefferson City offices.

**5. Design Parameters**

The facility's design flow in the Facility Description is an estimated parameter that is used to help predict nutrient generation and storage periods. The design flow is based on the maximum annual flows including storm water flows during the one-in-ten year return frequency for annual or 365 day rainfall minus evaporation. The design flow is based on the time period when the flows are generated at the production site and not when flows are land applied. Permittee may exceed the design flow when precipitation in any 365 day period exceeds the one-in-ten year annual precipitation amount. Any proposed increases may require a permit modification prior to the proposed change. Portions of the design flow may be stored and carried over into the following year for land application, as necessary.

**C. SPECIAL CONDITIONS (continued)**

6. Land Application Site Locations

The permittee is responsible for all land application area(s) that are owned, rented, leased, or otherwise directly controlled by the permittee. All land application area(s), that fall under the definition of “land application area” as defined in 10 CSR 20-6.300, must be included in the facility’s nutrient management plan. The addition of land application area(s) into the facility’s nutrient management plan (except for those already in a nutrient management plan) must follow permit modification procedures prior to land application unless otherwise approved by the department.

7. Land Application Limitations on CAFO land application areas

- (a) Process wastes should be land applied as close as practicable to when plants will utilize nutrients. Fall application for the spring crop season may be used where appropriate, but should not be the primary application period. Land application of process wastes shall be utilized as a nutrient resource.
- (b) Avoid surface application when there is a local, applicable weather forecast or observation by permittee of an imminent or impending storm event that is likely to produce runoff.
- (c) Land application equipment shall be operated in such a manner that wastes do not reach an adjoining property line, public use area or into waters of the state. There shall be no visual spray drifts across public roads or property boundaries or into waters of the state. If the employee detects wind blown mist within the setback distance specified in the NMTS of an adjoining property line, public use area or waters of the state the application equipment shall be either moved farther away or shut down.
- (d) The NMP shall include site specific conservation practices, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state.
- (e) Implementation procedures for these limitations shall be detailed in the Nutrient Management Plan.

8. Design Operating Capacity

This permit authorizes operation of the CAFO waste management system as described in the “FACILITY DESCRIPTION” along with the permit application and associated engineering plans. The Facility Description describes a design animal unit operating capacity (i.e., number of animals) for this facility. For purposes of this permit, the animal unit operating level at any given time shall be based on averaging the weekly facility wide inventory on a rolling 12 month average (i.e., the animal unit operating level will be determined using a “rolling 12 month average” of the “weekly facility-wide average inventory”). The rolling 12 month average should not exceed, the listed facility-wide design animal unit capacity in the Facility Description. The CAFO may change animal numbers and weights as necessary; however, such changes must not adversely impact the storage and handling capacities of the waste management system.

9. Sample Collection, Preservation and Testing Methods

Testing shall be in accordance with the most current version of *Standard Methods for the Examination of Waters and Wastewaters* or other approved methods listed in 10 CSR 20-7.015(9)(A).

**Missouri Department of Natural Resources  
Concentrated Animal Feeding Operation  
NPDES Site Specific Permit Factsheet**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Missouri Department of Natural Resources (department), as the administrative agent for the Missouri Clean Water Commission, under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). NPDES operating permits are issued for a period of five (5) years unless otherwise specified.

A Factsheet gives pertinent information regarding the applicable regulations, rational for the development of the NPDES Missouri State Operating Permit (operating permit), and the public participation process for operating permit listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for a Permit Renewal ; Permit Modification ; and/or permit with widespread public interest .

Facility Information

NPDES Permit No.: MO-0118877

Owner: Johnson County Egg Farm, LLC  
Owner Address: 1275 Southwest Y Highway, Knob Noster, MO 65336

Facility Name: Johnson County Egg Farm  
Facility Address: 1275 Southwest Y Highway, Knob Noster, MO 65336

MDNR Region: Kansas City Regional Office  
Facility County: Johnson

Facility Type: Class IA-Concentrated Animal Feeding Operation (CAFO)  
Facility SIC Code: 0252

Facility Description:

One 3 cell earthen storage basin/six concrete storage pits/one dead animal composter/land application system/egg wash water/truck wash/storm water runoff/domestic wastewater piped to cell #1/two 2-story buildings over concrete pits/three pullet houses and one storage-compost building.

Outfalls 004, 008, and 010 are stormwater runoff from the production site. SM1 (previous outfall 003), SM2 (previous outfall 005), and SM3 (previous outfall 011) are stream monitoring locations.

### **Effectuated Outfalls and other Modifications**

Note: All outfalls are detailed in the operating permit starting on page 2.

This permit renewal and modification does not include an increase in animal numbers or animal capacity at this site.

The department is renewing, with changes, a Missouri State Operating Permit for the Johnson County Egg Farm located in Johnson County. This facility is a Missouri Class IA Concentrated Animal Feeding Operation (CAFO) which, due to its classification and size has been required by the department to retain a site-specific operating permit.

### **Water Quality Monitoring -**

The Johnson County Egg Farm permit has, in the previous permit, required varying amounts of water quality monitoring. The monitoring requirements in the previous permit at this site have included sampling locations for stormwater, and in-stream monitoring with a sampling frequency of quarterly. The purpose behind the department's monitoring requirements was to help aid in ascertaining any water quality related impacts from the CAFO's operation and land application of manure. Technical staff in the Permits Section have reviewed the results of the past monitoring and generally conclude that further extensive monitoring is unnecessary as there is no indication from past water quality data that a reasonable potential exists for the Johnson County Egg Farm CAFO to violate water quality standards when it is managed and operated in accordance with permit requirements.

With this in mind, the department has reduced the monitoring requirements within the Johnson County Egg Farm permit. Storm water monitoring will be addressed by requiring sampling of three stormwater monitoring sites four times per year.

In-stream monitoring requirements will include three monitoring points that will be sampled four times per year.

### **Inspections, Record Keeping, and Reporting Requirements -**

On February 28, 2009, the department finalized changes to department's CAFO regulation at 10 CSR 20-6.300. In response to the new regulations, the department made several additions and changes to the inspections, record keeping, and reporting requirements to address the new state requirements.

Prior permits have included submittal of a quarterly report and an annual report in paper format. The annual report contained essentially the same information that was found in the quarterly report. Department staff rarely has the time or the need to regularly review the quarterly reports and the sheer volumes of documents and paper generated by the submittal of these reports fill up file room space in both the regional and central offices. The department plans to reduce the reporting requirement down to an annual report only and will provide Johnson County egg Farm an option of submitting the annual reports electronically on a CD-ROM. This permit requires that all records required by the permit be made available, upon request, for department review and if deemed necessary can be reviewed by the department during inspections.

### **Nutrient Management -**

Proper management and utilization of farm generated manure nutrients at a CAFO is key to its ability to operate in a safe and protective manner. State regulations pertaining to nutrient management at CAFOs have significantly changed since the last permit cycle. In particular, the requirements pertaining to development of application rates, including soil test phosphorus limitations, have become more prescriptive. The following are additions and/or changes that have been proposed for this permit which are direct result from recent updates in the state regulation.

This permit has been updated to reflect new nutrient management requirements. Most notably, new permit conditions have been included that require the CAFO to develop and implement a site-specific Nutrient Management Plan (NMP) that complies with nine specific criteria. The proposed permit stipulates a 6 month compliance schedule, which will begin on the date of issuance, for the development and submittal of this NMP. One of the key reasons the department is allowing the six month compliance date is that the CAFO must have the final permit requirements in order to fully develop a site specific NMP for this site. The permit also now requires Johnson County Egg Farm to complete a phosphorus risk assessment on the land application fields that they own or control. This assessment will identify fields that have a high susceptibility to phosphorus loss and will place application rate restrictions on high risk fields. This protocol provides for a more predictable and systematic approach to phosphorus management as compared to the phosphorus assessments and limitations used in previous permits.

The permit now incorporates by reference the department's "Nutrient Management Technical Standards" (NMTS). This standard was developed to provide a framework for the protocol(s) and method(s) that CAFOs should utilize when determining the form, source, amount, timing, and method of application on individual land application fields. The NMTS represents the department's best professional judgment regarding how to satisfy and/or implement the specific NMP criteria G, H and I within 10 CSR 20-6.300(5)(A). The framework seeks to achieve realistic production goals while ensuring appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater while also minimizing movement of nitrogen, phosphorus, and other potential water contaminants into surface and/or ground water.

### **Land Application Areas -**

The permit requires the permittee be responsible for all land application area(s) that are owned, rented, leased, or otherwise directly controlled by the permittee. All lands that fall under the definition of "land application area" as defined in 10 CSR 20-6.300, must be included in the facility's nutrient management plan.

When the permittee proposes to include additional land application area into the facility's nutrient management plan (except when such land is already in a nutrient management plan), the permittee must follow permit modification procedures prior to land application unless otherwise approved by the department.

When the permittee conducts land application activities to agricultural lands that are not owned, rented, leased or directly controlled, or when the permittee sells or gives away CAFO-generated manure, the permit requires the CAFO maintain certain records documenting the name of recipient, the date and amount of manure, litter, and process wastewater that leaves the permitted operation. It also requires the permittee provide the recipient with representative information on the nutrient content of the manure, litter, and/or process wastewater along with a copy of the Department's Nutrient Management Technical Standard.

**Receiving Stream Information**

Please mark the correct designated waters of the state categories of the receiving stream.

- Missouri or Mississippi River [10 CSR 20-7.015(2)]: Yes ; No
- Lake or Reservoir [10 CSR 20-7.015(3)]: Yes ; No
- Losing [10 CSR 20-7.015(4)]: Yes ; No
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]: Yes ; No
- Special Stream [10 CSR 20-7.015(6)]: Yes ; No
- Subsurface Water [10 CSR 20-7.015(7)]: Yes ; No
- All Other Waters [10 CSR 20-7.015(8)]: Yes ; No

10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1<sup>st</sup> classified receiving stream's beneficial water uses are to be maintained in accordance with 10 CSR 20-7.031(3). The receiving stream is on the 303d list for unknown pollutants.

**Receiving Stream Monitoring Requirements:**

Over five years of water quality stream data has been collected by Johnson County Egg Farm in order to analyze stream impacts from their facility. In analyzing data from the monitoring required previously by this permit, the department has found no obvious problems or differences in watersheds that house large CAFOs compared to those that do not. Water quality data generally show that the effects on water quality from agricultural non-point source activities, like unconfined livestock and commercial fertilizer use, appears to be similar to that of CAFOs that are reasonably well managed. The department has included three stream monitoring locations in this permit with a frequency of four times per year.

**RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & PERMIT CONDITIONS**  
**PERMIT APPLICABILITY:**

National Pollutant Discharge Elimination System (NPDES) permits are required for operations defined in 10 CSR 20-6.300 as a Concentrated Animal Feeding Operation (CAFO). Site-specific permits are required for CAFO operations that fall within the class IA category. Operations that fall under this category confine 7,000 or more animal units. The department, however, can require site specific permits to other class I operations if it is determined that the quality of the waters of the state would be better protected with one.

## **PERMIT COVERAGE**

This site specific permit will cover all production areas, which include the confinement, storage, and handling areas, as well as the land application activities at sites that are under the ownership or control of the permitted CAFO owner/operator. This permit applies only to requirements of, and regulations promulgated under, the Missouri Clean Water Law and Federal Clean Water Act and does not apply to other environmental laws and regulations. This permit does not recognize, supersede nor remove liability from compliance with county and other local ordinances.

## **WHAT CONSTITUTES A DISCHARGE FROM A CAFO:**

A discharge of process waste is the discharge of pollutants into surface or subsurface waters of the state from the animal confinement or storage and handling areas of a CAFO or in some circumstances the land application area(s) under the ownership or control of the CAFO operator.

Discharges prohibited by this permit include, but are not limited to, the following:

- Discharge from manure storage structures (lagoons, basins, pits, etc.), unless discharge was due to storm events exceeding the chronic or catastrophic storm events for the design storage period.\*
- Discharge of contaminated runoff from non-vegetated feedlots, stockpiled manure, and other feedstock storage;
- Discharges associated with improper land application of manure and/or wastewater activities under the control of the CAFO operator;
- Discharges of manure and/or wastewater due to pipe breakage or equipment failure.

\*Discharge is allowed due to overflow through the emergency spillway of the lagoon or other uncovered storage structure when the overflow is caused by storm events that exceed the defined design storm event. Only that portion of storm water flow, which exceeds the design storm event may be discharged.

Stormwater discharges from land application areas that have received manure as fertilizer are authorized under this permit. Stormwater that comes from land application sites is exempt from effluent limits. The reason stormwater discharges are not subject to discharge limits is because the federal definition of a point source contains a specific exclusion for agricultural stormwater. This exclusion was further clarified when the U.S. Environmental Protection Agency (USEPA) promulgated the revised CAFO Regulations on February 12, 2003. The clarification stated that if the process waste is applied at agronomic rates, the stormwater runoff from land application sites is not subject to effluent limitations. This determination by the USEPA was later upheld by the Second Circuit Court's ruling in *Waterkeeper Alliance, Inc. et. al. v. U.S. Environmental Protection Agency*, 399 F.3d 486 (2<sup>nd</sup> Cir. 2005). Since the State of Missouri has not enacted any laws that would differ from the EPA's determination or the subsequent court ruling, the stormwater runoff from land application sites is exempt from effluent limitations and is considered a non-point source not subject to permit requirements.

**PROPOSED DISCHARGE LIMITATIONS, MONITORING, AND TREATMENT REQUIREMENTS**  
Please see Section A & B of this draft Permit attached to this fact sheet Johnson County Egg Farm

**RATIONALE FOR PROPOSED DISCHARGE LIMITATIONS, MONITORING AND TREATMENT REQUIREMENTS:**

Effluent parameters and limitations contained in this Missouri State Operating Permits are obtained from Technology Based Effluent Limits (TBEL), Missouri's Effluent Regulations [10 CSR 20-7.015], Missouri's Water Quality Standards [10 CSR 20-7.031], previous Missouri State Operating Permits, and from Permit Applications. When CAFOs actively operate and maintain properly designed manure and wastewater storage structures they will prevent most, if not all overflows and discharges. Because of this, the department has established Best Management Practices (BMPs) to insure proper operation and maintenance of the production area and to prevent unauthorized discharges. Because of the uncertainty that is involved in determining if runoff or overflow of process waste has led to a discharge, as well as the substantial variation of the volume and nature of the pollutants of the discharge, numeric effluent limitation guidelines to control discharges are considered infeasible. Conversely, effluent limitations in the form of BMPs are particularly suited for the regulation of CAFOs. Controlling discharges to surface water is largely associated with controlling runoff and controlling overflows from manure storage structures. Runoff from CAFOs can be highly intermittent and is usually characterized by very high flows, due to precipitation, occurring over relatively short time intervals.

Along with BMPs, proper nutrient management planning and mandated recordkeeping requirements in dealing with the CAFOs manure storage structures and land application is required under this permit. These requirements will ensure that CAFOs apply manure, litter, and other process wastewaters at rates, and in a manner consistent with appropriate agricultural utilization of nutrients. Limits on the rate at which manure or litter can be applied and certain other constraints on application practices, such as setbacks, and application methods are widely demonstrated as achievable and are being imposed through this permit.

**ANTIDegradation ISSUES:**

As there shall be no-discharge of process wastewater during dry weather conditions the terms and conditions proposed in this draft permit will maintain and protect the designated uses of the various receiving stream(s) as well as the level of water quality necessary to protect said water uses. With proper implementation of Best Management Practices (BMPs) and the NMTS at both the CAFO production area(s) and land application site(s) as well as other minimum standards, protection of water quality will be provided for a particular water body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Antidegradation plans are adopted by each State to minimize adverse effects on water.

**ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); CFR §122.44(I)] requires a reissued permit to be as stringent as the previous permit with some exceptions.

- All limits in this Factsheet are at least as protective as those previously established; therefore, backsliding does not apply.

- Backsliding proposed in this Factsheet for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 § CFR 122.44.

**COMPLIANCE AND ENFORCEMENT:**

Action taken by the department to resolve violations of the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

Applicable ;

Not Applicable ; The permittee/facility is not under enforcement action and is considered to be in compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

**ADMINISTRATIVE REQUIREMENTS**

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein or within the operating permit. The proposed determinations are tentative pending public comment.

**PUBLIC NOTICE:**

As per the Missouri Clean Water Law, the Missouri Clean Water Commission, and the federal Clean Water Act, persons wishing to comment on Missouri State Operating Permits are directed to do so by a department approved Public Notice coversheet. This Public Notice coversheet is attached to a Missouri State Operating Permit during the Public Notice period.

The Public Notice period for this operating permit will end on October 2, 2011.

Date of Factsheet: July 20, 2011