EPA United States Environmental Protection Agency

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	09/24-26/2024	
Media Program:	Water	
Regulatory Program(s)	NPDES CAFO	
Company Name:	**W.H.B. Cattle, LP**	
Facility Name:	**Braum's Dairy**	
Facility Physical Location:	491 County Street 2880 (35.32113, -97.86462)	
(city, state, zip code)	Tuttle, OK 73089	
Mailing address:	P.O. Box 725	
(city, state, zip code)	Tuttle, OK 73089	
County/Parish:	Grady	
Facility Phone Number		
Facility Contact:	Brian Warren	Operations Manager
	brian.warren@braums.com	
FRS Number:	110000709993	
Identification/Permit Number:	OKG010029	
Media Identifier Number:		
NAICS:	112120	
SIC:	0241	

Personnel participating in inspection:		
Brian Warren	Braum's	Operations Manager
Drew Braum, Jr.	Braum's	Owner/Family
Jay Lowe	Braum's	Project Manager
Keith Smith	ODAFF	Inspector Supervisor
Dakota Turpin	ODAFF	Inspector
Ada Pfeiffer	ODAFF	Inspector Supervisor
Marissa Lippincott	ODAFF	Environmental Programs Manager
Juan Ibarra	EPA	Inspector
Lucas Bomar	EPA	Inspector
Carl Wills	EPA	Inspector

EPA Lead Inspector Signature/Date	Juan Ibarra	11/20/2024
	Juan Ibarra	Date
Supervisor Signature/Date	ANTHONY LOSTON Digitally signed by ANTHONY LOSTON Date: 2024.11.21 07:43:04 -06'00'	
	Anthony Loston	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors Juan Ibarra, Lucas Bomar and Carl Wills arrived at Braum's Dairy at 0945 on 09/24/2024, for an announced 3-day inspection. I called Mr. Brian Warren (Braum's Dairy Operations Manager) the day prior to the inspection to ensure that he would be present during the inspection. We were accompanied by the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) inspector supervisors Keith Smith and Ada Pfeiffer, and inspector Dakota Turpin. We met with Brian Warren at the Opening Conference. I presented my credentials to Mr. Warren and informed him that this was an EPA inspection to evaluate the facility's compliance with their CAFO License (No. 1396-000) and the Concentrated Animal Feeding Operations (CAFO) requirements as found in the Clean Water Act (CWA) and the Oklahoma CAFO Act. We also informed him that we would also be assessing the food processing plant's wastewater management systems. The scope of the inspection was a full compliance evaluation and included an evaluation of the facility's compliance with their nutrient management plan (NMP).

Following the opening conference, EPA and ODAFF conducted a site tour of the dairy production area and land application sites. However, during this inspection we spent more time focused on the eastern side of the production area, as the first inspection in July 2024 focused on the cattle holding areas and the western side of the production area and land application sites. This inspection report's Facility Description and Observations will reflect this shift in the focus of the inspection. On the second day of the inspection, Carl Wills lead the inspection of the bakery and dairy food processing plant wastewater systems, which all the State (except for Keith Smith) and EPA inspection staff attended. On the third day of the inspection, we completed the dairy production area inspection, and the ODAFF Environmental Programs Manager Marissa Lippincott joined the inspection during the Closing Conference. Keith Smith became ill during the inspection and did not participate beyond the first day of the inspection.

The EPA and ODAFF inspection personnel separated into two teams which were comprised of both EPA and ODAFF staff. I lead one team which documented site conditions, while the other team scouted ahead with the ODAFF aerial drones looking for potential areas of concern. Mr. Warren accompanied my team and, although we came prepared to take wastewater discharge samples, no samples were taken during the 3-day inspection. ODAFF used drones to evaluate site conditions because the production area and center pivot land application sites surrounding the production area comprise approximately 6,400 acres, and the drones provided rapid visualization of vast areas which would otherwise be hidden by the corn crops and other vegetation. The total acreage at the Braum's dairy farm is approximately 16,500 acres.

Biosecurity protocols were reviewed with the ODAFF State Veterinarian (Dr. Alicia Gorczyca-Southerland) prior to the inspection and were strictly followed. These procedures included spraying the wheels of the GSA vehicle with Virkon S and Synergy disinfectant upon arrival at the dairy on each day of the inspection, along with the wheels of the trailer and Kawasaki four wheeled vehicle, which was used

to help navigate the site. We wore disposable overboots, clean clothes, and left the GSA vehicle at the office parking lot during the day while the inspection was being conducted.

FACILITY DESCRIPTION

License and General Operation:
The annual ODAFF CAFO License (No. 1396-000) was reissued to Braum's Dairy on 5/15/2024 and it expires on 6/30/2025. The dairy is permitted for a maximum of 13,000 milking cows, but currently has about 10,684 milking cows that are milked twice per day, 903 dry cows and 306 heifers. Most on-site heifers and dry cows are kept on about 3,000 acres of pasture, away from the production area while 6-month-old heifers are sent out-of-state to Kansas. Young calves are kept in calf hutches on-property. To minimize the impact that calf hutches could create, the calves are moved one single location space to the northeast or one single space to the southwest. When the calves are removed (after approximately 80 days, once they are weaned) and the calf hutch is moved, the pen area is raked-out of solids and rototilled. Then the new baby calves are placed on the new ground.

Dairy Lagoon Wastewater Commingling:
Braum's uses the dairy lagoon for two different operational purposes. The single lagoon receives both dairy production wastewater from the CAFO operation, and industrial process wastewater from the bakery and dairy food processing plant that is co-located with the dairy. The average amount of industrial process wastewater going to the CAFO lagoon from June 1, 2024, through September 25, 2024, (a period of almost four months) was 11.4%. This percentage of commingled wastewater flows is approximately the same as the month of April 2024 which was 11.77% (see the July 9-10, 2024, EPA inspection report). EPA and ODAFF are currently discussing the joint use of the lagoon and issues related to permitting and operation of the industrial wastewater systems. Carl Wills lead the food manufacturing facility inspection on Wednesday, September 25, 2024, and will address the wastewater issues related to the manufacturing facility in a separate report.

Center Pivot Berms:
For about the past year, the dairy has been building large berms around the perimeter of all the land application sites, which receive CAFO wastewater through the center pivots (CPs). Appendix 2 illustrates the CPs that are utilized for the land application of CAFO wastewater verses those that only receive freshwater or those that can receive both. The first phase of berm construction sought to prevent any overapplied CAFO tailwater or accumulated agricultural storm water from leaving the land application areas, and the second phase will berm the remainder of the CPs that receive freshwater and are located near creeks and the Canadian River. Berm construction began approximately a year ago, and Braum's expects to complete the remaining berm construction in approximately 6 months.

Emergency Holding Ponds and Historic Safety Pond:
The dairy recently constructed (within the past year) five emergency holding ponds (EHPs) located between the CPs and waterways, plus an additional two (constructed within the past month) EHPs

located near the silage storage bunkers located north of the feed mill. Appendix 3 shows the facility provided photos and the lat/long of each of the first five EHP, and Appendix 1 Photolog (Photos 3 & 4) shows the other two EHPs located next to the silage bunker. The intended purpose of the EHPs, according to Braum's, is to collect irrigation CP storm water runoff and pump the water back onto the CPs. They would also collect irrigation tailwater with these EHPs. One of the two most recently constructed EHPs is intended to capture silage leachate runoff from the silage bunker located on the north side of the feed mill. These EHPs are not certified wastewater lagoon structures, and are not properly designed, constructed, operated, and maintained to operate as lagoon or wastewater structures per NRCS standards. Braum's also reported that most of the EHPs dry up between rain events, except for the M5 EHP, which filled with ground water when it was constructed.

The large Historic Safety Pond (HSP) was previously described within the July 9-10, 2024, inspection report. That holding structure, and the other unpermitted ponded areas mentioned within that report will not be described again within this report.

Land Application Sites / Center Pivots:
The diary land applies all generated wastewater, manure solids and composted mortalities onto its center pivot (CP) land application sites, contained within approximately 6,400 acres of land that comprise the production area and the contiguous CPs. All wastewater is land applied via irrigation CPs, but not all CPs receive wastewater. There are four main CP areas (see the CP site map attached in Appendix 2, Map Showing CPs Receiving CAFO Wastewater vs. Those Receiving Fresh Water or Both). Looking from west to east, there are 6 W-named CPs, 23 D-named CPs, 20 M-named CPs, and 12 E-named CPs, for a total of 61 CPs. Also, within the past year, Braum's has added two new CP fields (D11a and D11b), which are located northwest of D11 and are not shown on the attached map and receive only fresh water from the HSP or the Canadian River.

CPs not receiving irrigated CAFO wastewater are the E CPs, the W CPs (the W CPs last received CAFO wastewater on 5/9/2024 and has since only received freshwater from Buggy Creek) and the southwesterly located D CPs (CPs D6, D8, D9, D12, D13, and D14 are only irrigated with freshwater from Snake Creek Pond). Other pivots such as M 16-20 rotate between periods of blended with the facility trying to get a 50/50 mix of CAFO wastewater application and freshwater application depending on crop needs. CPs not receiving blended CAFO wastewaters are occasionally fertilized using a liquid nitrogen fertilizer (containing 28-0-0 plus Sulphur) that is applied thru CPs equipped with backflow preventers. Twenty-nine of the 61CPs (shown in Appendix 2, Map Showing CPs Receiving CAFO Wastewater vs. Those Receiving Fresh Water or Both) are designated to receive CAFO wastewater or a combination of both freshwater and CAFO wastewater.

Silage Commodity Storage and Runoff:
Silage commodities are primarily stored in two separate covered silage bunker areas, but also in covered storage piles located within a pasture at the far northeast end of the freestalls. Additionally, there are other covered commodities areas, including hay barns and a feed mill. Only the working end of the silage bunker is used to make the daily ration feed mix is exposed, while other daily ration commodities

and hay are stored in a barn under roof. During this inspection, the silage leachate from the bunker mentioned in the July 9-10, 2024, inspection report was generally cleaned-up, and the silage bunker north of the feed mill had a newly constructed EHP, which was not constructed to operate as a lagoon.

Dairy Freshwater Ponds Receiving Cattle Pen Runoff:
The dairy has two large freshwater ponds (the RO Pond and Snake Creek Pond) that supply much of the water used by the dairy farm. Both ponds were documented to be receiving cattle pen runoff. Appendix 1 Photolog shows the cattle pens located on the west side of the RO pond that would discharge contaminated production area storm water runoff from the pens into the RO pond (Photos 5-7). Snake Creek Pond was shown to be receiving cattle pen runoff during the July 9-10, 2024, inspection as documented within that report's Photolog.

These ponds utilize freshwater from several sources to supplement the facilities watering needs. The RO Pond receives water primarily from Buggy Creek, but also from the Canadian River, Snake Creek Pond and water from the 18 reported operable ground water wells. Snake Creek Pond receives about half its water from the Canadian River, but also from rainfall runoff and ground water wells. Although the RO Pond was not overflowing at the time of the inspection, overflow from the RO Pond would go down a concrete chute to a bar ditch, thence along the asphalt road bar ditch until it reaches a roadside pond located below several cow pens and the hay storage barns. Snake Creek Pond was overtopping the dam and discharging very low flow into the Canadian River.

Section II – OBSERVATIONS

Dairy Lagoon Wastewater Commingling with the Food Production Industrial Wastewater:
The single CAFO lagoon receives both dairy production wastewater and industrial process wastewater from the bakery and dairy food processing plant that is co-located with the dairy. The average amount of industrial process wastewater going to the CAFO lagoon from June 1, 2024, through September 25, 2024, (a period of almost four months) was 11.4%. EPA and ODAFF are currently discussing the joint use of the lagoon and issues related to permitting and operation of the industrial wastewater systems. Carl Wills lead the food manufacturing facility inspection on Wednesday, September 25, 2024, and will address the wastewater issues related to the manufacturing facility in a separate report.

From 6/1/2024, through 9/25/2024, for the 107 days of recorded discharge, the total CAFO WW flow to the lagoon was 234,974,410 gallons. The average daily CAFO WW discharge over this period was 2,196,022.5 gpd. During this same period, the Industrial Food Processing plant wastewater contribution totaled 30,262,586 gallons, or about 282,827.9 gpd. Therefore, over the period of 6/1/2024 through 9/25/2024, the Industrial Food Processing plant contribution of the total waste stream going to the lagoon was 11.4%.

Ponding on the CP Fields and Berm Construction:
The dairy has numerous ponded wastewater locations haphazardly scattered throughout the production area and land application CP sites. These ponded locations collect runoff from commodity storage areas, cattle pens, or from excess irrigated wastewater, which impounds onto or adjacent to the CP sites. This ponding is also affected by accumulated storm water. To control the potential for CP field runoff into adjacent waterways, large berms have been constructed to isolate the land application sites from creek and river waterways. This work has been ongoing for about the past year as shown in Photos 4, 8 and 10, and is expected to be completed in about 6 months.

Emergency Holding Ponds:
Ponding accumulates in several recently constructed EHPs that have been constructed out of the native sandy soils. See the above Facility Description – Emergency Holding Ponds and Historic Safety Pond for a description of the haphazardly located wastewater ponded areas in the production area and land application CP areas. These seven recently constructed EHPs are not certified wastewater lagoon structures, and are not properly designed, constructed, operated, and maintained to operate as lagoon or wastewater structures per NRCS standards. Additionally, the HSP, located on the north and northeast side of CP D7, receives runoff from some of the CP D1, D3, D5, and D7 CP sites, as well as supplemented freshwater from Buggy Creek and the Canadian River.

Two Process Wastewater Discharges from Cattle Pens into the RO and Snake Creek Ponds:
Both freshwater ponds had cattle pens located immediately upslope of the ponds that would discharge contaminated production area storm water runoff into these ponds during a rain event. The RO Pond upslope cattle pens are located on the southwest side the pond (see Photos 5-7). The Snake Creek Pond upslope cattle pens are located on the west side of that pond (see Photo 30 from the July 9-10, 2024, inspection report). The dairy's two large freshwater ponds (each the size of a small lake) supply much of the water used by the farm.

Two Additional Process Wastewater Discharges from Cattle Pens to Other Areas:
Cattle Pen runoff from the cattle pens and nursery pen on the west side of the freestalls is discharging into an unpermitted pond which then flows into an area around and including CPs D1 and D3 (see Photos 3-8 of the July 9-10, 2024, EPA Inspection Report). A second heifer pen area would discharge (during a rain event) into a roadside pond located on the northeast side of CP D14 (see Photos 25-27 of the July 9-10, 2024, EPA Inspection Report).

The issue of the above four cattle pen areas not discharging into the CAFO lagoon, but rather into the two large RO and Snake Creek Ponds or into small ponds or CP fields are not permitted under the State and/or Federal CAFO regulations. This issue would also apply to any other exposed cattle pens that may not have been seen or reviewed during the inspection(s).

Agronomic Rates of Nutrient Application:
During a spot check review of the annual soils analysis for D CP fields D1, D3, and D11, I found the same issue of not analyzing the soils for nitrates or total nitrogen as was also found during the July 9-10, 2024,

inspection for CP W5 (for a soil sample taken on 02/13/2024). CPs D1 and D3 were selected for review because of the previously found cattle pen discharge to those CP fields during the July 9-10, 2024, inspection. Additionally, because total phosphorus was high in all three fields (with two of them above 300 ppm), a review of the P-Index was made which found that Braum's was not completing the P-Index form, which would provide the final recommendation for land application. This issue was corrected by Braum's following the inspection for all wastewater land applied fields as found in the information sent to me by e-mail on October 31, 2024.

Irrigation During Rain Events:
Braum's verified that the NMP was modified to preclude the land application CAFO wastewater to the CPs during rain and freezing weather events.

Section III – AREAS OF CONCERN

1) The single lagoon receives commingled dairy production wastewater from the CAFO operation, and industrial process wastewater from the bakery and dairy processing plant that is co-located with the dairy. The average amount of industrial process wastewater going to the CAFO lagoon from June 1, 2024, through September 25, 2024, (a period of almost four months) was 11.4%. Per the ODAFF CAFO Act Section 20:50 Wastewater Retention Structures Part (D) ") All substances entering the retention structures shall be composed entirely of wastewaters from the proper operation and maintenance of an animal feeding operation and the runoff from the animal feeding operation area. The disposal of any materials, other than substances associated with proper operation and maintenance of the facility into the containment structures, including but not limited to human waste, is prohibited."

2) The dairy has various ponded wastewater locations haphazardly scattered throughout the production and land application CP sites. These ponded locations collect runoff from silage bunker storage areas, cattle pens, and at times from excess irrigated wastewater, which impounds onto or adjacent to the CP sites. This CP ponding often results from excess irrigated wastewater runoff as well as accumulated storm water. Per ODAFF CAFO Regulation 35: 17-4-12(b)(3)(D) "Land application practices shall be managed so as to reduce or minimize the following: (i) Ponding or puddling of wastewater on the site."
    a. The large HSP receives runoff from some of the CPs D1, D3, D5, and D7 land application sites, as well as supplemented freshwater from Buggy Creek and the Canadian River. The HSP has not been designed and constructed to meet NRCS lagoon design standards. Design standards for a lagoon are found in liner requirements section of the ODAFF CAFO Regulation 35:17-4-11 (a) which includes the liner requirements, and per the ODAFF CAFO Act Section 20-50 Wastewater Retention Structures Part (B) which states "Site-specific conditions shall be considered in the design and construction of liners. Liners for retention structures shall be designed and constructed in accordance with the provisions

of this section and generally accepted engineering practices established by rules of the Board or as required by the federal Environmental Protection Agency."

b. Cattle Pen runoff from areas such the cattle pens and nursery pen on the west side of the freestalls is discharging into an unpermitted pond, which then flows into an area around and including CPs D1 and D3 (see Photos 3-8). A second heifer pen area was discharging into a roadside pond located on the northeast side of CP D14. This roadside pond could also receive RO Pond discharge via an asphalt paved road bar ditch (see Photos 25-27, and Photos 33 & 34 from the July 9-10, 2024, inspection report). Design standards for a lagoon are found in the liner requirements section of the ODAFF CAFO Regulation 35:17-4-11 (a) which lists the requirements, and per the ODAFF CAFO Act Section 20-50 Wastewater Retention Structures Part B which states "Site-specific conditions shall be considered in the design and construction of liners. Liners for retention structures shall be designed and constructed in accordance with the provisions of this section and generally accepted engineering practices established by rules of the Board or as required by the federal Environmental Protection Agency."
c. Runoff from CP D14 via a concrete drainage channel also enters the roadside pond described above in Section 2.b. Although CP D14 only receives freshwater, the runoff commingles with the cattle pen runoff that enters the same pond as described in Section 2.b. above. Should this pond be converted into a permitted lagoon, the amount of freshwater runoff coming from CP D14 entering the pond must be accounted for in the unit's design. Per the ODAFF CAFO Regulation 35: 17-4-12 (b)(3)(D), the Animal Waste Management Plan (AWMP) or its equivalent requires that the "Land application practices shall be managed so as to reduce or minimize the following: (i) Ponding or puddling of wastewater on the site."
d. A wetland's ponding area is located on the north side of the silage bunkers located next to the daily cattle feed make ready area. BMPs required for the dairy shall include but not be limited by the following per the ODAFF CAFO Regulation 35:17-4-16(3) "Solids, sludges, manure, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner designed to prevent pollutants from being discharged to surface or groundwaters of the State."
e. Additional ponding adjacent to the east silage storage bunker is comprised of silage liquor discharge. The discharge enters a newly constructed EHP, which is unlined (see Photo 3) and not protective of ground water or protective for the potential for a hydrologic connection to the nearby surface water (Snake Creek). ODAFF CAFO Regulation 35:17-4-16(3) states "Solids, sludges, manure, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner designed to prevent pollutants from being discharged to surface or groundwaters of the State." Additionally, design standards for a lagoon are found in the liner requirements section of the ODAFF CAFO Regulation 35:17-4-11 (a) and the ODAFF CAFO Act Section 20-50 Wastewater Retention Structures Part B, which lists the requirements for lagoon construction.

f. In summary, there are four wastewater ponds described in paragraphs b. (two ponds), d. and e., in addition to the HSP that captures irrigation CP runoff, that are designed to capture runoff from two cattle pen areas, the wetlands production area runoff collection, and from a silage bunker area. These units are not constructed CAFO lagoons as noted above.

3) Four cattle pen areas discharging into the two large RO and Snake Creek Ponds or into two other small ponds, rather than into the CAFO lagoon. The dairy's two large fresh-water ponds (the RO Pond and the Snake Creek Pond) each had cattle pens located immediately upslope of the ponds that would discharge contaminated production area storm water runoff into the ponds during a rain event. The RO Pond upslope cattle pens are located on the southwest side the pond (see Photos 5-7). The Snake Creek Pond upslope cattle pens are located on the southwest side of that pond (see Photos 30-32 from the July 9-10, 2024, inspection report). During the inspection, Snake Creek Pond was discharging, having a small rate of flow into Snake Creek, thence the Canadian River. Per the ODAFF CAFO Act Section 20:48 Best Management Practices Part (B)(1) "There shall be no discharge of process wastewater to waters of the state except in accordance with the provisions of the Oklahoma Concentrated Animal Feeding Operations Act."

4) During a spot check review of the annual soils analysis for D CP fields D1, D3, and D11, I found the same issue of not analyzing the soils for nitrates or total nitrogen as was the case during the July 9-10, 2024, inspection for CP W5 (for a soil sample taken on 02/13/2024). Additionally, because total phosphorus was high in all three fields (with two of them above 300 ppm), a review of the P-Index was made, which found that Braum's was not completing the full P-Index form, which would provide the final recommendation for land application. The issue of incomplete P-Index was corrected by Braum's following this inspection for all wastewater land applied fields as found in the information sent to me by e-mail on October 31, 2024. Per the ODAFF CAFO Act Section 20-48 Best Management Practices Part (E) "Soils in areas in which animal waste is applied shall be analyzed, annually, for phosphates, nitrates and soil pH prior to the first application of the animal waste in the calendar year."

Closing Conference:

EPA Region 6 and ODAFF inspectors (listed above in Purpose of the Inspection) conducted a closing conference at Braum's Dairy at 1313 on 09/26/2024, with Mr. Drew Braum, Jr/Owner, Mr. Jay Lowe/Braum's Project Manager and Mr. Brian Warren. During the closing conference, EPA and ODAFF reviewed the above listed Areas of Concern.

Section IV – FOLLOW UP

This follow-up inspection confirmed that several items were corrected from the prior inspection conducted on July 9-10, 2024.

1) The new EHP containment area for the silage bunker runoff was constructed north of the feed mill. Although this structure is not a lined lagoon structure, it does provide temporary containment to help prevent runoff toward Snake Creek. A discharge of silage bunker runoff into Snake Creek was never documented.
2) Berm construction to isolate the land application sites from waterways is ongoing as shown in Photos 4, 8 and 10. Berm isolation construction is expected to be completed in approximately 6 months.
3) Language was added to the NMP to prohibit land application of wastewater during rain and freezing weather events.
4) The P-Index was completed for all wastewater receiving CP land application sites.

Section V – LIST OF APPENDICES

Appendix 1 – Photolog: 10 photos taken over two days on September 24 and 26, 2024
Appendix 2 – Map Showing CPs Receiving CAFO Wastewater vs. Those Receiving Fresh Water or Both
Appendix 3 – Photos and Lat/Long Locations of the new Emergency Holding Ponds

Appendix 1

Photolog

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0127.JPG
Date of Photo: 09/24/2024
Time of Photo: 1201
Photographer: Juan Ibarra
Description: The three concrete drainage culverts that would channel runoff from the small roadside pond located near the hay barns and from the drainage area around the feed mill into Snake Creek. Note: that the small roadside pond is equipped with a dam and a 900 gpm pump that can send water to any land application center pivot (CP), but mostly to D8, D9, D12, D13, and D14, which are fresh water fields. See Photos 25 & 27 from the 7/9-10/2024 inspection report. The view is toward the west-southwest.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0129.JPG
Date of Photo: 09/24/2024
Time of Photo: 1202
Photographer: Juan Ibarra
Description: The above three concrete culverts discharge thru this channel into Snake Creek, which is shown next to the inspectors. The view is toward the east.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0131.JPG
Date of Photo: 09/24/2024
Time of Photo: 1223
Photographer: Juan Ibarra
Description: Silage bunkers 6 through 12 drain leachate into an unlined pond, which was not discharging at the time of the inspection. It contains high solids and organics. This bunker location is near CP D16. The view is toward the northwest.
Note: this lat/long is closer to 35.341409, -97.864082.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0133.JPG
Date of Photo: 09/24/2024
Time of Photo: 1225
Photographer: Juan Ibarra
Description: A new emergency holding pond (EHP) was constructed on the east side of the silage bunker pond shown in Photo 3 about two weeks prior to the inspection. It is located on the south side of CP D16. It is also unlined and intended to capture CP storm water runoff, but it could also capture overapplication tail water runoff if the field was to receive an over application of CAFO wastewater. The view is toward the north.
Note: this lat/long is closer to 35.341409, -97.864082.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0139.JPG
Date of Photo: 09/24/2024
Time of Photo: 1244
Photographer: Juan Ibarra
Description: Cattle pens located on the southwest side of the RO Pond and discharge into the RO Pond. The view is toward the southeast.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0140.JPG
Date of Photo: 09/24/2024
Time of Photo: 1244
Photographer: Juan Ibarra
Description: Cattle pens located on the southwest side of the RO Pond and discharge into the RO Pond. The photo is taken in the opposite direction of that shown in Photo 5, from about the same location, and the view is toward the west.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0138.JPG
Date of Photo: 09/24/2024
Time of Photo: 1245
Photographer: Juan Ibarra
Description: Cattle pens shown in Photo 6 discharge downslope toward the RO Pond. This is the most easterly side of the cattle pens located on the west side of the RO Pond. The view is toward the west-southwest.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0149.JPG
Date of Photo: 09/26/2024
Time of Photo: 1148
Photographer: Juan Ibarra
Description: This photo was taken east of the location where Photos 3 & 4 were taken. It is representative of the types of berms that Braum's has constructed to prevent runoff from the land application CP sites to adjacent waterways. This berm will be covered with hydro-mulch in the very near future to stabilize the berm. In the distant background, hydro-mulch has already been applied. The view is toward the east-northeast.
Note: this lat/long is closer to 35.342040, -97.862907.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0151.JPG
Date of Photo: 09/26/2024
Time of Photo: 1200
Photographer: Juan Ibarra
Description: The Mustang Bridge Pond containing freshwater drawn from the adjacent Canadian River for land application. Note: that the bridge is a private Braum's bridge and note the irrigation pump. Also, the pond is equipped with a concrete overflow structure (two pipes in the headwall) that leads to the Canadian River. The view is toward the north-northwest.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

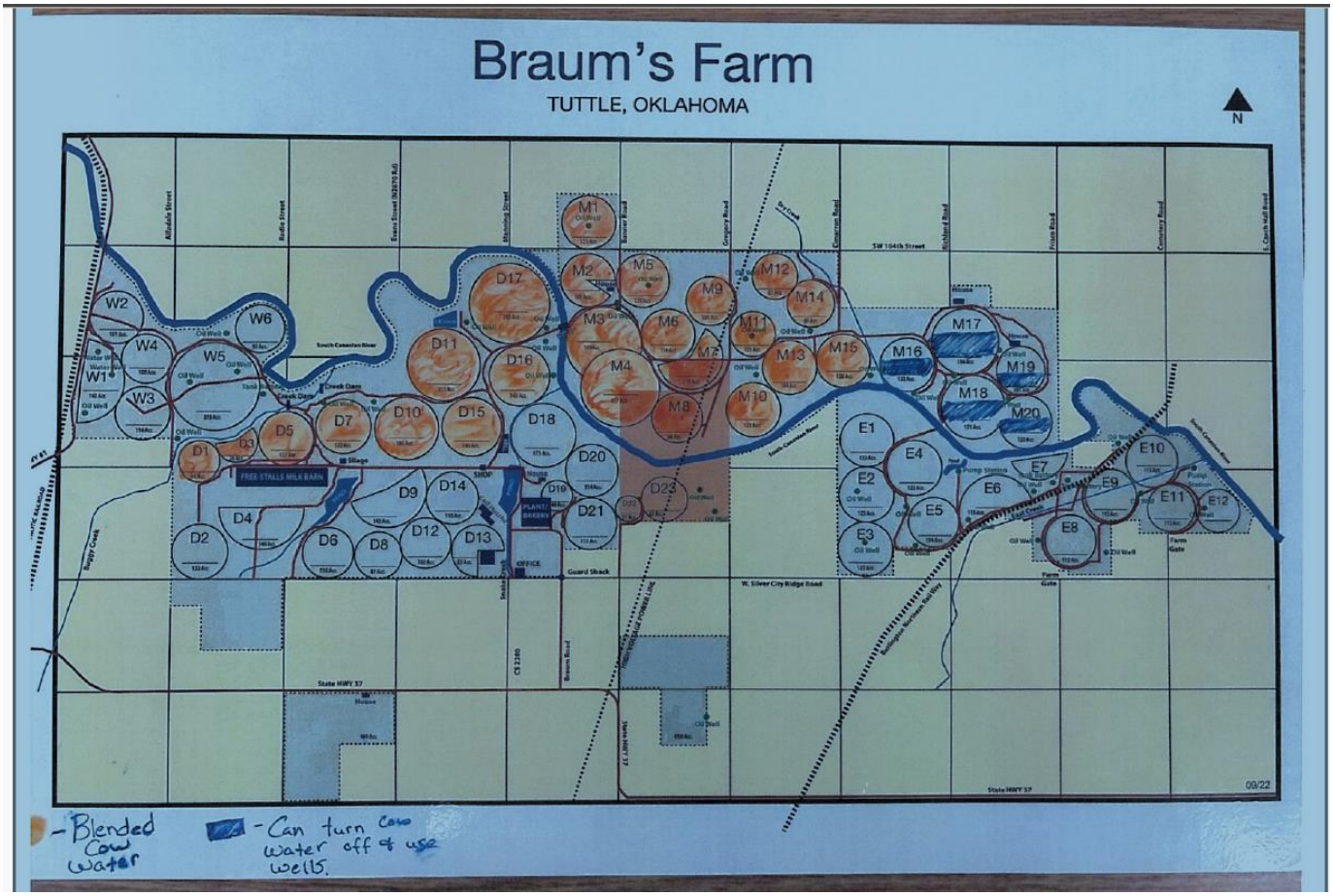
Photo No. 10

Location: Braum's Dairy		
City: Tuttle	County: Grady	State: Oklahoma

Photo File Name: FSCN0153.JPG
Date of Photo: 09/26/2024
Time of Photo: 1209
Photographer: Juan Ibarra
Description: The constructed berm located on the southwest side of CP M3 where composting is occuring. Braum's reported that this berm (seen as light green in the background) was hydro-mulched approximately 6 to 9 months ago, and the vegetative cover (maybe something like "is well established"?) has grown well. The view is toward the southwest.
Note: this lat/long is closer to 35.342040, -97.85528 this location is on the west side of the river. The other lat/long is 35.344167, -97.855 (the one on the camera is close…I think that the correct one is 35.344627, -97854355). Please look on your maps and check it out, please.

Appendix 2
Map Showing CPs Receiving CAFO Wastewater vs. Those Receiving Fresh Water or Both

Braum's Center Pivot Land Application Strategy for CAFO WW, Fresh Water, or Both (Rec. 9-24-2024)



Note: Unmarked, light blue pivots receive only freshwater.

Appendix 3
Photos and Lat/Long Locations of the new Emergency Holding Ponds

M2

SW MW
35.35532° N, 97.85580° W


21W

5 MIC

35.35632° N, 97.82484° W

N Bridge Road

35.35227° N, 97.85854° W

MW2
MW5

SW Mid Food

35.35628° N, 97.84743° W

Dairy 16
Dairy 15

D16 Pond 364 2195

35.34281° N, 97.86665° W