

## **EXPERT REPORT**

*Grand Traverse Band of Ottawa and Chippewa Indians, Grand Traverse Bay Watershed Initiative, Inc., and Elk-Skegemog Lakes Association v. Burnette Foods, Incorporated*  
Case No. 23-cv-00586

### **Prepared By:**

Matthew Gabris  
Central Lake, MI  
(414) 391-6234  
Mattgabris88@gmail.com

### **Qualifications**

I have been a Director or Vice President of Environmental Affairs for four large (\$900M - \$32B) food and beverage companies in my career. I have an undergraduate degree in Industrial & Environmental Health Management from Ferris State University and a graduate degree in Hazardous Waste Management from Wayne State University – College of Chemical Engineering. Early in my career I was a sanitation supervisor for a large turkey processor in charge of cleaning the kill-and-evisceration area (32,000 birds per day) of the processing floor. As I finished my graduate program, I moved into the position to run the 2.2 million gallon per day aerobic wastewater plant attached to the turkey plant. I first obtained 13 State of Michigan industrial wastewater licenses in 1996 and have held them via continued work within wastewater operations all across the United States and Canada. My experience includes a position as the Director of Environmental Technology for the second largest hog producer in the United States whose main final treatment method for wastewater was land-application. I was responsible for all US operations in Missouri, North Carolina, and Texas.

### **Publications and Testimony**

I have not testified in any cases in the last 4 years. I have had no food-related publications in the last 10 years. Within the last 20 years, I have been published in National Hog Farmer Magazine, as well as in Water Environment Federation and National Association of Environmental Managers publications.

### **Compensation**

I am being compensated by Plaintiff organizations on an hourly basis. My rate is \$150/hour for my services.

## **Opinions:**

To form these opinions, I reviewed documents produced by Burnette Foods in the course of this litigation regarding their operations at the processing plant and spray discharge fields. These include technical specifications, photographs, production logs, discharge management reports, and reports performed for Burnette by their contractors. I have also reviewed documents from the State of Michigan EGLE Department and Burnette Foods regarding facility inspections, violation notices, and their Groundwater Discharge Permit and Discharge Management Plan.

### **Subject #1: Analysis of Best Practices for Mass and Hydraulic Reduction**

The first area of focus involves assessing Burnette Foods's practices concerning the mass and hydraulic reduction of wastewater loading prior to discharge. A thorough historical review dating back to 2018 reveals limited documentation supporting the implementation of effective procedures in this regard. While it is acknowledged that the company has tried some improvements since 2021-2022, a critical analysis is necessary, and additional data needs to be produced to decide whether these efforts have taken place and are effective in reducing loading or if more aggressive measures are called for to align with industry's best practices.

Mass loading is the actual mass of wastewater parameters like BOD (Biochemical Oxygen Demand), nitrogen, and phosphorus that are being sent to the wastewater plant to breakdown or treat. The most common way the mass of these parameters is calculated is a conversion equation from concentration of parameter to mass: (Concentration of parameter in mg/L) x (volume of water the concentration was sampled measured in Million Gallons (MG)) x 8.34lbs. (weight of one gallon of water) = Mass/Weight of the parameter being sent in that volume of water.

For example: If wastewater sampling indicated the sample for one day's flow was 100 mg/L BOD (or nitrogen or phosphorous or any other parameter) and the daily flow was 1MG that means there is  $(100 \times 1 \times 8.34 = 834 \text{ lbs. of BOD going to the plant})$ . This is important because engineering design parameters for proper sizing the equipment within the treatment system are based on these exact data. In Burnette Foods's case, the size and output of aeration blowers are based off this as well as how much time or volume it will take to treat this type of mass to a certain end concentration/ mass.

Hydraulic loading means the amount of water in a set period which will be sent to be treated. This can be minimum, average, or maximum flow. Typically design parameters are based on maximum flow. Hydraulic loading is also important in making the decision to put in equalization lagoons or tanks. Equalization is considered "a wide spot in the pipe" to take peaks and valleys of flow out of the treatment equation and make treatment feasible to be treated on a steady average flow. Steady average flow makes the system

more controllable by simplifying and standardizing treatment parameters like air flow, retention time, and chemical feed to name a few.

To date, there is insufficient documentation to fully analyze Burnette's application of accepted industry practices that would properly minimize their mass and hydraulic loading inside the facility prior to discharging their wastewater to the spray fields. Mass and hydraulic loading reductions implemented at the facility can impact the overall quantity and quality of the wastewater that eventually is discharged to the spray fields. Notably, while laboratory analyses (BFI #00007085) in the data library specify loading levels compared to BOD, there is no follow-up data showing any initiatives aimed at source reduction, either hydraulically or by mass loading. This lack of evidence raises concerns about the effectiveness of existing practices and the potential for ongoing environmental impact. In addition, the lack of a structured maintenance plan or routine inspections could worsen loading issues, leading to potential food safety (FDA) concerns. These concerns would be backed up drains, concerns with cross connections and improper plant cleaning and sanitizing which would harbor E. Coli, Salmonella, or Listeria species as a microorganism concern as well as other potential environmental and safety regulatory repercussions. Moreover, a more proactive routine approach is necessary, per the lack of data, including the implementation of regular audits and updates to the wastewater management plan, the establishment of baseline leading and lagging performance metrics, regular monitoring, and more regular reporting requirements to ensure transparency with regulatory agencies or other oversight bodies.

A maintenance plan can be simple, but its purpose is to create a cadence of regular routine checks (or leading indicators) which despite change of personnel, equipment breakdown, fluctuations in production, or fluctuations in weather, are proactively identified before a less desirable chain of events can happen. These plans can be simple written documents or part of a computerized maintenance management system (CMMS) which assigns certain checks to certain individuals who are then accountable for these "work orders." The checklist should also have "normal observations" next to the parameter being checked to provide guidance and on the job training. This checklist or plan should also be checked at a regular interval by someone usually in a lead or supervisory role to make sure to question any anomalies. Some examples are tank level of a batch process at a certain time, amp draw of a motor on a pump, water meter readings, color of a batch, temperature of a product, any odd noises coming from pumps, blowers, or gears etc. These plans are the critical framework of a management system which includes other checklists for other departments that are key to working with maintenance. These smaller systems, inside of a larger framework, raise the level of predictability and create a proactive versus a reactive problem-solving culture.

Regular audits are integral to establishing effective integrity of a management plan. If we start with a daily checklist, a regular audit can then be conducted once a month where

the operators' supervisor goes through the checklist to ask any questions about anomalies reported or the supervisor can call out certain days where everything "checked out" but problems were known to have been the reality. Unscheduled audits are also important because a trained or seasoned employee may know the regular intervals of audits and inappropriately "back pedal" before the scheduled audit to clean up any known misreporting or anticipated questions that may arise. Further, over time, operators and supervisors have been known to see the checklist the same and may be blind to other issues emerging which are not in the checklist or have been passed over due to complacency. An example of an audited checklist item that should be checked at least daily would be dissolved oxygen (DO) in the treatment basin. If the checklist just says "check" without specific data entered, it may fluctuate between 9 mg/l and 1 mg/l without any proper documentation. To an untrained operator this may not raise any questions but to an auditor or "another set of eyes", this very narrow window of concentration means a great deal and should raise questions like: when does production have their first wash; is there something wrong with the meter; or have there been any wide fluctuations in weather. There should always be important reasons why a "check" is added or removed from a checklist, audit, or management plan. In the case of land application of wastewater, one of the checks is how many inches of water has been applied to the fields. This parameter should also coincide with how much rain the fields have had in the preceding 48 hours. A simple checklist may not connect those inputs and is an important function of continuous improvement of the lists, the importance of auditing, and the creation and diligent following of a wastewater management plan.

As illustration, internal documents show wastewater line breaks and other issues that could pose risks to the overall wastewater management strategy. (Facility map with handwritten notes - BFI #00002666). It is not clear from the documentation reviewed that Burnette has formal procedures in place for the prompt repair of internal capture and process water and sewer infrastructure issues. In food plants it is essential that clogged, collapsed or non-working drains are fixed immediately and followed by a disinfection process. The reason for this is due to drains and associated piping being harborage points for bacteria. If drain water backs up in the plant it poses a microbiological concern as employees walk through it, equipment gets pushed through it and it can spread within a short time. Food plants will typically test for total plate count (TPC), salmonella, coliforms, Listeria species (LS) and monocytogenes (LM) because the latter are all pathogenic by nature. Food plants can do swabs which take some time for results or use an ATP (adenosine triphosphate) test with quicker but less specific results. Therefore, having routine procedures in place for diagnosing and remedying emerging problems within the facility's infrastructure is essential for proper maintenance and upkeep of the plant.

Likewise, E. coli has been detected in Burnette's wastewater without determination as to the source. November 15, 2021, EGLE Violation Notice (BFI#00011759). This poses a

risk to the overall wastewater management strategy and potential concerns with the safety of the product Burnette Foods produces and suggests a laissez-faire reactive corporate culture rather than an aggressive, proactive approach to wastewater management and food safety. Although BF has tested toilets to make sure they do not mix with process wastewater, there are other vectors which could explain E. Coli in the wastewater sampling. These include but are not limited to:

1. A questionable pest (vector) control program within and outside of the plant (i.e., mice, rats, and birds)
2. Contaminated or unsanitized product being washed
3. Employee alteration/ tampering
4. Animal or human detritus in the wastewater outside the plant
5. Cross contamination of land application equipment by a septage hauler or contract jetting service.

Any potential human pathogen showing up in any Burnette's water or wastewater data should have been fully investigated into all potential (yet some unlikely) sources and data resampled until non-detect is shown and either FDA or internal Food Safety Professionals sign off and document to the HACCP (Hazard Analysis Critical Control Point) plan.

## **Subject #2: Evaluation of Spraying Procedures, Land Management, and Record-Keeping**

The examination of Burnette Foods's wastewater spraying procedures reveals alarming deficiencies in record-keeping and adherence to proper protocols.

An EGLE Violation Notice dated November 15, 2021, outlines multiple specific compliance issues, including but not limited to: excessive runoff, inadequate cover crops, and the proximity of wastewater application to drinking water wells. (BFI#00011759). The continued lack of compliance, as shown by chronic violations from 2012 to 2019, shows a systemic chronic lack of an effective management system within Burnette Foods's operational protocols related to wastewater management and environmental health.

The EGLE report and Violation Notice dated August 2, 2023 (BFI#00004549) elucidates a chronic failure to follow the Sampling and Analysis Plan established in September 2019.

The EGLE Enforcement Notice dated December 15, 2020, noted hundreds of violations of reporting requirements where incomplete sampling or timely reporting occurred between January 1, 2016, and September 9, 2020. (BFI#0000091).

A review of monthly Land Application Systems Logs from 2020 to 2024 reveals a troubling trend. (BFI##00004972 -00005378; 00005428-00005596). Despite the logs showing approximately 16,000 checks over 1400 days for a range of parameters not one "Y" (yes) was recorded to show any issues. Such a pattern with a mechanical and biological system

is statistically improbable and raises significant questions about the accuracy, integrity, and transparency of the reporting process. These control documents do not seem to be part of the permit parameters either directly or indirectly via a mandated submission of operational data summarized metrics or noted in any of the MEGLE site visit notes.

Visual evidence of ponding, runoff, unattended fields being irrigated and pooling during the land application process from pictures produced further shows a lack of proper recording in the Land Application Systems Logs of observations during wastewater discharge, reflecting a significant gap in operational integrity. (BFI##00004633-00004654; 00009885-00009902)). The absence of detailed observations in the logs raises questions about the training and preparedness of staff responsible for checking these processes. Regarding adherence to the Discharge Monitoring Plan, production log documentation disclosed by Burnette shows inadequate crop harvest quantities for the years 2019-2024. (BFI##00018740-00018745). This is yet another example of incomplete wastewater management execution and a threat to environmental health. It is crucial for the organization to have a robust/ measurable training program that emphasizes the importance of correct record-keeping, compliance with established protocols, and the environmental implications of wastewater management practices. Additionally, a more rigorous employee (inside the plant), an arm's length reporting structure for operators and managers, and a requirement to employ certified operators with loss of license being a consequence if reporting integrity is falsified would be some measures to strengthen operational integrity. This glaring anomaly not only undermines the credibility of the data but also confirms concerns about potential unreported regulatory violations that could lead to further legal ramifications and concerns for environmental and public health.

The organization should adopt and produce best practices from industry leaders and associations like, but not limited to, the Michigan Food Producers Association. This may include deploying advanced capture and treatment technologies, enhancing employee training on wastewater management protocols, automated alarming systems, and investing in innovative solutions for mass (advanced filtration) and hydraulic reduction (sub-metering) at the source just to name a few. Engaging with third-party food processing specialists and environmental consultants to conduct periodic audits-the auditor visits or real-time 24/7 monitoring capability- could also offer valuable insights into operational efficiencies and compliance status. Such measures would not only enhance proactive regulatory compliance but also ensure a culture of environmental responsibility and sustainability within the organization.

**Subject #3 - Burnette Foods's history of not following proper procedures and consistent violations should require monitoring/oversight by a third party.**

There is a long-standing history of concerned citizens raising alarms about Burnette Foods and its waste management practices, which have been documented as being less than acceptable since the 1980s. The company's operations are vertically integrated, relying heavily on the seasonal supply of fruits and vegetables, which adds complexity to its environmental impact. Areas where Burnette Foods's current operations need improvement include:

*A change of mindset* to go beyond compliance in order to achieve compliance. Set internal goals of 20% below all permit levels and deadline dates to build a buffer against an historical culture of "just in time" or "almost". This most likely includes the voluntary acceptance of practices for landowner/neighbor advocacy outreach promoting early reporting of any real or perceived issues.

*Water mapping:* An engineered approach to evaluating all processes and sub-processes for water and BOD loading. Sub-metering throughout the plant to find leaks early and target the top five water user processes in the plant to minimize consumption. This must coincide with respecting food-safety concerns.

*Filtration systems (micro or perhaps ultra) at key source locations* in the plant to recapture saleable product as well as to reuse water in clean in place (CIP) systems, cooling towers or first rinse sanitation for first and second clean and rinse cycles. Using higher temperature water versus more volume or cleaning chemicals and soaking times to reduce water goes a long way. Reduction in water volume (hydraulic load) will make future treatment systems more efficient, less prone to disruption and the land application process more manageable.

*Finalize the wastewater permit with the Village of Elk Rapids and discuss a joint venture* treatment upgrade to handle specific volumes or times in production: The more that can be diverted to an actual wastewater plant with full-time staff, the greater the probability regulatory and nuisance issues will go away.

*Spread out the production peaks to other plants either owned or co-packed:* If your machine is only set up to do a certain volume you need to build, buy or borrow another machine. This happens all the time in the food industry and has given rise to companies of only co-packers that process under the parent company rules and brands but offer infrastructure and expertise. Once again, the current mindset is primarily focused on production with environmental compliance seemingly optional at times.

*Third party oversight with a clear agenda, schedule, and access to the Burnette Foods's Board of Directors.* Amidst the documents produced and not produced several people had to make decisions on how much and what to produce without a clear proactive introductory letter admitting mistakes of the past and a clear path forward. On multiple occasions the State of Michigan has given Burnette Foods the opportunity to do so but

all responses reviewed have been clearly short-sighted and tactical. Clearly, third party objective monitoring and oversight of the land management discharge system is required to achieve proper environmental protection.

The intent of this review is to ensure that Burnette Foods adheres to the same regulatory standards as other food producers operating within the State of Michigan. Compliance with these regulations is vital not only for environmental protection but also for keeping public trust in industry and the regulatory process overseeing them.

Drawing on my professional experience, I previously worked for Premium Standard Farms (PSF), the second-largest hog producer in the United States. After several years of non-compliance and citizen suits being filed, a federally enforceable environmental Consent Decree and two state issued Consent Decrees in North Carolina and Missouri were issued to PSF by the courts. The company was mandated to engage an “expert panel” for five years, which provided governance over our technology and management practices to ensure compliance with all requirements of these agreements. I was hired after the Consent Decrees were issued and I was tasked with managing compliance under these frameworks.

This approach effectively transferred the financial and administrative responsibilities of oversight from state and federal agencies to our company, allowing us to cover the costs associated with these experts while they reported progress to regulatory authorities. Given the complexities involved, other entities could function similarly to ensure compliance and oversight. However, the choice of the expert panel and the parameters of its charter are critical to its effectiveness.

In my professional opinion, there is sufficient evidence of “significant non-compliance” over at least the last five years to call for the issuance of a Consent Decree by the court. Any consent decree or order issued by the federal court should include stipulations for enhanced expert oversight and regular reporting, funded by Burnette Foods in the form of a structured three-to-five-year annual payment plan. This financial commitment would help the management of the oversight process, ensuring that Burnette Foods achieves a compliance rate of 95% or better for three to five consecutive years with integrity of data and the building of a solid management system (checks and verification) being of key importance. Such a proactive approach would not only help the environment but also reinforce the importance of accountability within the food production industry.