

Arkansas Department of Energy and Environment
Division of Environmental Quality
Office of Water Quality

Public Comment:

Permit No. AR0053210
Date: May 18, 2022
Name: Alford Drinkwater
Organization: Town & Country Services
89 Underwood Road
Bigelow, Arkansas 72016

Inappropriate Location: The Paradise Valley WWTP (AR0053210) will discharge into an ephemeral, unnamed tributary of Mill Bayou. Because the tributary is an ephemeral stream, the WWTP will discharge at a point where there is little or no water flow several months each year. Significant flow at that point only occurs following a precipitation event. Discharged wastewater will travel only a short distance before entering a flooded wetland that retains water during most of the year. Under those conditions, pollutants are expected to concentrate in the flooded wetland because of the wastewater discharge. How will the identified uses for the water in Mill Bayou, including fishing, swimming, and drinking, be protected if wastewater is allowed to be discharged into a dry or almost dry stream then accumulate and concentrate in a flooded wetland? Was DEQ aware of the unique environment and ecology of the area receiving the discharge and was it considered by DEQ before deciding to issue the permit?

Both the 1Q10 and 7Q10 flows for the discharge outfall location are zero based on observation by local residents over many years. The Criterion Continuous Concentration (CCC)⁻¹ required by the U.S. Clean Water Act is a multi-day average concentration of a pollutant in ambient water that should not be exceeded more than once every three years on average. The criterion is used to protect aquatic life from chronic effects. Based on zero flow for the 1Q10 and the 7Q10, it does not appear to be possible to permit the proposed wastewater plant without creating pollutant concentrations that will destroy downstream flora and fauna in the Mill Bayou watershed.

The draft permit contains a monthly average ammonia discharge limit of 5.6 mg/l in April; 5.0 mg/l from May through October; and 10 mg/l from November through March. The U.S. EPA recommended level for chronic ammonia in ambient fresh water at 7.0 pH and 20°C is 1.9 mg/l⁻². During low flow or no flow conditions the proposed wastewater discharge will almost certainly cause an exceedance of EPA's recommended level for chronic ammonia toxicity.

Arkansas Regulation 2.512 states that the monthly average concentration of total ammonia nitrogen shall not exceed 4.15 mg/l at 7.0 pH and 20°C. Given the existing ambient background levels of ammonia nitrogen, it appears that the addition of ammonia from the proposed wastewater discharge will cause ammonia levels to rise past a point of toxicity and destroy Mill Bayou as a fishery.

The permit for this proposed wastewater treatment plant should be denied because it will allow discharge of poorly treated wastewater at a completely inappropriate location.

Inappropriate Treatment Facility: The proposed wastewater treatment plant does not have treatment capacity for phosphorus, heavy metals, hormones, endocrine interrupters, prescription drugs, or hazardous waste. It does not have any buffering capacity such as lagoons to prevent poorly treated wastewater from being discharged before treatment has been completed. The lack of capacity in package treatment plants means that every gallon of wastewater has to be completely and perfectly treated when it is time for it to be discharged because there is no other place for it to go.

Since there is insufficient buffering capacity built into the package treatment plant and package treatment plant provides no treatment at all for many known and very troubling pollutants such as endocrine interrupters, hormones, phosphorus, and heavy metals, the proposed WWTP is completely inappropriate for the environment and ecology in the Mill Bayou area. The permit for this proposed wastewater treatment plant should be denied due to its inadequacies for properly treating wastewater.

Inappropriate Permittee – Bad Actor: These comments are directed specifically to discharge permit AR0053210. However, it is relevant to include information relating to stormwater permit ARR150142, stormwater permit ARR157007, and

wastewater permit AR0050393. All of these permits have been granted by DEQ to entities controlled by the same person applying for permit AR0053210.

AR0050393 is a wastewater permit for a package treatment plant that serves Waterview subdivision. It discharges at a point on Mill Bayou west of the Waterview subdivision and approximately 3.0 stream miles below the proposed discharge point for this permit (AR0053210). The discharge point for AR0050393 is a permanent stream that continuously flows. The discharge point for AR0053210 is an ephemeral stream that is dry for significant periods.

The north end of the Paradise Valley subdivision is connected overland by a piece of property including easements owned entirely by the developer/permittee. The distance from the north end of Paradise Valley to the discharge point for AR0050393 is approximately 1.9 miles overland. The permittee could discharge into the lower permanent stream segment of Mill Bayou if he chose to do so.

ARR150142 is a stormwater permit for 1,100 acres of land. It was reissued in 2006 and 2021. It includes the 170-acre area where the 19.2-acre Paradise Valley subdivision is proposed to be built.

AR157007 is a stormwater permit for 170 acres of land and was reissued in 2021. All of the 170 acres covered by this permit are also a part of the 1,100 acres covered by permit ARR150142. No request for modification of the coverage boundaries for ARR150142 is on file with the pertinent documents filed on the DEQ website. Therefore, the Paradise Valley subdivision appears to be covered by both ARR150142 and AR157007.

Stormwater permit ARR150142 allowed for the transfer of a significant amount of stormwater from the Maumelle watershed into the Mill Bayou watershed. The area in the Maumelle watershed for which this transfer relates is approximately 100 acres. The stormwater pollution prevention plan for ARR150142 includes controls for sediment such as silt fences and retention basins.

On July 2, 2008, DEQ performed a stormwater inspection at the 1,100-acre Waterview Estates site. During that inspection it was discovered that the owner had not constructed two of the retention basins that were called for in his

stormwater permit. At least one of those retention basins was supposed to be located in the area of the currently proposed Paradise Valley subdivision.

On February 22, 2022, DEQ again performed a stormwater inspection of the Waterview Estates site with emphasis on that part of the site occupied by the proposed Paradise Valley subdivision. Once again, almost 14 years later, DEQ discovered that the developer had not constructed the promised retention basins.

On January 14, 2009, DEQ performed a stormwater inspection at the 1,100-acre Waterview Estates site. During that inspection it was discovered that the owner had not observed the required 25-foot buffer from the unnamed streams flowing across the site. Based on the pictures appurtenant to that report, at least some of those unnamed streams were located in the area of the currently proposed Paradise Valley subdivision.

On February 22, 2022, DEQ again performed a stormwater inspection of the Paradise Valley subdivision site. Once again, almost 14 years later, DEQ discovered that the developer had not observed the required 25-foot buffer from the unnamed streams flowing across the site.

Based on the inspection reports made available by DEQ on its website, it appears that from May 18, 2011 until February 22, 2022 no stormwater inspections of the Waterview Estates site were performed. There were three inspections performed during a three-year period (2008-2011) followed by no inspections for an 11-year period (2011-2022). All three of the inspections from 2008-2011 showed significant violations. But there appears to have been no follow up inspections for 11 years. How is that possible?

In January 2022, a complaint against the stormwater permit holder was filed with DEQ. That complaint resulted in a DEQ inspection. The inspection revealed that permittee had failed to observe buffers and bulldozed multiple ephemeral streams, failed to build a retention basin, used a county road as part of its retention and channeling structure, and many other violations. It appears that DEQ now believes that the same permit holder will comply with the terms of a wastewater permit using an ill-suited package treatment plant that must perform perfectly 24 hours per day due to its lack of buffering capacity. This permit should

be denied because the applicant has shown himself to be a bad actor with existing environmental permits.

The applicant has indicated that the proposed WWTP will be manned daily for a couple of hours. Without daily maintenance, a package treatment plant soon becomes dysfunctional. The applicant has an established track record with regard to his failure to provide daily routine maintenance for an existing package treatment plant (AR0050393 – Waterview subdivision) according to the DEQ's inspection reports. The applicant also has an established track record with regard to his gross disregard and failure to abide by the terms of stormwater permits ARR150142 and ARR157007. Because of the applicant's failure to comply with discharge requirements, operate and maintain the existing Waterview wastewater treatment plant in accordance with agreed upon operating practices, and comply with his stormwater permits, he has established himself as a bad actor. Can this applicant be trusted with another permit for a WWTP that will discharge into a much more environmentally sensitive area than his first WWTP (AR0050393) discharges into? I think not. This permit should be denied because it pairs a bad actor, poor technology, and a sensitive environmental area.

The Waterview subdivision received coverage under construction stormwater permit ARR150142 for an 1,100-acre tract that includes both the Waterview subdivision and the Paradise Valley subdivision in 2006. As stated above, the permittee was allowed to redirect stormwater from a large area within the Maumelle watershed to the Mill Bayou watershed. The permittee agreed to construct a retention basin and provide other protections to prevent stormwater pollution and flooding of Mill Bayou.

However, in a February 22, 2022 stormwater inspection report, DEQ found that the permittee had not constructed the retention basin and had done significant damage to intermittent and ephemeral streams on the property. From 2006 until 2022 is an awfully long time for DEQ to allow the permittee to dump excessive stormwater polluting and flooding neighboring property without constructing promised retention basins.

When the February 22, 2022 stormwater inspection was conducted, the most severe violations discovered in the 2008 and 2009 inspections were still fresh and ongoing. Can we trust this developer? Can we trust DEQ to control this

developer? The other property owners and residents in the Roland area also have property rights and DEQ is obligated to protect those rights as much as a developer's right to pollute under the cover of a DEQ permit.

The permittee has constructed diversion berms and canals within the Lake Maumelle (Maumelle River) watershed that are used to transfer stormwater from approximately 100 acres into the Mill Bayou watershed. The transfer of that stormwater has contributed to increased flooding on private property located below the development in the Mill Bayou watershed. The developer has created a point source discharge from the completed and under construction areas in the Waterview subdivision that flows through the Paradise Valley subdivision and onto neighboring private property. According to a statement from Jessica Sears, DEQ Office of Water Quality, Permits Branch, the point source discharge of stormwater from Waterview subdivision and Paradise Valley subdivision will not be required to obtain an MS4 permit after construction is complete.

ARR15000, PART II, Section A(4)(L) states, ".... However, post-construction stormwater BMPs that discharge pollutants from a point source once construction is completed may need authorization under a separate DEQ NPDES permit." There is no question that the developer has created a polluted "point-source" discharge. Under state and federal regulations, the developer should be required to secure an individual NPDES stormwater permit.

According to 40 CFR 122.1 (b)(1), "The NPDES program requires permits for the discharge of 'pollutants' from any 'point source' into 'waters of the United States.' The terms 'pollutant', 'point source' and 'waters of the United States' are defined at § 122.2."

Currently, stormwater from both the Waterview subdivision's completed and uncompleted areas flows through canals and pipes creating a polluted point source discharge that flows through the Paradise Valley subdivision then onto neighboring private property without benefit of the retention basin promised in 2006. DEQ should move quickly to enforce permits ARR150142 and ARR1507007, to prevent further flooding and destruction of wetlands and the ecology below the Paradise Valley subdivision. And DEQ should deny permit AR0053210 to prevent the pollutant buildup from destroying the Mill Bayou wetlands.

DEQ typically allows developers in Arkansas, under cover of a registered engineers stamp, to install a retention basin to reduce stormwater pollution and flooding. However, it is well known that a full retention basin does little to reduce either pollution or flooding during a stormwater event. Retention basins are most often full in the spring at the same time stormwater events most often occur.

In order to minimize flooding onto neighboring property, DEQ should require an appropriately designed and sized detention and slow-release system instead of the retention system which was promised by the developer but never delivered. In cases such as protecting the wetlands around Mill Bayou, the detention system should be designed with significant capacity capable of handling the entire basin area, all of which is owned by the developer. The detention system should be equipped with very slow release to prevent flooding and destruction of wetlands. DEQ should deny this discharge permit and not provide imprudent validation for the developer's environmentally destructive plans.

The February 22, 2022 stormwater inspection report completed by DEQ indicates that according to the USGS StreamStats Application the "promised but never delivered" retention basin drains approximately 320 acres on the permitted site not including offsite flow. I have reviewed the area using the USGS StreamStats Application and I was able to confirm the 320-acre basin area referenced. However, the DEQ report failed to include the approximately 100-acre area in the Maumelle watershed and the Waterview subdivision that is drained into the Mill Bayou watershed. That watershed-to-watershed stormwater transfer is included in stormwater permit ARR150142.

According to the information provided by Bryan Leamons (DEQ) in his March 2, 2022 letter to the developer, the developer is responsible for controlling the stormwater from Waterview Estates subdivision (permit ARR150142) that flows through Paradise Valley and he is responsible for controlling the stormwater originating in Paradise Valley subdivision (permit ARR157007). If only the point source stormwater from the approximately 320-acre area identified in the February 22, 2022 inspection and the approximately 100-acres that are being transferred from the Maumelle basin into the Mill Bayou basin are considered, the developer will need to furnish a retention basin with a capacity of approximately 1,152,000 cubic feet.

On March 24, 2022, the developer's engineer submitted a letter stating that a new sedimentation basin would be provided with 110,000 cubic feet of capacity. In light of the fact that the same developer is responsible for all the stormwater from the Waterview subdivision (ARR150142) and the Paradise Valley Subdivision (ARR157007), the proposed 110,000 cubic foot retention basin has less than 10% of the capacity needed.

Photograph DSCN3662 included with the Paradise Valley stormwater inspection conducted by DEQ on February 22, 2022 shows the unnamed tributary to Mill Bayou flooded bank full on the north side of Roland Cutoff Road with stormwater that had just left Paradise Valley. A rain fall event of 1.36 inches had been recorded according to the inspection report. No homes have yet been built in Paradise Valley. No streets have yet been paved in Paradise Valley. The current sub-section of the Paradise Valley subdivision that is under construction contains less than 20% of the homes that are planned for the entire subdivision. Runoff from the constructed areas will increase from around 30-35% to over 60% of stormwater when the construction is complete.

Photograph DSCN3662 indicates that the developer has already created flooding problems for the community. Allowing additional development to take place without significant stormwater controls will create devastating floods. In addition, the increased volume of stormwater created by the development and the partially treated wastewater from the proposed wastewater treatment plant will destroy the wetlands downstream.

The wastewater effluent's negative impact on the wetlands and Mill Bayou will be significantly enhanced due to the uncontrolled and ramped up stormwater. I have included as a part of my comment, comments from Dr. Steve Patterson regarding damage the wastewater effluent in conjunction with stormwater will cause for the wetlands downstream from the wastewater treatment plant. Dr. Patterson is a well-known expert in wetlands and wetlands restoration.

In summary, this developer has been given three environmental permits from DEQ and has failed to honor the terms of all of them. He has proven himself to be an unreliable bad actor who acts in bad faith when he gives DEQ his word that he will comply with the terms of his permits. He should not be given another environmental permit until he has sufficiently proven his capacity to comply with

existing permits. Without extraordinary controls, this developer will destroy an extraordinary Arkansas environmental and cultural resource which is located on private property belonging to people who have private property rights. Please deny wastewater permit AR0053210.

Notes;

1. **Criterion continuous concentration** (CCC) means the highest instream concentration of a toxicant or an effluent to which the organisms can be exposed to protect against chronic (long-term) effects.
2. AQUATIC LIFE AMBIENT WATER QUALITY CRITERIA FOR AMMONIA – FRESHWATER 2013; US EPA; EPA 822-R-18-002;