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IN THE CIRCUIT COURT OF PULASKI COUNTY, ARKANSAS
CIVIL DIVISION

CITY OF NORTH LITTLE ROCK, ARKANSAS, FOR THE USE AND BENEFIT OF THE NORTH LITTLE ROCK WASTEWATER TREATMENT COMMITTEE **PLAINTIFF**

VS. **CASE NO. _____**

THE SEWER COMMITTEE OF THE CITY OF SHERWOOD, ARKANSAS, and THE CITY OF SHERWOOD, ARKANSAS **DEFENDANTS**

COMPLAINT FOR EQUITABLE RELIEF AND DAMAGES

COMES NOW, the Plaintiff, the City of North Little Rock, Arkansas, for the Use and Benefit of the North Little Rock Wastewater Treatment Committee (hereinafter "**NLRW**"), by and through its attorneys, HILBURN & HARPER, LTD., and for its Complaint for Equitable Relief and Damages, states as follows:

INTRODUCTION

1. The Plaintiff, NLRW, is a public utility owned by the City of North Little Rock, located and operated in Pulaski County, Arkansas.

2. The Defendant, Sewer Committee of the City of Sherwood, Arkansas (hereinafter, "**Sherwood Sewer**") is a public utility owned by the city of Sherwood, Arkansas, located and operated in Pulaski County, Arkansas.

3. The Defendant, City of Sherwood, Arkansas (hereinafter, "**Sherwood**"), is a municipality located in Pulaski County, Arkansas.

4. This Court has subject matter jurisdiction pursuant to Ark. Code Ann. § 16-13-201.

5. This Court is the proper venue pursuant to Ark. Code Ann. § 16-60-101.

6. This dispute concerns the rights and obligations of NLRW, Sherwood, and Sherwood Sewer regarding wastewater treatment services for an area in Sherwood. Prior to 1971, NLRW provided wastewater utility services for most of the residents in this area, now known as the "**Satellite District**". A map depicting the current Satellite District is attached hereto as Exhibit 7, as further described below.

FACTUAL ALLEGATIONS

7. NLRW is a public wastewater collection and treatment utility servicing the City of North Little Rock, Arkansas, the City of Maumelle, Arkansas, certain portions of the City of Sherwood, Arkansas, and certain portions of Pulaski County, Arkansas.

8. Sherwood Sewer is a public wastewater collection and treatment utility servicing a portion of the population of Sherwood, Arkansas.

9. NLRW and Sherwood entered into an agreement in 1971, attached hereto and incorporated herein as **Exhibit "1"** (hereinafter, the "**1971 Agreement**"), whereunder Sherwood could connect its sewer lines to NLRW's sewer lines, and NLRW would take over the treatment of a portion of Sherwood's wastewater, to be treated at the Five Mile Creek Basin Sewage Treatment Plant (hereinafter, "**Five Mile Plant**"). This was the first iteration of the Satellite District, and the affected customers were Sherwood's customers prior to the 1971 Agreement.

10. Under the 1971 Agreement, Sherwood would charge its own residents for wastewater services, and NLRW would charge Sherwood $0.75 per Sherwood resident whose water was treated at Five Mile Plant. Exhibit 1, ¶3. This permitted Sherwood to charge its own wastewater rates to the customers in the Satellite District ("**Satellite Customers**"), rather than NLRW charging Satellite Customers directly. The 1971 Agreement provided that Sherwood would maintain its own sewer lines. Exhibit 1, ¶1.

11. Subsequently, a dispute arose between NLRW, Sherwood, and Sherwood Sewer (collectively, the "**Parties**") regarding which residents were customers of Sherwood Sewer and which residents were customers of NLRW, and the rates NLRW could charge Sherwood Sewer for wastewater treated at Five Mile Plant. This dispute culminated in 1988 in an action, styled: *The Sewer Committee of the City of Sherwood, Arkansas, and the City of Sherwood Arkansas, v. Gary Mills, Manager of the Waste Water Utility of the City of North Little Rock, Arkansas, and K.W. Matthews, Clark McGlothin, Larry Dyer, Jim Glover, and J. Larry Taylor, Commissioners of the Sewer Committee of the City of North Little Rock, Arkansas, and the City of North Little Rock, Arkansas*, Pulaski County Case No. 88-4160 (the "**1988 Litigation**").

12. The Parties settled the claims in the 1988 Litigation in three non-contemporaneous parts: the "**Interim Stipulations**", dated July 26th, 1989; the "**1989 Agreement**", dated September 1, 1989; and the "**1990 Agreement**" dated September 28th, 1990. Collectively, these documents comprise the "**Satellite Agreement**" which governs the operation of the Satellite System today. A copy of the Satellite Agreement is attached hereto and incorporated herein as **Exhibit "2"**, including the Interim Stipulations at Exhibit "2-A", the 1989 Agreement at Exhibit "2-B", and the 1990 Agreement at Exhibit "2-C".

13. The Satellite Agreement provides the boundaries of the Satellite District. See Exhibit 2-A, ¶2.[1] The Satellite District boundaries are the same boundaries as the Sherwood city limits in 1990. The Satellite Agreement also provides a formula for calculating the amount Sherwood Sewer is required to pay NLRW for Satellite wastewater treatment, which is paid on a monthly basis with a prorated share of costs using water meter records. Exhibit 2-A, ¶5.

[1] Paragraph 2 of the Interim Stipulations refers to the Satellite Customers as "Sherwood Customers", but these are residents who live in the Satellite District, whose wastewater is treated at Five Mile Plant.

14. Under the Satellite Agreement, Sherwood and Sherwood Sewer (together, the "**Defendants**") took over the operation of the existing sewer infrastructure in the Satellite District, most of which had previously been managed by NLRW. The Defendants are responsible for the proper operation and maintenance of the wastewater infrastructure in all of Sherwood, including in the Satellite District. This includes the underground pipes, or "**lines**", that collect residents' wastewater and transport it, via dozens of connection points, to NLRW lines, which ultimately bring the sewage to Five Mile Plant. The Defendants manage and operate the lines inside the Satellite District for so long as the Satellite Agreement is in effect.

15. The Satellite Agreement makes Sherwood responsible for the sewer infrastructure inside the Satellite District, stating:

> "With regard to Sherwood customers[2], or any North Little Rock or District customers who become Sherwood customers in the future under any manner, voluntary or involuntary, Sherwood agrees to maintain and repair and service the sewer lines of this area in the same manner and condition as said lines had been serviced and maintained by the City of North Little Rock, and to maintain said lines in a manner consistent with all applicable Federal and State laws, and North Little Rock Ordinances and specifically the "North Little Rock Waste Water Utility Specification Requirements for Sanitary Sewers"…"

Exhibit 2-C, ¶10.

16. Sherwood and Sherwood Sewer are thus unambiguously obligated to not only maintain the lines and other infrastructure inside the Satellite District, but to do so in the same manner as NLRW maintains its infrastructure.

17. The Satellite Agreement further provides that the Agreement "shall remain in effect so long as the Interim Order remains in effect, or until this Agreement is cancelled by any one of the parties hereto, whichever is first". Exhibit 2-B, ¶3.

[2] "Sherwood customers" as defined under the 1990 Agreement are Satellite Customers.

18. Sherwood and Sherwood Sewer have not and do not perform sufficient regular maintenance on the Satellite infrastructure.

19. Specifically, Sherwood and Sherwood Sewer have failed to conduct adequate regular cleaning, inspection, rehabilitation and repair of the Satellite lines. Over time, connection points and the lines themselves degrade, so that connections and joints eventually fail to remain watertight and cracks form in the lines. Cracks in the lines and leaks in the connections allow additional water, known as "**inflow and infiltration**", to flow into the lines. The inflow and infiltration brings sediment and debris into the lines, which settles there and has the effect of reducing the flow capacity. The additional inflow and infiltration puts more stress on the rest of the infrastructure, including Five Mile Plant, particularly during wet weather events. The more the Satellite lines deteriorate, the more wear and tear it causes to Five Mile Plant, which is effectively absorbing costs of Sherwood's insufficient maintenance.

20. The primary solution to the inflow and infiltration is to replace lines by open-cut, pipe bursting, or a lining called "cure in place pipe" or "**CIPP**". Manhole rehabilitation is also necessary to combat the inflow and infiltration.

21. In addition to increasing costs for NLRW, the improper maintenance in the Satellite District causes "**Sanitary Sewer Overflows**" or "**SSOs**", which are unpermitted discharges of untreated wastewater into the ground or into natural waterways. An SSO is a violation of federal law. See 33 U.S.C.S. § 1311(a).

22. NLRW, through its scheduled maintenance and replacement efforts, has kept its yearly SSOs to between 1.1 and 2.7 per year per 100 miles from 2020 to 2025, for the Five Mile Creek Basin, in which the Satellite System sits. Sherwood has had as many as 131.7 SSOs per 100 miles per year in the Satellite District in the same period. Sherwood and Sherwood Sewer maintain

only 36 miles of sewer lines in the Five Mile Creek Basin, compared to NLRWU's 184 miles. A map depicting the Five Mile Creek Basin and each utility's overflows, with accompanying table, is attached hereto as **Exhibit "3"**.

23. The SSOs in the Satellite District are chronic, repetitive and persistent. NLRW has observed one problem location, known as the "**Chesterfield Manhole**", overflow multiple times for over 12 hours during and after rainfall events, at rates NLRW estimates to exceed 500 gallons per minute, for a total overflow of raw untreated sewage into the environment exceeding one million gallons. The Chesterfield Manhole overflow is so intense that it has washed away the manhole cover on multiple occasions and has its own defined ditch leading into a nearby swamp. Worse still, this occurs mere feet from a resident's backyard, and the water flows directly into a natural swamp. Pictures taken of the Chesterfield Manhole SSO during a wet weather event are attached hereto and incorporated herein as **Exhibit "4"**.

24. The Defendants should report SSOs in the Satellite District to NLRW and should provide information on their plan to reduce or eliminate the SSOs, in order to properly operate and maintain the Satellite District system.

25. NLRW is the holder of an Authorization to Discharge Wastewater under the National Pollutant Discharge Elimination System and the Arkansas Water and Air Pollution Control Act (an "**NPDES Permit**"). An NPDES Permit is required for all wastewater utilities, and is specific to each treatment plant. A copy of NLRW's NPDES Permit for Five Mile Plant is attached hereto and incorporated herein as **Exhibit "5"**.

26. Wastewater flowing from the Satellite District is treated at Five Mile Plant, under NLRW's NPDES Permit for that plant, to which Sherwood and Sherwood Sewer are not parties.

27. NLRW does not have possession or control of the Satellite District infrastructure, and is not responsible for the maintenance or compliance of the Satellite District infrastructure. However, it is subject to additional oversight as the NPDES Permit holder treating the Satellite District wastewater.

28. NLRW has attempted many times to convince the Defendants of the need for investment in the Satellite District infrastructure. NLRW met with the Defendants multiple times in 2025 to discuss issues with the Satellite District infrastructure. On November 3, 2025, counsel for NLRW sent a letter to Sherwood city attorney Stephen Cobb noting, in part, the issues in the Satellite District, and informing Mr. Cobb of NLRW's intent to amend the 1990 Agreement. A copy of this letter is attached hereto and incorporated herein as **Exhibit "6"**. On July 16, 2026, NLRW, through counsel, sent a letter to the Defendants' outside counsel denoting these issues and requesting that the Defendants address the Satellite District issues. Despite NLRW meeting with the Defendants on this issue and advising of the need for amendment to the 1990 Agreement, the Defendants refuse to agree to meaningful change.

29. Prior to the creation of the Satellite District, NLRW provided wastewater services to most of the area within the Satellite District. A map depicting the 1960 Sherwood city limits, compared to the 1990 Satellite District, is attached hereto and incorporated herein as **Exhibit "7"**. The area in blue was Sherwood's city limits in 1960, for which Sherwood, through an improvement district, provided wastewater services. Sherwood kept these customers under the 1971 Agreement and the Satellite Agreement, and outsourced the treatment of the customers' sewage to Five Mile Plant. The rest of the Satellite District, in green, was all NLRW-treated service area, and NLRW agreed to give those customers to the Defendants, but continue treating the water, under the 1990 Agreement.

30. Upon the termination of the Satellite Agreement, the customers in the green area depicted in Exhibit 7 would revert to being NLRW customers, and the customers in the blue area would remain Sherwood customers.

CAUSES OF ACTION

COUNT I – BREACH OF CONTRACT

31. NLRW incorporates and realleges the preceding paragraphs as if restated herein.

32. The Defendants have a duty to maintain the Satellite District wastewater infrastructure in the Satellite District as described above.

33. The Defendants have not performed their duty to maintain the Satellite District infrastructure in accordance with industry standards, NLRW's standards, or applicable law.

34. The Defendants' breach of their contractual duty to maintain the Satellite District infrastructure is resulting in damages to NLRW in the form of increased exposure to liability under environmental laws, and in the form of increased stress on Five Mile Plant. Additionally, NLRW is entitled to damages to compensate it for expenses it incurs in repairing and rehabilitating the Satellite District infrastructure, due to the Defendants' breach of their duty to maintain the system.

35. NLRW is entitled to terminate the Satellite Agreement effective immediately, under the plain language of the Agreement, and to end its relationship with the Defendants with respect to the Satellite District.

36. NLRW is entitled to retake possession and ownership of the Satellite District infrastructure, and to resume providing wastewater services to the Satellite District and billing the customers therein as it was prior to the 1971 Agreement.

37. NLRW is entitled to damages, in an amount to be calculated at trial, for the additional costs of the inflow and infiltration into NLRW's wastewater infrastructure around the

Satellite District, including Five Mile Plant, which was caused by the Defendants' failure to adequately maintain the Satellite District infrastructure.

38. NLRW is also entitled to damages, in an amount to be calculated at trial, for the costs of rehabilitating and repairing the Satellite District infrastructure, to restore the infrastructure to the condition it would be in if the Defendants had performed their duties to maintain the infrastructure.

WHEREFORE, Plaintiff, NLRW, requests (a) that the Court enter an Order providing that the Satellite Agreement is terminated, effective immediately; (b) that the Court enter a Declaratory Judgment stating that all customers of the Satellite District except for those which were Sherwood customers prior to the 1971 Agreement, are now NLRW customers, for which NLRW alone may provide wastewater utility services and impose appropriate charges; (c) for damages in an amount to be determined at trial; and (d) for all other just relief to which it is otherwise entitled.

Respectfully submitted,

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/s/ *Scott Hilburn*
Scott Hilburn (ABN 2010125)
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EXHIBIT "1"

AGREEMENT

THIS AGREEMENT made and entered into on this 28th day of May, 1971, by and between the Sewer Committee of the City of North Little Rock, Arkansas (herein called the "Sewer Committee") and the City of Sherwood, Arkansas (herein called the "City")

WITNESSETH:

WHEREAS, the Committee is to construct a pumping station and a sewage treatment plant in the Five Mile Creek Basin; and

WHEREAS, said pumping station and sewage treatment plant will be capable of serving the sewer system of the City; and

WHEREAS, the Committee has agreed to furnish certain services to the City's sewer customers;

NOW, THEREFORE, the Committee and the City agree as follows:

1. The City shall be permitted to tie the sewer lines within its present City limits, which sewer lines the City shall maintain, into the Committee's sewer lines and said Five Mile Creek Basin pump station and sewage treatment plant.

If the City desires to tie more than 150 additional residential or up to the equivalent thereof of commercial or industrial lines in any one twelve month period in any area which has been annexed to the City after the date of this Agreement, into the Committee's said facilities, such shall not be done by the City until a written amendment to this Agreement is entered into by the parties hereto.

2. The Committee will receive and pump wastes to treatment facilities from said Five Mile Creek Basin pumping station, provide proper treatment acceptable to the Arkansas Pollution Control Commission, maintain and operate such treatment facilities, and dispose of the effluent therefrom.

3. The Committee shall charge the City Seventy-five Cents ($0.75) per month for each contributing customer in the Sherwood System paying the minimum sewer charge. Said charges shall be paid by the City to the Committee by the 15th of each month. For customers requiring greater service, the fee shall be determined by the City using the same formula as the Committee when

EXHIBIT "1"

charging its excess use customers. The gross proceeds from said excess use customers shall be divided equally between the City and the Committee.

Non-residential users whose water consumption is in excess of 2,200 cubic feet per month and which are tied into the City's sanitary sewer system shall be considered excess water users for the purpose of this Agreement.

4. The Committee shall increase or decrease the charges covered by Paragraph 3 hereof when the Committee's charges to its users, as outlined in North Little Rock City Ordinance No. 3096 as amended, are changed and said increases or decreases shall be made proportionately. Residents of the City shall be governed by the same regulations as govern residents of the City of North Little Rock, all as set forth in North Little Rock City Ordinance No. 3591 as amended, and the City will assure the Committee of compliance by its residents. True copies of said Ordinances No. 3096 and No. 3591 are attached hereto and made a part hereof.

IN WITNESS WHEREOF, the parties have executed this instrument by their duly authorized officers, on the date first above written.

CITY OF SHERWOOD, ARKANSAS

ATTEST:

By _____
B. E. Henson, Mayor

SEWER COMMITTEE OF THE CITY OF NORTH LITTLE ROCK, ARKANSAS

ATTEST:

By _____
Chairman

CITY OF NORTH LITTLE ROCK, ARKANSAS

ATTEST:

By _____
W. F. Laman, Mayor

SEWER COMMITTEE OF THE CITY OF SHERWOOD, ARKANSAS

ATTEST:

By _____
C. W. McNutt, Chairman

EXHIBIT "2"

IN THE CHANCERY COURT OF PULASKI COUNTY, ARKANSAS
FIRST DIVISION

THE SEWER COMMITTEE OF THE CITY OF SHERWOOD, ARKANSAS, and THE CITY OF SHERWOOD, ARKANSAS

PLAINTIFFS/ COUNTERDEFENDANTS

vs. NO. 88-4160

GARY MILLS, Manager of the Waste Water Utility of the City of North Little Rock, Arkansas, and K. W. MATTHEWS, CLARK McGLOTHIN, LARRY DYER, JIM GLOVER, and J. LARRY TAYLOR, Commissioners of the Sewer Committee of the City of North Little Rock, Arkansas, and the CITY OF NORTH LITTLE ROCK, ARKANSAS

DEFENDANTS/ COUNTERCLAIMANTS

INTERIM STIPULATIONS

These Interim Stipulations are entered into this day between the Sewer Committee of the City of Sherwood, the City of Sherwood, Arkansas, the North Little Rock Waste Water Utility, and the City of North Little Rock, Arkansas.

WHEREAS, there is currently a lawsuit pending between the parties hereto over the extent and boundaries of the sewer lines and customers covered by the sewer systems of each City and the rates to be charged; and

WHEREAS, the parties wish to stipulate to facts not in dispute to allow a temporary order to be entered in a manner beneficial to both parties;

BE IT HEREBY STIPULATED BY THE PARTIES AS FOLLOWS:

EXHIBIT "2"

1. For purposes of these stipulations there shall be three (3) defined categories of customers: (a) "Sherwood customers", (b) "District customers", and (c) "North Little Rock Waste Water Utility customers".

2. Sherwood customers consist of any and all sewer customers within a certain land area, the legal description of which is more particularly described as follows: All land area within the city limits of Sherwood which is south of a line described as follows. Said line shall begin at the intersection of Highway 107 and the city limits of Sherwood and shall extend along the southeastern side of Highway 107 going in a northerly direction until it reaches Club Road, then said line shall continue along Club Road in an easterly direction until it reaches Claremont Street, then it shall proceed in a northerly direction until it reaches the south side of Lee Avenue, and then it shall continue in an easterly direction until it reaches the east side of Bronco Lane and from the southeast corner of said intersection, said line shall then extend in a due southerly direction until it shall intersect with a line exactly even with Club Road were Club Road extended in said easterly direction and then from that point due east along a line exactly even with Club Road until said line reaches the eastern boundary of the city limits of Sherwood, said line to be south of Hollywood Drive and north of Carnagie Drive extending through the middle of Rest Hills Cemetery (Rest Hills Cemetery shall be considered a Sherwood customer) and all customers within the city

limits of Sherwood which are south of this line shall be considered Sherwood customers, with the exception of the Overbrook Subdivision which shall be that part of Sherwood southwest of the Creek traveling through the southwest corner of Sherwood, the location of said creek being known to the parties.

3. District customers are sewer customers of sewer lines leading to Five Mile Creek Treatment Plant and related facilities (hereinafter Five Mile Creek), if said customers are within Improvement Districts 212, 233, 234 or 236, and if said customers do not constitute Sherwood customers. Specifically, customers within District 212 who are also within the geographic boundary described in paragraph 2 above shall be considered "Sherwood customers". The respective legal boundaries of Improvement Districts 212, 233, 234 and 236 have been established and drawn on a map in the possession of the parties.

4. North Little Rock customers are defined as any and all sewer customers within the City of Sherwood who tie on to any lines leading to the Five Mile Creek or any other North Little Rock Sewer Station except those customers which are either Sherwood customers or District customers.

5. Temporarily until entry of a final order, the City of Sherwood and the Sherwood Sewer Committee shall have the right to bill direct (under any method which they see fit to use) any and all "Sherwood customers" for sewer service. The City of Sherwood shall in turn pay to the North Little Rock Waste Water Utility an

amount each month for the privilege of using the North Little Rock sewer lines and the Five Mile Creek to treat the sewage of said customers, said amount to be determined according to an established formula percentage. The amount that Sherwood bills its customers for said service shall have no bearing on the amount Sherwood shall pay to North Little Rock. Sherwood shall set its billing rates, but North Little Rock shall be paid according to the formula regardless of Sherwood's collection efforts or the success thereof. Said formula percentage shall be fixed by a formula designed to most accurately determine the percentage of usage attributable to Sherwood customers. Currently, the method used shall be the ratio of usage of water by Sherwood customers as shown by water meter readings, divided by the total of all water meter readings for all customers of Five Mile Creek. The ratio or percentage so derived shall be known as "p", which shall then be multiplied by the total cost of the operation of the plant "t", elements of which shall be determined according to the cost schedule attached hereto as Exhibit "A". Where cost elements or allocation thereof are absent, whether such cost is included, or the manner in which it shall be allocated shall be determined by general accepted accounting principals as established by the American Institute of Certified Public Accountants. The cost formula set out algebraically is p x t = amount to be paid by Sherwood.

6. The amount to be paid under such formula shall be collected on a monthly basis based upon a number derived at the

close of the preceding fiscal year for said Five Mile Creek. The amount to be collected in the current year shall be an amount equal to One Hundred Ten Percent (110%) of the amount derived by applying the above formula to the cost of operation of the Plaint for the previous year (i.e., p x t previous year). As soon as possible after the close of the fiscal year, the actual amount which should have been paid for that year will be figured, and any over-payment by the City of Sherwood will be credited and amortized over the next twelve (12) payments due, and any under-payment by the City of Sherwood shall be added to its payments for the following year and amortized over the following twelve (12) months until said deficiency is retired.

7. With regard to District customers, the City of North Little Rock shall continue to operate the sewer systems for all District customers in the manner currently being practiced.

8. With regard to North Little Rock customers within the City of Sherwood, which includes all legally authorized customers tied to Five Mile Creek who are not District or Sherwood customers, the City of North Little Rock will operate the said sewer lines and maintain them and bill said customers in a manner and amount which is the same as customers of the North Little Rock Waste Water Utility within the City of North Little Rock are serviced and billed pursuant to the same rules, regulations, and laws as is currently being done.

9. It is understood by the parties that the new rate structure developed by this Agreement shall be made retroactive to September 16, 1988, and the amount owed from that date to the current time shall be computed and assessed against Sherwood as an arrearage, said arrearage to be paid by December 1, 1989, and to be determined by actual historical data and not projections.

10. It is understood by the parties that these are interim stipulations and that the parties hereto are currently renegotiating their prior existing agreements and that these issues remain to be renegotiated in final form. It is hereby agreed that final agreement with regard to the dispute between the parties are to be resolved if possible no later than August 31, 1989.

11. The effective date of the new rates shall be August 1, 1989, and the effective date of the establishment of customer identify shall also take effect on August 1, 1989. The amount owed as an arrearage from September 16, 1988 to August 1, 1989 shall be determined and paid by December 1, 1989.

12. Since the amount of the arrearage will be ascertainable from historical data, the amount of the arrearage shall not be based on future projections, as are the other rates collected, but shall be based on the actual usage of the customers who were actually billed by Sherwood. Appropriate credit will be made for any customers who paid double bills or who paid the wrong party.

13. These stipulations shall become effective upon approval by the Court and shall remain in effect until subsequent Court

EXHIBIT "2"

order.

Stipulated to this 26 day of July, 1989.

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Special Master
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EXHIBIT "2"

EXHIBIT "A"

Item 1. Supervision: Records shall be kept by North Little Rock Waste Water Utility to accurately reflect the direct allocation of supervisory labor, and there shall be added to the compensation paid to such supervisory labor an amount equal to thirty-five percent (35%) as the fringe benefit cost factor for said labor.

Item 2. Labor: Records shall be kept by North Little Rock Waste Water Utility to accurately reflect the direct allocation of labor, and there shall be added to compensation paid for said labor an additional thirty-five percent (35%) fringe benefit cost factor.

Item 3. Supplies: The North Little Rock Waste Water Utility shall keep accurate records to reflect the direct allocation for cost of supplies at Five Mile Creek.

Item 4. Transportation: Records shall be kept by North Little Rock Waste Water Utility to accurately reflect the direct allocation of transportation costs for Five Mile Creek.

Item 5. Electricity: Records shall be kept by North Little Rock Waste Water Utility to accurately reflect the direct allocation of electricity costs.

Item 6. Water: Records shall be kept by North Little Rock Waste Water Utility to accurately reflect the direct allocation of water costs.

Item 7. Phone: Records shall be kept by North Little Rock Waste Water Utility to accurately reflect the direct allocation of phone costs.

Item 8. Chemicals: Records shall be kept by North Little Rock Waste Water Utility to accurately reflect the direct allocation of costs of chemicals at the plant.

Item 9. Training: The portion of training costs for North Little Rock Waste Water Utility that shall be allocated to Five Mile Creek shall be based upon a fraction, the numerator of which shall be the number of customers of Five Mile Creek, and the denominator of which shall be the total of all customers for North Little Rock Waste Water Utility, and said fraction shall be applied to the total training costs for all of North Little Rock Waste Water Utility to arrive at the amount allocable to Five Mile Creek.

Item 10. Postage: Costs for postage for North Little Rock Waste Water Utility shall be allocated to Five Mile Creek based upon a fraction of the total costs for postage for North Little Rock Waste Water Utility, and the numerator of such fraction shall be the total customers of Five Mile Creek, and the denominator of such fraction shall be the total of all customers of North Little Rock Waste Water Utility, said fraction to be applied against the total postage costs for North Little Rock Waste Water Utility to arrive at the postage costs allocable to Five Mile Creek.

Item 11. Purchasing: North Little Rock Waste Water Utility shall maintain records to accurately reflect the total costs of purchasing for the entire North Little Rock Sewer System. Said costs shall be allocated to the Five Mile Creek facility in the same ratio that cost of supplies for Five Mile Creek bear to the

total cost of supplies for the North Little Rock Sewer System.

Item 12. Subscription and Dues: Subscription and dues shall be allocated one-third (1/3) to Five Mile Creek since there are three sewage treatment plants.

Item 13. Travel and Meetings: Costs for travel and meetings shall be allocated one-third (1/3) to Five Mile Creek since there are three sewage treatment facilities.

Item 14. Depreciation: Direct costs for Five Mile Creek are Four Million Twelve Thousand Nine Hundred Thirty and NO/100 Dollars ($4,012,930.00). There shall be added to current costs in each year an amount for replacement cost depreciation. The direct cost of Five Mile Creek of $4,012,930.00 shall be depreciated over thirty (30) years using the straight line method and each year the amount allocated for depreciation shall be increased by the ratio of the increase in the current consumer price index compared to the consumer price index in 1985. Therefore, the formula for each year's depreciation shall be Four Million Twelve Thousand Nine Hundred Thirty Dollars ($4,012,930.00) divided by thirty (30) multiplied by CPI (current year) divided by CPI 1985.

Item 15. Financing: Financing costs of the original Five Mile Creek construction shall be considered to be One Hundred Eighty-one Thousand Seven Hundred Two and 90/100 Dollars ($181,702.90) per year until and through the year 2005.

Item 16. Pipeline Operation and Maintenance: Cost of pipeline operation and maintenance shall be thirty-two cents

($ .32) per foot increased each year after 1988 for consumer price index adjustment. The pipeline operation and maintenance shall be figured on all pipelines except for Sherwood customers wherein said pipeline is maintained by Sherwood.

Item 17. Miscellaneous: Miscellaneous shall be considered to be Three Thousand Dollars ($3,000.00) per year increased each year after 1988 for consumer price index adjustments.

Item 18. Administrative and General Expenses: North Little Rock Waste Water Utility shall maintain accurate accounting records to adequately determine the general administrative costs of the North Little Rock Waste Water Utility system wide which shall include: accounting and collection expense, administrative and general expense, employee pension expense, and any other expense not specified but which is incurred and allowable as an expense under generally accepted accounting principals. From the total general administrative costs, so defined, system wide for the North Little Rock Waste Water Utility there shall be subtracted the total fringe benefits which are included in general and administrative expenses since some of said fringe benefits are being allocated elsewhere at thirty-five percent (35%) of compensation for labor costs (i.e., supervisory labor, labor, purchasing, etc.). Then thirty-five percent (35%) of labor costs included in general and administrative costs and not included elsewhere shall then be added as the only fringe benefit factor to be included in general and administrative expenses. This will allow all costs to be allocated

but none will be duplicated. The percentage of general and administrative expenses that shall be allocated to Five Mile Creek Treatment Plant shall be a fraction of the total administrative and general expenses for North Little Rock Waste Water Utility, the numerator of said fraction to be the total of all expenses allocable to Five Mile Creek under Items 1 through 17 contained herein, and the denominator of such fraction shall be the total costs for the North Little Rock Waste Water Utility (inclusive of Five Mile Creek) which are included in Items 1 through 17 herein. Once this fraction is determined it shall be applied to administrative and general expenses in Item 18 to arrive at the total administrative and general expenses to be allocated to Five Mile Creek.

Item 19. Other: Any cost allocation or expense not specifically covered under the above provisions shall be determined with reference to generally accepted accounting principals according to the American Institute of Certified Public Accountants.

EXHIBIT "2"

AGREEMENT

THIS AGREEMENT is entered into this 1st day of September, 1989, by and between the North Little Rock Waste Water Utility and the City of Sherwood and the Sherwood Sewer Committee.

WHEREAS, the parties hereto are operating under an Interim Order entered by the First Division Chancery Court on July 31, 1989, whereby customers and billing rates have been established; and

WHEREAS, the parties have agreed that North Little Rock Waste Water Utility will bill Sherwood customers at North Little Rock rates and then rebate to the Sherwood Sewer Committee the difference between the North Little Rock rates collected, and the Sherwood customer rates established by said Interim Order, plus a billing fee.

IT IS HEREBY AGREED AS FOLLOWS:

1. As long as the parties hereto continue to be governed by the Interim Order entered by the First Division Chancery Court, Pulaski County, Arkansas, on July 31, 1989, all "Sherwood customers" as defined in that Order and Agreement relating thereto, shall be billed direct by North Little Rock Waste Water Utility at the same rates as all other North Little Rock customers.

2. North Little Rock Waste Water Utility shall retain from the monies so collected the amount belonging to North Little Rock Waste Water Utility under the rates established for Sherwood customers pursuant to the Interim Order and Stipulations, plus one dollar ($1.00) per month per customer billing charge, provided that North Little Rock Waste Water Utility may increase the $1.00 per month per customer billing charge to the extent that its billing services

Exhibit "B"

agent increases its current charge to North Little Rock Waste Water Utility, but North Little Rock Waste Water Utility may only pass through to Sherwood the amount of such increase, if any, and no more.

3. This Agreement shall remain in effect so long as the Interim Order remains in effect, or until this Agreement is cancelled by any one of the parties hereto, whichever is first.

4. The difference between the amount collected by North Little Rock Waste Water Utility and the amount to be retained under this Agreement shall be rebated monthly to the Sherwood Sewer Committee.

5. Any amendment or change to this Agreement should be in writing executed by the parties.

6. This Agreement shall be presented to the appropriate bodies for approval after its execution.

IN WITNESS WHEREOF the parties have hereunto set their hands this 1ST day of September, 1989.

NORTH LITTLE ROCK WASTE WATER UTILITY

By: Sam Hilburn
Sam Hilburn, Attorney

SEWER COMMITTEE OF SHERWOOD

By: Charles (Larry) Carpenter Jr.
Larry Carpenter, Attorney

EXHIBIT "2"

CITY OF SHERWOOD

By: _____
Mayor Jack Evans

APPROVED AS TO FORM this 1st day of September, 1989.

By: _____
Bob Dawson, Sherwood City Attorney

EXHIBIT "2"

EXHIBIT "C"

This Agreement is entered into this day between the Sewer Committee of the City of Sherwood, Arkansas and the City of Sherwood Arkansas and the Waste Water Utility of the City of North Little Rock, Arkansas, and the City of North Little Rock, Arkansas.

WHEREAS, there is currently a lawsuit pending between the parties hereto over the extent and boundaries of the sewer lines and customers covered by the sewer systems of each City and the rates to be charges, and the manner of dealing between the plaintiffs and defendants in said Chancery Court action, Case No. 88-4188, Pulaski County Chancery Court, First Division; and

WHEREAS, the parties have entered into this Agreement to resolve this dispute by agreement and provide for the entry of a final Order in the case:

BE IT HEREBY AGREED and STIPULATED TO BY THE PARTIES HERETO AS FOLLOWS:

1. This Agreement shall have no effect on the industrial pretreatment agreements between these parties and the industrial pretreatment agreements between these parties are not related to the pending lawsuit in any way.

2. The parties hereto hereby agree that the previous Court Order in Case No. 88-4160, the Interim Report of Special Master, and the Interim Stipulations, all filed with the Chancery Court on July 31, 1989, are hereby agreed to. The Agreement entered into between the parties on September 1, 1990, amended the previous Order and Interim Stipulations and the Agreement of

September 1, 1990, is therefore adopted as the final Agreement between the parties as amending and incorporating the previous Order and Interim Stipulations to the extent consistent with the September 1, 1990, Agreement.

3. The provisions to this Agreement shall be supplementary to the September 1, 1990, Agreement and shall provide the additional and final terms of the Agreement between the parties hereto.

4. In the event that Sherwood wishes to take over the sewer service for the District 212 customers, the City of Sherwood and the Sewer Committee thereof shall be allowed to take over District 212 only upon approval of District 212 (if it still exist at that time) and the North Little Rock Waste Water Utility (regardless of whether District 212 is still in existence of not). Otherwise, Sherwood may take over District 212 involuntarily only by the exercise of eminent domain, if applicable.

5. With regard to Sherwood customers, or any North Little Rock or District customers who become Sherwood customers in the future under any manner, voluntary or involuntary, Sherwood agrees to maintain and repair and service the sewer lines of this area in the same manner and condition as said lines had been serviced and maintained by the City of North Little Rock, and to maintain said lines in a manner consistent with all applicable Federal and State laws, and North Little Rock Ordinances and specifically the "North Little Rock Waste Water

Utility Specification Requirements for Sanitary Sewers", and if said lines are not so properly maintained, the City of Sherwood hereby agrees that the City of North Little Rock or the North Little Rock Waste Water Utility, or its agents or contractors shall be allowed to enter upon said lands repair, maintain, and service said lines at the expense of the City of Sherwood and the Sewer Committee of Sherwood. Such expense may be debited to the amount to be paid by Sherwood to North Little Rock Waste Water Utility. This is to insure that the City of Sherwood does adequately maintain said lines and to provide for means of repair and maintenance if this is not done.

6. With regard to the Improvement Districts 233, 234 and 236, the City of Sherwood may take over the sewer systems of any of these Districts only by eminent domain or by voluntary agreement of said District (if still existing) and North Little Rock Waste Water Utility (regardless of the respective District's then existence). If after taking over any Improvement District or portion thereof the City of Sherwood wishes to return said District, its sewer lines and customers to again be serviced by North Little Rock Waste Water Utility, or if Sherwood wishes to return all Sherwood customers to North Little Rock Waste Water Utility and have said customers designated as North Little Rock customers, said return shall be subject to the approval of both the North Little Rock Waste Water Utility and the Board of Commissioner's of the applicable Improvement District.

7. If the City of Sherwood does take over additional areas or customers, said customers shall be considered "Sherwood customers" during such period of time and Sherwood shall pay the North Little Rock Waste Water Utility the amount described in the formula as to those customers during the period of takeover and continuing until said lines, and customers may be returned to the North Little Rock Waste Water Utility.

8. Sherwood shall not be allowed to take over any North Little Rock customers without the approval of the North Little Rock Waste Water Utility except by eminent domain.

9. If there is disagreement with regard to the application of the cost formula, general accepted accounting principal, or any other issue regarding the applicable amount owed for sewer service or other charges under this Agreement, said dispute shall be resolved by binding arbitration by a three person panel of arbitrators. One arbitrator is to be chosen by the North Little Rock Waste Water Utility, another arbitrator to be chosen by the Sherwood Sewer Committee or the City of Sherwood, and the third arbitrator is to be chosen by the first two arbitrators. The decision of the arbitrators shall be final and not subject to appeal or review except as provided in the Arkansas Arbitration Act.

10. In the future, in the event that the City of Sherwood wishes to expand sewer service in the City of Sherwood to allow areas not before serviced by the Five Mile Creek to tie on thereto, the city of Sherwood may do so provided that before any

such new area or customer shall be allowed to tie on, that said area, district, or customer (or the City of Sherwood) shall pay or provide in advance all pipelines, pumping stations, labor costs or other expenses required to provide such additional service, including but not limited to the costs necessary to expand the Five Mile Creek facility in order to accommodate such additional flow or gallonage, and the cost and expenses to be so made shall be all such costs and expenses necessary to fully comply with all laws, rules, regulations, or requirements of the United States and the State of Arkansas or any agency thereof including the Environmental Protection Agency or the Pollution Control Commission, and further provided that this option shall be available for a period of eighteen (18) months after which time it shall be exercisable only upon approval and agreement of North Little Rock Waste Water Utility. Said customers shall be considered to be "North Little Rock customers" unless the City of North Little Rock or the North Little Rock Waste Water Utility wishes to designate such customers as "Sherwood customers" but said option shall rest exclusively with the City of North Little Rock or the North Little Rock Waste Water Utility.

11. With regard to Sherwood, District, and North Little Rock customers, Sherwood shall have the right as the municipality, within its City Limits only, to issue permits and make inspections for sewer connections, however, North Little Rock Waste Water Utility reserves the right to review plans, and make

inspections for all such customers to insure compliance with the North Little Rock Waste Water Utility's Specification Requirements for Sanitary Sewers, and in the event that any inspection reveals unsatisfactory compliance, North Little Rock Waste Water Utility reserves the right to refuse to connect or to disconnect any service or lines so connected which does not comply with said specifications, and to collect any fees or costs associated with the inspection in the event non-compliance is discovered. Also, if Sherwood or the Sherwood Sewer Committee continuously fails to comply with the appropriate State, Federal and North Little Rock Waste Water Utility specifications for sanitary sewers and connections thereto, North Little Rock Waste Water Utility shall have the right to refuse to connect any sewer service lines in the City of Sherwood without an inspection and permit issued by North Little Rock Waste Water Utility provided that if the Sewer Committee of Sherwood or the City of Sherwood disputes the issue of satisfactory compliance with sewer specifications, the issue shall be submitted to arbitration in the same manner as described in Paragraph No. 9 above and the decision of such arbitration shall be final.

12. This Agreement may be amended only in writing and shall be governed by the laws of the State of Arkansas.

EXHIBIT "2"

Agreed to this 28th day of September, 1990.

Bob Dawson
Sherwood City Attorney
2900 Percy Machin, Suite 16
No. Little Rock, AR 72114

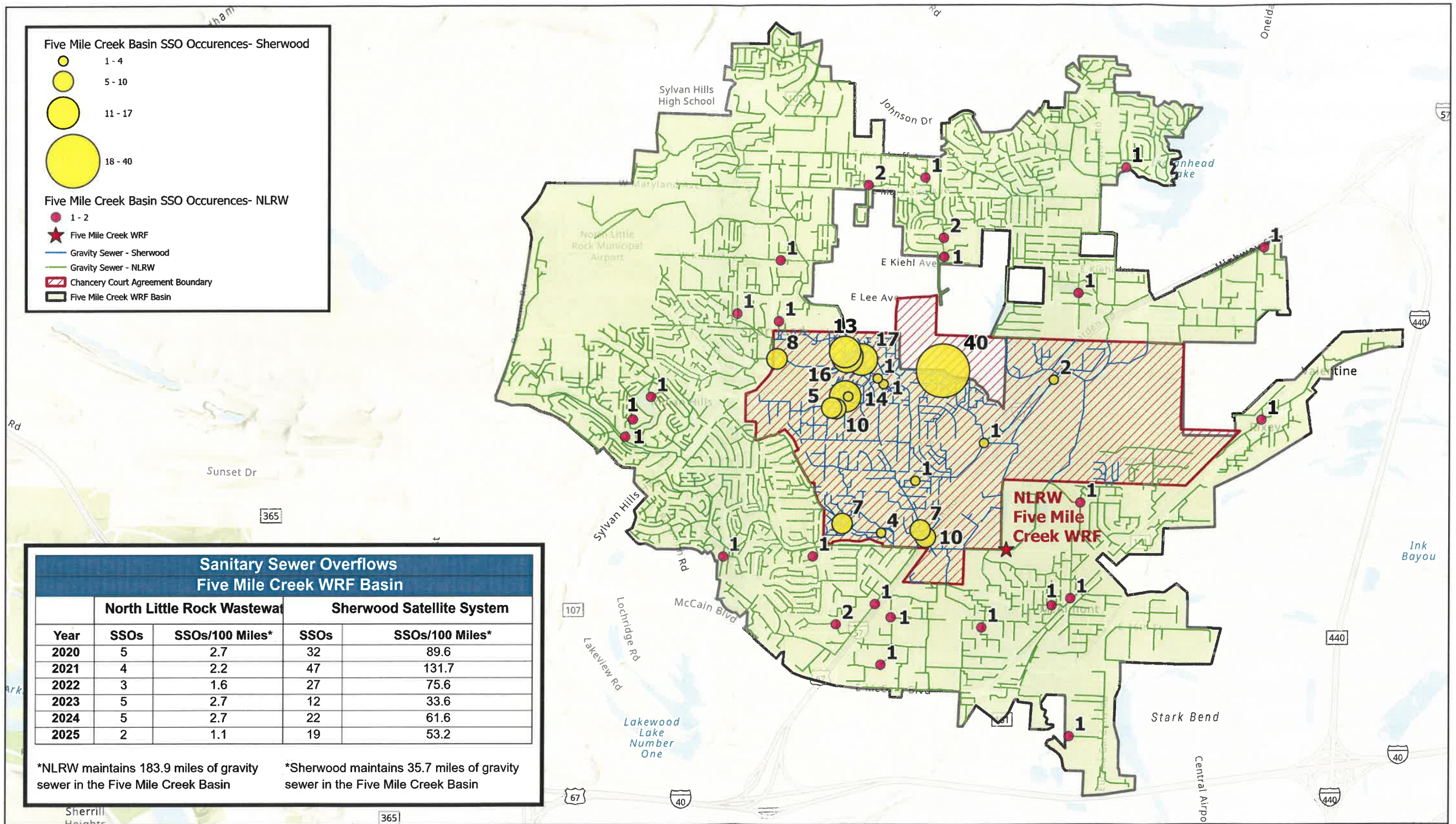
Sam Hilburn
North Little Rock Waste Water
Utility Attorney
Post Office Box 5551
No. Little Rock, AR 72119

Larry Carpenter
Sherwood Sewer Committee
Attorney
1405 N. Main
No. Little Rock, AR 72114

Jim Hamilton
No. Little Rock City Attorney
2115 N. Main
No. Little Rock, AR 72114

Basil Hicks
Special Master
Post Office Box 5670
No. Little Rock, AR 72119

05.DOC



Sanitary Sewer Overflows Five Mile Creek WRF Basin				
	North Little Rock Wastewat		Sherwood Satellite System	
Year	SSOs	SSOs/100 Miles*	SSOs	SSOs/100 Miles*
2020	5	2.7	32	89.6
2021	4	2.2	47	131.7
2022	3	1.6	27	75.6
2023	5	2.7	12	33.6
2024	5	2.7	22	61.6
2025	2	1.1	19	53.2

*NLRW maintains 183.9 miles of gravity sewer in the Five Mile Creek Basin

*Sherwood maintains 35.7 miles of gravity sewer in the Five Mile Creek Basin

North Little Rock Wastewater

County of Pulaski, AR, Arkansas GIS Office, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

Coordinate System: NAD 1983 StatePlane Arkansas North FIPS 0301 Feet

Printed 5/17/2026

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EXHIBIT "3"

EXHIBIT "4"



EXHIBIT "4"



EXHIBIT "5"

Permit Number: AR0020320
AFIN: 60-04317

AUTHORIZATION TO DISCHARGE WASTEWATER UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT

In accordance with the provisions of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.), and the Clean Water Act (33 U.S.C. § 1251 et seq.),

North Little Rock Wastewater Utility
Five Mile Creek Wastewater Treatment Plant

is authorized to discharge treated municipal wastewater from a facility located as follows: 5601 East 54th Street, North Little Rock, AR 72117, between U.S. 167 and AR 161, 0.2 miles south of Sherwood in Pulaski County, Arkansas. The applicant's mailing address is: P.O. Box 17898, North Little Rock, AR 72117.

Facility Coordinates: Latitude: 34° 48' 12.0" N; Longitude: 92° 12' 04.0" W

Receiving stream: Arkansas River in Segment 3C of the Arkansas River Basin.

The permitted outfall is located at the following coordinates:

Outfall 001: Latitude: 34° 44' 41.6" N; Longitude: 92° 12' 24.2" W

Discharge shall be in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit. Per Part III.D.10, the permittee must re-apply 180 days prior to the expiration date below for permit coverage to continue beyond the expiration date.

Effective Date:	September 1, 2017
1st Major Modification Effective Date:	March 1, 2018
2nd Major Modification Effective Date:	December 1, 2019
Expiration Date:	August 31, 2022

Robert E. Blanz, Ph.D., P.E.
Associate Director, Office of Water Quality
Arkansas Department of Environmental Quality

11/26/2019
Major Modification Issue Date

EXHIBIT "5"

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 - treated municipal wastewater.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions and calculations.

Effluent Characteristics	**Discharge Limitations**			**Monitoring Requirements**	
	Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Flow	N/A	Report, MGD	Report, MGD (Daily Max.)	once/day	totalizing meter
Overflows	Monthly Total SSOs (occurrences/month)			See Comments[1]	
Overflow Volume	Monthly Total Volume of SSOs (gallons/month)			See Comments[1]	
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	1376	25	40	five/week	composite
Total Suspended Solids (TSS)	4954	90	135	twice/week	composite
Dissolved Oxygen (DO)	N/A	2.0, (Inst. Min.)		once/week	grab
Fecal Coliform Bacteria (FCB)		(colonies/100ml)			
(May – September)	N/A	200	400	once/week	grab
(October – April)	N/A	1000	2000	once/week	grab
Total Residual Chlorine (TRC)[2]	N/A	0.79 mg/l (Inst. Max.) [3, 6]		once/week	grab
Arsenic, Total Recoverable[5]	N/A	Report	Report	once/quarter	grab
pH	N/A	Minimum 5.0 s.u.	Maximum 9.0 s.u.	three/week	grab
Chronic WET Testing[4]					

EXHIBIT "5"

Effluent Characteristics	Discharge Limitations			Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
***Pimephales promelas* (Chronic)**[4]		7-Day Average			
Pass/Fail Lethality (7-day NOEC) TLP6C		Report (Pass=0/Fail=1)		once/quarter	composite
Pass/Fail Growth (7-day NOEC)TGP6C		Report (Pass=0/Fail=1)		once/quarter	composite
Survival (7-day NOEC) TOP6C		Report %		once/quarter	composite
Coefficient of Variation (Growth) TQP6C		Report %		once/quarter	composite
Growth (7-day NOEC) TPP6C		Report %		once/quarter	composite
Pass/Fail Retest 1 (7-day NOEC) 22418		Report (Pass=0/Fail=1)		once/month[7]	composite
Pass/Fail Retest 2 (7-day NOEC) 22419		Report (Pass=0/Fail=1)		once/month[7]	composite
Pass/Fail Retest 3 (7-day NOEC) 51444		Report (Pass=0/Fail=1)		once/month[7]	composite
***Ceriodaphnia dubia* (Chronic)**[4]		7-Day Average		once/quarter	composite
Pass/Fail Lethality (7-day NOEC) TLP3B		Report (Pass=0/Fail=1)		once/quarter	composite
Pass/Fail production (7-day NOEC)TGP3B		Report (Pass=0/Fail=1)		once/quarter	composite
Survival (7-day NOEC) TOP3B		Report %		once/quarter	composite
Coefficient of Variation (Reproduction) TQP3B		Report %			
Reproduction (7-day NOEC) TPP3B		Report %		once/quarter	composite
Pass/Fail Retest 1 (7-day NOEC) 22415		Report (Pass=0/Fail=1)		once/month[7]	composite
Pass/Fail Retest 2 (7-day NOEC) 22416		Report (Pass=0/Fail=1)		once/month[7]	composite
Pass/Fail Retest 3 (7-day NOEC) 51443		Report (Pass=0/Fail=1)		once/month[7]	composite

[1] See Condition No. 5 of Part II (SSO Condition). If there are no overflows during the entire month, report "zero" (0).

[2] TRC must be measured using any approved test method established in 40 CFR 136 capable of meeting a detection level of 0.033 mg/l or lower. If TRC is not detected at the required detection level (i.e., lab result is "ND"), report "0" on the Discharge Monitoring Report (DMR). Report the concentration if TRC is detected and measured in the sample.

[3] The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC shall be measured within fifteen (15) minutes of sampling.

[4] See Condition No.10 of Part II (WET Testing Condition).

[5] Monitoring and reporting of Total Recoverable Arsenic is once/quarter, and for one year only.

[6] The TRC limit will become effective September 1, 2020. The permittee will be required to monitor and report the TRC levels in the interim.

[7] CONDITIONAL REPORTING: Use only if conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution). If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one routine toxicity test. If retests are not required, Report NODI=9 (Conditional Monitoring- Not Required This Period) under retest parameters.

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface, coat the banks and/or bottoms of the waterbody, or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after final disinfection and prior to the receiving stream.

EXHIBIT "5"

SECTION B. PERMIT COMPLIANCE SCHEDULE

The permittee shall achieve compliance with the permit requirements in accordance with the following schedule:

Compliance with the Final Effluent Limitations for Total Residual Chlorine (TRC) is required three years after the effective date of the permit. The permittee shall submit progress reports addressing the progress towards attaining the Final Effluent Limitations for the aforementioned parameters according to the following schedule:

ACTIVITY	DUE DATE
Progress Report[1, 2]	One (1) year from effective date
Progress Report[1, 3]	Two (2) years from effective date
Achieve Final Compliance[1, 4]	Three (3) years from effective date

All progress reports must be submitted to the Department at the following address:

Enforcement Branch
Office of Water Quality
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

[1] If the permittee is already in compliance with a final permit limit, only documentation demonstrating compliance with the final limit will be required for the progress report.

[2] If the permittee is not in compliance with the Final Limitations following one (1) year of sampling, the initial Progress Report must detail how the permittee plans to come into compliance with the final limits within the remaining 2 years of the interim period. Options must be provided that were considered along with which option* was selected. Any Best Management Practices (BMPs) that have been instituted to reduce the concentration in the influent must also be discussed. If a study will be performed, a milestone schedule for the study must be provided.

* The permittee has the option to undertake any study deemed necessary to meet the final limitations during the interim period. Any additional treatment (including chemical addition) must be approved and construction approval granted prior to final installation.

[3] The second Progress Report must contain an update on the status of the chosen option from the initial Progress Report. If the facility is not meeting any of the milestones provided in the initial Progress Report, the facility must update the milestone schedule to show how the final limits will be met by the deadline.

EXHIBIT "5"

4 A final Progress Report must be submitted no later than 30 days following the final compliance date and include a certification that the final effluent limits were met on the effective date and that the limits are still being met.

EXHIBIT "5"

PART II
OTHER CONDITIONS

1. The operator of this wastewater treatment facility shall be licensed as at least Class III by the State of Arkansas in accordance with APC&EC Regulation No. 3.

2. For publicly owned treatment works, the 30-day average percent removal for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR Part 133.102(a). The 30-day average percent removal for Total Suspended Solids (TSS) shall not be less than 65 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR Part 133.103(c) and 40 CFR Part 133.105(b).

3. In accordance with 40 CFR Parts 122.62 (a)(2) and 124.5, this permit may be reopened for modification or revocation and/or reissuance to require additional monitoring and/or effluent limitations when new information is received that actual or potential exceedance of State water quality criteria and/or narrative criteria are determined to be the result of the permittee's discharge(s) to a relevant water body or a Total Maximum Daily Load (TMDL) is established or revised for the water body that was not available at the time of the permit issuance that would have justified the application of different permit conditions at the time of permit issuance.

4. Other Specified Monitoring Requirements

   The permittee may use alternative appropriate monitoring methods and analytical instruments other than as specified in Part I Section A of the permit without a major permit modification under the following conditions:

   - The monitoring and analytical instruments are consistent with accepted scientific practices.
   - The requests shall be submitted in writing to the Permits Section of the Office of Water Quality of the ADEQ for use of the alternate method or instrument.
   - The method and/or instrument is in compliance with 40 CFR Part 136 or approved in accordance with 40 CFR Part 136.5.
   - All associated devices are installed, calibrated, and maintained to ensure the accuracy of the measurements and are consistent with the accepted capability of that type of device. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

   Upon written approval of the alternative monitoring method and/or analytical instruments, these methods or instruments must be consistently utilized throughout the monitoring period. ADEQ must be notified in writing and the permittee must receive written approval from ADEQ if the permittee decides to return to the original permit monitoring requirements.

5. Sanitary Sewer Overflow (SSO) Reporting Requirements:

A. A sanitary sewer overflow is any spill, release or diversion of wastewater from a sanitary sewer collection system including:

1. Any overflow, whether it discharges to the waters of the state or not.
2. An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral), even if that overflow does not reach waters of the state.

B. 24-hour Reporting

Overflows that endanger health or the environment shall be orally reported to the Enforcement Branch of the Office of Water Quality by telephone **(501-682-0638)** or by email, ssoadeq@adeq.state.ar.us within 24 hours from the time the permittee becomes aware of the circumstance. At a minimum, the following information shall be reported:

1. Permit number and AFIN
2. The location(s) of overflow.
3. The receiving water (If there is one).
4. Cause of overflow.
5. The estimated volume of overflow (gal)

C. 5-day Follow-Up Written web Reporting:

A web written report of overflows shall be provided to ADEQ within 5 days of the 24 hours oral report.

A 5-day follow-up written report can be filled-in and submitted on the ADEQ Office of Water Quality/Enforcement Branch Web page at

https://www.adeq.state.ar.us/water/enforcement/sso/submit.aspx?type=s

D. 24 -hour and 5 days reporting:

24- hour reporting can be filled-in or downloaded from the ADEQ Office of Water Quality/Enforcement Branch Web page at address above if all information are available and 5 days reporting is not required.

E. Reporting for All SSOs on DMR

At the end of the month, total the daily occurrences and volumes from all locations on your system and report this number on the DMR. For counting occurrences, each location on the sanitary sewer system where there is an overflow, spill, release, or diversion of wastewater on a given day is counted as one occurrence. For example, if on

a given day overflows occur from a manhole at one location and from a damaged pipe at another location then you should record two occurrences for that day.

6. Best Management Practices (BMPs), as defined in Part IV.6, must be implemented for the facility along with the collection system to prevent or reduce the pollution of waters of the State from stormwater runoff, spills or leaks, sludge or waste disposal, or drainage from raw sewage. The permittee must amend the BMPs whenever there is a change in the facility or a change in the operation of the facility.

7. Contributing Industries and Pretreatment Requirements

   A. The permittee shall operate an industrial pretreatment program in accordance with Section 402(b)(8) of the Clean Water Act (CWA), the General Pretreatment Regulations (40 CFR Part 403), and the approved POTW pretreatment program submitted by the permittee. The pretreatment program was approved on March 16, 1984, modified and approved on February 26, 1996, and modified and approved on November 1, 2009 to be compliant with the October 2005 Streamlining revisions to the Federal Pretreatment Regulations in 40 CFR 403. The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

      (1) Industrial user information shall be updated at a frequency adequate to ensure that all IUs are properly characterized at all times;

      (2) The frequency and nature of industrial user compliance monitoring activities by the permittee shall be commensurate with the character, consistency and volume of waste. The permittee must inspect and sample the effluent from each Significant Industrial User in accordance with 40 CFR 403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities;

      (3) The permittee shall enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements;

      (4) The permittee shall control through permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under 40 CFR 403.3 (v), this control shall be achieved through individual control mechanisms, in accordance with 40 CFR 403.8(f)(1)(iii). Control mechanisms must be enforceable and contain, at a minimum, the following conditions:

         a. Statement of duration (in no case more than five years);

         b. Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;

c. Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;

d. Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored sampling location, sampling frequency, and sample type, based on the applicable general Pretreatment Standards in 40 CFR 403, categorical Pretreatment Standards, local limits, and State and local law;

e. Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and

f. Requirements to control slug discharges, if determined by the POTW to be necessary.

(5) The permittee shall evaluate, whether each Significant Industrial User needs a plan or other action to control slug discharges, in accordance with 40 CFR 403.8(f)(2)(vi);

(6) The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program; and

(7) The approved program shall not be modified by the permittee without the prior approval of the ADEQ.

B. The permittee shall establish and enforce specific limits to implement the provisions of 40 CFR Parts 403.5(a) and (b), as required by 40 CFR Part 403.5(c). POTWs may develop Best Management Practices (BMPs) to implement paragraphs 40 CFR 403.5(c)(1) and (c)(2). Such BMPs shall be considered local limits and Pretreatment Standards. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

All specific prohibitions or limits developed under this requirement are deemed to be conditions of this permit. The specific prohibitions set out in 40 CFR Part 403.5(b) shall be enforced by the permittee unless modified under this provision.

C. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in 40 CFR 122 Appendix D (NPDES Application Testing Requirements) Table II at least once per year and the toxic pollutants in Table III at least four (4) times per year (quarterly). If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table V of 40 CFR 122 Appendix D, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least four (4) times per year (quarterly) on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24-hour period and composited according to flow. Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR 136. Where composite samples are inappropriate, due to sampling, holding time, or analytical constraints, at least four (4) grab samples, taken at equal intervals over a representative 24-hour period shall be taken.

D. The permittee shall prepare annually a list of Industrial Users which, during the preceding twelve months (the Pretreatment "Reporting Year") were in significant noncompliance with applicable pretreatment requirements. For the purposes of this Part, significant noncompliance shall be determined based upon the more stringent of either criteria established at 40 CFR Part 403.8(f)(2)(viii) or criteria established in the approved POTW pretreatment program. This list is to be published annually, during the month of March in the newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Note: For permittees with multiple NPDES permits, only one (1) updated pretreatment program status report ("Annual Report") is required. The annual report shall reference the Tracking NPDES Permit Number AR0020303 for the permittee's approved Pretreatment Program.

In addition, by 4:30 P.M. Central Time (if electronically submitted) OR postmarked on or before the last business day in the month of March, the permittee shall submit an updated pretreatment program status report to the ADEQ containing the following information:

(1) An updated list of all significant industrial users. The list must also identify:

a. Industrial Users subject to the following categorical Pretreatment Standards [Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) (40 CFR Part 414), Petroleum Refining (40 CFR Part 419), and Pesticide Chemicals (40 CFR Part 455)] and for which the Control Authority has chosen to use the concentration-based standards rather than converting them to flow-based mass standards as allowed at 40 CFR 403.6(c)(6).

b. Categorical Industrial Users subject to concentration-based standards for which the Control Authority has chosen to convert the concentration-based standards to equivalent mass limits, as allowed at 40 CFR 403.6(c)(5).

c. Best Management Practices or Pollution Prevention alternatives required by a categorical Pretreatment Standard or as a local limit requirement that are implemented and documentation to demonstrate compliance, as required at 40 CFR 403(b), (e) and (h).

(2) For each industrial user listed the following information shall be included:

a. Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) code and categorical determination;

b. Control document status. Whether the user has an effective control document, and the date such document was last issued, reissued, or modified, (indicate which industrial users were added to the system, or newly identified, within the previous 12 months);

c. A summary of all monitoring activities performed within the previous 12 months. The following information shall be reported:

i. total number of inspections performed;

ii. total number of sampling visits made;

d. Status of compliance with both effluent limitations and reporting requirements. Compliance status shall be defined as follows:

i. Compliant (C) - no violations during the previous 12 month period;

ii. Non-compliant (NC) - one or more violations during the previous 12 months but does not meet the criteria for significantly noncompliant industrial users;

iii. Significant Noncompliance (SNC) - in accordance with requirements described in Item D above; and

e. For significantly noncompliant industrial users, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, *etc.*) and current compliance status. If ANY industrial user was on a schedule to attain compliance with effluent limits, indicate the date the schedule was issued and the date compliance is to be attained;

i. A list of all significant industrial users whose authorization to discharge was terminated or revoked during the preceding 12 month period and the reason for termination;

ii. A report on any interference, pass through, upset or POTW permit violations known or suspected to be caused by industrial contributors and actions taken by the permittee in response;

iii. The results of all influent and effluent analyses performed pursuant to Item C above;

iv. An influent/effluent summary chart containing the monthly average water quality-based effluent concentration demonstrating compliance with permit limits or the water quality levels not to exceed as developed in the permittee's approved technically based local limits document.

v. The information requested may be submitted in tabular form as per the example tables provided for your convenience (See Attachments II, III and IV); and

vi. A copy of the newspaper publication of the significantly noncompliant industrial users giving the name of the newspaper and the date published;

E. The permittee shall provide adequate notice of the following:

(1) Any new introduction of pollutants into the treatment works from an indirect discharger that would be subject to Sections 301 and 306 of the CWA if it were directly discharging those pollutants; and

(2) Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Adequate notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

8. Reserved.

9. Total Residual Chlorine (TRC) and Total Recoverable Arsenic

The permittee may use any EPA approved method based on 40 CFR Part 136 provided the MQL for the chosen method is equal to or less than what has been specified in chart below:

Pollutant	MQL
TRC	0.033 mg/l
Arsenic, Total Recoverable	0.5 ug/l

The permittee may develop a matrix specific method detection limit (MDL) in accordance with Appendix B of 40 CFR Part 136. For any pollutant for which the permittee determines a site specific MDL, the permittee shall send to ADEQ, NPDES Permits Branch, a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that a site specific MDL was correctly calculated. A site specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

MQL = 3.3 X MDL

Upon written approval by Permits Branch, the site specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

10. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC NOEC FRESHWATER)

A. SCOPE AND METHODOLOGY

i. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL:	001
REPORTED ON DMR AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	5%
EFFLUENT DILUTION SERIES (%):	2.1%, 2.8%, 3.8%, 5.0%, 6.7%
TESTING FREQUENCY:	once/quarter
COMPOSITE SAMPLE TYPE:	Defined at Part I
TEST SPECIES/METHODS:	40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA-821-R-02-013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA-821-R-02-013, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

ii. The NOEC (No Observed Effect Concentration) is herein defined as the greatest effluent dilution at and below which toxicity (lethal or sub-lethal) that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

iii. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

B. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal and/or sub-lethal effects at or below the critical dilution. The purpose of retestsis to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

If a frequency reduction, as specified in Item F, has been granted and any valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the life of the permit. In addition:

i. Part I Testing Frequency Other Than Monthly

a. The permittee shall conduct a total of three (3) retests for any species that demonstrates significant toxic effects at or below the critical dilution. The additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the re tests in lieu of one scheduled toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in Item D of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

b. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED If any of the retests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item E of this section. The permittee shall notify ADEQ in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests. A TRE required based on lethal effects should consider any sub-lethal effects as well.

c. IF SUB-LETHAL EFFECTS ONLY HAVE BEEN DEMONSTRATED If any two of the three retests demonstrates significant sub-lethal effects at 75% effluent or lower, the permittee shall initiate the Sub-Lethal Toxicity Reduction Evaluation (TRE_{SL}) requirements as specified in Item E of this section. The permittee shall notify ADEQ in writing within 5 days of the failure of any retest, and the Sub-Lethal Effects TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required for failure to perform the required retests.

d. The provisions of Item B.i.a are suspended upon submittal of the TRE Action Plan.

C. REQUIRED TOXICITY TESTING CONDITIONS

i. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

a. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.

b. The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.

c. 60% of the surviving control females must produce three broods.

d. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.

e. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

f. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or sub-lethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

g. If a test passes, yet the percent coefficient of variation between replicates is greater than 40% in the control (0% effluent) and/or in the critical dilution for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test, the test is determined to be invalid. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

h. If a test fails, test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%.

i. A Percent Minimum Significant Difference (PMSD) range of 13 - 47 for Ceriodaphnia dubia reproduction;

j. A PMSD range of 12 - 30 for Fathead minnow growth.

ii. Statistical Interpretation

a. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.

b. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R-02-013 or the most recent update thereof.

c. If the conditions of Test Acceptability are met in Item C.i above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item D below.

iii. Dilution Water

a. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

(1) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

(2) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

b. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item C.i), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(1) a synthetic dilution water control which fulfills the test acceptance requirements of Item C.i was run concurrently with the receiving water control;

(2) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);

(3) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item D below; and

(4) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

iv. Samples and Composites

a. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item A.i above. Unless otherwise stated in this section, a composite sample for WET shall consist of a minimum of 12 subsamples gathered at equal time intervals during a 24-hour period.

b. The permittee shall collect second and third composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the composite samples such that the effluent samples, on use, are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on a regular or intermittent basis.

c. The permittee must collect all three flow-weighted composite samples within the monitoring period. Second and/or third composite samples shall not be collected into the next monitoring period; such tests will be determined to not meet either reporting period requirements. Monitoring period definitions are listed in Part IV.

d. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to between 0 and 6 degrees Centigrade during collection, shipping, and/or storage.

e. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item D of this section.

f. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in Item A.i. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

g. If chlorination is part of the treatment process, the permittee shall not allow the sample to be dechlorinated at the laboratory. At the time of sample collection the permittee shall measure the TRC of the effluent. The measured concentration of TRC for each sample shall be included in the lab report submitted by the permittee.

D. REPORTING

i. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.7 of this permit. The permittee shall submit full reports. For any test or retest which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

ii. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit. The full reports for all invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for Agency review.

iii. The permittee shall submit the results of each valid toxicity test and retest on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

a. Pimephales promelas (Fathead minnow)

(1) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP6C

(2) Report the NOEC value for survival, Parameter No. TOP6C

(3) Report the NOEC value for growth, Parameter No. TPP6C

(4) If the NOEC for growth is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP6C

(5) Report the highest (critical dilution or control) Coefficient of Variation for growth, Parameter No. TQP6C

(6) If conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution):

(A) Consecutive Monthly Retest 1: If the NOEC (lowest lethal or sub-lethal) for *P. promelas* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22418;

(B) Consecutive Monthly Retest 2: If the NOEC (lowest lethal or sub-lethal) for *P. promelas* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22419;

(C) Consecutive Monthly Retest 3: If the NOEC (lowest lethal or sub-lethal) for *P. promelas* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 51444;

(D) If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one scheduled toxicity test;

(E) If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under Parameter Nos. 22418, 22419, 51444

b. Ceriodaphnia dubia

(1) If the NOEC for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP3B

(2) Report the NOEC value for survival, Parameter No. TOP3B

(3) Report the NOEC value for reproduction, Parameter No. TPP3B

(4) If the NOEC for reproduction is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP3B

(5) Report the higher (critical dilution or control) Coefficient of Variation for reproduction, Parameter No. TQP3B

(6) If conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution):

(A) Consecutive Monthly Retest 1: If the NOEC (lowest lethal or sub-lethal) for *C. dubia* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22415;

(B) Consecutive Monthly Retest 2: If the NOEC (lowest lethal or sub-lethal) for *C. dubia* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22416;

(C) Consecutive Monthly Retest 3: If the NOEC (lowest lethal or sub-lethal) for *C. dubia* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 51443;

(D) If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one scheduled toxicity test;

(E) If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under Parameter Nos. 22415, 22416, and 51443

E. TOXICITY REDUCTION EVALUATIONS (TREs)

TREs for lethal and sub-lethal effects are performed in a very similar manner. EPA Region 6 is currently addressing TREs as follows: a sub-lethal TRE (TRE_{SL}) is triggered based on three sub-lethal test failures while a lethal effects TRE (TRE_{L}) is triggered based on only two test failures for lethality. In addition, EPA Region 6 will consider the magnitude of toxicity and use flexibility when considering a TRE_{SL} where there are no effects at effluent dilutions of 75% or lower.

i. Within ninety (90) days of confirming toxicity, and outlined above, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The goal of the TRE is to maximally reduce the toxic effects of effluent at the critical dilution and includes the following:

a. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures' (EPA-600/6-91/003) and 'Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I' (EPA-600/6-91/005F), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform

multiple identifications and follow the methods specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/080) and 'Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/081), as appropriate.

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

b. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

c. Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

d. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

e. Project Organization (e.g., project staff, project manager, consulting services, etc.).

ii. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.

iii. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:

a. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;

b. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and

c. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution.

iv. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming toxicity in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant toxicity at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

v. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

F. MONITORING FREQUENCY REDUCTION

i. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters (in accordance with Item A.i.) of the current permit term of testing for one or both test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Ceriodaphnia dubia*).

ii. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in Item C.i. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.

iii. SUB-LETHAL OR SURVIVAL FAILURES - Monthly retesting is not required if the permittee is performing a TRE.
Any monitoring frequency reduction granted applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

EXHIBIT "5"

PART III
STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. **Duty to Comply**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Water Act and the Arkansas Water and Air Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; and/or for denial of a permit renewal application. **Any values reported in the required Discharge Monitoring Report (DMR) which are in excess of an effluent limitation specified in Part I shall constitute evidence of violation of such effluent limitation and of this permit.**

2. **Penalties for Violations of Permit Conditions**

The Arkansas Water and Air Pollution Control Act provides that any person who violates any provisions of a permit issued under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year, or a fine of not more than twenty-five thousand dollars ($25,000) or by both such fine and imprisonment for each day of such violation. Any person who violates any provision of a permit issued under the Act may also be subject to civil penalty in such amount as the court shall find appropriate, not to exceed ten thousand dollars ($10,000) for each day of such violation. The fact that any such violation may constitute a misdemeanor shall not be a bar to the maintenance of such civil action.

3. **Permit Actions**

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to the following:

A. Violation of any terms or conditions of this permit.
B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge.
D. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
E. Failure of the permittee to comply with the provisions of APC&EC Regulation No. 9 (Permit fees) as required by Part III.A.11 herein.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

4. **Toxic Pollutants**

Notwithstanding Part III.A.3, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under APC&EC Regulation No. 2, as amended, or Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitations on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standards or prohibition and the permittee so notified.

The permittee shall comply with effluent standards, narrative criteria, or prohibitions established under APC&EC Regulation No. 2, as amended, or Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. **Civil and Criminal Liability**

Except as provided in permit conditions for "Bypass of Treatment Facilities" (Part III.B.4), and "Upset" (Part III.B.5), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of this permit or applicable state and federal statues or regulations which defeats the regulatory purposes of the permit may subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

6. **Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

7. **State Laws**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

8. **Property Rights**

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

9. **Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. **Applicable Federal, State, or Local Requirements**

Permittees are responsible for compliance with all applicable terms and conditions of this permit. Receipt of this permit does not relieve any operator of the responsibility to comply with any other applicable federal requirement such as endangered species, state or local statute, ordinance or regulation.

11. **Permit Fees**

The permittee shall comply with all applicable permit fee requirements (i.e., including annual permit fees following the initial permit fee that will be invoiced every year the permit is active) for wastewater discharge permits as described in APC&EC Regulation No. 9 (Regulation for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit under the provisions of 40 CFR Parts 122.64 and 124.5(d), as adopted in APC&EC Regulation No. 6 and the provisions of APC&EC Regulation No. 8.

SECTION B – OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. **Proper Operation and Maintenance**

A. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

B. The permittee shall provide an adequate operating staff which is duly qualified to carryout operation, maintenance, and testing functions required to insure compliance with the conditions of this permit.

2. **Need to Halt or Reduce not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control

production or discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power for the treatment facility is reduced, is lost, or alternate power supply fails.

3. **Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment or the water receiving the discharge.

4. **Bypass of Treatment Facilities**

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 CFR 122.41(m)(1)(i).

A. Bypass not exceeding limitation

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.B and 4.C.

B. Notice

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part III.D.6 (24-hour notice).

C. Prohibition of bypass

1. Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.
(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal or preventive maintenance.
(c) The permittee submitted notices as required by Part III.B.4.B.

2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part III.B.4.C(1).

5. **Upset Conditions**

A. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part III.B.5.B of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

B. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the specific cause(s) of the upset.
2. The permitted facility was at the time being properly operated.
3. The permittee submitted notice of the upset as required by Part III.D.6.
4. The permittee complied with any remedial measures required by Part III.B.3.

C. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. **Removed Substances**

A. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State. The Permittee must comply with all applicable state and Federal regulations governing the disposal of sludge, including but not limited to 40 CFR Part 503, 40 CFR Part 257, and 40 CFR Part 258.

B. Any changes to the permittee's disposal practices described in the Fact Sheet, as derived from the permit application, will require at least 180 days prior notice to the Director to allow time for additional permitting. Please note that the 180 day notification requirement may be waived if additional permitting is not required for the change.

7. **Power Failure**

The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators, or retention of inadequately treated effluent.

SECTION C – MONITORING AND RECORDS

1. **Representative Sampling**

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified,

before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director. Intermittent discharge shall be monitored.

2. **Flow Measurement**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +/- 10% from true discharge rates throughout the range of expected discharge volumes and shall be installed at the monitoring point of the discharge.

Calculated Flow Measurement

For calculated flow measurements that are performed in accordance with either the permit requirements or a Department approved method (i.e., as allowed under Part II.4), the +/- 10% accuracy requirement described above is waived. This waiver is only applicable when the method used for calculation of the flow has been reviewed and approved by the Department.

3. **Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals frequent enough to insure accuracy of measurements and shall insure that both calibration and maintenance activities will be conducted. An adequate analytical quality control program, including the analysis of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. At a minimum, spikes and duplicate samples are to be analyzed on 10% of the samples.

4. **Penalties for Tampering**

The Arkansas Water and Air Pollution Control Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year or a fine of not more than ten thousand dollars ($10,000) or by both such fine and imprisonment.

5. **Reporting of Monitoring Results**

40 CFR 127.11 (a)(1) and 40 CFR 127.16 (a) require that monitoring reports must be reported on a Discharge Monitoring Reports (DMR) and filed electronically. Signatory Authorities must initially request access for a NetDMR account. Once a NetDMR account is

established, access to electronic filing should use the following link https://netdmr.epa.gov. Permittees who are unable to file electronically may request a waiver from the Director in accordance with 40 CFR 127.15. Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR dated and submitted no later than the 25th day of the month, following the completed reporting period beginning on the effective date of the permit.

6. **Additional Monitoring by the Permittee**

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated on the DMR.

7. **Retention of Records**

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

8. **Record Contents**

Records and monitoring information shall include:

A. The date, exact place, time and methods of sampling or measurements, and preservatives used, if any.
B. The individual(s) who performed the sampling or measurements.
C. The date(s) and time analyses were performed.
D. The individual(s) who performed the analyses.
E. The analytical techniques or methods used.
F. The measurements and results of such analyses.

9. **Inspection and Entry**

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.

D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D – REPORTING REQUIREMENTS

1. **Planned Changes**

The Permittee shall give notice to the Director as soon as possible but no later than 180 days prior to any planned physical alterations or additions to the permitted facility [40 CFR 122.41(l)]. Notice is required only when:

A. The alteration or addition to a permitted facility may meet one of the criteria for new sources at 40 CFR 122.29(b).
B. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants subject to effluent limitations in the permit, or to the notification requirements under 40 CFR 122.42(b).

2. **Anticipated Noncompliance**

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. **Transfers**

The permit is nontransferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. **Monitoring Reports**

Monitoring results shall be reported at the intervals and in the form specified in Part III.C.5. **Discharge Monitoring Reports must be submitted even when no discharge occurs during the reporting period.**

5. **Compliance Schedule**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

6. **Twenty-four Hour Report**

A. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain the following information:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue.
3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

B. The following shall be included as information which must be reported within 24 hours:

1. Any unanticipated bypass which exceeds any effluent limitation in the permit.
2. Any upset which exceeds any effluent limitation in the permit.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit to be reported within 24 hours to the Enforcement Section of the Office of Water Quality of the ADEQ.

C. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours to the Enforcement Section of the Office of Water Quality of the ADEQ.

7. **Other Noncompliance**

The permittee shall report all instances of noncompliance not reported under Parts III.D.4, 5, and 6, at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.6.

8. **Changes in Discharge of Toxic Substances for Industrial Dischargers**

The permittee shall notify the Director as soon as the permittee knows or has reason to believe:

A. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(1).
B. That any activity has occurred or will occur which would result in any discharge on a non-routine or infrequent basis of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(2).

9. **Duty to Provide Information**

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit. Information shall be submitted in the form, manner and time frame requested by the Director.

10. **Duty to Reapply**

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The complete application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated in APC&EC Regulation No. 6.

11. **Signatory Requirements**

All applications, reports, or information submitted to the Director shall be signed and certified as follows:

A. All **permit applications** shall be signed as follows:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.
(b) The manager of one or more manufacturing, production, or operation facilities, provided: the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship: by a general partner or proprietor, respectively.

3. For a municipality, State, Federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

   (a) The chief executive officer of the agency.
   (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

B. All **reports** required by the permit and **other information** requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   1. The authorization is made in writing by a person described above.
   2. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
   3. The written authorization is submitted to the Director.

C. Certification. Any person signing a document under this section shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

12. **Availability of Reports**

Except for data determined to be confidential under 40 CFR Part 2 and APC&EC Regulation No. 6, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department of Environmental Quality. As required by the Regulations, the name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

13. **Penalties for Falsification of Reports**

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit shall be subject

to civil penalties specified in Part III.A.2 and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

14. **Other Information**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

EXHIBIT "5"

PART IV
DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act and 40 CFR 122.2 shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. **"Act"** means the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended.
2. **"Administrator"** means the Administrator of the U.S. Environmental Protection Agency.
3. **"APC&EC"** means the Arkansas Pollution Control and Ecology Commission.
4. **"Applicable effluent standards and limitations"** means all State and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards of performance, toxic effluent standards and prohibitions, and pretreatment standards.
5. **"Applicable water quality standards"** means all water quality standards to which a discharge is subject under the federal Clean Water Act and which has been (a) approved or permitted to remain in effect by the Administrator following submission to the Administrator pursuant to Section 303(a) of the Act, or (b) promulgated by the Director pursuant to Section 303(b) or 303(c) of the Act, and standards promulgated under (APC&EC) Regulation No. 2, as amended.
6. **"Best Management Practices (BMPs)"** are activities, practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the State. BMPs also include treatment technologies, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw sewage. BMPs may include structural devices or nonstructural practices.
7. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 CFR 122.41(m)(1)(i).
8. **"Composite sample"** is a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing a minimum of 4 effluent portions collected at equal time intervals (but not closer than one hour apart) during operational hours, within the 24-hour period, and combined proportional to flow or a sample collected at more frequent intervals proportional to flow over the 24-hour period.
9. **"Daily Discharge"** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
   A. **Mass Calculations:** For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of pollutant discharged over the sampling day.
   B. **Concentration Calculations:** For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
10. **"Daily Maximum"** discharge limitation means the highest allowable "daily discharge" during the calendar month.
11. **"Department"** means the Arkansas Department of Environmental Quality (**ADEQ**).
12. **"Director"** means the Director of the Arkansas Department of Environmental Quality.

13. **"Dissolved oxygen limit"** shall be defined as follows:
    A. When limited in the permit as a minimum monthly average, shall mean the lowest acceptable monthly average value, determined by averaging all samples taken during the calendar month.
    B. When limited in the permit as an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
14. **"E-Coli"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For E-Coli, report the 7-Day Average as the geometric mean of all "daily discharges" within a calendar week, and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml.
15. **"Fecal Coliform Bacteria (FCB)"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For FCB, report the 7-Day Average as the geometric mean of all "daily discharges" within a calendar week, and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml.
16. **"Grab sample"** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
17. **"Industrial User"** means a nondomestic discharger, as identified in 40 CFR Part 403, introducing pollutants to a POTW.
18. **"Instantaneous flow measurement"** means the flow measured during the minimum time required for the flow-measuring device or method to produce a result in that instance. To the extent practical, instantaneous flow measurements coincide with the collection of any grab samples required for the same sampling period so that together the samples and flow are representative of the discharge during that sampling period.
19. **"Instantaneous Maximum"** when limited in the permit as an instantaneous maximum value, shall mean that no value measured during the reporting period may fall above the stated value.
20. **"Instantaneous Minimum"** an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
21. **"Monthly Average"** means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. For Fecal Coliform Bacteria (FCB) or E-Coli, report the Monthly Average as the geometric mean of all "daily discharges" within a calendar month (see Part IV.14 and IV.15 above, respectively).
22. **"Monitoring and Reporting"**
    When a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date. Where the monitoring requirement for an effluent characteristic is monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25th of the month following the sampling. Where the monitoring requirement for an effluent characteristic is Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25th of the month following the monitoring period end date.
    A. **MONTHLY:**
       is defined as a calendar month or any portion of a calendar month for monitoring requirement frequency of once/month or more frequently.
    B. **BI-MONTHLY:**
       is defined as two (2) calendar months or any portion of 2 calendar months for monitoring requirement frequency of once/2 months or more frequently.

C. **QUARTERLY:**
   1. is defined as a **fixed calendar quarter** or any part of the fixed calendar quarter for a non-seasonal effluent characteristic with a measurement frequency of once/quarter. Fixed calendar quarters are: January through March, April through June, July through September, and October through December; or
   2. is defined as a **fixed three month period** (or any part of the fixed three month period) of or dependent upon the seasons specified in the permit for a seasonal effluent characteristic with a monitoring requirement frequency of once/quarter that does not coincide with the fixed calendar quarter. Seasonal calendar quarters are: May through July, August through October, November through January, and February through April.

D. **SEMI-ANNUAL:**
   is defined as the fixed time periods January through June, and July through December (or any portion thereof) for an effluent characteristic with a measurement frequency of once/6 months or twice/year.

E. **ANNUAL or YEARLY:**
   is defined as a fixed calendar year or any portion of the fixed calendar year for an effluent characteristic or parameter with a measurement frequency of once/year. A calendar year is January through December, or any portion thereof.

23. **"National Pollutant Discharge Elimination System"** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 402, 318, and 405 of the Clean Water Act.
24. **"POTW"** means Publicly Owned Treatment Works; a treatment works (see Part IV.29 below) which is owned by a state or municipality.
25. **"Reduction of $CBOD_5$/BOD_5 and TSS in mg/l Formula":**
    [(Influent – Effluent) / Influent] × 100
26. **"Severe property damage"** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in products.
27. **"Sewage sludge"** means the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW.
28. **"7-day average"** Also known as "average weekly" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.
29. **"Treatment works"** means any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes, of a liquid nature to implement section 201 of the Act, or necessary to recycle reuse water at the most economic cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities, and any

works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment.

30. **Units of Measure:**
    "MGD" shall mean million gallons per day.
    "mg/l" shall mean milligrams per liter or parts per million (ppm).
    "µg/l" shall mean micrograms per liter or parts per billion (ppb).
    "cfs" shall mean cubic feet per second.
    "ppm" shall mean parts per million.
    "s.u." shall mean standard units.
31. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. Any upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless of improper operations.
32. **"Visible sheen"** means the presence of a film or sheen upon or a discoloration of the surface of the discharge. A sheen can also be from a thin glistening layer of oil on the surface of the discharge.
33. **"Weekday"** means Monday – Friday.

EXHIBIT "5"

ATTACHMENT I
MONITORING RESULTS FOR ANNUAL PRETREATMENT REPORT
REPORTING YEAR: _____ / _____ / _____ TO _____ / _____ / _____
PERMITTEE NAME: _____ NPDES PERMIT NO. _____
AVERAGE POTW FLOW: _____MGD PERCENT INDUSTRIAL FLOW: _____%

POLLUTANT (Total)	MAHC[2] (µg/l)	INFLUENT DATES SAMPLED (µg/l) once/quarter				WQ level / limit[2] (µg/l)	EFFLUENT DATES SAMPLED (µg/l) once/quarter				LABORATORY ANALYSIS		
											EPA MQL[1] (µg/l)	EPA Method Used[1]	Detection Level Achieved (µg/l)
Antimony	N/A					N/A					60		
Arsenic											0.5		
Beryllium											0.5		
Cadmium											0.5		
Chromium											10		
Copper											0.5		
Lead											0.5		
Mercury											0.005		
Nickel											0.5		
Selenium											5		
Silver											0.5		
Thallium	N/A					N/A					0.5		
Zinc											20		
Cyanide											10		
Phenols	N/A					N/A					5		
Molybdenum						N/A							
Flow, MGD	N/A					N/A							
[3]													
[3]													
[3]													
[3]													

EXHIBIT "5"

POLLUTANT (Total)	MAHC[2] (µg/l)	INFLUENT DATES SAMPLED (µg/l) once/quarter				WQ level / limit[2] (µg/l)	EFFLUENT DATES SAMPLED (µg/l) once/quarter				LABORATORY ANALYSIS		
											EPA MQL[1] (µg/l)	EPA Method Used[1]	Detection Level Achieved (µg/l)
[3]													
[3]													
[3]													
[3]													
[3]													
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[1] It is advised that the influent and effluent samples are collected considering flow detention time through each plant. **Analytical MQLs must be met for the effluent (and SHOULD be met for the influent) so the data can also be used for Local Limits assessment and NPDES application purposes.**

[2] This value was calculated during the development of technically-based local limits (TBLLs) based on State WQ criteria, EPA guidance, and either ADEQ Pretreatment staff Excel spreadsheets or the permittee's consultant with concurrence from ADEQ Pretreatment staff.

[3] Record the name of any pollutant [40 CFR 122, Appendix D, Table II and/or Table V] detected and the concentration at which they were detected.

MAHC - Maximum Allowable Headworks Concentration

WQ - "Water Quality Levels not to exceed" OR actual permit limit.

EXHIBIT "5"

Final Fact Sheet

This is a modified permit and only the modified portion of the permit is reopened for comment. All changes to the fact sheet based on the major modification are italicized.

This Fact Sheet is for information and justification of the permit limits only. Please note that it is not enforceable. This permitting decision is for *a modification* of the discharge Permit Number AR0020320 with Arkansas Department of Environmental Quality (ADEQ) Facility Identification Number (AFIN) 60-04317 to discharge to Waters of the State.

1. PERMITTING AUTHORITY

The issuing office is:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT

The applicant's mailing address is:

North Little Rock Wastewater Utility - Five Mile Creek Wastewater Treatment Plant
P.O. Box 17898
North Little Rock, AR 72117

The facility address is:

North Little Rock Wastewater Utility - Five Mile Creek Wastewater Treatment Plant
5601 East 54th Street
North Little Rock, AR 72117

3. PREPARED BY

The permit was prepared by:

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4. PERMIT ACTIVITY

Previous Permit Effective Date: September 1, 2017
Previous Permit Expiration Date: August 31, 2022

The permittee submitted a permit modification application on July 13, 2017 based on work completed by Dr. Linvil Rich (*Technical Note Number 1, Effluent BOD_5 – A Misleading Parameter for the Performance of Aerated Lagoons: Treated Municipal Wastewater*). The permittee requested to replace BOD_5 limits with $CBOD_5$ limits in the permit.

The permittee submitted a second permit modification application on January 9, 2019, with all additional information submitted by January 15, 2019. The permittee requested that the TRC limits be modified in accordance with the study which had been submitted in November 2018. The current discharge permit is modified for the remainder of the 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a).

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

APC&EC - Arkansas Pollution Control and Ecology Commission
BAT - best available technology economically achievable
BCT - best conventional pollutant control technology
BMP - best management practice
BOD_5 - five-day biochemical oxygen demand
BPJ - best professional judgment
BPT - best practicable control technology currently available
$CBOD_5$ - carbonaceous biochemical oxygen demand
CD - critical dilution
CFR - Code of Federal Regulations
cfs - cubic feet per second
COD - chemical oxygen demand
COE - United States Corp of Engineers
CPP - continuing planning process
CWA - Clean Water Act
DMR - discharge monitoring report
DO - dissolved oxygen
ELG - effluent limitation guidelines
EPA - United States Environmental Protection Agency
ESA - Endangered Species Act
FCB - fecal coliform bacteria
gpm - gallons per minute
MGD - million gallons per day
MQL - minimum quantification level
NAICS - North American Industry Classification System
NH3-N - ammonia nitrogen

NO_3 + NO_2-N - nitrate + nitrite nitrogen
NPDES - National Pollutant Discharge Elimination System
O&G - oil and grease
Reg. 2 - APC&EC Regulation No. 2
Reg. 6 - APC&EC Regulation No. 6
Reg. 8 - APC&EC Regulation No. 8
Reg. 9 - APC&EC Regulation No. 9
RP - reasonable potential
SIC - standard industrial classification
SSO – sanitary sewer overflow
TDS - total dissolved solids
TMDL - total maximum daily load
TP - total phosphorus
TRC - total residual chlorine
TSS - total suspended solids
UAA - use attainability analysis
USF&WS - United States Fish and Wildlife Service
USGS - United States Geological Survey
WET - Whole effluent toxicity
WQMP - water quality management plan
WQS - Water Quality standards
WWTP - wastewater treatment plant

Compliance and Enforcement History:

The compliance and enforcement history for this facility can be reviewed by using the following web link:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0020320_Compliance%20Review_20171108.pdf

5. SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT

The permittee is responsible for carefully reading the permit in detail and becoming familiar with all of the changes therein:

The following changes were made to the permit at the time of the renewal permit issued September 1, 2017.

1. The monthly total number of Sanitary Sewer Overflows (SSOs) and the monthly total volume of SSOs must be reported on the Discharge Monitoring Reports.
2. Nitrate + Nitrite Nitrogen and Total Phosphorus monitoring and reporting requirements were removed from Part IA. Please see Section 12.E of this Fact Sheet for further information.

3. Total Recoverable Arsenic monitoring and reporting requirements have been added at a frequency of once/quarter for one year only. Please see Section 12.*G*.2 of this Fact Sheet for further information.
4. A limit has been included for Total Residual Chlorine based upon the data submitted over the previous permit term. A schedule of compliance has been included for TRC. Please see Section 12.A of this Fact Sheet for further information.
5. Condition 9 of Part II has been added to clarify the MQL for Total Recoverable Arsenic and Total Residual Chlorine.
6. The Fecal Coliform Bacteria limit for the month of April was changed from 200 colonies/100 ml to 1000 colonies/100 ml to be consistent with Regulation 2.507.
7. The pretreatment language in Part II has been slightly updated.
8. The percent removal requirement for TSS has been changed from 85% to 65% due to a misinterpretation of the regulation, and the requirement to monitor the influent once per year has been removed from Condition 2 of Part II. The Department no longer specifies how the facility shall determine the percent removal of BOD_5 and TSS.
9. Part III.C.5 of the permit now requires that DMRs be submitted electronically via NetDMR.
10. The WET testing section of Part IA has been updated.
11. Condition 7 of Part II has been updated.

The following changes were made with the first Major Modification:

1. BOD_5 limits are being replaced with $CBOD_5$ limits. Please see Section 12.A for additional information.
2. Section 12.F of this Fact Sheet was added to discuss the basis for not including ammonia limits in the modified permit.

The following change is being made in the second Major Modification. Only this item is open for comment at this time.

1. *The TRC limit has been modified. See Item No. 12.A of this Fact Sheet for additional information.*

6. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION

The outfall is located at the following coordinates based on the previous permit and the permit application and confirmed with Google Earth using WGS84:

Latitude: 34° 44’ 41.6” N; Longitude: 92° 12’ 24.2” W

The receiving waters named:

Arkansas River in Segment 3C of the Arkansas River Basin. The receiving stream with USGS Hydrologic Unit Code (H.U.C.) of 11110207 and reach #011 is a Water of the State classified for primary and secondary contact recreation, raw water source for domestic

(public and private), industrial, and agricultural water supplies; propagation of desirable species of fish and other aquatic life; and other compatible uses.

7. 303(d) LIST, TOTAL MAXIMUM DAILY LOADS, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS

A. 303(d) List

The receiving stream is not listed on the 2016 303(d) list. Therefore, the effluent limitations and monitoring requirements in the permit are based on current technology and water quality standards requirements and are protective of the stream designated uses.

B. Applicable Total Maximum Daily Loads (TMDLs)

There are no applicable TMDLs.

C. Endangered Species

No comments on the application were received from the USF&WS. The draft permit and Fact Sheet were sent to the USF&WS for their review.

D. Anti-Degradation

The limitations and requirements set forth in this permit for discharge into waters of the State are consistent with the Anti-degradation Policy and all other applicable water quality standards found in APC&EC Regulation No. 2.

8. OUTFALL, TREATMENT PROCESS DESCRIPTION, AND FACILITY CONSTRUCTION

The following is a description of the facility described in the application:

A. Design Flow: 6.6 MGD

B. Type of Treatment: bar screens, two aerated lagoons, polishing pond, and chlorine disinfection

C. Discharge Description: treated municipal wastewater

D. Facility Status: This facility is classified as a major municipal since the design flow of the facility listed above is greater than 1.0 MGD.

E. Facility Construction: This permit does not authorize or approve the construction or modification of any part of the treatment system or facilities. Approval for such construction must be by permit issued under Reg. 6.202.

9. **ACTIVITY**

Under the Standard Industrial Classification (SIC) code of 4952 or North American Industry Classification System (NAICS) code of 221320, the applicant's activities are the operation of a sewage treatment plant.

10. **INDUSTRIAL WASTEWATER CONTRIBUTIONS**

The facility receives process wastewater from significant industrial users. Standard Pretreatment Program implementation conditions are deemed appropriate at this time.

The permittee operates multiple POTWs with one (1) POTW's permit, NPDES Permit No. AR0020303, being used for tracking purposes of the approved Pretreatment Program. To avoid duplicity, only the tracking NPDES permit will contain the language, "To satisfy 40 CFR 403.5(c)(1) a written certification that existing technically based local limits are adequate to prevent pass through, inhibition, or interference is required within six (6) months of the effective date of the permit or; a written notification that a technical evaluation revising the current technically based limits will be submitted within twelve (12) months of the effective date of the permit."

To supplement the above requirement, and under 40 CFR 403.12(i)(5), annual sampling and reporting of the toxic pollutants listed in Tables II and III of 40 CFR 122, Appendix D are required for this facility.

11. **SEWAGE SLUDGE PRACTICES**

Sludge generated at the facility remains in the lagoons and is removed as necessary. The sludge depth was most recently measured in April 2013.

12. **DEVELOPMENT AND BASIS FOR PERMIT CONDITIONS**

The Arkansas Department of Environmental Quality has determined to issue a permit for the discharge described in the application. Permit requirements are based on federal regulations (40 CFR Parts 122, 124, and Subchapter N), the National Pretreatment Regulation in 40 CFR Part 403 and regulations promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.). All of the information contained in the application, including all of the submitted effluent testing data, was reviewed to determine the need for effluent limits and other permit requirements.

The following is an explanation of the derivation of the conditions of the permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons suggesting the decisions as required under 40 CFR Part 124.7.

Technology-Based Versus Water Quality-Based Effluent Limitations and Conditions

Following regulations promulgated at 40 CFR Part 122.44, the permit limits are based on either technology-based effluent limits pursuant to 40 CFR Part 122.44 (a) or on State water quality standards and requirements pursuant to 40 CFR Part 122.44 (d), whichever are more stringent as follows:

Parameter	Water Quality-Based		Technology-Based/BPJ		Previous Permit		Permit Limit	
	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l
$CBOD_5$	>25*	40	25	40	N/A	N/A	25	40
TSS	N/A	N/A	90	135	90	135	90	135
DO	2.0 (Inst. Min.)		N/A		2.0		2.0 (Inst. Min.)	
FCB (col/100 ml)								
(April)	1000	2000	N/A	N/A	200	400	1000	2000
(May – September)	200	400	N/A	N/A	200	400	200	400
(October – March)	1000	2000	N/A	N/A	1000	2000	1000	2000
TRC (Inst. Max)	*0.79*		*N/A*		*0.11*		*0.79*	
TP	N/A	N/A	Report	Report	Report	Report	N/A	N/A
$NO_3 + NO_2$ - N	N/A	N/A	Report	Report	Report	Report	N/A	N/A
Arsenic, Total Recoverable	N/A	N/A	Report	Report	N/A	N/A	Report	Report
pH	6.0-9.0 s.u.		5.0-9.0 s.u.		5.0-9.0 s.u.		5.0-9.0 s.u.	

*The technology based limit was modeled to ensure compliance with the water quality standards of the receiving stream. The water quality based limit is less stringent than the technology based limit.

A. Justification for Limitations and Conditions of the Final Permit

Parameter	Water Quality or Technology	Justification
$CBOD_5$	Technology	MultiSMP Model dated July 15, 2016 and reviewed August 18, 2017, and 40 CFR 133.102(a)
TSS	Technology	40 CFR 133.105 and EPA Memo, 40 CFR 122.44(l), previous permit
DO	Water Quality	Reg. 2.505, MultiSMP Model dated July 15, 2016 and reviewed August 18, 2017, CWA §402(o), and previous permit

EXHIBIT "5"

Parameter	Water Quality or Technology	Justification
FCB	Water Quality	Reg. 2.507, CWA §402(o), and previous permit
TRC	Water Quality	Reg. 2.409, *chlorine demand measured in pipeline in November 2018 study, Arkansas CPP mixing zone calculation procedure*
Arsenic, Total Recoverable	Technology	CPP, A.C.A. §8-4-216
pH[1]	Technology	40 CFR 133.102(c), CWA §402(o), and previous permit

[1] 40 CFR 133.102(c) allows pH limits outside the range of 6.0-9.0 s.u. if (1) the facility does not use inorganic chemicals in the treatment process and (2) contributions from industrial sources do not cause the pH to be outside the range of 6.0-9.0 s.u. The permittee provided written certification on February 9, 2017 that these conditions are met at the facility.

The permittee was notified of changes to the permit at the site visit on January 11, 2017.

Total Residual Chlorine (TRC)

The TRC limitations are based on a site specific study dated November 2018 performed by the permittee as allowed by Part IB of the permit. A copy of the study may be found using the following link:
https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0020320_Request%20for%20Chlorine%20Limit%20Change_20181204.pdf

For the North Little Rock – Five Mile Creek facility, there are 28,790 feet between the sample point and the actual outfall in the Arkansas River. A portion of the TRC will dissipate in the pipe between the parshall flume and the river, which is the chlorine demand due to travel time in the pipeline. A TRC study concluded that the average 231-minute (approximate travel time in the pipeline from the facility to the river at design flow) chlorine demand in the effluent pipeline was 0.59 mg/l. The chlorine demand in the pipeline was used to calculate a TRC limit that would give credit for the chlorine demand measured in the pipeline and the allowable zone of initial dilution and mixing zone of the river calculated using Arkansas CPP procedure. The TRC limit was calculated as follows:

TRC limit = (A) Chlorine demand in pipe to river (at design flow) + (B) Allowable TRC at outfall to not exceed TRC criteria at edge of mixing zone in receiving stream (as calculated as the MDL using the procedures in ADEQ's CPP).

Item A was determined from the study as discussed in narrative above.

Item B calculation is as follows:

	A	B	C	D	E	F	G	H	I
1	**Water Quality-Based Permit Limit Determination**								
2			**Permit No.:**	**AR0020320**					
3							COLOR KEY		
4	Metal:	TRC						User Inputs	
5								Calculated values	
6	WQS:	11	µg/l	(Chronic)					
7		19	µg/l	(Acute)					
8									
9	Qd:	6.6	MGD =	10.21171	cfs				
10									
11	7Q10:	819	cfs						
12									
13	Cb:	0	ug/l	x	**Enter X if the receiving stream is one of the following rivers: Mississippi, Arkansas, White (below confluence with Black River), Ouachita (below confluence with Little Missouri R.), Red**				
14									
15	Qb:	204.75	cfs	(Chronic)					
16		49.14	cfs	(Acute)					
17									
18	**Chronic**								
19									
20	WLAc = ((WQS X (Qd + Qb)) - (Cb X Qb))) / Qd								
21									
22		WLAc =	231.5556						
23									
24	LTAc = 0.72 * WLAc								
25									
26		LTAc =	166.7201						
27									
28	**Acute**								
29									
30	WLAa = ((WQS X (Qd + Qb)) - (Cb X Qb))) / Qd								
31									
32		WLAa =	110.4303						
33									
34	LTAc = 0.57 * WLAc								
35									
36		LTAa =	62.94529						
37									
38	Select the limiting LTA (LTA with lower value):								
39									
40		LTA =	LTAc or LTAa						
41									
42			LTA =	62.94529	µg/l				
43									
44	**Monthly Average (AML) and Daily Maximum (MDL) final permit limit:**								
45									
46	AML = LTA X 1.55			for <=four/month		(PAGE 103 FOR 0.6 AND 99TH)			
47									
48		AML =	97.5652	µg/l	5.370379	lb/day			
49									
50	MDL = LTA X 3.11								
51									
52		MDL =	195.7599	µg/l	10.77541	lb/day			

The sum of Items A and B is the instantaneous maximum TRC limit:

Instantaneous Maximum TRC limit = 0.59 mg/l + 0.20 mg/l = 0.79 mg/l

The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC shall be measured within fifteen (15) minutes of sampling. To demonstrate compliance with the TRC limit, the permittee must determine the effluent concentration by using any EPA approved test method established in 40 CFR Part 136 capable of meeting a detection level of 0.033 mg/l or lower. If TRC is not detected at the required detection level (i.e., lab result is "ND"), the permittee may report a value of "0" on the Discharge Monitoring Report (DMR). Please note that if the required detection level is not met, TRC must be reported at the detection level achieved.

$CBOD_5$

The permittee requested a major modification to the permit to replace the existing BOD_5 limits with $CBOD_5$ limits. The basis for the request is work completed by Dr. Linvil Rich (Technical Note Number 1, Effluent BOD_5 – A Misleading Parameter for the Performance of Aerated Lagoons: Treating Municipal Wastewater). The permittee submitted data acquired over the previous 4.5 years to indicate that $CBOD_5$ may be a more accurate depiction of plant performance for this lagoon system. The $CBOD_5$ limits in this modified permit are based on 40 CFR 133.102(a)(4).

B. **Anti-backsliding**

The permit is consistent with the requirements to meet Anti-backsliding provisions of the Clean Water Act (CWA), Section 402(o) [40 CFR 122.44(l)]. The final effluent limitations for reissuance permits must be as stringent as those in the previous permit, unless the less stringent limitations can be justified using exceptions listed in CWA 402(o)(2), CWA 303(d)(4), or 40 CFR 122.44 (l)(2)(i).

The permit maintains the requirements of the previous permit with the exception of revised limitations identified for Fecal Coliform Bacteria (FCB) and the removal of the requirements for Total Phosphorus and Nitrate + Nitrite Nitrogen. This revision for FCB is allowed because the previous permit applied a limit based on a misinterpretation of the regulation. The removal of Total Phosphorus and Nitrate + Nitrite Nitrogen is allowed because it is based on new information submitted during the previous permit term.

C. **Limits Calculations**

1. Mass limits:

   In accordance with 40 CFR 122.45(f)(1), all pollutants limited in permits shall have limitations expressed in terms of mass if feasible. 40 CFR 122.45(f)(2) allows for pollutants which are limited in terms of mass to also be limited in terms of other units of measurement.

   The calculation of the loadings (lbs per day) uses a design flow of 6.6 MGD and the following equation:

   lbs/day = Concentration (mg/l) x Flow (MGD) x 8.34

2. 7-Day Average Limits:

   The 7-day average limits for NH_3-N (May through October) and TSS are based on Section 5.4.2 of the Technical Support Document for Water Quality-Based Toxics Control:

7-day average limits = monthly average limits x 1.5

The 7-Day average limits for FCB are based on Reg. 2.507.

The 7-day average limits for $CBOD_5$ are based on 40 CFR 133.102(a).

D. **208 Plan (Water Quality Management Plan)**

The 208 Plan, developed by the ADEQ under provisions of Section 208 of the federal Clean Water Act, is a comprehensive program to work toward achieving federal water goals in Arkansas. The initial 208 Plan, adopted in 1979, provides for annual updates, but can be revised more often if necessary. *Updates to the 208 Plan have been made to modify the instantaneous maximum TRC limit from 0.11 mg/L to 0.79 mg/L based on a site specific study dated November 2018.*

E. **Total Phosphorus and Nitrate + Nitrite Nitrogen**

The requirement to monitor Total Phosphorus and Nitrate + Nitrite Nitrogen was placed in the previous permit in order to gather information regarding nutrient levels being discharged to the receiving stream. The average Total Phosphorus level in the effluent was 2.2 mg/l and the average Nitrate + Nitrite Nitrogen level in the effluent was 3.09 mg/l. Based on the reported levels of both nutrients in the effluent and because the receiving stream is not impaired for Phosphorus or Nitrate + Nitrite Nitrogen and the necessary information has been gathered, the monitoring and reporting requirements have been removed from the permit.

F. **Ammonia Limits**

The average ammonia concentration (based on data from January 2016 through August 2017) in the influent to this facility is 16.3 mg/l, with a maximum of 39 mg/l. The maximum ammonia concentration in the effluent as reported on the application was 15.8 mg/l, and the average ammonia concentration in the effluent as reported on the application was 11.2 mg/l. There is no reasonable potential to exceed the limits based on the ammonia calculations, which can be found at the following link:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0020320_WQMP%20Summary_20170818.pdf

Therefore, ammonia limits are not included in this modified permit.

G. **Priority Pollutant Scan (PPS)**

ADEQ has reviewed and evaluated the effluent in accordance with the potential toxicity of each analyzed pollutant using the procedures outlined in the Continuing Planning Process (CPP).

EXHIBIT "5"

The concentration of each pollutant after mixing with the receiving stream was compared to the applicable water quality standards as established in the Arkansas Water Quality Standards (AWQS), Regulation No. 2 (Reg. 2.508) and criteria obtained from the "Quality Criteria for Water, 1986 (Gold Book)".

Under Federal Regulation 40 CFR Part 122.44(d), as adopted by Regulation No. 6, if a discharge poses the reasonable potential to cause or contribute to an exceedance above a water quality standard, the permit must contain an effluent limitation for that pollutant. Effluent limitations for the toxicants listed below have been derived in a manner consistent with the Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA, March 1991), the CPP, and 40 CFR Part 122.45(c).

The following items were used in calculations:

Parameter	Value	Source
Discharge Flow = Q	6.6 MGD = 10.21 cfs	Application
critical flow, 7Q10	819 cfs	USGS
LTA Background Flow	2457 cfs	Calculated[1]
TSS	10.5 mg/l	CPP, Attachment V
Hardness as $CaCO_3$	125.0 mg/l	CPP, Attachment VI
pH	7.6 s.u.	ARK0029
Cb, Upstream Arsenic Concentration	1.44, mg/l	ARK0029
Cb, Upstream Copper Concentration	1.12, mg/l	ARK0029
Cb, Upstream Nickel Concentration	1.06, mg/l	ARK0029
Cb, Upstream Selenium Concentration	2.5, mg/l	ARK0029
Cb, Upstream Zinc Concentration	5.12, mg/l	ARK0029
Qb background flow, Mixing zone flow for chronic toxicity	0.25 of 7Q10	Reg. 2.508 and CPP-Appendix D
Qb background flow, ZID flow for acute toxicity	0.06 of 7Q10	Reg. 2.508 and CPP-Appendix D

[1] LTA Background Flow = 7Q10 * 3

The following pollutants were reported above detection levels:

Pollutant	Concentration Reported, µg/l	MQL, µg/l
Total Arsenic	1.3[1]	0.5
Total Copper	6[1]	0.5
Total Mercury	0.0171[1]	0.005
Total Nickel	2[1]	0.5
Total Selenium	3[1]	5
Total Zinc	1[1]	20

[1] Single value reported on PPS submitted with 2016 renewal application.

Instream Waste Concentrations (IWCs) were calculated in the manner described in Appendix D of the CPP and compared to the applicable Criteria. The following tables summarize the results of the analysis. The complete evaluation can be viewed on the Department's website at the following address:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0020320_PPS%20Evaluation_20170103.pdf

1. **Aquatic Toxicity Evaluation**

b. Acute Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Acute, µg/l	Acute, µg/l	
Total Copper	6	12.78	3.13	61.24	No
Total Mercury	0.0171	0.036	0.01	6.3	No
Total Nickel	2	4.26	1.61	4011.86	No
Total Selenium	3	6.39	3.17	20.0	No
Total Zinc	1	2.13	4.61	488.2	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Criteria are from Reg. 2.508 unless otherwise specified.

c. Chronic Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Chronic, µg/l	Chronic, µg/l	
Total Copper	6	12.78	1.67	40.06	No
Total Mercury	0.0171	0.036	0	0.012	No
Total Nickel	2	4.26	1.21	445.55	No
Total Selenium	3	6.39	2.68	5	No
Total Zinc	1	2.13	4.98	445.8	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Criteria are from Reg. 2.508 unless otherwise specified.

2. **Human Health (Bioaccumulation) Evaluation**

Pollutant	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
Arsenic, Total Recoverable	1.3	2.769	1.45	1.4[3]	Yes

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Criteria are from Reg. 2.508 unless otherwise specified.
[3] Adapted from "National Recommended Water Quality Criteria: 2002 – Human Health Criteria Calculation Matrix", EPA. The respective WQC from the noted reference are Consumption of Organism Only values. The values from the reference are for a lifetime risk factor of 10^{-6}. These values have been multiplied by 10 to correspond to human health criteria lifetime risk factor of 10^{-5} as stated in Reg. 2.508.

As can be seen in the tables above, the calculated IWC for Arsenic is higher than the EPA Water Quality Criterion. A.C.A. § 8-4-216 authorizes the Department to require the submission of any information relevant to meeting the requirements of the Arkansas Water and Air Pollution Control Act. A requirement to monitor and report for Arsenic once per quarter for one year has been added to the permit so that in the event that a WQS for Arsenic is added to Reg. 2.508, data will be available to perform a reasonable potential analysis. This is in accordance with the procedure in Appendix D of the CPP (Appendix D, Part IV – Chemical Specific Standards and Criteria, Section E – Protection of Human Health Criteria of the Discharge Permit, Toxic Control Implementation Procedure).

The CPP requires that for all pollutants for which there are no applicable state water standards, IWCs are to be compared with the EPA Human Health Criteria (fish consumption only). If dilution calculations show that the in-stream concentration exceeds

these criteria, the permit will require the permittee to monitor and report for the pollutant of concern once per quarter for one year only. A reopener clause has been included in the permit (see Part II.3) to provide permit limits if state water quality standards are developed for the applicable pollutants, and the data shows that there is a reasonable potential for the discharge to violate those water quality standards.

13. **WHOLE EFFLUENT TOXICITY**

Section 101(a)(3) of the Clean Water Act states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." In addition, ADEQ is required under 40 CFR Part 122.44(d)(1), adopted by reference in Regulation 6, to include conditions as necessary to achieve water quality standards as established under Section 303 of the Clean Water Act. Arkansas has established a narrative criteria which states "toxic materials shall not be present in receiving waters in such quantities as to be toxic to human, animal, plant or aquatic life or to interfere with the normal propagation, growth and survival of aquatic biota."

Whole effluent toxicity (WET) testing is the most direct measure of potential toxicity which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. It is the national policy of EPA to use bioassays as a measure of toxicity to allow evaluation of the effects of a discharge upon a receiving water (49 Federal Register 9016-9019, March 9, 1984). EPA Region 6 and the State of Arkansas are now implementing the Post Third Round Policy and Strategy established on September 9, 1992, and EPA Region 6 Post-Third Round Whole Effluent Toxicity Testing Frequencies, revised March 13, 2000. Whole effluent toxicity testing of the effluent is thereby required as a condition of this permit to assess potential toxicity. The whole effluent toxicity testing procedures stipulated as a condition of this permit are as follows:

TOXICITY TESTS	**FREQUENCY**
Chronic WET	Once/quarter

Requirements for measurement frequency are based on the CPP.

Although the 7Q10 is less than 100 cfs (ft^3/sec), the dilution ratio is less than 100:1 and chronic WET testing requirements will be included in the permit.

The calculations for dilution used for chronic WET testing are as follows:

Critical dilution (CD) = (Qd/(Qd + Qb)) X 100

Qd = Design flow = 6.6 MGD = 10.2 cfs
7Q10 = 819 cfs
Qb = Background flow = (0.25) X 7Q10 = 205 cfs
CD = (10.2) / (10.2 + 205) X 100 = 5%

Toxicity tests shall be performed in accordance with protocols described in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", EPA/600/4-91/002, July 1994. A minimum of five effluent dilutions in addition to an appropriate control (0%) are to be used in the toxicity tests. These additional effluent concentrations are **2.1%, 2.8%, 3.8%, 5.0%, and 6.7%** (See the CPP). The low-flow effluent concentration (critical dilution) is defined as **5**% effluent. The requirement for chronic WET tests is based on the magnitude of the facility's discharge with respect to receiving stream flow. The stipulated test species, *Ceriodaphnia dubia* and the Fathead minnow (*Pimephales promelas*) are representative of organisms indigenous to the geographic area of the facility; the use of these is consistent with the requirements of the State water quality standards. The WET testing frequency has been established to provide data representative of the toxic potential of the facility's discharge, in accordance with the regulations promulgated at 40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen conductivity, and alkalinity shall be reported according to EPA-821-R-02-013, October 2002 and shall be submitted as an attachment to the Discharge Monitoring Report (DMR).

This permit may be reopened to require further WET testing studies, Toxicity Reduction Evaluation (TRE) and/or effluent limits if WET testing data submitted to the Department shows toxicity in the permittee's discharge. Modification or revocation of this permit is subject to the provisions of 40 CFR 122.62, as adopted by reference in APC&EC Regulation No. 6. Increased or intensified toxicity testing may also be required in accordance with Section 308 of the Clean Water Act and Section 8-4-201 of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

Administrative Records

The following information summarized toxicity test submitted by the permittee during the term of the current permit at Outfall 001.

EXHIBIT "5"

Permit Number:	AR0020320	AFIN:	60-04317	Outfall Number:	001
Date of Review:	1/13/2017	Reviewer:	M. Barnett		
Facility Name:	North Little Rock Wastewater- Five Mile Creek				
Previous Dilution series:	2.1, 2.8, 3.8, 5.0, 6.7	Proposed Dilution Series:	2.1, 2.8, 3.8, 5.0, 6.7		
Previous Critical Dilution:	5	Proposed Critical Dilution:	5		
Previous TRE activities:	None				

Frequency recommendation by species	
Pimephales promelas (Fathead minnow):	once per quarter
Ceriodaphnia dubia (water flea):	once per quarter

TEST DATA SUMMARY

	Vertebrate (*Pimephales promelas*)		Invertebrate (*Ceriodaphnia dubia*)	
TEST DATE	Lethal	Sub-Lethal	Lethal	Sub-Lethal
	NOEC	NOEC	NOEC	NOEC
6/30/2012	6.7	6.7	6.7	6.7
9/30/2012	6.7	6.7	6.7	6.7
12/31/2012	6.7	6.7	6.7	6.7
6/30/2013	6.7	6.7	6.7	6.7
12/31/2013	6.7	6.7	6.7	6.7
6/30/2014	6.7	6.7	6.7	6.7
12/31/2014	6.7	6.7	6.7	6.7
6/30/2015	6.7	6.7	6.7	6.7
12/31/2015	6.7	6.7	6.7	6.7
6/30/2016	6.7	6.7	6.7	6.7
12/30/2016	6.7	6.7	6.7	6.7

REASONABLE POTENTIAL CALCULATIONS

	Vertebrate Lethal	**Vertebrate Sub-lethal**	**Invertebrate Lethal**	**Invertebrate Sub-Lethal**
Min NOEC Observed	6.7	6.7	6.7	6.7
TU at Min Observed	14.93	14.93	14.93	14.93
Count	11	11	11	11
Failure Count	0	0	0	0
Mean	14.925	14.925	14.925	14.925
Std. Dev.	0.000	0.000	0.000	0.000
CV	0	0	0	0
RPMF	0	0	0	0
Reasonable Potential	0.000	0.000	0.000	0.000
100/Critical dilution	20.000	20.000	20.000	20.000
Does Reasonable Potential Exist	No	No	No	No

PERMIT ACTION

P. promelas Chronic - monitoring
C. dubia Chronic - monitoirng

14. STORMWATER REQUIREMENTS

The federal regulations at 40 CFR 122.26(b)(14)(ix) require major municipal dischargers to have NPDES permit coverage for stormwater discharges from the facility. These requirements include the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to control the quality of stormwater discharges from the facility. In lieu of the development of a SWPPP, the facility may obtain a "No Exposure" Exclusion in accordance with 40 CFR 122.26(g) if several conditions can be certified. This facility was issued a "No Exposure" Exclusion under NPDES Tracking number ARR000175.

15. SAMPLE TYPE AND FREQUENCY

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40 CFR Part 122.48(b)] and to ensure compliance with permit limitations [40 CFR Part 122.44(i)(l)].

Requirements for sample type and sampling frequency have been based on the current discharge permit.

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
Flow	once/day	totalizing meter	once/day	totalizing meter
$CBOD_5$	N/A	N/A	five/week	composite
TSS	twice/week	composite	twice/week	composite
DO	once/week	grab	once/week	grab
FCB	once/week	grab	once/week	grab
TRC	once/week	grab	once/week	grab
Arsenic, Total Recoverable	N/A	N/A	once/quarter	grab
TP	once/month	grab	N/A	N/A
$NO_3 + NO_2$ - N	once/month	grab	N/A	N/A
pH	three/week	grab	three/week	grab

16. PERMIT COMPLIANCE SCHEDULE

A Schedule of Compliance has been included in this permit for TRC. Compliance with all permit requirements is required in accordance with the schedule provided in Part IB of the permit. The Department has chosen to exercise its discretion provided for in Reg. 2 to allow a 3 year Schedule of Compliance for the new TRC limit. Therefore, the TRC limit will be effective three years after the effective date of the permit. In the interim, monitoring and reporting for TRC is required. Additionally, the permittee has the option to undertake any study deemed necessary to meet the final limitations for TRC during the interim period. Any additional treatment must be approved and construction approval granted prior to final installation.

The Schedule of Compliance for TRC is remaining in the permit. The facility has reported TRC levels in excess of the new limit within the past 3 years. See the reported data using the following link:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0020320_DMR%20Measurement%20Report_20190207.pdf

17. MONITORING AND REPORTING

The applicant is at all times required to monitor the discharge on a regular basis and report the results monthly. The monitoring results will be available to the public.

18. SOURCES

The following sources were used to draft the permit:

A. Application No. AR0020320 received November 30, 2016, with all additional information received by February 9, 2017.
B. Arkansas Water Quality Management Plan (WQMP).
C. APC&EC Regulation No. 2.
D. APC&EC Regulation No. 3.
E. APC&EC Regulation No. 6 which incorporates by reference certain federal regulations included in Title 40 of the Code of Federal Regulations at Reg. 6.104.
F. 40 CFR Parts 122, 125, 133, and 403.
G. Discharge permit file AR0020320.
H. Discharge Monitoring Reports (DMRs).
I. "2008 Integrated Water Quality Monitoring and Assessment Report", ADEQ.
J. "2008 List of Impaired Waterbodies (303(d) List)", ADEQ, February 2008.
K. "Low-Flow Characteristics and Regionalization of Low-Flow Characteristics for Selected Streams in Arkansas", U.S. Dept. of the Interior, U.S. Geological Survey, Scientific Investigations Report 2008-5065.
L. Continuing Planning Process (CPP).
M. Technical Support Document For Water Quality-based Toxic Control.

N. Compliance Review Memo from Layne Pemberton to Jessica Temple dated January 12, 2017.
O. MultiSMP Model dated July 15, 2016, and reviewed August 18, 2017.
P. Site visit on January 11, 2017.
Q. Modification application received July 13, 2017.
R. *Modification application received January 9, 2019, with additional information received January 15, 2019.*
S. *Site Specific Chlorine Demand Study dated November 2018.*

19. **POINT OF CONTACT**

For additional information, contact:

Loretta Carstens, P.E.
Permits Branch, Office of Water Quality
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317
Telephone: (501) 682-0612

EXHIBIT "6"

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(1951 - 2023)

November 3, 2025

Mr. Stephen Cobb, Esq.
Sherwood City Attorney
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Sherwood, AR 72120
stephen@aristotle.net

VIA EMAIL

RE: **Agreement between North Little Rock Wastewater Utility ("NLRWU") and Sewer Committee of Sherwood**

Dear Steve:

We represent NLRWU, a quasi-independent instrumentality of the City of North Little Rock. You may have received a copy of the October 1, 2025 letter from the Executive Director of NLRWU to the Mayor of Sherwood, a copy of which is attached. We wish to follow up on that matter.

It appears that Sherwood is in breach of the 1990 Agreement approved by the Pulaski County Chancery Court in 1990. That Agreement, with authorizing court orders, is also attached. Paragraph 5 of Exhibit C to the Agreement requires Sherwood to maintain, repair, and service its sewer lines within its area in the same manner that NLRWU maintains its lines. Sherwood is not satisfying the obligations within the Agreement; for example, and without going into excessive detail, Sherwood is: (1) not implementing a Fats Oil and Grease Program, (2) not rehabilitating old sewer lines and manholes, (3) not cleaning sewer lines on a 3 year cycle, (4) failing to create a CCTV plan, (5) failing to report to NLRWU about sewer overflows (especially in the Chesterfield Henson Park area), (6) failing to mitigate said sewer overflows, and (7) failing to construct necessary interceptor rehabilitation, even though $7 million in funds have already been designated for that purpose. This lack of system maintenance, which has continued for years, is allowing stormwater to infiltrate Sherwood's lines, and is causing sewer system overflow and damage to NLRWU's treatment facilities. These failures are putting NLRWU's NPDEF permits at risk.

NLRWU anticipates that the existing Five Mile Creek treatment plant, which serves 2,150 of Sherwood's satellite system customers, must be fully decommissioned and converted to a pump station by 2029. NLRWU has already begun pre-planning and pre-design work for the new Faulkner Lake facility, which will replace Five Mile Creek for the satellite system treatment. Section 10 of Exhibit C to the 1990 Agreement requires that

EXHIBIT "6"

Sherwood help pay costs associated with the expansion of Five Mile Creek. Some 35 years later, however, expansion is no longer an option due to the age and maximum size of that facility. Thus, the Five Mile Creek treatment plant must be repurposed to a pump station and replaced by larger modern facilities at Faulkner Lake. If Sherwood customers are to be served by those new facilities, they must contribute to that cost. Sherwood customers currently pay about 16% of operating costs at Five Mile Creek. Because the new Faulkner Lake treatment facility will serve relatively more NLR customers, NLRWU estimates that Sherwood customers will pay only about 5% at the operating costs of the new facility.

In order for NLRWU to continue to provide sewer treatment services for Sherwood's Five Mile Basin area, the parties must update the 1990 Agreement as follows: (a) Sherwood will agree to new Satellite System Regulations for the Five Mile Creek service area requiring Sherwood to provide the rehabilitation, cleaning, and maintenance programs described above, at Sherwood's cost, (b) Sherwood will bring all lines to NLRWU's specifications on a schedule satisfactory to NLRWU, to be monitored at Sherwood's cost, (c) Sherwood will contribute, either out of its general budget or from increased customer fees, a pro rata portion of the cost of conversion of the Five Mile Creek facility and development of the Faulkner Lake facility, and (d) Sherwood will begin providing pre-treatment services for CHI St. Vincent North and any other industrial customers in Sherwood.

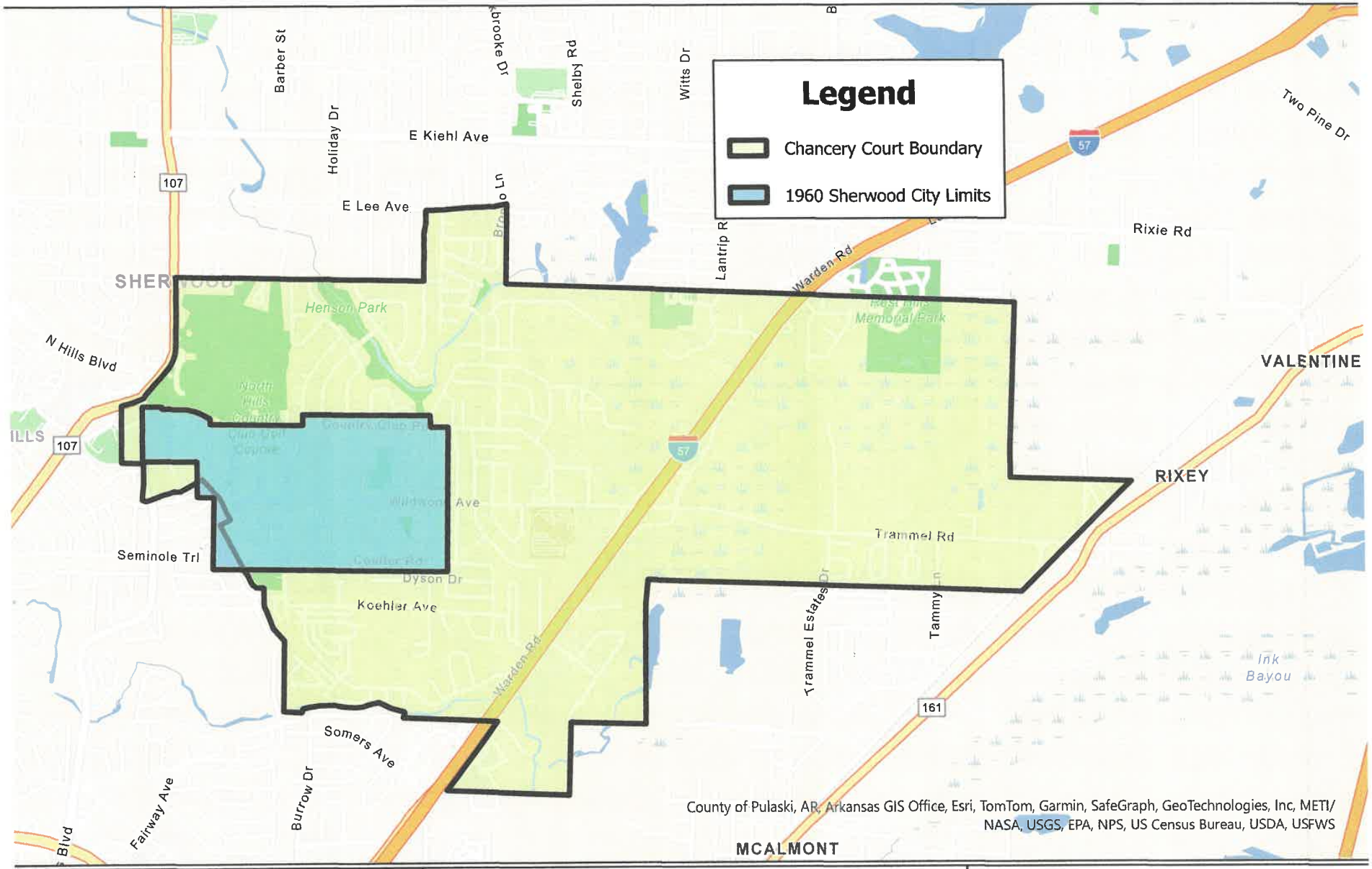
If Sherwood does not wish to amend the 1990 Agreement and continue to use NLRWU's facilities in the manner outlined above, it will need to make new arrangements to treat the sewerage generated by its customers in the Five Mile Creek basin. We anticipate that it will take Sherwood approximately two years to construct the necessary infrastructure to independently serve its customers. NLRWU would be willing to continue to provide treatment for Sherwood's Five Mile Creek customers for that period of two years, provided that Sherwood will cure its existing breaches of the 1990 Agreement.

We look forward to working with you to negotiate a mutually satisfactory resolution of this situation. Please let us know who the primary contact will be going forward.

Sincerely,

Sam Hilburn

HSH/hg
Cc: Mayor Terry Hartwick
Chairman Buck Matthews
Michael Clayton, Executive Director
Basil Hicks, Esq.



North Little Rock Wastewater

Chancery Court Boundary vs. 1960 Sherwood City Limits

EXHIBIT "7"