



# ARKANSAS

## ENERGY & ENVIRONMENT

July 11, 2021

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (9489 0090 0027 6186 1098 54)

Rick Ferguson, President  
Southwest Equity Investments, LLC - Paradise Subdivision WWTP  
P.O. Box 23670  
Little Rock, AR 72221

RE: Discharge Permit Number AR0053210, AFIN 60-05010

Dear Mr. Ferguson:

Enclosed are the public notice, a copy of the draft permit, and Statement of Basis, which the Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ) has prepared and mailed to you on the above date under the authority of the National Pollutant Discharge Elimination System (NPDES) and the Arkansas Water and Air Pollution Control Act. A copy of the final permit will be mailed to you when the Division has made a final permitting decision.

In accordance with Arkansas Pollution Control & Ecology Commission (APC&EC) Rule 8.207, the enclosed public notice will be or has been published by DEQ in a newspaper of general circulation of your facility for one (1) day only. An invoice for the cost of publishing the public notice and proof of publication will be sent to you by the advertising newspaper. The permittee must send proof of publication and proof of payment to the address at the bottom of this letter as soon as possible but no later than thirty (30) days from the above date. Until this Division receives proof of publication of the public notice and payment of all permit fees, no further action will be taken on the issuance of your discharge permit.

Comments must be received at DEQ prior to the close of the public comment period as described in the enclosed public notice. Once a final permit is issued by the Director and becomes effective, the permittee must comply with all terms and conditions of the permit, or be subject to enforcement actions for any instances of noncompliance during the duration of the permit, usually five (5) years. Consequently, it is imperative that you, as the applicant, thoroughly review the enclosed documentation for accuracy, applicability, and your ability to comply with all conditions therein.

Should you have any questions concerning any part of the draft permit, please contact Faizan Khan at (501) 682-0670 or [faizan.khan@adeq.state.ar.us](mailto:faizan.khan@adeq.state.ar.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Alan J. York'.

Alan J. York  
Associate Director, Office of Water Quality  
Division of Environmental Quality  
5301 Northshore Drive, North Little Rock, AR, 72118

AJY:fk

Enclosure

**PUBLIC NOTICE OF DRAFT DISCHARGE PERMIT AND 208 PLAN  
PERMIT NUMBER AR0053210, AFIN 60-05010**

In accordance with Ark. Code Ann. § 8-4-203(e), the Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ), Office of Water Quality, gives the following notice:

Southwest Equity Investments, LLC will operate the Paradise Subdivision WWTP facility located as follows: Roland Cutoff, Roland, AR 72135 in Pulaski County. This is a new facility that is proposing to discharge treated domestic wastewater into an unnamed tributary of Mill Bayou, thence to Mill Bayou, thence to the Arkansas River in Segment 3C of the Arkansas River Basin. Southwest Equity Investments, LLC - Paradise Subdivision WWTP submitted an application on September 2, 2020, with all additional information received by September 21, 2020, for the issuance of NPDES Permit No. AR0053210. The application has been reviewed by the DEQ's Office of Water Quality and has received tentative approval subject to the terms of this notice.

The 208 Plan, developed by the DEQ 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 proposed to add this new facility with the following water quality limitations. These updates have also been incorporated into the draft discharge permit.

May–October:	CBOD <sub>5</sub> /TSS/NH <sub>3</sub> -N/DO/TRC = 15/20.0/5.0/3.0/0.011 mg/l
November–March:	CBOD <sub>5</sub> /TSS/NH <sub>3</sub> -N/DO/TRC = 20/20.0/10.0/2.0/0.011 mg/l
April:	CBOD <sub>5</sub> /TSS/NH <sub>3</sub> -N/DO/TRC = 20/20.0/5.6/2.0/0.011 mg/l
Design flow (Q):	0.05 MGD

Citizens wishing to examine or obtain copies of the permit application, the draft permitting decision, the Statement of Basis or the 208 Plan may do so at the DEQ headquarters located at 5301 Northshore Drive, North Little Rock, AR 72118-5317. To request a copy of one or more of the documents, please call (501) 682-0622. For those with Internet access, a copy of the proposed draft permit as well as the publication date may be found on the DEQ's website at: [https://www.adeq.state.ar.us/water/permits/drafts\\_pn.aspx](https://www.adeq.state.ar.us/water/permits/drafts_pn.aspx)

Comments on the draft issuance will be accepted in accordance with Arkansas Pollution Control and Ecology Commission (APC&EC) Rule 8.208. DEQ's contact person for submitting written comments on the draft permit or 208 Plan, or requesting a public hearing on the draft permit or the proposed changes to the 208 Plan, is Faizan Khan, at the above address and telephone number or by email at [Water-Draft-Permit-Comment@adeq.state.ar.us](mailto:Water-Draft-Permit-Comment@adeq.state.ar.us).

The period for submitting comments on the draft permit and 208 Plan, and for requesting a public hearing, shall begin on the date of publication of the public notice and end at 4:30 P.M. (Central Time) on the 30<sup>th</sup> day after the publication date. If the last day of the comment period is a Saturday, Sunday, or legal holiday, the public comment period shall expire on the next day that is not a Saturday, Sunday, or legal holiday. For information regarding the actual publication date along with the actual date and time the comment period will end, please contact Faizan Khan at the above address and telephone number or by email at [Water-Draft-Permit-Comment@adeq.state.ar.us](mailto:Water-Draft-Permit-Comment@adeq.state.ar.us). Public notice, comments, and hearings will be conducted in accordance with APC&EC Rules 6.104(A)(5) [40 C.F.R. §§ 124.10 through 124.12 by reference] and 8.207 through 8.210 (Administrative Procedures). All persons, including the permittee, who wish to comment on DEQ's draft permitting decision must submit written comments to DEQ, along with their name and mailing address. A Public Hearing will be held when DEQ finds a significant degree of public interest. After the public comment period, DEQ will issue a final permitting decision. DEQ will notify the applicant and each person who has submitted written comments or requested notice of the final permitting decision. Any interested person who has submitted comments may appeal a final decision by DEQ in accordance with the APC&EC Rule 8.

## 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.),

Southwest Equity Investments, LLC  
Paradise Subdivision WWTP

is authorized to discharge treated domestic wastewater from a facility located as follows: Roland Cutoff, Roland, AR 72135, in Pulaski County. From Highway 300 in Roland, AR, take Roland Cutoff Road, then travel east for approximately 1.62 miles. The facility will be located on the north side of the road.

Facility Coordinates: Latitude: 34° 53' 58.4" N; Longitude: 92° 31' 28.1" W

The facility discharges to receiving waters named:

an unnamed tributary of Mill Bayou, thence to Mill Bayou, thence to the Arkansas River in Segment 3C of the Arkansas River Basin.

The outfall is located at the following coordinates:

Outfall 001: Latitude: 34° 54' 07.5" N; Longitude: 92° 31' 24.8" 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:

Expiration Date:

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Alan J. York  
Associate Director, Office of Water Quality  
Arkansas Department of Energy and Environment  
Division of Environmental Quality

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Issue Date

## PART I PERMIT REQUIREMENTS

### SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 - treated domestic 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.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, else specified)		Concentration (mg/l, else specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.		
Flow	N/A	N/A	Report, MGD	Report, MGD	two/week	totalizing meter
Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )						
(May – October)	6.3	9.6	15	23	once/month	grab
(November – April)	8.3	12.5	20	30	once/month	grab
Total Suspended Solids (TSS)	8.3	12.5	20.0	30.0	once/month	grab
Ammonia Nitrogen (NH <sub>3</sub> -N)						
(April)	2.3	2.3	5.6	5.6	once/month	grab
(May – October)	2.1	3.1	5.0	7.5	once/month	grab
(November – March)	4.2	6.3	10.0	15.0	once/month	grab
Dissolved Oxygen (DO)						
(May – October)	N/A	N/A	3.0 (Inst. Min.)		once/month	grab
(November – April)	N/A	N/A	2.0 (Inst. Min.)		once/month	grab
Fecal Coliform Bacteria (FCB)	N/A	N/A	(colonies/100ml)		once/month	grab
			1000	2000 (7- Day Avg.)		
Total Residual Chlorine (TRC) <sup>1</sup>	N/A	N/A	0.011 (Inst. Max.) <sup>2</sup>		once/month	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month	grab

<sup>1</sup> TRC must be measured using any approved test method established in 40 C.F.R. § 136 capable of meeting a minimum quantification level (MQL) of 0.033 mg/l or lower. If TRC is not reportable at the required MQL (i.e., lab result is “ND”), report “0” on the Discharge Monitoring Report (DMR). Report the concentration if TRC is quantifiable and measured in the sample at or above this or an alternatively approved MQL. See Part II.7 for more information.

<sup>2</sup> 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.

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 or 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 treatment, prior to the receiving stream.

**Draft**

Permit Number: AR0053210

AFIN: 60-05010

Page 1 of Part I.B

**SECTION B. PERMIT COMPLIANCE SCHEDULE**

None.

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## 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 Rule 3.
2. In accordance with 40 C.F.R. §§ 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.

3. Other Specified Monitoring Requirements

The permittee may use alternative appropriate monitoring methods and analytical instruments other than as specified in Part I.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 Branch of the Office of Water Quality of the DEQ for use of the alternate method or instrument.
- The method and/or instrument is in compliance with 40 C.F.R. § 136 or approved in accordance with 40 C.F.R. § 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 Assurance/Quality Control (QA/QC) 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. DEQ must be notified in writing and the permittee must receive written approval from DEQ if the permittee decides to return to the original permit monitoring requirements.

4. Best Management Practices (BMPs), as defined in Part IV.7, 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.
5. The permittee shall comply with all applicable financial assurance fee requirements including payment of required trust fund contribution fees specified by Arkansas Code Annotated § 8-

4-203(b). Failure to promptly remit all financial assurance fees as required shall be grounds for the Director to initiate action to terminate this permit under the provisions in 40 C.F.R. §§ 122.64 and 124.5(d), as adopted in APC&EC Rule 6 and the provisions in APC&EC Rule 9.301(D).

6. The permittee shall not add more than 150 connections to the complete treatment system, outside of the described service area, or connections that cause an exceedance of the treatment works' design flow, without approval from the DEQ and the Arkansas Department of Health (ADH).
7. The permittee may use any EPA approved method based on 40 C.F.R. § 136 provided the minimum quantification level (MQL) for the chosen method is equal to or less than what has been specified in chart below:

Pollutant	MQL (mg/l)
TRC	0.033

The permittee may develop a matrix specific method detection limit (MDL) in accordance with Appendix B of 40 C.F.R. § 136. For any pollutant for which the permittee determines a site specific MDL, the permittee shall send to DEQ, 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 MQL shall be determined in accordance with the following calculation:

$$\text{MQL} = 3.3 \times \text{MDL}$$

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

## 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 Rule 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 Rule 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 Rule 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 statutes 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 regulations 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 Rule 9 (Rule 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 C.F.R. §§ 122.64 and 124.5(d), as adopted in APC&EC Rule 6 and the provisions of APC&EC Rule 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 ensure 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 C.F.R. § 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 periods of equipment downtime or preventive maintenance; and
  - (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 C.F.R. § 503, 40 C.F.R. § 257, and 40 C.F.R. § 258.
- B. Any changes to the permittee's disposal practices described in the Statement of Basis, 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 ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure 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 Division approved method (i.e., as allowed in the *Other Specified Monitoring Requirements* condition under Part II), 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 Division.

## 3. **Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 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 ensure accuracy of measurements and shall ensure 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 ensure 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 C.F.R. § 127.11(a)(1) and 40 C.F.R. § 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://cdx.epa.gov>. Permittees who are unable to file electronically may request a waiver from the Director in accordance with 40 C.F.R. § 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 25<sup>th</sup> 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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

Please be aware that the notifications can be sent by email to [water-enforcement-report@adeq.state.ar.us](mailto:water-enforcement-report@adeq.state.ar.us) or at 501-682-0624 for immediate reporting:

- A. The permittee shall report any noncompliance which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances to the Enforcement Branch of the Office of Water Quality of DEQ. 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 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.
- C. The Director may waive the written report on a case-by-case basis if the notification has been received within 24 hours to the Enforcement Branch of the Office of Water Quality of the DEQ.

## 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 including Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers

The permittee shall notify the Director as soon as he/she 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 including those listed in 40 CFR 401.15 which is not limited in the permit, if that discharge will exceed the highest of the “notification levels” described in 40 C.F.R. § 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 including those listed in 40 CFR



401.15 which is not limited in the permit, if that discharge will exceed the highest of the “notification levels” described in 40 C.F.R. § 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 implemented through procedures outlined by APC&EC Rule 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 C.F.R. § 2 and APC&EC Rule 6, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Environmental Quality. As required by the Rules, 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.

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## PART IV DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act and 40 C.F.R. § 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. **“7-day average” (“average weekly”)** 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
2. **“Act”** the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended
3. **“Administrator”** the Administrator of the U.S. Environmental Protection Agency
4. **“APC&EC”** the Arkansas Pollution Control and Ecology Commission
5. **“Applicable effluent standards and limitations”** 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
6. **“Applicable water quality standards”** 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) Rule 2, as amended
7. **“Best Management Practices (BMPs)”** activities, practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the State; includes treatment technologies, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw sewage; may include structural devices or nonstructural practices
8. **“Bypass”** the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 C.F.R. § 122.41(m)(1)(i)
9. **“Composite sample”** 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
10. **“Daily Discharge”** 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
11. **“Daily Maximum”** the highest allowable “daily discharge” during the calendar month
12. **“Director”** the Director of the Division 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. **“Division”** the Division of Environmental Quality (**DEQ**)
15. **“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
16. **“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
17. **“Grab sample”** an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement
18. **“Industrial User”** a nondomestic discharger, as identified in 40 C.F.R. § 403, introducing pollutants to a publicly owned treatment works (POTW)
19. **“Instantaneous flow measurement”** 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
20. **“Instantaneous Maximum”** no value measured during the reporting period may fall above the stated value
21. **“Instantaneous Minimum”** no value measured during the reporting period may fall below the stated value
22. **“Monitoring and Reporting”** when a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date; for monitoring requirements for an effluent characteristic of monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25<sup>th</sup> of the month following the sampling; for monitoring requirements for an effluent characteristic of Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25<sup>th</sup> of the month following the monitoring period end date
  - A. **MONTHLY** a calendar month or any portion of a calendar month for monitoring requirement frequency of once/month or more frequently.
  - B. **BI-MONTHLY** 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. 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
    2. 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** 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** a fixed calendar year (January through December) or any portion of the fixed calendar year for an effluent characteristic or parameter with a measurement frequency of once/year
23. **“Monthly Average”** 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.15 and IV.16 above)
24. **“National Pollutant Discharge Elimination System”** 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
25. **“POTW”** Publicly Owned Treatment Works; a treatment works (see Part IV.29 below) which is owned by a state or municipality
26. **“Reduction of CBOD<sub>5</sub>/BOD<sub>5</sub> and TSS Formula”**  $[(\text{Influent} - \text{Effluent}) / \text{Influent}] \times 100$
27. **“Severe property damage”** 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; does not include economic loss caused by delays in products
28. **“Sewage sludge”** the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW; any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW
29. **“Treatment works”** 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:**
- “cfs” cubic feet per second
  - “µg/l” micrograms per liter or parts per billion (ppb)
  - “mg/l” milligrams per liter or parts per million (ppm)
  - “MGD” million gallons per day
  - “ppm” parts per million
  - “s.u.” standard units
31. **“Upset”** 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; does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless or improper operations

32. **“Visible sheen”** 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”** Monday – Friday.

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# Draft

## Statement of Basis

This Statement of Basis is for information and justification of the permit requirements only. Please note that it is not enforceable. This draft permitting decision is for issuance of the discharge Permit Number AR0053210 with Arkansas Department of Energy and Environment - Division of Environmental Quality (DEQ) Arkansas Facility Identification Number (AFIN) 60-05010 to discharge to Waters of the State.

### 1. PERMITTING AUTHORITY

The issuing office is:

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

### 2. APPLICANT

The applicant's mailing address is:

Southwest Equity Investments, LLC - Paradise Subdivision WWTP  
P.O. Box 23670  
Little Rock, AR 72221

The facility address is:

Southwest Equity Investments, LLC - Paradise Subdivision WWTP  
Roland Cutoff  
Roland, AR 72135

### 3. PREPARED BY

The permit was prepared by:

Faizan Khan  
Staff Engineer  
NPDES Discharge Permits Section  
Office of Water Quality  
(501) 682-0670  
Email: [faizan.khan@adeq.state.ar.us](mailto:faizan.khan@adeq.state.ar.us)

Carrie McWilliams, P.E.  
Engineer Supervisor  
NPDES Discharge Permits Section  
Office of Water Quality  
(501) 682-0915  
Email: [mcwilliamsc2@adeq.state.ar.us](mailto:mcwilliamsc2@adeq.state.ar.us)

### 4. PERMIT ACTIVITY

The permittee submitted a new application on September 2, 2020, with all additional information received by September 21, 2020, for a State Construction Permit and an individual NPDES permit. The permittee is proposing to install a WWTP for a residential subdivision. The new discharge permit is issued for a 5-year term in accordance with regulations promulgated at 40 C.F.R. § 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<sub>5</sub> - five-day biochemical oxygen demand

BPJ - best professional judgment

BPT - best practicable control technology currently available

CBOD<sub>5</sub> - 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

NH<sub>3</sub>-N - ammonia nitrogen

NO<sub>3</sub> + NO<sub>2</sub>-N - nitrate + nitrite nitrogen

NPDES - National Pollutant Discharge Elimination System

O&G - oil and grease

Rule 2 - APC&EC Rule 2

Rule 6 - APC&EC Rule 6

Rule 8 - APC&EC Rule 8

Rule 9 - APC&EC Rule 9

RP - reasonable potential

SIC - standard industrial classification

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

## 5. FINANCIAL ASSURANCE

The permittee shall comply with all applicable financial assurance fee requirements including the trust fund contribution fee. The permittee shall pay the required trust fund contribution fee. The permittee must maintain the required financial assurance for the life of the permit by paying the required trust fund contributions in a timely manner, as required by Arkansas Code Annotated § 8-4-203(b). Failure to promptly remit all financial assurance fees as required shall be grounds for the Director to initiate action to terminate this permit under the provisions in 40 C.F.R. §§ 122.64 and 124.5(d), as adopted in APC&EC Rule 6 and the provisions in APC&EC Rule 8.

## 6. SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT

This is the first permit for a new facility. Therefore, this section is not applicable at this time.

## 7. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION

The outfall is located at the following coordinates based on Google Earth using WGS84:

Latitude: 34° 54' 07.5" N; Longitude: 92° 31' 24.8" W

The receiving waters named:

an unnamed tributary of Mill Bayou, thence to Mill Bayou, thence to the Arkansas River in Segment 3C of the Arkansas River Basin. The receiving stream with assessment unit (AU) AR\_11110207\_013<sup>1</sup> is a Water of the State classified for secondary contact recreation; a raw water source for domestic (public and private), industrial, and agricultural water supplies; the propagation of desirable species of fish and other aquatic life; and other compatible uses.

## 8. 303(d) LIST, TOTAL MAXIMUM DAILY LOADS, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS

### A. 303(d) List

The receiving stream is not listed in Arkansas's 2018 List of Impaired Waterbodies (303(d) List). Therefore, no permit action is needed.

### B. Applicable Total Maximum Daily Load (TMDL) Reports

There are no applicable TMDLs to this facility.

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<sup>1</sup> This is the closest downstream AU 3-digit code, which is assigned to the Arkansas River.

## C. Endangered Species

No comments on the application were received from the USF&WS. The draft permit and Statement of Basis will be 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 Rule 2.

## 9. OUTFALL, TREATMENT PROCESS DESCRIPTION, AND FACILITY CONSTRUCTION

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

A. Design Flow: 0.05 MGD

B. Type of Treatment: individual septic tanks at homes, bar screen, grit removal, flow equalization chamber, extended aeration activated sludge/aeration chamber, two (2) clarifiers, sludge holding chamber, filtration, chlorine disinfection, dechlorination.

C. Discharge Description: treated domestic wastewater

D. Facility Status: This facility was evaluated using the NPDES Permit Rating Worksheet (MRAT) to determine the correct permitting status. Since the facility's MRAT score of 15 is less than 80, this facility is classified as a minor industrial.

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 Rule 6.202.

## 10. 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 wastewater treatment plant for a subdivision.

## 11. SEWAGE SLUDGE PRACTICES

Sludge generated at the facility will be hauled off to a permitted landfill. Sludge must be removed as necessary to maintain proper operation and maintenance at the treatment facility. Sludge disposal, if different than described above, will require prior authorization from the Division. Any change to the sludge disposal method shall be in accordance with Part III.B.6 of the permit.

## 12. DEVELOPMENT AND BASIS FOR PERMIT CONDITIONS

The Division of Environmental Quality has determined to issue a draft permit for the discharge described in the application. Permit requirements are based on federal regulations (40 C.F.R. §§ 122, 124, and Subchapter N), 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 draft 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 C.F.R. § 124.7.

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

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

Parameter	Water Quality-Based		Technology-Based		Draft Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
CBOD <sub>5</sub>						
(May – October)	15	23	N/A	N/A	15	23
(November – April)	20	30	N/A	N/A	20	30
TSS	20.0	30.0	N/A	N/A	20.0	30.0
NH <sub>3</sub> -N						
(April)	5.6	5.6	N/A	N/A	5.6	5.6
(May – October)	5.0	7.5	N/A	N/A	5.0	7.5
(November – March)	10.0	15.0	N/A	N/A	10.0	15.0
DO						
(May – October)	3.0 (Inst. Min.)		N/A		3.0 (Inst. Min.)	
(November – April)	2.0 (Inst. Min.)		N/A		2.0 (Inst. Min.)	
FCB (col/100ml)	1000	2000 (7-Day Avg.)	N/A	N/A	1000	2000 (7-Day Avg.)
TRC	0.011 (Inst. Max.)		Report (Inst. Max.)		0.011 (Inst. Max.)	

Parameter	Water Quality-Based		Technology-Based		Draft Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
pH	6.0-9.0 s.u.		N/A		6.0-9.0 s.u.	

**A. Justification for Limitations and Conditions of the Draft Permit**

Parameter	Water Quality or Technology	Justification
CBOD <sub>5</sub>	Water Quality	Water Quality Model dated March 9, 2021
TSS	Water Quality	Water Quality Model dated March 9, 2021
NH <sub>3</sub> -N	Water Quality	Rule 2.512, Water Quality Model dated March 9, 2021
DO	Water Quality	Rule 2.505, Water Quality Model dated March 9, 2021
FCB	Water Quality	Rule 2.507
TRC	Water Quality	Rule 2.409
pH	Water Quality	Rule 2.504

**Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>):**

Domestic wastewater is considered to be oxygen demanding due to the presence of sanitary waste, which contains organic material that consumes oxygen. In order to protect the level of dissolved oxygen present in the receiving stream, effluent limitations are included for Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), a method defined test that measures the depletion of dissolved oxygen by biological organisms. CBOD<sub>5</sub> limits were derived from the modeling analysis dated March 9, 2021.

**Total Suspended Solids (TSS):**

Domestic wastewater can contain high levels of suspended solids that can contribute to turbidity or cloudiness in the receiving stream. High turbidity levels can affect the ability of fish gills to absorb dissolved oxygen, and TSS can also create an oxygen demand in the water column due to the sediment (sediment oxygen demand). Therefore, in order to protect the water quality and designated uses of the receiving stream, effluent limitations are included for TSS to control the discharge of suspended solids. TSS limits are included in the permit and are indirectly modeled by input of an SOD rate which corresponds to the TSS effluent value in the modeling analysis dated March 9, 2021.

**Ammonia Nitrogen (NH<sub>3</sub>-N):**

Ammonia is known to have adverse effects to aquatic life and human health when discharged in toxic amounts. If discharged without any reduction, ammonia will also exert an unacceptable oxygen demand on the receiving stream. In order to protect the

water quality and designated uses of the receiving stream, effluent limitations are included for ammonia nitrogen (NH<sub>3</sub>-N), which measures the amount of ammonia in the wastewater discharge. These limitations are based on the toxicity standards provided in APC&EC Rule 2.512 and the modeling analysis dated March 9, 2021.

### **Dissolved Oxygen (DO):**

As stated previously, domestic wastewater contains pollutants that are oxygen-demanding. These pollutants may have adverse effects on the existing level of DO and the propagation of desirable species of fish and other aquatic life in the receiving stream. Therefore, effluent limitations for DO, expressed as an instantaneous minimum, were derived from a modeling analysis dated March 9, 2021 to ensure protection of water quality and the designated uses of the receiving stream. An instantaneous minimum required DO effluent level has been included in the permit to ensure that the dissolved oxygen water quality standards are met in accordance with APC&EC Rule 2.505.

### **Fecal Coliform Bacteria (FCB):**

Domestic wastewater can contain high levels of coliform bacteria due to the presence of sanitary waste. Effluent limitations for the concentration of FCB must be included for the purpose of maintaining the designated uses of secondary contact recreation seasons in the receiving stream. The limitations will also ensure that the disinfection process at the treatment facility is properly operated. Since the watershed of the receiving stream is less than 10 mi<sup>2</sup>, the stream is classified for secondary contact recreation. For this classification, APC&EC Rule 2.507 specifies that the effluent limitations for FCB shall be a Monthly Average Limit of 1000 col/100 ml and a Daily Maximum (7-Day Average) Limit of 2000 col/100 ml, both year-round.

### **Total Residual Chlorine (TRC):**

The facility's treatment system consists of chlorine disinfection and dechlorination. EPA considers TRC concentrations at the edge of the mixing zone higher than 0.011 mg/l (Chronic Criteria) to be toxic to aquatic organisms. In accordance with APC&EC Rule 2.409, which forbids the discharge of toxic pollutants in amounts which are toxic, a TRC limit based on meeting the EPA criteria in the receiving stream has been included in the permit. Since the receiving stream has a 7Q10 of 0 cfs, the EPA criteria must be included as an end-of-pipe limit.

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 C.F.R. § 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), thereby demonstrating compliance with the limit of 0.011 mg/l. Please note that if the required detection level is not met, TRC must be reported at the detection level achieved.

## pH:

Requirements for pH have been included in the permit to verify that the discharge from the permittee is not affecting the water quality standards of the receiving stream in accordance with APC&EC Rule 2.504. This will help protect all designated uses of the receiving stream.

## B. Anti-backsliding

Since this is a new permit, the anti-backsliding provisions of the Clean Water Act (CWA), Section 402(o) [40 C.F.R. § 122.44(l)] will be taken into consideration at the time of the next permit issuance.

## C. Limits Calculations

### 1. Mass Limits:

In accordance with 40 C.F.R. § 122.45(f)(1), all pollutants limited in permits shall have limitations expressed in terms of mass if feasible. 40 C.F.R. § 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 mass loadings uses a design flow of 0.05 MGD and the following equation:

$$\text{Mass (lbs/day)} = \text{Concentration (mg/l)} \times \text{Flow (MGD)} \times 8.34$$

### 2. Daily Maximum Limits:

The daily maximum limits for CBOD<sub>5</sub>, TSS, and NH<sub>3</sub>-N (May–March), are based on Section 5.4.2 of the Technical Support Document for Water Quality-based Toxics Control:

$$\text{daily maximum limits} = \text{monthly average limits} \times 1.5$$

The daily maximum NH<sub>3</sub>-N limit for the month of April is based on the requirements of Rule 2.512.

The daily maximum (7-Day Average) limit for FCB is based on Rule 2.507.

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

The 208 Plan, developed by the DEQ 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. The 208 Plan is being updated to add this new facility with the following water quality limitations:

May–October: CBOD<sub>5</sub>/TSS/NH<sub>3</sub>-N/DO/TRC = 15/20.0/5.0/3.0/0.011 mg/l  
November–March: CBOD<sub>5</sub>/TSS/NH<sub>3</sub>-N/DO/TRC = 20/20.0/10.0/2.0/0.011 mg/l  
April: CBOD<sub>5</sub>/TSS/NH<sub>3</sub>-N/DO/TRC = 20/20.0/5.6/2.0/0.011 mg/l  
Design flow (Q): 0.05 MGD

### 13. SAMPLE TYPE AND FREQUENCY

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40 C.F.R. § 122.48(b)] and to ensure compliance with permit limitations [40 C.F.R. § 122.44(i)(1)].

Requirements for sample type and sampling frequency were based on best engineering judgment for a new facility with a design flow of 0.05 MGD.

Parameter	Draft Permit	
	Frequency of Sample	Sample Type
Flow	two/week	totalizer
CBOD <sub>5</sub>	once/month	grab
TSS	once/month	grab
NH <sub>3</sub> -N	once/month	grab
DO	once/month	grab
FCB	once/month	grab
TRC	once/month	grab
pH	once/month	grab

### 14. PERMIT COMPLIANCE SCHEDULE

A Schedule of Compliance has not been included in this permit. Compliance with all permit requirements is required on the effective date of the permit.

### 15. 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.

### 16. SOURCES

The following sources were used to draft the permit:

- A. [Application No. AR0053210 received September 2, 2020, with all additional information received by September 21, 2020.](#)
- B. [Arkansas Water Quality Management Plan \(WQMP\).](#)
- C. [APC&EC Rule 2.](#)
- D. [APC&EC Rule 3.](#)



- E. [APC&EC Rule 6, which incorporates by reference certain federal regulations included in Title 40 of the Code of Federal Regulations at Rule 6.104.](#)
- F. [40 C.F.R. §§ 122 and 125.](#)
- G. [“2018 Integrated Water Quality Monitoring and Assessment Report,” DEQ.](#)
- H. [“2018 List of Impaired Waterbodies \(303\(d\) List\),” DEQ, May 2020.](#)
- I. [USGS StreamStats web-based program.](#)
- J. Continuing Planning Process (CPP).
- K. [Technical Support Document for Water Quality-based Toxics Control.](#)
- L. [Preliminary Limits Response Letter dated March 4, 2020.](#)
- M. [Revised Application Information dated February 3, 2021.](#)
- N. [Planning Review Memo dated February 3, 2021.](#)
- O. [Technical Information Email dated February 19, 2021.](#)
- P. [NPDES Permit Rating Spreadsheet \(MRAT\) dated March 4, 2021.](#)
- Q. [Operator License Class Spreadsheet dated March 4, 2021.](#)
- R. [Water Quality Model dated March 9, 2021.](#)
- S. [Toxicity-Based TRC Calculations dated March 16, 2021.](#)
- T. [Estimated Cost of Construction Letter dated March 19, 2021.](#)
- U. [Number of Connections Email dated May 18, 2021.](#)
- V. [Permit Transfer Form dated May 18, 2021.](#)

## 17. PUBLIC NOTICE

The public notice describes the procedures for the formulation of final determinations and shall provide for a public comment period of 30 days. During this period, any interested persons may submit written comments on the permit and may request a public hearing to clarify issues involved in the permitting decision. A request for a public hearing shall be in writing and shall state the nature of the issue(s) proposed to be raised in the hearing.

A copy of the permit and public notice will be sent via email to the Corps of Engineers, the Regional Director of the U.S. Fish and Wildlife Service, the Department of Parks, Heritage, and Tourism, the EPA, and the Arkansas Department of Health.

## 18. PERMIT FEE

### **NPDES Permit**

In accordance with Rule 9.403(C)(1), the initial and annual fee for the permit (not including the required trust fund contribution) is calculated from the Design Flow (Q, in MGD) as follows:

$$\text{Fee} = \$200 + (5,600 \times Q) = \$200 + (5,600 \times 0.05) = \$480$$

### **Initial Trust Fund Fee**

In accordance with Ark. Code Ann. § 8-4-203(b)(4)(B)(ii)(b), the initial trust fund contribution fee required by the Department for a new nonmunicipal domestic sewage treatment works is ten percent (10%) of the estimated cost of construction of the new

nonmunicipal domestic sewage treatment works as certified by the engineer of record.

$$\text{Fee} = 0.1 \times \$250,000 = \$25,000$$

## 19. POINT OF CONTACT

For additional information, contact:

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