Note 1 - Effluent limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1st through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean. The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday).

Note 2 - This permit contains a Total Residual Chlorine (TRC) limit.

This effluent limit is below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The department has determined the current acceptable ML for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.

(a) Disinfection is required during the recreational season from April 1 through October 31. Do not chlorinate during the non-recreational months.

(b) Do not chemically de-chlorinate **if it is not needed to meet the limits in your permit.**

(c) If no chlorine was used in a given sampling period, an actual analysis is not necessary. Simply report as "0 µg/L" TRC.

C. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Parts I & III standard conditions dated August 1, 2014 and March 1, 2014, and hereby incorporated as though fully set forth herein.

D. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
   (d) Incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) when the Director of the Water Protection Program determines that a pretreatment program is necessary due to any new introduction of pollutants into the Publically Owned Treatment Works or any substantial change in the volume or character of pollutants being introduced.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.

4. Water Quality Standards
   (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
   (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
      (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

STATE OF MISSOURI

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

SUBJECT: Financial Assistance for Engineering Report Services – Calendar Year 2014

Dear Community Water System Official:

I am pleased to announce an opportunity for all eligible community water systems to obtain funding for engineering report services. The purpose of this funding is to help community water systems obtain an engineering report as a first step toward implementing changes that will help the system achieve and maintain technical, managerial and financial capacity, including compliance with the National Primary Drinking Water Regulations and Missouri public drinking water regulations.

This is not a loan program, but rather provides grants to water systems based on their eligibility and priority as determined by a numerical ranking process. Systems with the highest priority point scores are funded first. Awardees are offered up to 90% of the cost needed to hire an engineering firm to prepare an engineering report. Disadvantaged communities are eligible for up to 100% reimbursement. If selected for an award, water systems will be required to select an engineering firm based on a solicitation process that complies with state requirements. Please review the enclosed application packet for more information.

To apply, make sure your water system meets the minimum eligibility criteria in the information packet, complete the application, and return it along with the required supporting documentation, postmarked no later than October 20, 2014, to:

Missouri Department of Natural Resources
Water Protection Program, Public Drinking Water Branch
Attn: Engineering Report Services
1101 Riverside Drive, P.O. Box 176
Jefferson City, MO 65102-0176

If you have any questions regarding this opportunity, please contact Mr. Ryan Seabaugh at (573) 751-8628, or the Drinking Water Permits and Engineering Section Chief at (573) 751-1127 or by email at maher.jaafari@dnr.mo.gov.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Sara Parker Pauley
Director

Enclosure

MISSOURI DEPARTMENT OF NATURAL RESOURCES
PUBLIC DRINKING WATER BRANCH
PHASE ONE ENGINEERING REPORT SERVICES GRANT PROGRAM

Grant Application and Contractual Requirements for Engineering Report Services for Community Public Water Systems

Calendar Year 2014/2015	**Application Deadline: October 20, 2014**

The Missouri Department of Natural Resources is accepting grant applications from community water systems for development of an engineering report. Funding comes from the Drinking Water State Revolving Fund (DWSRF) set-asides. If you have any questions regarding this funding opportunity, please contact Ryan Seabaugh of the Public Drinking Water Branch, Infrastructure Permits and Engineering Section at (573) 751-8628 or by email ryan.seabaugh@dnr.mo.gov, or Drinking water Permits and Engineering Section chief at (573) 751-1127 or by email at maher.jaafari@dnr.mo.gov.

This Instruction Sheet contains:

- General Information
- Application Instructions
  - Application Deadline
  - Minimum Eligibility Criteria for Applicants
  - Application Evaluation Criteria
  - Assignment of Priority Points
- Information and Contractual Requirements for Funding Recipients
  - Selecting an Engineer
  - Engineering Pre-Selection Process
  - Criteria for Engineering Report
  - Processing Payments
- Application Form (attached)

GENERAL INFORMATION

What is the purpose of this funding?

The primary purpose of this funding is to help community water systems obtain an engineering report as a first step toward implementing changes that will help the system achieve and maintain technical, managerial and financial capacity, including compliance with the National Primary Drinking Water Regulations and the Missouri public drinking water regulations.

Who can apply?

All Community water systems that meet the Minimum Eligibility Criteria for Applicants contained in this document may apply. The community water system must have a good compliance history and a good operation and maintenance history, unless the system agrees to evaluate and undertake feasible and appropriate changes to bring the system back into compliance.

How will applications be ranked?

Complete applications will be ranked according to priority point criteria and eligibility. Only applications that have been completely filled out and signed will be ranked.

How much funding can I expect?

The contract award amount may vary, but shall not exceed 90% of the costs for engineering report services unless the applicant has been identified as a disadvantaged community. The actual percentage that is awarded may be reduced from 90% based on project scope along with risk and eligibility assessed from the application submittal.

Disadvantaged communities are defined as a community with a population of less than 3,300 whose user rates will be at or above 2% of the state Median Household Income (MHI), and the community's MHI is at or below 75% of the state average MHI. Disadvantaged communities may qualify for up to a 100% grant.

What can I use the funding for?

Funding can only be used for engineering report services within the contract period. Funding provided under this contract shall not be used as reimbursement of expenses for services provided outside the contract period.

Will repayment be required?

Funding provided for these contracts is a grant, not a loan. Repayment is not required.

Is a local match required?

Yes. With the exception of disadvantaged communities, grant funding shall not exceed 90% of the cost to develop the engineering report. The applicant must be able to provide funding for at least 10% of the cost.

APPLICATION INSTRUCTIONS

Application Deadline

Applications must be postmarked or received by October 20, 2014. The application is included with this Information Packet. No deadline extensions will be granted. The completed application and all other required information must be mailed or hand-delivered to the Public Drinking Water Branch, Infrastructure Permits and Engineering Section as follows:

Mail to
Missouri Department of Natural Resources
Public Drinking Water Branch
Infrastructure Permits and Engineering Section
P. O. Box 176
Jefferson City, Missouri 65102-0176

or hand deliver to
Public Drinking Water Branch
Infrastructure Permits and Engineering Section
Lewis and Clark State Office Building
1101 Riverside Drive, 3rd Floor
Jefferson City, Missouri

The Department will notify all applicants of the final selection results after all applications have been reviewed.

Minimum Eligibility Criteria for Applicants

Applicant shall complete the Phase One Engineering Report Services Grant Program Application including the Safe Drinking Water Act Compliance Priority Point Checklist (Section 6 of the application) and return it along with the required supporting documentation to the Public Drinking Water Branch no later than the application deadline. Applicants must meet the following minimum eligibility criteria in order to be eligible for this grant. Applicant signature is required on the Application Form to verify eligibility requirements are met.

1. The System must be an existing community water system.

2. The System shall have a valid Permit to Dispense Water or be taking steps to obtain such a permit. (An application for a Permit to Dispense Water must be received by the Department prior to the October 20, 2014 deadline in order for us to consider the water system to be taking steps to obtain a permit.)
3. The System must have paid all outstanding Program Administration and Laboratory Services fees and must have remitted to the Department the Primacy Fees collected from its customers prior to the October 20, 2014 deadline.
4. The System must employ a certified chief operator or contract operator.
5. The System has not received engineering report funding for three years prior to the deadline for this application submission.
6. The System does not have an engineering report that has been approved by the Department within 2 years prior to the deadline for this application submission.
7. The System must agree to make a good faith effort to pursue recommendations contained in the approved engineering report. A good faith effort is defined as an application for financial assistance, application to the Department for construction permit for one or more recommended projects, or documented technical, managerial and financial capacity improvement.

Because the grants are federally funded, applicants are required to submit a Data Universal Numbering System (DUNS) number. This can be obtained via the internet at http://fedgov.dnb.com/webform or by telephone to Dun and Bradstreet at 1-866-705-5711.

Application Evaluation Factors

Applications will be listed in order based on priority points accrued. The purpose of the priority points is to list applications in order so that the most serious problems are given the highest priority. Priority points are based primarily on protection of public health, compliance with the Safe Drinking Water Act and system reliability.

Applicants located within 2014 priority watersheds identified by the *Our Missouri Waters Initiative* may receive additional eligibility priority. More information on the initiative can be found on the Department's website at http://dnr.mo.gov/omwi.htm.

Funding amounts in terms of required match will include the following risk and eligibility factors:

- System size based on population served;
- Documentation and detail of supporting information and project scope;
- Complexity of the project compared to system needs and size; and
- Available funds.

Assignment of Priority Points

All applicants are required to submit a brief description of need (narrative) for each item checked in the Safe Drinking Water Act Compliance Priority Point Checklist. To ensure points are applied for the checklist item, documentation supporting your description is recommended. Documentation may include, but may not necessarily be limited to inspections, sanitary surveys, and system records with written operator or system engineer testimony.

Priority points shall be assigned only where the system intends to correct the deficiency or problem associated with the points. For example, if the system has had persistent violations of a secondary MCL, the engineering report must address that problem. No priority points shall be assigned to a checklist item if the deficiency is resulting from inadequate operation and maintenance of the water system, unless the project enables the community water system (CWS) to meet technical, managerial and financial capacity requirements determined by the Department.

Section A: Safe Drinking WaterAct Violations and Compliance

25	Correction of persistent violations of maximum contaminant levels or treatment performance criteria for acute risk contaminants (such as coliform, turbidity or nitrate) that have occurred within the past 36 months
20	Correction of persistent violations of maximum contaminant levels for naturally-occurring contaminants (radium, radon, uranium, arsenic, radionuclides)
15	Correction of persistent violations of treatment technique requirements
20	Correction of persistent violations of maximum contaminant levels for non-acute risk primary contaminants that have occurred within the last 36 months
15	Correction of persistent violations of maximum contaminant levels for secondary contaminants that have occurred within the past 36 months
15	Compliance with Missouri's surface water treatment, disinfectants/disinfection by-product, or ground water rules
25	Compliance with an administrative order, bilateral compliance agreement, or other enforceable document issued by the Missouri Department of Natural Resources

Section B: Problems with Waterborne Disease, Inadequate Supply or Pressure

25	At least 51% of the project will address problems causing a waterborne disease outbreak attributable to the CWS by the Department of Health and Senior Services
15	The CWS can document its inability consistently to maintain >35 psi as a normal working pressure in the distribution system
20	The CWS can document its inability consistently to maintain >20 psi at all service connections.
20	Private or non-community wells or sources in the project service area are unable to consistently provide an adequate amount of potable water for general household purposes and at least 51% of the project addresses this need (Private or non-community wells or sources contaminated by commercial, industrial or mining wastes will be considered in this category.)

Section C: General Infrastructure Problems

20	Providing the CWS with a backup well or backup interconnection with another CWS
20	Address problem(s) with improper well construction
10	Address unaccounted for water loss that exceeds 10% of the drinking water produced by the system, and the loss is due to leaking or broken water lines
10	Provide necessary modifications to a distribution system that has exceeded or is anticipated to exceed design capacity or useful life within the next five years
10	Address a demonstrated need to replace faulty pipes or substandard pipe materials
2	Address a demonstrated need for distribution system valves and flushing devices
2	Address a demonstrated need for looping of water mains
15	Address an inability to maintain a disinfectant residual at all points in the distribution system
15	Address water storage facilities in poor condition not related to inadequate storage
2	Provide the CWS with a storage capacity equal to one day's average use or provide the CWS with adequate standby power
15	Provide necessary modifications to a source or treatment facility anticipated to exceed design capacity or useful life within the next five years
5	Address significant degradation of the quality of raw water supply
5	Address significant degradation of the quality of finished water in storage
2	Enable the CWS to meet existing state requirements for the treatment and/or storage of waste

residues generated by the water treatment plant

10 Enable repair or replacement of treatment facilities for required disinfection or turbidity removal that are severely deteriorated beyond the useful life of the facility

15 The facility's source has been directly impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.

15 The facility's treatment or distribution system has been impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.

10 At least 51% of the project cost is for repair or replacement of an existing CWS damaged or destroyed by a natural disaster (Note: Documentation must be submitted along with a statement that adequate state or federal disaster relief is not available)

Section D: Regionalization, Interconnection, and Security

20 Providing necessary upgrades to facilities of a primary water system to continue or expand its services as a regional supplier

20 Result in the permanent supply interconnection of two or more existing CWS (this includes new water systems that allow small water systems within their boundaries to consolidate)

10 Result in a regional management system responsible for the day-to-day operation of the water system

20 Provide necessary upgrades or new water distribution system to meet the standards of a regional supplier for the purpose of consolidation

5 Enable the CWS to enhance water system security

Section E: Technical, Managerial and Financial Capacity Demonstration

5 The facility is located within a DNR-endorsed Wellhead or Source Water Protection Area

5 At least 50% of the governing body has received training related to operation and management

5 System has a written operation and maintenance plan and budget

5 The system currently meters all water usage from system connections

INFORMATION AND CONTRACTUAL REQUIREMENTS FOR FUNDING RECIPIENTS

The following information provides detailed instructions if you receive notification that you have been selected for award. The notification letter will also contain information necessary to complete follow-up requirements.

Selecting an Engineer

Funding recipients are responsible for following their own purchase/procurement criteria when obtaining the services of an engineer. However, the procedures and procurement requirements in Sections 8.285-8.291, RSMo apply. The funding recipient must submit the appropriate documentation of the process, as outlined in Engineering Pre-Selection Process. Funding recipients are responsible for selecting an engineer certified in the State of Missouri as a Professional Engineer. The necessary documentation in the Engineering Pre-Selection Process shall be submitted to the Department within 90 days from receipt of the signed award letter. Upon engineering selection, the system representative and the professional engineer shall sign the Three-Party Payment Agreement (Scope of Work). Once the Scope of Work is received, the Department will then finalize the Financial Assistance Agreement (FAA). The FAA and the Scope of Work constitute a contract.

Engineering Pre-Selection Process

The applicant will be notified if funds are available for award. Upon notification, the funding recipient shall proceed with procurement of a qualified engineer or firm. The applicant will have no more than 90 calendar days to procure an engineer, notify the Department, and submit required documentation along with their detailed work plan. Failure to meet the deadline or contact the Department to request a time extension will constitute an incomplete application, and the application will be closed.

The submission shall include the following.

1. A list of the evaluation factors and the scoring system shall be submitted to the Public Drinking Water Branch. The system selection criteria are the record of the process used for pre-selection. The criteria must be logical and support the final decision. The system must base the selection of their desired professional engineer services on the qualification-based selection process. Actual selection scores are not requested but must be kept in the systems' files.
2. A copy of the Request for Statement of Qualifications and the Statement of Qualifications must be submitted to the Department. The Request for Statement of Qualifications tells the potential engineers what you are looking for and allows them to respond, in turn, by a specified attainable deadline.
3. Proof of advertising must be submitted to the Department. Activities to ensure broad solicitation of known or existing firms capable of completing the work must be made. This may take the form of a publication in a newspaper or further solicitation via mail. Note: All solicitation steps are the community's attempt to receive three or more responses.

   Effort must be made to solicit Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) firms as required by Chapter 37, RSMo., and associated regulations. More information on compliance with MBE/WBE requirements and a directory of MBE/WBE vendors may be found at Missouri Office of Equal Opportunity (http://oeo.mo.gov).
4. Completed Three-Party Payment Agreement (Scope of Work).
5. Detailed Work Plan.
6. For projects totaling $30,000 or more, a cost sheet including specific tasks with anticipated hourly charges must also be provided.
7. Technical, Managerial, Financial (TMF) Capacity worksheet provided by the Department.

Criteria for Engineering Report

1. The engineering report must be developed and certified by a registered professional engineer licensed in the State of Missouri.
2. The engineering report must be sufficient in scope and detailed to fully address the criteria listed herein.
3. The engineering report must include Form 780-2091: Facilities Plan Submittal Checklist if applying for public funding.
4. The engineering report must follow the detailed work plan that is submitted along with the Three-Party Payment Agreement (Scope of Work).
5. The engineering report must conform to public drinking water regulations found at 10 CSR 60-10.
6. The engineering report will be reviewed based on criteria of the Department's *Minimum Design Standards for Missouri Community Water Systems,* (effective December 10, 2013), which is available electronically on the Department's website or a hard copy is available upon request to the Public Drinking Water Branch at (573) 751-5331. In addition to meeting the above referenced criteria, other required information is listed below.
   a. General Information
      i. A detailed description of the existing water system including size and length of waterlines, tanks, wells, treatment plants, and pump stations
      ii. Name of system operators
   b. Extent of the Water System(s)

Appraisal of future requirements and expected growth covering a 20-year period

c. Alternate Solutions
   Specific comparison of feasible alternatives with respect to construction costs, operation and maintenance costs, including environmental considerations where applicable.
d. Project financing
   i. Explain how the applicant will administer the project
   ii. Explain how construction cost and additional operation and maintenance, including replacement, cost will be covered
   iii. Present existing and proposed project budget for applicant. Include O&M costs, capital improvement costs, debt repayment and status of reserve accounts
   iv. Provide the origin of funding for original facility, including existing debt
   v. Provide the financial status of operating central facilities – rate schedule, annual O&M, status of current debts and reserve accounts and tabulation of users by monthly usage categories

7. All priority point checklist items must be addressed in the engineering report. Failure to adequately address all checklist items will result in reduced funding.
8. The Department must receive one hard copy of the engineering report along with one electronic copy on CD, with a professional engineer's seal on it within seven months from the date the Financial Assistance Agreement (FAA) is signed by the Department. The engineering document should be mailed to:

Missouri Department of Natural Resources
Public Drinking Water Branch
Infrastructure Permits & Engineering Section
P.O. Box 176
Jefferson City, Missouri 65102-0176

Processing Payments

After the engineer is selected, the Three-Party Payment Agreement (Scope of Work) shall be signed by the funding recipient and the engineer. The Scope of Work is an agreement on the payment process. Once the Scope of Work is received, the Department will then finalize the Financial Assistance Agreement (FAA). The FAA and the Scope of Work constitute a contract.

The engineer will submit the necessary engineering cost documentation to the system (receipts, work hours, invoices, etc.). The water system staff will forward the documentation to the Department with a letter approving the expenses. The Department will then pay the water system directly up to 90% of the invoice amount. All subsequent payments by the Department will require proof of payment to the engineering firm of the previous invoice amount. The Department will make the final 25% payment to the engineering firm only after the Department approves, in writing, the engineering report. Funding provided under this contract shall not be used as reimbursement of expenses for engineering services provided outside of the contract period.

The funding recipient is responsible for assuring one hard copy and one electronic copy on compact disk (CD) of the engineering report are received by the Department within seven months from the date the Department signs the FAA.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
PUBLIC DRINKING WATER BRANCH

PHASE ONE ENGINEERING REPORT SERVICES GRANT PROGRAM APPLICATION

FOR OFFICE USE ONLY
DATE RECEIVED

Submit to: Missouri Department of Natural Resources, Public Drinking Water Branch, P.O. Box 176, Jefferson City, MO 65102-0176. Please type or print legibly.

1. GENERAL INFORMATION

PUBLIC WATER SUPPLY NAME	PUBLIC WATER SUPPLY ID NO.	POPULATION	DUNS NO. (Required)
Public Water Supply District #5			

PUBLIC WATER SUPPLY CONTACT PERSON FOR THIS DRINKING WATER PROJECT	TITLE
Bonnie Burton	Clerk

MAILING ADDRESS: PO Box 556

CITY	STATE	ZIP CODE + FOUR	COUNTY
Camdenton	MO	65020	

TELEPHONE NUMBER WITH AREA CODE	FAX NUMBER WITH AREA CODE (optional)	E-MAIL (optional)
573-280-5416	573 302-1301	pwsdno5@gmail.com

HAS OR WILL THE SYSTEM APPLY FOR DWSRF FUNDING FOR CONSTRUCTION RELATED TO THE PROPOSED ENGINEERING REPORT?
☑ YES ☐ NO

2. DISADVANTAGED COMMUNITY

DISADVANTAGED COMMUNITIES MUST MEET ALL OF THE FOLLOWING REQUIREMENTS.

I. DOES THE SYSTEM SERVE A POPULATION BELOW 3,300? ☑ YES ☐ NO

II. ARE USER RATES AT OR ABOVE 2% OF THE STATE MEDIAN HOUSEHOLD INCOME? ☐ YES ☑ NO
IF YES, MONTHLY COST FOR 5,000 GALLONS OF WATER: _____

III. IS THE COMMUNITY MEDIAN HOUSEHOLD INCOME (MHI) AT OR BELOW 75% OF THE STATE MHI?
☐ YES ☑ NO
IF YES, COMMUNITY MHI: _____ DATA SOURCE: _____

3. ELIGIBILITY CRITERIA

THE FOLLOWING ARE MINIMUM ELIGIBILTY CRITERIA

I. DOES THE SYSTEM HAVE A VALID PERMIT TO DISPENSE WATER TO THE PUBLIC? ☑ YES ☐ NO
IF NO, HAS THE SYSTEM SUBMITTED AN APPICATION TO OBTAIN A VALID PERMIT TO DISPENSE WATER TO THE PUBLIC?
☐ YES ☐ NO (NOTE: IF NO, YOU ARE INELIGIBLE TO RECEIVE FUNDING)

II. DOES THE CONTINUING OPERATING AUTHORITY HAVE ANY OUTSTANDING DRINKING WATER FEES?
☑ YES ☐ NO (NOTE: ALL OUTSTANDING FEES MUST BE PAID PRIOR TO SELECTION TO REMAIN ELIGIBLE FOR FUNDING)

III. DOES THE WATER SYSTEM EMPLOY A CERTIFIED CHIEF OPERATOR OR CONTRACT OPERATOR?
☑ YES NAME: Lake Ozark Water & Sewer CERTIFICATION NUMBER: _____
☐ NO (NOTE: IF NO, YOU ARE INELIGIBLE TO RECEIVE FUNDING)

IV. WHAT YEAR WAS THE LAST ENGINEERING REPORT COMPLETED FOR THIS WATER SYSTEM? _____

4. ESTIMATED PROJECT COST INFORMATION

TOTAL ENGINEERING REPORT COST (AMOUNT REQUESTED)		$
BREAKDOWN OF ENGINEERING REPORT COST PER DESIGNATED CATEGORIES		
I.	TREATMENT	$
II.	TRANSMISSION AND DISTRIBUTION	$
III.	STORAGE	$
IV.	SOURCE	$
V.	OTHER SPECIFY:	$

5. PROJECT DESCRIPTION

DESCRIBE THE MAJOR COMPONENTS OF THE PROJECT. WHY IS THIS ENGINEERING REPORT NEEDED? (ATTACH A SEPARATE SHEET, IF NECESSARY)

6. SAFE DRINKING WATER ACT COMPLIANCE PRIORITY POINT CHECKLIST

Please check only the items listed below that will be addressed with this project. Systems under enforcement activity must check the appropriate boxes in Section A to be included as part of the proposed engineering study.

Section A: Safe Drinking Water Act Violations and Compliance

The engineering report will address these issues the PWS is experiencing:

- ☐ Correct persistent violations of maximum contaminant levels or treatment performance criteria for acute risk contaminants (such as coliform, turbidity or nitrate) that have occurred within the past 36 months.
- ☐ Correct persistent violations of maximum contaminant levels for naturally-occurring contaminants (such as radium, radon, uranium, arsenic, radionuclides).
- ☐ Correct persistent violations of treatment technique requirements.
- ☐ Correct persistent violations of maximum contaminant levels for non-acute risk primary contaminants occurring within the past 36 months.
- ☐ Correct persistent violations of maximum contaminant levels for secondary contaminants occurring within the past 36 months.
- ☐ Compliance with Missouri's Surface Water Treatment Rules, Disinfectants/Disinfection By-Products Rules, or Ground Water Rules.
- ☐ Enable the Community Water System to comply with an administrative order, bilateral compliance agreement, or other enforceable document issued by the Missouri Department of Natural Resources.

Section B: Problems with Waterborne Disease, Inadequate Supply or Pressure

The PWS is experiencing these problems and the engineering report will address them:

- ☐ At least 51 percent of the project will address problems causing a waterborne disease outbreak attributable to the Community Water System by the Department of Health and Senior Services.
- ☐ The Community Water System can document its inability consistently to maintain >35 psi as a normal working pressure in the distribution system.
- ☐ The Community Water System can document its inability consistently to maintain >20 psi at all service connections.
- ☐ Private or non-community wells or sources in the project service area are unable to consistently provide an adequate amount of potable water for general household purposes and at least 51 percent of the project addresses this need.

Section C: General Infrastructure Problems

The PWS is experiencing these problems and the engineering report will address them:

- ☐ Provide the Community Water System with a backup well or backup interconnection with another Community Water System.
- ☐ Address problem(s) with improper well construction.
- ☐ Address unaccounted for water that exceeds 10 percent of the drinking water produced by the system, and the loss is due to leaking or broken water lines.
- ☐ Provide necessary modifications to a distribution system anticipated to exceed design capacity or useful life within the next five years.
- ☐ Address a demonstrated need to replace faulty pipes or substandard pipe materials.
- ☐ Address a demonstrated need for distribution system valves and flushing devices.
- ☐ Address a demonstrated need for looping of water mains.
- ☐ Address an inability to maintain a disinfectant residual at all points in the distribution system.
- ☐ Address water storage facilities in poor condition not related to inadequate storage.
- ☐ Provide the Community Water System with a storage capacity equal to one day's average use or provide the Community Water System with adequate standby power.
- ☐ Provide necessary modifications to a source or treatment facility anticipated to exceed design capacity or useful life within the next five years.
- ☐ Address significant degradation of the quality of raw water supply.
- ☐ Address significant degradation of the quality of finished water in storage.
- ☐ Enable the Community Water System to meet existing state requirements for the treatment or storage of waste residues generated by the water treatment plant.

- ☐ Enable repair or replacement of treatment facilities for required disinfection or turbidity removal that are severely deteriorated beyond the useful life of the facility.
- ☐ The facility's source has been directly impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.
- ☐ The facility's treatment plant or distribution system has been impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.
- ☐ At least 51 percent of the project cost is for repair or replacing an existing Community Water System damaged or destroyed by a natural disaster. (Note: Documentation must be submitted along with a statement that adequate state or federal disaster relief is not available).

Section D: Regionalization, Interconnection, and Security

The engineering report will:

- ☐ Provide necessary upgrades to facilities of a primary water system to continue or expand services as a regional water supplier.
- ☐ Result in the permanent supply interconnection of two or more existing Community Water Systems. (This includes new water systems that allow small water systems within their boundaries to consolidate).
- ☐ Result in a regional management system responsible for the day-to-day operation of the water system.
- ☐ Provide necessary upgrades or new water distribution system to meet the standards of a regional supplier for the purpose of consolidation.
- ☐ Enable the Community Water System to enhance the water system security.

Section E: Technical, Managerial, and Financial Capacity Demonstration

The applicant has the following TMF capacity:

- ☐ The facility is located within an endorsed DNR Wellhead Protection or Source Water Protection Area.
- ☐ At least 50% of the governing body has received training related to operation and management.
- ☐ System has a written operation and maintenance plan and budget.
- ☐ The system currently meters all water usage from system connections.

7. SUPPORTING DOCUMENTATION

Required supporting documentation to be provided include:

- ☐ A brief description of need for each item checked in the priority checklist
- ☐ Documentation supporting your description (ex. Inspections, sanitary surveys, or system records)

8. CERTIFICATION

The undersigned representative certifies the information submitted in this application is true and correct to the best of his or her knowledge and that he or she is authorized to sign and submit this application. The applicant agrees, if a grant is awarded on the basis of this application, to comply with all applicable rules and regulations of the Department of Natural Resources and the terms and conditions of the grant agreement. **Incomplete applications will not be scored.**

SIGNATURE OF AUTHORIZED REPRESENTATIVE	DATE
NAME AND OFFICIAL TITLE	TELEPHONE NUMBER WITH AREA CODE

PREPARER'S NAME AND SIGNATURE (IF APPLICABLE)

SIGNATURE OF PREPARER	DATE
NAME AND TITLE	TELEPHONE NUMBER WITH AREA CODE

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

SUBJECT: Financial Assistance for Engineering Report Services – Calendar Year 2014

Dear Community Water System Official:

I am pleased to announce an opportunity for all eligible community water systems to obtain funding for engineering report services. The purpose of this funding is to help community water systems obtain an engineering report as a first step toward implementing changes that will help the system achieve and maintain technical, managerial and financial capacity, including compliance with the National Primary Drinking Water Regulations and Missouri public drinking water regulations.

This is not a loan program, but rather provides grants to water systems based on their eligibility and priority as determined by a numerical ranking process. Systems with the highest priority point scores are funded first. Awardees are offered up to 90% of the cost needed to hire an engineering firm to prepare an engineering report. Disadvantaged communities are eligible for up to 100% reimbursement. If selected for an award, water systems will be required to select an engineering firm based on a solicitation process that complies with state requirements. Please review the enclosed application packet for more information.

To apply, make sure your water system meets the minimum eligibility criteria in the information packet, complete the application, and return it along with the required supporting documentation, postmarked no later than October 20, 2014, to:

Missouri Department of Natural Resources
Water Protection Program, Public Drinking Water Branch
Attn: Engineering Report Services
1101 Riverside Drive, P.O. Box 176
Jefferson City, MO 65102-0176

FOREMOST INSURANCE COMPANY
GRAND RAPIDS, MICHIGAN

MISSOURI
DWELLING FIRE AND SPECIALTY HOMEOWNERS INSURANCE APPLICATION

REFERENCE / POLICY NUMBER	EFFECTIVE DATE

You must have a completed and signed application with front and rear view photos of the dwelling.

DO NOT MAIL BOUND APPLICATIONS.
If coverage is bound you MUST:
1. Process within 10 days of the effective date.
2. Enter policy at www.ForemostSTAR.com, OR
3. Call Toll-Free 1-800-527-3905.

PRODUCER INFORMATION

PRODUCER CODE	
77-0164-235	
PRODUCER NAME	
PHONE NUMBER	FAX NUMBER

POLICY INFORMATION

- ☑ **Dwelling Fire One** (Fire and EC Perils)
  - ☐ Owner-Occupied
  - ☐ Seasonal/Secondary
  - ☐ Landlord
  - ☐ Vacation Rental
  - ☐ Vacant
- ☐ **Dwelling Fire Three** (Comprehensive Coverage)
  - ☐ Owner-Occupied
  - ☐ Seasonal/Secondary
  - ☐ Landlord
  - ☐ Vacation Rental
- ☐ **Classic ACV HO** (Comprehensive Coverage)
  - ☐ Owner-Occupied
  - ☐ Seasonal/Secondary
- ☐ **Classic CL HO** (Comprehensive Coverage)
  - ☐ Owner-Occupied
  - ☐ Seasonal/Secondary

INSURED INFORMATION

Applicant includes all entities &/or individuals to be listed on our policy as Named Insured. Including those Named Insureds listed under the additional interest section.

IS THE DWELLING DEEDED IN A NAME OTHER THAN AN INDIVIDUAL(S)? ☑ YES ☐ NO

INSURED TYPE: ☐ Individual ☐ Trust-Land ☐ Trust-Family ☐ Trust-Living ☐ Life Estate ☐ In Estate ☐ Business Name ☐ Other

If Individual is selected, complete Individual First Named Insured information. For all others, complete both Individual with Control and Entity that appears on the Title or Deed.

INSURED TYPE INDIVIDUAL

First Named Insured† (Credit & loss reports when applicable, will be obtained on this person.)

LAST NAME	FIRST NAME	MIDDLE INITIAL	DATE OF BIRTH	SOCIAL SECURITY NUMBER
				— —
PHONE NUMBER ( )			WORK PHONE NUMBER ( )	

IS THE FIRST NAMED INSURED ON THE DEED/TITLE? ☐ YES ☐ NO
If NO, is this a Land Contract or Buy For agreement? (N/A if use is Rental, Vacation Rental, or Vacant) ☐ YES ☐ NO

DOES THE FIRST NAMED INSURED RESIDE IN THE DWELLING? (N/A if use is Rental, Vacation Rental, or Vacant) ☐ YES ☐ NO

Second Named Insured†

LAST NAME	FIRST NAME	MIDDLE INITIAL

IS THE SECOND INSURED A FAMILY MEMBER RELATED TO THE NAMED INSURED? ☐ YES ☐ NO
If NO, does the second insured have an insurable interest in the dwelling? ☐ YES ☐ NO

DOES THE SECOND INSURED RESIDE IN THE DWELLING? (N/A if use is Rental, Vacation Rental, or Vacant) ☐ YES ☐ NO

INSURED TYPE OTHER

ENTITY THAT APPEARS ON THE TITLE OR DEED†: LOIS JOHNSON REVOCABLE TRUST

First Individual with Control (Credit & loss reports when applicable, will be obtained on this person.)

LAST NAME	FIRST NAME	MIDDLE INITIAL	DATE OF BIRTH	SOCIAL SECURITY NUMBER
BURTON	BONNIE		07/04/1953	XXX — XX — 4420
PHONE NUMBER ( )			WORK PHONE NUMBER ( )	

DOES THE FIRST INDIVIDUAL WITH CONTROL RESIDE IN THE DWELLING? (N/A if use is Rental, Vacation Rental, or Vacant) ☐ YES ☐ NO

Second Individual with Control

LAST NAME	FIRST NAME	MIDDLE INITIAL

DOES THE SECOND INDIVIDUAL WITH CONTROL RESIDE IN THE DWELLING? (N/A if use is Rental, Vacation Rental, or Vacant) ☐ YES ☐ NO

PROPERTY LOCATION ADDRESS

STREET AND HOUSE NUMBER	CITY	STATE	ZIP CODE	COUNTY
654 STRECKER RD	BALLWIN	MO	63011-1715	SAINT LOUIS

IN CITY LIMITS?	PRIMARY F/D	PROTECTION CLASS	WITHIN 1,000 FT. OF FIRE HYDRANT?	WITHIN 5 MILES OF FIRE DEPT?
☑ YES ☐ NO	METRO WEST FD	3	☑ YES ☐ NO	☑ YES ☐ NO

IS THE DWELLING LOCATED IN A FIRE SUBSCRIPTION DISTRICT? ☐ YES ☐ NO

IF YES, HAS THE SUBSCRIPTION FEE BEEN PAID? ☐ YES ☐ NO

NUMBER OF RENTAL OR VACANT, SITE-BUILT PROPERTIES INSURED BY FOREMOST? _____

DOES THE INSURED HAVE ANOTHER, IN-FORCE PERSONAL LINES OR LIFE POLICY WITH FOREMOST, FARMERS, BRISTOL WEST OR 21st CENTURY? ☐ YES ☑ NO
A life policy must be term, whole, or variable universal policy, have a face amount of $50,000 or greater, issued to an adult and in-force.

IS THERE A LANDLORD ASSOCIATION YOU BELONG TO? ☐ YES ☐ NO
If YES, provide name of association you belong to _____

IS PROPERTY MANAGED BY A MANAGEMENT COMPANY? ☐ YES ☐ NO
If YES, provide management company name _____

TENANT SCREENINGS (Check all that apply): ☐ Credit Check ☐ Eviction Search ☐ Skip Search ☐ HO4 Tenant policy on file ☐ Criminal Background Check ☐ None

MAILING ADDRESS

SAME AS PROPERTY ADDRESS? ☐ YES ☑ NO If NO, please provide additional information below.

STREET AND HOUSE NUMBER	CITY	STATE	ZIP CODE
3140 BIRCHMONT DR NE	BEMIDJI	MN	56601-4323

ELIGIBILITY INFORMATION

CONSTRUCTION TYPE:
☑ Frame ☐ Masonry Veneer**
☐ Brick/Masonry** ☐ Hardi-Plank
☐ Fire Resistant ☐ Other* _____
** To qualify, exterior must be at least 90%

DWELLING CLASSIFICATION:
☑ Traditional Site Built ☐ Adobe ☐ Earth Home* ☐ Manufactured (Mobile/Multi-Sectional) - Vacant Only
☐ Log Home ☐ Metal* ☐ Modular
☐ Other (Describe)* _____
Unacceptable = Condo, Dome Homes, Straw Homes, Manufactured (Mobile/Multi-Sectional) - Occupied

FOUNDATION:
☑ Basement ☐ Closed with Crawl Space (continuous foundation) ☐ Open - Height More than 2 Feet* ☐ Other* _____
☐ Slab ☐ Open - Height 2 Feet or Lower* ☐ Wood*

NUMBER OF FAMILY UNITS? Fire: ☑ 1 ☐ 2 ☐ 3 ☐ 4 HO: ☐ 1 ☐ 2

NUMBER OF RESIDENTIAL DWELLINGS ON SAME PREMISES? 1
Note: If requesting liability coverage, properties with multiple dwellings on the same premises must be written through Foremost and must be written with the same liability limit.

PRIMARY HEATING METHOD:
☐ Coal Furnace
☐ Electric Baseboard
☐ Fireplace*
☑ Furnace - Gas (Incl. LPG) or Electric
☐ Heat Pump
☐ Liquid Fuel Furnace/Space Heater & Above Ground Tank less than 20 yrs. old*
☐ Liquid Fuel Furnace/Space Heater & Above Ground Tank 20 yrs. or older*
☐ Liquid Fuel Furnace/Space Heater & Buried Tank less than 15 yrs. old*
☐ Liquid Fuel Furnace/Space Heater & Buried Tank 15 yrs. or older*
Note: Buried Bare Steel Tanks = Unacceptable
☐ Portable Space Heater* (Kerosene = Unacceptable)
☐ Permanent Gas/Electric Space Heater - YES (meets requirements)
☐ Permanent Gas/Electric Space Heater - NO (does not meet requirements)
☐ Steam
☐ Woodburner
☐ None
☐ Other* _____
Permanent Gas/Electric Space Heater Requirements - Must be UL approved, professionally installed and attached by fuel supply lines or wall mounted and thermostatically controlled.

AUXILIARY HEAT ☑ NO ☐ YES (Select type from Primary Heating Methods listed above) NONE

DWELLING PURCHASE DATE (MO/YEAR)	AMOUNT OF INSURANCE	CURRENT MARKET VALUE OR ACV (Less Land)	REPLACEMENT AMOUNT (When replacement cost is purchased)	TOTAL SQUARE FEET
08 / 1985	$ 91000.00	$ 91000.00	$	1138

ELIGIBILITY QUESTIONS

▼ If question at left is "NO" skip to the next question. If "YES" select options below. ▼

Is there a swimming pool with a depth of more than 2.5 feet on premises?
☑ NO ☐ YES
☐ Pool is Unfenced or Not Fully Enclosed* ☐ Fence or Pool Height Less than 4 Feet*
☐ Fence or Pool Height 4 Feet or Higher ☐ Other* _____

Is the dwelling currently vacant?
☐ NO ☑ YES
Are the following vacancy requirements met? ☐ NO (Unacceptable) ☑ YES
Requirements = Intent to sell, rent or occupy; vacant for less than 24 months; completely secured; and if currently uninsured, has been uninsured for less than 12 months prior to effective date.
☐ Up for Sale ☐ Under Renovation
☐ Currently Up for Rent ☑ Deceased/In Estate
☐ New Purchase/Inherited ☐ Other* _____
☐ Nursing Home/Assisted Living

Owner Occupied
Do you have roomers or boarders? ☐ NO ☐ YES
☐ 1 or 2 Roomers/Boarders Unacceptable = 3 or more roomers/boarders

Non-owner Occupied
Is the dwelling used for student housing? ☐ NO ☐ YES
Refer to Program Guide for eligibility.
☐ Graduate Students* - Number of Students_____ Unacceptable = Fraternity/Sorority, Student Housing
☐ Other* _____

Business, including Farm/Ranch on premises?
☑ NO ☐ YES
Refer to Program Guide for business definition and eligibility.
Is the business incidental use? ☐ NO ☐ YES
Business:
☐ Office* ☐ Art Studio* ☐ Other* _____
☐ Day Care* ☐ Musical or Dance Lessons*
Unacceptable = Auto Repair & Beauty Salon
Farming:
☐ Farms 25 acres or less & no farm animals ☐ Farms 25 acres or less & owns 10 or less farm animals
☐ Owns 10 or less farm animals and no farming ☐ Other* _____
Unacceptable = Farms more than 25 acres, owns more than 10 farm animals, rents land to others, earns more than $5,000 or boards animals of others.

Is there existing damage or needed repairs to Roof, Dwelling, Chimney, Foundation, Premises or Out Building?
☑ NO ☐ YES*

Roof:
☑ None
☐ More than One Apply-Check All that Apply
☐ Missing Shingles
☐ Leaking Roof ☐ Moss
☐ Age - Wear & Tear ☐ Wavy/Buckling Roof
☐ Curling Shingles ☐ Other _____

Dwelling:
☑ None
☐ More than One Apply-Check All that Apply
☐ Missing or Damaged Siding
☐ Peeling Paint Greater than 30% of Dwelling
☐ Peeling Paint 30% or Less of Dwelling
☐ Missing/Broken/Boarded Windows
☐ Rotting or Exposed Wood
☐ Damage to Fascia or Soffit Boards
☐ Rotted Porch or Deck Boards
☐ Structural Damage
☐ Missing/Damaged Railings
☐ Other _____

Chimney:
☑ None
☐ More than One Apply-Check All that Apply
☐ Missing and or Loose Bricks
☐ Leaning Chimney
☐ Deteriorated Mortar
☐ Other _____

Foundation:
☑ None
☐ More than One Apply-Check All that Apply
☐ Cracking and/or Settling
☐ Mold and/or Mildew
☐ Other _____

Premises:
☑ None
☐ More than One Apply-Check All that Apply
☐ Debris on Premises
☐ Disabled Vehicles
☐ Appliances on Property
☐ Sidewalks/Driveways/Steps in Poor Condition
☐ Other _____

Out Building:
☑ None
☐ More than One Apply-Check All that Apply
☐ Roof Damage
☐ Missing/Damaged Siding
☐ Missing/Broken/Boarded Windows
☐ Graffiti
☐ Structurally Unsound
☐ Other _____

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
dnr.mo.gov

January 8, 2014

Camden County PWSD No. 5
Clearwater Condos WWTF
P.O. Box 556
Camdenton, MO 65020

RE: MISSOURI STATE OPERATING PERMIT # MO0126985

Dear Permittee:

In reviewing the file for your wastewater or storm water facility I note that you have failed to submit the Discharge Monitoring Report (DMR) for the **month of November 2014** required by your Missouri State Operating Permit (MSOP). Your report is due in our office no later than the 28th day of the month following the report period.

A completed monitoring report with the required information should be submitted to this agency within five (5) days from the date of this letter or in writing within 15 calendar days of receipt of this letter, identify the reasons for the violations and corrective actions you have taken or will take.

The Department of Natural Resources (Department) monitors and tracks instances of noncompliance related to DMRs. All facilities that are significantly non-compliant are reported to the Environmental Protection Agency and the Department then takes action to ensure their return to compliance. It is the policy of this office to require facilities with a history of noncompliance to sign a Schedule of Compliance that outlines corrective measures to be taken within a specified time period. You are encouraged to take appropriate steps to eliminate the current violation.

If you have questions please contact me by calling 417-891-4300 or via mail at Southwest Regional Office, 2040 W. Woodland, Springfield, Missouri 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE

Lana Cypret

Lana Cypret
Technical Assistant

LGC/ryc

029.wpcp.ClearwaterCondominiums.mo0126985.x.2015.01.08.fy15.dmr.x.lgc

FILE

Missouri Department of Natural Resources
Public Drinking Water Branch
Infrastructure, Permits and Engineering Section
1101 Riverside Drive
P.O. Box 176
Jefferson City, MO 65102-0176
Attn: Engineering Services Funding Application

RE: Camden PWSD #5, Camden County
DWSRF 2013 Application for Engineering Report Services Funding for Community Water Systems
PWS ID # MO-3031383 – Cedar Heights Condominiums
PWS ID # MO-3302557 – Clearwater Condominiums

To Whom It May Concern:

PWSD #5 of Camden County, Missouri is submitting the attached application for engineering report services funding for the two community public water systems under its authority. The two systems are comprised of the Cedar Heights (MO-3031383) and Clearwater (MO-3302557) public water systems. The District is still waiting to be issued a DUNS number and the additional information requested as part of the funding application can be found in the remainder of this letter and the attached documentation, which includes an exhibit showing the District boundaries and the water systems described herein. Please note that the District intends to serve the Mission Hills area (15 connections) from the Clearwater public water system (construction is pending). Also, the Old Kinderhook public water system is shown for proximity only and is not part of the District. The potential for regionalization with the Old Kinderhook system will be addressed in the engineering report. The engineering report will also include the results of a computerized hydraulic model analysis (WaterCAD v8), which will be created for each system served by the District.

The following description and documentation are provided to justify the items checked on the District's Application Checklist associated with the 2013 DWSRF Engineering Report Services Funding, which represent the items that will be addressed in the engineering report.

Section A: SDWA Violations/Compliance

- The engineering report will include determining the impact the Groundwater Rule has on the two current water systems, including operational procedures and any improvements that need to be planned and budgeted for to ensure compliance with the Groundwater Rule.

- The District was recently presented with a Missouri Department of Natural Resources (MoDNR) Report of Inspection for the Cedar Heights Condominiums public water system that included a *Compliance Agreement*, following a November 7, 2012 routine inspection by MoDNR. The Report of Inspection states that the District does not have a written Permit to Dispense for this system. The *Compliance Agreement* includes acts and provisions relating to the use of this system's sole well, in which it was concluded that the well does not meet acceptable construction standards for a public water system (non-state-approved well) and is therefore a health risk to the public. The *Compliance Agreement* also contains provisions relating to 4-log reduction of viruses that appear to contain questionable calculations. In general, the *Compliance Agreement* concludes that the District is operating a non-compliant well for

the Cedar Heights water system and an engineering evaluation to determine the true extent of non-compliance should be made, including developing specific action items for the District to undertake to achieve compliance. The proposed engineering report will address the District's Report of Inspection, including the entire *Compliance Agreement*, and will present a plan to resolve any outstanding issues.

Section C: Problems with inadequate wells, water loss, distribution systems, storage, and treatment

- Both the Cedar Heights and Clearwater public water systems currently have only one active well per system. The engineering report will address interconnecting the two systems to provide suitable redundant water sources or providing the District with a backup well(s). The potential for interconnecting with the Old Kinderhook water system as a backup supply will also be evaluated. The Old Kinderhook public water system currently has one active well and one emergency well. Additionally, the District's wells are not provided with standby or emergency power. Accordingly, the possibility of consolidating (regionalizing) all three water systems will be evaluated in the engineering report.

- As described in the previous section, the engineering report will address the noted improper well construction associated with the Cedar Heights public water system. The report will also address any improper construction associated with the Clearwater well. Accordingly, the engineering report will present a plan to reconcile any outstanding issues with either of the District's current supply wells.

- The District is currently operating two separate public water systems that have two distinct distribution systems with dead-end lines and single-line feed service areas with little or no redundancy. The District would benefit from an engineering evaluation that includes strategic water main looping and redundant waterline feeds. Water main looping, combined with more isolation valves, would also allow the District to keep more units in service while addressing system repairs.

- The single standpipe that provides the Cedar Heights water system with storage and pressure is in urgent need of exterior maintenance to provide corrosion protection and also requires modifications to meet MoDNR design standards and provide adequate detention time for disinfection. Both the Cedar Heights and Clearwater systems have only one storage tank each and a plan for adequate maintenance and operation, including the potential for an emergency interconnection to provide redundancy, needs to be developed.

Section D: Regionalization, Interconnection, and Security

- The engineering report will analyze and evaluate the feasibility of and upgrades necessary to allow the District to extend its services as a regional supplier, in specific regards to consolidating, interconnecting, and expanding service to areas within and adjacent to the District boundaries.

- Security of the District's water supply and storage facilities is a concern. There are both well and storage facilities operated by the District that are not sufficiently fenced or have recommended safety and security provisions.

Section E: Managerial and Financial Capacity Consideration

- The District's water systems are operated by an appropriately-certified contract operator, including emergency system operators.

- The District has received training on operations and management of the existing water supply systems.

- The District has a written budget and operations and maintenance procedure that allows for planning, budgeting, and maintaining the existing water systems and any proposed improvements.

The proposed water system engineering report will not be an amendment to a previous report that was submitted to the Department within the last two years.

The District hopes it has provided the Department with all of the information needed for the funding application. If you need anything further please contact us.

Sincerely,

Bonnie Burton

Bonnie Burton
District Clerk, PWSD#5

MISSOURI DEPARTMENT OF NATURAL RESOURCES
PUBLIC DRINKING WATER BRANCH
PHASE ONE ENGINEERING REPORT SERVICES GRANT PROGRAM

Grant Application and Contractual Requirements for Engineering Report Services for Community Public Water Systems

Calendar Year 2014/2015	**Application Deadline: October 20, 2014**

The Missouri Department of Natural Resources is accepting grant applications from community water systems for development of an engineering report. Funding comes from the Drinking Water State Revolving Fund (DWSRF) set-asides. If you have any questions regarding this funding opportunity, please contact Ryan Seabaugh of the Public Drinking Water Branch, Infrastructure Permits and Engineering Section at (573) 751-8628 or by email ryan.seabaugh@dnr.mo.gov, or Drinking water Permits and Engineering Section chief at (573) 751-1127 or by email at maher.jaafari@dnr.mo.gov.

This Instruction Sheet contains:

- General Information
- Application Instructions
  - Application Deadline
  - Minimum Eligibility Criteria for Applicants
  - Application Evaluation Criteria
  - Assignment of Priority Points
- Information and Contractual Requirements for Funding Recipients
  - Selecting an Engineer
  - Engineering Pre-Selection Process
  - Criteria for Engineering Report
  - Processing Payments
- Application Form (attached)

GENERAL INFORMATION

What is the purpose of this funding?

The primary purpose of this funding is to help community water systems obtain an engineering report as a first step toward implementing changes that will help the system achieve and maintain technical, managerial and financial capacity, including compliance with the National Primary Drinking Water Regulations and the Missouri public drinking water regulations.

Who can apply?

All Community water systems that meet the Minimum Eligibility Criteria for Applicants contained in this document may apply. The community water system must have a good compliance history and a good operation and maintenance history, unless the system agrees to evaluate and undertake feasible and appropriate changes to bring the system back into compliance.

How will applications be ranked?

Complete applications will be ranked according to priority point criteria and eligibility. Only applications that have been completely filled out and signed will be ranked.

How much funding can I expect?

The contract award amount may vary, but shall not exceed 90% of the costs for engineering report services unless the applicant has been identified as a disadvantaged community. The actual percentage that is awarded may be reduced from 90% based on project scope along with risk and eligibility assessed from the application submittal.

Disadvantaged communities are defined as a community with a population of less than 3,300 whose user rates will be at or above 2% of the state Median Household Income (MHI), and the community's MHI is at or below 75% of the state average MHI. Disadvantaged communities may qualify for up to a 100% grant.

What can I use the funding for?

Funding can only be used for engineering report services within the contract period. Funding provided under this contract shall not be used as reimbursement of expenses for services provided outside the contract period.

Will repayment be required?

Funding provided for these contracts is a grant, not a loan. Repayment is not required.

Is a local match required?

Yes. With the exception of disadvantaged communities, grant funding shall not exceed 90% of the cost to develop the engineering report. The applicant must be able to provide funding for at least 10% of the cost.

APPLICATION INSTRUCTIONS

Application Deadline

Applications must be postmarked or received by October 20, 2014. The application is included with this Information Packet. No deadline extensions will be granted. The completed application and all other required information must be mailed or hand-delivered to the Public Drinking Water Branch, Infrastructure Permits and Engineering Section as follows:

Mail to
Missouri Department of Natural Resources
Public Drinking Water Branch
Infrastructure Permits and Engineering Section
P. O. Box 176
Jefferson City, Missouri 65102-0176

or hand deliver to
Public Drinking Water Branch
Infrastructure Permits and Engineering Section
Lewis and Clark State Office Building
1101 Riverside Drive, 3rd Floor
Jefferson City, Missouri

The Department will notify all applicants of the final selection results after all applications have been reviewed.

Minimum Eligibility Criteria for Applicants

Applicant shall complete the Phase One Engineering Report Services Grant Program Application including the Safe Drinking Water Act Compliance Priority Point Checklist (Section 6 of the application) and return it along with the required supporting documentation to the Public Drinking Water Branch no later than the application deadline. Applicants must meet the following minimum eligibility criteria in order to be eligible for this grant. Applicant signature is required on the Application Form to verify eligibility requirements are met.

1. The System must be an existing community water system.

2. The System shall have a valid Permit to Dispense Water or be taking steps to obtain such a permit. (An application for a Permit to Dispense Water must be received by the Department prior to the October 20, 2014 deadline in order for us to consider the water system to be taking steps to obtain a permit.)
3. The System must have paid all outstanding Program Administration and Laboratory Services fees and must have remitted to the Department the Primacy Fees collected from its customers prior to the October 20, 2014 deadline.
4. The System must employ a certified chief operator or contract operator.
5. The System has not received engineering report funding for three years prior to the deadline for this application submission.
6. The System does not have an engineering report that has been approved by the Department within 2 years prior to the deadline for this application submission.
7. The System must agree to make a good faith effort to pursue recommendations contained in the approved engineering report. A good faith effort is defined as an application for financial assistance, application to the Department for construction permit for one or more recommended projects, or documented technical, managerial and financial capacity improvement.

Because the grants are federally funded, applicants are required to submit a Data Universal Numbering System (DUNS) number. This can be obtained via the internet at http://fedgov.dnb.com/webform or by telephone to Dun and Bradstreet at 1-866-705-5711.

Application Evaluation Factors

Applications will be listed in order based on priority points accrued. The purpose of the priority points is to list applications in order so that the most serious problems are given the highest priority. Priority points are based primarily on protection of public health, compliance with the Safe Drinking Water Act and system reliability.

Applicants located within 2014 priority watersheds identified by the *Our Missouri Waters Initiative* may receive additional eligibility priority. More information on the initiative can be found on the Department's website at http://dnr.mo.gov/omwi.htm.

Funding amounts in terms of required match will include the following risk and eligibility factors:

- System size based on population served;
- Documentation and detail of supporting information and project scope;
- Complexity of the project compared to system needs and size; and
- Available funds.

Assignment of Priority Points

All applicants are required to submit a brief description of need (narrative) for each item checked in the Safe Drinking Water Act Compliance Priority Point Checklist. To ensure points are applied for the checklist item, documentation supporting your description is recommended. Documentation may include, but may not necessarily be limited to inspections, sanitary surveys, and system records with written operator or system engineer testimony.

Priority points shall be assigned only where the system intends to correct the deficiency or problem associated with the points. For example, if the system has had persistent violations of a secondary MCL, the engineering report must address that problem. No priority points shall be assigned to a checklist item if the deficiency is resulting from inadequate operation and maintenance of the water system, unless the project enables the community water system (CWS) to meet technical, managerial and financial capacity requirements determined by the Department.

Section A: Safe Drinking WaterAct Violations and Compliance

25	Correction of persistent violations of maximum contaminant levels or treatment performance criteria for acute risk contaminants (such as coliform, turbidity or nitrate) that have occurred within the past 36 months
20	Correction of persistent violations of maximum contaminant levels for naturally-occurring contaminants (radium, radon, uranium, arsenic, radionuclides)
15	Correction of persistent violations of treatment technique requirements
20	Correction of persistent violations of maximum contaminant levels for non-acute risk primary contaminants that have occurred within the last 36 months
15	Correction of persistent violations of maximum contaminant levels for secondary contaminants that have occurred within the past 36 months
15	Compliance with Missouri's surface water treatment, disinfectants/disinfection by-product, or ground water rules
25	Compliance with an administrative order, bilateral compliance agreement, or other enforceable document issued by the Missouri Department of Natural Resources

Section B: Problems with Waterborne Disease, Inadequate Supply or Pressure

25	At least 51% of the project will address problems causing a waterborne disease outbreak attributable to the CWS by the Department of Health and Senior Services
15	The CWS can document its inability consistently to maintain >35 psi as a normal working pressure in the distribution system
20	The CWS can document its inability consistently to maintain >20 psi at all service connections.
20	Private or non-community wells or sources in the project service area are unable to consistently provide an adequate amount of potable water for general household purposes and at least 51% of the project addresses this need (Private or non-community wells or sources contaminated by commercial, industrial or mining wastes will be considered in this category.)

Section C: General Infrastructure Problems

20	Providing the CWS with a backup well or backup interconnection with another CWS
20	Address problem(s) with improper well construction
10	Address unaccounted for water loss that exceeds 10% of the drinking water produced by the system, and the loss is due to leaking or broken water lines
10	Provide necessary modifications to a distribution system that has exceeded or is anticipated to exceed design capacity or useful life within the next five years
10	Address a demonstrated need to replace faulty pipes or substandard pipe materials
2	Address a demonstrated need for distribution system valves and flushing devices
2	Address a demonstrated need for looping of water mains
15	Address an inability to maintain a disinfectant residual at all points in the distribution system
15	Address water storage facilities in poor condition not related to inadequate storage
2	Provide the CWS with a storage capacity equal to one day's average use or provide the CWS with adequate standby power
15	Provide necessary modifications to a source or treatment facility anticipated to exceed design capacity or useful life within the next five years
5	Address significant degradation of the quality of raw water supply
5	Address significant degradation of the quality of finished water in storage
2	Enable the CWS to meet existing state requirements for the treatment and/or storage of waste

residues generated by the water treatment plant

10 Enable repair or replacement of treatment facilities for required disinfection or turbidity removal that are severely deteriorated beyond the useful life of the facility

15 The facility's source has been directly impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.

15 The facility's treatment or distribution system has been impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.

10 At least 51% of the project cost is for repair or replacement of an existing CWS damaged or destroyed by a natural disaster (Note: Documentation must be submitted along with a statement that adequate state or federal disaster relief is not available)

Section D: Regionalization, Interconnection, and Security

20 Providing necessary upgrades to facilities of a primary water system to continue or expand its services as a regional supplier

20 Result in the permanent supply interconnection of two or more existing CWS (this includes new water systems that allow small water systems within their boundaries to consolidate)

10 Result in a regional management system responsible for the day-to-day operation of the water system

20 Provide necessary upgrades or new water distribution system to meet the standards of a regional supplier for the purpose of consolidation

5 Enable the CWS to enhance water system security

Section E: Technical, Managerial and Financial Capacity Demonstration

5 The facility is located within a DNR-endorsed Wellhead or Source Water Protection Area

5 At least 50% of the governing body has received training related to operation and management

5 System has a written operation and maintenance plan and budget

5 The system currently meters all water usage from system connections

INFORMATION AND CONTRACTUAL REQUIREMENTS FOR FUNDING RECIPIENTS

The following information provides detailed instructions if you receive notification that you have been selected for award. The notification letter will also contain information necessary to complete follow-up requirements.

Selecting an Engineer

Funding recipients are responsible for following their own purchase/procurement criteria when obtaining the services of an engineer. However, the procedures and procurement requirements in Sections 8.285-8.291, RSMo apply. The funding recipient must submit the appropriate documentation of the process, as outlined in Engineering Pre-Selection Process. Funding recipients are responsible for selecting an engineer certified in the State of Missouri as a Professional Engineer. The necessary documentation in the Engineering Pre-Selection Process shall be submitted to the Department within 90 days from receipt of the signed award letter. Upon engineering selection, the system representative and the professional engineer shall sign the Three-Party Payment Agreement (Scope of Work). Once the Scope of Work is received, the Department will then finalize the Financial Assistance Agreement (FAA). The FAA and the Scope of Work constitute a contract.

Engineering Pre-Selection Process

The applicant will be notified if funds are available for award. Upon notification, the funding recipient shall proceed with procurement of a qualified engineer or firm. The applicant will have no more than 90 calendar days to procure an engineer, notify the Department, and submit required documentation along with their detailed work plan. Failure to meet the deadline or contact the Department to request a time extension will constitute an incomplete application, and the application will be closed.

The submission shall include the following.

1. A list of the evaluation factors and the scoring system shall be submitted to the Public Drinking Water Branch. The system selection criteria are the record of the process used for pre-selection. The criteria must be logical and support the final decision. The system must base the selection of their desired professional engineer services on the qualification-based selection process. Actual selection scores are not requested but must be kept in the systems' files.
2. A copy of the Request for Statement of Qualifications and the Statement of Qualifications must be submitted to the Department. The Request for Statement of Qualifications tells the potential engineers what you are looking for and allows them to respond, in turn, by a specified attainable deadline.
3. Proof of advertising must be submitted to the Department. Activities to ensure broad solicitation of known or existing firms capable of completing the work must be made. This may take the form of a publication in a newspaper or further solicitation via mail. Note: All solicitation steps are the community's attempt to receive three or more responses.

   Effort must be made to solicit Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) firms as required by Chapter 37, RSMo., and associated regulations. More information on compliance with MBE/WBE requirements and a directory of MBE/WBE vendors may be found at Missouri Office of Equal Opportunity (http://oeo.mo.gov).
4. Completed Three-Party Payment Agreement (Scope of Work).
5. Detailed Work Plan.
6. For projects totaling $30,000 or more, a cost sheet including specific tasks with anticipated hourly charges must also be provided.
7. Technical, Managerial, Financial (TMF) Capacity worksheet provided by the Department.

Criteria for Engineering Report

1. The engineering report must be developed and certified by a registered professional engineer licensed in the State of Missouri.
2. The engineering report must be sufficient in scope and detailed to fully address the criteria listed herein.
3. The engineering report must include Form 780-2091: Facilities Plan Submittal Checklist if applying for public funding.
4. The engineering report must follow the detailed work plan that is submitted along with the Three-Party Payment Agreement (Scope of Work).
5. The engineering report must conform to public drinking water regulations found at 10 CSR 60-10.
6. The engineering report will be reviewed based on criteria of the Department's *Minimum Design Standards for Missouri Community Water Systems*, (effective December 10, 2013), which is available electronically on the Department's website or a hard copy is available upon request to the Public Drinking Water Branch at (573) 751-5331. In addition to meeting the above referenced criteria, other required information is listed below.
   a. General Information
      i. A detailed description of the existing water system including size and length of waterlines, tanks, wells, treatment plants, and pump stations
      ii. Name of system operators
   b. Extent of the Water System(s)

Appraisal of future requirements and expected growth covering a 20-year period

c. Alternate Solutions
   Specific comparison of feasible alternatives with respect to construction costs, operation and maintenance costs, including environmental considerations where applicable.
d. Project financing
   i. Explain how the applicant will administer the project
   ii. Explain how construction cost and additional operation and maintenance, including replacement, cost will be covered
   iii. Present existing and proposed project budget for applicant. Include O&M costs, capital improvement costs, debt repayment and status of reserve accounts
   iv. Provide the origin of funding for original facility, including existing debt
   v. Provide the financial status of operating central facilities – rate schedule, annual O&M, status of current debts and reserve accounts and tabulation of users by monthly usage categories

7. All priority point checklist items must be addressed in the engineering report. Failure to adequately address all checklist items will result in reduced funding.
8. The Department must receive one hard copy of the engineering report along with one electronic copy on CD, with a professional engineer's seal on it within seven months from the date the Financial Assistance Agreement (FAA) is signed by the Department. The engineering document should be mailed to:

Missouri Department of Natural Resources
Public Drinking Water Branch
Infrastructure Permits & Engineering Section
P.O. Box 176
Jefferson City, Missouri 65102-0176

Processing Payments

After the engineer is selected, the Three-Party Payment Agreement (Scope of Work) shall be signed by the funding recipient and the engineer. The Scope of Work is an agreement on the payment process. Once the Scope of Work is received, the Department will then finalize the Financial Assistance Agreement (FAA). The FAA and the Scope of Work constitute a contract.

The engineer will submit the necessary engineering cost documentation to the system (receipts, work hours, invoices, etc.). The water system staff will forward the documentation to the Department with a letter approving the expenses. The Department will then pay the water system directly up to 90% of the invoice amount. All subsequent payments by the Department will require proof of payment to the engineering firm of the previous invoice amount. The Department will make the final 25% payment to the engineering firm only after the Department approves, in writing, the engineering report. Funding provided under this contract shall not be used as reimbursement of expenses for engineering services provided outside of the contract period.

The funding recipient is responsible for assuring one hard copy and one electronic copy on compact disk (CD) of the engineering report are received by the Department within seven months from the date the Department signs the FAA.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
PUBLIC DRINKING WATER BRANCH

PHASE ONE ENGINEERING REPORT SERVICES GRANT PROGRAM APPLICATION

FOR OFFICE USE ONLY
DATE RECEIVED

Submit to: Missouri Department of Natural Resources, Public Drinking Water Branch, P.O. Box 176, Jefferson City, MO 65102-0176. Please type or print legibly.

1. GENERAL INFORMATION

PUBLIC WATER SUPPLY NAME	PUBLIC WATER SUPPLY ID NO.	POPULATION	DUNS NO. (Required)
PWSD # 5 Camden County		400 Units	

PUBLIC WATER SUPPLY CONTACT PERSON FOR THIS DRINKING WATER PROJECT	TITLE
Bonnie Burton	Clerk

MAILING ADDRESS: PO Box 556

CITY	STATE	ZIP CODE + FOUR	COUNTY
Camdenton	MO	65020	Camden

TELEPHONE NUMBER WITH AREA CODE	FAX NUMBER WITH AREA CODE (optional)	E-MAIL (optional)
573-280-5416	573-302-1301	pwsdno5@gmail.com

HAS OR WILL THE SYSTEM APPLY FOR DWSRF FUNDING FOR CONSTRUCTION RELATED TO THE PROPOSED ENGINEERING REPORT?
☒ YES ☐ NO

2. DISADVANTAGED COMMUNITY

DISADVANTAGED COMMUNITIES MUST MEET ALL OF THE FOLLOWING REQUIREMENTS.

I. DOES THE SYSTEM SERVE A POPULATION BELOW 3,300? ☒ YES ☒ NO

II. ARE USER RATES AT OR ABOVE 2% OF THE STATE MEDIAN HOUSEHOLD INCOME? ☐ YES ☒ NO
IF YES, MONTHLY COST FOR 5,000 GALLONS OF WATER: _____

III. IS THE COMMUNITY MEDIAN HOUSEHOLD INCOME (MHI) AT OR BELOW 75% OF THE STATE MHI?
☐ YES ☐ NO
IF YES, COMMUNITY MHI: _____ DATA SOURCE: _____

3. ELIGIBILITY CRITERIA

THE FOLLOWING ARE MINIMUM ELIGIBILTY CRITERIA

I. DOES THE SYSTEM HAVE A VALID PERMIT TO DISPENSE WATER TO THE PUBLIC? ☒ YES ☐ NO
IF NO, HAS THE SYSTEM SUBMITTED AN APPICATION TO OBTAIN A VALID PERMIT TO DISPENSE WATER TO THE PUBLIC?
☐ YES ☐ NO (NOTE: IF NO, YOU ARE INELIGIBLE TO RECEIVE FUNDING)

II. DOES THE CONTINUING OPERATING AUTHORITY HAVE ANY OUTSTANDING DRINKING WATER FEES?
☐ YES ☒ NO (NOTE: ALL OUTSTANDING FEES MUST BE PAID PRIOR TO SELECTION TO REMAIN ELIGIBLE FOR FUNDING)

III. DOES THE WATER SYSTEM EMPLOY A CERTIFIED CHIEF OPERATOR OR CONTRACT OPERATOR?
☒ YES NAME: Lows - Chad Stout CERTIFICATION NUMBER: 5092
☐ NO (NOTE: IF NO, YOU ARE INELIGIBLE TO RECEIVE FUNDING)

IV. WHAT YEAR WAS THE LAST ENGINEERING REPORT COMPLETED FOR THIS WATER SYSTEM? 2010

4. ESTIMATED PROJECT COST INFORMATION

TOTAL ENGINEERING REPORT COST (AMOUNT REQUESTED)		$ Unknown
BREAKDOWN OF ENGINEERING REPORT COST PER DESIGNATED CATEGORIES		
I.	TREATMENT	$
II.	TRANSMISSION AND DISTRIBUTION	$
III.	STORAGE	$
IV.	SOURCE	$
V.	OTHER SPECIFY:	$

5. PROJECT DESCRIPTION

DESCRIBE THE MAJOR COMPONENTS OF THE PROJECT. WHY IS THIS ENGINEERING REPORT NEEDED? (ATTACH A SEPARATE SHEET, IF NECESSARY)

New water tower and to connect the water lines between Clearwater/Mission Hills and Cedar Heights. To be able to offer systemservice to people in between that are now on private systems

6. SAFE DRINKING WATER ACT COMPLIANCE PRIORITY POINT CHECKLIST

Please check only the items listed below that will be addressed with this project. Systems under enforcement activity must check the appropriate boxes in Section A to be included as part of the proposed engineering study.

Section A: Safe Drinking Water Act Violations and Compliance

The engineering report will address these issues the PWS is experiencing:

- ☐ Correct persistent violations of maximum contaminant levels or treatment performance criteria for acute risk contaminants (such as coliform, turbidity or nitrate) that have occurred within the past 36 months.
- ☐ Correct persistent violations of maximum contaminant levels for naturally-occurring contaminants (such as radium, radon, uranium, arsenic, radionuclides).
- ☐ Correct persistent violations of treatment technique requirements.
- ☐ Correct persistent violations of maximum contaminant levels for non-acute risk primary contaminants occurring within the past 36 months.
- ☐ Correct persistent violations of maximum contaminant levels for secondary contaminants occurring within the past 36 months.
- ☐ Compliance with Missouri's Surface Water Treatment Rules, Disinfectants/Disinfection By-Products Rules, or Ground Water Rules.
- ☒ Enable the Community Water System to comply with an administrative order, bilateral compliance agreement, or other enforceable document issued by the Missouri Department of Natural Resources.

Section B: Problems with Waterborne Disease, Inadequate Supply or Pressure

The PWS is experiencing these problems and the engineering report will address them:

- ☐ At least 51 percent of the project will address problems causing a waterborne disease outbreak attributable to the Community Water System by the Department of Health and Senior Services.
- ☐ The Community Water System can document its inability consistently to maintain >35 psi as a normal working pressure in the distribution system.
- ☐ The Community Water System can document its inability consistently to maintain >20 psi at all service connections.
- ☐ Private or non-community wells or sources in the project service area are unable to consistently provide an adequate amount of potable water for general household purposes and at least 51 percent of the project addresses this need.

Section C: General Infrastructure Problems

The PWS is experiencing these problems and the engineering report will address them:

- ☒ Provide the Community Water System with a backup well or backup interconnection with another Community Water System.
- ☐ Address problem(s) with improper well construction.
- ☐ Address unaccounted for water that exceeds 10 percent of the drinking water produced by the system, and the loss is due to leaking or broken water lines.
- ☒ Provide necessary modifications to a distribution system anticipated to exceed design capacity or useful life within the next five years.
- ☐ Address a demonstrated need to replace faulty pipes or substandard pipe materials.
- ☐ Address a demonstrated need for distribution system valves and flushing devices.
- ☒ Address a demonstrated need for looping of water mains.
- ☐ Address an inability to maintain a disinfectant residual at all points in the distribution system.
- ☐ Address water storage facilities in poor condition not related to inadequate storage.
- ☒ Provide the Community Water System with a storage capacity equal to one day's average use or provide the Community Water System with adequate standby power.
- ☒ Provide necessary modifications to a source or treatment facility anticipated to exceed design capacity or useful life within the next five years.
- ☐ Address significant degradation of the quality of raw water supply.
- ☐ Address significant degradation of the quality of finished water in storage.
- ☐ Enable the Community Water System to meet existing state requirements for the treatment or storage of waste residues generated by the water treatment plant.

- ☐ Enable repair or replacement of treatment facilities for required disinfection or turbidity removal that are severely deteriorated beyond the useful life of the facility.
- ☐ The facility's source has been directly impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.
- ☐ The facility's treatment plant or distribution system has been impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.
- ☐ At least 51 percent of the project cost is for repair or replacing an existing Community Water System damaged or destroyed by a natural disaster. (Note: Documentation must be submitted along with a statement that adequate state or federal disaster relief is not available).

Section D: Regionalization, Interconnection, and Security

The engineering report will:

- ☒ Provide necessary upgrades to facilities of a primary water system to continue or expand services as a regional water supplier.
- ☒ Result in the permanent supply interconnection of two or more existing Community Water Systems. (This includes new water systems that allow small water systems within their boundaries to consolidate).
- ☐ Result in a regional management system responsible for the day-to-day operation of the water system.
- ☐ Provide necessary upgrades or new water distribution system to meet the standards of a regional supplier for the purpose of consolidation.
- ☐ Enable the Community Water System to enhance the water system security.

Section E: Technical, Managerial, and Financial Capacity Demonstration

The applicant has the following TMF capacity:

- ☐ The facility is located within an endorsed DNR Wellhead Protection or Source Water Protection Area.
- ☐ At least 50% of the governing body has received training related to operation and management.
- ☒ System has a written operation and maintenance plan and budget.
- ☐ The system currently meters all water usage from system connections.

7. SUPPORTING DOCUMENTATION

Required supporting documentation to be provided include:

- ☒ A brief description of need for each item checked in the priority checklist
- ☐ Documentation supporting your description (ex. Inspections, sanitary surveys, or system records)

8. CERTIFICATION

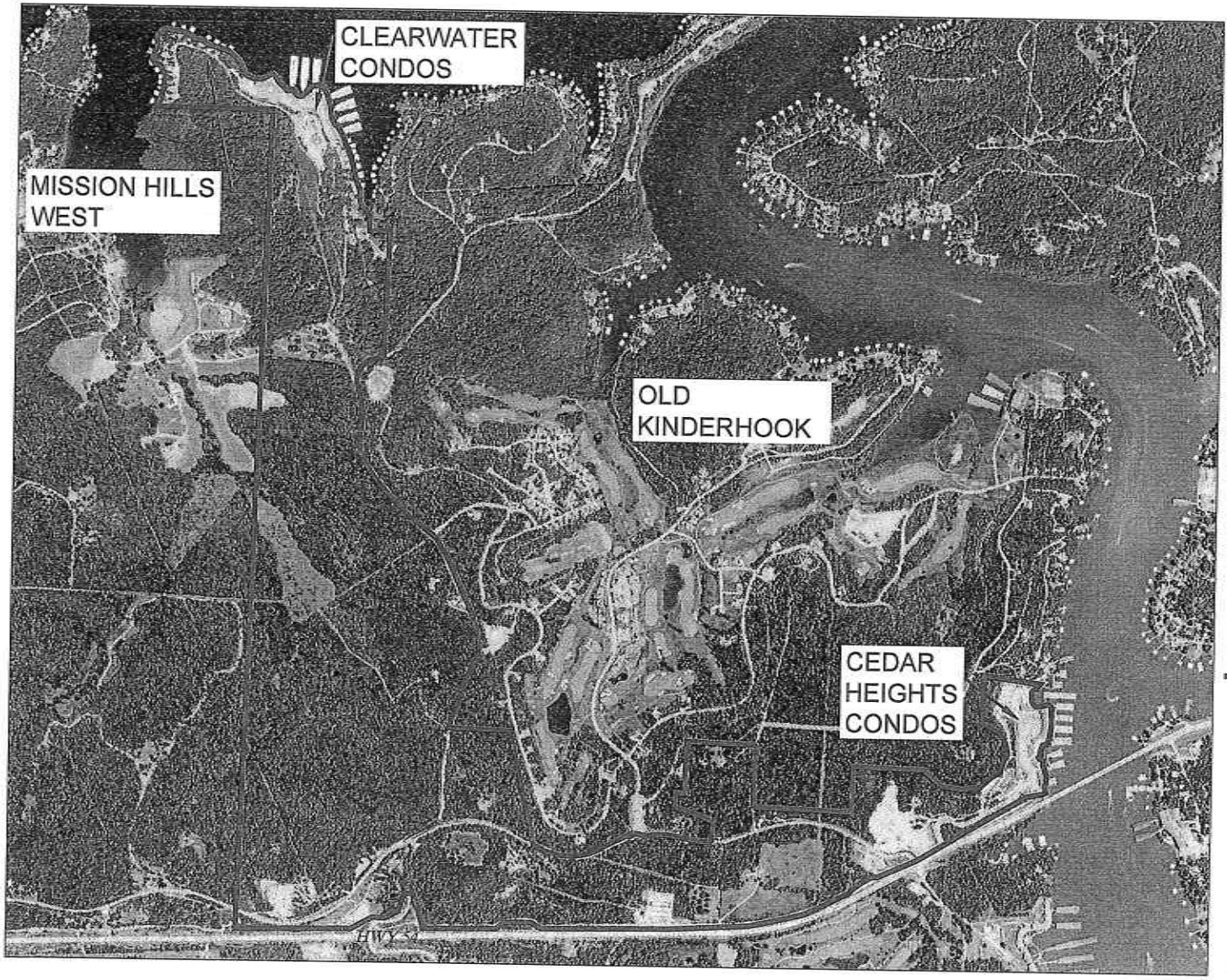
The undersigned representative certifies the information submitted in this application is true and correct to the best of his or her knowledge and that he or she is authorized to sign and submit this application. The applicant agrees, if a grant is awarded on the basis of this application, to comply with all applicable rules and regulations of the Department of Natural Resources and the terms and conditions of the grant agreement. **Incomplete applications will not be scored.**

SIGNATURE OF AUTHORIZED REPRESENTATIVE	DATE
Bonnie Burton	10/17/14
NAME AND OFFICIAL TITLE	TELEPHONE NUMBER WITH AREA CODE
Bonnie Burton District Clerk	573 280-5416

PREPARER'S NAME AND SIGNATURE (IF APPLICABLE)

SIGNATURE OF PREPARER	DATE
NAME AND TITLE	TELEPHONE NUMBER WITH AREA CODE

PWSD #5 OF CAMDEN COUNTY



LEGEND

DISTRICT BOUNDARY

N

N.T.S.

OLSSON ASSOCIATES

550 St. Louis Street
Springfield, MO 65806

TEL 417.890.8802
FAX 417.890.8805

PWSD 1.20-000298

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

April 4, 2014

Mr. David Stone
P.O. Box 556
Camdenton, MO 65020

RE: SBS-155-13 Camden County PWSD #5 – Small Borrowers Program

Dear Mr Stone:

The Small Borrowers Loan Program reimbursement form No. 1 you recently submitted to the Department of Natural Resources has been reviewed and approved for payment. It has been determined that $43,488.45 is the eligible amount for reimbursement from the Small Borrowers program. You should receive payment in the near future for the Small Borrowers portion.

For your convenience, we now have an email address available for you to submit payment requests. The email address is deqwpcpfacaccounting@dnr.mo.gov. Payments can also be faxed to the attention of the Financial Assistance Center, Accounting Unit at (573) 751-9396.

If you have any questions, please contact me at (573) 751-4940 or P.O. Box 176, Jefferson City, MO 65102-0176. Thank you for your participation in the Small Borrowers Loan Program.

Sincerely,

WATER PROTECTION PROGRAM

Beverly Grote

Beverly Grote, Accounting Specialist
Financial Assistance Center

Enclosure

Celebrating 40 years of taking care of Missouri's natural resources. To learn more about the Missouri Department of Natural Resources visit dnr.mo.gov.

E:\FS\PROJECTS-SMALL BORROWERS\Camden County PWSD #5 SBS-155-13\SRF-06

FORM **1746**

Missouri Department of Revenue
Missouri Sales or Use Tax Exemption Application

Required Information to Submit

Submit the listed items to ensure the Department of Revenue (Department) can process your exemption application. Submit all required information to avoid a delay or denial of your exemption letter. Federal or Missouri state agencies, Missouri political subdivisions, elementary and secondary schools operated at public expense, or schools of higher education are not required to furnish the documents below (see instructions).

- Application - A fully completed and signed Missouri Sales or Use Tax Exemption Application (Form 1746)
- Determination of Exemption - A copy of IRS determination of exemption, Federal Form 501(c). Federal, state, Missouri political subdivisions or agencies, public elementary, secondary, or higher education schools or universities are not required to submit a Federal Form 501(c).
- Certificate of Incorporation or Registration - A copy of the Certificate of Incorporation or Registration issued by the Missouri Secretary of State, if registered or incorporated
- Bylaws - A copy of the organization's bylaws
- Financial Statement - A three-year financial statement (or number of years in existence if less than three) providing sources and amounts of income. A three-year financial statement is determined by the date of incorporation or the date the 501(c) exemption was issued.
- If the organization is less than six months old a projected budget for one year should be provided. The projected budget must include sources and amounts of income and expenses for one year.

  The financial statement can be in the form of a spreadsheet, ledger book, or you may submit copies of all pages of the Internal Revenue Service (IRS) Return of Organization Exempt From Income Tax (Form 990). All schedules must include detailed information to avoid a delay in processing your application. The Department does not accept bank statements. If abbreviations are used, provide an explanation.
- Cooperative Marketing Association - Attach the following:
  - Documentation verifying your payment of the annual registration fee;
  - A copy of the most recent annual report filed with the Missouri Secretary of State; and
  - A copy of the articles of incorporation that details that the corporation is organized as a nonprofit, non-stock corporation under **Section 274.030 RSMo**.

IRS Exemption Ruling

If you are registered with the IRS and have received a 501(c) letter, you must attach a copy of the most current letter of exemption issued to you by the IRS.

If you have not received an exemption letter from the IRS, you can obtain an Application for Recognition of Exemption (Form 1023) by visiting their website at **www.irs.gov** or call (877) 829-5500.

Instructions

Missouri Tax I.D. Number
If you have been issued a Missouri Tax I.D. Number by the Department, enter that number in the space provided. Providing your Missouri Tax I.D. Number will ensure the Department registers your organization accurately.

Incorporated Organizations
If you are incorporated in Missouri, check "Missouri Corporation" and provide the required information. If you are an out-of-state corporation, and own property in Missouri, check the "Out-of-State Corporation" box and provide the required information.

Mailing Address
If correspondence should be mailed to an address other than the address of the organization or agency, provide the address to be used for mailing purposes (i.e., officer's, accountant's, or lawyer's address, etc.) P.O. Box may be used.

Record Storage
If the books and records are kept at an address (location) other than that of the organization, agency, or mailing address, provide the address.

Attachments
The attachments are used to determine whether an organization is exempt under Missouri law. Please remember to include all attachments pertaining to your organization. If you do not include all required attachments, it could result in a delay in issuing your exemption letter or a denial of your application.

Out of state organizations applying for a Missouri exemption letter must provide a copy of the sales and use tax exemption letter issued to the organization in their home state.

Organization or Agency Officers

Name (Last, First, Middle Initial)	Title	Social Security Number	Birthdate (MM/DD/YYYY)
Kristina Henry	President	496789969	10/04/1971

Street Address	City	State	Zip Code
577 Missionthills Ln.	Camdenton	MO	65020

Name (Last, First, Middle Initial)	Title	Social Security Number	Birthdate (MM/DD/YYYY)
Burton, Bonnie J	Clerk	493604420	07/04/1953

Street Address	City	State	Zip Code
298 Cedar Heights 4A,	Camdenton	MO	65020

Description of Organization

In one or two brief statements, summarize the primary organizational purpose and the main activities. Explain the intended use of the exemption letter.

We provide Water and Sewer service as a public entity for the people in the PWSD#5 area.

Signature

Under penalties of perjury, I declare that the above information and any attached supplement is true, complete, and correct; that the present nature, purpose and activities of the above-named organization or agency are the same as they were when the attached documents were issued and will continue to remain the same; that I will remain knowledgeable of the statutes and regulations governing sales or use tax exemptions and that I will immediately notify the Department of any change in circumstances which could reasonably lead me to believe that the above-named organization or agency would no longer qualify as exempt, either because of a change in the law or because of a material change in the organization's or agency's nature, purpose, or activities.

It is understood that any misrepresentation contained herein or failure on my part to fulfill the promises entered into here will result in the immediate revocation of any exemption letter issued to this organization or agency.

An officer, member, or responsible person must sign the application. If a power of attorney signs the application, you must include a Power of Attorney (**Form 2827**) signed by an officer, member, or responsible person listed on the application.

Signature of Officer or Responsible Person	Title
Bonnie Burton	Clerk
Printed Name	**E-mail Address**
Bonnie Burton	pwsdno5@gmail.com

Social Security Number	Date of Birth (MM/DD/YYYY)	Date (MM/DD/YYYY)
493604420	07/04/1953	04/16/2014

Confidentiality of Tax Records

Missouri Statute **32.057, RSMo**, states that all tax records and information maintained by the Department are confidential. The tax information can only be given to the owner, partner, member, or officer who is listed with us as such. If you wish to give an employee, attorney, or accountant access to your tax information, you must supply us with a power of attorney giving us the authority to release confidential information to them.

If your officers, members, or responsible persons change, you must update your registration with the Department by completing a Registration or Exemption Change Request (**Form 126**), before we can release tax information to those new officers, members, or responsible persons.

Mail to: Taxation Division
P.O. Box 358
Jefferson City, MO 65105-0358

Phone: (573) 751-2836
TDD: (800) 735-2966
Fax: (573) 751-9409
E-mail: salestaxexemptions@dor.mo.gov

Visit **dor.mo.gov/business/sales/** for additional information.

Gmail by Google

PWSDNO.5 PWSDNO.5 <pwsdno.5@gmail.com>

RE: Final DNR loan payment

1 message

Grote, Beverly <beverly.grote@dnr.mo.gov> Tue, May 13, 2014 at 11:22 AM
To: Bonnie Burton <pwsdno.5@gmail.com>

Bonnie,

We will need a Reimbursement Form requesting the amount from Harris Excavating with a Current Period amount of $56,511.55 and a Cumulative amount of $100,000.00. It will be Payment Request Number 2 at the top of the form. It will need to be signed by David Stone since he is the authorized representative.

Once we get the signed reimbursement form, we will have all the paperwork necessary to process the request. You may either email the signed reimbursement form to deqwpcpfacaccounting@dnr.mo.gov or fax it to 573-751-9396. Let me know if you fax it so I can get it to the right person. It will then be assigned to an accounting specialist to process.

Let me know if you have any questions. Thank you!

Beverly Grote

Accounting Specialist

Water Protection Program

Financial Assistance Center

Missouri Department of Natural Resources

Telephone: 573-751-4940

Fax: 573-751-9396

Email: beverly.grote@dnr.mo.gov

Group Email: deqwpcpfacaccounting@dnr.mo.gov

Celebrating 40 years of taking care of Missouri's natural resources. To learn more about the Missouri Department of Natural Resources visit dnr.mo.gov.

From: bonniejburton@gmail.com [mailto:bonniejburton@gmail.com] **On Behalf Of** Bonnie Burton
Sent: Tuesday, May 13, 2014 10:53 AM
To: Grote, Beverly
Subject: Final DNR loan payment

Hi Beverly,

Here is what I sent in April and have not heard anything yet. Is Harris being paid direct or is the check coming to me and if so has it been sent? This should of been our last payment on our loan.

Bonnie

PWSD#5 Board of Directors

ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
   b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

2. **Monitoring Requirements.**
   a. Records of monitoring information shall include:
      i. The date, exact place, and time of sampling or measurements;
      ii. The individual(s) who performed the sampling or measurements;
      iii. The date(s) analyses were performed;
      iv. The individual(s) who performed the analyses;
      v. The analytical techniques or methods used; and
      vi. The results of such analyses.
   b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.

3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

4. **Test Procedures**. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.

5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), 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 the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
   a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
   b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
   a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1);
      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
      iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

2. **Non-compliance Reporting.**
   a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; 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; and 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 under this paragraph.
   i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
   ii. Any upset which exceeds any effluent limitation in the permit.
   iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.

3. **Anticipated Noncompliance**. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.

4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.

5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.

6. **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 Department, it shall promptly submit such facts or information.

7. **Discharge Monitoring Reports.**
   a. Monitoring results shall be reported at the intervals specified in the permit.
   b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
   c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.

Section C – Bypass/Upset Requirements

1. **Definitions.**
   a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
   b. *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. Severe property damage does not mean economic loss caused by delays in production.
   c. *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. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. **Bypass Requirements.**
   a. Bypass not exceeding limitations. 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 paragraphs 2. b. and 2. c. of this section.
   b. Notice.
      i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
      ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
   c. Prohibition of bypass.
      i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
         1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         2. 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 adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
         3. The permittee submitted notices as required under paragraph 2. b. of this section.
      ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. **Upset Requirements.**
   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 paragraph 3. b. of this section are met. No determination made during administrative review of claim that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
   b. Conditions necessary for a 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:
      i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      ii. The permitted facility was at the time being properly operated; and
      iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
   c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
   a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
   b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed $10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Duty to Reapply.

a. 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.

b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

3. **Need to Halt or Reduce Activity 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.

4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. **Proper Operation and Maintenance.** 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 back-up 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.

6. **Permit Actions.**
   a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
      i. Violations of any terms or conditions of this permit or the law;
      ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
      iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
      iv. Any reason set forth in the Law or Regulations.
   b. 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.

7. **Permit Transfer.**
   a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
   b. The Department 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 Missouri Clean Water Law or the Federal Clean Water Act.
   c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.

8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department 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 Department upon request, copies of records required to be kept by this permit.

11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon 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 the 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; and
    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

12. **Closure of Treatment Facilities.**
    a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
    b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

13. **Signatory Requirement.**
    a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
    b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
    c. The Missouri Clean Water Law 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 pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

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

STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
MAY 1, 2013

PART II - SPECIAL CONDITIONS – PUBLICLY OWNED TREATMENT WORKS
SECTION A – INDUSTRIAL USERS

1. Definitions

Definitions as set forth in the Missouri Clean Water Laws and approved by the Missouri Clean Water Commission shall apply to terms used herein.

Significant Industrial User (SIU). Except as provided in the *General Pretreatment Regulation* 10 CSR 20-6.100, the term Significant Industrial User means:

1. All Industrial Users subject to Categorical Pretreatment Standards; and
2. Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the Publicly-Owned Treatment Works (POTW) (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's or for violating any Pretreatment Standard or requirement.

Clean Water Act (CWA) is the the federal Clean Water Act of 1972, 33 U.S.C. § 1251 et seq. (2002).

2. Identification of Industrial Discharges

Pursuant to 40 CFR 122.44(j)(1), all POTWs shall identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR 403.

3. Application Information

Applications for renewal or modification of this permit must contain the information about industrial discharges to the POTW pursuant to 40 CFR 122.21(j)(6)

4. Notice to the Department

Pursuant to 40 CFR 122.42(b), all POTWs must provide adequate notice of the following:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging these pollutants; and
2. Any substantial change into the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
3. For purposes of this paragraph, adequate notice shall include information on:
   i. the quality and quantity of effluent introduced into the POTW, and
   ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

For POTWs without an approved pretreatment program, the notice of industrial discharges which was not included in the permit application shall be made as soon as practicable. For POTWs with an approved pretreatment program, notice is to be included in the annual pretreatment report required in the special conditions of this permit. Notice may be sent to:

Missouri Department of Natural Resources
Water Protection Program
Attn: Pretreatment Coordinator
P.O. Box 176
Jefferson City, MO 65102

STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
March 1, 2014

PART III – SLUDGE AND BIOSOLIDS FROM DOMESTIC AND INDUSTRIAL WASTEWATER TREATMENT FACILITIES

SECTION A – GENERAL REQUIREMENTS

1. This permit pertains to sludge requirements under the Missouri Clean Water Law and regulation for domestic wastewater and industrial process wastewater. This permit also incorporates applicable federal sludge disposal requirements under 40 CFR 503 for domestic wastewater. The Environmental Protection Agency (EPA) has principal authority for permitting and enforcement of the federal sludge regulations under 40 CFR 503 for domestic wastewater. EPA has reviewed and accepted these standard sludge conditions. EPA may choose to issue a separate sludge addendum to this permit or a separate federal sludge permit at their discretion to further address the federal requirements.
2. These Part III Standard Conditions apply only to sludge and biosolids generated at domestic wastewater treatment facilities, including public owned treatment works (POTW), privately owned facilities and sludge or biosolids generated at industrial facilities.
3. Sludge and Biosolids Use and Disposal Practices:
    a. The permittee is authorized to operate the sludge and biosolids treatment, storage, use, and disposal facilities listed in the facility description of this permit.
    b. The permittee shall not exceed the design sludge volume listed in the facility description and shall not use sludge disposal methods that are not listed in the facility description, without prior approval of the permitting authority.
    c. The permittee is authorized to operate the storage, treatment or generating sites listed in the Facility Description section of this permit.
4. Sludge Received from other Facilities:
    a. Permittees may accept domestic wastewater sludge from other facilities including septic tank pumpings from residential sources as long as the design sludge volume is not exceeded and the treatment facility performance is not impaired.
    b. The permittee shall obtain a signed statement from the sludge generator or hauler that certifies the type and source of the sludge
5. These permit requirements do not supersede nor remove liability for compliance with county and other local ordinances.
6. These permit requirements do not supersede nor remove liability for compliance with other environmental regulations such as odor emissions under the Missouri Air Pollution Control Law and regulations.
7. This permit may (after due process) be modified, or alternatively revoked and reissued, to comply with any applicable sludge disposal standard or limitation issued or approved under Section 405(d) of the Clean Water Actor under Chapter 644 RSMo.
8. In addition to STANDARD CONDITIONS, the Department may include sludge limitations in the special conditions portion or other sections of a site specific permit.
9. Alternate Limits in the Site Specific Permit.
    Where deemed appropriate, the Department may require an individual site specific permit in order to authorize alternate limitations:
    a. A site specific permit must be obtained for each operating location, including application sites.
    b. To request a site specific permit, an individual permit application, permit fee, and supporting documents shall be submitted for each operating location. This shall include a detailed sludge/biosolids management plan or engineering report.
10. Exceptions to these Standard Conditions may be authorized on a case-by-case basis by the Department, as follows:
    a. The Department will prepare a permit modification and follow permit notice provisions as applicable under 10 CSR 20-6.020, 40 CFR 124.10, and 40 CFR 501.15(a)(2)(ix)(E). This includes notification of the owner of the property located adjacent to each land application site, where appropriate.
    b. Exceptions cannot be granted where prohibited by the federal sludge regulations under 40 CFR 503.

SECTION B – DEFINITIONS

1. Best Management Practices include agronomic loading rates, soil conservation practices and other site restrictions.
2. Biosolids means organic fertilizer or soil amendment produced by the treatment of domestic wastewater sludge.
3. Biosolids land application facility is a facility where biosolids are spread onto the land at agronomic rates for production of food or fiber. The facility includes any structures necessary to store the biosolids until soil, weather, and crop conditions are favorable for land application.
4. Class A biosolids means a material that has met the Class A pathogen reduction requirements or equivalent treatment by a Process to Further Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
5. Class B biosolids means a material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
6. Domestic wastewater means wastewater originating from the sanitary conveniences of residences, commercial buildings, factories and institutions; or co-mingled sanitary and industrial wastewater processed by a (POTW) or a privately owned facility.
7. Industrial wastewater means any wastewater, also known as process water, not defined as domestic wastewater. Per 40 CFR Part 122, process water means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.
8. Mechanical treatment plants are wastewater treatment facilities that use mechanical devices to treat wastewater, including septic tanks, sand filters, extended aeration, activated sludge, contact stabilization, trickling filters, rotating biological discs, and other similar facilities. It does not include wastewater treatment lagoons and constructed wetlands for wastewater treatment.
9. Operating location as defined in 10 CSR 20-2.010 is all contiguous lands owned, operated or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common.
10. Plant Available Nitrogen (PAN) is the nitrogen that will be available to plants during the growing seasons after biosolids application.
11. Public contact site is land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.
12. Sludge is the solid, semisolid, or liquid residue removed during the treatment of wastewater. Sludge includes septage removed from septic tanks or equivalent facilities. Sludge does not include carbon coal byproducts (CCBs)
13. Sludge lagoon is part of a mechanical wastewater treatment facility. A sludge lagoon is an earthen basin that receives sludge that has been removed from a wastewater treatment facility. It does not include a wastewater treatment lagoon or sludge treatment units that are not a part of a mechanical wastewater treatment facility.
14. Septage is the material pumped from residential septic tanks and similar treatment works (with a design population of less than 150 people). The standard for biosolids from septage is different from other sludges.

SECTION C – MECHANICAL WASTEWATER TREATMENT FACILITIES

1. Sludge shall be routinely removed from wastewater treatment facilities and handled according to the permit facility description and sludge conditions of this permit.
2. The permittee shall operate the facility so that there is no sludge discharged to waters of the state.
3. Mechanical treatment plants shall have separate sludge storage compartments in accordance with 10 CSR 20, Chapter 8. Failure to remove sludge from these storage compartments on the required design schedule is a violation of this permit.

SECTION D – SLUDGE DISPOSED AT OTHER TREATMENT FACILITY OR CONTRACT HAULER

1. This section applies to permittees that haul sludge to another treatment facility for disposal or use contract haulers to remove and dispose of sludge.
2. Permittees that use contract haulers are responsible for compliance with all the terms of this permit including final disposal, unless the hauler has a separate permit for sludge or biosolids disposal issued by the Department; or the hauler transports the sludge to another permitted treatment facility.
3. Haulers who land apply septage must obtain a state permit.
4. Testing of sludge, other than total solids content, is not required if sludge is hauled to a municipal wastewater treatment facility or other permitted wastewater treatment facility, unless it is required by the accepting facility.

SECTION E – INCINERATION OF SLUDGE

1. Sludge incineration facilities shall comply with the requirements of 40 CFR 503 Subpart E; air pollution control regulations under 10 CSR 10; and solid waste management regulations under 10 CSR 80.
2. Permittee may be authorized under the facility description of this permit to store incineration ash in lagoons or ash ponds. This permit does not authorize the disposal of incineration ash. Incineration ash shall be disposed in accordance with 10 CSR 80; or if the ash is determined to be hazardous with 10 CSR 25.
3. In addition to normal sludge monitoring, incineration facilities shall report the following as part of the annual report, quantity of sludge incinerated, quantity of ash generated, quantity of ash stored, and ash used or disposal method, quantity, and location. Permittee shall also provide the name of the disposal facility and the applicable permit number.

SECTION F – SURFACE DISPOSAL SITES AND SLUDGE LAGOONS

1. Surface disposal sites of domestic facilities shall comply with the requirements in 40 CFR 503 Subpart C; air pollution control regulations under 10 CSR 10; and solid waste management regulations under 10 CSR 80.
2. Sludge storage lagoons are temporary facilities and are not required to obtain a permit as a solid waste management facility under 10 CSR 80. In order to maintain sludge storage lagoons as storage facilities, accumulated sludge must be removed routinely, but not less than once every two years unless an alternate schedule is approved in the permit. The amount of sludge removed will be dependent on sludge generation and accumulation in the facility. Enough sludge must be removed to maintain adequate storage capacity in the facility.
    a. In order to avoid damage to the lagoon seal during cleaning, the permittee may leave a layer of sludge on the bottom of the lagoon, upon prior approval of the Department; or
    b. Permittee shall close the lagoon in accordance with Section H.

SECTION G – LAND APPLICATION

1. The permittee shall not land apply sludge or biosolids unless land application is authorized in the facility description or the special conditions of the issued NPDES permit.
2. Land application sites within a 20 miles radius of the wastewater treatment facility are authorized under this permit when biosolids are applied for beneficial use in accordance with these standard conditions unless otherwise specified in a site specific permit. If the permittee's land application site is greater than a 20 mile radius of the wastewater treatment facility, approval must be granted from the Department.
3. Land application shall not adversely affect a threatened or endangered species or its designated critical habitat.
4. Biosolids shall not be applied unless authorized in this permit or exempted under 10 CSR 20, Chapter 6.
    a. This permit does not authorize the land application of domestic sludge except for when sludge meets the definition of biosolids.
    b. This permit authorizes "Class A or B" biosolids derived from domestic wastewater and/or process water sludge to be land applied onto grass land, crop land, timber or other similar agricultural or silviculture lands at rates suitable for beneficial use as organic fertilizer and soil conditioner.
5. Public Contact Sites:

    Permittees who wish to apply Class A biosolids to public contact sites must obtain approval from the Department after two years of proper operation with acceptable testing documentation that shows the biosolids meet Class A criteria. A shorter length of testing will be allowed with prior approval from the Department. Authorization for land applications must be provided in the special conditions section of this permit or in a separate site specific permit.
    a. After Class B biosolids have been land applied, public access must be restricted for 12 months.
    b. Class B biosolids are only land applied to root crops, home gardens or vegetable crops whose edible parts will not be for human consumption.

6. Agricultural and Silvicultural Sites:

Septage – Based on Water Quality guide 422(WQ422) published by the University of Missouri

a. Haulers that land apply septage must obtain a state permit
b. Do not apply more than 30,000 gallons of septage per acre per year.
c. Septage tanks are designed to retain sludge for one to three years which will allow for a larger reduction in pathogens and vectors, as compared to other mechanical type treatment facilities.
d. To meet Class B sludge requirements, maintain septage at 12 pH for at least thirty (30) minutes before land application. 50 pounds of hydrated lime shall be added to each 1,000 gallons of septage in order to meet pathogen and vector stabilization for septage biosolids applied to crops, pastures or timberland.
e. Lime is to be added to the pump truck and not directly to the septic tanks, as lime would harm the beneficial bacteria of the septic tank.

Biosolids - Based on Water Quality guide 423, 424, and 425 (WQ423, WQ424, WQ425) published by the University of Missouri;

a. Biosolids shall be monitored to determine the quality for regulated pollutants
b. The number of samples taken is directly related to the amount of sludge produced by the facility (See Section I of these Standard Conditions). Report as dry weight unless otherwise specified in the site specific permit. Samples should be taken only during land application periods. When necessary, it is permissible to mix biosolids with lower concentrations of biosolids as well as other suitable Department approved material to reach the maximum concentration of pollutants allowed.
c. Table 1 gives the maximum concentration allowable to protect water quality standards

TABLE 1

Biosolids Ceiling Concentration [1]	
Pollutant	Milligrams per kilogram dry weight
Arsenic	75
Cadmium	85
Copper	4,300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7,500

[1] Land application is not allowed if the sludge concentration exceeds the maximum limits for any of these pollutants

d. The low metal concentration biosolids has reduced requirements because of its higher quality and can safely be applied for 100 years or longer at typical agronomic loading rates. (See Table 2)

TABLE 2

Biosolids Low Metal Concentration [1]	
Pollutant	Milligrams per kilogram dry weight
Arsenic	41
Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Nickel	420
Selenium	36
Zinc	2,800

[1] You may apply low metal biosolids without tracking cumulative metal limits, provided the cumulative application of biosolids does not exceed 500 dry tons per acre.

e. Each pollutant in Table 3 has an annual and a total cumulative loading limit, based on the allowable pounds per acre for various soil categories.

TABLE 3

Pollutant	CEC 15+		CEC 5 to 15		CEC 0 to 5	
	Annual	Total [1]	Annual	Total [1]	Annual	Total [1]
Arsenic	1.8	36.0	1.8	36.0	1.8	36.0
Cadmium	1.7	35.0	0.9	9.0	0.4	4.5
Copper	66.0	1,335.0	25.0	250.0	12.0	125.0
Lead	13.0	267.0	13.0	267.0	13.0	133.0
Mercury	0.7	15.0	0.7	15.0	0.7	15.0
Nickel	19.0	347.0	19.0	250.0	12.0	125.0
Selenium	4.5	89.0	4.5	44.0	1.6	16.0
Zinc	124.0	2,492.0	50.0	500.0	25.0	250.0

[1] Total cumulative loading limits for soils with equal or greater than 6.0 pH (salt based test) or 6.5 pH (water based test)

TABLE 4 - Guidelines for land application of other trace substances [1]

Cumulative Loading	
Pollutant	Pounds per acre
Aluminum	4,000[2]
Beryllium	100
Cobalt	50
Fluoride	800
Manganese	500
Silver	200
Tin	1,000
Dioxin	(10 ppt in soil)[3]
Other	[4]

[1] Design of land treatment systems for Industrial Waste, 1979. Michael Ray Overcash, North Carolina State University and Land Treatment of Municipal Wastewater, EPA 1981.)

[2] This applies for a soil with a pH between 6.0 and 7.0 (salt based test) or a pH between 6.5 to 7.5 (water based test). Case-by-case review is required for higher pH soils.

[3] Total Dioxin Toxicity Equivalents (TEQ) in soils, based on a risk assessment under 40 CFR 744, May 1998.

[4] Case by case review. Concentrations in sludge should not exceed the 95th percentile of the National Sewage Sludge Survey, EPA, January 2009.

Best Management Practices – Based on Water Quality guide 426 (WQ426) published by the University of Missouri

a. Use best management practices when applying biosolids.
b. Biosolids cannot discharge from the land application site
c. Biosolid application is subject to the Missouri Department of Agriculture State Milk Board concerning grazing restrictions of lactating dairy cattle.
d. Biosolid application must be in accordance with section 4 of the Endangered Species Act.
e. Do not apply more than the agronomic rate of nitrogen needed.
f. The applicator must document the Plant Available Nitrogen (PAN) loadings, available nitrogen in the soil and crop removals unless the nitrogen content of the biosolids does not exceed 50,000 milligrams per kilogram of total nitrogen on a dry weight basis and biosolids application rate is less than two dry tons per acre per year.
   i. PAN can be determined as follows and is in accordance with WQ426
   (Nitrate + nitrite nitrogen) + (organic nitrogen x 0.2) + (ammonia nitrogen x volatilization factor[1]).
   [1] Volatilization factor is 0.7 for surface application and 1 for subsurface application.

g. Buffer zones are as follows:
   i. 300 feet of a water supply well, sinkhole, lake, pond, water supply reservoir or water supply intake in a stream;
   ii. 300 feet of a losing stream, no discharge stream, stream stretches designated for whole body contact recreation, wild and scenic rivers, Ozark National Scenic Riverways or outstanding state resource waters as listed in the Water Quality Standards, 10 CSR 20-7.031;
   iii. 150 feet if dwellings;
   iv. 100 feet of wetlands or permanent flowing streams;
   v. 50 feet of a property line or other waters of the state, including intermittent flowing streams.

h. Slope limitation for application sites are as follows;
   i. A slope 0 to 6 percent has no rate limitation
   ii. Applied to a slope 7 to 12 percent, the applicator may apply biosolids when soil conservation practices are used to meet the minimum erosion levels
   iii. Slopes > 12, apply biosolids only when grass is vegetated and maintained with at least 80 percent ground cover at a rate of two dry tons per acre per year or less.

i. No biosolids may be land applied in an area that it is reasonably certain that pollutants will be transported into waters of the state.

j. Do not apply biosolids to sites with soil that is snow covered, frozen or saturated with liquid without prior approval by the Department.

k. Biosolids / sludge applicators must keep detailed records up to five years.

SECTION H – CLOSURE REQUIREMENTS

1. This section applies to all wastewater facilities (mechanical, industrial, and lagoons) and sludge or biosolids storage and treatment facilities and incineration ash ponds. It does not apply to land application sites.
2. Permittees of a domestic wastewater facility who plan to cease operation must obtain Department approval of a closure plan which addresses proper removal and disposal of all residues, including sludge, biosolids. Mechanical plants, sludge lagoons, ash ponds and other storage structures must obtain approval of a closure plan from the Department. Permittee must maintain this permit until the facility is closed in accordance with the approved closure plan per 10 CSR 20 – 6. 010 and 10 CSR 20 – 6.015.
3. Residuals that are left in place during closure of a lagoon or earthen structure or ash pond shall not exceed the agricultural loading rates as follows:
   a. Residuals shall meet the monitoring and land application limits for agricultural rates as referenced in Section H of these standard conditions.
   b. If a wastewater treatment lagoon has been in operation for 15 years or more without sludge removal, the sludge in the lagoon qualifies as a Class B biosolids with respect to pathogens due to anaerobic digestion, and testing for fecal coliform is not required. For other lagoons, testing for fecal coliform is required to show compliance with Class B biosolids limitations. In order to reach Class B biosolids requirements, fecal coliform must be less than 2,000,000 colony forming units or 2,000,000 most probable number. All fecal samples must be presented as geometric mean per gram.
   c. The allowable nitrogen loading that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. For a grass cover crop, the allowable PAN is 300 pounds/acre.
      i. PAN can be determined as follows:
      (Nitrate + nitrite nitrogen) + (organic nitrogen x 0.2) + (ammonia nitrogen x volatilization factor[1]).
      [1] Volatilization factor is 0.7 for surface application and 1 for subsurface application.
4. When closing a domestic wastewater treatment lagoon with a design treatment capacity equal or less than 150 persons, the residuals are considered "septage" under the similar treatment works definition. See Section B of these standard conditions. Under the septage category, residuals may be left in place as follows:
   a. Testing for metals or fecal coliform is not required
   b. If the wastewater treatment lagoon has been in use for less than 15 years, mix lime with the sludge at a rate of 50 pounds of hydrated lime per 1000 gallons (134 cubic feet) of sludge.
   c. The amount of sludge that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. 100 dry tons/acre of sludge may be left in the basin without testing for nitrogen. If 100 dry tons/acre or more will be left in the lagoon, test for nitrogen and determine the PAN using the calculation above. Allowable PAN loading is 300 pounds/acre.

5. Residuals left within the domestic lagoon shall be mixed with soil on at least a 1 to 1 ratio, the lagoon berm shall be demolished, and the site shall be graded and contain ≥70% vegetative density over 100% of the site so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion.
6. Lagoons and/or earthen structure and/or ash pond closure activities shall obtain a storm water permit for land disturbance activities that equal or exceed one acre in accordance with 10 CSR 20-6.200
7. When closing a mechanical wastewater and/or industrial process wastewater plant; all sludge must be cleaned out and disposed of in accordance with the Department approved closure plan before the permit for the facility can be terminated.
    a. Land must be stabilized which includes any grading, alternate use or fate upon approval by the Department, remediation, or other work that exposes sediment to stormwater per 10 CSR 20-6.200. The site shall be graded and contain ≥70% vegetative density over 100% of the site, so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion.
    b. Per 10 CSR 20-6.015(4)(B)6, Hazardous Waste shall not be land applied or disposed during industrial and mechanical plant closures unless in accordance with Missouri Hazardous Waste Management Law and Regulations under 10 CSR 25.
    c. After demolition of the mechanical plant / industrial plant, the site must only contain clean fill defined in RSMo 260.200 (5) as uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks, brick, minimal amounts of wood and metal, and inert solids as approved by rule or policy of the Department for fill or other beneficial use. Other solid wastes must be removed.
8. If sludge from the domestic lagoon or mechanical treatment plant exceeds agricultural rates under Section G and/or H, a landfill permit or solid waste disposal permit must be obtained if the permittee chooses to seek authorization for on-site sludge disposal under the Missouri Solid Waste Management Law and regulations per 10 CSR 80, and the permittee must comply with the surface disposal requirements under 40 CFR 503, Subpart C.

SECTION I – MONITORING FREQUENCY

1. At a minimum, sludge or biosolids shall be tested for volume and percent total solids on a frequency that will accurately represent sludge quantities produced and disposed. Please see the table below.

TABLE 5

Design Sludge Production (dry tons per year)	Monitoring Frequency (See Notes 1 and 2)			
	Metals, Pathogens and Vectors	Nitrogen TKN [1]	Nitrogen PAN [2]	Priority Pollutants and TCLP [3]
0 to 100	1 per year	1 per year	1 per month	1 per year
101 to 200	biannual	biannual	1 per month	1 per year
201 to 1,000	quarterly	quarterly	1 per month	1 per year
1,001 to 10,000	1 per month	1 per month	1 per week	--[4]
10,001 +	1 per week	1 per week	1 per day	--[4]

[1] Test total Kjeldahl nitrogen, if biosolids application is 2 dry tons per acre per year or less

[2] Calculate plant available nitrogen, if biosolids application is more than 2 dry tons per acre per year.

[3] Priority pollutants (40 CFR 122.21, Appendix D, Tables II and III) and toxicity characteristic leaching procedure (40 CFR 261.24) is required only for permit holders that must have a pre-treatment program.

[4] One sample for each 1,000 dry tons of sludge.

Note 1: Total solids: A grab sample of sludge shall be tested one per day during land application periods for percent total solids. This data shall be used to calculate the dry tons of sludge applied per acre.

Note 2: Total Phosphorus: Total phosphorus and total potassium shall be tested at the same monitoring frequency as metals.

2. If you own a wastewater treatment lagoon or sludge lagoon that is cleaned out once a year or less, you may choose to sample only when the sludge is removed or the lagoon is closed. Test one composite sample for each 100 dry tons of sludge or biosolids removed from the lagoon during the year within the lagoon at closing. Composite sample must represent various areas at one-foot depth.
3. Additional testing may be required in the special conditions or other sections of the permit. Permittees receiving industrial wastewater may be required to conduct additional testing upon request from the Department.
4. At this time, the Department recommends monitoring requirements shall be performed in accordance with, "POTW Sludge Sampling and Analysis Guidance Document," United States Environmental Protection Agency, August 1989, and the subsequent revisions.

SECTION J – RECORD KEEPING AND REPORTING REQUIREMENTS

1. The permittee shall maintain records on file at the facility for at least five years for the items listed in these standard conditions and any additional items in the Special Conditions section of this permit. This shall include dates when the sludge facility is checked for proper operation, records of maintenance and repairs and other relevant information.
2. Reporting period
    a. By January 28th of each year, an annual report shall be submitted for the previous calendar year period for all mechanical wastewater treatment facilities, sludge lagoons, and sludge or biosolids disposal facilities.
    b. Permittees with wastewater treatment lagoons shall submit the above annual report only when sludge or biosolids are removed from the lagoon during the report period or when the lagoon is closed.
3. Report Forms. The annual report shall be submitted on report forms provided by the Department or equivalent forms approved by the Department.
4. Reports shall be submitted as follows:

    Major facilities (those serving 10,000 persons or 1 million gallons per day) shall report to both the Department and EPA. Other facilities need to report only to the Department. Reports shall be submitted to the addresses listed as follows:

    DNR regional office listed in your permit
    (see cover letter of permit)
    ATTN: Sludge Coordinator

    EPA Region VII
    Water Compliance Branch (WACM)
    Sludge Coordinator
    11201 Renner Blvd.
    Lenexa, KS 66219

5. Annual Report Contents. The annual report shall include the following:
    a. Sludge and biosolids testing performed. Include a copy or summary of all test results, even if not required by the permit.
    b. Sludge or biosolids quantity shall be reported as dry tons for quantity generated by the wastewater treatment facility, the quantity stored on site at the end of the year, and the quantity used or disposed.
    c. Gallons and % solids data used to calculate the dry ton amounts.
    d. Description of any unusual operating conditions.
    e. Final disposal method, dates, and location, and person responsible for hauling and disposal.
        i. This must include the name, address for the hauler and sludge facility. If hauled to a municipal wastewater treatment facility, sanitary landfill, or other approved treatment facility, give the name of that facility.
        ii. Include a description of the type of hauling equipment used and the capacity in tons, gallons, or cubic feet.

f. Contract Hauler Activities

If contract hauler, provide a copy of a signed contract from the contractor. Permittee shall require the contractor to supply information required under this permit for which the contractor is responsible. The permittee shall submit a signed statement from the contractor that he has complied with the standards contained in this permit, unless the contract hauler has a separate sludge or biosolids use permit.

g. Land Application Sites:

i. Report the location of each application site, the annual and cumulative dry tons/acre for each site, and the landowners name and address. The location for each spreading site shall be given as a legal description for nearest ¼, ¼, Section, Township, Range, and county, or UTM coordinates. If biosolids application exceeds 2 dry tons/acre/year, reports biosolids nitrogen results, Plant Available Nitrogen (PAN) in pounds/acre, crop nitrogen requirement.

ii. If the "Low Metals" criteria are exceeded, report the annual and cumulative pollutant loading rates in pounds per acre for each applicable pollutant, and report the percent of cumulative pollutant loading which has been reached at each site.

iii. Report the method used for compliance with pathogen and vector attraction requirements.

iv. Report soil test results for pH, CEC, and phosphorus. If none was tested during the year, report the last date when tested and results.

RECEIVED

OCT 21 2014

WATER PROTECTION PROGRAM

MISSOURI DEPARTMENT OF NATURAL RESOURCES
PUBLIC DRINKING WATER BRANCH

PHASE ONE ENGINEERING REPORT SERVICES GRANT PROGRAM APPLICATION

FOR OFFICE USE ONLY
DATE RECEIVED

Submit to: Missouri Department of Natural Resources, Public Drinking Water Branch, P.O. Box 176, Jefferson City, MO 65102-0176. Please type or print legibly.

1. GENERAL INFORMATION

PUBLIC WATER SUPPLY NAME	PUBLIC WATER SUPPLY ID NO.	POPULATION	DUNS NO. (Required)
PWSD # 5 Camden County		400 Units	

PUBLIC WATER SUPPLY CONTACT PERSON FOR THIS DRINKING WATER PROJECT	TITLE
Bonnie Burton	Clerk

MAILING ADDRESS: PO Box 556

CITY	STATE	ZIP CODE + FOUR	COUNTY
Camdenton	MO	65020	Camden

TELEPHONE NUMBER WITH AREA CODE	FAX NUMBER WITH AREA CODE (optional)	E-MAIL (optional)
573-280-5416	573-302-1301	pwsdno5@gmail.com

HAS OR WILL THE SYSTEM APPLY FOR DWSRF FUNDING FOR CONSTRUCTION RELATED TO THE PROPOSED ENGINEERING REPORT?
☒ YES ☐ NO

2. DISADVANTAGED COMMUNITY

DISADVANTAGED COMMUNITIES MUST MEET ALL OF THE FOLLOWING REQUIREMENTS.

I. DOES THE SYSTEM SERVE A POPULATION BELOW 3,300? ☒ YES ☒ NO
II. ARE USER RATES AT OR ABOVE 2% OF THE STATE MEDIAN HOUSEHOLD INCOME? ☐ YES ☒ NO
IF YES, MONTHLY COST FOR 5,000 GALLONS OF WATER: _____
III. IS THE COMMUNITY MEDIAN HOUSEHOLD INCOME (MHI) AT OR BELOW 75% OF THE STATE MHI?
☐ YES ☐ NO
IF YES, COMMUNITY MHI: _____ DATA SOURCE: _____

3. ELIGIBILITY CRITERIA

THE FOLLOWING ARE MINIMUM ELIGIBILTY CRITERIA

I. DOES THE SYSTEM HAVE A VALID PERMIT TO DISPENSE WATER TO THE PUBLIC? ☒ YES ☐ NO
IF NO, HAS THE SYSTEM SUBMITTED AN APPICATION TO OBTAIN A VALID PERMIT TO DISPENSE WATER TO THE PUBLIC?
☐ YES ☐ NO (NOTE: IF NO, YOU ARE INELIGIBLE TO RECEIVE FUNDING)

II. DOES THE CONTINUING OPERATING AUTHORITY HAVE ANY OUTSTANDING DRINKING WATER FEES?
☐ YES ☒ NO (NOTE: ALL OUTSTANDING FEES MUST BE PAID PRIOR TO SELECTION TO REMAIN ELIGIBLE FOR FUNDING)

III. DOES THE WATER SYSTEM EMPLOY A CERTIFIED CHIEF OPERATOR OR CONTRACT OPERATOR?
☒ YES NAME: Lows - Chad Stout CERTIFICATION NUMBER: 5092
☐ NO (NOTE: IF NO, YOU ARE INELIGIBLE TO RECEIVE FUNDING)

IV. WHAT YEAR WAS THE LAST ENGINEERING REPORT COMPLETED FOR THIS WATER SYSTEM? 2010

4. ESTIMATED PROJECT COST INFORMATION

TOTAL ENGINEERING REPORT COST (AMOUNT REQUESTED)		$ Unknown
BREAKDOWN OF ENGINEERING REPORT COST PER DESIGNATED CATEGORIES		
I.	TREATMENT	$
II.	TRANSMISSION AND DISTRIBUTION	$
III.	STORAGE	$
IV.	SOURCE	$
V.	OTHER SPECIFY:	$

5. PROJECT DESCRIPTION

DESCRIBE THE MAJOR COMPONENTS OF THE PROJECT. WHY IS THIS ENGINEERING REPORT NEEDED? (ATTACH A SEPARATE SHEET, IF NECESSARY)

New water tower and to connect the water lines between Clearwater/Mission Hills and Cedar Heights. To be able to offer systemservice to people in between that are now on private systems

6. SAFE DRINKING WATER ACT COMPLIANCE PRIORITY POINT CHECKLIST

Please check only the items listed below that will be addressed with this project. Systems under enforcement activity must check the appropriate boxes in Section A to be included as part of the proposed engineering study.

Section A: Safe Drinking Water Act Violations and Compliance

The engineering report will address these issues the PWS is experiencing:

- ☐ Correct persistent violations of maximum contaminant levels or treatment performance criteria for acute risk contaminants (such as coliform, turbidity or nitrate) that have occurred within the past 36 months.
- ☐ Correct persistent violations of maximum contaminant levels for naturally-occurring contaminants (such as radium, radon, uranium, arsenic, radionuclides).
- ☐ Correct persistent violations of treatment technique requirements.
- ☐ Correct persistent violations of maximum contaminant levels for non-acute risk primary contaminants occurring within the past 36 months.
- ☐ Correct persistent violations of maximum contaminant levels for secondary contaminants occurring within the past 36 months.
- ☐ Compliance with Missouri's Surface Water Treatment Rules, Disinfectants/Disinfection By-Products Rules, or Ground Water Rules.
- ☒ Enable the Community Water System to comply with an administrative order, bilateral compliance agreement, or other enforceable document issued by the Missouri Department of Natural Resources.

Section B: Problems with Waterborne Disease, Inadequate Supply or Pressure

The PWS is experiencing these problems and the engineering report will address them:

- ☐ At least 51 percent of the project will address problems causing a waterborne disease outbreak attributable to the Community Water System by the Department of Health and Senior Services.
- ☐ The Community Water System can document its inability consistently to maintain >35 psi as a normal working pressure in the distribution system.
- ☐ The Community Water System can document its inability consistently to maintain >20 psi at all service connections.
- ☐ Private or non-community wells or sources in the project service area are unable to consistently provide an adequate amount of potable water for general household purposes and at least 51 percent of the project addresses this need.

Section C: General Infrastructure Problems

The PWS is experiencing these problems and the engineering report will address them:

- ☒ Provide the Community Water System with a backup well or backup interconnection with another Community Water System.
- ☐ Address problem(s) with improper well construction.
- ☐ Address unaccounted for water that exceeds 10 percent of the drinking water produced by the system, and the loss is due to leaking or broken water lines.
- ☒ Provide necessary modifications to a distribution system anticipated to exceed design capacity or useful life within the next five years.
- ☐ Address a demonstrated need to replace faulty pipes or substandard pipe materials.
- ☐ Address a demonstrated need for distribution system valves and flushing devices.
- ☒ Address a demonstrated need for looping of water mains.
- ☐ Address an inability to maintain a disinfectant residual at all points in the distribution system.
- ☐ Address water storage facilities in poor condition not related to inadequate storage.
- ☒ Provide the Community Water System with a storage capacity equal to one day's average use or provide the Community Water System with adequate standby power.
- ☒ Provide necessary modifications to a source or treatment facility anticipated to exceed design capacity or useful life within the next five years.
- ☐ Address significant degradation of the quality of raw water supply.
- ☐ Address significant degradation of the quality of finished water in storage.
- ☐ Enable the Community Water System to meet existing state requirements for the treatment or storage of waste residues generated by the water treatment plant.

- ☐ Enable repair or replacement of treatment facilities for required disinfection or turbidity removal that are severely deteriorated beyond the useful life of the facility.
- ☐ The facility's source has been directly impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.
- ☐ The facility's treatment plant or distribution system has been impacted by natural disasters (such as flood or drought) or non-naturally occurring contamination within the last four years.
- ☐ At least 51 percent of the project cost is for repair or replacing an existing Community Water System damaged or destroyed by a natural disaster. (Note: Documentation must be submitted along with a statement that adequate state or federal disaster relief is not available).

Section D: Regionalization, Interconnection, and Security

The engineering report will:

- ☒ Provide necessary upgrades to facilities of a primary water system to continue or expand services as a regional water supplier.
- ☒ Result in the permanent supply interconnection of two or more existing Community Water Systems. (This includes new water systems that allow small water systems within their boundaries to consolidate).
- ☐ Result in a regional management system responsible for the day-to-day operation of the water system.
- ☐ Provide necessary upgrades or new water distribution system to meet the standards of a regional supplier for the purpose of consolidation.
- ☐ Enable the Community Water System to enhance the water system security.

Section E: Technical, Managerial, and Financial Capacity Demonstration

The applicant has the following TMF capacity:

- ☐ The facility is located within an endorsed DNR Wellhead Protection or Source Water Protection Area.
- ☐ At least 50% of the governing body has received training related to operation and management.
- ☒ System has a written operation and maintenance plan and budget.
- ☐ The system currently meters all water usage from system connections.

7. SUPPORTING DOCUMENTATION

Required supporting documentation to be provided include:

- ☒ A brief description of need for each item checked in the priority checklist
- ☐ Documentation supporting your description (ex. Inspections, sanitary surveys, or system records)

8. CERTIFICATION

The undersigned representative certifies the information submitted in this application is true and correct to the best of his or her knowledge and that he or she is authorized to sign and submit this application. The applicant agrees, if a grant is awarded on the basis of this application, to comply with all applicable rules and regulations of the Department of Natural Resources and the terms and conditions of the grant agreement. **Incomplete applications will not be scored.**

SIGNATURE OF AUTHORIZED REPRESENTATIVE	DATE
Bonnie Burton	10/17/14
NAME AND OFFICIAL TITLE	**TELEPHONE NUMBER WITH AREA CODE**
Bonnie Burton District Clerk	573 280-5416

PREPARER'S NAME AND SIGNATURE (IF APPLICABLE)

SIGNATURE OF PREPARER	DATE
NAME AND TITLE	**TELEPHONE NUMBER WITH AREA CODE**

THREE PARTY PAYMENT AGREEMENT

ENGINEERING REPORT SERVICES

DETAILED SCOPE OF WORK

It is the intent of the Missouri Department of Natural Resources (Department) to provide engineering reviews of the public water system engineering report for necessary improvement or modifications to the system to achieve and maintain technical, managerial, and financial capacity with respect to the National Primary Drinking Water Regulations.

All of the above shall be referred to as the Project.

The engineering firm shall provide professional services for this Project in accordance with the Terms and Conditions of this Agreement. The Department shall compensate the water system, in accordance with the Terms of this Agreement as follows:

BASIC SERVICES: Basic services include engineering report development costs to meet, at minimum, the criteria for engineering report services provided in the "Contract for Engineering Services," within the contract period.

Hourly Rates for various professionals may be included in an attached rate sheet. Hourly Rates, as presented shall be computed on the basis of:

☐ Check here for attached rate sheet

Registered Engineer at $_____/Hour

Engineer Technician at $_____/Hour

Clerical at $_____/Hour

Total estimated Reimbursable Expenses $_____

Total estimated cost of Engineering Report Services (Services + Reimbursable) $_____

REIMBURSABLE EXPENSES are as follows:

1. Lodging, meals and mileage: Not to exceed the state or federal per diem rates, incurred while traveling in connection with the Project.
   Meal per diem rates can be found at: http://content.oa.mo.gov/accounting/state-employees/travel-portal-information/state-meals-diem.
   Lodging per diem rates can be found at: http://www.gsa.gov/portal/content/104877?utm_source=OGP&utm_medium=print-radio&utm_term=portal/category/21287&utm_campaign=shortcuts
   State Mileage Rates can be found at: http://content.oa.mo.gov/accounting/state-employees/travel-portal-information/mileage
2. Actual cost of long distance and facsimile transmission incurred in connection with the Project.
3. Actual cost of postage above normal first class rates, when such postage is requested and approved by the Department.

Responsibilities of the Engineering Firm:

1. The engineering firm agrees to meet or exceed all of the criteria listed in "Criteria for Engineering Report DWSRF Contract for Engineering Services" of the Information Packet.
2. The engineering firm agrees to provide all costs incurred during the contract period for engineering report services, with written receipts or invoices, to the public water system for review. The invoices will be in sufficient detail as requested by the Department.
3. The engineering firm agrees to submit progress reports to the department at 25%, 50% and at 75% of completion. Invoices and all associated receipts approved by the public water system must be submitted along with each progress report.
4. The engineering firm shall send invoices and all associated receipts to the public water system monthly and within 15 calendar days of the last monthly service date.
5. The engineering firm shall submit invoices in sufficient detail to identify the work tasks, dates and hours of service and personnel involved to the water system for review.
6. The engineering firm agrees to accomplish said Project within the established budget. In the event the engineering firm determines the Project cannot be accomplished within the budget, the firm shall notify, in writing, the public water system, so that the Project scope can be reviewed and modified if necessary.
7. The engineering firm agrees to include in the engineering report information supporting all items that were checked on the public water system's Application for DWSRF Contract for Engineering Services Checklist. Failure to adequately address all checklist items may result in reduced funding.
8. The engineering firm shall use reasonable care to verify that all information supplied to the firm by the public water system is correct and accurate.
9. The engineering firm shall provide upon demand evidence of an appropriate professional liability insurance policy.
10. The engineering firm shall submit one hard copy of the engineering report along with one electronic copy of the engineering report on CD, with a Professional Engineer's Seal on it, to the department by the due date. The engineering report is due 7 months from the date the Department signs the Financial Assistance Agreement. No extensions will be granted.

NAME OF ENGINEERING FIRM

NAME AND SIGNATURE OF PROJECT MANAGER

DUNS NUMBER TELEPHONE

ADDRESS

E-MAIL ADDRESS

Responsibilities of the Public Water System:

1. The public water system will agree to make a Good Faith Effort to obtain funding and other means for project development as recommended in the approved engineering report.
2. The public water system will agree to make a Good Faith Effort to pursue recommendations regarding achieving and maintaining technical, managerial, and financial capacity including possible regionalization, consolidation, resource sharing, etc., as contained in the approved engineering report. Failure to provide a good faith effort may result in ineligibility for future services funding.
3. The public water system shall review the engineering costs and, upon approval, send a signed letter of approval of the associated engineering costs for the specified invoice number, along with documentation of payment for the previous invoice to the Department for review. The public water system's approval should be based upon the comparison of costs to the established budget (hourly rates and invoices, etc.), the review of the documentation of services and actual services provided to date. The public water system reserves the right to deny approval and request to withhold payments to the engineering firm for losses connected with the Project caused by the errors, omissions, or wrongful acts of the engineering firm in performing duties under the project agreement.
4. The Public Water System shall send invoices and associated documents within 15 calendar days of receipt of invoices from the engineer to the Department at Attn: Engineering Report Services Funding, Water Protection Program, Fiscal Management Unit, 1101 Riverside Drive, P. O. Box 176, Jefferson City, Missouri 65102 for review.
5. The public water system shall pay the engineering firm all approved project costs covered under the Financial Assistance Agreement.
6. The public water system shall provide accurate information regarding requirements for the Project, as well as information required in order to promote the orderly progress of the work.
7. If the public water system observes or otherwise becomes aware of any fault or defect in the Project or non-conformance with the Contract Documents, public water system shall give prompt written notice to the Department and the engineering firm.
8. Upon completion of the engineering report, the public water system shall submit a pre-application form to the Missouri Water and Wastewater Review Committee (MWWRC) and to the Department.

NAME OF PUBLIC WATER SYSTEM

NAME AND SIGNATURE OF WATER AUTHORITY

DUNS NUMBER TELEPHONE

ADDRESS

E-MAIL ADDRESS

Responsibilities of the Department:

1. The Department will review the approval letter and associated documentation of costs. Payment for services (Basic Services and Reimbursable Expenses) will be made directly to the water system upon approval. **The Department reserves the right to deny payment of inappropriate or insufficiently detailed Basic Services and Reimbursable Expense request and for failure to meet the engineering report criteria.**

2. The Department will authorize payment upon receipt and approval of all documentation in relation to each invoice up to 75% of the contracted award.

3. The Department will hold final payment to the water system until the Department approves, in writing, the engineering report. The final payment will be 25% of the estimated project cost, provided said payment does not exceed the contract amount.

4. The Department will pay up to 90% of the actual costs for engineering report services during the contract period, not to exceed the contract amount.

PAYMENTS FOR SERVICES SHALL BE MADE AS FOLLOWS:

Payments by the Department shall be made upon receipt of:

A sufficiently detailed invoice and any associated receipts;
A signed invoice approval letter from the public water system; and
proof of payment for any prior invoice amounts

Invoices shall be itemized by date and number of hours worked at the appropriate hourly rate on the project. An invoice marked "FINAL" must be submitted within the budget period which ends 270 days from the execution of the Financial Assistance Agreement, or the Department will consider all work invoiced and paid. An example invoice sheet that details the information to be provided is available on request.

After approval of the first invoice, the Department will pay the system for up to 90% of the invoice amount. All subsequent payments by the department will require proof of payment to the engineering firm of the previous invoice amount.

All project costs over the total contract amount will be paid by the public water system, if applicable.

The Department will hold final payment to the water system until the Department approves, in writing, the engineering report. The final payment will be 25% of the Department's contract amount. **Additionally, if information on the application is not addressed in the engineering report, the Department will withhold a portion of the funding amount and it will be the responsibility of the water system to make up the difference.**

ARBITRATION, DISPUTES AND DISAGREEMENTS

In order to prevent all disputes or disagreements between the parties in this Agreement in relation to the performance on the part of the engineering firm, it is expressly agreed and understood that in case any controversy or difference of opinion shall arise between the parties as to the quality, quantity or value of the work, the interpretation of the provisions of this Agreement or any other matter connected with this work, the decision of the Director, Department of Natural Resources, shall be final and binding on the parties.

EXTENT OF AGREEMENT

This Agreement along with the Financial Assistance Agreement represents the entire and integrated agreement between the engineering firm, public water system and the Department, as previously defined. This covers the period from the execution date of the Financial Assistance Agreement to 210 calendar days after signature by the Department. This agreement may be amended only by written instrument signed by all three said Parties.

RECEIVED

OCT 21 2014

WATER PROTECTION PROGRAM

Missouri Department of Natural Resources
Public Drinking Water Branch
Infrastructure, Permits and Engineering Section
1101 Riverside Drive
P.O. Box 176
Jefferson City, MO 65102-0176
Attn: Engineering Services Funding Application

RE: Camden PWSD #5, Camden County
DWSRF 2013 Application for Engineering Report Services Funding for Community Water Systems
PWS ID # MO-3031383 – Cedar Heights Condominiums
PWS ID # MO-3302557 – Clearwater Condominiums

To Whom It May Concern:

PWSD #5 of Camden County, Missouri is submitting the attached application for engineering report services funding for the two community public water systems under its authority. The two systems are comprised of the Cedar Heights (MO-3031383) and Clearwater (MO-3302557) public water systems. The District is still waiting to be issued a DUNS number and the additional information requested as part of the funding application can be found in the remainder of this letter and the attached documentation, which includes an exhibit showing the District boundaries and the water systems described herein. Please note that the District intends to serve the Mission Hills area (15 connections) from the Clearwater public water system (construction is pending). Also, the Old Kinderhook public water system is shown for proximity only and is not part of the District. The potential for regionalization with the Old Kinderhook system will be addressed in the engineering report. The engineering report will also include the results of a computerized hydraulic model analysis (WaterCAD v8), which will be created for each system served by the District.

The following description and documentation are provided to justify the items checked on the District's Application Checklist associated with the 2013 DWSRF Engineering Report Services Funding, which represent the items that will be addressed in the engineering report.

Section A: SDWA Violations/Compliance

- The engineering report will include determining the impact the Groundwater Rule has on the two current water systems, including operational procedures and any improvements that need to be planned and budgeted for to ensure compliance with the Groundwater Rule.

- The District was recently presented with a Missouri Department of Natural Resources (MoDNR) Report of Inspection for the Cedar Heights Condominiums public water system that included a *Compliance Agreement*, following a November 7, 2012 routine inspection by MoDNR. The Report of Inspection states that the District does not have a written Permit to Dispense for this system. The *Compliance Agreement* includes acts and provisions relating to the use of this system's sole well, in which it was concluded that the well does not meet acceptable construction standards for a public water system (non-state-approved well) and is therefore a health risk to the public. The *Compliance Agreement* also contains provisions relating to 4-log reduction of viruses that appear to contain questionable calculations. In general, the *Compliance Agreement* concludes that the District is operating a non-compliant well for

the Cedar Heights water system and an engineering evaluation to determine the true extent of non-compliance should be made, including developing specific action items for the District to undertake to achieve compliance. The proposed engineering report will address the District's Report of Inspection, including the entire *Compliance Agreement*, and will present a plan to resolve any outstanding issues.

Section C: Problems with inadequate wells, water loss, distribution systems, storage, and treatment

- Both the Cedar Heights and Clearwater public water systems currently have only one active well per system. The engineering report will address interconnecting the two systems to provide suitable redundant water sources or providing the District with a backup well(s). The potential for interconnecting with the Old Kinderhook water system as a backup supply will also be evaluated. The Old Kinderhook public water system currently has one active well and one emergency well. Additionally, the District's wells are not provided with standby or emergency power. Accordingly, the possibility of consolidating (regionalizing) all three water systems will be evaluated in the engineering report.

- As described in the previous section, the engineering report will address the noted improper well construction associated with the Cedar Heights public water system. The report will also address any improper construction associated with the Clearwater well. Accordingly, the engineering report will present a plan to reconcile any outstanding issues with either of the District's current supply wells.

- The District is currently operating two separate public water systems that have two distinct distribution systems with dead-end lines and single-line feed service areas with little or no redundancy. The District would benefit from an engineering evaluation that includes strategic water main looping and redundant waterline feeds. Water main looping, combined with more isolation valves, would also allow the District to keep more units in service while addressing system repairs.

- The single standpipe that provides the Cedar Heights water system with storage and pressure is in urgent need of exterior maintenance to provide corrosion protection and also requires modifications to meet MoDNR design standards and provide adequate detention time for disinfection. Both the Cedar Heights and Clearwater systems have only one storage tank each and a plan for adequate maintenance and operation, including the potential for an emergency interconnection to provide redundancy, needs to be developed.

Section D: Regionalization, Interconnection, and Security

- The engineering report will analyze and evaluate the feasibility of and upgrades necessary to allow the District to extend its services as a regional supplier, in specific regards to consolidating, interconnecting, and expanding service to areas within and adjacent to the District boundaries.

- Security of the District's water supply and storage facilities is a concern. There are both well and storage facilities operated by the District that are not sufficiently fenced or have recommended safety and security provisions.

Section E: Managerial and Financial Capacity Consideration

- The District's water systems are operated by an appropriately-certified contract operator, including emergency system operators.

- The District has received training on operations and management of the existing water supply systems.

- The District has a written budget and operations and maintenance procedure that allows for planning, budgeting, and maintaining the existing water systems and any proposed improvements.

- The proposed water system engineering report will not be an amendment to a previous report that was submitted to the Department within the last two years.

The District hopes it has provided the Department with all of the information needed for the funding application. If you need anything further please contact us.

Sincerely,

Bonnie Burton
District Clerk, PWSD#5

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

DEC 12 2014

Ms. Bonnie Burton
Camden County Public Water District No. 5
P.O. Box 556
Camdenton, MO 65020

Dear Ms. Burton:

The Missouri Department of Natural Resources' Water Protection Program received your application for renewal of Missouri State Operating Permit MO-0129038 on November 18, 2014. Your application has been assigned to me for review. Applications are processed in the order they are received. If you would like to meet in person or via conference call to discuss your application, please contact me by phone or e-mail.

Phone: (573) 751-1419
Email: angela.falls@dnr.mo.gov
Fax: (573) 522-9920

If you have any questions about this letter or the anticipated timing of the process, or would like to schedule a meeting to discuss the permit, please feel free to contact me by phone, e-mail, or by mail at Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM

Angela Falls
Domestic Wastewater Unit

AF/ab

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

Ms. Bonnie Burton
Cedar Heights Condominiums
P.O. Box 556
Camdenton, MO 65020

Dear Ms. Burton:

Enclosed please find a draft Missouri State Operating Permit MO-0129038 for Cedar Heights Condominiums WWTF. In accordance with Chapter 640.016.2 RSMo, the Department of Natural Resources is offering you this opportunity to review the draft permit for non-substantive drafting errors and any other technical comments prior to Public Notice. This draft permit is tentatively scheduled to be placed on Public Notice in January 2015.

Comments must be received by (January 8, 2015) to be considered. The comments must be in written form and can be e-mailed, faxed or mailed. If you would like to comment on the enclosed draft permit, please feel free to provide comments via e-mail at angela.falls@dnr.mo.gov, by fax at (573) 522-9920, or by mail at P.O. Box 176, Jefferson City, MO 65102. If you have any questions about this letter or would like to schedule a meeting to discuss the permit, please feel free to contact me by phone at (573) 751-1419.

Sincerely,

WATER PROTECTION PROGRAM

Angela Falls
Domestic Wastewater Unit

AF/ab

Enclosure

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0129038
Owner:	Camden County Public Water District No. 5
Address:	P.O. Box 556, Camdenton, MO 65020
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Cedar Heights Condominiums Wastewater Treatment Facility
Facility Address:	Cedar Heights Drive and Highway 54, Camdenton, MO 65020
Legal Description:	NW ¼, NW ¼, Sec. 34, T38N, R17W, Camden County
UTM Coordinates:	X= 518185, Y= 4205373
Receiving Stream:	Tributary to Lake of the Ozarks
First Classified Stream and ID:	Lake of the Ozarks (L2) (7205)
USGS Basin & Sub-watershed No.:	(10290110-0403)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 – POTW – SIC #4952
The use or operation of this facility shall be by or under the supervision of a Certified "C" Operator.
Flow equalization basin / extended aeration / chlorination / dechlorination / sludge holding / sludge disposal by contract hauler.
Design population equivalent is 847.
Design flow is 72,000 gallons per day.
Actual flow is 7,400 gallons per day.
Design sludge production is 15.2 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 621.250 RSMo, Section 640.013 RSMo and Section 644.051.6 of the Law.

Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

Expiration Date

John Madras, Director, Water Protection Program

OUTFALL #001	TABLE A FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **Effective Date** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L		30	20	once/month	composite**
Total Suspended Solids	mg/L		30	20	once/month	composite**
pH – Units	SU	***		***	once/month	grab
Ammonia as N (April 1 – Sept 30) (Oct 1 – March 31)	mg/L	5.1 11.7		1.3 2.2	once/month	grab
E. coli (Note 1)	#/100mL		630	126	once/month	grab
Total Residual Chlorine (Note 2)	µg/L	< 130		< 130	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MONTH 28, 20XX. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Dissolved Oxygen (Note 2)	mg/L	*		*	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MONTH 28, 20XX.						

* Monitoring requirement only.

** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 1 - Effluent limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean. The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday).

Note 2 - This permit contains a Total Residual Chlorine (TRC) limit.

(a) The Water Quality Based Effluent Limit for Total Residual Chlorine was calculated to be 17 µg/L (daily maximum limit) and 8 µg/L (monthly average limit). These limits are below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The Department has determined the current acceptable ML for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation.

(b) Disinfection is required during the recreational season from April 1 through October 31. Do not chlorinate during the non-recreational months and an actual analysis for TRC and Dissolved Oxygen (DO) is not necessary.

(c) Do not chemically de-chlorinate **if it is not needed to meet the limits in your permit.**

(d) If no chlorine was used in a given sampling period, an actual analysis for TRC and Dissolved Oxygen (DO) is not necessary. Simply report as "0 µg/L" for TRC and "NA" for DO.

TABLE B
INFLUENT MONITORING REQUIREMENTS

The facility is required to meet a removal efficiency of 85% or more as a monthly average. The monitoring requirements shall become effective on **Effective Date** and remain in effect until expiration of the permit. To determine removal efficiencies, the influent wastewater shall be monitored by the permittee as specified below:

SAMPLING LOCATION AND PARAMETER(S)	UNITS	MONITORING REQUIREMENTS	
		MEASUREMENT FREQUENCY	SAMPLE TYPE
Biochemical Oxygen Demand$_5$	mg/L	once/month	composite**
Total Suspended Solids	mg/L	once/month	composite**
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MONTH 28, 20XX.			

** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.

C. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Parts I, II, & III standard conditions dated August 1, 2014, May 1, 2013, and March 1, 2014, and hereby incorporated as though fully set forth herein.

D. SPECIAL CONDITIONS

1. This permit establishes final ammonia limitations based on Missouri's current Water Quality Standard. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register announcing of the final national recommended ambient water quality criteria for protection of aquatic life from the effects of ammonia in freshwater. The EPA's guidance, Final Aquatic Life Ambient Water Quality Criteria for Ammonia – Fresh Water 2013, is not a rule, nor automatically part of a state's water quality standards. States must adopt new ammonia criteria consistent with EPA's published ammonia criteria into their water quality standards that protect the designated uses of the water bodies. The Department of Natural Resources has initiated stakeholder discussions on how to best incorporate these new criteria into the State's rules. A date for when this rule change will occur has not been determined. Also, refer to Section VI of this permit's factsheet for further information including estimated future effluent limits for this facility. It is recommended the permittee view the Department's 2013 EPA criteria Factsheet located at http://dnr.mo.gov/pubs/pub2481.htm.

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
   (d) Incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) when the Director of the Water Protection Program determines that a pretreatment program is necessary due to any new introduction of pollutants into the Publically Owned Treatment Works or any substantial change in the volume or character of pollutants being introduced.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. All outfalls must be clearly marked in the field.

4. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.

D. SPECIAL CONDITIONS (continued)

5. Water Quality Standards
   (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
   (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
      (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
      (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
      (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
      (5) There shall be no significant human health hazard from incidental contact with the water;
      (6) There shall be no acute toxicity to livestock or wildlife watering;
      (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
      (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

6. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established by the Director in accordance with 40 CFR 122.44(f).
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

7. Report as no-discharge when a discharge does not occur during the report period.

8. Reporting of Non-Detects:
   (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
   (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
   (c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
   (d) The permittee shall use one-half of the detection limit for the non-detect result when calculating monthly averages.
   (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.

9. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

10. The permittee shall comply with any applicable requirements listed in 10 CSR 20-9, unless the facility has received written notification that the Department has approved a modification to the requirements. The monitoring frequencies contained in this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. If a modification of the monitoring frequencies listed in 10 CSR 20-9 is needed, the permittee shall submit a written request to the Department for review and, if deemed necessary, approval.

D. SPECIAL CONDITIONS (continued)

11. Bypasses are not authorized at this facility unless they meet the criteria in 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3)(i), and with Standard Condition Part I, Section B, subsection 2.b. Bypasses are to be reported to the Southwest Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. Blending, which is the practice of combining a partially-treated wastewater process stream with a fully-treated wastewater process stream prior to discharge, is not considered a form of bypass. If the permittee wishes to utilize blending, the permittee shall file an application to modify this permit to facilitate the inclusion of appropriate monitoring conditions.

12. The facility must be sufficiently secured to restrict entry by children, livestock and unauthorized persons as well as to protect the facility from vandalism.

13. At least one gate must be provided to access the wastewater treatment facility and provide for maintenance and mowing. The gate shall remain closed except when temporarily opened by; the permittee to access the facility, perform operational monitoring, sampling, maintenance, mowing, or for inspections by the Department. The gate shall be closed and locked when the facility is not staffed.

14. At least one (1) warning sign shall be placed on each side of the facility enclosure in such positions as to be clearly visible from all directions of approach. There shall also be one (1) sign placed for every five hundred feet (500') (150 m) of the perimeter fence. A sign shall also be placed on each gate. Minimum wording shall be SEWAGE TREATMENT FACILITY—KEEP OUT. Signs shall be made of durable materials with characters at least two inches (2") high and shall be securely fastened to the fence, equipment or other suitable locations.

15. An Operation and Maintenance (O & M) manual shall be maintained by the permittee and made available to the operator. The O & M manual shall include key operating procedures and a brief summary of the operation of the facility.

16. An all-weather access road shall be provided to the treatment facility.

17. The discharge from the wastewater treatment facility shall be conveyed to the receiving stream via a closed pipe or a paved or rip-rapped open channel. Sheet or meandering drainage is not acceptable. The outfall sewer shall be protected against the effects of floodwater, ice or other hazards as to reasonably insure its structural stability and freedom from stoppage. The outfall shall be maintained so that a sample of the effluent can be obtained at a point after the final treatment process and before the discharge mixes with the receiving waters.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0129038
CEDAR HEIGHTS CONDOMINIUMS WASTEWATER TREATMENT FACILITY

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for a Minor.

Part I – Facility Information

Facility Type: POTW - SIC #4952

Facility Description:
Flow equalization basin / extended aeration / chlorination / dechlorination / sludge holding / sludge disposal by contract hauler.

Application Date: 11/18/14
Expiration Date: 06/21/14

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
#001	0.11	Secondary	Domestic

Facility Performance History:
This facility was inspected on September 16, 2010 and was found to be non-compliant for the following violations: excessive sludge in the clarifier, failure to apply for a construction permit as required in the operating permit, caused pollution to an unnamed tributary to Lake of the Ozarks, receiving stream has significant area of stream bottom covered with sludge deposits, and failure to provide notification to the department for all bypasses. The facility was later placed under an enforcement action.
This facility was last inspected on June 7, 2012. The conditions of the facility at that time were found to be satisfactory. A review of monitoring reports submitted by the facility show no effluent limit exceedances in the past five years, but reports were missing for October 2010, December 2010, January 2011, August 2011, and December 2013.

Comments:
The WET Test requirement has been removed from this permit due to no reasonable potential for a water quality exceedance as this facility serves condominiums. Special conditions were updated to include reporting of Non-detects and bypass reporting requirements. Also, because the receiving stream was incorrectly listed as Lake of the Ozarks on the previous permit, the permit writer has corrected the receiving stream information to a tributary to Lake of the Ozarks in this permit.

Part II – Operator Certification Requirements

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], the permittee shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.020(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

Owned or operated by or for a

- ☐ - Municipalities
- ☐ - Public Sewer District
- ☐ - County
- ☒ - Public Water Supply Districts
- ☐ - Private Sewer Company regulated by the Public Service Commission
- ☐ - State agency
- ☐ - Federal agency

Each of the above entities are only applicable if they have a Population Equivalent greater than two hundred (200) or fifty (50) or more service connections.

This facility currently requires an operator with a C Certification Level. Please see **Appendix - Classification Worksheet.** Modifications made to the wastewater treatment facility may cause the classification to be modified.

Operator's Name: James Heppler
Certification Number: 5092
Certification Level: C

The listing of the operator above only signifies that staff drafting this operating permit have reviewed appropriate Department records and determined that the name listed on the operating permit application has the correct and applicable Certification Level.

Part III– Operational Monitoring

☐ - As per [10 CSR 20-9.010(4))], the facility is not required to conduct operational monitoring.
☒ - As per [10 CSR 20-9.010(4))], the facility is required to conduct operational monitoring.

Part IV – Receiving Stream Information

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(4)].

RECEIVING STREAM(S) TABLE: OUTFALL #001

WATER-BODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC	DISTANCE TO CLASSIFIED SEGMENT (MI)
Tributary to Lake of the Ozarks	NA	NA	General Criteria	(10290110-0403)	0.25
Lake of the Ozarks	L2	7205	IRR, LWW, AQL, HHP, WBC-A, SCR		

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life (AQL), Human Health Protection (HHP), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation – Category A (WBC-A), Whole Body Contact Recreation – Category B (WBC-B), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).

RECEIVING STREAM(S) LOW-FLOW VALUES:

RECEIVING STREAM (C, E, P, P1)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Tributary to Lake of the Ozarks (L2)	0.0	0.0	0.0

MIXING CONSIDERATIONS
Mixing Zone: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].
Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

RECEIVING STREAM MONITORING REQUIREMENTS:
No receiving water monitoring requirements recommended at this time.

Part V – Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:
As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

☐ - The facility discharges to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility, and has submitted an alternative evaluation.
☒ - The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:
A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

☐ - All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.
☐ - This is a New facility, backsliding does not apply.
☒ - Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44. Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. The WET Test requirement has been removed from this permit due to no reasonable potential for a water quality exceedance as this facility serves condominiums.

ANTIDEGRADATION:
In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(3)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

☒ - No degradation proposed and no further review necessary. Facility did not apply for authorization to increase pollutant loading or to add additional pollutants to their discharge.
☐ - This permit contains new and/or expanded discharge, please see **APPENDIX FOR ANTIDEGRADATION ANALYSIS.**

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:
As per [10 CSR 20-6.010(3)(B)], …An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

BIOSOLIDS & SEWAGE SLUDGE:
Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74, items WQ422 through WQ449.

☐ - Permittee land applies biosolids in accordance with Standard Conditions III and a Department approved biosolids management plan.
☒ - Permittee is not authorized to land apply biosolids. Sludge/biosolids are removed by contract hauler.

COMPLIANCE AND ENFORCEMENT:
Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

☒ - The facility is currently under enforcement action. The enforcement action is due to an inspection on September 16, 2010 where the facility was found to be non-compliant for the following violations: excessive sludge in the clarifier, failure to apply for a construction permit as required in the operating permit, caused pollution to an unnamed tributary to Lake of the Ozarks, receiving stream has significant area of stream bottom covered with sludge deposits, and failure to provide notification to the department for all bypasses.
☐ - The facility is not currently under Water Protection Program enforcement action.

PRETREATMENT PROGRAM:
The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:
- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

☐ - This permittee has an approved pretreatment program in accordance with the requirements of [40 CFR Part 403] and [10 CSR 20-6.100] and is expected to implement and enforce its approved program.
☒ - The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

REASONABLE POTENTIAL ANALYSIS (RPA):
Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(1)(iii)] if the permit writer determines that any given pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

☒ - A RPA was conducted on appropriate parameters. Please see **APPENDIX – RPA RESULTS.**
☐ - A RPA was not conducted for this facility.

REMOVAL EFFICIENCY:
Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD_5) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

☒ - Secondary Treatment is 85% removal [40 CFR Part 133.102(a)(3) & (b)(3)].
☐ - Equivalent to Secondary Treatment is 65% removal [40 CFR Part 133.105(a)(3) & (b)(3)].

SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):
Sanitary Sewer Overflows (SSOs) are defined as untreated sewage releases and are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSOs result from a variety of causes including blockages, line breaks, and sewer defects that can either allow wastewater to backup within the collection system during dry weather conditions or allow excess stormwater and groundwater to enter and overload the collection system during wet weather conditions. SSOs can also result from lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs include overflows out of manholes, cleanouts, broken pipes, and other into waters of the state and onto city streets, sidewalks, and other terrestrial locations.

Inflow and Infiltration (I&I) is defined as unwanted intrusion of stormwater or groundwater into a collection system. This can occur from points of direct connection such as sump pumps, roof drain downspouts, foundation drains, and storm drain cross-connections or through cracks, holes, joint failures, faulty line connections, damaged manholes, and other openings in the collection system itself. I&I results from a variety of causes including line breaks, improperly sealed connections, cracks caused by soil erosion/settling, penetration of vegetative roots, and other sewer defects. In addition, excess stormwater and groundwater entering the collection system from line breaks and sewer defects have the potential to negatively impact the treatment facility.

Missouri RSMo §644.026.1.(13) mandates that the Department issue permits for discharges of water contaminants into the waters of this state, and also for the operation of sewer systems. Such permit conditions shall ensure compliance with all requirements as established by sections 644.006 to 644.141. Standard Conditions Part I, referenced in the permit, contains provisions requiring proper operation and maintenance of all facilities and systems of treatment and control. Missouri RSMo §644.026.1.(15) instructs the Department to require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities. To ensure that public health and the environment are protected, any noncompliance which may endanger public health or the environment must be reported to the Department within 24 hours of the time the permittee becomes aware of the noncompliance. Standard Conditions Part I, referenced in the permit, contains the reporting requirements for the permittee when bypasses and upsets occur. The permit also contains requirements for permittees to develop and implement a program for maintenance and repair of the collection system. The permit requires that the permittee submit an annual report to the Department for the previous calendar year that contains a list of all SSOs and building backups (locations, features of collection system where the SSO/building backup occurred, volumes, durations, receiving stream, causes, mitigation efforts, and actions to prevent reoccurrences), a summary of efforts taken by the permittee to locate and eliminate sources of excess I & I, a summary of general maintenance and repairs to the collection system, and a summary of any planned maintenance and repairs to the collection system for the upcoming calendar year.

☐ - At this time, the Department recommends the US EPA's Guide for Evaluating Capacity, Management, Operation and Maintenance (CMOM) Programs At Sanitary Sewer Collection Systems (Document # EPA 305-B-05-002). The CMOM identifies some of the criteria used by the EPA to evaluate a collection system's management, operation, and maintenance and was intended for use by the EPA, state, regulated community, and/or third party entities. The CMOM is applicable to small, medium, and large systems; both public and privately owned; and both regional and satellite collection systems. The CMOM does not substitute for the Clean Water Act, the Missouri Clean Water Law, and both federal and state regulations, as it is not a regulation.
☒ - This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

SCHEDULE OF COMPLIANCE (SOC):
Per 644.051.4 RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. A SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section 502(17) of the Clean Water Act, and 40 CFR §122.2. For new effluent limitations, the permit includes interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR § 122.47(a)(1) and 10 CSR 20-7.031(11), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, a SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit that was not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance to Permit Writers in developing SOCs, and attain a greater level of consistency, on October 25, 2012 the Department issued a policy on development of SOCs. This policy provides guidance to Permit Writers on the standard time frames for schedules for common activities, and guidance on factors that may modify the length of the schedule such as a cost analysis.

☐ - The facility has been given a schedule of compliance to meet final effluent limits.
☒ - This permit does not contain a SOC.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities: (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of stormwater discharges.

☐ - A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.
☒ - At this time, the permittee is not required to develop and implement a SWPPP.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

☐ - This operating permit is drafted under premises of a petition for variance.
☒ - This operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$Ce = \frac{(Qe+Qs)C-(Cs\times Qs)}{(Qe)}$$ (EPA/505/2-90-001, Section 4.5.5)

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Number of Samples "n":
Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used

WLA MODELING:
There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

☐ - A WLA study including model was submitted to the Department.
☒ - A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:
Per [10 CSR 20-7.031(4)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:
A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

☐ - The permittee is required to conduct WET test for this facility.
☒ - At this time, the permittee is not required to conduct WET test for this facility

40 CFR 122.41(M) - BYPASSES:
The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from "bypassing" untreated or partially treated sewage (wastewater) beyond the headworks. A bypass is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-7.015(9)(G) states a bypass means the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending, to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri's Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

☐ - Bypasses occur or have occurred at this facility.
☒ - This facility does not anticipate bypassing.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):
Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

☐ - This facility discharges to a 303(d) listed stream.
☐ - This facility discharges to a stream with an EPA approved TMDL.
☒ - This facility does not discharge to a 303(d) listed stream.

Part VI –2013 Water Quality Criteria for Ammonia

Upcoming changes to the Water Quality Standard for ammonia may require significant upgrades to wastewater treatment facilities.

On August 22, 2013, the U.S. Environmental Protection Agency (EPA) finalized new water quality criteria for ammonia, based on toxicity studies of mussels and gill breathing snails. Missouri's current ammonia criteria are based on toxicity testing of several species, but did not include data from mussels or gill breathing snails. Missouri is home to 69 of North America's mussel species, which are spread across the state. According to the Missouri Department of Conservation nearly two-thirds of the mussel species in Missouri are considered to be "of conservation concern". Nine species are listed as federally endangered, with an additional species currently proposed as endangered and another species proposed as threatened.

The adult forms of mussels that are seen in rivers, lakes, and streams are sensitive to pollutants because they are sedentary filter feeders. They vacuum up many pollutants with the food they bring in and cannot escape to new habitats, so they can accumulate toxins in their bodies and die. But very young mussels, called glochidia, are exceptionally sensitive to ammonia in water. As a result of a citizen suit, the EPA was compelled to conduct toxicity testing and develop ammonia water quality criteria that would be protective if young mussels may be present in a waterbody. These new criteria will apply to any discharge with ammonia levels that may pose a reasonable potential to violate the standards. Nearly all discharging domestic wastewater treatment facilities (cities, subdivisions, mobile home parks, etc.), as well as certain industrial and stormwater dischargers with ammonia in their effluent, will be affected by this change in the regulations.

When new water quality criteria are established by the EPA, states must adopt them into their regulations in order to keep their authorization to issue permits under the National Pollutant Discharge Elimination System (NPDES). States are required to review their water quality standards every three years, and if new criteria have been developed they must be adopted. States may be more protective than the Federal requirements, but not less protective. Missouri does not have the resources to conduct the studies necessary for developing new water quality standards, and therefore our standards mirror those developed by the EPA; however, we will utilize any available flexibility based on actual species of mussels that are native to Missouri and their sensitivity to ammonia.

Many treatment facilities in Missouri are currently scheduled to be upgraded to comply with the current water quality standards. But these new ammonia standards may require a different treatment technology than the one being considered by the permittee. It is important that permittees discuss any new and upcoming requirements with their consulting engineers to ensure that their treatment systems are capable of complying with the new requirements. The Department encourages permittees to construct treatment technologies that can attain effluent quality that supports the EPA ammonia criteria.

Ammonia toxicity varies by temperature and by pH of the water. Assuming a stable pH value, but taking into account winter and summer temperatures, Missouri includes two seasons of ammonia effluent limitations. Current effluent limitations in this permit are:

Summer – 5.1 mg/L daily maximum, 1.3 mg/L monthly average.
Winter – 11.7 mg/L daily maximum, 2.2 mg/L monthly average.

Under the new EPA criteria, where mussels of the family Unionidae are present or expected to be present, the estimated effluent limitations for a facility in a location such as this that discharges to a receiving stream with no mixing will be:

Summer – 1.7 mg/L daily maximum, 0.6 mg/L monthly average.
Winter – 5.6 mg/L daily maximum, 2.1 mg/L monthly average.

Actual effluent limits will depend in part on the actual performance of the facility.

Operating permits for facilities in Missouri must be written based on current statutes and regulations. Therefore permits will be written with the existing effluent limitations until the new standards are adopted. To aid permittees in decision making, an advisory will be added to permit Fact Sheets notifying permittees of the expected effluent limitations for ammonia. When setting schedules of compliance for ammonia effluent limitations, consideration will be given to facilities that have recently constructed upgraded facilities to meet the current ammonia limitations.

For more information on this topic feel free to contact the Missouri Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, Operating Permits Section at (573) 751-1300.

Part VII – Effluent Limits Determination

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:
As per Missouri's Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

- Missouri or Mississippi River [10 CSR 20-7.015(2)] ☐
- Lake or Reservoir [10 CSR 20-7.015(3)] ☒
- Losing [10 CSR 20-7.015(4)] ☐
- Metropolitan No-Discharge [10 CSR 20-7.015(5)] ☐
- Special Stream [10 CSR 20-7.015(6)] ☐
- Subsurface Water [10 CSR 20-7.015(7)] ☐
- All Other Waters [10 CSR 20-7.015(8)] ☒

OUTFALL #001 – MAIN FACILITY OUTFALL
EFFLUENT LIMITATIONS TABLE:

PARAMETER	Unit	Basis for Limits	Daily Maximum	Weekly Average	Monthly Average	Modified	Previous Permit Limitations
Flow	MGD	1	*		*	NO	*/*
BOD_5	mg/L	1		30	20	NO	30/20
TSS	mg/L	1		30	20	NO	30/20
pH	SU	1		6.5 – 9.0		NO	6.5-9.0
Ammonia as N (April 1 – Sept 30)	mg/L	2, 3	5.1		1.3	YES	12.1/4.6
Ammonia as N (Oct 1 – March 31)	mg/L	2, 3	11.7		2.2	YES	12.1/4.6
Dissolved Oxygen (DO)**	mg/L	7	*		*	NO	*/*
Escherichia coli	***	1, 3		630	126	NO	630/126
Chlorine, Total Residual	µg/L	1, 3	< 130		< 130	NO	< 130/ < 130

* - Monitoring requirement only.
** - For DO the Daily Maximum is a Daily Minimum and the Monthly Average is a Monthly Average Minimum.
*** - #/100mL; the Monthly Average for *E. coli* is a geometric mean.

Basis for Limitations Codes:
1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review
5. Antidegradation Policy
6. Water Quality Model
7. Best Professional Judgment
8. TMDL or Permit in lieu of TMDL
9. WET Test Policy

OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow**. In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.

- **Biochemical Oxygen Demand (BOD_5).** Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Effluent Limits Determination.**

- **Total Suspended Solids (TSS).** Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Effluent Limits Determination.**

- **pH**. 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.

- **Total Ammonia Nitrogen**. Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(5)(B)7.C. & Table B3] default pH 7.8 SU. No mixing considerations allowed; therefore, WLA = appropriate criterion.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: April 1 – September 30
Chronic WLA: C_e = 1.5 mg/L

Acute WLA: C_e = 12.1 mg/L

LTA_c = 1.5 mg/L (0.646) = 0.97 mg/L [CV = 1.09, 99th Percentile, 30 day avg.]
LTA_a = 12.1 mg/L (0.189) = 2.29 mg/L [CV = 1.09, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 0.97 mg/L (5.28) = 5.1 mg/L [CV = 1.09, 99th Percentile]
AML = 0.97 mg/L (1.36) = 1.3 mg/L [CV = 1.09, 95th Percentile, n =30]

Winter: October 1 – March 31
Chronic WLA: C_e = 3.1 mg/L

Acute WLA: C_e = 12.1 mg/L

LTA_c = 3.1 mg/L (0.357) = 1.11 mg/L [CV = 2.89, 99th Percentile, 30 day avg.]
LTA_a = 12.1 mg/L (0.094) = 1.14 mg/L [CV = 2.89, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 1.11 mg/L (10.60) = 11.7 mg/L [CV = 2.89, 99th Percentile]
AML = 1.44 mg/L (2.00) = 2.2 mg/L [CV = 2.89, 95th Percentile, n =30]

- **Dissolved Oxygen**. Monitoring only included to determine if the facility has the reasonable potential to cause a violation of water quality standards in the receiving stream. Dechlorination chemicals have the potential to reduce dissolved oxygen concentrations in the discharge, resulting in an anoxic discharge, unless carefully controlled. Data will be reviewed upon renewal to determine if an effluent limitation is necessary to protect water quality.

- ***Escherichia coli (E. coli)***. Monthly average of 126 per 100 mL as a geometric mean and Weekly Average of 630 per 100 mL as a geometric mean during the recreational season (April 1 – October 31), to protect Whole Body Contact Recreation (A) designated use of the receiving stream, as per 10 CSR 20-7.031(5)(C). An effluent limit for both monthly average and weekly average is required by 40 CFR 122.45(d).

- **Total Residual Chlorine (TRC)**. Warm-water Protection of Aquatic Life CCC = 10 µg/L, CMC = 19 µg/L [10 CSR 20-7.031, Table A]. No mixing considerations allowed; therefore, WLA = appropriate criterion.

Chronic WLA: C_e = 10 µg/L

Acute WLA: C_e = 19 µg/L

LTA_c = 10 (0.527) = 5.3 µg/L [CV = 0.6, 99th Percentile]
LTA_a = 19 (0.321) = 6.1 µg/L [CV = 0.6, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 5.3 (3.11) = **17** µg/L [CV = 0.6, 99th Percentile]
AML = 5.3 (1.55) = **8** µg/L [CV = 0.6, 95th Percentile, n = 4]

The Water Quality Based Effluent Limit for Total Residual Chlorine was calculated to be 17 µg/L (daily maximum limit) and 8 µg/L (monthly average limit). These limits are below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The Department has determined the current acceptable ML for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation.

Minimum Sampling and Reporting Frequency Requirements.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/month	once/month
BOD_5	once/month	once/month
TSS	once/month	once/month
pH	once/month	once/month
Ammonia as N	once/month	once/month
E. coli	once/month	once/month
Total Residual Chlorine	once/month	once/month
Dissolved Oxygen	once/month	once/month

Sampling Frequency Justification:
Sampling and reporting frequency was retained from previous permit.

Sampling Type Justification:
As per 10 CSR 20-7.015, BOD_5, TSS, and WET test samples collected for mechanical plants shall be a 24 hour modified composite sample. Due to the small size of this facility this composite sample shall be made up from a minimum of four grab samples collected within a 24-hour period with a minimum of two hours between each grab sample. Grab samples, however, must be collected for pH, Ammonia as N, *E. coli*, and TRC. This is due to the holding time restriction for *E. coli*, the volatility of Ammonia and TRC, and the fact that pH and DO cannot be preserved and must be sampled in the field. As Ammonia samples must be immediately preserved, these samples are to be collected as a grab.

Part VIII – Cost Analysis for Compliance

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a "finding of affordability" on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

☐ - The Department is required to determine "findings of affordability" because the permit applies to a combined or separate sanitary sewer system for a publically-owned treatment works.
☒ - The Department is not required to determine Cost Analysis for Compliance because the permit contains no new conditions or requirements that convey a new cost to the facility.

Part IX – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:
The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than 4 years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

PUBLIC NOTICE:
The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing. The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit. For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

☒ - The Public Notice period for this operating permit is tentatively scheduled to begin in January or is in process.

DATE OF FACT SHEET: DECEMBER 15, 2014

COMPLETED BY:

ANGELA FALLS, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - DOMESTIC WASTEWATER UNIT
(573) 751-1419
angela.falls@dnr.mo.gov

Appendices

APPENDIX - CLASSIFICATION WORKSHEET:

ITEM	POINTS POSSIBLE	POINTS ASSIGNED
Maximum Population Equivalent (P.E.) served (Max 10 pts.)	1 pt./10,000 PE or major fraction thereof.	0
Maximum: 10 pt Design Flow (avg. day) or peak month; use greater (Max 10 pts.)	1 pt. / MGD or major fraction thereof.	0
EFFLUENT DISCHARGE RECEIVING WATER SENSITIVITY:		
Missouri or Mississippi River	0	
All other stream discharges except to losing streams and stream reaches supporting whole body contact	1	
Discharge to lake or reservoir outside of designated whole body contact recreational area	2	
Discharge to losing stream, or stream, lake or reservoir area supporting whole body contact recreation	3	3
PRELIMINARY TREATMENT - Headworks		
Screening and/or comminution	3	
Grit removal	3	
Plant pumping of main flow (lift station at the headworks)	3	
PRIMARY TREATMENT		
Primary clarifiers	5	
Combined sedimentation/digestion	5	
Chemical addition (except chlorine, enzymes)	4	
REQUIRED LABORATORY CONTROL – performed by plant personnel (highest level only)		
Push – button or visual methods for simple test such as pH, Settleable solids	3	
Additional procedures such as DO, COD, BOD, titrations, solids, volatile content	5	5
More advanced determinations such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc.	7	
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph	10	
ALTERNATIVE FATE OF EFFLUENT		
Direct reuse or recycle of effluent	6	
Land Disposal – low rate	3	
High rate	5	
Overland flow	4	
Total from page **ONE (1)**	—	8

APPENDIX - CLASSIFICATION WORKSHEET (CONTINUED):

ITEM	POINTS POSSIBLE	POINTS ASSIGNED
VARIATION IN RAW WASTE (highest level only) (DMR exceedances and Design Flow exceedances)		
Variation do not exceed those normally or typically expected	0	0
Recurring deviations or excessive variations of 100 to 200 % in strength and/or flow	2	
Recurring deviations or excessive variations of more than 200 % in strength and/or flow	4	
Raw wastes subject to toxic waste discharge	6	
SECONDARY TREATMENT		
Trickling filter and other fixed film media with secondary clarifiers	10	
Activated sludge with secondary clarifiers (including extended aeration and oxidation ditches)	15	15
Stabilization ponds without aeration	5	
Aerated lagoon	8	
Advanced Waste Treatment Polishing Pond	2	
Chemical/physical – without secondary	15	
Chemical/physical – following secondary	10	
Biological or chemical/biological	12	
Carbon regeneration	4	
DISINFECTION		
Chlorination or comparable	5	5
Dechlorination	2	2
On-site generation of disinfectant (except UV light)	5	
UV light	4	
SOLIDS HANDLING - SLUDGE		
Solids Handling Thickening	5	5
Anaerobic digestion	10	
Aerobic digestion	6	
Evaporative sludge drying	2	
Mechanical dewatering	8	
Solids reduction (incineration, wet oxidation)	12	
Land application	6	
Total from page **TWO (2)**	---	22
Total from page **ONE (1)**	---	8
Grand Total	---	30

☐ - A: 71 points and greater
☐ - B: 51 points – 70 points
☒ - C: 26 points – 50 points
☐ - D: 0 points – 25 points

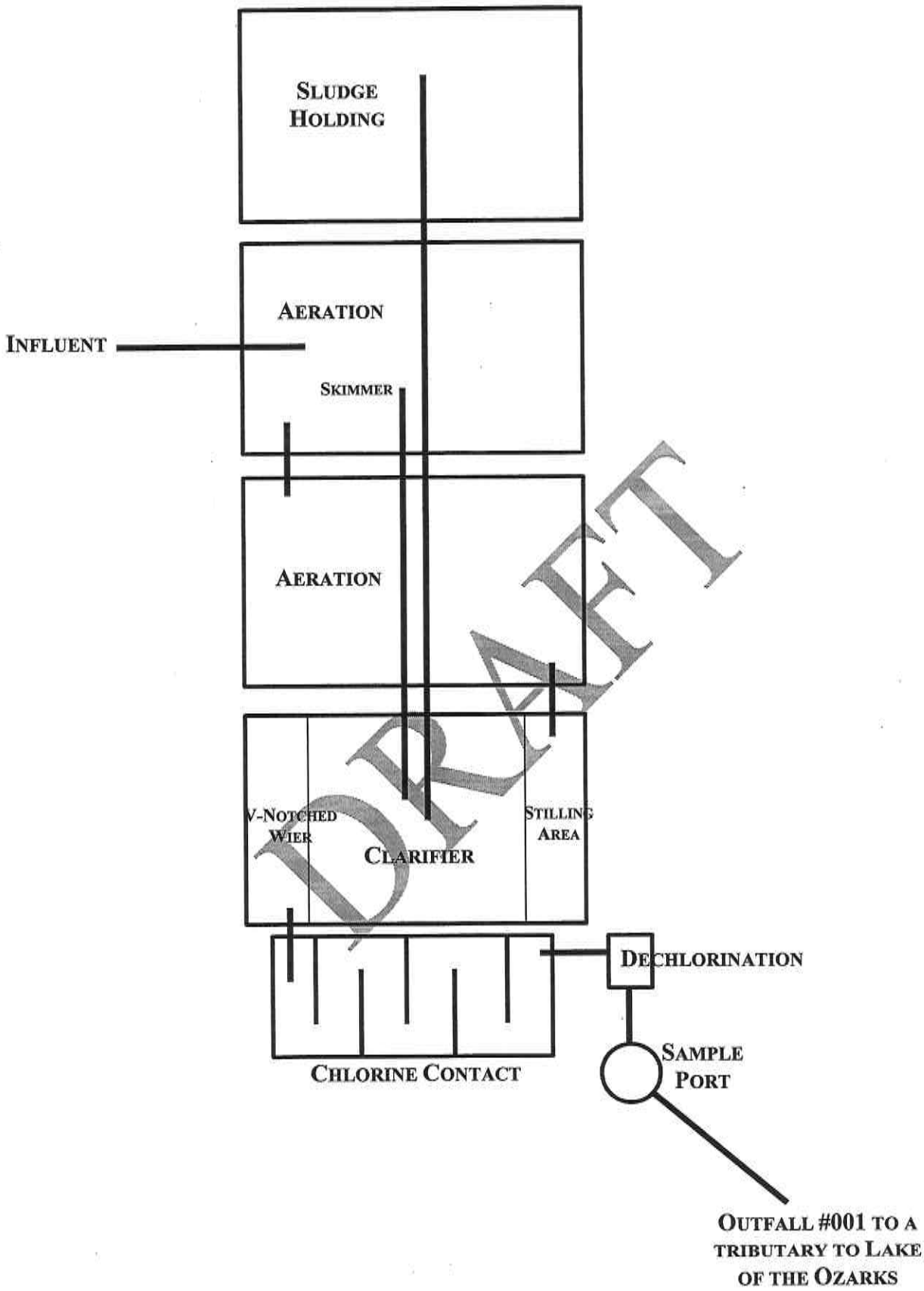
APPENDIX – RPA RESULTS:

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	10.59	1.5	10.59	28.00	3.37/0	1.09	3.14	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	192.63	3.1	192.63	25.00	25/0.033	2.89	7.71	YES

N/A – Not Applicable
* - Units are (µg/L) unless otherwise noted.
** - If the number of samples is 10 or greater, then the CV value must be used in the WQBEL for the applicable constituent. If the number of samples is < 10, then the default CV value must be used in the WQBEL for the applicable constituent.
*** - Coefficient of Variation (CV) is calculated by dividing the Standard Deviation of the sample set by the Mean of the same sample set.
RWC – Receiving Water Concentration. It is the concentration of a toxicant or the parameter toxicity in the receiving water after mixing (if applicable).
n – Is the number of samples.
MF – Multiplying Factor. 99% Confidence Level and 99% Probability Basis.
RP – Reasonable Potential. It is where an effluent is projected or calculated to cause an excursion above a water quality standard based on a number of factors including, as a minimum, the four factors listed in 40 CFR 122.44(d)(1)(ii).

Reasonable Potential Analysis is conducted as per (TSD, EPA/505/2-90-001, Section 3.3.2). A more detailed version including calculations of this RPA is available upon request.

APPENDIX – PROCESS FLOW DIAGRAM:



Cedar Heights Condominiums
MO0129038, Camden County

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

JAN 27 2015

Camden County PWSD No. 5
P.O. Box 556
Camdenton, MO 65020

Subject: Public Notice for Proposed State Operating Permit for Cedar Heights Condominiums

Dear Permittee:

The enclosed public notice pertains to your proposed State Operating Permit.

Federal regulations required issuance of this public notice to inform interested persons of the agency's intent to issue an operating permit to discharge, and allows a 30-day period for comment. This public notice package should be posted on a bulletin board at your place of business. If response to the public notice indicates significant interest, a public hearing or adjudicatory hearing may be held. Based on comments received, or the results of a hearing, the proposed permit will be modified and issued or possibly denied.

Any questions you may have should be sent to the address indicated on the enclosed public notice.

Sincerely,

WATER PROTECTION PROGRAM

John Madras

John Madras
Director

JM/nb

Enclosure

Recycled Paper

Missouri Department of Natural Resources

PUBLIC NOTICE

DRAFT MISSOURI STATE OPERATING PERMIT

DATE: January 30, 2015

In accordance with the state Clean Water Law, Chapter 644, RSMo, Missouri Clean Water Commission regulation 10 CSR 20-6.010, and the Federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state, or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed permit conditions are invited to submit them in writing to: Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, ATTN: NPDES Permits and Engineering Section/Permit Comments. **Please include the permit number in all comment letters.**

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Missouri Clean Water Commission, (see Curdt v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be received or postmarked by 5:00 p.m. on March 02, 2015. MDNR will consider all written comments, including e-mails, faxes and letters, in the formulation of all final determinations regarding the applications. E-mail comments will be accepted at the following address: publicnoticenpdes@dnr.mo.gov. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at MDNR's Website: http://www.dnr.mo.gov/env/wpp/permits/permit-pn.htm, or at the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0129038
Owner:	Camden County Public Water District No. 5
Address:	P.O. Box 556, Camdenton, MO 65020
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Cedar Heights Condominiums Wastewater Treatment Facility
Facility Address:	Northwest of Cedar Heights Dr. and Hwy 54 intersection, Camdenton, MO 65020
Legal Description:	NW ¼, NW ¼, Sec. 34, T38N, R17W, Camden County
UTM Coordinates:	X= 518185, Y= 4205373
Receiving Stream:	Tributary to Lake of the Ozarks
First Classified Stream and ID:	Lake of the Ozarks (L2) (7205)
USGS Basin & Sub-watershed No.:	(10290110-0403)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 – POTW – SIC #4952

The use or operation of this facility shall be by or under the supervision of a Certified "C" Operator.
Flow equalization basin / extended aeration / chlorination / dechlorination / sludge holding tank / sludge disposal by contract hauler.
Design population equivalent is 847.
Design flow is 72,000 gallons per day.
Actual flow is 7,400 gallons per day.
Design sludge production is 15.2 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 621.250 RSMo. Section 640.013 RSMo and Section 644.051.6 of the Law.

Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

Expiration Date

John Madras, Director, Water Protection Program

OUTFALL #001	TABLE A FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **Effective Date** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L		30	20	once/month	composite**
Total Suspended Solids	mg/L		30	20	once/month	composite**
pH – Units	SU	***		***	once/month	grab
Ammonia as N (April 1 – Sept 30) (Oct 1 – March 31)	mg/L	5.1 11.7		1.3 2.2	once/month	grab
E. coli (Note 1)	#/100mL		630	126	once/month	grab
Total Residual Chlorine (Note 2)	µg/L	< 130		< 130	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MONTH 28, 20XX. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Dissolved Oxygen (Note 2)	mg/L	*		*	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MONTH 28, 20XX.

* Monitoring requirement only.
** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.
*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 1 - Effluent limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean. The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday).

Note 2 - This permit contains a Total Residual Chlorine (TRC) limit.

(a) The Water Quality Based Effluent Limit for Total Residual Chlorine was calculated to be 17 µg/L (daily maximum limit) and 8 µg/L (monthly average limit). These limits are below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The Department has determined the current acceptable ML for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation.

(b) Disinfection is required during the recreational season from April 1 through October 31. Do not chlorinate during the non-recreational months and an actual analysis for TRC and Dissolved Oxygen (DO) is not necessary.

(c) Do not chemically de-chlorinate **if it is not needed to meet the limits in your permit.**

(d) If no chlorine was used in a given sampling period, an actual analysis for TRC and Dissolved Oxygen (DO) is not necessary. Simply report as "0 µg/L" for TRC and "NA" for DO.

TABLE B
INFLUENT MONITORING REQUIREMENTS

The facility is required to meet a removal efficiency of 85% or more as a monthly average. The monitoring requirements shall become effective on **Effective Date** and remain in effect until expiration of the permit. To determine removal efficiencies, the influent wastewater shall be monitored by the permittee as specified below:

SAMPLING LOCATION AND PARAMETER(S)	UNITS	MONITORING REQUIREMENTS	
		MEASUREMENT FREQUENCY	SAMPLE TYPE
Biochemical Oxygen Demand$_5$	mg/L	once/month	composite**
Total Suspended Solids	mg/L	once/month	composite**

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MONTH 28, 20XX.

** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.

C. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Parts I, II, & III standard conditions dated August 1, 2014, May 1, 2013, and March 1, 2014, and hereby incorporated as though fully set forth herein.

D. SPECIAL CONDITIONS

1. This permit establishes final ammonia limitations based on Missouri's current Water Quality Standard. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register announcing of the final national recommended ambient water quality criteria for protection of aquatic life from the effects of ammonia in freshwater. The EPA's guidance, Final Aquatic Life Ambient Water Quality Criteria for Ammonia – Fresh Water 2013, is not a rule, nor automatically part of a state's water quality standards. States must adopt new ammonia criteria consistent with EPA's published ammonia criteria into their water quality standards that protect the designated uses of the water bodies. The Department of Natural Resources has initiated stakeholder discussions on how to best incorporate these new criteria into the State's rules. A date for when this rule change will occur has not been determined. Also, refer to Section VI of this permit's factsheet for further information including estimated future effluent limits for this facility. It is recommended the permittee view the Department's 2013 EPA criteria Factsheet located at http://dnr.mo.gov/pubs/pub2481.htm.

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
   (d) Incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) when the Director of the Water Protection Program determines that a pretreatment program is necessary due to any new introduction of pollutants into the Publically Owned Treatment Works or any substantial change in the volume or character of pollutants being introduced.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. All outfalls must be clearly marked in the field.

4. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.

D. SPECIAL CONDITIONS (continued)

5. Water Quality Standards
   (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
   (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
      (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
      (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
      (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
      (5) There shall be no significant human health hazard from incidental contact with the water;
      (6) There shall be no acute toxicity to livestock or wildlife watering;
      (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
      (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

6. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established by the Director in accordance with 40 CFR 122.44(f).
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

7. Report as no-discharge when a discharge does not occur during the report period.

8. Reporting of Non-Detects:
   (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
   (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
   (c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
   (d) The permittee shall use one-half of the detection limit for the non-detect result when calculating monthly averages.
   (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.

9. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

10. The permittee shall comply with any applicable requirements listed in 10 CSR 20-9, unless the facility has received written notification that the Department has approved a modification to the requirements. The monitoring frequencies contained in this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. If a modification of the monitoring frequencies listed in 10 CSR 20-9 is needed, the permittee shall submit a written request to the Department for review and, if deemed necessary, approval.

D. SPECIAL CONDITIONS (continued)

11. Bypasses are not authorized at this facility unless they meet the criteria in 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3)(i), and with Standard Condition Part I, Section B, subsection 2.b. Bypasses are to be reported to the Southwest Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. Blending, which is the practice of combining a partially-treated wastewater process stream with a fully-treated wastewater process stream prior to discharge, is not considered a form of bypass. If the permittee wishes to utilize blending, the permittee shall file an application to modify this permit to facilitate the inclusion of appropriate monitoring conditions.

12. The facility must be sufficiently secured to restrict entry by children, livestock and unauthorized persons as well as to protect the facility from vandalism.

13. At least one gate must be provided to access the wastewater treatment facility and provide for maintenance and mowing. The gate shall remain closed except when temporarily opened by; the permittee to access the facility, perform operational monitoring, sampling, maintenance, mowing, or for inspections by the Department. The gate shall be closed and locked when the facility is not staffed.

14. At least one (1) warning sign shall be placed on each side of the facility enclosure in such positions as to be clearly visible from all directions of approach. There shall also be one (1) sign placed for every five hundred feet (500') (150 m) of the perimeter fence. A sign shall also be placed on each gate. Minimum wording shall be SEWAGE TREATMENT FACILITY—KEEP OUT. Signs shall be made of durable materials with characters at least two inches (2") high and shall be securely fastened to the fence, equipment or other suitable locations.

15. An Operation and Maintenance (O & M) manual shall be maintained by the permittee and made available to the operator. The O & M manual shall include key operating procedures and a brief summary of the operation of the facility.

16. An all-weather access road shall be provided to the treatment facility.

17. The discharge from the wastewater treatment facility shall be conveyed to the receiving stream via a closed pipe or a paved or rip-rapped open channel. Sheet or meandering drainage is not acceptable. The outfall sewer shall be protected against the effects of floodwater, ice or other hazards as to reasonably insure its structural stability and freedom from stoppage. The outfall shall be maintained so that a sample of the effluent can be obtained at a point after the final treatment process and before the discharge mixes with the receiving waters.

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
dnr.mo.gov

February 11, 2015

Camden County PWSD No. 5
Cedar Heights Condominiums
P.O. Box 556
Camdenton, MO 65020

RE: MISSOURI STATE OPERATING PERMIT # MO0129038

Dear Permittee:

In reviewing the file for your wastewater or storm water facility I note that you have failed to submit the Annual Discharge Monitoring Report (DMR) for **the month of December 2014** required by your Missouri State Operating Permit (MSOP). Your report is due in our office no later than the 28th day of the month following the report period.

A completed monitoring report with the required information should be submitted to this agency within five (5) days from the date of this letter or in writing within 15 calendar days of receipt of this letter, identify the reasons for the violations and corrective actions you have taken or will take.

The Department of Natural Resources (Department) monitors and tracks instances of noncompliance related to DMRs. All facilities that are significantly non-compliant are reported to the Environmental Protection Agency and the Department then takes action to ensure their return to compliance. It is the policy of this office to require facilities with a history of noncompliance to sign a Schedule of Compliance that outlines corrective measures to be taken within a specified time period. You are encouraged to take appropriate steps to eliminate the current violation.

If you have questions please contact me by calling 417-891-4300 or via mail at Southwest Regional Office, 2040 W. Woodland, Springfield, Missouri 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE

Lana Cypret

Lana Cypret
Technical Assistant

LGC/ryc

c: Ms. Joan Doerhoff, Water Pollution Control Branch, Enforcement
Mr. Jake Waters, Southwest Regional Office

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STATE OF MISSOURI

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

March 6, 2015

Camden Co Pwsd # 5 - Clearwater Condos
Kristina Henry
Po Box 556
Camdenton, MO 65020-0000

PWS ID# MO3302557

Important Compliance Information

RE: **2014 Consumer Confidence Report**

Dear Ms. Henry:

The 2014 Consumer Confidence Report (CCR) for your water system will be available by April 1, 2015. The Public Drinking Water Branch (PDWB) will develop a "skeleton" 2014 CCR for community water systems that will be hosted on the department's website. The CCR and instructions will be emailed to the CCR Contact listed below on file for your water system.

CCR Contact Person: BURTON, BONNIE
CCR Contact Email: bonniejburton@gmail.com

If there is no CCR Contact person and/or email listed above, or the information needs to be updated, please contact us by phone, at (573) 526-3832 or by email, at CCR@dnr.mo.gov.

To obtain access to the 2014 CCR for your system and instructions, including the newly-revised Certification form, please visit our website at http://dnr.mo.gov/ccr/ccr.htm.

A seven (7) minute YouTube video is available to explain the electronic CCR (eCCR) process and distribution method at: https://www.youtube.com/watch?v=eMvi4O5HoFs.

If you do not have internet access, you may request a paper copy of the CCR packet by calling the CCR Coordinator at (573) 526-3832.

Sincerely,

WATER PROTECTION PROGRAM

Matt Kliethermes

Matt Kliethermes
Environmental Specialist
Public Drinking Water Branch

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

FORM S – SECTION 1. DOMESTIC SLUDGE REPORTING

GENERAL INFORMATION

REPORTING PERIOD: (YEAR)

2015

FACILITY NAME	CITY NAME
Clearwater Condominiums	Camdenton
PERMIT NUMBER	COUNTY NAME
MO-0126985	Camden

INSTRUCTIONS: See attached instruction sheet for directions.

1. Sludge Production, including sludge received from others:

ACTUAL DRY TONS/YEAR	ACTUAL POPULATION EQUIVALENT
0	755

2. Sludge Treatment

- ☐ Anaerobic Digester
- ☑ Aerobic Digester
- ☐ Composting
- ☐ Storage Tank
- ☐ Air or Heat Drying
- ☐ Lime Stabilization
- ☐ Other, Describe: _____

3. Sludge Use or Disposal: Complete the rest of this form only for the sections applicable to your method of sludge and biosolids use or disposal.

X All Permittees	Complete Section 1
☐ Land Application (LA)	Complete Sections 2 and 3
☐ Contract Hauler (CH) >150 PE	Complete Sections 2 and 4
☐ Contract Hauler (CH) <150 PE	Complete Section 4
☐ Hauled to another Treatment Facility (HT)	Complete Section 4
☐ Solid Waste Landfill (LF)	Complete Section 4
☐ Sludge Disposal Lagoon (SD)	Complete Section 5
☐ Incineration (IN)	Complete Section 6
☐ Sludge Hauled to Incinerator (IO)	Complete Section 6

4. Certification: I certify under penalty of law that the information contained in this report and attachments are true and correct. This determination has been made under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information used to determine these requirements have been met. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment.

NAME (PRINT OR TYPE)	OFFICIAL TITLE	
SIGNATURE	DATE	TELEPHONE NUMBER WITH AREA CODE

MO 780-1636 (11-09)

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

MAR 1 8 2015

Camden County Public Water District No. 5
P.O. Box 556
Camdenton, MO 65020

Dear Permittee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing your State Operating Permit to discharge from Cedar Heights Condominiums WWTF.

Please read your permit and attached Standard Conditions. They contain important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements.

Monitoring reports required by the special conditions must be submitted on a periodic basis. Copies of the necessary report forms are enclosed and should be mailed to your regional office. Please contact that office for additional forms.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to satisfy the permit requirements, an appointment can be set up by contacting your local regional office at 417-891-4300. These visits are called Compliance Assistance Visits and focus on explaining the requirements to the permit holder.

This permit is both your Federal NPDES Permit and your new Missouri State Operating Permit and replaces all previous State Operating Permits issued for this facility under this permit number. In all future correspondence regarding this facility, please refer to your State Operating Permit number and facility name as shown on page one of the permit.

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (ACH) pursuant to 10 CSR 20-1.020 and Section 621.250, RSMo. To appeal, you must file a petition with the ACH within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the ACH. Contact information for the AHC is: Administrative Hearing Commission, Truman State Office Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, Missouri 65102, Phone: 573-751-2422, Fax: 573-751-5018, and Website: www.oa.mo.gov/ahc.

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0129038
Owner:	Camden County Public Water District No. 5
Address:	P.O. Box 556, Camdenton, MO 65020
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Cedar Heights Condominiums Wastewater Treatment Facility
Facility Address:	Northwest of Cedar Heights Dr. and Hwy 54 intersection, Camdenton, MO 65020
Legal Description:	NW ¼, NW ¼, Sec. 34, T38N, R17W, Camden County
UTM Coordinates:	X= 518185, Y= 4205373
Receiving Stream:	Tributary to Lake of the Ozarks
First Classified Stream and ID:	Lake of the Ozarks (L2) (7205)
USGS Basin & Sub-watershed No.:	(10290110-0403)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 – POTW – SIC #4952
The use or operation of this facility shall be by or under the supervision of a Certified "C" Operator.
Flow equalization basin / extended aeration / chlorination / dechlorination / sludge holding tank / sludge disposal by contract hauler.
Design population equivalent is 847.
Design flow is 72,000 gallons per day.
Actual flow is 7,400 gallons per day.
Design sludge production is 15.2 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 621.250 RSMo, Section 640.013 RSMo and Section 644.051.6 of the Law.

April 1, 2015
Effective Date

Sara Parker Pauley
Sara Parker Pauley, Director, Department of Natural Resources

June 30, 2019
Expiration Date

John Madras
John Madras, Director, Water Protection Program

OUTFALL #001

TABLE A
FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **April 1, 2015**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L		30	20	once/month	composite**
Total Suspended Solids	mg/L		30	20	once/month	composite**
pH – Units	SU	***		***	once/month	grab
Ammonia as N (April 1 – Sept 30) (Oct 1 – March 31)	mg/L	5.1 11.7		1.3 2.2	once/month	grab
E. coli (Note 1)	#/100mL		630	126	once/month	grab
Total Residual Chlorine (Note 2)	µg/L	< 130		< 130	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MAY 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Dissolved Oxygen (Note 2)	mg/L	*		*	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MAY 28, 2015.

* Monitoring requirement only.

** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 1 - Effluent limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean. The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday).

Note 2 - This permit contains a Total Residual Chlorine (TRC) limit.

(a) The Water Quality Based Effluent Limit for Total Residual Chlorine was calculated to be 17 µg/L (daily maximum limit) and 8 µg/L (monthly average limit). These limits are below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The Department has determined the current acceptable ML for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation.

(b) Disinfection is required during the recreational season from April 1 through October 31. Do not chlorinate during the non-recreational months and an actual analysis for TRC and Dissolved Oxygen (DO) is not necessary.

(c) Do not chemically de-chlorinate **if it is not needed to meet the limits in your permit.**

(d) If no chlorine was used in a given sampling period, an actual analysis for TRC and Dissolved Oxygen (DO) is not necessary. Simply report as "0 µg/L" for TRC and "NA" for DO.

TABLE B
INFLUENT MONITORING REQUIREMENTS

The facility is required to meet a removal efficiency of 85% or more as a monthly average. The monitoring requirements shall become effective on **Effective Date** and remain in effect until expiration of the permit. To determine removal efficiencies, the influent wastewater shall be monitored by the permittee as specified below:

SAMPLING LOCATION AND PARAMETER(S)	UNITS	MONITORING REQUIREMENTS	
		MEASUREMENT FREQUENCY	SAMPLE TYPE
Biochemical Oxygen Demand$_5$	mg/L	once/month	composite**
Total Suspended Solids	mg/L	once/month	composite**
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE MAY 28, 2015.			

** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.

C. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Parts I, II, & III standard conditions dated August 1, 2014, May 1, 2013, and March 1, 2014, and hereby incorporated as though fully set forth herein.

D. SPECIAL CONDITIONS

1. This permit establishes final ammonia limitations based on Missouri's current Water Quality Standard. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register announcing of the final national recommended ambient water quality criteria for protection of aquatic life from the effects of ammonia in freshwater. The EPA's guidance, Final Aquatic Life Ambient Water Quality Criteria for Ammonia – Fresh Water 2013, is not a rule, nor automatically part of a state's water quality standards. States must adopt new ammonia criteria consistent with EPA's published ammonia criteria into their water quality standards that protect the designated uses of the water bodies. The Department of Natural Resources has initiated stakeholder discussions on how to best incorporate these new criteria into the State's rules. A date for when this rule change will occur has not been determined. Also, refer to Section VI of this permit's factsheet for further information including estimated future effluent limits for this facility. It is recommended the permittee view the Department's 2013 EPA criteria Factsheet located at http://dnr.mo.gov/pubs/pub2481.htm.

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
   (d) Incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) when the Director of the Water Protection Program determines that a pretreatment program is necessary due to any new introduction of pollutants into the Publically Owned Treatment Works or any substantial change in the volume or character of pollutants being introduced.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. All outfalls must be clearly marked in the field.

4. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.

D. SPECIAL CONDITIONS (continued)

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   (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
   (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
      (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
      (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
      (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
      (5) There shall be no significant human health hazard from incidental contact with the water;
      (6) There shall be no acute toxicity to livestock or wildlife watering;
      (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
      (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

6. Report as no-discharge when a discharge does not occur during the report period.

7. Reporting of Non-Detects:
   (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
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   (c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
   (d) The permittee shall use one-half of the detection limit for the non-detect result when calculating monthly averages.
   (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.

8. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

9. The permittee shall comply with any applicable requirements listed in 10 CSR 20-9, unless the facility has received written notification that the Department has approved a modification to the requirements. The monitoring frequencies contained in this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. If a modification of the monitoring frequencies listed in 10 CSR 20-9 is needed, the permittee shall submit a written request to the Department for review and, if deemed necessary, approval.

D. SPECIAL CONDITIONS (continued)

10. Bypasses are not authorized at this facility unless they meet the criteria in 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3)(i), and with Standard Condition Part I, Section B, subsection 2.b. Bypasses are to be reported to the Southwest Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. Blending, which is the practice of combining a partially-treated wastewater process stream with a fully-treated wastewater process stream prior to discharge, is not considered a form of bypass. If the permittee wishes to utilize blending, the permittee shall file an application to modify this permit to facilitate the inclusion of appropriate monitoring conditions.

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12. At least one gate must be provided to access the wastewater treatment facility and provide for maintenance and mowing. The gate shall remain closed except when temporarily opened by; the permittee to access the facility, perform operational monitoring, sampling, maintenance, mowing, or for inspections by the Department. The gate shall be closed and locked when the facility is not staffed.

13. At least one (1) warning sign shall be placed on each side of the facility enclosure in such positions as to be clearly visible from all directions of approach. There shall also be one (1) sign placed for every five hundred feet (500') (150 m) of the perimeter fence. A sign shall also be placed on each gate. Minimum wording shall be SEWAGE TREATMENT FACILITY—KEEP OUT. Signs shall be made of durable materials with characters at least two inches (2") high and shall be securely fastened to the fence, equipment or other suitable locations.

14. An Operation and Maintenance (O & M) manual shall be maintained by the permittee and made available to the operator. The O & M manual shall include key operating procedures and a brief summary of the operation of the facility.

15. An all-weather access road shall be provided to the treatment facility.

16. The discharge from the wastewater treatment facility shall be conveyed to the receiving stream via a closed pipe or a paved or rip-rapped open channel. Sheet or meandering drainage is not acceptable. The outfall sewer shall be protected against the effects of floodwater, ice or other hazards as to reasonably insure its structural stability and freedom from stoppage. The outfall shall be maintained so that a sample of the effluent can be obtained at a point after the final treatment process and before the discharge mixes with the receiving waters.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0129038
CEDAR HEIGHTS CONDOMINIUMS WASTEWATER TREATMENT FACILITY

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for a Minor.

Part I – Facility Information

Facility Type: POTW - SIC #4952

Facility Description:
Flow equalization basin / extended aeration / chlorination / dechlorination / sludge holding tank / sludge disposal by contract hauler.

Application Date: 11/18/14
Expiration Date: 06/21/14

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
#001	0.11	Secondary	Domestic

Facility Performance History:
This facility was inspected on September 16, 2010 and was found to be non-compliant for the following violations: excessive sludge in the clarifier, failure to apply for a construction permit as required in the operating permit, caused pollution to an unnamed tributary to Lake of the Ozarks, receiving stream has significant area of stream bottom covered with sludge deposits, and failure to provide notification to the department for all bypasses. The facility was later placed under an enforcement action. This facility was last inspected on June 7, 2012. The conditions of the facility at that time were found to be satisfactory. A review of monitoring reports submitted by the facility show no effluent limit exceedances in the past five years, but reports were missing for October 2010, December 2010, January 2011, August 2011, and December 2013.

Comments:
The WET Test requirement has been removed from this permit due to no reasonable potential for a water quality exceedance as this facility serves condominiums. Special conditions were updated to include reporting of Non-detects and bypass reporting requirements. Also, because the receiving stream was incorrectly listed as Lake of the Ozarks on the previous permit, the permit writer has corrected the receiving stream information to a tributary to Lake of the Ozarks in this permit.

Part II – Operator Certification Requirements

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], the permittee shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.020(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

Owned or operated by or for a

☒ - Public Water Supply Districts

Each of the above entities are only applicable if they have a Population Equivalent greater than two hundred (200) or fifty (50) or more service connections.

This facility currently requires an operator with a C Certification Level. Please see **Appendix - Classification Worksheet.** Modifications made to the wastewater treatment facility may cause the classification to be modified.

Operator's Name: James Heppler
Certification Number: 5092
Certification Level: C

The listing of the operator above only signifies that staff drafting this operating permit have reviewed appropriate Department records and determined that the name listed on the operating permit application has the correct and applicable Certification Level.

Part III– Operational Monitoring

☒ - As per [10 CSR 20-9.010(4))], the facility is required to conduct operational monitoring.

Part IV – Receiving Stream Information

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(4)].

RECEIVING STREAM(S) TABLE: OUTFALL #001

WATER-BODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC	DISTANCE TO CLASSIFIED SEGMENT (MI)
Tributary to Lake of the Ozarks	NA	NA	General Criteria	10290110-0403	0.25
Lake of the Ozarks	L2	7205	IRR, LWW, AQL, HHP, WBC-A, SCR		

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life (AQL), Human Health Protection (HHP), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation – Category A (WBC-A), Whole Body Contact Recreation – Category B (WBC-B), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).

RECEIVING STREAM(S) LOW-FLOW VALUES:

RECEIVING STREAM (C, E, P, P1)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Tributary to Lake of the Ozarks (L2)	0.0	0.0	0.0

MIXING CONSIDERATIONS
Mixing Zone: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].
Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

RECEIVING STREAM MONITORING REQUIREMENTS:
No receiving water monitoring requirements recommended at this time.

Part V – Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:
As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

☒ - The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:
A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

☒ - Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44. Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. The WET Test requirement has been removed from this permit due to no reasonable potential for a water quality exceedance as this facility serves condominiums.

ANTIDEGRADATION:
In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(3)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

☒ - No degradation proposed and no further review necessary. Facility did not apply for authorization to increase pollutant loading or to add additional pollutants to their discharge.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:
As per [10 CSR 20-6.010(3)(B)], …An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

BIOSOLIDS & SEWAGE SLUDGE:
Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74, items WQ422 through WQ449.

☒ - Permittee is not authorized to land apply biosolids. Sludge/biosolids are removed by contract hauler.

COMPLIANCE AND ENFORCEMENT:
Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

☒ - The facility is currently under enforcement action. The enforcement action is due to an inspection on September 16, 2010 where the facility was found to be non-compliant for the following violations: excessive sludge in the clarifier, failure to apply for a construction permit as required in the operating permit, caused pollution to an unnamed tributary to Lake of the Ozarks, receiving stream has significant area of stream bottom covered with sludge deposits, and failure to provide notification to the department for all bypasses.

PRETREATMENT PROGRAM:
The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

☒ - The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

REASONABLE POTENTIAL ANALYSIS (RPA):
Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(1)(iii)] if the permit writer determines that any given pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

☒ - A RPA was conducted on appropriate parameters. Please see **APPENDIX – RPA RESULTS.**

REMOVAL EFFICIENCY:
Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD_5) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

☒ - Secondary Treatment is 85% removal [40 CFR Part 133.102(a)(3) & (b)(3)].

SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):
Sanitary Sewer Overflows (SSOs) are defined as untreated sewage releases and are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSOs result from a variety of causes including blockages, line breaks, and sewer defects that can either allow wastewater to backup within the collection system during dry weather conditions or allow excess stormwater and groundwater to enter and overload the collection system during wet weather conditions. SSOs can also result from lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs include overflows out of manholes, cleanouts, broken pipes, and other into waters of the state and onto city streets, sidewalks, and other terrestrial locations.

Inflow and Infiltration (I&I) is defined as unwanted intrusion of stormwater or groundwater into a collection system. This can occur from points of direct connection such as sump pumps, roof drain downspouts, foundation drains, and storm drain cross-connections or through cracks, holes, joint failures, faulty line connections, damaged manholes, and other openings in the collection system itself. I&I results from a variety of causes including line breaks, improperly sealed connections, cracks caused by soil erosion/settling, penetration of vegetative roots, and other sewer defects. In addition, excess stormwater and groundwater entering the collection system from line breaks and sewer defects have the potential to negatively impact the treatment facility.

Missouri RSMo §644.026.1.(13) mandates that the Department issue permits for discharges of water contaminants into the waters of this state, and also for the operation of sewer systems. Such permit conditions shall ensure compliance with all requirements as established by sections 644.006 to 644.141. Standard Conditions Part I, referenced in the permit, contains provisions requiring proper operation and maintenance of all facilities and systems of treatment and control. Missouri RSMo §644.026.1.(15) instructs the Department to require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities. To ensure that public health and the environment are protected, any noncompliance which may endanger public health or the environment must be reported to the Department within 24 hours of the time the permittee becomes aware of the noncompliance. Standard Conditions Part I, referenced in the permit, contains the reporting requirements for the permittee when bypasses and upsets occur. The permit also contains requirements for permittees to develop and implement a program for maintenance and repair of the collection system. The permit requires that the permittee submit an annual report to the Department for the previous calendar year that contains a list of all SSOs and building backups (locations, features of collection system where the SSO/building backup occurred, volumes, durations, receiving stream, causes, mitigation efforts, and actions to prevent reoccurrences), a summary of efforts taken by the permittee to locate and eliminate sources of excess I & I, a summary of general maintenance and repairs to the collection system, and a summary of any planned maintenance and repairs to the collection system for the upcoming calendar year.

☒ - This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

SCHEDULE OF COMPLIANCE (SOC):

Per 644.051.4 RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. A SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section 502(17) of the Clean Water Act, and 40 CFR §122.2. For new effluent limitations, the permit includes interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR § 122.47(a)(1) and 10 CSR 20-7.031(11), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, a SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit that was not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance to Permit Writers in developing SOCs, and attain a greater level of consistency, on October 25, 2012 the Department issued a policy on development of SOCs. This policy provides guidance to Permit Writers on the standard time frames for schedules for common activities, and guidance on factors that may modify the length of the schedule such as a cost analysis.

☒ - This permit does not contain a SOC.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities: (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of stormwater discharges.

☒ - At this time, the permittee is not required to develop and implement a SWPPP.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

☒ - This operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$Ce = \frac{(Qe+Qs)C-(Cs\times Qs)}{(Qe)}$$ (EPA/505/2-90-001, Section 4.5.5)

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Number of Samples "n":

Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used

WLA MODELING:
There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

☒ - A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:
Per [10 CSR 20-7.031(4)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:
A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

☒ - At this time, the permittee is not required to conduct WET test for this facility

40 CFR 122.41(M) - BYPASSES:
The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from "bypassing" untreated or partially treated sewage (wastewater) beyond the headworks. A bypass is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-7.015(9)(G) states a bypass means the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending, to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri's Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

☒ - This facility does not anticipate bypassing.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):
Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

☒ - This facility does not discharge to a 303(d) listed stream.

Part VI –2013 Water Quality Criteria for Ammonia

Upcoming changes to the Water Quality Standard for ammonia may require significant upgrades to wastewater treatment facilities.

On August 22, 2013, the U.S. Environmental Protection Agency (EPA) finalized new water quality criteria for ammonia, based on toxicity studies of mussels and gill breathing snails. Missouri's current ammonia criteria are based on toxicity testing of several species, but did not include data from mussels or gill breathing snails. Missouri is home to 69 of North America's mussel species, which are spread across the state. According to the Missouri Department of Conservation nearly two-thirds of the mussel species in Missouri are considered to be "of conservation concern". Nine species are listed as federally endangered, with an additional species currently proposed as endangered and another species proposed as threatened.

The adult forms of mussels that are seen in rivers, lakes, and streams are sensitive to pollutants because they are sedentary filter feeders. They vacuum up many pollutants with the food they bring in and cannot escape to new habitats, so they can accumulate toxins in their bodies and die. But very young mussels, called glochidia, are exceptionally sensitive to ammonia in water. As a result of a citizen suit, the EPA was compelled to conduct toxicity testing and develop ammonia water quality criteria that would be protective if young mussels may be present in a waterbody. These new criteria will apply to any discharge with ammonia levels that may pose a reasonable potential to violate the standards. Nearly all discharging domestic wastewater treatment facilities (cities, subdivisions, mobile home parks, etc.), as well as certain industrial and stormwater dischargers with ammonia in their effluent, will be affected by this change in the regulations.

When new water quality criteria are established by the EPA, states must adopt them into their regulations in order to keep their authorization to issue permits under the National Pollutant Discharge Elimination System (NPDES). States are required to review their water quality standards every three years, and if new criteria have been developed they must be adopted. States may be more protective than the Federal requirements, but not less protective. Missouri does not have the resources to conduct the studies necessary for developing new water quality standards, and therefore our standards mirror those developed by the EPA; however, we will utilize any available flexibility based on actual species of mussels that are native to Missouri and their sensitivity to ammonia.

Many treatment facilities in Missouri are currently scheduled to be upgraded to comply with the current water quality standards. But these new ammonia standards may require a different treatment technology than the one being considered by the permittee. It is important that permittees discuss any new and upcoming requirements with their consulting engineers to ensure that their treatment systems are capable of complying with the new requirements. The Department encourages permittees to construct treatment technologies that can attain effluent quality that supports the EPA ammonia criteria.

Ammonia toxicity varies by temperature and by pH of the water. Assuming a stable pH value, but taking into account winter and summer temperatures, Missouri includes two seasons of ammonia effluent limitations. Current effluent limitations in this permit are:

Summer – 5.1 mg/L daily maximum, 1.3 mg/L monthly average.
Winter – 11.7 mg/L daily maximum, 2.2 mg/L monthly average.

Under the new EPA criteria, where mussels of the family Unionidae are present or expected to be present, the estimated effluent limitations for a facility in a location such as this that discharges to a receiving stream with no mixing will be:

Summer – 1.7 mg/L daily maximum, 0.6 mg/L monthly average.
Winter – 5.6 mg/L daily maximum, 2.1 mg/L monthly average.

Actual effluent limits will depend in part on the actual performance of the facility.

Operating permits for facilities in Missouri must be written based on current statutes and regulations. Therefore permits will be written with the existing effluent limitations until the new standards are adopted. To aid permittees in decision making, an advisory will be added to permit Fact Sheets notifying permittees of the expected effluent limitations for ammonia. When setting schedules of compliance for ammonia effluent limitations, consideration will be given to facilities that have recently constructed upgraded facilities to meet the current ammonia limitations.

For more information on this topic feel free to contact the Missouri Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, Operating Permits Section at (573) 751-1300.

Part VII – Effluent Limits Determination

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:
As per Missouri's Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

- Missouri or Mississippi River [10 CSR 20-7.015(2)] ☐
- Lake or Reservoir [10 CSR 20-7.015(3)] ☒
- Losing [10 CSR 20-7.015(4)] ☐
- Metropolitan No-Discharge [10 CSR 20-7.015(5)] ☐
- Special Stream [10 CSR 20-7.015(6)] ☐
- Subsurface Water [10 CSR 20-7.015(7)] ☐
- All Other Waters [10 CSR 20-7.015(8)] ☒

OUTFALL #001 – MAIN FACILITY OUTFALL
EFFLUENT LIMITATIONS TABLE:

PARAMETER	Unit	Basis for Limits	Daily Maximum	Weekly Average	Monthly Average	Modified	Previous Permit Limitations
Flow	MGD	1	*		*	No	*/*
BOD_5	mg/L	1		30	20	No	30/20
TSS	mg/L	1		30	20	No	30/20
pH	SU	1	6.5 – 9.0			No	6.5-9.0
Ammonia as N (April 1 – Sept 30)	mg/L	2, 3	5.1		1.3	Yes	12.1/4.6
Ammonia as N (Oct 1 – March 31)	mg/L	2, 3	11.7		2.2	Yes	12.1/4.6
Dissolved Oxygen (DO)**	mg/L	7	*		*	No	*/*
Escherichia coli	***	1, 3		630	126	No	630/126
Chlorine, Total Residual	µg/L	1, 3	< 130		< 130	No	< 130/ < 130

* - Monitoring requirement only.
** - For DO the Daily Maximum is a Daily Minimum and the Monthly Average is a Monthly Average Minimum.
*** - #/100mL; the Monthly Average for *E. coli* is a geometric mean.

Basis for Limitations Codes:
1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review
5. Antidegradation Policy
6. Water Quality Model
7. Best Professional Judgment
8. TMDL or Permit in lieu of TMDL
9. WET Test Policy

OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow**. In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.

- **Biochemical Oxygen Demand (BOD_5)**. Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Effluent Limits Determination.**

- **Total Suspended Solids (TSS)**. Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Effluent Limits Determination.**

- **pH**. 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.

- **Total Ammonia Nitrogen**. Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(5)(B)7.C. & Table B3] default pH 7.8 SU. No mixing considerations allowed; therefore, WLA = appropriate criterion.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: April 1 – September 30
Chronic WLA: C_e = 1.5 mg/L

Acute WLA: C_e = 12.1 mg/L

LTA_c = 1.5 mg/L (0.646) = 0.97 mg/L [CV = 1.09, 99th Percentile, 30 day avg.]
LTA_a = 12.1 mg/L (0.189) = 2.29 mg/L [CV = 1.09, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 0.97 mg/L (5.28) = 5.1 mg/L [CV = 1.09, 99th Percentile]
AML = 0.97 mg/L (1.36) = 1.3 mg/L [CV = 1.09, 95th Percentile, n =30]

Winter: October 1 – March 31
Chronic WLA: C_e = 3.1 mg/L

Acute WLA: C_e = 12.1 mg/L

LTA_c = 3.1 mg/L (0.357) = 1.11 mg/L [CV = 2.89, 99th Percentile, 30 day avg.]
LTA_a = 12.1 mg/L (0.094) = 1.14 mg/L [CV = 2.89, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 1.11 mg/L (10.60) = 11.7 mg/L [CV = 2.89, 99th Percentile]
AML = 1.44 mg/L (2.00) = 2.2 mg/L [CV = 2.89, 95th Percentile, n =30]

- **Dissolved Oxygen**. Monitoring only included to determine if the facility has the reasonable potential to cause a violation of water quality standards in the receiving stream. Dechlorination chemicals have the potential to reduce dissolved oxygen concentrations in the discharge, resulting in an anoxic discharge, unless carefully controlled. Data will be reviewed upon renewal to determine if an effluent limitation is necessary to protect water quality.

- ***Escherichia coli (E. coli)***. Monthly average of 126 per 100 mL as a geometric mean and Weekly Average of 630 per 100 mL as a geometric mean during the recreational season (April 1 – October 31), to protect Whole Body Contact Recreation (A) designated use of the receiving stream, as per 10 CSR 20-7.031(5)(C). An effluent limit for both monthly average and weekly average is required by 40 CFR 122.45(d).

- **Total Residual Chlorine (TRC)**. Warm-water Protection of Aquatic Life CCC = 10 µg/L, CMC = 19 µg/L [10 CSR 20-7.031, Table A]. No mixing considerations allowed; therefore, WLA = appropriate criterion.

Chronic WLA: C_e = 10 µg/L

Acute WLA: C_e = 19 µg/L

LTA_c = 10 (0.527) = 5.3 µg/L [CV = 0.6, 99th Percentile]
LTA_a = 19 (0.321) = 6.1 µg/L [CV = 0.6, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 5.3 (3.11) = **17** µg/L [CV = 0.6, 99th Percentile]
AML = 5.3 (1.55) = **8** µg/L [CV = 0.6, 95th Percentile, n = 4]

The Water Quality Based Effluent Limit for Total Residual Chlorine was calculated to be 17 µg/L (daily maximum limit) and 8 µg/L (monthly average limit). These limits are below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The Department has determined the current acceptable ML for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation.

Minimum Sampling and Reporting Frequency Requirements.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/month	once/month
BOD_5	once/month	once/month
TSS	once/month	once/month
pH	once/month	once/month
Ammonia as N	once/month	once/month
E. coli	once/month	once/month
Total Residual Chlorine	once/month	once/month
Dissolved Oxygen	once/month	once/month

Sampling Frequency Justification:
Sampling and reporting frequency was retained from previous permit.

Sampling Type Justification:
As per 10 CSR 20-7.015, BOD_5, TSS, and WET test samples collected for mechanical plants shall be a 24 hour modified composite sample. Due to the small size of this facility this composite sample shall be made up from a minimum of four grab samples collected within a 24-hour period with a minimum of two hours between each grab sample. Grab samples, however, must be collected for pH, Ammonia as N, *E. coli*, and TRC. This is due to the holding time restriction for *E. coli*, the volatility of Ammonia and TRC, and the fact that pH and DO cannot be preserved and must be sampled in the field. As Ammonia samples must be immediately preserved, these samples are to be collected as a grab.

Part VIII – Cost Analysis for Compliance

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a "finding of affordability" on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

☐ - The Department is required to determine "findings of affordability" because the permit applies to a combined or separate sanitary sewer system for a publically-owned treatment works.
☒ - The Department is not required to determine Cost Analysis for Compliance because the permit contains no new conditions or requirements that convey a new cost to the facility.

Part IX – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:
The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than 4 years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

PUBLIC NOTICE:
The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing. The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit. For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

☒ - The Public Notice period for this operating permit was from January 30, 2015 – March 2, 2015. No comments were received.

DATE OF FACT SHEET: DECEMBER 15, 2014

COMPLETED BY:

ANGELA FALLS, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - DOMESTIC WASTEWATER UNIT
(573) 751-1419
angela.falls@dnr.mo.gov

Appendices

APPENDIX - CLASSIFICATION WORKSHEET:

ITEM	POINTS POSSIBLE	POINTS ASSIGNED
Maximum Population Equivalent (P.E.) served (Max 10 pts.)	1 pt./10,000 PE or major fraction thereof.	0
Maximum: 10 pt Design Flow (avg. day) or peak month; use greater (Max 10 pts.)	1 pt. / MGD or major fraction thereof.	0
EFFLUENT DISCHARGE RECEIVING WATER SENSITIVITY:		
Missouri or Mississippi River	0	
All other stream discharges except to losing streams and stream reaches supporting whole body contact	1	
Discharge to lake or reservoir outside of designated whole body contact recreational area	2	
Discharge to losing stream, or stream, lake or reservoir area supporting whole body contact recreation	3	3
PRELIMINARY TREATMENT - Headworks		
Screening and/or comminution	3	
Grit removal	3	
Plant pumping of main flow (lift station at the headworks)	3	
PRIMARY TREATMENT		
Primary clarifiers	5	
Combined sedimentation/digestion	5	
Chemical addition (except chlorine, enzymes)	4	
REQUIRED LABORATORY CONTROL – performed by plant personnel (highest level only)		
Push – button or visual methods for simple test such as pH, Settleable solids	3	
Additional procedures such as DO, COD, BOD, titrations, solids, volatile content	5	5
More advanced determinations such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc.	7	
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph	10	
ALTERNATIVE FATE OF EFFLUENT		
Direct reuse or recycle of effluent	6	
Land Disposal – low rate	3	
High rate	5	
Overland flow	4	
Total from page **ONE (1)**	---	8

APPENDIX - CLASSIFICATION WORKSHEET (CONTINUED):

ITEM	POINTS POSSIBLE	POINTS ASSIGNED
VARIATION IN RAW WASTE (highest level only) (DMR exceedances and Design Flow exceedances)		
Variation do not exceed those normally or typically expected	0	0
Recurring deviations or excessive variations of 100 to 200 % in strength and/or flow	2	
Recurring deviations or excessive variations of more than 200 % in strength and/or flow	4	
Raw wastes subject to toxic waste discharge	6	
SECONDARY TREATMENT		
Trickling filter and other fixed film media with secondary clarifiers	10	
Activated sludge with secondary clarifiers (including extended aeration and oxidation ditches)	15	15
Stabilization ponds without aeration	5	
Aerated lagoon	8	
Advanced Waste Treatment Polishing Pond	2	
Chemical/physical – without secondary	15	
Chemical/physical – following secondary	10	
Biological or chemical/biological	12	
Carbon regeneration	4	
DISINFECTION		
Chlorination or comparable	5	5
Dechlorination	2	2
On-site generation of disinfectant (except UV light)	5	
UV light	4	
SOLIDS HANDLING - SLUDGE		
Solids Handling Thickening	5	5
Anaerobic digestion	10	
Aerobic digestion	6	
Evaporative sludge drying	2	
Mechanical dewatering	8	
Solids reduction (incineration, wet oxidation)	12	
Land application	6	
Total from page **TWO (2)**	----	22
Total from page **ONE (1)**	---	8
Grand Total	---	30

☐ - A: 71 points and greater
☐ - B: 51 points – 70 points
☒ - C: 26 points – 50 points
☐ - D: 0 points – 25 points

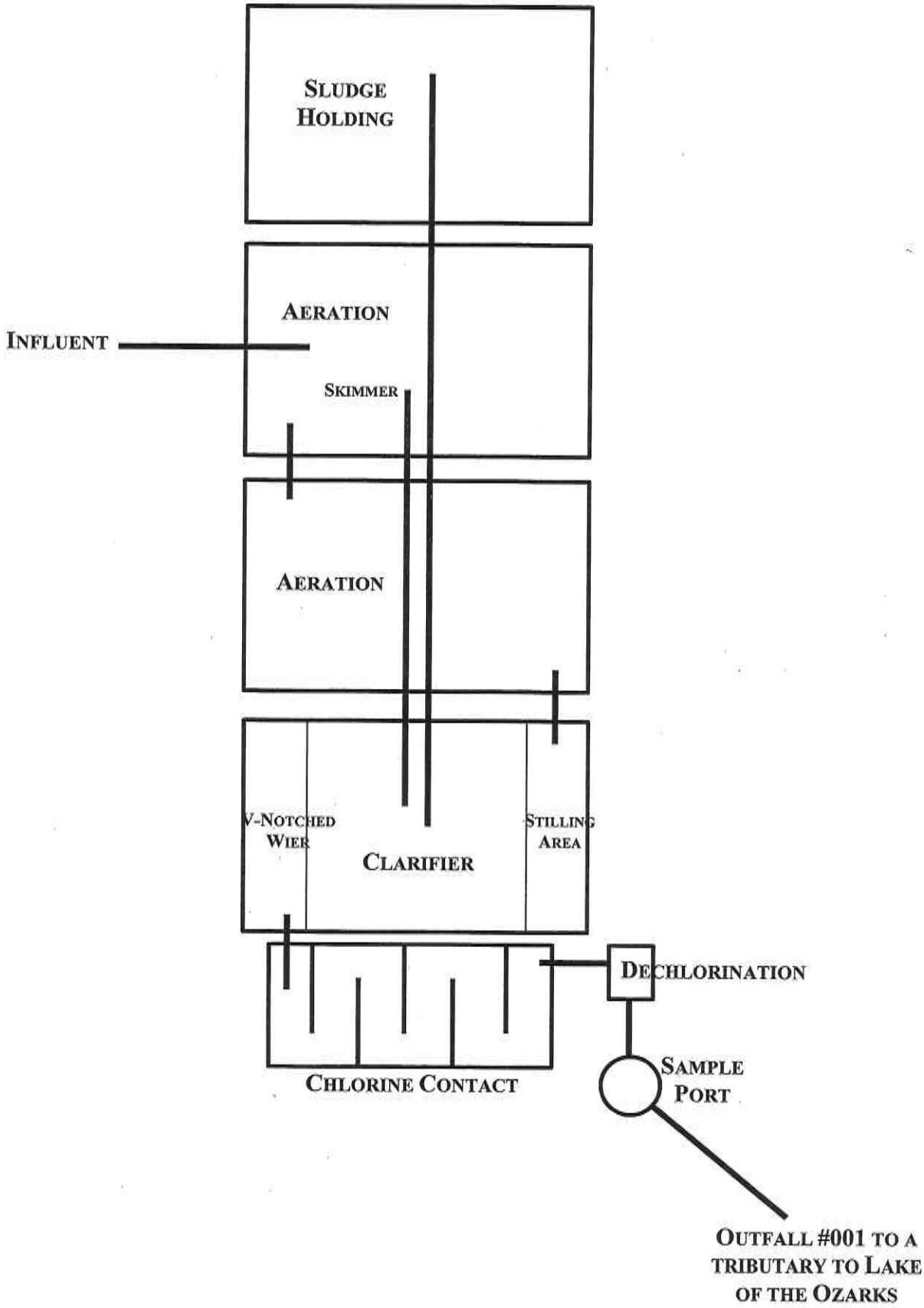
APPENDIX – RPA RESULTS:

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	10.59	1.5	10.59	28.00	3.37/0	1.09	3.14	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	192.63	3.1	192.63	25.00	25/0.033	2.89	7.71	YES

N/A – Not Applicable
* - Units are (µg/L) unless otherwise noted.
** - If the number of samples is 10 or greater, then the CV value must be used in the WQBEL for the applicable constituent. If the number of samples is < 10, then the default CV value must be used in the WQBEL for the applicable constituent.
*** - Coefficient of Variation (CV) is calculated by dividing the Standard Deviation of the sample set by the Mean of the same sample set.
RWC – Receiving Water Concentration. It is the concentration of a toxicant or the parameter toxicity in the receiving water after mixing (if applicable).
n – Is the number of samples.
MF – Multiplying Factor. 99% Confidence Level and 99% Probability Basis.
RP – Reasonable Potential. It is where an effluent is projected or calculated to cause an excursion above a water quality standard based on a number of factors including, as a minimum, the four factors listed in 40 CFR 122.44(d)(1)(ii).

Reasonable Potential Analysis is conducted as per (TSD, EPA/505/2-90-001, Section 3.3.2). A more detailed version including calculations of this RPA is available upon request.

APPENDIX – PROCESS FLOW DIAGRAM:



STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
dnr.mo.gov

April 1, 2015

REMINDER LETTER

Camden County Water Supply No. 5
Clearwater Condominiums
P.O. Box 556
Camdenton, MO 65020

RE: MISSOURI STATE OPERATING PERMIT MO0126985

Dear Permittee:

Your state operating permit for wastewater discharge referenced above contains an annual requirement for an **Inflow/Infiltration Report** due **January 28, 2015.** This may or may not be in addition to other reporting on parameters or outfalls due on a more frequent basis.

Please review your permit, including any requirements of the Special Conditions section or Schedule of Compliance. If you are unable, after your review, to determine the nature of the annual reporting requirement please contact the Southwest Regional Office, Water Pollution Control Unit at 417-891-4300.

If you have already sent this report we commend you. If you have questions please contact the water pollution staff by calling 417-891-4300 or via mail at Southwest Regional Office, 2040 W. Woodland, Springfield, Missouri 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE

Lana Cypret

Lana Cypret
Technical Assistant II

LGC/ryc

Enclosure (I & I form)

029.wpcp.ClearwaterCondominiums.mo0126985.x.2015.04.01.fy15.ltr.x.lgc.doc

Facility Name	
Permit Number	
County	

This report covers the period of:

Jan 1, 2014 to Dec 31, 2014

ANNUAL INFLOW AND INFILTRATION REPORT

The report shall be submitted by January 28th of each year by electronic DMR or to the
SOUTHWEST REGIONAL OFFICE, 2040 W. WOODLAND, SPRINGFIELD, MO 65807

Manhole Observation							
Number of Manholes Observed							
Dates Observed							
Add additional pages if needed							
Results - Manholes Replaced							
Number of Manholes Replaced							
Types of Manholes Replaced							
Dates of Replacement							
Add additional pages if needed							
Results - Manholes Rehabbed							
Number of Manholes Rehabbed							
Types of Manholes Rehabbed							
Dates of Rehabilitation							
Add additional pages if needed							
Smoke Testing							
Linear Feet of Lines Tested							
Dates Observed							
Add additional pages if needed							
Results - Lines Cleaned							
Linear Feet of Lines Cleaned							
Date and Method Used to Clean Lines (Jet, Pig, Auger)							
Add additional pages if needed							

Facility Name	0
Permit Number	0
County	0

This report covers the period of:
Jan 1, 2014 to Dec 31, 2014

ANNUAL INFLOW AND INFILTRATION REPORT

Smoke Testing (continued) - Results - Lines Replaced

Linear Feet of Lines Replaced							
Date, Type of Line Replaced and Type of New Line							
Add additional pages if needed							

Results - Lines Rehabbed

Linear Feet of Lines Rehabbed							
Date, Type of Line Replaced and Rehab Material							
Add additional pages if needed							

CCTV (Closed-circuit television)

Linear Feet Viewed						
Dates Observed						
Add additional pages if needed						

Lamphole Observation

Number Observed						
Dates Observed						
Add additional pages if needed						

Results - Lampholes Replaced

Number Replaced						
Dates Replaced						
Add additional pages if needed						

Sanitary Sewer Overflows

Number of Dry Weather Sanitary Sewer Overflows		Number of Wet Weather Sanitary Sewer Overflows	

Basement/Building Backups

Number of Dry Weather Basement/Building Backups		Number of Wet Weather Basement/Building Backups	

General Information

Miles of collection system (including forcemains)		Peak Effluent Flow Rate (MGD)	
Average Effluent Flow Rate (MGD)			

SIGNATURE AND TITLE OF AUTHORIZED INDIVIDUAL, IN ACCORDANCE WITH 10 CSR 20-6.010(2)(C)	DATE
PHONE NUMBER	E-MAIL ADDRESS (Optional)