MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law)

Permit No.: HP-0000003
Owner: Central Bank
Address: 238 Madison St., Jefferson City, MO 65101
Continuing Authority:
Address: Same as above
Same as above
Facility Name: Central Motor Bank Heat Pump Wells
Address: 500 Madison St., Jefferson City, MO 65102
Legal Description: SE ¼, Sec. 7, T44N, R11W, Cole County
Receiving Stream & Basin: N/A – Underground Injection
First Classified Stream and ID: Groundwater to Missouri River; Missouri River (P) (00701)
USGS Basin & Sub-watershed No: 10300102-1304

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

FACILITY DESCRIPTION

Open loop heat pump discharging maximum of 144,000 gallons/day and 780,000 BTU/hr to the Jefferson City Dolomite. The depth of the wells is 585 ft and the top 150 ft is cased. There are two injection withdrawal wells.

This permit does not authorize the discharge of any pollutant, except thermal discharges; those pollutants contained in the withdrawal water may be reinjected under the Missouri Clean Water Law; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

May 1, 2019
Effective Date

Edward B. Galbraith, Director, Division of Environmental Quality

December 31, 2021
Expiration Date

Chris Wieberg, Director, Water Protection Program
A. 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 upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited, and monitored by the permittee as specified below.

<table>
<thead>
<tr>
<th>OUTFALL NUMBER AND EFFLUENT PARAMETER(S)</th>
<th>VALUE</th>
<th>UNITS</th>
<th>FINAL EFFLUENT LIMITATIONS</th>
<th>MONITORING REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DAILY</td>
<td>WEEKLY</td>
<td>MONTHLY</td>
<td>MEASUREMENT FREQUENCY</td>
</tr>
<tr>
<td></td>
<td>MAXIMUM</td>
<td>AVERAGE</td>
<td>AVERAGE</td>
<td></td>
</tr>
<tr>
<td>IW01 &amp; IW02</td>
<td></td>
<td></td>
<td></td>
<td>once/month</td>
</tr>
<tr>
<td>Flow</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>once/month</td>
</tr>
<tr>
<td>Temperature of injected water</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>once/month</td>
</tr>
<tr>
<td>Injection Rate</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>once/month</td>
</tr>
<tr>
<td>Withdrawal Rate</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>once/month</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>once/month</td>
</tr>
</tbody>
</table>

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE JUNE 28, 2019.

B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I Standard Conditions dated August 1, 2014, respectively, and hereby incorporated as though fully set forth herein.

* Monitoring requirement only.

▼ If only one measurement is taken each month, that measurement will be the maximum and average monthly reading.
C. SPECIAL CONDITIONS

1. All injection withdrawals shall be consistent with the terms and conditions of the permit.

2. The permit may be modified or revoked after reasonable notice for causes including, but not limited to:
   (a) A violation of any term or condition of the permit;
   (b) A misrepresentation or failure to disclose fully all relevant facts in obtaining a permit or;
   (c) A change in the operation, size or capacity of the permitted facility; or
   (d) An increase of more than ten degrees Fahrenheit (10°F) in any nearby potable water well that was in existence when the original operating permit was issued.

3. The injection withdrawal permit may be issued for a period up to five (5) years. The permit may not be modified so as to extend the term of the permit beyond five (5) years after its issuance.

4. Permittees shall operate and maintain facilities to comply with section 577.155 RSMo, the Missouri Clean Water Law, corresponding regulations and applicable permit conditions.

5. For the purpose of inspecting for compliance with the Clean Water Law and these regulations, authorized representatives of the department shall be allowed by the permittee, upon presentation of credentials and at reasonable times, to;
   (a) Enter upon permittee's premises in which a groundwater heat pump injection withdrawal well is located or in which any records are required to be kept under terms and conditions of the permit;
   (b) Have access to, or copy, any records required to be kept under terms and conditions of the permit;
   (c) Inspect any sampling wells, monitoring equipment or method required in the permit; and
   (d) Sample for permit compliance.

6. Facility expansions, production increases or process modifications which will result in a new or substantially different injection withdrawal must be reported sixty (60) days before the facility or process modification begins. Notification may be accomplished by application for a new permit, or by submission of notice to the department;

Copies of well location, driller's log, sample logs, casing schedule, volume of water, temperature, water quality and other information developed or determined for the completed installation shall be sent to the Missouri Department of Natural Resources (DNR), Water Pollution Control Program and to the Missouri Geological Survey.

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

8. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDWs) if the presence of any contaminant may cause a violation of primary drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds that your injection activity may endanger USDWs, they may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e).

9. In accordance with 40 CFR 144.26, the permittee shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: http://dnr.mo.gov/forms/780-1774-f.pdf.
C. SPECIAL CONDITIONS (continued)

10. **Electronic Discharge Monitoring Report (eDMR) Submission System**

The permittee shall submit an eDMR Permit Holder and Certifier Registration form within 30 days of the effective date of this permit. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure a timelyst, complete, accurate, and nationally-consistent set of data. Visit [http://dnr.mo.gov/pubs/pub2474.pdf](http://dnr.mo.gov/pubs/pub2474.pdf) to access the Facility Participation Package which contains the eDMR Permit Holder and Certifier Registration form.

Once the permittee is activated in the eDMR system:

(a) **Discharge Monitoring Reporting Requirements.** The permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.

(b) **Programmatic Reporting Requirements.** The following reports (if required by this permit) must be electronically submitted as an attachment to the eDMR system until such a time when the current or a new system is available to allow direct input of the data:
   1. Schedule of Compliance Progress Reports; and
   2. Any additional report required by the permit excluding bypass reporting.

After such a system has been made available by the department, required data shall be directly input into the system by the next report due date.

(c) **Other actions.** The following shall be submitted electronically after such a system has been made available by the department:
   1. General Permit Applications/Notices of Intent to discharge (NOIs);
   2. Notices of Termination (NOTs);
   3. No Exposure Certifications (NOEs);
   4. Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs); and
   5. Bypass reporting.

(d) **Electronic Submissions.** To access the eDMR system, use the following link in your web browser: [https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx](https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx).

(e) **Waivers from Electronic Reporting.** The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the department in compliance with 40 CFR Part 127. The permittee may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: [http://dnr.mo.gov/forms/780-2692-f.pdf](http://dnr.mo.gov/forms/780-2692-f.pdf). The department will either approve or deny this electronic reporting waiver request within 120 calendar days. Only permittees with an approved waiver request may submit monitoring data and reports on paper to the Department for the period that the approved electronic reporting waiver is effective.
MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL OF
HP0000003
CENTRAL MOTOR BANK HEAT PUMP WELLS

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 for less.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)(A)] 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 (MSOP or operating permit) listed below. A factsheet is not an enforceable part of an operating permit.

Part I FACILITY INFORMATION

The facility uses a two well cooling system, one at a time, for the heat pump temperature exchange inside the building through a plate heat exchanger. The piping inside the building is only dedicated to the exchange of temperature between the earth water and the heat pump loop water.

<table>
<thead>
<tr>
<th>Facility Type:</th>
<th>Groundwater Heat Pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility SIC Code:</td>
<td>7389</td>
</tr>
<tr>
<td>UIIC Class:</td>
<td>Class V Injection Wells</td>
</tr>
<tr>
<td>Application Date:</td>
<td>09/28/2018</td>
</tr>
<tr>
<td>Expiration Date:</td>
<td>06/30/2010</td>
</tr>
</tbody>
</table>

FACILITY DESCRIPTION:
Central Motor Bank is a business service that uses an open loop well to well system for heat exchange.

PERMITTED WELLS TABLE:

<table>
<thead>
<tr>
<th>PERMITTED FEATURE</th>
<th>PUMP CAPACITY</th>
<th>IDENTIFYING DESIGNATION</th>
<th>WELL TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>#IW01</td>
<td>100 gpm</td>
<td>Injection Supply</td>
<td>Injection Supply Well</td>
</tr>
<tr>
<td>#IW02</td>
<td>100 gpm</td>
<td>Injection Supply</td>
<td>Injection Supply Well</td>
</tr>
</tbody>
</table>

*gpm = gallons per minute
MAJOR WATER USER:
Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statues Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). [https://dnr.mo.gov/pubs/pub2337.htm](https://dnr.mo.gov/pubs/pub2337.htm)

Part II RECEIVING WATERBODY INFORMATION

The receiving waterbody has no concurrent water quality data available

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:
Per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], waters of the state are divided into seven categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s effluent limitation table and further discussed in Part IV: Effluents Limits Determinations

- Missouri or Mississippi River
- Lake or Reservoir
- Losing
- Metropolitan No-Discharge
- Special Stream
- Subsurface Water
- All Other Waters
RECEIVING WATERBODY TABLE:

<table>
<thead>
<tr>
<th>INJECTION WELL</th>
<th>WATERBODY NAME</th>
<th>CLASS</th>
<th>WBID</th>
<th>DESIGNATED USES</th>
<th>DISTANCE TO SEGMENT</th>
<th>12-DIGIT HUC</th>
</tr>
</thead>
<tbody>
<tr>
<td>#01 &amp; #02</td>
<td>Missouri River</td>
<td>P</td>
<td>701</td>
<td>AQL, DWS, IND, IRR, LWW, SCR, WBCB, HHP</td>
<td>0.5 mi</td>
<td>10380102-1304 Lower Missouri-Moreau</td>
</tr>
</tbody>
</table>

n/a = not applicable

Classes are hydrologic classes as defined in 10 CSR 20-7.031(1)(F). L1: Lakes with drinking water supply - wastewater discharges are not permitted to occur to L1 watersheds per 10 CSR 20-7.015(3)(C); L2: major reservoirs; L3: all other public and private lakes; P: permanent streams; C: streams which may cease flow in dry periods but maintain pools supporting aquatic life; E: streams which do not maintain surface flow; and W: wetlands. Losing streams are defined in 10 CSR 20-7.031(1)(O) and are designated on the Losing Stream dataset or determined by the Department to lose 30% or more of flow to the subsurface.

WBID = Waterbody Identification Missouri Use Designation Dataset per 10 CSR 20-7.031(1)(Q) and (S) as 8-20-13 MUDD V1.0 or newer; data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/2014_WQS_Stream_Classifications_and_Use.shp.zip; New C streams described on the dataset per 10 CSR 20-7.031(2)(A)(3) as 108K Extent Remaining Streams.

Per 10 CSR 20-7.031, the Department defines the Clean Water Commission’s water quality objectives in terms of “water uses to be maintained and the criteria to protect those uses.” The receiving stream and 1st classified receiving stream’s beneficial water uses are to be maintained in the receiving streams in accordance with 10 CSR 20-7.031(1)(C)). Uses which may be found in the receiving streams table, above:

10 CSR 20-7.031(1)(C)1.: AQL = Aquatic Life Protection (formerly AQL; current uses are defined to ensure the protection and propagation of fish, shellfish, and wildlife, further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A1-A2 for all habitat designations unless otherwise specified.

10 CSR 20-7.031(1)(C)2.: Recreation in and on the water
- WBC = Whole Body Contact recreation where the entire body is capable of being submerged;
  - WBC-A = whole body contact recreation supporting swimming uses and has public access;
  - WBC-B = whole body contact recreation not supported in WBC-A;
- SCR = Secondary Contact Recreation (like fishing, wading, and boating)

10 CSR 20-7.031(1)(C)3. to 7.
- HHP (formerly HHP) = Human Health Protection as it relates to the consumption of fish and drinking of water;
- IRR = irrigation for use on crops utilized for human or livestock consumption
- LWW = Livestock and Wildlife Watering (current narrative use is defined as IWP = Livestock and Wildlife Protection);
- DWS = Drinking Water Supply
- IND = industrial water supply

10 CSR 25-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Tables A1-B3 currently does not have corresponding habitat use criteria for these defined uses): WSA = storm- and flood-water storage and attenuation; WHF = habitat for resident and migratory wildlife species; WRC = recreational, cultural, educational, scientific, and natural aesthetic values and uses; WRC = hydrologic cycle maintenance.

10 CSR 20-7.031(6): GRW = Groundwater

THERMAL MIXING CONSIDERATIONS:
This facility has thermal discharge limitations. See Injection Well #01 & #02 for thermal limitations and derivation.
Part III  RATIONALE & DERIVATION OF LIMITATIONS & PERMIT CONDITIONS

ANTIBACKSLIDING:
Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(l)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.
✓ All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.
✓ Limitations in this operating permit for the reissuance conform to the anti-backsliding provisions of Section 402(n) of the Clean Water Act, and 40 CFR Part 122.44.

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.
✓ Not applicable; the permittee/facility is not currently under Water Protection Program enforcement action.

EFFLUENT LIMITATION GUIDELINE:
Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.
✓ The facility does not have an associated ELG.

GROUNDWATER MONITORING:
Groundwater is a water of the state according to 10 CSR 20-2.010(82), and is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.
✓ This facility is not required to monitor groundwater for the water protection program.

MAJOR WATER USER:
Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statutes Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). https://dnr.mo.gov/pubs/pub2337.htm
✓ Applicable; this facility is a major water user and is registered with the state.

NO-DISCHARGE LAND APPLICATION:
Land application of wastewater or sludge shall comply with the all applicable no-discharge requirements listed in 10 CSR 20-6.015 and all facility operations and maintenance requirements listed in 10 CSR 20-8.020(15). These requirements ensure proper operation of the no-discharge land application systems and prevent unauthorized and illicit discharges to waters of the state. Land applications by a contract hauler on fields the permittee has a spreading agreement on are not required to be in this permit. A spreading agreement does not constitute the field being rented or leased by the permittee as they do not have any control over management of the field.
✓ Not applicable; this permit does not authorize operation of a no-discharge land application system to treat wastewater or sludge.

STANDARD CONDITIONS:
The standard conditions Part I attached to this permit incorporate all sections of 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions should be reviewed by the permittee to ascertain compliance with this permit, state regulations, state statues, federal regulations, and the Clean Water Act.
UNDERGROUND INJECTION CONTROL (UIC):
The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to section 1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned by RSMo 577.155; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in RSMo 577.155; Class V wells are shallow injection wells; some examples are heat pump wells and groundwater remediation wells. Domestic wastewater being disposed of sub-surface is also considered a Class V well. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds the injection activity may endanger USDWs, the Department may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the permittee shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: http://dnr.mo.gov/forms/780-1774-f.pdf

✓ Applicable; this facility pumps and returns approximately 1.8 million gallons a year at a rate of 100 gpm.

VARIANCE:
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.

✓ Not applicable; this permit is not drafted under premise of a petition for variance.

Part IV SAMPLING & REPORTING REQUIREMENTS

Refer to each outfall's derivation and discussion of limits section to review individual sampling and reporting frequencies and sampling type.

ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM:
The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. This final rule requires regulated entities and state and federal regulators to use information technology to electronically report data required by the National Pollutant Discharge Elimination System (NPDES) permit program instead of filing paper reports. To comply with the federal rule, the Department is requiring all permittees to begin submitting discharge monitoring data and reports online.

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form. http://dnr.mo.gov/forms/780-2692-f.pdf. A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is non-transferable.

The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

✓ The permittee/facility is not currently using the eDMR data reporting system. The permittee shall submit an eDMR Permit Holder and Certifier Registration form within 30 days of the effective date of this permit.
Part V  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 and will all expire in the same fiscal year. [http://dnr.mo.gov/env/wpp/cpp/docs/watershed-based-management.pdf]. 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 three 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.

✓ This permit will become synchronized by expiring the end of the 4th quarter, 2021. The next permit cycle must be 3 years in order to meet synchronization. Final synchronization date will be 4th quarter of 2024.

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 March 04, 2019 to April 02, 2019. There were no comments received.

DATE OF FACT SHEET: DECEMBER 20, 2018

COMPLETED BY:

KYLE O’ROURKE, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573)526-1289
Kyle.O’Rourke@dnr.mo.gov
**USER INFORMATION**

- **FACILITY NAME**: Motor Bank
- **USER NAME**: Central Bank
- **ADDRESS**: 500 Madison
- **CITY**: Jefferson City
- **COUNTY**: Cole

**OWNER INFORMATION**

- **COMPANY NAME**
- **OWNER NAME**

**MEASUREMENT**

1. Source: ☑️ Surface  🇨🇦 Groundwater  ☐ Both
2. Total amount of water pumped or diverted during year: 1,829,000 gallons per year.
3. Total amount of water lost or unaccounted for during year: 0 gallons per year.
4. Total amount of water returned to water source during year: 1,829,000 gallons per year.
5. Water was pumped or diverted at a maximum rate of ☑️ 100 gallons per minute.
6. Measurement: ☑️ Metered  ☐ Estimated  ☐ Projected from past use  ☐ Other

**WATER USE**

- WHEN DID WATER USE START? - ENTER DATE

  **No Water Usage - Closed system well to well for heat pumps.**

**TYPE OF USE**

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount:</th>
<th>gallons per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Domestic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Municipal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Irrigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of Acres Irrigated:</td>
<td></td>
</tr>
<tr>
<td>D. Recreation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Industrial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Electrical Generation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Fish and Wildlife</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Drainage and Dewater</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PLEASE MAIL COMPLETED FORMS TO:**

Missouri Department of Natural Resources
Water Resources Center
PO Box 250
Rolla, MO 65402-0250
Telephone: (573) 368-2175
Fax: (573) 368-2193
mowaters@dnr.mo.gov

**IDENTIFIER**

MO 789-1701 (9-06)
<table>
<thead>
<tr>
<th>Section N</th>
<th>Section S</th>
<th>Township E</th>
<th>Township W</th>
<th>Range N</th>
<th>Range S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>A130722</td>
<td>N/A</td>
<td>2</td>
<td>182900</td>
</tr>
</tbody>
</table>

**Location of Water Withdrawal (legal description)**

<table>
<thead>
<tr>
<th>Certification well number</th>
<th>Status (Active, Inactive, Abandoned)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Method of measure (est. or metered)**

- Metered: 2,182,900

**Water pumped per year (gallons)**

- 100
- 150
- 250

**Pump capacity (gallons per minute)**

- Not recorded

**Depth to bottom of casing (feet)**

- Not recorded

**Depth of well (feet)**

- Not recorded

**Distance drilled (year)**

- Not recorded

**Groundwater for year 06**

**Owner Name:**

**Identifier:** HP-00000003

**County:** Cole

**User Name:** Motor Bank

**CENTRAL BANK**

**Department of Natural Resources**

**State of Missouri**
STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES CENTER

ANNUAL WATER USE REPORTING FORM FOR NON-IRRIGATORS – PART 1 OF 2

YEAR 2007

AUTHORITY

Collection of major water use data by the DNR is required under a law passed in 1983 by the Missouri General Assembly (RSMo Chapter 256.400, 256.410, 256.415, 256.420, 256.430).

INSTRUCTIONS

1. Annual water use reporting shall be completed by March 31 for the previous calendar year.
2. Water use registration is required if a facility’s total combined withdrawal capacity is greater than 100,000 gallons per day, regardless of actual water withdrawal amount. This is equivalent to 70 gallons per minute.
3. If you have new wells or new surface water diversions, please report that information on Part 2 of the Annual Water Use Reporting Form.
4. Annual reports must be submitted even if no withdrawals were made.

CONTACT INFORMATION

OPERATOR OR FACILITY INFORMATION

COMPANY/CONTACT NAME

MOTOR BANK

ADDRESS 1

ADDRESS 2

CENTRAL BANK

500 MADISON

CITY

STATE

JEFFERSON CITY

MO

ZIP

65101

TELEPHONE

(314)-646-8440

E-MAIL

573-634-1109

MUNICIPALITY OR OWNER INFORMATION

COMPANY/CONTACT NAME

SAME AS USER

ADDRESS 1

ADDRESS 2

CITY

STATE

ZIP

TELEPHONE

E-MAIL

FACILITY INFORMATION

MAJOR WATER USER ID NO. (LEAVE BLANK IF FIRST TIME REPORTING.)

69391856

WHAT MONTHS DID WATER WITHDRAWAL OR DIVERSION TAKE PLACE?

[All] [Jan] [Feb] [Mar] [Apr] [May] [Jun] [Jul] [Aug] [Sep] [Oct] [Nov] [Dec]

APPROXIMATELY HOW MANY DAYS WAS WATER WITHDRAWN OR DIVERTED LAST YEAR?

312 Days of Work

HOW MANY GALLONS OF WATER WAS WITHDRAWN OR DIVERTED ON AN AVERAGE DAY OF OPERATION?

4,045

WHEN DID WITHDRAWAL OR DIVERSION ORIGINALLY BEGIN (YYYYYY)? (THIS WILL HELP ESTABLISH HISTORICAL USE.)

June -05

Closed system well to well for heatpumps.
1. Please review the following information for accuracy and provide the water use data below.
2. If you have never submitted a water use inventory form or if you have added withdrawal points, a map showing the location of the point(s) is required.
3. Entities that pump water from mines and quarries shall only be required to report the quantity pumped from the mine or quarry at each point where it is pumped to the point of discharge, and the name of the stream into which any discharge is permitted to flow.

<table>
<thead>
<tr>
<th>MINES AND QUARRIES</th>
<th>Diversion Point No.</th>
<th>Quantity Pumped (gallons per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discharge Point or Stream</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GENERAL INFO</th>
<th>Withdrawal ID</th>
<th>Motor Bank</th>
<th>Owner Name</th>
<th>Motor Bank</th>
<th>Other Information</th>
<th>Cert #: A130722</th>
<th>Cert #: A130723</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WELL DATA</th>
<th>Year Drilled</th>
<th>2005</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well/Intake No.</td>
<td>001</td>
<td>002</td>
<td></td>
</tr>
<tr>
<td>Total Depth, ft.</td>
<td>585</td>
<td>585</td>
<td></td>
</tr>
<tr>
<td>Casing Depth, ft.</td>
<td>150</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Static Water Level, ft.</td>
<td>160</td>
<td>160</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SURFACE WATER DATA</th>
<th>Water Body Type</th>
<th>NA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Body Name</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUMP DATA</th>
<th>Pump Capacity, gpm</th>
<th>100</th>
<th>90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metered (Y/N)</td>
<td>Metered</td>
<td>Estimated</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION DATA</th>
<th>Quarter Sections (Smallest 1st)</th>
<th>Sec</th>
<th>Sec</th>
<th>Sec</th>
<th>Sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Description</td>
<td>Sec 7 Twp T44N Rng R11W E / W</td>
<td>Sec 7 Twp T44N Rng R11W E / W</td>
<td>Sec _____ Twp _____ Rng _____ E / W</td>
<td>Sec _____ Twp _____ Rng _____ E / W</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>COLE</td>
<td>COLE</td>
<td>COLE</td>
<td>COLE</td>
<td>COLE</td>
</tr>
<tr>
<td>Latitude</td>
<td>38.576889</td>
<td>38.576889</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitude</td>
<td>-92.17675</td>
<td>-92.17675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elevation, ft.</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WATER USE</th>
<th>Water Pumped, gal.</th>
<th></th>
</tr>
</thead>
</table>

MO 780-1975 (10/07) REPORTING FORM FOR 69391856

* STATUS: A= ACTIVE; I=INACTIVE; P=PLUGGED/ABANDONED
AUTHORITY

Major water user withdrawing or diverting water is required to file a registration form. Missouri Revised Statutes Chapter 256 Geology, Water Resources and Geodetic Survey Section 256.410

INSTRUCTIONS

1. Use this form to register as a new major water user or to report annual water use for existing registered major water users.
2. Major water use registration is required annually and shall be completed by March 31 for the previous calendar year.
3. Major water use registration is required for any person, firm, corporation or the state of Missouri, its agencies or corporations and any other political subdivision of this state, their agencies or corporations, with a water source and equipment necessary to withdraw or divert one hundred thousand gallons or more per day from any stream, river, lake, well, spring or other water source.

PART 1 APPLICANT CONTACT INFORMATION

APPLICANT NAME
MOTOR BANK

MAILING ADDRESS
CENTRAL BANK, 500 MADISON

CITY
JEFFERSON CITY
STATE
MO
ZIP
65101

TELEPHONE NUMBER
(314) 634-1109

E-MAIL ADDRESS

PART 2 WATER USE INFORMATION

SCHEDULED WITHDRAWAL OR DIVERSION DURING THE CURRENT YEAR

WATER WITHDRAWN OR DIVERTED LAST YEAR

HOW MANY DAYS WAS WATER WITHDRAWN OR DIVERTED LAST YEAR? 316

HOW MANY GALLONS OF WATER WAS WITHDRAWN OR DIVERTED ON AN AVERAGE DAY OF OPERATION? 40,711

INSTRUCTIONS

1. Please report percentage of water used in appropriate category.
2. Report water use in multiple categories if applicable.
3. Final percentage total should equal 100 percent.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DEFINITION</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal</td>
<td>Public, private and rural water suppliers. Includes water used for domestic, commercial, and industrial purposes.</td>
<td>%</td>
</tr>
<tr>
<td>Commercial</td>
<td>Hotels, restaurants, office buildings or institutions.</td>
<td>%</td>
</tr>
<tr>
<td>Fish and Wildlife</td>
<td>Fish and wildlife habitat including aquaculture.</td>
<td>%</td>
</tr>
<tr>
<td>Livestock</td>
<td>Livestock watering, feedlots, dairy operations and other farm needs.</td>
<td>%</td>
</tr>
<tr>
<td>Electrical</td>
<td>Generation of electricity: nuclear, hydropower, thermoelectric and pumped storage operations.</td>
<td>%</td>
</tr>
<tr>
<td>Industrial</td>
<td>Industrial purposes such as refining, smelting, fabrication, processing, washing and cooling.</td>
<td>%</td>
</tr>
<tr>
<td>Drainage and Dewatering</td>
<td>The removal of water through draining or pumping to lower the water table.</td>
<td>%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>The water used for ornamental or consumptive agricultural production</td>
<td>%</td>
</tr>
<tr>
<td>Other</td>
<td>Please explain: Closed system, well to well for heat pump 100%</td>
<td></td>
</tr>
</tbody>
</table>

MO 780-1701 (12-08) 69391856
### PART 3: WATER USE INFORMATION FOR ALL MAJOR WATER USERS

1. Please verify the accuracy of the information or complete the water use information below. If any of the information is incorrect note the correction on this form.

2. Please record the annual water use information at the bottom of the form as accurately as possible.

#### General Data

<table>
<thead>
<tr>
<th>Withdrawal/Intake ID Number</th>
<th>1079661</th>
<th>3845054</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Drilled or Year Intake Established</td>
<td>2005</td>
<td>2005</td>
</tr>
<tr>
<td>Other Information</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Well Data

<table>
<thead>
<tr>
<th>Well Certification No.</th>
<th>A130723</th>
<th>A130722</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status: Active, Inactive, Plugged, Abandoned, Sold</td>
<td>AC</td>
<td>AC</td>
</tr>
<tr>
<td>Total Depth, ft.</td>
<td>585</td>
<td>585</td>
</tr>
<tr>
<td>Casing Depth, ft.</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

#### Surface Water Data

<table>
<thead>
<tr>
<th>Water Body Name</th>
<th>NA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Water Body (Lake, Spring, River)</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

#### Pump Data

| Pump Capacity, gpm | 90 | 100 |
| Metered Y/N | Estimated | Metered |
| Quarter Sections (Smallest 1/16th) | _ _ _ | _ _ _ |
| Legal Description Section, Township and Range | Sec: 7 | Sec: 7 |
| | Twp: T44N | Twp: T44N |
| | Rng: R11W | Rng: R11W |
| Latitude | 38.576889 | 38.576889 |
| Longitude | -92.17675 | -92.17675 |
| County | COLE | COLE |

### Water Use Non-Irrigators

**Annual Water Use In Gallons**

### PART 4: WATER USE INFORMATION FOR IRRIGATORS

The following section pertains only to irrigators.

#### *Water Use Irrigators*

<table>
<thead>
<tr>
<th>Irrigation Method</th>
<th>☐ Pivot</th>
<th>☐ Flood</th>
<th>☐ Other</th>
<th>☐ Pivot</th>
<th>☐ Flood</th>
<th>☐ Other</th>
<th>☐ Pivot</th>
<th>☐ Flood</th>
<th>☐ Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres and Crop Example: 30 acres corn 50 acres soybeans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Annual Water Use In Gallons**

**Water Applied In acre-inches**

---

MO 780-1701 (12-08) 69391856
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES CENTER
MAJOR WATER USE REGISTRATION

AUTHORITY
Major water user withdrawing or diverting water is required to file a registration form. Missouri Revised Statutes Chapter 256 Geology, Water Resources and Geodetic Survey Section 256.410

INSTRUCTIONS
1. Use this form to register as a new major water user or to report annual water use for existing registered major water users.
2. Major water use registration is required annually and shall be completed by March 31 for the previous calendar year.
3. Major water use registration is required for any person, firm, corporation or the state of Missouri, its agencies or corporations and any other political subdivision of this state, their agencies or corporations, with a water source and equipment necessary to withdraw or divert one hundred thousand gallons or more per day from any stream, river, lake, well, spring or other water source.

PART 1 - APPLICANT CONTACT INFORMATION

APPLICANT NAME
Motor Bank

MAILING ADDRESS
Central Bank, 500 Madison

TELEPHONE NUMBER WITH AREA CODE
573-634-1109

E-MAIL ADDRESS
keith_ziegelm@centralbank.net

MAJOR WATER USER IDENTIFICATION NUMBER (LEAVE BLANK IF FIRST TIME REPORTER)
69391856

CITY
Jefferson City

STATE
MO

ZIP
65101

PART 2 - GENERAL WATER USE INFORMATION

WATER WITHDRAWN OR DIVERTED LAST YEAR

ALL JAN FEB MAR APR MAY JUN JLY AUG SEP OCT NOV DEC NO WATER USE

HOW MANY DAYS WAS WATER WITHDRAWN OR DIVERTED LAST YEAR?
316 - 6 days out of week

HOW MANY GALLONS OF WATER WAS WITHDRAWN OR DIVERTED ON AN AVERAGE DAY OF OPERATION?
12,468

INSTRUCTIONS
1. Please report percentage of water used in appropriate category.
2. Report water use in multiple categories if applicable.
3. Final percentage total should equal 100 percent.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DEFINITION</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal</td>
<td>Public, private and rural water suppliers. Includes water used for domestic, commercial and industrial purposes.</td>
<td>%</td>
</tr>
<tr>
<td>Commercial</td>
<td>Hotels, restaurants, office buildings or institutions.</td>
<td>%</td>
</tr>
<tr>
<td>Fish and Wildlife</td>
<td>Fish and wildlife habitat including aquaculture.</td>
<td>%</td>
</tr>
<tr>
<td>Livestock</td>
<td>Livestock watering, feedlots, dairy operations and other farm needs.</td>
<td>%</td>
</tr>
<tr>
<td>Electrical</td>
<td>Generation of electricity: nuclear, hydropower, thermoelectric and pumped storage operations.</td>
<td>%</td>
</tr>
<tr>
<td>Industrial</td>
<td>Industrial purposes such as refining, smelting, fabrication, processing, washing and cooling.</td>
<td>%</td>
</tr>
<tr>
<td>Drainage and Dewatering</td>
<td>Removal of water through draining or pumping to lower the water table.</td>
<td>%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Water used for ornamental or consumptive agricultural production.</td>
<td>%</td>
</tr>
<tr>
<td>Other</td>
<td>Please explain: Closed system/well to well for Hot Pumps</td>
<td>100</td>
</tr>
</tbody>
</table>

MO 780-2019 (01-10)
### PART 3 - WATER USE INFORMATION FOR ALL MAJOR WATER USERS

1. Verify the accuracy of the information or complete the water use information below. If any of the information is incorrect note the correction on this form.

2. Please record the annual water use information at the bottom of the form as accurately as possible.

#### General Data
- **Withdrawal/Intake ID Number**: 1079661, 38 456 54
- **Year Drilled or Year Intake Established**: 2005, 2005
- **Other Information**: [Empty]

#### Well Data
- **Well Certification No.**: A130723, A130722
- **Status: Active, Inactive, Plugged, Abandoned, Sold**: Active, Active
- **Total Depth, feet**: 585, 585
- **Casing Depth, feet**: 150, 150

#### Surface Water Data
- **Water Body Name**: N/A, N/A
- **Type of Water Body (Lake, Spring, River)**: N/A, N/A

#### Pump Data
- **Pump Capacity, gpm**: 100, 100
- **Metered Y/N**: Y, Y

#### Legal Description
- **Quarter Sect. (Smallest 1st)**: [Empty]
- **Legal Description Section, Township and Range**: Sec 7, Twp 44N, Rng 11W
- **Latitude**: 38.576889, 38.576889
- **Longitude**: -92.17675, -92.17675
- **County**: COLE, COLE

#### Annual Water Use Non-Irrigators
- **Annual Water Use in Gallons**: [Empty]

### PART 4 - WATER USE INFORMATION FOR IRRIGATORS

The following section pertains only to irrigators.

#### Annual Water Use Irrigators
- **Irrigation Method**: [Empty]
- **Acres and Crop Example**: 30 acres corn, 50 acres soybeans
- **Annual Water Use In Gallons**: [Empty]

---

*Return this form to:*
Missouri Department of Natural Resources
Water Resources Center
P.O. Box 250
Rolla, MO 65402
Phone 573-368-2175 Fax 573-368-2193
mowaters@dnr.mo.gov

MO 780-2019 (01-10)

* Indicates a required field

** Either Organization Name or First and Last Name are required.

** Organization Name: MOTOR BANK
** First Name: UNKNOWN
** Last Name: UNKNOWN
*Mailing Address: CENTRAL BANK
Address 2: 500 MADISON
*City: JEFFERSON CITY
*State:
*Zip: 65101
*County:
Telephone Number: 573-634-1109 (XXX-XXX-XXXX)

Water User Information

The months during the report year, when water was diverted or withdrawn. (2009)

☐ Unknown
☐ Jan ☐ Feb ☐ Mar ☐ Apr ☐ May ☐ Jun
☐ Jul ☐ Aug ☐ Sep ☐ Oct ☐ Nov ☐ Dec

Comment:

* How many days was water withdrawn or diverted during the reporting period? 316
* What is the average amount used each day? 13,000  *Unit: GALLONS

Total Gallons: 4,108,000

Instructions

1. Please report percentage of water used in appropriate category.
2. Report water use in multiple categories if applicable.
3. Final percentage total should equal 100 percent.

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>Percent of Total</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Municipal</th>
<th>Commercial</th>
<th>Wildlife</th>
<th>Livestock</th>
<th>Electrical</th>
<th>Industrial</th>
<th>Dewatering</th>
<th>Irrigation</th>
<th>Recreation</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal</td>
<td>Public, private, and rural water suppliers. Includes water used for domestic, commercial, and industrial purposes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Commercial</td>
<td>Hotels, restaurants, office buildings, or institutions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Fish and Wildlife</td>
<td>Fish and wildlife habitat including aquaculture.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Livestock</td>
<td>Livestock watering, feedlots, dairy operations, and other farm needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Electrical</td>
<td>Generation of electricity: nuclear, hydropower, thermoelectric, and pumped storage operations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Industrial</td>
<td>Industrial purposes such as refining, smelting, fabrication, processing, washing, and cooling.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Draining and Dewatering</td>
<td>The removal of water through draining or pumping to lower the water table.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Irrigation</td>
<td>The water used for ornamental or consumptive agricultural production.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Recreation</td>
<td>Water used pleasurably for purposes of swimming, boating, game fishing, and aesthetics.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>Other Percent Text: Closed system / well to well for heat pumps in building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

**Total Gallons of Water Used:** 0

**Intake ID:** 1079661

**Water Draw Type:** WELL

**Total Annual Usage:** 0  
**Unit:** GALLONS

**Year Drilled:** 2005

**Well Certification Number:** A130723

**Casing Depth (ft.):** 150

**Pump Capacity (gpm):** 100

**County:** COLE

**User Description:** Heat Pump well

**Status:** ACTIVE

**Total Depth (ft.):** 585

**Measurement Type:** METERED

**Section:** 7

**Range:** 11W

**Longitude:** -92.17675

**Intake ID:** 3845054

**Water Draw Type:** WELL

**Year Drilled:** 2005

**Well Certification Number:** A130722

**Casing Depth (ft.):** 150

**Pump Capacity (gpm):** 100

**County:** COLE

**User Description:** Heat Pump well

**Status:** ACTIVE

**Total Depth (ft.):** 585

**Measurement Type:** METERED

**Section:** 7
Township: 44
Latitude: 38.576889
Range: 11W
Longitude: -92.17675

Update and form submission was successful.
Missouri Department of Natural Resources
Water Resources Center
Major Water Use Report Date: 01/21/2011
Major Water Use Information System

Registration / Report Year: 2010
Gallons of Ground Water: 24,579,000
Gallons of Surface Water: 0
Total Annual Gallons Used: 24,579,000

Reporter Identifiers

Type of Reporter: MAJOR WATER USER - NONIRRIGATOR
E-mail Address: keith_ziegelbein@centralbank.net
Major Water User ID: 69391856

Applicant Contact Information

Organization: MOTOR BANK
First Name: KEITH
Last Name: ZIEGELBEIN
Mailing Address: CENTRAL BANK
Address 2: 500 MADISON
City: JEFFERSON CITY
State: MISSOURI
Zip: 65101
County: COLE
Telephone Number: 573-690-1967

Water User Information

☐ No Water User
☐ All
☒ Unknown
☒ Jan ☒ Feb ☒ Mar ☒ Apr ☒ May ☒ Jun
☒ Jul ☒ Aug ☒ Sep ☒ Oct ☒ Nov ☒ Dec

Comment:

Water days withdrawn: 316
Amount Used each day: 77781
Unit: GALLONS
Total Gallons: 24578796
### Category Definitions

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DEFINITION</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal</td>
<td>Public, private and rural water suppliers. Includes water used for domestic, commercial and industrial purposes.</td>
<td>0%</td>
</tr>
<tr>
<td>Commercial</td>
<td>Hotels, restaurants, office buildings, or institutions.</td>
<td>0%</td>
</tr>
<tr>
<td>Fish and Wildlife</td>
<td>Fish and wildlife habitat including aquaculture.</td>
<td>0%</td>
</tr>
<tr>
<td>Livestock</td>
<td>Livestock watering, feedlots, dairy operations and other farm needs.</td>
<td>0%</td>
</tr>
<tr>
<td>Electrical</td>
<td>Generation of electricity: nuclear, hydropower, thermolectric and pumped storage operations.</td>
<td>0%</td>
</tr>
<tr>
<td>Industrial</td>
<td>Industrial purposes such as refining, smelting, fabrication, processing, washing and cooling.</td>
<td>0%</td>
</tr>
<tr>
<td>Drainage and Dewatering</td>
<td>Removal of water through draining or pumping to lower the water table.</td>
<td>0%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Water used for ornamental or consumptive agricultural production.</td>
<td>0%</td>
</tr>
<tr>
<td>Recreation</td>
<td>Water used pleasurably for purposes of swimming, boating, game fishing, and aesthetics.</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>Please explain: Closed system / well to well for heat pumps in building</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Total:** 100

### Water Use Information

- **Withdraw ID:** 1079661  
- **Unit:** GALLONS  
- **Acres Irrigated:** 0  
- **Water Draw Type:** WELL  
- **Well Certification No.:** A130723  
- **PWS Well ID:**  
- **Log Main ID:** 2005  
- **Year Drilled:** 2005  
- **Pump Capacity (gpm):** 100  
- **Section:** 7  
- **Township:** 44  
- **Range:** 11W  
- **Total Annual Usage:** 12289500  
- **User Description:** Heat Pump well  
- **Inches Applied:** 0.0  
- **Status:** ACTIVE  
- **Casing Depth (ft.):** 150  
- **Total Depth (ft.):** 585  
- **Measurement Type:** METERED  
- **County:** COLE  
- **Latitude:** 38.576889  
- **Longitude:** -92.17675

### Crops and Acres

### Water Use Information

- **Withdraw ID:** 3845054  
- **Unit:** GALLONS  
- **Acres Irrigated:** 0  
- **Water Draw Type:** WELL  
- **Well Certification No.:** A130722  
- **PWS Well ID:**  
- **Total Annual Usage:** 12289500  
- **User Description:** Heat Pump well  
- **Inches Applied:** 0.0  
- **Status:** ACTIVE  
- **Casing Depth (ft.):** 150  
- **Total Depth (ft.):** 585
Log Main ID: 
Year Drilled: 2005 
Pump Capacity (gpm): 100 
Section: 7 
Township: 44 
Range: 11W 

Measurement Type: METERED 
County: COLE 
Latitude: 38.576889 
Longitude: -92.17675 

Crops and Acres
Missouri Department of Natural Resources
Water Resources Center
Major Water Use Report Date: 02/07/2018
Major Water Use Information System

Registration / Report Year: 2017
Gallons of Ground Water: 50,346,300
Gallons of Surface Water: 0
Total Annual Gallons Used: 50,346,300

Reporter Identifiers

Type of Reporter: MAJOR WATER USER - NONIRRIGATOR
E-mail Address: keith_ziegelbein@centralbank.net
Major Water User ID: 69391856

Applicant Contact Information

Organization: CENTRAL BANK
First Name: KEITH
Last Name: ZIEGELBEIN
Mailing Address: 500 MADISON ST
City: JEFFERSON CITY
State: MISSOURI
Zip: 65101
County: COLE
Telephone Number: 573-690-1967

Water User Information

☐ No Water User
☒ All
☐ Unknown

☒ Jan ☒ Feb ☒ Mar ☒ Apr ☒ May ☒ Jun
☒ Jul ☒ Aug ☒ Sep ➤ Oct ➤ Nov ➤ Dec

Comment: well to well Heat pump system

Water days withdrawn: 316
Amount Used each day: 159323
Unit: GALLONS
Total Gallons: 50346068
<table>
<thead>
<tr>
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<th>TOTAL</th>
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<td>Public, private and rural water suppliers. Includes water used for domestic,</td>
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<tr>
<td>Commercial</td>
<td>Hotels, restaurants, office buildings, or institutions.</td>
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<td>Industrial purposes such as refining, smelting, fabrication, processing,</td>
<td>0%</td>
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<tr>
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<td>aethetics.</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Please explain: Closed system / well to well for heat pumps in building</td>
<td>100%</td>
</tr>
</tbody>
</table>

Total: 100

Water Use Information

Withdraw ID: 1079661
Unit: GALLONS
Acres Irrigated: 0
Water Draw Type: WELL
Well Certification No.: A130723
PWS Well ID:
Log Main ID: 2005
Year Drilled: 2005
Pump Capacity (gpm): 100
Section: 7
Township: 44
Range: 11W
User Description: Heat Pump well
Inches Applied: 0.0
Status: ACTIVE
Casing Depth (ft.): 150
Total Depth (ft.): 585
Measurement Type: METERED
County: COLE
Latitude: 38.576889
Longitude: -92.17675

Crops and Acres

Water Use Information

Withdraw ID: 3845054
Unit: GALLONS
Acres Irrigated: 0
Water Draw Type: WELL
Well Certification No.: A130722
PWS Well ID:
Total Annual Usage: 25173150
User Description: Heat Pump well
Inches Applied: 0.0
Status: ACTIVE
Casing Depth (ft.): 150
Total Depth (ft.): 585
Log Main ID: 2005
Year Drilled: 2005
Pump Capacity (gpm): 100
Section: 7
Township: 44
Range: 11W

Measurement Type: METERED
County: COLE
Latitude: 38.576889
Longitude: -92.17675

Crops and Acres