



## NRS12.195

Pursuant to the *Tennessee Water Quality Control Act of 1977* (T.C.A. § 69-3-101 et seq.) and supporting regulations, a permit is required to alter the properties of waters of the state. Also, pursuant to §401 of the *Clean Water Act* (33 U.S.C. 1341), an applicant for a Federal license or permit which may result in a discharge into the waters of the U.S., shall provide the federal licensing or permitting agency a certification from the State in which the discharge will originate. This permit does not preclude requirements of other federal, state or local laws.

Accordingly, the Division of Water Resources requires reasonable assurance that the activity will not violate provisions of the *Tennessee Water Quality Control Act of 1977* (T.C.A. §69-3-101 et seq.) or provisions of §§301, 302, 303, 306 or 307 of the *Clean Water Act*.

Subject to conformance with accepted plans, specifications, and other information submitted in support of the application, the state of Tennessee hereby authorizes pursuant to 33 U.S.C. 1341 certifies and T.C.A. §69-3-101 et seq., the activity described below:

**PERMITTEE**           City of Franklin  
                          Water Management Department  
                          405 Hillsboro Road  
                          Franklin, Tennessee 37064

**AUTHORIZED WORK:** This permit authorizes withdrawal of water at a maximum pumping rate of 7,800 gpm (11.2 mgd) from the Harpeth River for use as municipal water supply by the City of Franklin. The withdrawal is used to fill an off-river open earthen reservoir with a 114 million gallon design capacity from which the water is pumped to the treatment plant when needed. This permit authorizes a withdrawal of 20 percent of the instantaneous flow of the river. Withdrawal is not authorized if it reduces or occurs at instream flows below 10.0 cubic feet per second, or when dissolved oxygen concentrations are at or below 5.0 parts per million.

This permit also authorizes construction of new intake facilities in the Harpeth River.

**LOCATION:**           Harpeth River in Franklin, Williamson County

**EFFECTIVE DATE:**           July 2, 2015

**EXPIRATION DATE:**           July 1, 2020

---

Tisha Calabrese Benton  
Director, Division of Water Resources

**Table of Contents**

<b>PART I</b>	<b>4</b>
CONDITIONS .....	4
Special Conditions: .....	4
Interim Compliance .....	4
Long Term Compliance .....	5
Intake Construction .....	6
General Conditions .....	7
<b>PART II</b>	<b>7</b>
MONITORING REQUIREMENTS AND PROCEDURES .....	7
Flow Monitoring .....	7
Withdrawal Monitoring .....	8
Dissolved Oxygen Monitoring .....	8
Biological Monitoring .....	8
Submission of Monitoring Results .....	9
Records Retention .....	9
Falsifying Results and/or Reports .....	9
<b>PART III</b>	<b>10</b>
Duty to Reapply .....	10
Property Rights .....	10
Other Information .....	10
CHANGES AFFECTING THE PERMIT .....	10
Transfer/Change of Ownership .....	10
Change of Mailing Address .....	11
NONCOMPLIANCE .....	11
Effect of Noncompliance .....	11
Reporting of Noncompliance .....	11
Adverse Impact .....	12
LIABILITIES .....	12

Civil and Criminal Liability.....	12
Liability under State Law.....	12
REOPENER: .....	12
APPEAL: .....	13

## **PART I**

### **Conditions**

#### **Special Conditions:**

1. River flow in the Harpeth River shall not be reduced below 10.0 cubic feet per second (cfs) as a result of the withdrawal, nor shall withdrawal proceed when the flow in the river is below 10.0 cfs.
2. The rate at which water is withdrawn from the river shall not exceed 20 percent of the river's instantaneous, pre-withdrawal flow.
3. Withdrawal from the Harpeth River shall not occur when the dissolved oxygen in the river at the approved monitoring location is at or below 5.0 parts per million.
4. River flow shall be measured to represent instantaneous river flow as background, pre-withdrawal flow at the location of withdrawal. River flow shall be recorded and reported monthly to the department (see Part II, Monitoring Requirements and Procedures).
5. Withdrawal rate shall be measured, recorded, and reported monthly to the department (see Part II, Monitoring Requirements and Procedures).
6. Biological health of the source river shall be monitored annually during the duration of this permit (see Part II, Monitoring Requirements and Procedures).
7. To ensure uninterrupted drinking water service to the City of Franklin's customers during unique circumstances associated with emergency conditions, the city may submit for review, alternative withdrawal conditions and associated conservation measures to protect public health and welfare under emergency conditions. In order to withdraw under alternative conditions, the City must obtain written authorization from the department.

#### **Interim Compliance**

Until the long-term compliance monitoring systems for river flow measurement, dissolved oxygen measurement, and the measurement, control and recording of the withdrawal rate are in place, the following special conditions apply:

1. The permittee shall use the existing United States Geological Survey (USGS) gage at Highway 96 (03432350 HARPETH RIVER AT FRANKLIN, TN) for permit compliance purposes.
2. For the purposes of evaluating gage accuracy, the City shall at least weekly physically examine debris buildup or other significant change to the channel. Debris buildup or significant change to the channel shall be reported to the USGS immediately and noted on the monthly operational report.
3. To represent instantaneous river flow as background, pre-withdrawal flow at the location of withdrawal, USGS real-time flow data shall be adjusted using the following formula:

$$Q_{R-WTP} = Q_{R-USGS} + q_{wtp} - q_{Local}$$

Where :

$Q_{R-WTP}$  = Harpeth River Flow at the water treatment plant intake in cfs

$Q_{R-USGS}$  = Harpeth River Flow at the USGS gage # 03432350 in cfs

$q_{wtp}$  = water treatment plant intake withdrawal rate in cfs

$q_{Local}$  =  $0.0455 \times Q_{R-USGS}$  (correction factor for local area inflow between water treatment plant intake and USGS gage in cfs)

4. To control, measure, and record the rate of withdrawal to maintain compliance, during periods of withdrawal the permittee shall, on an least an hourly basis :

Record the available real-time, provisional flow from USGS gage # 03432350.

Calculate and record  $Q_{R-WTP}$  using the formula described above.

Adjust the variable speed drive to achieve a pumping rate that does not exceed 20% of the  $Q_{R-WTP}$ , and maintains a minimum of 10.0 cfs river flow downstream of the intake.

Record the resulting percent of river flow withdrawn.

5. To comply with permit conditions and protection of the minimum dissolved oxygen water quality standard, the permittee shall manually measure dissolved oxygen levels using a calibrated hand-held meter with a minimum resolution of 0.01 mg/L and accuracy of  $\pm 0.2$  mg/L, measured and recorded at least daily between 6:00 am and 7:00 am. Measurements shall be obtained at the public canoe launch located at the old dam site off Highway 431, upstream of first cross-vane, and as close to mid-channel, mid-depth of the river as is practicable under the ambient flow conditions. If optional monitoring after 7:00 am indicates the dissolved oxygen level to be above 5.0 parts per million, then withdrawal may resume.

All data will be recorded on the Hourly Rounds Form, and used to submit the required monitoring reports as outlined in *Part II - Monitoring Requirements and Procedures*.

### **Long Term Compliance**

1. The mechanism(s) that will be used to measure instantaneous river flow in a manner representative of the background, pre-withdrawal flow at the location of withdrawal shall be presented to the department for review and written approval prior to construction or installation. The approved mechanism(s) must be installed and functional no later than October 1, 2015.
2. The mechanism(s) that will be used to measure dissolved oxygen in the river to comply with permit conditions and protection of the minimum dissolved oxygen water quality standard shall be presented to the department for review and written approval prior to construction or installation. The approved mechanism(s) must be installed and functional no later than October 1, 2015.
3. The mechanism(s) that will be used to control, measure, and record the rate of withdrawal to maintain compliance shall be presented to the department for review and written approval prior to construction or installation. The approved mechanism(s) must be installed and functional no later than October 1, 2015.
4. If a scheduled item above is delayed due to circumstances beyond the permittee's control, the permittee shall inform the department as soon as practicable and propose an alternative date

of compliance, along with appropriate justification for such date. In order to proceed with an alternative date of compliance the City must first obtain written authorization from the department.

5. In the event of a failure of any the above mechanisms, the permittee shall notify the department and upon approval, revert to the interim compliance methodology and permit conditions on a temporary basis or such other approach as approved by the department while repairs are made.

### **Intake Construction**

1. Prior to construction of any upgrade to the intake or construction of a new intake or intakes, plans must be submitted to the department and approved in writing.
  - a. Plans shall address construction related impacts related to both active earth moving activities and erosion and sediment controls.
  - b. Plans shall address instream construction best management practices.
2. The new intake structure shall be located and oriented such as to avoid permanent alteration or damage to the integrity of the stream channel including the opposite stream bank.
3. The new intake structure shall be designed to minimize harm and to prevent the impoundment of normal or base flows. Base flow is the usual or normal flow of the river that is supplied primarily by groundwater from springs and seeps, but not affected by rapid runoff during and after rainfall.
4. Headwalls, bank stabilization materials, and any other hard armoring associated with the installation of the structure shall be limited to a total of 25 feet along the river's bank.
5. The new intake structure may not result in a disruption or barrier to the movement of fish or other aquatic life.
6. Erosion prevention and sediment control measures must be in place and functional before any land disturbance activities begin, and shall be designed according to the department's *Erosion and Sediment Control Handbook* ([www.tn.gov/environment/wpc/sed\\_ero\\_controlhandbook/](http://www.tn.gov/environment/wpc/sed_ero_controlhandbook/)). Permanent vegetative stabilization using native species of all disturbed areas in or near the stream channel must be initiated within 14 days of project completion (see also *Landscaping with Natives* at [tneppc.org](http://tneppc.org)). Non-native, non-invasive annuals may be used as cover crops until native species are established.
7. The use of monofilament-type erosion control netting or blanket is prohibited.
8. Clearing, grubbing, and other disturbance to riparian vegetation shall be kept at the minimum necessary. Unnecessary riparian vegetation removal, including trees, is prohibited. Coverage under this permit does not serve to waive any local riparian buffer protection requirement, and permittees are responsible for obtaining any necessary local approval.
9. The excavation and fill activities associated with the installation or construction of the new intake shall be kept to a minimum and shall be separated from flowing waters. The structure

shall be constructed in the dry to the maximum extent practicable by diverting flow utilizing cofferdams, berms, temporary channels or pipes.

10. All spoil material from trench excavation, bore pits and other earth disturbing activities shall be deposited in an upland location and stabilized within 7 days in order to prevent erosion into waters of the state.
11. All dewatering activities shall be conducted in such a manner as to prevent the discharge of sediment-laden water into waters of the state.

### **General Conditions**

1. The activity shall be accomplished in conformance with the accepted plans, specifications, data and other information submitted in support of the application and the limitations, requirements and conditions set forth herein.
2. Adverse impact to formally listed state or federal threatened or endangered species or their critical habitat is prohibited.
3. This permit does not authorize adverse impacts to cultural, historical or archeological features or sites.
4. Work shall not commence until the permittee has obtained all necessary authorizations pursuant to applicable provisions of §10 of The Rivers and Harbors Act of 1899; §404 of The Clean Water Act and §26a of The Tennessee Valley Authority Act, as well as any other federal, state or local laws.
5. The reporting of results shall be rounded to the closest higher or lower number, as applicable, to correspond to the number of decimal points set forth in a permit condition herein. Instream river flow may be reported using the USGS convention of resolution to a tenth of cfs for flows below 10 cfs, and whole numbers for flows at or above 10 cfs.
6. Compliance with the terms of this permit shall be based on the provisional instantaneous background flow measurements from the instream flow monitor, and the provisional dissolved oxygen measurements from the dissolved oxygen monitor.

## **PART II**

### **Monitoring Requirements and Procedures**

#### **Flow Monitoring**

1. River flow shall be measured to represent instantaneous river flow as background, pre-withdrawal flow at the location of the withdrawal.
2. River flow under condition 1, above, shall be measured with such precision and accuracy equivalent to a USGS gage accuracy ranking of “Good” or better, and provide similar functionality.

3. The accuracy of long-term compliance river flow data must be calibrated and verified at least annually over the range of river flow conditions that affect compliance. Should the permittee utilize gages installed and maintained by USGS, the permittee shall not be held responsible for maintenance issues beyond its control. To the extent certification is required of the river flow gages owned and maintained by USGS, the City is not required to certify data from said gages.
4. Instantaneous river flow data shall be recorded at a minimum on an hourly basis.

#### **Withdrawal Monitoring**

1. Withdrawal rate shall be measured as the instantaneous rate pumped from the river.
2. Withdrawal rate data shall be recorded at a minimum on an hourly basis.

#### **Dissolved Oxygen Monitoring**

1. Dissolved Oxygen levels in the river shall be measured instantaneously, as close to mid-channel and mid-depth as practicable, to represent background, pre-withdrawal levels at the location of the withdrawal.
2. Dissolved Oxygen shall be measured with a minimum resolution of 0.01 mg/L and accuracy of  $\pm 0.2$  mg/L.
3. The accuracy of dissolved oxygen data must be calibrated and verified at a frequency as to assure and demonstrate compliance with all permit conditions, and per the manufacturer's recommendation. Should the permittee utilize a dissolved oxygen monitor installed and maintained by USGS, the permittee shall not be held responsible for maintenance issues beyond its control. To the extent certification is required of the dissolved oxygen monitor owned and maintained by USGS, the City is not required to certify data from said monitor.
4. Instantaneous dissolved oxygen data shall be recorded at a minimum on an hourly basis except as provided under Interim Compliance condition 5, which requires dissolved oxygen to be recorded at a minimum daily.

#### **Biological Monitoring**

1. Benthic macro-invertebrate biological surveys shall be conducted, in conjunction with the permittee's NPDES benthic monitoring, annually during low flow, high temperature conditions.
2. The surveys shall be conducted by qualified biologists, who may be employees of the permittee, following the Semi-Quantitative Single Habitat Sample procedure found in the most current version of TDEC's Quality System Standard Operating Procedure for Macroinvertebrate Stream Surveys (QSSOP).
3. The sites selected must provide riffle habitat and must be generally comparable. Sampling shall be conducted at one site upstream of the intake and one site downstream of the intake. Sampling sites chosen for this permit and surveys conducted to fulfill the requirements of this



permit may also be used to fulfill the requirements of the City's NPDES Permit TN0028827 and vice versa, upon approval by the department.

4. Prior to each annual sampling event, all selected river-sampling points shall be marked on a topographical map, submitted to and approved by the Nashville Environmental Field Office, Division of Water Resources. The permittee shall notify that office at least two weeks prior to conducting the biological survey.
5. The bio-survey will incorporate habitat assessment at each station for each sampling effort, as described in the QSSOP.
6. The following data and information shall be recorded at each station during biological surveys:
  - a. water temperature (°C)
  - b. dissolved oxygen (mg/L)
  - c. pH (s.u.)
  - d. specific conductance (umhos/cm)
  - e. river flow (cfs)

#### **Submission of Monitoring Results**

Monthly reports shall include the following data measured on an hourly basis: provisional, instantaneous river flow (cfs), maximum withdrawal rate (cfs), maximum percent of instantaneous flow withdrawn, and dissolved oxygen (mg/L) except as provided by interim method, pursuant to Part I, general condition 5.

1. When the pumps are not in operation, the permittee need only indicate on their monthly reporting that no withdrawal occurred during that time interval.
2. Any violations of permit conditions shall be noted on the monthly reports.
3. Monthly reports may be submitted electronically to the department at [water.permits@tn.gov](mailto:water.permits@tn.gov).
4. Submittals shall be postmarked or sent electronically no later than 15 days after the completion of each monthly reporting period.
5. Results of the annual biological river monitoring shall be submitted to the department at [water.permits@tn.gov](mailto:water.permits@tn.gov). Reports shall be submitted annually by December 31 of each year.

#### **Records Retention**

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of five (5) years, or longer, if requested by the department.

#### **Falsifying Results and/or Reports**

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the

*Federal Water Pollution Control Act*, as amended, and in Section 69-3-115 of *The Tennessee Water Quality Control Act of 1977*.

### **PART III**

#### **Duty to Reapply**

Permittee is not authorized to operate after the expiration date of this permit unless the permittee submitted such information and forms as are required by State law to the director of the Division of Water Resources within 90 days of expiration of this permit and a new permit has not been issued. Such applications must be properly signed and certified.

#### **Property Rights**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

#### **Other Information**

If the permittee becomes aware that he/she failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the director, then he/she shall promptly submit such facts or information.

### **Changes Affecting the Permit**

#### **Transfer/Change of Ownership**

- a. This permit may be transferred to another party, provided there are no activity or project modifications, no pending enforcement actions, or any other changes which might affect the permit conditions contained in the permit, by the permittee if:
  1. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;
  2. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and contractual liability between them; and
  3. The Director does not notify the current permittee and the new permittee, within 30 days, of his or her intent to modify, revoke, reissue, or terminate the permit, or require that a new application be filed rather than agreeing to the transfer of the permit.
- b. The permittee must provide the following information to the department in their formal notice of intent to transfer ownership:
  1. the permit number of the subject permit;
  2. the effective date of the proposed transfer;
  3. the name and address of the transferor;
  4. the name and address of the transferee;

5. the names of the responsible parties for both the transferor and transferee;
6. a statement that the transferee assumes responsibility for the subject permit;
7. a statement that the transferor relinquishes responsibility for the subject permit;
8. the signatures of the responsible parties for both the transferor and transferee, and;
9. a statement regarding any proposed modifications to the permitted activities or project, its operations, or any other changes which might affect the permit conditions contained in the permit.

### **Change of Mailing Address**

The permittee shall promptly provide to the director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

## **Noncompliance**

### **Effect of Noncompliance**

All regulated activities shall be consistent with the terms and conditions of this permit. Any permit noncompliance constitutes a violation of applicable state and federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

### **Reporting of Noncompliance**

#### **24-Hour Reporting**

1. In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge or activity that could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the Division of Water Resources in the appropriate Environmental Field Office within 24-hours from the time the permittee becomes aware of the circumstances. (The Environmental Field Office should be contacted for names and phone numbers of environmental response personnel).
2. A written submission must be provided within five (5) days of the time the permittee becomes aware of the circumstances unless this requirement is waived by the director on a case-by-case basis. The permittee shall provide the director with the following information:
  - a. A description of the discharge or cause of noncompliance, if known;
  - b. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

- c. The steps being taken to reduce, eliminate, and prevent recurrence of the non-complying discharge or activity.

### **Scheduled Reporting**

For instances of noncompliance which are not reported under subparagraph a. above, the permittee shall report the noncompliance by contacting the permit coordinator, and provide all information concerning the steps taken or planned to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

### **Adverse Impact**

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including but not limited to, accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance. It shall not be a defense for the 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.

## **Liabilities**

### **Civil and Criminal Liability**

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the state of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the activity or discharge of pollutants to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the permittee to conduct its activities in a manner such that public or private nuisances or health hazards will not be created.

### **Liability under State Law**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or the *Federal Water Pollution Control Act*, as amended.

## **Reopener:**

This permit may be modified, suspended, or revoked for cause, including:

1. Violation of any of the terms or conditions of this permit or of T.C.A § 69-3-101 et. seq.;
2. Obtaining the permit by misrepresentation or failing to disclose fully all relevant facts;

3. A change in any condition or receipt of new information that requires either a temporary or permanent change in the conditions of this permit.

**Appeal:**

An appeal of this action may be made as provided in T.C.A. §69-3-105(i) and Rule 1200-04-05-.12 by submitting a petition for appeal:

1. The petition must be filed within THIRTY (30) DAYS after public notice of the issuance of the permit.
2. The petition must specify the provisions subject to appeal and the basis for the appeal.
3. The petition should be addressed to the technical secretary of the Tennessee Board of Water Quality, Oil and Gas at the following address: Ms. Tisha Benton, Director, Division of Water Resources, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243-1534. Any hearing would be in accordance with T.C.A. §§69-3-110 and 4-5-301 et seq.