



HISTORIC
FRANKLIN
TENNESSEE

City of Franklin ARAP

Mayor Dr. Ken Moore

City Administrator Eric Stuckey

Water Management Director Mark Hilty

Water Management Asst. Director Michelle Hatcher



Status and Efforts

- ▶ **Renewal-NO CHANGE** from existing permit that is protective of both low flow conditions and maximum withdrawal
- ▶ **Harpeth River impairment exists before it reaches Franklin, not because of City use**
 - ▶ Sedimentation
 - ▶ Agricultural activity - specifically, livestock grazing
- ▶ **Key River quality indicators such as dissolved oxygen actually improve within the City**
- ▶ **Average withdrawal rate = 1.15% of total river flow (2009-13)**
- ▶ **Provide protection to citizens with secondary drinking water supply**

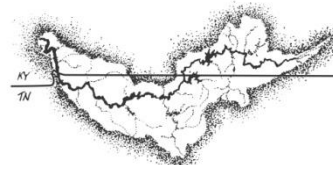


History and Context

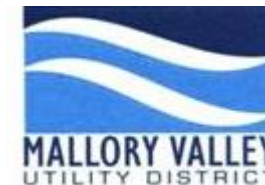
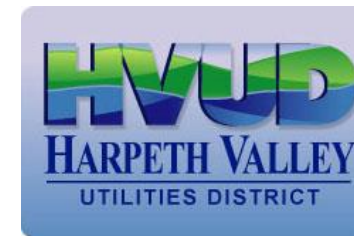
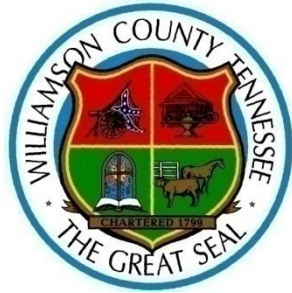
- ▶ **EPA and TDEC provide for 6 designated uses of Harpeth River**
 - ▶ Livestock watering and wildlife
 - ▶ Irrigation
 - ▶ Recreation
 - ▶ Fish and aquatic life
 - ▶ Industrial water supply
 - ▶ Domestic water supply
- ▶ **City has been withdrawing water since 1952 (62 years)**
 - ▶ The City's treatment operation provides 25-30 percent of total needs.
- ▶ **30 Year Integrated Water Plan**
 - ▶ Two year process
 - ▶ Over 30 meetings - Stakeholders, Public Forums and BOMA work sessions
 - ▶ 19 stakeholders, including the HRWA



Stakeholders Represent Broad Interests of Franklin and Beyond



Cumberland River Compact

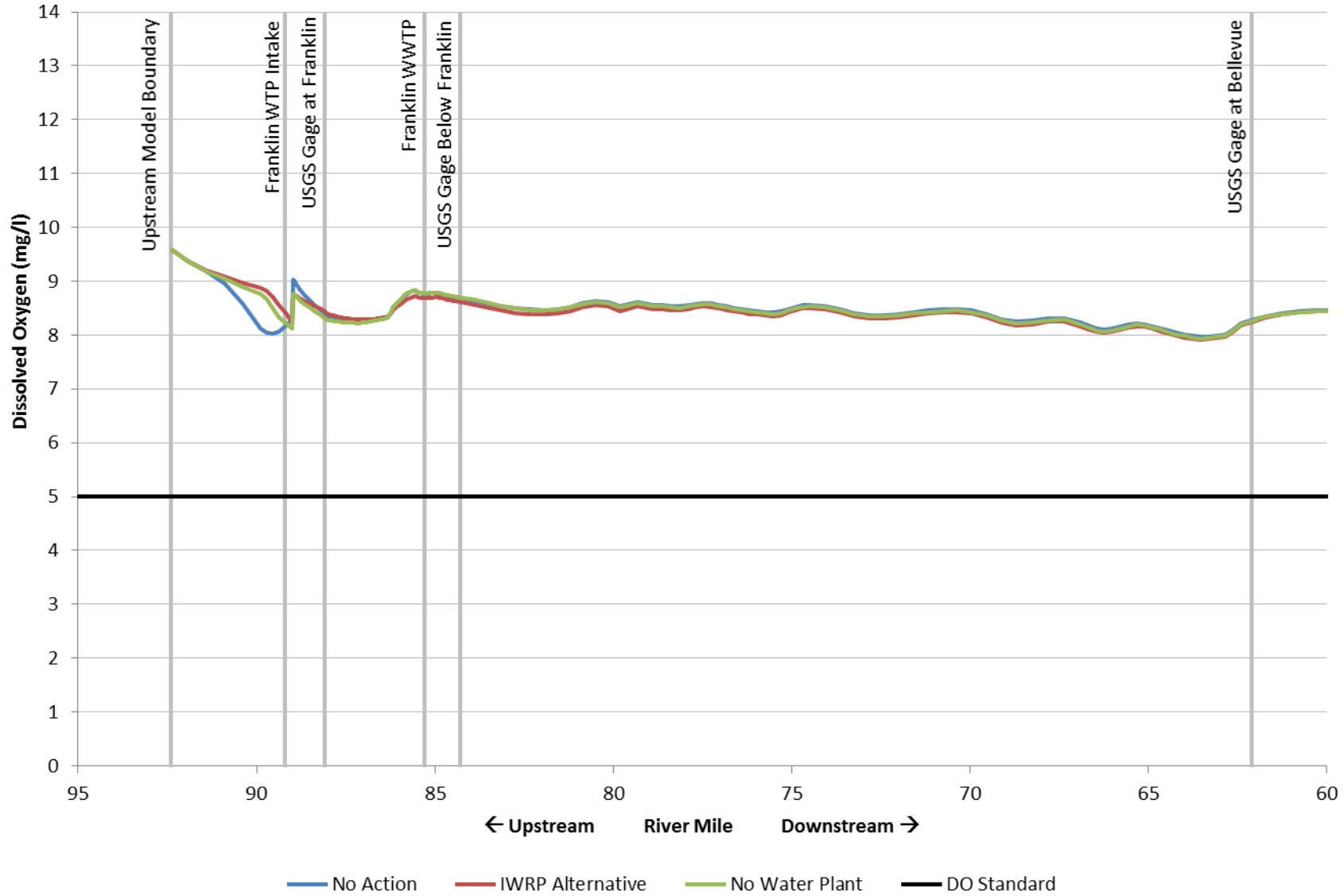


City's 30 Year Integrated Water Plan

- ▶ First of its kind in the State of Tennessee, one of the first in Southeast
- ▶ Nine key values in priority order:
 1. **Reliability**-meet current and future demands
 2. **Efficiency**-maximize efficiency and value
 3. **Water quality & Ecological Health**-Improve water quality and health of watershed
 4. **Service at a Reasonable Cost**-provide excellent services at reasonable cost
 5. **Safety & Security**-provide safety and security of water resources systems
 6. **Regional Acceptance**
 7. **Sustainable Biosolids Management**
 8. **Improved River Access**
 9. **Carbon Foot**-minimize carbon footprint of water resources operations
- ▶ Extensive modeling of the Harpeth River developed
- ▶ Shows the dissolved oxygen level in the river, and its impacts

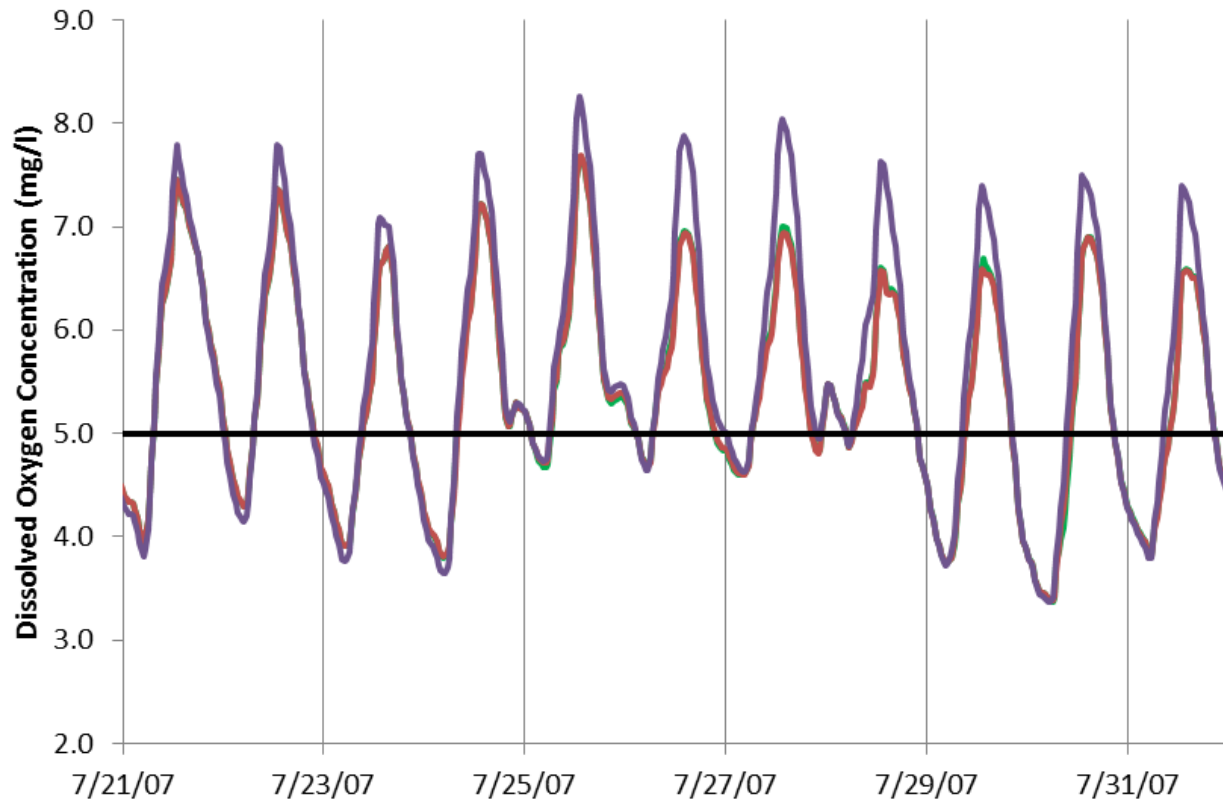


Dissolved Oxygen Concentration vs. River Mile, Average for Dry Year Simulation



Dissolved Oxygen Comparison

River Mile 87.4
Approximately 1.5 Miles Downstream of WTP
Withdrawal



- Downstream Flow - 20% Allowable Withdrawal
- Downstream Flow - 10% Allowable Withdrawal
- No Withdrawal
- DO Standard

City's Relationship with the River

- ▶ We take our stewardship of the river seriously-this is shown in our actions
 - ▶ The 30 year integrated water plan
 - ▶ Low Head dam removal
 - ▶ New water withdrawal pump controls-better fine tune withdrawal in times of low flow
 - ▶ Raw Water reservoir improvement with 114 million gallon capacity
 - ▶ Extension of Sanitary sewer service to more than 600 Franklin residents with failing septic systems
 - ▶ Updated stormwater regulations-exceed levels established by state

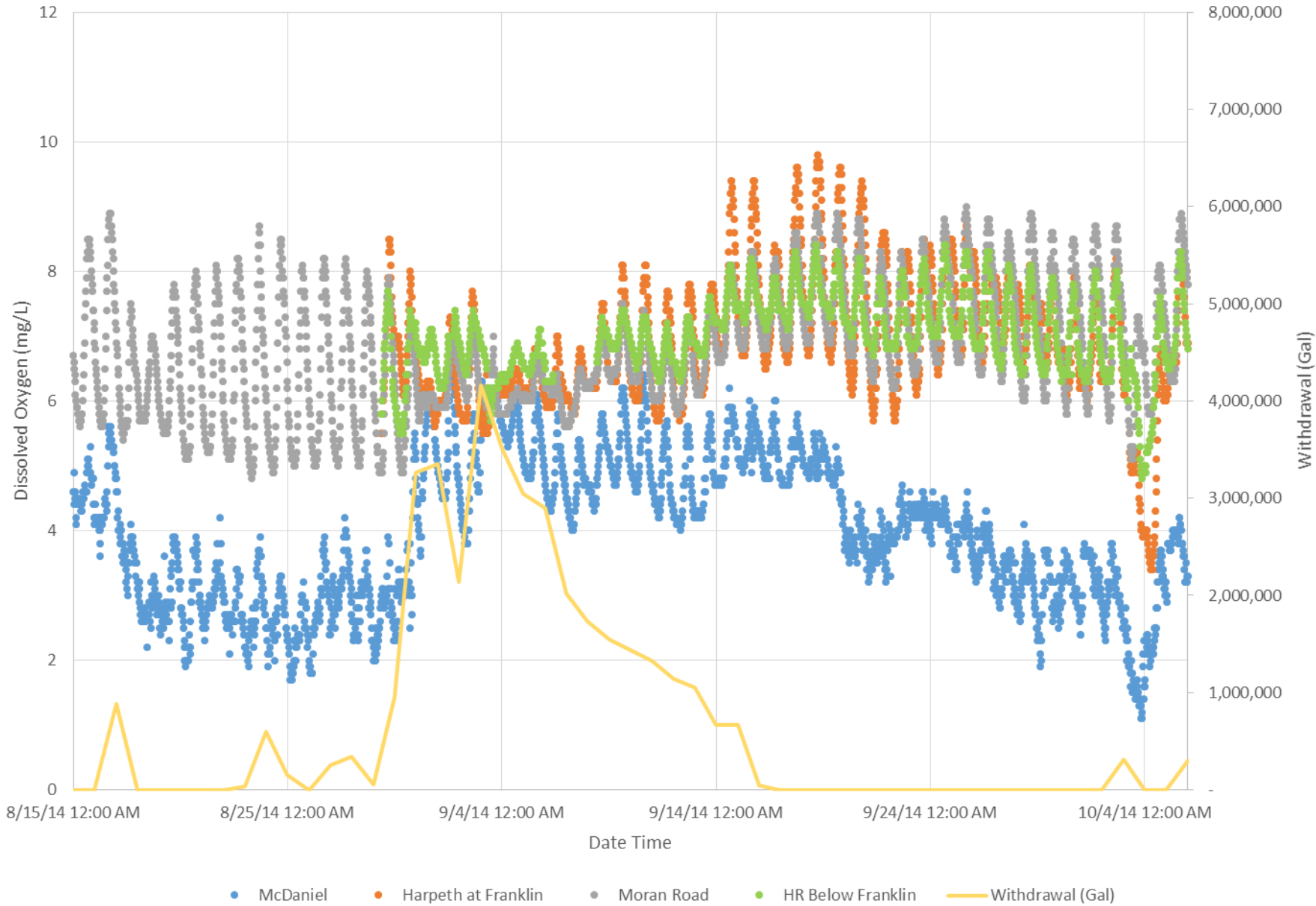


ARAP permit is a renewal

- ▶ Franklin's Water Treatment Plant design provides for a daily maximum withdrawal from the river at LESS than the existing permit levels
- ▶ No degradation of river - maintaining the current situation
- ▶ The City of Franklin continues on the path to improve and enhance the Harpeth River
- ▶ City's 5-year average of 1.15% of TOTAL RIVER FLOW



Harpeth River Dissolved Oxygen - USGS Gauges



Moving Forward

- ▶ Enhance our service to community
- ▶ Enhance our stewardship of River
- ▶ Over the next five years...
 - ▶ Upgraded 2.6 MGD water treatment plant and enhanced treatment capabilities including state-of-the-art membrane system
 - ▶ New raw water intake for the water treatment plant from the Harpeth River
 - ▶ A new river gauge will be put in place at the vicinity of the withdrawal point
 - ▶ Franklin's will upgrade our remote monitoring and operating system (SCADA) that will optimize our plant and distribution operations
 - ▶ Our leak detection program will continue - savings millions of gallons of treated drinking water each year
 - ▶ Advanced metering will be put in place to better serve our customers (including the ability to notify customers of potential leaks within a customer's system)



Importance of River Use by the City

▶ Why use the Harpeth for drinking water?

▶ Economic Reasons-saves customers money!

- ▶ The City of Franklin can produce water at a lower cost than the purchase price of drinking water
- ▶ Franklin's cost to produce water is approximately \$1.50/1,000 gallons. The current HVUD rate is \$2.55/1,000 gallons
- ▶ City rate increases over the past four years have been less than half the increases in HVUD rates

▶ Emergency Preparedness

- ▶ Chemical spill on the Elk River in West Virginia
- ▶ Toledo, Ohio due to a massive algae bloom in Lake Erie
- ▶ A water main break in south Nashville this summer caused thousands of residents in parts of Nashville and Brentwood to go on water restrictions for several days.
- ▶ The City of Franklin experiences this during the 2010 flood when we were able to bring our WTP back on line quickly while HVUD and Metro were significantly impacted. Franklin and our broader region benefited by our ability to treat water from the Harpeth River.
- ▶ Williamson Medical Center benefits greatly by having more than one source of water to support its vital service to the community. This is especially true in a time of greatest need, such as a natural disaster.



Williamson Medical Center



4321 Carothers Parkway • Franklin, TN 37067 • 615.435.5000

October 21, 2014

David Parker, City Engineer/CIP Associate
City of Franklin
109 3rd Avenue South
Franklin, TN 37064

Mr. Parker:

On behalf of Williamson Medical Center I wanted to send you a note of support that the City of Franklin be allowed to have a secondary water source. It is critical to our operations that we maintain a water source and knowing that the City had a secondary source for water in times of need would be very important to us as a medical facility.

We are in favor of the City of Franklin moving forward with this if given the approval.

Thank you

A handwritten signature in black ink that reads "Julie Miller".

Julie Miller
Chief Operating Officer

cc: Bo Butler
Scott Gentry

Harpeth Valley Utility District

HVUD and the City work in close partnership in serving our customers. It benefits our growing community and region to have multiple sources of water.



HISTORIC
FRANKLIN
TENNESSEE

The facts . . .

- ▶ No Change from prior/existing permit
- ▶ No degradation from current conditions
- ▶ 1.15% average annual withdrawal of total river flow
- ▶ Diverse water sources save rate payers money
- ▶ Diverse water sources help protect the community in the case of emergency/natural disaster and other potential service disruptions
- ▶ The City of Franklin's actions show a longstanding commitment to the Harpeth River and the people who use it each day