Section 1
Introduction

The City of Franklin's unique community, characterized by its commitment to preserving the City's history and heritage and coupled with its location in one of the fastest growing regions of the country, makes it a popular place to reside and conduct business. From 1997 through 2008, the population of the City nearly doubled. With continued growth comes increasing pressure on City services and infrastructure. All areas of the City's infrastructure have experienced growth pressure, including roads and streets, water supply and treatment, wastewater treatment and disposal, and other services. These ever-increasing demands have led the City administration and staff to reevaluate their water resources from a long-term, holistic perspective that encompasses water supply and treatment, stormwater management, wastewater collection and treatment, and reclaimed water distribution. The process being used to accomplish this goal is an Integrated Water Resources Plan (IWRP) which is a facilitated process that engages stakeholders from the inception of the project throughout the entire planning process.

1.1 Project Background

The City of Franklin is a growing city relying on a small river for their water needs. As the City continues to grow, the stresses placed on that water resource continue to compound; and when weather extremes occur the stresses are intensified. Protecting the Harpeth River's ecology and value as a recreational resource is not only required, from a regulatory standpoint, but is desired as part of the quality of life in Franklin. At the same time, the City needs a reliable long-term source and infrastructure for drinking water and irrigation and sustainable solutions and infrastructure for reclaiming wastewater and discharging treated effluent when reclaimed water use is not feasible. With these challenges, the City looked to develop a long-range plan that establishes governing science and engineering principles, evaluates and debates alternatives, and builds broad consensus around a comprehensive set of sustainable, affordable actions that will provide for effective management of the City's water resources.

1.2 IWRP Project Approach and Scope

The purpose and scope of this project includes two major phases of work during which a comprehensive, implementable, and fundable IWRP will be developed with the City of Franklin. This approach has focused on stakeholder-derived objectives as the central measure of success, allowing a progressive screening of alternatives in a way that is technically robust and broadly acceptable to the City, the regulatory community, advocacy groups, and citizens.

The IWRP is developed in two phases:

- Phase I – Completed in 2010, the purpose of Phase I was to convene a stakeholder advisory group and steering committee and formulate a list of objectives that the IWRP will address. A preliminary evaluation of potential water, wastewater,

stormwater, and reclaimed water projects to be included in the final IWRP was performed using an integrated systems simulation model and performance measures derived by the stakeholder groups. Alternative groupings of project options were compared using decision support methodology described herein. The outcome of Phase I is a greater understanding of Franklin's water resources systems, consensus amongst stakeholders on the objectives of the IWRP, and a refined list of project options to be studied further in Phase II.

- Phase II – The purpose of Phase II will be to perform more in-depth analyses of the costs and benefits of the project options identified in Phase I. A dynamic watershed simulation model, detailed engineering studies, and conceptual designs will provide refined estimates of the performance of project options over the 30-year planning period. The integrated systems model will be updated with the new information learned in the Phase II studies and will assist in the development of the final IWRP. Stakeholder involvement will continue throughout Phase II, and the final IWRP is intended to be a recommendation from the stakeholders to the City of Franklin for implementation.

The Franklin IWRP will consider the many aspects of the City's water resources and their interactions including the following:

- Harpeth River – flooding, low flow frequency, water quality and ecological health.
- Water Supply – Source, treatment, distribution, and conservation.
- Wastewater Treatment – The collection system, treatment plant facilities, and discharge permitting.
- Reclaimed Water Use – Availability, distribution, and demand for this resource.
- Stormwater – Conveyance, best management practices, impacts on the Harpeth River, and reuse.

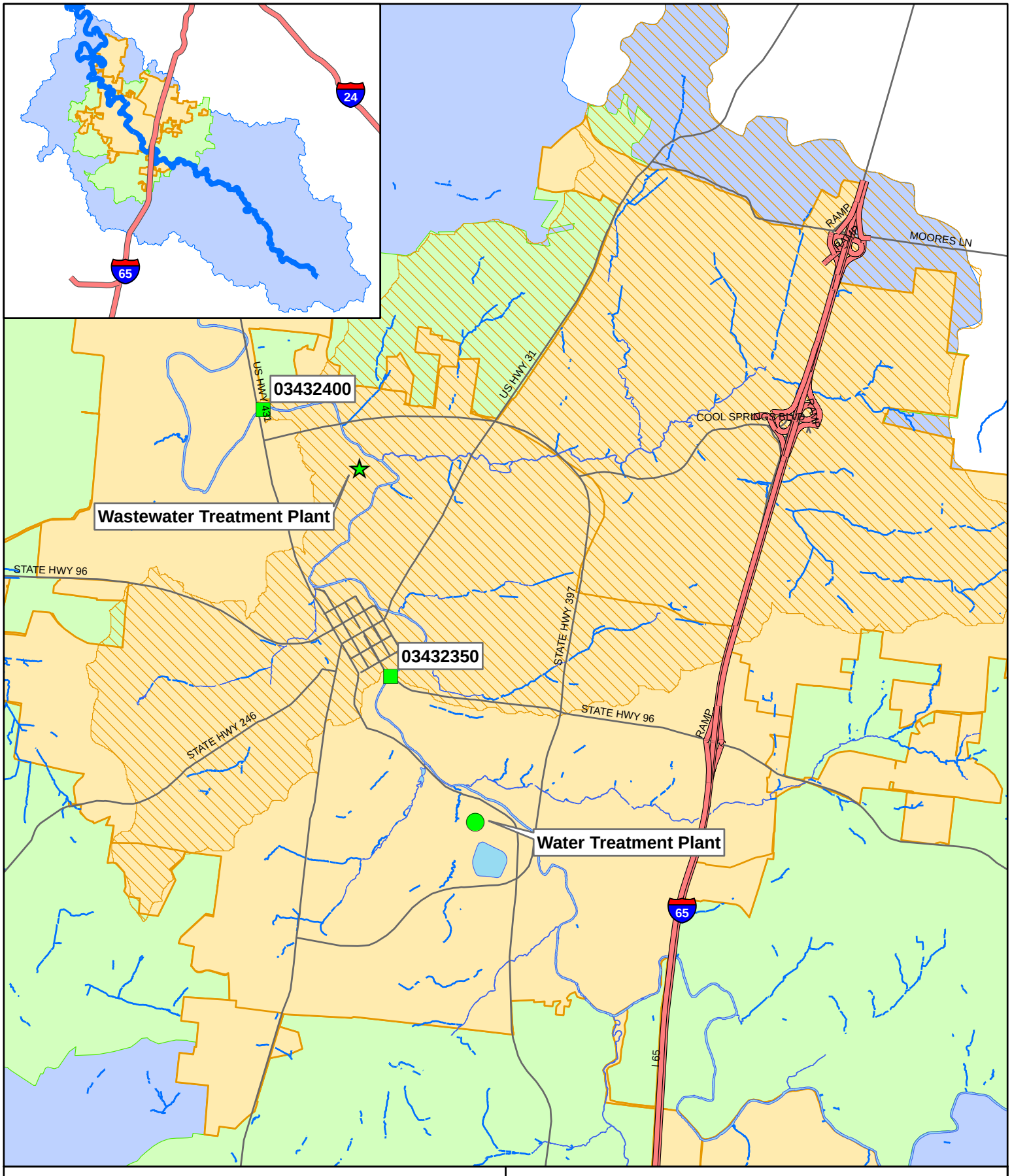
1.3 IWRP Project Area and Planning Period

In order to define the geographic boundaries of the project, as well as allow for opportunities to incorporate options that address regionalization goals, a steering committee reached a consensus on a 3-circle concept that includes the following distinctions for the project planning area:

1. The City of Franklin's existing service area needs that must be addressed.
2. The City of Franklin's urban growth boundary that will be considered in the planning.
3. The regional/watershed area that will be considered, providing opportunities for mutual cooperation among stakeholders.

Defining these geographic boundaries will add some necessary focus to the existing service area, without being exclusionary of a larger relevant geographical scope, and will foster discussion among stakeholders regarding regional issues. In addition to this project planning area, the steering committee defined the Harpeth River as the central point of project integration. This designation provided a guideline for measuring the success of each project alternative evaluated. The project area is shown in **Figure 1-1**.

In addition to defining the geographic constraints of the project, the steering committee discussed a specific period for the project plan. There was strong consensus that a planning period of 25—30 years would be most appropriate for the IWRP, indicating 20 years is too short for project implementation and 50 years has too much uncertainty for developing alternatives.



USGS Streamgages
Water Plant
Wastewater Plant
Interstate
Streets
Harpeth River and Tributaries
Hydrologic Reach
Franklin Service Areas
Urban Growth Boundary
Harpeth River Watershed

Figure 1-1 Franklin IWRP Project Area

0 2,500 5,000 10,000 Feet

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