DRAFT Scope of Work Farmers Branch Hydrologic Investigations Jon S. Albright, Freese and Nichols Inc. November 4, 2013

Purpose

Citizens in the City of Farmers Branch are concerned about the impact of upstream development on flows in Farmers Branch Creek, particularly the development of recreational water features at the Vitruvian Park development in the City of Addison. A separate study, conducted by the City of Addison, will investigate the adequacy of supplemental groundwater inflows to replace evaporation at the Vitruvian Park impoundments. This study will quantify streamflow losses in the reach of Farmers Branch Creek downstream of the Vitruvian Park development. Optional additional services include accompanying city staff or other stakeholders to a meeting with TCEQ, coordination with legal counsel (if needed), and permitting additional groundwater supplies to enhance flows downstream of the Vitruvian Park development.

The estimated fee for the Scope of Services would be \$29,350.

Scope of Services

- Meet with client to discuss scope of work, schedule and deliverables. Finalize the stream assessment reach and flow measurement locations. The stream reach will include Farmers Branch Creek from Marsh Lane to Ford Road, as well as one measurement location upstream of the Vitruvian Park development where Farmers Branch Creek flows into the City of Addison. Discuss coordination with the City of Addison. Budget for task - \$1,550.
- Perform up to three field investigations of flows in Farmers Branch in the reach defined in Task

 Field investigation includes flow measurements, photographs, identification of riparian use
 from the creek, and other activities. If possible, FNI field investigations will be performed on the
 same day as the measurements by the City of Addison. For budgeting purposes it is assumed
 that field investigations can occur in a single day and that access to the entire reach can be
 obtained for the investigation. Budget for Task \$11,600.
- Develop a water budget for the reach from the upstream end of the Vitruvian Park impoundments to the lower end of the reach defined in Step 1. Water budgets will include an estimation of water lost or gained in the study reach. Budget for Task = \$4,600.
- 4. Summarize results of study and make a presentation to city staff and other study participants. Budget for Task - \$6,200.
- 5. Develop a draft report summarizing the results of the study and provide to City staff and other study participants for comments. Address one round of comment and provide 5 hard copies of final report as well as an electronic version. Budget for Task \$5,400.

Additional Services

Specific scope of services and budgets will be developed if the additional scope items are pursued.

- 1. Assist city staff or other study participants with any action contemplated with the Texas Commission on Environmental Quality (TCEQ). If required, accompany staff to a meeting in Austin and/or assist with field investigations conducted by TCEQ staff.
- 2. Coordinate with city legal counsel as needed.
- 3. Assist with any permitting needed for supplemental groundwater supplies to enhance streamflow below the Vitruvian Park impoundments. A well drilling company could be employed either through a subcontract with Freese and Nichols or as a direct contract with a well driller.