Edwards Aquifer Authority 2015 Work Plan 8 May 2014 Science Committee

6.3.1 2015 Biological Monitoring Work Plan

2015 Target: The contractor will implement the Bio-Monitoring for the San Marcos and Comal spring systems.

2014/2015 Change: The Biological Monitoring Program was expanded to include Edwards Aquifer Habitat Conservation Plan (EAHCP) specific sampling as reviewed in the 2014 Work Plan. As a result of the Science Committee review of Work Plans last year, , 50 fixed dip-net sites were added to the Program's 50 stratified random sample dip-net sites for 2014. 2015 will be the first 1-year extension of the Bio-Monitoring Program.

EAHCP Section 6.3.1: A comprehensive biological monitoring plan (Variable Flow Study) was established by the EAA in 2000 to gather baseline and critical period data to fill important gaps in the ecological condition of the Comal and San Marcos springs and river ecosystems. The EAA will continue this comprehensive sampling plan for the term of the ITP (with modifications as identified through the AMP process) and will provide a means of monitoring changes to habitat availability and the population abundance of the Covered Species that may result from Covered Activities

Although not expressly stated in the EAHCP, another purpose that will be served by the Bio-Monitoring Program is to collect data that can be used in the applied research studies (EAHCP 6.3.4) and provide data and information for the ecological model development described in EAHCP 6.3.3.

5.7.2 2015 Water Quality Monitoring Work Plan

2015 Target: The Water Quality Monitoring Program described below includes surface water, storm water, groundwater, and sediment sampling within Comal Springs and San Marcos Springs and associated river systems. Sample collection and analyses performed by EAA staff in 2013, has been performed by a contractor since 2014.

2014/2015 Change: At San Marcos, sample site HSM 170 (Willow Creek/Capes Dam area) the recommendation is to install a third real-time monitor at this location such that surface water inputs from Willow Creek and runoff water from I-35 can be monitored. This addition will also provide for better sample timing during storm water events. Additionally, to better assess sediment quality, the sample interval should be narrowed, such that in 2015, the uppermost 3" of sediment will be sampled, rather than the current 0-18" interval sampled in 2013 and 2014. In future years, the interval can be adjusted based on analytical results.

EAHCP Section 5.7.2: The goal of the water quality monitoring program, first implemented in 2013, is to detect water quality impairments that may negatively impact the listed species. In the

event that certain constituents of concern are detected at levels indicating the potential for adverse effects, the Implementing Committee member with jurisdictional authority will be consulted to identify sources and consider Best Management Practices (BMPs) to reduce and/or eliminate the constituents of concern.