## APPENDIX C: PROCESS USED TO DETERMINE STATUS AND USE OF WELLS WITHIN THE TULARE LAKE BED AREA

## **TECHNICAL MEMORANDUM #3**

**TO:** Mike Trouchon, Larry Walker Associates

FROM: Jacob Westra, Tulare Lake Basin Water Storage District

DATE: November 8, 2016

**RE:** Process Used to Determine Status and Use of Wells within the Tulare Lake Bed Area

The process used to determine the status of wells within the Tulare Lake Bed area is described in this Technical Memorandum #3. Kenneth D. Schmidt and Associates prepared a report titled Technical and Regulatory Evaluation of MUN and AGR Beneficial Uses in the Tulare Lake Bed Area Report (MUN/AGR Report) dated December 4, 2015. In this report several figures showed historical groundwater well locations. The status of those wells were determined using the procedure described below.

Landowners were contacted to determine the status of the irrigation wells on their properties. Where landowners could not be contacted, images from google earth were used or a site visit was conducted. If a well was active, the well's screen interval and the depth of the well seal were determined.

With respect to stock wells, landowners were also contacted to determine the status of these wells. Based on discussions with landowners, none of the stock operations were using water from the area proposed for de-designation. Water was either hauled-in, piped in from outside the area, or water was supplied from irrigation canals.

The status of the domestic wells were also determined by overflying the area in helicopter tours. Images from google earth were also used to locate any structure that looked like it could be using water from a domestic well. Once sites were identified, a visual site visit was conducted and/or the landowner was contacted to determine if there was an active well at the structure identified. If a landowner could not be contacted, the nearby city was contacted to determine if the property was supplied water from the City. In an overabundance of caution, Ken Schmidt and Associates was contacted to prepare a zone of capture analysis. The results of the zone of capture analysis for domestic wells were used to determine if a domestic well could have potential to draw groundwater from the proposed de-designation area or influence the direction of groundwater flow. The zone of capture conservatively shows that a domestic well would need to be closer than 100 feet to the de-designation boundary to be drawing water from the area proposed for de-designation. The field investigation confirmed only one well was near the proposed boundary but was over 175 feet away.

With respect to municipal wells, all the municipal wells are located outside and up gradient from the area proposed for de-designation. Additionally, a zone of capture study was completed for the municipal wells surrounding the proposed de-designation area. The primary active Kettleman City municipal well has a cone of depression of 130 feet and is located about 1 mile

away from the proposed de-designation area. The City of Corcoran well nearest the proposed de-designation area has a cone of depression of approximately 1,900 feet and is located about 2 miles away from the area. This analysis indicates that none of the public supply wells from the surrounding communities neither influence the direction of groundwater flow nor do they draw groundwater from the area proposed for de-designation.