

Table 10. Summary of organic compound concentrations in water samples collected during baseline, 1995–98, and artificial recharge, 1996–98, conditions

[MCL, Maximum Contaminant Level; HAL, Health Advisory Level; GC/MS, gas chromatography/mass spectrometry; ELISA, enzyme-linked immunosorbent assay; µg/L, micrograms per liter; <, less than; †, median value is estimated using a log-probability regression to predict values of data less than the detection limit; --, not determined; e, estimated. The first set of numbers under each heading (for example, <0.05–1.1) indicates the range in concentrations. The number in parentheses () indicates the number of samples collected, and the number below (for example, 0.14) is the median value]

| Data-collection site (figs. 1, 2, 3, or 5) | Water-quality conditions (dates of collection) | 2,4-D (µg/L) | 2,6-Diethylaniline (µg/L) | Acetochlor (µg/L) | Alachlor (µg/L) | Ametryne (µg/L) | Atrazine (determined by GC/MS) (µg/L) | Atrazine (determined by ELISA) (µg/L) | Benfluralin (µg/L) |
|--|---|-------------------------|---------------------------|---|---------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|--------------------------|
| U.S. Environmental Protection Agency (1999) drinking-water criteria | | | | | | | | | |
| | | 70 (MCL) | -- | -- | 2.0 (MCL) | 60 (HAL) | 3.0 (MCL) | -- | -- |
| Surface-water monitoring sites (Little Arkansas River) | | | | | | | | | |
| 07143672 (near Halstead) | Baseline (February 1995 through September 1997) | <0.05–1.1 (3) -- | <0.006 (18) -- | <0.009–2.2 (67) -- | <0.009–7.4 (67) 0.14 [†] | <0.05–0.09 (49) 0.05 [†] | 0.05–46 (67) 3.5 | <0.10–46 (377) 1.08 [†] | <0.002–<0.013 (18) -- |
| | Recharge (October 1997 through July 1998) | -- | <0.003 (2) -- | <0.002–0.15 (12) -- | <0.005–1.5 (12) 0.054 [†] | <0.05 (10) -- | 0.11–17 (12) 2.8 | <0.10–12 (34) 0.20 [†] | <0.002 (2) -- |
| 07144100 (near Sedgwick) | Baseline (February 1995 through September 1997) | <0.035–0.34 (7) -- | <0.003–<0.006 (16) -- | <0.002–0.46 (153) 0.009 [†] | <0.009–6.1 (153) 0.28 [†] | <0.05 (139) -- | 0.04–27 (155) 3.9 | <0.10–34 (877) 1.9 | <0.002–<0.013 (16) -- |
| | Recharge (October 1997 through July 1998) | 0.15 (1) -- | <0.003 (3) -- | <0.002–0.34 (36) 0.005 [†] | <0.05–3.9 (36) 0.35 [†] | <0.05–0.92 (33) -- | 0.13–22 (36) 5.5 | <0.10–27 (214) 3.8 | <0.002 (3) -- |
| Ground-water or diverted-water monitoring sites | | | | | | | | | |
| Background wells | | | | | | | | | |
| | Baseline (February 1995 through September 1997) | <0.035–<0.05 (14) -- | <0.003–<0.006 (26) -- | <0.002–<0.05 (27) -- | <0.002–<0.05 (27) -- | <0.05 (1) -- | <0.001–1.6 (27) 0.003 [†] | <0.1–2.0 (47) -- | <0.002–<0.013 (26) -- |
| | Recharge (October 1997 through July 1998) | -- | <0.003 (2) -- | <0.002–<0.05 (3) -- | <0.002–<0.05 (3) -- | <0.05 (1) -- | <0.001–<0.05 (3) -- | <0.1 (7) -- | <0.002 (2) -- |
| Domestic wells near Halstead | | | | | | | | | |
| | Baseline (April 1998) | -- | -- | <0.05 (2) -- | <0.05 (2) -- | <0.05 (2) -- | <0.05–0.10 (2) -- | <0.1 (3) -- | -- |
| Domestic wells near Sedgwick | | | | | | | | | |
| | Baseline (August 1998) | -- | -- | <0.05 (3) -- | <0.05 (3) -- | <0.05 (3) -- | <0.05–0.22 (3) -- | <0.05–1.1 (3) -- | -- |