Appendix 1—Supplemental Information and External Data Files of Total Monthly Inflow to Canyon Lake from Six Soil and Water Assessment Tool Scenarios of Extensive Brush Management for the Upper Guadalupe River Watershed, South-Central Texas, 1995–2010

Appendix 1 contains text files representing selected scenario simulations of the Soil and Water Assessment Tool (SWAT) for the upper Guadalupe River watershed upstream of Canyon Lake, Comal County, Texas. These scenarios represent total monthly inflow to Canyon Lake (cumulative monthly inflow to Canyon Lake) for the period of monthly record 1995–2010 (January through December).

The text files for total inflow (monthly) to Canyon Lake aggregated from the SWAT output files are formatted in the structure required in the inflow-record format of the Texas Water Availability Model (WAM). The inflow records for control point 2 (CP02) within the WAM correspond to U.S. Geological Survey streamflow-gaging station 08167500 Guadalupe River near Spring Branch, Tex., the "Spring Branch streamgage." For application of the alternative total inflow files into the WAM for this investigation there is a requirement to effectively turn off the intervening watersheds downstream (3 of 4 are named in the WAM—Rebecca, Jentsch, and Tom Creeks—see fig. 5) and of the Spring Branch streamgage. Figure 5 and associated discussion provides further context.

The text files have the name "`SWATpercent`" preamble to the scenario identifier followed by the "`.txt`" file extension. The files are encoded to the Unicode UTF-8 standard and have line ending carriage return and new line characters to ensure compatibility across computer operating systems. The baseline scenario is represented by `000` (0-percent replacement of ashe juniper with grassland), and the scenarios involving percentages of 20-, 40-, 60-, 80-, and 100-percent treatable ashe juniper are respectively denoted by the matching numbers: `020`, `040`, `060`, `080`, and `100`. The leading zeros are used to ensure that a given computer operating system will sort the files in a logical progression. The total monthly inflow text files for Canyon Lake available for download are as follows:

`SWATpercent000.txt, SWATpercent020.txt, SWATpercent040.txt,`
`SWATpercent060.txt, SWATpercent080.txt, and SWATpercent100.txt.`

A conventional `README.txt` file also is provided in the downloads directory that provides cross-reference of the files to this report.

Lastly, it is useful to describe the opening lines of a selected file. The header and first two data lines of the file `SWATpercent080.txt` follow:

```
**    CP    YEAR     JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC
IN  CP02    1995  19559.  11842.  10309.   9835.  25303.  33210.  16857.  10711.   9562.   9632.  25915.  21225.
IN  CP02    1996  12829.   7985.   5779.   4018.  11159.   9940.   7365.   6439.  18305.  40647.  19088.  33022.
```

where the entries below the three-character month abbreviations represent the total monthly inflow to Canyon Lake in acre-feet for the corresponding month. The `CP` represents control point of the WAM, whereas `IN` represents an input flow record to the WAM. In the example shown, the `CP02` represents the Spring Branch streamgage. The `YEAR` column begins with `1995` to represent the actual beginning of SWAT simulation. An ad hoc post-simulation offset of −21 years was used to link the upper Guadalupe River SWAT output in the `SWATpercent*.txt` files to the Guadalupe River WAM as explained in the text. For example, the total inflow to Canyon Lake in April 1996 is estimated as 4,018 acre-feet for the scenario in which 80 percent of the treatable ashe juniper has been converted to grassland.