

Appendix 5B-C

Management Supply Factors for Major Water Providers

Regional water plans must present the following data for Major Water Providers (MWP), in accordance with the following Texas Water Code(s):

- a) Projected water demands by planning decade and category of use ([31 TAC §357.31\(b\)](#))
- b) Existing water supply analysis by category of use ([31 TAC §357.32\(g\)](#))
- c) Water supply needs analysis by category of use ([31 TAC §357.33\(b\)](#))
- d) Secondary water needs analysis where demand reduction and direct reuse WMSs are recommended, by MWP and decade ([31 TAC §357.33\(e\)](#))
- e) Recommended water management strategies (WMS) and recommended WMS projects, and results of all pfWMS evaluations ([31 TAC §357.35\(g\)\(1\)](#))
- f) Calculated management supply factor by entity and decade ([31 TAC §357.35\(g\)\(2\)](#))

The following appendix includes a summary of f) above (management supply factor by entity and decade) for each MWP in the ETRWPA. The other requirements are addressed in Appendix 4-E.

Management supply factors (MSF) may be used to take into account uncertainties associated with:

- Projections of populations
- Projections of water demands
- Climate variability
- Yield of recommended WMSs
- Permitting or other uncertainties impacting implementation of projects; and/or
- Other uncertainties.

MSF is calculated as follows for each decade:

$$MSF = \frac{Ve + Vr}{D}$$

Where:

Ve = total volume of all existing supplies associated with a MWP in each decade

Vr = total volume of all decadal recommended WMS supplies associated with a MWP in each decade

D = total identified current water demand volume for a MWP in each decade



Major Water Provider Management Supply Factor by Decade

WWP	2020	2030	2040	2050	2060	2070
ANRA	1.62	1.78	1.55	1.56	1.56	1.10
A-N WCID 1	4.07	3.93	1.84	1.79	1.68	1.53
Athens MWA	1.70	1.62	1.68	1.60	1.20	1.02
Beaumont	1.06	1.09	1.08	1.03	1.00	1.01
Carthage	1.96	1.93	1.91	1.89	1.84	1.82
Center	1.76	1.71	2.25	2.19	2.13	2.08
Houston Co. WCID 1	3.09	3.01	3.01	3.01	3.01	3.00
Jacksonville	1.63	1.54	1.78	1.65	1.53	1.41
LNVA	2.97	3.08	3.56	3.54	3.52	3.51
Lufkin	1.18	2.32	2.30	2.27	2.24	2.22
Nacogdoches	2.33	2.98	2.78	2.57	2.38	2.20
Panola Co. FWSD 1	1.26	1.22	1.21	1.21	1.19	1.14
Port Arthur	1.11	1.17	1.21	1.24	1.27	1.30
SRA	10.63	10.63	10.63	10.63	10.63	10.63
Tyler	1.64	2.18	2.08	1.98	1.87	1.77
UNRMWA	1.27	1.26	1.25	1.24	1.24	1.23

