

Additional input of National Wildlife Federation, Texas Living Waters Project, Texas Parks and Wildlife Department, and Environmental Stewardship related to proposed revisions to LCRA Water Management Plan.

Although we are still awaiting some previously requested information, the conservation community representatives have three proposals to be evaluated for inclusion in the revised WMP.

Subsistence flow at Wharton.

We would like to see an evaluation of alternative options, other than reducing achievement of subsistence flow needs, to address impacts on minimum combined storage during the 2013-2014 periods. In the absence of other available alternatives, we believe any reduction in compliance with subsistence flows needs to be as limited as possible. We think that is particularly important given the occurrence of three species of mussels in the Colorado River near or downstream of the Wharton gage that are candidates for listing as threatened or endangered. Even though we continue to have concerns about the environmental impacts of not meeting subsistence flows, we propose evaluation and consideration of the following approach:

At any time combined storage in Lakes Buchanan and Travis at the end of previous month is below 900,000 acre-feet, the subsistence flow requirement to be met using stored water at the Wharton gage for the month will be the greater of 107 cfs or 50% of the full subsistence flow criterion for that month. However, if storage remains below 900,000 acre-feet and flows at the Wharton gage are below the full subsistence flow criterion for a period of three consecutive months, then for the following three months, when storage remains below 900,000 acre-feet, the applicable subsistence requirement is the greater of 107 cfs or 80% of the full subsistence flow criterion for the applicable month.

Proposed rule limiting releases of storable inflows to no more than 50% of the amount above 25,000 acre-feet per month.

We are concerned about the environmental implications of the proposed rule. The attainment frequencies for freshwater inflow criteria are continuing to decline dramatically and rapidly and this proposed rule only worsens that decline. Upon closer review, we are especially concerned that the rule, as proposed, would unduly reduce bay inflows in 10 of the 18 lowest inflow years in the 1940-2016 period of record. We believe that, if some version of this type of rule will be used, a more focused approach is needed. As a starting point for further discussion, we propose consideration of a variation of the proposed rule. A summary analysis of the impacts of that variation is attached.

Variation:

The rule would only apply in a particular month if inflow from the Colorado River to Matagorda Bay for the previous three months exceeds 80,000 acre-feet or if combined storage at the end of the previous month was equal to or less than 1.5 MAF.

Fine-tuning of seasonal environmental flow triggers.

From a review of the proposed seasonal triggers, there appears to be a significant disparity in applying the same trigger level in March, July, and November. As summarized below, the July and November triggers result in far more reductions in protection levels than the March triggers. There may be multiple explanations for that result, including differences in average storage levels for those different months. As noted in previous comments, to our knowledge, there has not been an attempt to analyze appropriate trigger levels for July or November triggers. We do not support the addition of a November trigger without a careful analysis of what storage levels would be appropriate for use.

Results summarized from August 10, 2018 model results (additional environmental analysis). "+" means the level of environmental flow protection went up and "-" means the level of environmental flow protection went down.

March trigger		July trigger		November trigger	
Instream	Bay	Instream	Bay	Instream	Bay
29+	16+	8+	14+	3+	12+
2-	6-	29-	24-	15-	21-

Analysis of Modified Application of proposed 50% over 25,000 acre-feet environmental flow release limitation

Year	Month 1	Month 2	Month 3	3 months	Month of release	Amount of reduction	Combined storage	Apply rule?
1943	74013	21731	22319	118063	June	27991	1812864	Yes 3 mo inflow
1944	337644	28281	14864	380789	Aug	18351		Yes 3 mo inflow
1944	14864	83785	34882	133531	Oct	9874		Yes 3 mo inflow
1945	43273	71219	45781	160273	Oct	8491		Yes 3 mo inflow
1947	136688	255552	65376	457616	Mar	9956		Yes 3 mo inflow
1948	28065	19172	38665	85902	June	1886	1454360	Yes storage & inflow
1953	107910	58751	50389	217050	Mar	4916		Yes 3 mo inflow
1955	17692	18664	28844	65200	Aug	1340	1515419	No
1958	173450	14340	13749	201539	Sept	28135		Yes 3 mo inflow
1962	15000	21091	20476	56567	Oct	16499	1581810	No
1965	85688	258317	44922	388927	Apr	3510		Yes 3 mo inflow
1965	112210	32013	21974	166197	Sept	2134		Yes 3 mo inflow
1966	23282	13337	19778	56397	Sept	30075	1753672	No
1967	15000	8894	15401	39295	Sept	2134	1347929	Yes storage
1973	95930	514125	49850	659905	Aug	2010		Yes 3 mo inflow
1976	117616	26507	37189	181312	Sept	8360		Yes 3 mo inflow
1980	101119	15881	26940	143940	Dec	1912		Yes 3 mo inflow
1981	33364	24686	22019	80069	Mar	34125	1769320	Yes 3 mo inflow
1981	24686	22019	68699	115404	Apr	26736	1834132	Yes 3 mo inflow
1981	22019	68699	51410	142128	May	1940		
1982	70722	59415	68964	199101	Mar	7242		
1986	223534	15000	15536	254070	Sept	21161		
1987	1583331	196972	59188	1839491	Sept	889		
1987	196972	59188	39083	295243	Oct	1337		
1988	19670	30359	18213	68242	July	23796	1794571	No
1989	32577	29959	15000	77536	May	17386	1634904	No
1990	72510	39490	15000	127000	July	34968	1811187	Yes 3 mo inflow
1990	15000	61460	26031	102491	Sept	7252	1786491	Yes 3 mo inflow
1991	68221	15599	15000	98820	Sept	31992	1624517	Yes 3 mo inflow
1991	15599	15000	58564	89163	Oct	6869	1664986	Yes 3 mo inflow
1992	1376441	54385	36679	1467505	Sept	9712		
1992	54385	36679	51306	142370	Oct	13730		
1994	36470	39530	36470	112470	March	5413	1734203	Yes 3 mo inflow
1994	82848	15110	20329	118287	Sept	612	1712026	Yes 3 mo inflow
1998	21082	16836	12128	50046	Aug	9068	1746281	No
2003	18100	28413	18491	65004	Sept	4140	1788500	No
2003	28413	18491	33799	80703	Oct	27073	1783486	Yes 3 mo inflow
2004	162281	92231	31466	285978	Oct	3750		
2005	97729	23015	16080	136824	Aug	21498		
2006	19367	15000	15305	49672	May	5570	1630134	No
2008	81491	65987	48548	196026	Mar	15	1924991	Yes 3 mo inflow

Years with yellow highlighting among 18 lowest inflow years in period of record.

The highlighted cells in the "Apply Rule?" column represent months when test doesn't produce desired result because it allows the rule to apply for a very low inflow year.

Rule does not apply in a particular month if:
 3 month inflow of less than 80000 acre-feet, or
 Storage at end of previous month not above 1,500,000