



August 1, 2022

*via email and postal*

Phil Wilson, General Manager  
John Hofmann, Executive VP of Water  
Tom Martine, Chairman, Water Operations Committee  
Lower Colorado River Authority  
P.O. Box 220  
Austin, TX 78767

RE: Revisit Highland Lakes Water Management Plan

Dear Messrs. Wilson, Hofmann, and Martine,

Environmental Stewardship supports the request by the Travis County Commissioners Court (Resolution, June 19, 2022) and Central Texas Water Coalition (Comments before the Water Operations Committee, May 17, 2022,) to *revisit* the current 2020 Highland Lakes Water Management Plan to consider the impacts of changes in hydrology that have occurred since the plan was revised and adopted by TCEQ.

The changes in hydrology are reflected in the deteriorating inflows to the Highland Lakes that have resulted in the recent move from "Normal" to "Extraordinary Drought Conditions" in the Colorado River basin. This change in hydrology is not only impacting supplies of water to the City of Austin, but is also directly impacting environmental flows to the lower basin and bays. With inflows to the Highland Lakes at such extremely low levels, storable inflows that can be passed or released for environmental purposes in the lower basin are greatly reduced, and in the current situation, essentially eliminated.

Environmental Stewardship especially supports the resolution requests below:

- *That the LCRA work with local leaders and stakeholders to accelerate the update of its Water Management Plan to implement a more protective and real time adaptable approach to managing the Highland Lakes; and*
- *That the LCRA expand its public outreach and input opportunities and establish advisory committees of local officials, business leaders, stakeholder organizations, and area residents to foster an increased opportunity for open discussion and collaboration on issues that affect the water supply and economy for almost 2 million Central Texans.*

Environmental Stewardship wishes to further expand on the second resolution request cited above by requesting that the public outreach be extended to the citizens, communities, and the environment of the lower basin and bays.

Quoting CTWC President, Jo Karr Tedder, "*You don't see the flaws until you are in a bad spot. We are in a bad spot.*"

It is time to take action to evaluate and mitigate this "bad spot" before it gets to be worse for Austin, the down basin communities, and the environment of the lower basin and Matagorda Bay.

Respectfully requested,

Steve Box  
Executive Director  
Environmental Stewardship

cc: Travis County Commissioners Court  
Bastrop County Judge, Paul Pape  
Central Texas Water Coalition  
Region K Water Planning Group  
Simsboro Aquifer Water Defense Fund (SAWDF)

Environmental Stewardship is a nonprofit organization whose purposes fall under the following categories: Public Policy - Aiming to protect, conserve, restore, and enhance the earth's natural resources in order to meet current and future needs of the environment and humans; Science & Ecology - Gathering and using scientific information to restore and sustain ecological services provided by environmental systems; and Outreach & Education - Providing environmental education and outreach that encourages public stewardship. We are a Texas nonprofit 501(c)(3) charitable organization. For more information visit our website at <http://www.environmental-stewardship.org/>.



LCRA WMP: Environmental Flows  
FACT SHEET

LCRA Highland Lakes Water Management Plan

Environmental Flow Standard for the Colorado River below the Highland Lakes

As established in Table 4-5 (page 4-15), when combined storage fell below 1,800,000 acre-feet, instream environmental flow criteria became "subsistence flow", the lowest flow criteria established by the best science used to set environmental flow standards for the Colorado River below the Highland Lakes. The change to "subsistence" criteria happened sometime in early 2018.

*"The subsistence flow recommendations represent minimum conditions at which water quality is maintained at acceptable levels and aquatic habitats are expected to be consistent with those found in natural settings during drought conditions. The study recommendations provide a goal of maintaining flows at or above subsistence levels all the time. Dissolved oxygen is expected to be maintained at 5.0 mg/L, or above, at all sites. This level of dissolved oxygen supports a healthy aquatic community. Special consideration for the state-threatened blue sucker is reflected in the February and March recommendations for instream flows at the Bastrop and Columbus gauges. Subsistence recommendations for these months and these sites were adjusted to help ensure that 90 percent of the spawning habitat is maintained during these key spawning times" (page 2-4 of the LCRA WMP).*

Table 4-5. Instream Flow Triggers and Flow Levels

Combined Storage on Evaluation Date (acre-feet)	Instream Flow Criteria
Above 1,960,000	Base-Average
1,960,000 to 1,800,000	Base-Dry
<b>Below 1,800,000</b>	<b>Subsistence</b>

**The Colorado River Basin moved from Normal to Extraordinary Drought Conditions, on July 1, 2022, skipping right over "Less Severe Drought Conditions"**

So, while water supply conditions in the basin have been "Normal" for nearly four years, environmental flow conditions in the basin have been "consistent with those found in natural settings during drought conditions", rather than "base-average" or "base-dry" criteria, or "normal" conditions, as were being used to manage water supply for other purposes in the basin like watering lawns, car washes, and other municipal and irrigation water uses. As such, the river and bays are the least prepared to have environmental flows reduced even further.

Yet, read on:

Quoting from page 4-15 of the LCRA WMP, "For purposes of this WMP, the Subsistence criteria at Austin represent daily minimum (instantaneous) flow requirements. The Subsistence, Base-Dry and Base-Average criteria for gauges other than the Austin gauge are daily average flow values. For the Bastrop gauge only, the following additional requirements for daily minimum flow apply:

3. During those times that Subsistence criteria are in effect, releases will be scheduled so the daily minimum flow does not drop below:
  - a. 90 percent of Subsistence criteria when Combined Storage is equal to or greater than 1.4 million acre-feet; or
  - b. 80 percent of Subsistence criteria when Combined Storage is less than 1.4 million acre-feet."

## LCRA WMP: Environmental Flows FACT SHEET

### IMPACTS ON ADOPTED ENVIRONMENTAL FLOWS AT THE TCEQ REGULATED RIVER GAUGE IN BASTROP, TX.

The 202 Highlands Lake Water Management Plan allows a 20% cut below the Colorado River low-flow standard, – subsistence flow of 137 cubic feet per second, to 110 cubic feet per second – when the basin is in Extraordinary Drought Condition as we are in as of July 1, 2022. That is an annual cut in environmental flows that are available for release during the remainder of the current drought, by 19,345 acre-feet per year.

To make matters worse, still quoting from page 4-15 of the LCRA WMP, *“To help meet the instream flow criteria in the lower Colorado River, LCRA will schedule releases in amounts [ONLY] sufficient to meet the applicable criteria to the extent of Storable Inflows or for Subsistence, using previously stored water in addition to Storable Inflows.”* *Emphasis added.*

So, for the past four years, while environmental flows have been in “subsistence” flow levels, those levels established by the best science available have routinely been reduced by 10% of the subsistence criteria.

Now that the combined storage has dropped below 1.4 million acre-feet, the subsistence flow levels are going to be reduced by 20% of the subsistence criteria. In addition, the Corpus Christi water right has been cut off indicating there is not enough predicted flow during the upcoming drought to supply the Garwood Irrigation water right. The net result of this action ensures that there are no (zero) storable inflows that will qualify for environmental flow release to the lower basin.

And, applying the “to make matters worse” standard, those flows will only be released when there are storable inflows available, or previously stored water is available. Since, as shown in the LCRA graph below, inflows into the Highland Lakes for the months of January through June 2022, have been about **17% of the inflow amounts received into the lakes during the 2008-15 Drought of Record**, and **6% of the amount received during the period of 1942-2021**, we can expect that the amount of water released downstream of the Highland Lakes for environmental flows in the lower basin and Matagorda Bay have likely been negligible.

