Proposed Brazos River Authority Reservoir Pass-through Plan
July 17, 2013 (Revised August 20, 2013)

Background: Dow made a senior call on June 26, 2013. In response, the TCEQ Executive Director issued an Order on July 2, 2013, suspending and adjusting water rights in the Brazos River Basin below Possum Kingdom Reservoir with priority dates on or after February 19, 1942. The Brazos River Authority (BRA) has ten storage reservoirs that are within the call area and that are junior to 1942. Possum Kingdom Reservoir is the only BRA reservoir that is not subject to the call. The TCEQ Suspension Order directed BRA to provide an inflow pass-through plan to the Executive Director by July 17, 2013, for BRA reservoirs subject to the call. TCEQ reviewed BRA's July 17 pass-through plan and requested by letter dated August 7, 2013, that BRA make several revisions to the plan and address TCEQ comments. This revised pass-through plan is submitted in response to the August 7 TCEQ request.

Purpose: The purpose of this document is to propose a reservoir pass through plan in response to the TCEQ Order. This plan maximizes the beneficial use of water and prevents the waste of water by allowing the BRA to impound inflow during periods when flows at the Rosharon gage are in excess of DOW's need, which is assumed to be 300 cfs.

Methodology/Implementation:

BRA customers are allowed to divert from reservoir storage at each of the ten reservoirs that are subject to the call. The inflow to each reservoir will either be passed downstream or impounded under BRA water rights depending on the flow at Rosharon. BRA will impound inflow when the flow at the Rosharon gage exceeds the amount of water that Dow can divert and beneficially use. Instead of passing water that would ultimately be lost to the Gulf of Mexico, BRA would be storing water to be used by DOW and other BRA customers in the future. Any impounded inflow that exceeds DOW's needs as described in this pass-through plan may be applied as credits under the BRA's credit accounting system for other senior water right holders who also have contracts with BRA.

Inflow subject to be passed based on this release plan will be calculated weekly based on inflows accumulated and stored over the previous two weeks and released from one or more reservoirs at a constant rate adequate to meet the accumulated volume over the following two weeks. The release will be adjusted weekly based on the previous two weeks of inflows. This accounting will be repeated and submitted to TCEQ each week until the senior call is rescinded. By operating in this manner, complications that arise from forecasting are avoided.

If the mean daily flow at the Rosharon gage rises above 630 cfs while the water that is stored in the reservoirs from inflow for subsequent pass through is being released, the pass through release will be

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stopped until the mean daily flow drops back below 630 cfs. Any inflow stored in the reservoirs that was not released during the two week span will be impounded under BRA water rights.

Should conditions change such that surface water under any of the BRA water rights is needed to protect public health, safety, and welfare, the BRA may request that provisions of this plan be modified, subject to approval by the TCEQ Executive Director.

The BRA will take the following steps to determine the volume to be passed. The calculations will be made for each of the BRA's reservoirs excluding Possum Kingdom. The release will be adjusted weekly based on the previous two weeks of inflows.

1. Calculate DOW's total shortage over the previous two week period by summing up the amount that the streamflow was short each day of meeting the 300 cfs target at the Rosharon gage.
2. Calculate the total inflow for all 10 reservoirs over the previous two week period. In the absence of reported customer diversions, an estimate of lakeside diversions will be used based on daily average lakeside diversions for each month in 2011. The 2011 daily average lakeside diversions are included within the spreadsheet that will be submitted to TCEQ each week. The average daily demands will be adjusted by a factor determined by comparing the difference in the previous month's water use and the water use in 2011 for the same month. Inflow will be adjusted to remove dedicated releases from upstream reservoir storage.
3. Calculate the total undedicated release for all 10 reservoirs over the two week period by subtracting dedicated releases to downstream customers from the total release.
4. Calculate the total captured inflow for all 10 reservoirs over the previous two week period by subtracting the amount determined in bullet 3 from the amount determined in bullet 2.
5. The total volume required to be passed downsteam is the lesser of the amounts determined in bullets 1 and 4.
6. The average daily amount required to be passed downstream over the next week is calculated by dividing the volume determined in bullet 5 by 14 days and dividing by a delivery factor based on the reservoir from which the inflows will be passed. The delivery factor accounts for transportation losses between the reservoir and the Rosharon gage. The delivery factors that will be used are consistent with channel loss estimates included in the Brazos Water Availability Model, and they are included in a table within the spreadsheet that BRA will submit to TCEQ on a weekly basis.
7. Repeat bullets 1-6 each week until the senior call is rescinded.

While this plan is in effect, the credit accounting system required in DOW's long-term contract will not be implemented since a portion of the inflow that would otherwise be used in the credit accounting will instead be passed downstream.