

TO: Board Members

THROUGH: Jeff Walker, Executive Administrator
Todd Chenoweth, General Counsel
Jessica Zuba, Deputy Executive Administrator, Water Supply & Infrastructure
John Dupnik, Deputy Executive Administrator, Water Science and Conservation

FROM: Ron Ellis, Project Manager, Regional Water Planning
Sarah Backhouse, Manager, Regional Water Planning

DATE: January 2, 2020

SUBJECT: Groundwater availabilities for the 2021 Region D Regional Water Plan (RWP)

ACTION REQUESTED

Consider approving the groundwater availabilities requested by Region D for regional water planning purposes in accordance with Texas Water Code (TWC) § 16.053(e)(2-a) and 31 Texas Administrative Code (TAC) § 357.32(d)(2).

BACKGROUND

Modeled available groundwater (MAG) is the amount of water that the Texas Water Development Board (TWDB) Executive Administrator determines may be produced on an average annual basis to achieve desired future conditions (DFC), which are established by groundwater conservation districts (GCD) within groundwater management areas (GMA) during the joint planning process.

TWC § 16.053(e)(2-a) requires RWPs to be consistent with DFCs. Senate Bill 1101, 84th Legislative Session, amended TWC § 16.053(e)(2-a) to add language authorizing a regional water planning group (RWPG) with no GCDs within its planning area to determine its supply of groundwater for regional water planning purposes. Region D is the only RWPG with no GCDs within its planning area.

TWDB is required to review and consider approving the groundwater availability requested by the RWPG. The availability must be determined to be physically compatible with the DFCs for the relevant aquifers in GCDs within co-located GMAs.

On February 6, 2019, the Region D RWPG authorized its consultants, Carollo Engineers and WSP, to submit the methodology to be used to determine groundwater availability volumes in areas within Region D where existing water supply volumes or water management strategy (WMS) supply volumes may exceed the MAG. Region D’s initial methodology identified estimated groundwater availability volumes that were greater than the MAG for 34 aquifer, county, basin splits in Region D. TWDB Groundwater Availability Modeling staff modeled Region D’s estimated availability volumes, which identified the Region D-estimated availability volumes that are physically compatible with the DFCs for relevant aquifers in the GCDs in the co-located GMAs. TWDB also identified total maximum compatible availability volumes for aquifer, county, basin splits where Region D’s estimated volumes were not compatible. Region D submitted a letter October 29, 2019 summarizing its final request for the TWDB to consider allowing use of specific availability volumes, which are greater than the MAG for nine aquifer, county, basin splits.

Table 1 lists the recommended availability volumes for each aquifer, county, basin split. These volumes are greater than the MAG volumes for the aquifer, county, basin splits, however groundwater availability modeling indicates that they are physically compatible with the DFCs for relevant aquifers in the GCDs in the co-located GMAs. The Region D RWPG has accepted the volumes in Table 1 for use in the 2021 Region D Regional Water Plan.

Table 1 TWDB Recommended Groundwater Availability Values that are Physically Compatible with DFCs in Region D. All values in acre-feet per year.

Source Aquifer	Source County	Source Basin	Groundwater Source Availability Recommended by TWDB					
			2020	2030	2040	2050	2060	2070
WOODBINE	LAMAR	RED	22	22	22	22	22	22
CARRIZO-WILCOX AQUIFER	HOPKINS	SULPHUR	7,119	7,205	7,228	7,045	7,010	6,795
WOODBINE	HUNT	SULPHUR	165	165	165	165	165	165
TRINITY AQUIFER	HUNT	SABINE	213	213	213	213	213	213
TRINITY AQUIFER	RED RIVER	SULPHUR	234	233	234	233	234	233
CARRIZO-WILCOX AQUIFER	TITUS	CYPRESS	7,215	7,064	6,974	7,211	7,252	7,194
CARRIZO-WILCOX AQUIFER	VAN ZANDT	SABINE	4,767	4,729	4,556	4,497	4,497	4,370

RECOMMENDATION

The Executive Administrator recommends approval of this item because it meets the intent of the law and the recommended volumes are physically compatible with the DFCs for relevant aquifers.