

## **Item 5 – Discussion of Depletion Management Zones**

During 2023, the District issued 92 permits for Simsboro Aquifer pumping. These new permits amounted to 156,510 ac-ft, and when coupled with all previous permits issued prior to 2023, brings the total permitted amount for the Simsboro Aquifer to 342,134.51 ac-ft. AGS. James Beach, Advanced Groundwater Solutions, has prepared a presentation modeling the effect of pumping of the permitted wells to their full permitted amounts at various year intervals. The presentation has been uploaded to a separate folder in the File Browser.

Needless to say, there will be a significant impact to the artesian head levels in coming years and decades. It is the legislatively prescribed duty of the District to manage this impact and not exceed the adopted Desired Future Conditions. One of the tools the District has is to establish Depletion Management Zones which are a part of Chapter 36 language.

Here is language directly from TWC Chapter 36 related to Depletion Management Zones:

### **Sec. 36.116. REGULATION OF SPACING AND PRODUCTION.**

*(d) For better management of the groundwater resources located in a district or if a district determines that conditions in or use of an aquifer differ substantially from one geographic area of the district to another, the district may adopt different rules for:*

*(1) each aquifer, subdivision of an aquifer, or geologic strata located in whole or in part within the boundaries of the district; or*

*(2) each geographic area overlying an aquifer or subdivision of an aquifer located in whole or in part within the boundaries of the district.*

Depletion Management Zones (DPZs) are developed to delineate areas with substantially differing aquifer conditions. DPZa for an aquifer(s) would be based on the best available science, allowing the District to designate DPZs in areas of the District that are experiencing significant drawdowns of the aquifer levels, which may be caused by concentrated groundwater pumping. Within designated DPZs, the District could adopt appropriate production limitations to alleviate the substantial stress on the aquifer(s). Management strategies within designated DPZs might include a reduction in groundwater production of existing and future permits and increased well spacing requirements.

With the advent of new era of water production from the Simsboro Aquifer, it is prudent to have discussions related to the establishment of a Simsboro Mitigation Management Zone and establish parameters for avoidance of exceeding the Desired Future Condition long before we reach a triggering level related to curtailment.