

Summary of Facts: Needmore Water LLC, Well D Permit Application

SUMMARY OF BOARD DECISION

On December 12, 2019 at 4:00 pm at the Travis County Manchaca Fire Hall during its Regular Meeting, the Board of Directors denied the request from TESPAs for a rehearing of the Needmore Water LLC permit. A [press release](#) was issued with statements from Director Mary Stone and President Blayne Stansberry.

On July 29, 2019, at 4:00 p.m. at the City of Buda City Council Chambers the Board convened a special called meeting to hold a public hearing on the conversion of the Needmore Water LLC Temporary Permit to a Regular Permit. [View the staff presentation here.](#) The Board voted to grant Needmore a Regular permit with special provisions in the amount of 289,080,000; the motion passed 5-0. This amount is the maximum production capacity that Needmore was eligible to request under the statutory requirements of H.B. 3405. Needmore is required to comply with the drought curtailments of a Historical Trinity Production Permit as well as the terms outlined in the proposed Special Provisions.

The special provisions approved by the Board are a set of response measures, conditions, and requirements that are designed to be protective of aquifer conditions and to avoid unreasonable impacts to existing well owners. The Board and staff believe that these management strategies and safeguards will serve to protect all wells owners and the aquifer. The Special Provisions focus on the following areas:

- Collecting real-time data from the Amos well to monitor water level depths over time;
- Implementing pumping reductions (up to 100% curtailment) indexed to levels in the Amos well. If unforeseen circumstances occur and unreasonable impacts cannot be avoided through temporary production curtailments, The Board may amend the permit to consider the following actions: *permit amendment and hearing, temporary cessation, permit reduction, or voluntary mitigation*

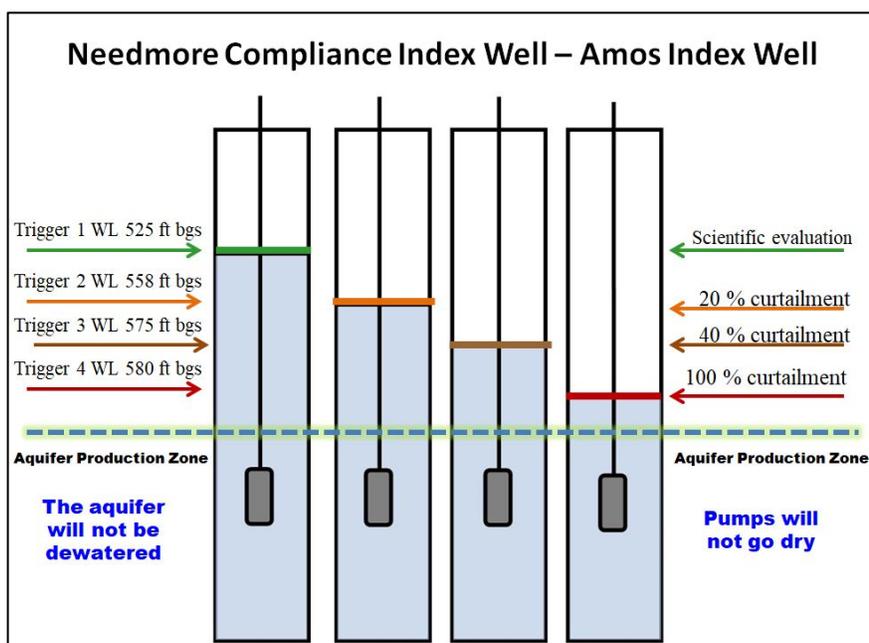
SUMMARY OF SPECIAL PROVISIONS

The District has the ability and authority to set special permit provisions that serve to protect private property rights of all groundwater users by conserving, protecting, and managing the groundwater resources within the District. Special provisions are a [critical management and policy tool](#) that incorporates elements of adaptive management and allows the District to more effectively respond to new data and information using best available science. The District's management tools include production permit phases, compliance monitoring plans, avoidance and mitigation measures, index wells with water level triggers, and drought curtailments.

Through its own scientific evaluations (Aquifer Testing & Modeling) the District found that a maximum pumping capacity, and during severe drought conditions, drawdown from Needmore Well D is [modeled](#) to cause well interference on surrounding supply wells. Because of the potential for unreasonable impacts, the General Manager recommended special provisions that

serve as a set of response measures, conditions, and requirements that are designed to be protective of aquifer conditions and to avoid unreasonable impacts to existing well owners. The Board and staff believe that these management strategies and safeguards will serve to protect all wells owners and the aquifer.

The special provisions of the Needmore Water LLC permit require an index well with permit compliance levels. The District has designated a primary index well (Amos Well) to serve as the sentinel well for the area, and continues to grow the monitoring efforts in the area. The District has set water level thresholds on the primary index well (Amos Well) that trigger mandatory pumping curtailments as the drawdown in the index well increases. The trigger levels are set so that adequate water levels are maintained, essentially ensuring that existing wells and the aquifer are protected. Visit the [data page for the Needmore Primary Index Well \(Amos Well\)](#) for current information on the index well water levels.



Description of Special Provisions:

- *Section 1. Definition of Terms.* This section lists the defined terms specifically as referenced and used for the Needmore Water LLC permit.
- *Section 2. General.* This section describes the overarching general provisions that the Permittee must comply with in response to the District's preliminary finding identifying unreasonable impacts. Further detail is provided throughout the special provisions that describes the required permit-specific Response Actions to be implemented in order to avoid unreasonable impacts. These provisions designate the use of a primary index well for which Permit Compliance Levels, Triggers, and Mandatory Response Actions that will be established and monitored for compliance. This section also describes how the District will coordinate with the permittee to schedule meetings and to review data. The meetings will also serve to communicate details about the relevant Response Actions in place, as well as to communicate the need for the Permittee to prepare for the upcoming Response Actions that will be required if subsequent Compliance Levels are reached. This section also references that in response to any actual unreasonable impacts observed, that the District (through an amendment and hearing

process) may consider temporary cessation or partial reduction of the full permit volume to reasonably avoid recurrence of unreasonable impacts. The District may also consider voluntary mitigation measures pursuant to an agreement, after all preemptive avoidance measures have been exhausted. If the District determines that new pumping centers or large-scale groundwater production within the area of influence are significantly affecting drawdown relative to the permit Compliance Levels, then the District may consider revision of these permit provisions and permit Compliance Levels.

- *Section 3. Index Wells.* This section describes how the District, in consultation with the Permittee, has designated a primary index well (Amos Well) and secondary index well (Catfish Well) for the purpose of monitoring aquifer conditions in the Middle Trinity Aquifer. These provisions further define the Permit Compliance Levels, Response Actions, and Triggers specific to the primary index well. The District shall be responsible for operating, maintaining, repairing, and replacing all monitoring equipment such as pressure transducers, related telemetry equipment, and cell/web hosting fees. The District is also responsible for compiling, collecting, and archiving data from the monitor wells.
- *Section 4. Permit Compliance Actions.* This section outlines the specific aquifer conditions and triggers (water levels) that require responsive actions on the part of the Permittee. Descriptions are provided on what the required pumping curtailments are for certain permit compliance levels.
- *Section 5. Drought Chart and BCR Pumping Chart.* This section describes that when drawdown in the primary index well reaches the Compliance Level 2 Trigger (550 ft bls), the District will establish a Baseline Curtailment Rate (BCR) reflected as an annual volume. The Permittee will be issued a revised pumping chart that reflects an annual volume referred to as the BCR. Once the Compliance Level 2 Trigger is reached, this revised pumping chart shall replace all other previous pumping charts or drought target charts in place. These pumping chart updates are necessary as the premise of these special provisions are based on the actual production rates rather than the permitted monthly allocations.

H.B. 3405 BACKGROUND

The Barton Springs/Edwards Aquifer Conservation District's (District) territory was expanded on June 19, 2015 through the passage of H.B. 3405 (the Act). The Act required all nonexempt, non-Edwards wells to be permitted and provides a three-month period to apply for a Temporary Permit, which expired on September 19, 2015. The Temporary Permits provided well owners with an interim authorization to operate a well, and for groundwater production not to exceed the well's "maximum production capacity" as defined by the Act prior to conversion to a Regular Historical Production Permit. In accordance with Section 4(e) of the Act, the District is required to evaluate the proposed production prior to conversion to Regular Permits to determine if the amount authorized will cause:

1. A failure to achieve the applicable adopted desired future conditions for the aquifer; or
2. An unreasonable impact on existing wells.

The District processed Part I and Part II of the application and conducted a best available science evaluation of the Needmore Water, LLC permit request in accordance with 1) the applicable

District policies, 2) the District Rules adopted July 16, 2015, and 3) the District's interpretation of the provisions of the Act.

PERMIT APPLICATION SUMMARY

Temporary Production Permit (Part I)

Needmore Water, LLC (Needmore) filed Part I of a two-part application with the District to provide an interim authorization under a Temporary Production Permit to continue operating the well for the existing use types prior to conversion to a Regular Historical Production Permit. The application was signed, notarized, and timely filed on September 18, 2015 with supporting materials. Staff confirmed that the applicant met the eligibility requirements and issued the Temporary Permit on October 19, 2015 for approximately 180,000,000 gallons/year. This volume was interpreted by the General Manager (GM) as the maximum production capacity of the well based on the limited information submitted with the application, and best professional judgement. The Temporary Production Permit was approved with a special provision prohibiting operation of the damaged well until the Permittee demonstrated that the well was repaired and in good, non-deteriorated condition, and therefore, no longer abandoned in accordance with the applicable District rules and standards.

Regular Production Permit (Part II)

Needmore filed Part II of the two-part application for conversion to a Regular Historical Production Permit and requested authorization for maximum production capacity of a higher volume equivalent to 289,080,000 gallons/year (approximately 887 acre-feet/year; 550 gallons per minute) from the Middle Trinity Aquifer for continued operation to support Agricultural Use. The applicant addressed the damage in the well to the District's satisfaction and was able to successfully complete an aquifer test and submit a hydrogeological report as part of the Regular Permit application requirements. The maximum production capacity volume of the well (Well D) was confirmed by the District to be 289,080,000 gallons/year on the basis of the supporting aquifer test and analysis of the aquifer test data. All required information was received by staff, therefore, the application was declared administratively complete. Needmore Water LLC continues to operate the existing well for wildlife management and future agricultural uses. The well is located at [Fulton Ranch Rd, Wimberley, TX 78676 \(Lat 29.970265°, Long -98.034161°\)](#).

AQUIFER TEST AND HYDROGEOLOGICAL REPORT

An aquifer test was conducted and a Hydrogeologic Report was prepared and submitted by Wet Rock Groundwater Services, LLC (WRGS, 2016) to support the Needmore application. The report generally satisfied the goals of the District's Aquifer Test and Hydrogeologic Report Guidelines (dated 2007) by providing data necessary to evaluate: 1) aquifer properties, 2) impacts to wells, and 3) changes in water quality. The aquifer test was done according to District guidelines and the District was consulted and involved in all aspects of the test.

In accordance with Section 4(e) of the Act, the District is required to evaluate the proposed production prior to conversion to Regular Permits to determine if the amount authorized will cause:

1. A failure to achieve the applicable adopted desired future conditions for the aquifer, or
2. An unreasonable impact on existing wells.

[Technical Memo 2016-1115](#) contains a detailed description of this evaluation which was conducted by applying the best available science using the available aquifer test data, the submitted report, and available analytical tools. The determination of whether the proposed production “will cause” one of the above conditions requires a projection of the future effects on the aquifer using the best available science. Regarding factor 2 above, the District developed policies and protocols to guide the application process and review, and the requisite evaluation of any proposed groundwater production in order to provide a systematic and consistent means assessing impacts to existing wells. The term “unreasonable impacts” is not defined in statute, therefore, the District has to rely on its interpretation which includes a suite of factors. To facilitate this evaluation, the District interprets “unreasonable impacts on existing wells” to include:

1. Well interference related to one or more water wells ceasing to yield water at the ground surface;
2. Well interference related to a significant decrease in well yields that results in one or more water wells being unable to obtain either an authorized, historic, or usable volume or rate from a reasonably efficient water well;
3. Well interference related to the lowering of water levels below an economically feasible pumping lift or reasonable pump intake level; and
4. The degradation of groundwater quality such that the water is unusable or requires the installation of a treatment system.

After considering the findings of the evaluation of the Aquifer Science Team (see [Technical Memo 2016-1115](#) for further detail), the GM has determined that the modeled projections of drawdown attributed to pumping from Well D at maximum production capacity indicate that some wells will cease to yield water at the ground surface or will experience the lowering of water levels below a reasonable pump intake level. Therefore, the GM has determined that the proposed groundwater production, under modeled conditions, will cause unreasonable impacts to existing wells.

Given this determination, the GM has developed this [preliminary decision](#) recommending the necessary special provisions relating to permit compliance thresholds and aquifer monitoring to avoid unreasonable impacts. The GM recommendations are provided in further detail below.

GENERAL MANAGER’S RECOMMENDATION

Pursuant to the Act and District Rules, applicants with an administratively complete application shall be issued a Regular Production Permit for the amount of groundwater production set forth in the Temporary Production Permit unless the District finds that authorizing that amount will cause unreasonable impacts to existing wells. Section 4 of the Act further authorizes that the

District may issue an Order approving a Regular Production Permit for a reduced amount if the District finds that authorizing the groundwater production in the amount set forth in the Temporary Production Permit “will cause” unreasonable impacts.

The District has conducted the evaluation and developed a projection of impacts based on the application of the best available science and analytical tools and aquifer testing data provided with the application. On the basis of this evaluation, the GM has determined that the proposed groundwater production, under modeled conditions, will cause unreasonable impacts to existing wells. The District, however, does recognize that there is inherent uncertainty in the evaluation of future projected impacts. Further, the requested permit volume represents the maximum possible production capacity and continuous annual production at the maximum pumping rate. The level of production has not been and may have never been used or feasibly achieved. As such, the District has applied a reasonable and logical approach that would require such reductions authorized by the Act to be temporary and limited to times when there is demonstrable evidence in the form of measured water levels exceeding prescribed thresholds as indices of imminent impacts.

Given these considerations and findings, the GM recommends conversion of the Temporary Permit into a Regular Permit to authorize the total maximum annual withdrawal of 289,080,000 gallons/year with special provisions for temporary reductions when necessary to avoid unreasonable impacts to existing wells and permanent reductions only after opportunity for notice and hearing if unreasonable impacts cannot be avoided through temporary reductions .