

NOTICE OF PUBLIC HEARING ON PROPOSED RULES OF
THE MIDDLE PECOS GROUNDWATER CONSERVATION DISTRICT

June 19, 2018 at 10:00 a.m.
405 North Spring Drive, Fort Stockton, Texas 79735

The Middle Pecos Groundwater Conservation District (District) will receive public input at a hearing on proposed amendments to the District's rules intended (1) to amend requirements and procedure for conducting specific-capacity pump tests for each production permit application, (2) to reorganize and amend requirements for applications for drilling, production, and amendment of existing permits, (3) to make it easier to change ownership of registrations and permits and clarify when and what filings are necessary to change ownership, and (4) to modify the thresholds for hydrogeological reports and updated hydrogeological reports for permit applications.

The hearing will be held at 10:00 a.m. on June 19, 2018, at 405 North Spring Drive, Fort Stockton, Texas. A copy of the proposed rule amendments will be available 20 days before the hearing at the District's office at 405 North Spring Drive, Fort Stockton, Texas, and on the District's web site at www.middlepecosgcd.org.

FILED
10:30 AM
MAY 23 2018

LIZ CHAPMAN
CLERK COUNTY COURT, PECOS CO., TEXAS
By: Mary Sanchez Deputy

MIDDLE PECOS GROUNDWATER CONSERVATION DISTRICT

SUMMARY OF PROPOSED RULES CHANGES

(Rules 9.2, 11.1, 11.9)

(1) **New requirement: limited (8-12 hour) “specific-capacity” pump tests and reports for new or amended production permit applications**

- All nonexempt wells that are not subject to hydrogeological report (and more extensive pump test**) are subject to this limited pump test

** No change to the more extensive pump test for hydrogeological reports already in the rules.

- Pump test parameters have not changed (from April Board workshop discussion and Allan Standen’s recommendation).
- New permitting timeline: Drilling permitting → Then pump test and report → Then production permitting. No consolidated permit apps.
- Purpose: Better scientific info for decisions on production permit apps.

(2) **Information required for Drilling Permit vs. Production Permit vs. Permit Amendment Applications**

- Rule 11.9.1 reorganized to reflect separate application requirements.
- Permit/registration transfers made easier.

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***MIDDLE PECOS GROUNDWATER
CONSERVATION DISTRICT***

***excerpt of
RULES***

Proposed Amendments to Rules
(Set for Public Hearing on June 19, 2018)

Proposed additions reflected in underlined text, and proposed deletions reflected in ~~strike-out~~.

**** FOR CONVENIENCE OF REVIEW, ONLY THOSE RULES THAT ARE PROPOSED TO BE AMENDED OR REPEALED OR THAT ARE HELPFUL AND PROVIDE CONTEXT TO THE PROPOSED AMENDMENTS OR REPEAL HAVE BEEN INCLUDED IN THIS EXCERPT.**

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RULE 9.2 GENERAL REGISTRATION POLICIES AND PROCEDURES

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9.2.7 Transfer of Registration Ownership Transfer: Upon submission to the District of written notice of ownership transfer of ownership or control of any water right or water well covered by a registration and documents evidencing the transfer ownership must be filed with the District, and permit amendment shall be secured, if required by these rules, the District's General Manager will amend the well registration to reflect the new owner(s). Any person who becomes the owner of a previously filed registration must, within 45 (forty five) calendar days from the date of the change in ownership, file a request for transfer of the registration.

If the District wants to give transferor notice an opportunity to object to transfer:

The grantee/transferee must serve the current registration holder(s) with notice of transfer and must file proof of service with the District. After providing the current registration holder(s) 30 (thirty) calendar days from the date of service of the notice of transfer to file information with the District opposing the transfer, the District's General Manager may determine that sufficient documentation of the change in ownership or control has been filed and may amend the registration to reflect the new registration holder(s).

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RULE 11.1 REQUIREMENT FOR PERMIT TO DRILL, OPERATE, OR ALTER THE SIZE OF A WELL OR WELL PUMP; PERMIT AMENDMENT

- (a) **Permits Required:** No person may drill, operate, equip, complete, or alter the size of a well or well pump without first obtaining a permit or approved pre-registration, as applicable, from the District as provided by statutory law and these rules.
- (b) **Permit Amendment Required:** A permit amendment is required prior to any deviation from the permit terms regarding the maximum amount of groundwater to be produced from a well, ~~ownership of a well or permit,~~ the location of a proposed well, the purpose of use of the groundwater, the location of use of the groundwater, or the drilling and operation of additional wells, even if aggregate withdrawals remain the same. A Historic and Existing Use Permit may not be amended to modify the purpose of use for which the Historic and Existing Use Permit was originally granted, but may be amended to modify the place of use to a place inside or outside the district. The District may authorize a permit holder to lease or otherwise transfer ownership of a Historic and Existing Use Permit or the amount of groundwater production authorized under such a permit, as long as the purpose of use does not change and as long as the withdrawal is made from the same aquifer and within the same management zone, if applicable, and such transfers are subject to the Rule 11.9.1 and Rule 11.10.10.

- (c) Absent an express reservation of rights in the transferor, the transfer of ownership of the well(s) designated by a permit is presumed to transfer ownership of the permit, and the transfer of the land and well site on which the well is located is presumed to transfer ownership of the well. The ownership of a permit may be transferred separately from the ownership of water rights and a well and land and well site on which the well is located, or place of use, subject to these Rules and permit conditions, with sufficient documentation of an ownership or contractual right to hold the permit. If a transferor retains any interest in the permit, the District may issue a second permit to the transferee that contains the benefits severed and transferred. The District may thereafter amend the permit of the transferor accordingly, along with any appropriate conditions relevant to the transfer imposed by the District. The District shall limit the amount of production authorized in the transfer of a permit to a different location of use to the amount of water produced and beneficially used by the transferor under the original permit.
- (d) If the production authorized for two or more wells that have been aggregated to function as part of a Well System under Rule 11.2 and one or more wells under the Well System will be transferred, the District may allocate a pro rata share of the total authorized production to each well transferred unless the conveyance documents transferring the well(s) clearly provides for a different method of allocation.
- (e) ~~The District shall schedule a hearing for all activities for which a permit or permit amendment is required.~~ Upon submission to the District of written notice of transfer of ownership or control of any water right or water well covered by a permit and documents evidencing the transfer, the District's General Manager will amend the permit to reflect the new owner(s).

If the District wants to give transferor notice and opportunity to object to transfer:

The grantee/transferee must serve the current permit holder(s) with notice of transfer and must file proof of service with the District. After providing the current permit holder(s) 30 (thirty) calendar days from the date of service of the notice of transfer to file information with the District opposing the transfer, the District's General Manager may determine that sufficient documentation of the change in ownership or control has been filed and may amend the permit to reflect the new permit holder(s). The General Manager has discretion to instead refer the decision to amend the permit to the District's Board.

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RULE 11.9 PERMIT APPLICATIONS

11.9.1 Requirements for All Permit Applications:

- (a) ~~Application Forms:~~ Each ~~original~~ application for a water well Drilling Permit, Production Permit, and permit amendment requires the filing of a separate application. The application must be completed on the District's form and may be supplemented. ~~Application forms will be provided by the District and furnished to the applicant upon request.~~ Each application for a permit shall be in writing and sworn to, and shall include the ~~following information relevant to the appropriate type of application to be filed, as that information is identified and requested on the District's application form:~~ (1) ~~the name, and mailing address, phone number, and email address~~ of the applicant and the owner of the land on which the well or Well System is or will be located;
- (b) In addition to the information required of all permit applications in Rule 11.9.1(a), an application for a drilling permit or to amend a drilling permit must include the following information:
- (12) if the applicant ~~is other than the~~ does not own the well site(s) and proposed well(s) property, documentation establishing the applicable authority to construct, drill and ~~complete~~ operate each well on each for the proposed well site use;
 - (23) the location of each well and the estimated rate at which water will be withdrawn;
 - (3) the conditions and restrictions, if any, placed on the rate and amount of withdrawal;
 - (54) the date the permit is to expire if ~~the each~~ well(s) is/~~are~~ not drilled or if ~~each~~ the existing well(s) is/~~are~~ not properly completed to meet all statutory and regulatory requirements for the intended purpose of use;
 - (5) a declaration that the applicant will comply with all District well plugging and capping guidelines and report closure to the Commission;
 - (6) a location map of all existing wells within a one half (1/2) mile radius of the proposed well or Well System or the existing well or wells to be modified;
 - (7) a map or other document from the Pecos County Tax Appraisal District indicating the ownership and location of the subject property;
 - (8) a document indicating the location of each proposed well or each existing well to be modified, the subject property, and adjacent owners' physical and mailing addresses;
 - (9) notice of any application to TCEQ to obtain or modify a Certificate of Convenience and Necessity to provide water or wastewater service with water obtained pursuant to the requested permit; and
 - (10) a statement of the nature and purpose of the proposed use and the amount of water to be used for each purpose.

(c) In addition to the information required of all permit applications in Rule 11.9.1(a), an application for a production permit or to amend a production permit must include the following information:

- (1) if the applicant does not own the well site(s), proposed well(s), and groundwater, documentation establishing the applicable authority to operate each well and produce and beneficially use the groundwater from each well;
- (2) the annual amount of groundwater requested claimed to be necessary for beneficial use during each year of the proposed permit term by the applicant and determined by the Board to be necessary for beneficial use throughout the permit term with information supporting the annual amount of use requested for each proposed purpose of use;:
- (5) a requirement that the water withdrawn under the permit be put to beneficial use at all times;
- (6) the location of the use of the water from the well or Well System;
- (7) the conditions and restrictions, if any, placed on the rate and amount of withdrawal;
- (8) a declaration that the applicant will comply with the District's rules and all groundwater use permits and plans promulgated pursuant to the District's rules;
- (9) a declaration that the applicant will comply with the District Management Plan;
- (10) a drought contingency plan;
- (11) the duration the permit is proposed to be in effect, if greater than one year;
- (12) a written statement addressing each of the applicable criteria in Rules 10.2 and 11.10.10(a), (b), and (c) and substantiating why the applicant believes the Board should consider each of these applicable criteria in a manner favorable to the applicant; and
- (13) if groundwater is proposed to be exported out of the District, the applicant shall describe the following issues and provide documents relevant to these issues:
 - (A) the availability of water in the District and in the proposed receiving area during the period for which the water supply is requested;
 - (B) the projected effect of the proposed export on aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users within the District; and
 - (C) how the proposed export is consistent with the approved regional water plan and certified District Management Plan.

~~(f14) a hydrogeological report shall be attached to an application that requests a new production permit for 1,000 acre feet or more per year from one or more wells or an associated Well System or whether the application requests a new production permit or amendment to an existing production permit in an amount that when combined with the amount of an existing production or historic and existing use permit or permits associated with the same well or wells or Well System is at least 1,000 acre feet per year.s meeting the following conditions:~~

- ~~(1) requests to operate a nonexempt well or Well System with an annual maximum permitted use of at least 1,000 acre feet; and~~
- ~~(2) requests to amend and increase by at least 250 acre feet the annual maximum permitted use of a Production Permit for a well or Well System. This report must address the area of influence of the well(s) and any associated Well System for which a permit is being requested and a description of the aquifer that will supply water to each well, and be complete in a manner that complies with the requirements adopted in Rule 11.9.3.~~

~~(15) the hydrogeological report required in Subsection (145) shall be updated for each and every permit amendment application that requests an increase in production of at least 1,000 acre feet per year from one or more wells or an associated Well System authorized under an existing production or historic and existing use permit or permits that currently authorizes at least 1,000 acre feet per year.~~

~~(g) An applicant subject to subsection (f) of this section shall agree to conduct a pumping test for each well for which a production permit is being requested, and to submit the results of the pumping test to the District within 30 days of the well coming on line and beginning to produce groundwater for beneficial use.~~

~~(16) the results of a pump test for each well for which a production permit or amendment to a production permit is being requested depends upon the following thresholds:~~

- ~~(A) If the annual amount of groundwater withdrawal from one or more wells or an associated Well System in any calendar year during the permit term is more than 20 acre feet and less than 1,000 acre feet, the pump test(s) and results must meet the requirements of Rule 11.9.2(a);~~
- ~~(B) If an application is subject to the hydrogeological report requirements in Subsections (14) and (15) of this rule, the pump test(s) and results must meet the requirements of Rule 11.9.2(b).~~

~~(h) Hydrogeological reports required under Rule 11.9.2(f) shall address the area of influence of the well or Well System for which a permit is being requested and a description of the aquifer that will supply water to each well, and be complete in a manner that complies with the requirements adopted in Rule 11.9.3.~~

- (d) The General Manager or Board may waive one or more of the informational requirements for an application to amend a production permit depending on the nature of the amendment provided that the Board has sufficient, relevant information to consider the application at the hearing.
- (e) The applicant must provide the District with the information contained in Rules 11.9.1(a) and 11.9.2 relevant to the type of application that is required in this Rule 11.9 for the District to declare that the application is administratively complete. If the District provides a written list of application deficiencies, the applicant shall have 60 (sixty) calendar days to fully respond to the General Manager's satisfaction, after which a deficient application expires. The applicant may request an extension of this 60-day period or a ruling on the administrative completeness of its application by filing a written request with the District. The District will set an applicant's request under this rule on its next regularly scheduled Board meeting agenda, with three (3) calendar days' notice compliant with the Texas Open Meetings Act. The Board will consider and take action on an applicant's request under this rule at this meeting.

11.9.2 Specific Capacity Pump Test and Pump Test Report Requirements

- (a) Specific Capacity Pump Test and Pump Test Report Requirements required by Rule 11.9.1(c)(16)(A)(for one or more nonexempt wells or an associated Well System proposed to be authorized to annually withdraw less than 1,000 acre feet): The specific capacity pump test will provide the District with site-specific aquifer properties and well-yield information necessary to better evaluate a production permit application. The District is aware that a pump test to obtain aquifer specific capacity information requires site preparation, specialized monitoring equipment, monitoring during the test and pump test data analysis which can be time consuming and somewhat costly. The District will assist the production permit applicant with site preparation, provide the required water level monitoring equipment and conduct the technical analysis of the specific capacity pump test.

As part of its consideration of the relevant permitting factors in Rules 11.10.10, the MPGCD Board will consider the specific capacity pump test analysis results provided by the applicant along with input on these results from MPGCD's General Manager and professionals and, if there is a contested hearing, input on these results from any parties admitted into the contested hearing.

The dedicated pump must have the production capacity to meet the permit applicant's requested groundwater demand. The District must be notified at least 14 days in advance of any specific capacity pump test. A specific capacity pump test conducted without prior approval from the District will be deemed noncompliant with MPGCD permit requirements.

If the specific capacity pump test activity is found to be flawed or not acceptable by the District's General Manager, the District's General Manager may require the specific capacity pump test to be repeated.

The District Manager has the authority to exempt a permit applicant from this requirement provided the permit applicant provides good cause why other information submitted with the application is sufficient to describe the type of site-specific aquifer properties and well-yield information that would be obtained from the pump test and associated analysis.

(1) Specific Capacity Pump Test Site Preparation

(A) Availability of local monitor wells: The District is working to expand its understanding of the groundwater resources within the District to ensure the best available science is considered during the permitting process. If a well located within 1,000 feet of and completed within the same aquifer as the permit applicant's specific capacity pump test well is available to be monitored during the pump test, the General Manager may require that it be monitored during the test. This monitor well would provide additional, important aquifer properties. A monitor well(s) may not be actively pumping during the pump test.

(B) Installation of Water-level Transducers and the Determination of Static Water Levels

- i. The District staff will assist in the installation of District's own water-level transducers into the permit applicant's well to be pump tested and additional transducers into any monitor wells identified for the specific capacity pump test.
- ii. The District staff will determine the depth from the static water level of the well to the top of the pump intake (pump test water column thickness) prior to a pump test to understand at what water level depth the water level will drop below the water level transducer or below the pump intake. It is recommended that the water level transducer depth should be located at least 10 feet above the pump intake.
- iii. Prior to a specific capacity pump test, static water levels of the pump test well and any associated monitor wells must be measured by transducers for at least 24 hours prior to the pump test.
- iv. The District's staff will make sure that the transducers are time synchronized if there is more than one transducer. The transducers will be programed to collect water levels every 15 minutes during the entire pump test event which includes: 24 hours before pumping commences, during pumping (8 or 12 hours), and for at least 8 hours after pumping concludes (well recovery measurements).

(2) Determination of Specific Capacity Pump Test Discharge Rate: The specific capacity pump test discharge rate should be representative of the production needed to meet the permit applicant's requested instantaneous production rate (expressed in gallons per minute) and annual quantity of production (expressed in gallons or acre-feet per year). The District's General Manager will provide guidance to the permit applicant on a recommended pump test discharge rate.

(3) Monitoring of Specific Capacity Pump Test Discharge Rate: During a specific capacity pump test, the water level within the well usually declines and, as it does, the well discharge rate will also decrease. The permit applicant needs to provide a flow meter or a method to accurately estimate (within 10% of the actual rate) the pump test discharge rate during the specific capacity pump test. The pump test discharge monitoring method must be pre-approved by the District's General Manager before the pump test begins.

There should be allowance for increasing the pump rpm to maintain a constant discharge rate during the specific capacity pump test or, with the District General Manager's approval, the average discharge rate during the pump test could be used to calculate the well's specific capacity.

(4) Specific Capacity Pump Test Time Period: The specific capacity pump test time period will vary depending on the aquifer and will be confirmed by the District's General Manager in the following ranges:

(A) At least an 8-hour specific capacity pump test for the Edwards-Trinity, Pecos Alluvium and Dockum aquifers.

(B) At least a 12-hour specific capacity pump test for the Rustler, Capitan, San Andres and Igneous aquifers.

(5) Specific Capacity Pump Test

(A) The District staff will help initiate the pump test at an agreed-upon time determined by the District General Manager and the permit applicant. The District will verify that the water-level transducers are active and collecting water level data.

(B) Using a conductivity meter provided by the District measure the discharge water conductivity at 5 to 10 minutes after the pump test has started, mid-way through the pump test and at the end of the pump test. The District's staff will collect the first and last conductivity measurements.

(C) The permit applicant is responsible for monitoring and recording the pumping well's discharge rate changes during the pump test and the mid-pump test water quality conductivity measurement.

(D) Upon completion of the required time for the pump test, the District's staff will shut down the pump test and confirm that the water-level transducers are still active and collecting water level data.

(6) Post Specific Capacity Pump Test: After the completion of the water level recovery measurements, the District's staff will:

(A) Remove transducers from all the wells, and collect pump test information from the permit applicant (variation in pump test discharge rates or the time which permit applicant adjusted pump rate to fixed discharge rate and mid-pump test water quality measurement).

(B) The District's staff will download all the water level transducer data into an Excel spreadsheet with notations on the variations of pump discharge rates with time.

(C) District's groundwater consultant (PG or PE) will take pump test data provided by the District and calculate specific capacity and determine aquifer properties for the monitor wells (if available).

(D) District's groundwater consultant will prepare a brief report to provide to the District's Board and the permit applicant.

11.9.4

(b) Pump Test and Pump Test Report Requirements Associated with Hydrogeological Report required by Rule 11.9.1(c)(15) and (16)(B)(for one or more nonexempt wells or an associated Well System proposed to be authorized to annually withdraw at least 1,000 acre feet): The American Society of Testing and Materials (ASTM) documents D4043 (Selection of Aquifer Test Method) and D4050 (Field Procedure, Pump Tests) provide guidance for designing and implementation of pump tests, and D4105 (Confined Aquifer Pump Test Analysis) or D4106 (Unconfined Aquifer Pump Test Analysis) provide guidance to determine aquifer properties. A permit applicant can purchase these documents at <http://global.ihs.com/standards.cfm?publisher=ASTM&RID=Z06&MID=5280> and is strongly encouraged to review these documents prior to designing and conducting any pump tests.

(a1) Pump Tests:

Pump tests conducted without prior approval from the District may be deemed noncompliant with the District's Production Permit requirements. The District must be notified at least 48 hours in advance of any pump test conducted as part of the hydrogeological investigation.

Texas registered geoscientists (P.G.) and/or engineers (P.E.) with five years or more of groundwater experience will be required to oversee the design and implementation

of each pump test and associated monitor wells and will evaluate the pump test results to determine aquifer properties. Aquifer properties to be determined from the pump tests include specific capacity, transmissivity, hydraulic conductivity, and possibly storage coefficient or storativity values.

(2b) Pump Test Monitor Wells:

Monitor wells are required for applicant well fields with multiple wells. Monitor wells selected by the applicant for the pump test must comply with the District's monitor well requirements and the monitor well selection must be pre-approved by the District's General Manager. Monitor wells may not be actively pumping during the pump test. The use of existing private wells within two miles of the pumping wells and within the same groundwater producing formation is acceptable if the well meets the District's monitor well requirements.

A monitor well selected for the pump test is required to monitor only the applicant's aquifer and exhibit a connection with the pumping wells indicated by a minimum of 0.2 feet of drawdown during the pump test. For confined aquifers, the District may also require a monitor well in an overlying aquifer to monitor potential water level fluctuations and to determine whether there is communication between the applicant's aquifer and overlying aquifers.

(3e) Pump Test Requirements:

(A4) If possible, the District and/or the applicant will meet with any adjacent landowners with large operating wells (>250 gpm) within a two-mile radius of the pump test pumping wells prior to the pump test. The District and/or the applicant will inform the landowners of the date of the pump test, and, if possible, determine whether the landowners' wells will be active during the scheduled pump test. If the landowners' wells are going to be active during the pump test, the District will request that the landowners do not vary the pumping rates during the pump test.

(B2) The designed pump test results must be able to be used to mimic the well field's impact of the applicant's requested acre feet per year pumpage.

(C3) Static water levels of each pump test pumping and monitor wells should be measured every 12 hours for a total of 36 hours for the Pecos Valley Alluvium, Edwards-Trinity Plateau, and Dockum clastic aquifers and for a total of 72 hours for the Rustler and Capitan Reef Complex karstic aquifers and the San Andres karstic formation prior to the beginning of the pump test.

(D4) Flow meters will be used to monitor each pumping well's groundwater production.

(E5) Measure water levels and pump test discharge rates and times during pump test at acceptable frequency according to ASTM 4050.

(F6) A metered pump test of not less than a continuous 36 hours for the dominantly clastic aquifers, including the Pecos Valley Alluvium (clastic), Edwards-Trinity Plateau (carbonate karst and clastic), and Dockum (clastic).

- (G7) The documentation of times of field activities, weather changes, and pump test adjustments and/or problems will be recorded.
- (H8) A recovery phase of a period sufficient for a 95 percent recovery of beginning water levels of each pumping well and 90 percent recovery for each monitor well, not to exceed time period of pumping activity. Water level measurements during recovery should be measured at the same frequency as during the pumping phase (frequent at beginning and decreasing frequency with time).
- (I9) Water quality parameters (pH, temperature, and conductivity) of the pump test wells' discharged water will be measured at the beginning of the pump test and every 12 hours during the pump test.
- (J10) Water quality analysis will include TDS, SO₄, Cl, Ca, Mg, Na, HCO₃, F, Br, and NO₃ from each pumping well and will be collected twice—prior to and at the end of each pump test.

The applicant may request that the District's General Manager consider a variation of the above pump test requirements. The District's General Manager has 30 days to review and approve or disapprove the variance request.

(4d) Pump Test Report Requirements:

- (A1) A discussion about the general characteristics of the aquifer, including, but not limited to: confined or unconfined, clastic or karstic, variation in aquifer thickness, and interpreted degree of karst development. Discuss whether the production wells are partially or fully penetrating and the impact on monitor well selection.
- (B2) For each pump test and monitor well, tables listing water level changes with times, initial water levels at the start of pump test (for pumping and monitor wells), pump test date, start time, end time, changes during and final pumping rates, and water quality parameters measured during the pump test, as a report appendix.
- (C3) For each pump test and monitor well, a table listing the water level recovery measurements with times as a report appendix.
- (D4) Copies of field notes collected during the pump test as a report appendix.
- (E5) A discussion of the reasoning for the selection of the pump test analysis method used to estimate the aquifer properties for each pumping and monitor well in the pump test.
- (F6) A table listing final estimated aquifer properties for each pumping and monitor well in the pump test.
- (G7) A table of the pumping wells water quality parameters collected during the pump test.
- (H8) A discussion of any observed groundwater quality changes (if any) that occurred during the pump test.

If the pump test activity or analysis is found to be flawed or not acceptable by the District's General Manager, the District's General Manager may require that the pump test or analysis be repeated in an acceptable manner before the groundwater Production Permit application may be considered.

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