

Item 8 – Proposed Amendments to District Rules

The Rules Committee met on June 21, 2017 to do a thorough review of the District Rules assessing the need for any amendments that would enhance conservation and language required by recently enacted legislation to be added. Committee members present were Mark Carrabba (chair) and Pete Brien with Jan Roe unable to attend. Staff members at the meeting included the General Manager, Monique Norman and John Seifert (telephonic).

Other individuals attending the committee meeting were Jennifer Nations, Jim Mathews, Jayson Barfknecht, David Stratta, Stephen Cast and Bill Harris.

Committee members had an in-depth discussion on all the rules outlined on the following pages (red-lined or blue-lined). The few changes made as a result of the meeting are reflected in the following document. Please review the document and be prepared to discuss the proposed amendments.

The committee offers these proposed amendments to the full Board for discussion and possible movement of the proposed amendments to a Rules Hearing.

- (5) "Best available science" means conclusions that are logically and reasonably derived using statistical or quantitative data, techniques, analyses, and studies that are publicly available to reviewing scientists and can be employed to address a specific scientific question.
- (6) "Board" means the Board of Directors of the Brazos Valley Groundwater Conservation District.
- (7) "Conjunctive use" means the combined use of groundwater and surface water sources that optimizes the beneficial characteristics of each source.
- (8) "Contiguous acreage" means land with the same continuous boundary within the District that is owned or legally controlled for the purpose of groundwater withdrawal by the well owner or operator. ~~A majority of the~~ The contiguous acreage assigned to the well shall bear a reasonable reflection of the cone of depression impact near the pumped well, as based on the best available science and the production based acreage required by District Rule 7.1(c). Land that is owned or legally controlled by the well owner or operator that is separated only by a road, highway or river from other land owned or controlled by the well owner or operator is contiguous.
- (9) "Desired future condition" means a quantitative description, adopted in accordance with Section 36.108, of the desired condition of the groundwater resources in a management area at one or more specified future times.
- (10) "De-watering Well" means a well used to remove water from a construction site or excavation, or to relieve hydrostatic uplift on permanent structures.
- (11) "Discharge" means the amount of water that leaves an aquifer by natural or artificial means. (10) "District" means the Brazos Valley Groundwater Conservation District.
- (12) "District Act" means the Act of May 26, 2001, 77th Leg., R.S., ch. 1307, 2001 Tex. Gen. Laws(HB 1784).
- (13) "District Office" means the office of the District as established by resolution of the Board.
- (14) "Drilling Permit" means a permit for a water well issued or to be issued by the District allowing a water well to be drilled.
- (15) "Existing Well" means a groundwater well within the District's boundaries, for which drilling or significant development of the well commenced before the effective date of the District's rules on December 2, 2004.
- (16) "Evidence of historic or existing use" means evidence that is material and relevant to a determination of the amount of groundwater beneficially used without waste by a

through the earth as a heat source or heat sink.

- (23) "Landowner" means the person who bears ownership of the land surface.
- (24) "Leachate Well" means a well used to remove contamination from soil or groundwater.
- (25) "Modeled available groundwater" means the amount of water that the Texas Water Development Board determines may be produced on an average annual basis to achieve a desired future condition established under Section 36.108.
- (26) "Management Area" means an area designated and delineated by the Texas Water Development Board under Chapter 35 as an area suitable for management of groundwater resources.
- (27) "Monitoring Well" means a well installed to measure some property of the groundwater or aquifer it penetrates, and does not produce more than 5,000 gallons of groundwater per year.
- (28) "New Well" means any Well other than an existing well.
- (29) "New Well Application" means an application for a permit to drill and operate a new well.
- (30) "Open Meeting Law" means Chapter 551, Texas Government Code.
- (31) "Operating Permit" means a permit issued by the District for a water well, allowing groundwater to be withdrawn from a water well for a designated period.
- (32) "Property legally assigned to a well" is property owned or legally controlled for purposes of groundwater withdrawal by a well owner or operator and assigned to a specific well by the owner or operator.
- (33) "Public Information Act" means Chapter 552, Texas Government Code.
- (34) "Public water supply well" means a well that produces the majority of its water for use by a public water system.
- (35) "Person" includes corporation, individual, organization, government or governmental subdivision or agency, business trust, estate, trust, partnership, association, or any other legal entity.
- (36) "Presiding Officer" means the President, Vice-President, Secretary, or other Board member presiding at any hearing or other proceeding or a Hearing Examiner conducting any hearing or other proceeding.

- (1) the goals of each management plan and its impact on planning throughout the Management Area;
 - (2) the effectiveness of the measures established by each management plan for conserving and protecting groundwater and preventing waste, and the effectiveness of these measures in the Management Area generally;
 - (3) any other matters that the boards consider relevant to the protection and conservation of groundwater and the prevention of waste in the Management Area; and
 - (4) the degree to which each management plan achieves the desired future conditions established during the joint planning process.
- (c) Not later than May 1, ~~2016~~2021, and every five years thereafter, the districts shall consider groundwater availability models and other data or information for the management area and shall propose for adoption desired future conditions for the relevant aquifers within the management area. Before voting on the proposed desired future conditions of the aquifers under the districts shall consider:
- (1) aquifer uses or conditions within the management area, including conditions that differ substantially from one geographic area to another;
 - (2) the water supply needs and water management strategies included in the state water plan;
 - (3) hydrological conditions, including for each aquifer in the management area the total estimated recoverable storage as provided by the Texas Water Development Board, and the average annual recharge, inflows, and discharge;
 - (4) other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water;
 - (5) the impact on subsidence;
 - (6) socioeconomic impacts reasonably expected to occur;
 - (7) the impact on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater as recognized under Section 36.002;
 - (8) the feasibility of achieving the desired future condition; and
 - (9) any other information relevant to the specific desired future conditions.
- (d) After considering and documenting the factors described by Subsection (c) and other relevant scientific and hydrogeological data, the districts may establish different desired future conditions for:
- (1) each aquifer, subdivision of an aquifer, or geologic strata located in whole or in part within the boundaries of the management area; or
 - (2) each geographic area overlying an aquifer in whole or in part or subdivision of an aquifer within the boundaries of the management area.
- (e) The desired future conditions must provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection,

recharging, and prevention of waste of groundwater and control of subsidence in the management area. This subsection does not prohibit the establishment of desired future conditions that provide for the reasonable long-term management of groundwater resources consistent with the management goals under Section 36.1071(a).

- (f) The desired future conditions proposed must be approved by a two-thirds vote of all the district representatives for distribution to the districts in the management area. A period of not less than 90 days for public comments begins on the day the proposed desired future conditions are mailed to the districts. During the public comment period and after posting notice as required by Section 36.063, each district shall hold a public hearing on any proposed desired future conditions relevant to that district. During the public comment period, the District shall make available in its office a copy of the proposed desired future conditions and any supporting materials, such as the documentation of factors considered and groundwater availability model run results. After the close of the public hearing comment period, the District shall compile for consideration at the next joint planning meeting a summary of relevant comments received, any suggested revisions to the proposed desired future conditions, and the basis for the revisions.
- (g) After ~~the earlier of the date on which~~ all the districts have submitted their district summaries ~~or the expiration of the public comment period~~, the district representatives shall reconvene to review the reports, consider any district's suggested revisions to the proposed desired future conditions, and finally adopt the desired future conditions for the management area. The desired future conditions must be approved by adopted as a resolution by a two-thirds vote of all the district representatives not later than January 5, 2022. Subsequent desired future conditions must be proposed and finally adopted by the district representatives before the end of each successive five-year period after that date. The district representatives shall produce a desired future conditions explanatory report for the management area and submit to the development board and each district in the management area proof that notice was posted for the joint planning meeting, a copy of the resolution, and a copy of the explanatory report. The report must:
- (1) identify each desired future condition;
 - (2) provide the policy and technical justifications for each desired future condition;
 - (3) include documentation that the factors under Subsection (c) were considered by the districts and a discussion of how the adopted desired future conditions impact each factor;
 - (4) list other desired future condition options considered, if any, and the reasons why those options were not adopted; and
 - (5) discuss reasons why recommendations made by advisory committees and relevant public comments received by the districts were or were not incorporated into the desired future conditions.
- (h) ~~After As soon as possible after~~ a district receives notification from the Texas Water

Development Board that the desired future conditions resolution and explanatory report are administratively complete, the district shall adopt the applicable desired future conditions in the resolution and report ~~that apply to the district~~. Except as provided by this section, a joint meeting under this section must be held in accordance with Chapter 551, Government Code. Each district shall comply with Chapter 552, Government Code. The district representatives may elect one district to be responsible for providing the notice of a joint meeting that this section would otherwise require of each district in the management area. Notice of a joint meeting must be provided at least 10 days before the date of the meeting by:

- (1) providing notice to the secretary of state;
 - (2) providing notice to the county clerk of each county located wholly or partly in a district that is located wholly or partly in the management area; and
 - (3) posting notice at a place readily accessible to the public at the district office of each district located wholly or partly in the management area.
- (i) The secretary of state and the county clerk of each county shall post notice of the meeting in the manner provided by Section 551.053, Government Code.
- (j) Notice of a joint meeting must include:
- (1) the date, time, and location of the meeting;
 - (2) a summary of any action proposed to be taken;
 - (3) the name of each district located wholly or partly in the management area; and
 - (4) the name, telephone number, and address of one or more persons to whom questions, requests for additional information, or comments may be submitted.
- (k) The failure or refusal of one or more districts to post notice for a joint meeting does not invalidate an action taken at the joint meeting.

RULE 5.3. APPEAL OF DESIRED FUTURE CONDITIONS.

- (a) In this section:
- (1) "Affected person" has the meaning assigned by Section 36.1082.
 - (2) "Development board" means the Texas Water Development Board.
 - (3) "Office" means the State Office of Administrative Hearings.
- (b) Not later than the 120th day after the date on which a district adopts a desired future condition under Section 36.108(d-4), an affected person may file a petition with the district requiring that the district contract with the office to conduct a hearing appealing the reasonableness of the desired future condition. The petition must provide evidence that the districts did not establish a reasonable desired future condition of the groundwater resources in the management area.

a new well should be allowed to be drilled closer than the required spacing of Rule 6.1, the issue of spacing requirements will be considered during the permitting process. If the Board chooses to grant a permit to drill a well that does not meet the spacing requirements, the Board may limit the production of the well(s) to minimize injury to existing wells or the aquifer.

- (c) The Board or General Manager, if authorized by the Board, may, if good cause is shown by clear and convincing evidence, enter special orders or add special permit conditions increasing or decreasing spacing requirements.
- (d) Well spacing Rules do not apply to wells completed in the Brazos River Alluvium.
- (e) Well spacing Rules do not apply to wells that are exempt under Rule 8.1. However, non-exempt wells are required to observe spacing requirements from exempt wells completed in the same aquifer and that are registered with the District.
- (f) Well spacing of new non-exempt wells completed in the District are exempted from complying with Rule 6.1(b)(2),(3) from permitted wells completed in the same aquifer, to the extent that the spacing does not allow the new well owner to produce their Production Based Acreage under Rule 7.1(c).

SECTION 7. PRODUCTION LIMITATIONS

RULE 7.1. MAXIMUM ALLOWABLE PRODUCTION

To minimize as far as practicable the drawdown of the water table and the reduction of artesian pressure, to control subsidence, to prevent interference between wells, to prevent degradation of water quality, and to address the potential loss of opportunity to drill a new well because of spacing requirements, and to prevent waste, the District adopts the following Rules to regulate the production of groundwater:

(a) Availability Goal

The District has adopted Availability Goals that are listed in the District's Certified Management Plan, for the following aquifer formations: the Brazos River Alluvium; the Carrizo-Wilcox, including the Simsboro Formation; the Queen City; the Sparta; and the Yegua- Jackson. The adopted Availability Goals are supported by the hydrogeological data of the Region G Water Planning Group, the Texas Water Development Board, and the District's hydrologist. The Availability Goals in the District's Certified Management plan shall reflect the Modeled Available Groundwater determined by the Texas Water Development Board pursuant to the adopted Desired Future Conditions for the District.

The adopted Availability Goals will be applied in reviewing permit applications. Groundwater production on new permit applications and increased use by historic users may be limited in accordance with the availability goal, as supported by the best available science, in a fair and impartial manner, regardless of type or location of use.

(b) **Permitting Goal**

The District recognizes that in order to achieve the adopted Availability Goals, the District may authorize groundwater production that is a small amount greater than the Availability Goals. The increased production permitting limit is put into effect to achieve the Availability Goals and Desired Future Conditions, while acknowledging that some groundwater permits may have more authorized production than is currently being produced by permittees.

The District shall make a reasonable effort to not grant permit applications for more water production than is actually needed for beneficial use.

The District's permitted production shall be no more than fifteen percent (15%) of the amount of groundwater that is permitted by the District, but not being annually produced by District permittees, based on 2009 metered production. The permitting limits shall be distributed over the regulated aquifers and shall be reviewed annually.

Once the permitted production is reached for an aquifer, no new production will be granted for persons that hold a previous permit, without verification that the permittee is actually using a substantial percent of their permitted production and can demonstrate with credible evidence the need for additional water production.

(c) **Production Based Acreage**

A permit holder's groundwater production for a new non-exempt well drilled in all aquifers within the District, except the Brazos River Alluvium, is limited by the number of contiguous acres that are legally assigned to the well site. **A majority of the contiguous acreage assigned to the well shall bear a reasonable reflection of the cone of depression impact near the pumped well, as based on the best available science and the required production based acreage.** The amount of groundwater production based on the assigned contiguous acreage will be determined by the following formula:

$$\frac{\left(\begin{array}{l} \text{Average Annual} \\ \text{Production Rate} \\ \text{in Gallons/Minute} \end{array} \times \begin{array}{l} \text{District Spacing} \\ \text{Requirement} \\ \text{Between Wells} \end{array} \right)^2 \times \pi}{43,560} = \text{Total number of contiguous acres required to be assigned to the well site}$$

The average annual production capacity or rate is defined as the permitted annual production amount in acre-feet multiplied by 0.62 to equal gallons per minute of production on an average annual basis.

requirements of the District's Rules. These permits will have a one-year term. The General Manager may grant such administratively complete permit applications without notice, hearing, or further action by the Board; but shall provide a report of the granted permits to the Board.

RULE 8.4. APPLICATIONS

- (a) Each original application for a certificate of registration, water well drilling permit, operating permit, transport permit, and permit renewal or amendment requires an application by the applicant. Applications for multiple wells may be combined if submitted by the same applicant. Application forms will be provided by the District and furnished to the applicant by request. The District will hold hearing(s) on a permit application(s) in accordance with Section 14 of the District's Rules.
- (b) An application shall be in writing and sworn and shall contain:
 - (1) the name and mailing address of the applicant and the name and address of the owner of the land, if different from the applicant, on which the well is to be located;
 - (2) if the applicant is not the owner of the property, documentation establishing the applicable authority to construct and operate a well on the owner's property for the proposed use;
 - (2.1) the applicant must provide evidence that they have the legal authority to produce the groundwater associated with the land surface and the permit application, as required by Rule 7.1(c). The applicant must also provide any documents that transfers that right to own, control, or produce the groundwater rights to another person/entity that are associated with the land surface and the permit application, as required by Rule 7.1(c). A permit may be amended or revoked if the groundwater rights or right to produce, related to a permit under Rule 7.1(c), are legally transferred to another person/entity.
 - (3) for exempt wells, a statement regarding the basis for asserting that the well will be exempt under Rule 8.1.
 - (4) a statement of the nature and purpose of the proposed use and the amount of water to be used for each purpose and any evidence supporting the authenticity of the intended beneficial use;
 - (5) except for exempt wells and operating permits for Existing wells based on historic use, availability of feasible and practicable alternative supplies to the applicant;
 - (6) except for exempt wells, wells in the Brazos River Alluvium, and wells not

capable of producing more than 400 acre-feet/year:

- (A) in the case of wells capable of producing over 400 acre-feet/year but less than 800 acre-feet/year: an evaluation of the projected effect of the proposed withdrawal on the aquifer or any other aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users in the District;
- (B) in the case of wells capable of producing 800 or more acre-feet/year: a study shall be conducted by a registered professional engineer or geologist that has expertise in groundwater hydrology evaluating the projected effect of the proposed withdrawal on the aquifer or any other aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users in the District. Five copies of the report shall be submitted with the permit application.
- (C) the District may adopt a guidance document to specify the required contents of the hydrogeological evaluation or report.
- (D) for a single well application, an applicant may request that the District engage its hydrologist to complete the required report specified in this subsection. The District has complete discretion to accept or deny the applicant's request. If the District does agree to have its hydrologist perform the report, then the applicant is required to pay for the District's actual costs of conducting the hydrogeological study. The District's hydrologist will not perform a report for a multiple well application or for multiple single-well applications that are submitted less than 24 months apart.
- (E) A permittee that applies for an amendment to an existing permit seeking to increase the allowable production to 800 ac-ft/yr or more, must submit a hydrogeological study under (B), above, with their amendment application.

A permittee that applies for an amendment to increase an existing permit that currently has allowable production of 800 ac-ft/yr or more shall submit a new hydrogeological study under (B), above, if the requested amendment increases the annual production by 20% or more.

- (7) the applicant's water conservation plan and, if any subsequent user of the water is a municipality or entity providing retail water services, the water conservation plan of that municipality or entity shall also be provided along with a copy of the contract between the applicant and any subsequent user of the water, indicating that the applicant and that municipality or entity will comply with the District's Conservation Plan.
- (8) the location of the well(s) and the estimated rate at which water will be withdrawn and where the water is proposed to be used; The District may access

the well location and take GPS coordinates and photographs, in compliance with District Rule 15.1;

- (9) a well closure plan or a declaration that the applicant will comply with well plugging guidelines and report closure to the applicable authorities, including the District;
- (10) The identity of the well driller, including the well driller's license number; and,
- (11) Except for exempt wells and wells in the Brazos River Alluvium aquifer formation, the applicant shall send a certified letter of notification to all landowners and/or registration/permit holders that are located within the spacing-requirement circumference of the applied-for well(s). A copy of the landowner letters and proof that it was sent certified mail shall be submitted with the application.

The applicant shall also publish in a newspaper of general circulation in Brazos and Robertson counties a legal notice of the application. A copy of the publisher's affidavit showing publication of the notice shall also be submitted with the application.

The letter and published notices must include:

- (A) the name of the applicant;
- (B) the address or approximate location of the well or proposed well;
- (C) a brief explanation of the proposed permit or permit amendment, including any requested amount of groundwater, the purpose of the proposed use, and any change in use;
- (D) the contact information of the applicant and the District.

RULE 8.5. OPERATING PERMIT TERM AND RENEWAL

- (a) Permit Renewal Application Deadline – An application to renew permits must be made within fourteen (14) calendar days prior to the last scheduled Board meeting before the expiration of the permit. If an application to renew a permit is not received during this time, the permit may lapse and the well owner may be subject to penalty if the well is operated without a valid permit. Once the permit has lapsed, the landowner or well owner may have to apply for a new operating permit.
- (b) Duration of Permit – All operating permits and permit renewals are effective for a term of five (5) years from the date a permit is granted, unless otherwise stated on the permit. Except, an

Board, the Board may then take the matter under advisement, continue it from day to day, reopen or rest the matter, refuse the action sought or grant the same in whole or part, or take any other appropriate action. The Board action takes effect at the conclusion of the meeting and is not affected by a motion for rehearing.

- (2) Requests for Rehearing. Any decision of the Board on a matter may be appealed by requesting a rehearing before the Board within twenty (20) calendar days of the Board's decision. Such a rehearing request must be filed at the District Office in writing and must state clear and concise grounds for the request. Such a rehearing request is mandatory with respect to any decision or action of the Board before any appeal may be brought. The Board's decision is final if no request for rehearing is made within the specified time, or upon the Board's denial of the request for rehearing, or upon rendering a decision after rehearing. If the rehearing request is granted by the Board, the date of the rehearing will be within forty-five (45) calendar days thereafter, unless otherwise agreed to by the parties to the proceeding. The failure of the Board to grant or deny the request for rehearing within ninety (90) calendar days of submission will be deemed to be a denial of the request.

SECTION 15. INVESTIGATIONS AND ENFORCEMENT

RULE 15.1. NOTICE AND ACCESS TO PROPERTY

(a) The directors, engineers, attorneys, agents, operators, and employees of a district or water supply corporation may go on any land to inspect, make surveys, or perform tests to determine the condition, value, and usability of the property, with reference to the proposed location of works, improvements, plants, facilities, equipment, or appliances. The cost of restoration shall be borne by the District.

(b) District employees and agents are entitled to enter any public or private property within the boundaries of the district or adjacent to any reservoir or other property owned by the district at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the district. District employees or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection and shall notify any occupant or management of their presence and shall exhibit proper credentials.

~~Board Members and District agents, engineers, attorneys, operators, and employees are entitled to access to all property within the District to carry out technical and other investigations necessary to the implementation of the District Rules. Prior to entering upon property for the purpose of conducting an investigation, the person seeking access must give notice in writing or in person or by telephone to the owner, lessee, or operator, agent, or employee of the well owner or lessee, as determined by information contained in the application or other information on file with the District. Notice is not required if prior permission is granted to enter without notice. Inhibiting or prohibiting access to any Board~~

~~Member or District agents, engineers, attorneys, operators, and employees who are attempting to conduct an investigation under the District Rules constitutes a violation and subjects the person who is inhibiting or prohibiting access, as well as any other person who authorizes or allows such action, to the penalties set forth in the Texas Water Code Chapter 36.102.~~

RULE 15.2. CONDUCT OF INVESTIGATION

~~Investigations or inspections that require entrance upon property must be conducted at reasonable times, and must be consistent with the establishment's Rules and regulations concerning safety, internal security, and fire protection. The persons conducting such investigations must identify themselves and present credentials upon request of the owner, lessee, operator, or person in charge of the well.~~

RULE 15.3. RULE ENFORCEMENT

If it appears that a person has violated, is violating, or is threatening to violate any provision of the District Act, Water Code Chapter 36, District permit, District Rules, the Board of Directors may assess a civil penalty or file for an injunction or other appropriate remedy in a court of competent jurisdiction, as authorized by Chapter 36.102 of the Texas Water Code.

RULE 15.4. SEALING OF WELLS.

- (a) Following due-process, the District may, upon orders from the judge of the courts, seal wells that are prohibited from withdrawing groundwater within the District by the District Rules to ensure that a well is not operated in violation of the District Rules. A well may be sealed when:
 - (1) no application has been granted for a permit to drill a new water well which is not excluded or exempted from obtaining a permit; or
 - (2) no application has been granted for an operating permit to withdraw groundwater from an existing well that is not exempted from the requirement that a permit be obtained in order to lawfully withdraw groundwater; or
 - (3) the Board has denied, canceled, or revoked a drilling permit or an operating permit.
- (b) The well may be sealed by physical means, and tagged to indicate that the well has been sealed by the District. Other appropriate action may be taken as necessary to preclude operation of the well or to identify unauthorized operation of the well.
- (c) Tampering with, altering, damaging, or removing the seal of a sealed well, or in any other way violating the integrity of the seal, or pumping of groundwater from a well that has been sealed constitutes a violation of these Rules and subjects the person performing that action, as well as any well owner or primary operator who authorizes

8.4.b(6)(B) Revisions

(B) in the case of wells capable of producing 800 or more acre-feet/year; a study shall be conducted by a professional engineer or geologist that has expertise in groundwater hydrology evaluating the projected effect of the proposed withdrawal on the aquifer or any other aquifer conditions, ~~depletion~~, ~~subsidence~~, or effects on existing permit holders or other groundwater users in the District. Five paper copies and one electronic copy of the report shall be submitted with permit application.

The evaluation report shall include the following:

1. A description of the hydrogeologic conditions in proximity to the applied-for (new) well(s) that includes:
 - The surface geology
 - The depth interval of the proposed water bearing zone
 - The anticipated thickness of the water bearing zone(s)
 - A statement of whether the water bearing zone is anticipated to be in unconfined or confined condition
 - A description of any hydrologic features or geologic features located within one mile of the proposed well site,
2. A well table giving data on each registered or permitted well located with one mile of the new well and screening the same aquifer as the new well. The well table shall include the name of the well owner, well registration or permit number, casing and screen diameter and depth settings, total well depth, and aquifer screened. A map also shall be provided showing the location of the well(s) at a scale no greater than one-inch equals 1,000 feet.
3. An estimate of the water-level drawdown that can be caused by pumping the new well(s) at the permitted rate for one year and ten years at a distance of five miles from the well. Water-level drawdown contours shall be shown at ~~ten~~five-foot contour intervals. The estimate of pumping effects shall be developed using the TWDB Queen City Sparta GAM or TWDB Yegua-Jackson GAM, as applicable. Aquifer hydraulic data available from other sources for wells located in proximity to the new well may be considered in estimating the water-level drawdown effects of pumping. Include in the evaluation an

8.4.b(6)(B) Revisions

(B) in the case of wells capable of producing 800 or more acre-feet/year; a study shall be conducted by a professional engineer or geologist that has expertise in groundwater hydrology evaluating the projected effect of the proposed withdrawal on the aquifer or any other aquifer conditions, ~~depletion,~~ ~~subsidence,~~ or effects on existing permit holders or other groundwater users in the District. Five paper copies and one electronic copy of the report shall be submitted with permit application.

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 - The surface geology
 - The depth interval of the proposed water bearing zone
 - The anticipated thickness of the water bearing zone(s)
 - A statement of whether the water bearing zone is anticipated to be in unconfined or confined condition
 - A description of any hydrologic features or geologic features located within one mile of the proposed well site,
2. A well table giving data on each registered or permitted well located within one mile of the new well and screening the same aquifer as the new well. The well table shall include the name of the well owner, well registration or permit number, casing and screen diameter and depth settings, total well depth, and aquifer screened. A map also shall be provided showing the location of the well(s) at a scale no greater than one-inch equals 1,000 feet.
3. An estimate of the water-level drawdown that can be caused by pumping the new well(s) at the permitted rate for one year and ten years at a distance of five miles from the well. Water-level drawdown contours shall be shown at ~~ten~~five-foot contour intervals. The estimate of pumping effects shall be developed using the TWDB Queen City Sparta GAM or TWDB Yegua-Jackson GAM, as applicable. Aquifer hydraulic data available from other sources for wells located in proximity to the new well may be considered in estimating the water-level drawdown effects of pumping. Include in the evaluation an

estimate of the drawdown at the locations of existing registered and permitted wells contained in the BVGCD database that screen the same aquifer as the new well and are located within one mile of the new well. ~~Include analysis whether the pumping will result in depletion of the aquifer.~~

4. After the new well is constructed and tested, provide well pumping test results within 60 days of the date the well construction is completed to include the aquifer testing data and evaluation. In general, the well pumping test shall consist of a phase where the static water level of the new wells is measured on a regular basis for at least 6 hours prior to a test, a constant pumping phase of not less than 16 hours, and a recovery phase of at least 6 hours during which the static water level in the well is measured on a regular basis, unless an alternative pumping test schedule is proposed by the applicant and found acceptable by the BVGCD. The new well shall be equipped for the pumping test to produce water at a rate similar to its ultimate planned use, and the evaluation shall address the impacts of that use including the water-level drawdown effects of pumping after one year and ten years of pumping over the area that extends five miles from the new well. The Board shall have the option of adjusting the permit conditions based on best available science including if the results of the pumping test that provides data regarding the aquifer hydraulic properties in the vicinity of the well. ~~show aquifer hydraulic properties substantially below those estimated at the time of the initial assessment of the new well pumping effects.~~

REVISED 6-23-17