



**Barton Springs
Edwards Aquifer**
CONSERVATION DISTRICT

February 20, 2018

Sent via certified mail and email

Electro Purification LLC
4605 Post Oak Place Dr.
Houston, TX 77027

RE: General Manager's Preliminary Finding of a Production Permit Application submitted by Electro Purification LLC, for authorization to produce 2.5 MGD of groundwater from the Middle Trinity Aquifer.

Dear Mr. Tim Throckmorton:

This letter is to inform you that as of **January 31, 2018**, the District received your timely submitted addendums to the application materials and hydrogeological report requirements. In accordance with District Rule 3-1.4.A.10 and Rule 3-1.4.D, an applicant for a large-scale production permit must conduct an aquifer test and submit a hydrogeological report that provides findings and conclusions addressing the response of an aquifer to pumping over time. Pursuant to these Rules, the General Manager will evaluate these large-scale production requests and "assess the potential to cause unreasonable impacts".

Applications for proposed production that are found to have potential for causing unreasonable impacts will receive written notification of the General Manager's "preliminary finding". Enclosed with this letter is the General Manager's preliminary finding that the **proposed groundwater production, for the Electro Purification 2.5 MGD proposed project has the potential to cause unreasonable impacts to existing wells.**

Upon receipt of this written notification of the preliminary finding, the applicant will be granted a 90-day extension to the application review period to provide the following additional application requirements, unless the applicant requests that the application be directly referred to the Board as provided below. Therefore, pursuant to District Rule 3-1.4.A.10 the applicant has three options for proceeding on a path towards a permit.

Option 1 – Direct Referral

In accordance with District Rule 3-1.4.G.6, in lieu of completion of the additional information requirements prompted by the General Manager's preliminary findings, pursuant to District Rule 3-1.4.A.10.a-d, the applicant may opt to request direct referral of the application to the Board for a hearing on whether the application complies with all statutory and regulatory requirements, including whether there is the potential for causing unreasonable impacts. The applicant may request direct referral by submitting a written request to the General Manager **within ten (10) days** of receipt of the notification of the General Manager's preliminary finding of potential for unreasonable impacts.

Option 2 – Required Submittals (Compliance Monitoring Plan)

In accordance with Rule 3-1.4.A.10.a-c the applicant shall submit the following:

1. A written description of avoidance measures and actions (e.g. trigger curtailments or reductions) that the applicant proposes to implement either before or after groundwater production commences **in an effort to avoid the occurrence of unreasonable impacts.**
2. A compliance monitoring plan subject to District review and approval and consistent with minimum plan requirements pursuant to District Rule 3-1.11.B.
3. Other facts and considerations deemed necessary by the General Manager.

Option 3 – Required and Optional Submittals (Compliance Monitoring Plan and Mitigation Plan)

In accordance with Rule 3-1.4.A.10.a-d the applicant may opt to submit a mitigation plan in addition to a compliance monitoring plan and description of avoidance measures. The applicant shall submit the following:

1. A written description of avoidance measures and actions (triggers and curtailments) that the applicant proposes to implement either before or after groundwater production commences **in an effort to avoid the occurrence of unreasonable impacts.**
2. A compliance monitoring plan subject to District review and approval and consistent with minimum plan requirements pursuant to District Rule 3-1.11.B.
3. Other facts and considerations deemed necessary by the General Manager.
4. A mitigation plan subject to District review and approval and consistent with minimum requirements pursuant to District Rule 3-1.11.C. The District-approved mitigation plan shall be incorporated into a binding agreement between the permittee and the District, which will be incorporated as special provisions of the permit.

In accordance with District Rule 3-1.4.G.1 **the District has established a policy that seeks to manage total groundwater production on a long-term basis while avoiding the occurrence of unreasonable impacts.** The preferred approach to achieve this objective is through an evaluation of the potential for unreasonable impacts using the best available science to anticipate such impacts, monitoring and data collection to measure the actual impacts on the aquifer(s) over time once pumping commences, and prescribed response measures to be triggered by defined aquifer conditions and implemented to avoid unreasonable impacts. Mitigation, if agreed to by the applicant, **shall be reserved and implemented only after all reasonable preemptive avoidance measures (trigger curtailments or reductions) have been exhausted and shall serve as a contingency** for the occurrence of unreasonable impacts that are unanticipated and unavoidable through reasonable measures.

Upon receipt of the General Manager's preliminary finding the above plans and information requirements shall be submitted **within 30 days** of the date of this letter. Alternatively, a request for direct referral must be received **within 10 days** of the date of this letter. If you have any further questions or need clarification regarding the requested information, please feel free to contact my office by phone at 512-282-8441.

Sincerely,



Kirk Holland, P.G.
Interim General Manager

Enclosure 1: Rule Excerpts
Enclosure 2: Permit Process Diagram
Enclosure 3: General Manager's Preliminary Finding 2/20/18

cc:

Kaveh Khorzad
Wet Rock Groundwater Services, LLC
317 Ranch Rd 620 South, Suite 203
Austin, TX 78734

Ed McCarthy
1122 Colorado St., Suite 2399
Austin, Texas 78701

Bill Dugat
Bickerstaff Heath Delgado Acosta LLP
3711 S. Mo-Pac, Suite 300
Austin, TX 78746

Enclosure 1 - Rule Excerpts

Rule 3-1.4.A.10

Rule 3-1.4.D

Rule 3-1.4.G.6

Rule 3-1.11.B

Rule 3-1.11.C

3-1.4. APPLICATION FOR REGISTRATION, PRODUCTION PERMITS, TRANSPORT PERMITS, WELL PLUGGING, WELL DEVELOPMENT, WELL DRILLING, OR WELL MODIFICATION AUTHORIZATION.

A. Administrative Completeness of Application.

10. Potential for Unreasonable Impacts. All applications required to conduct an aquifer test and submit a Hydrogeological Report pursuant to District Rule 3-1.4.D. will be evaluated by the General Manager to assess the potential to cause unreasonable impacts pursuant to District Rule 3-1.4.G. Applications for proposed production that are found to have potential for causing unreasonable impacts will receive written notification of the General Manager's preliminary finding prior to the expiration of the application review period. Upon receipt of written notification of the General Manager's preliminary finding, the applicant will be granted a 90-day extension to the application review period to provide the following additional application requirements unless the applicant requests that the application be directly referred to the Board as provided below.

a. The applicant shall submit a written description of avoidance measures and actions that the applicant proposes to implement either before or after groundwater production commences in an effort to avoid the occurrence of unreasonable impacts.

b. The applicant shall submit a compliance monitoring plan subject to District review and approval and consistent with minimum plan requirements pursuant to District Rule 3-1.11.B.

c. The applicant shall submit other facts and considerations deemed necessary by the General Manager.

d. In addition to the above requirements, the applicant may opt to submit a mitigation plan subject to District review and approval and consistent with minimum requirements pursuant to District Rule 3-1.11.C. The District-approved mitigation plan shall be incorporated into a binding agreement between the permittee and the District, which will be incorporated as special provisions of the permit.

The above plans and information shall be submitted within 30 days of receipt of notification of the General Manager's preliminary finding of potential for unreasonable impacts and may be incorporated in whole or in part as special provisions of the permit. Alternatively, the applicant may request that the application be directly referred to the Board, pursuant to District Rule 3-1.4.G.6, for consideration without the completed information requirements under Subsection 10 a-d above prompted by the General Manager's preliminary finding of unreasonable impacts provided that the application requirements of items 1-9 of this Section have been satisfied.

3-1.4. APPLICATION FOR REGISTRATION, PRODUCTION PERMITS, TRANSPORT PERMITS, WELL PLUGGING, WELL DEVELOPMENT, WELL DRILLING, OR WELL MODIFICATION AUTHORIZATION.

D. Hydrogeological Report and Aquifer Tests.

1. Applicants seeking to export groundwater out of the District, to obtain a major amendment or a minor amendment in accordance with 3-1.9(F)(G), or to permit a new nonexempt well with an annual pumpage volume of more than 2,000,000 gallons, shall conduct an aquifer test and submit to the District a current Hydrogeological Report addressing the potential impacts associated with the proposed groundwater production or export.

2. The Aquifer Test and Hydrogeologic Report must be prepared by a Texas licensed professional geoscientist or engineer pursuant to the District's guidance document, Guidelines for Hydrogeologic Reports and Aquifer Testing (Guidelines).

3. Aquifer Tests. A written aquifer test work plan shall be submitted to the General Manager for review and approval prior to commencement of the test and shall include the required information for aquifer test work plans as specified in the Guidelines. Planning and implementation of the aquifer test work plan shall be closely coordinated with the District to ensure that the proposed study is consistent with District standards and expectations specified in the Guidelines.

a. The aquifer test shall be conducted and the report completed pursuant to the Guidelines and the following tiered requirements:

Table: Tiered Structure for Aquifer Testing Requirements

| | Anticipated Production Volume | Aquifer Test Requirements |
|---------------|---|--|
| Tier 1 | >2,000,000 to 12,000,000 gallons per year | Abbreviated pump test and report |
| Tier 2 | >12,000,000 to 200,000,000 gallons per year | Hydrogeologic report and may require installation of new observation wells if existing wells are not available or adequate for monitoring. |
| Tier 3 | >200,000,000 gallons per year | Will require an aquifer test work plan and monitoring well network plan. Will require installation of one or more new observation wells. |

3-1.4. APPLICATION FOR REGISTRATION, PRODUCTION PERMITS, TRANSPORT PERMITS, WELL PLUGGING, WELL DEVELOPMENT, WELL DRILLING, OR WELL MODIFICATION AUTHORIZATION.

G. Applications found to have potential for unreasonable impacts.

6. Direct Referral Process. In lieu of completion of the additional information requirements prompted by the General Manager's preliminary findings pursuant to District Rule 3-1.4.A.10, the applicant may opt to request direct referral of the application to the Board for a hearing on whether the application complies with all statutory and regulatory requirements, including whether there is the potential for causing unreasonable impacts.
 - a. The applicant may request direct referral by submitting a written request to the General Manager within ten days of receipt of the notification of the General Manager's preliminary finding of potential for unreasonable impacts. Within a reasonable time after receipt of the request, the General Manager shall declare the application administratively complete, provided that the application contains all required information pursuant to District Rule 3-1.4.A.1-9, and shall promptly provide written notification to the applicant in accordance with Rule 3-1.6.B.
 - b. An application that is directly referred to the Board is subject to and the applicant must comply with District Rules 3-1.4 and 4-9 regarding notice; comment and hearing; and, if desired, request for contested case hearing, and request for a contested case to be conducted by SOAH.
 - c. Persons desiring to comment on or protest an application subject to a direct referral must likewise comply with the applicable District Rules 3-1.4 and 4-9.
 - d. The General Manager will include with such applications for the Board's consideration, the preliminary findings of potential for unreasonable impacts and supporting evidence, but shall not include recommendations for special permit provisions to avoid or mitigate for unreasonable impacts described under Rule 3-1.4.A.10.a-d.
 - e. If after hearing, the Board determines an application has the potential for causing unreasonable impacts, the Board may order a remand to reopen the record for further proceedings on recommendations to avoid or mitigate for unreasonable impacts.

3-1.11. PERMIT COMPLIANCE, MONITORING, AND MITIGATION.

B. Compliance Monitoring Plan and Compliance Monitoring Well Network. Except as provided by Rule 3-1.4.G.6., any Production Permit application that, through an evaluation of the Hydrogeological Report and aquifer test data, has been found by the General Manager to have the potential to cause unreasonable impacts, pursuant to Rule 3-1.4.G. will require submittal and implementation of a compliance monitoring plan including a compliance monitoring well network. The purpose of the compliance monitoring plan and network is to provide data needed to assess the impacts of the pumping on the aquifer(s) over time and compliance with permit conditions in place to avoid unreasonable impacts.

1. **Compliance Monitoring Well Network.** A compliance monitoring well network shall be established by installing a sufficient number of index wells to measure drawdown and water quality around the well or well field. Spring flow should also be monitored if the spring is sourced from the same formation and within the vicinity of the proposed well or well field. Planning and implementation of the plan and network shall be closely coordinated with the District to ensure that the proposed plan is consistent with District standards and expectations. The final plan and network must be approved by the District and installed prior to commencement of pumping. The permittee or applicant will be required to pay for all cost associated with the design, engineering, construction, sampling and maintenance of the monitoring well network and equipment except such that may be agreed upon by the District. The permittee or applicant shall provide assurances of legal District access to the monitoring well network. A permittee or applicant who incurs cost related to implementing the plan and operating the network assumes the risk that the Board may modify, reduce, adjust, or curtail the permitted volume.
2. **Minimum Compliance Monitoring Plan Requirements.** The compliance monitoring plan shall be a legally binding agreement between the District and permittee or applicant and should include detailed information on the construction, operation, sampling and analysis, and maintenance of the new compliance monitoring well network. The plan shall be subject to approval by the General Manager and shall, at minimum, include the following:
 - a. **General Information:**
 - i. Goal and purpose of project.
 - ii. Description of local geologic and hydrogeologic conditions.
 - iii. Location map showing monitoring well network well locations (including proposed and existing wells) and rationale for well locations.

- b. Design and Construction:
 - i. Well design plans and schematics on construction of each new index well.
 - ii. Completion and construction data for each existing well that will be used in the monitoring well network (e.g. State well reports, available geophysical data, downhole video, pump depth, or schematics for proposed modifications).
 - iii. Monitoring well equipment specifications and installation.
 - iv. Designated hydrogeologist and well drilling contractor.
- c. Schedule for Completion of Work.
- d. Monitoring Well Access. The permittee or applicant will ensure that the District can maintain access to the monitoring well network and equipment.
- e. Maintenance and Repair Commitments. Identify parties responsible for maintaining, repairing, and equipping the monitoring well network.
- f. Groundwater Sampling and Analysis Plan.
 - i. Sampling procedure, schedule, and frequency.
 - ii. Target constituents.
 - iii. Water level measurement procedure, schedule, and frequency.
- g. Other Relevant Information.

3-1.11. PERMIT COMPLIANCE, MONITORING, AND MITIGATION.

C. Mitigation Plans. For Production Permit applications found by the General Manager to have the potential to cause unreasonable impacts related to groundwater quality degradation or well interference, pursuant to Rule 3-1.4.G, the applicant may opt to submit a mitigation plan subject to District review and approval to **serve as a contingency for the occurrence of unreasonable impacts that are unanticipated or unavoidable through reasonable measures.** Mitigation Plans, if adopted by agreement between the permittee and the District, will be incorporated as special provisions of the permit.

1. **Planning and Implementation.** Planning and implementation of the plan shall be closely coordinated with the District to ensure that the proposed plan is consistent with District standards and expectations. After an investigation is initiated and the permittee has received official notification from the District, the permittee shall implement the approved mitigation plan pursuant to the conditions and requirements of the permit. A permittee or applicant who incurs cost related to implementing the plan assumes the risk that the Board may modify, reduce, adjust, or curtail the permitted volume.
2. **Plan Requirements.** A Mitigation Plan shall address the following minimum requirements.
 - a. **Financial Commitment.** A description of permittee's financial commitment to implement mitigation actions. Responsible parties for managing the funding must be specified.
 - b. **Impact Area.** A geographical description of the designated impact area within the potential area of influence. A profile of impact estimation should be included to outline the risk analysis within the designated impact area.
 - c. **Contingency Supply.** An outline of actions and temporary procedures that will be taken by the permittee to provide a supplemental or alternative source of potable water to the owners of the wells that were determined to be unreasonably impacted. Responsible parties must be specified.
 - i. These measures shall be temporary in nature until the permittee can provide a permanent solution of well remediation or well replacement.
 - ii. The quantity and quality of the supplemental or alternative water supply shall be equal to or greater than the original

water supply yield and quality available from the impacted water supply well.

- d. Mitigation Actions. A description of the actions that will be taken to remediate or replace the impacted well(s). Mitigation actions may be categorized into 'action tiers' for which there are specific diagnostics and responses taken to comply with this condition. Responsible parties must be specified.
- e. Implementation Schedule. A description of the schedule and timeline for implementing each phase of the mitigation plan. Responsible parties must be specified. A schedule and timeframe must be provided for each 'mitigation action tier' which includes the timing and frequency of diagnostic and response actions.
- f. Implementation Documentation. A description of the types of documents and reports that will be produced to document actions and schedules of implementation tasks. Responsible parties must be specified.

Third Party Contractors. A list of the third party contractors, mutually agreed upon by the District and permittee, to carry out well services, well repairs, well construction, or well equipment replacement. The responsibilities of each contractor, District and permittee must be specified.

Enclosure 2 – Permit Process Diagram

Enclosure 3 – General Manager’s Preliminary Finding



**Barton Springs
Edwards Aquifer**
CONSERVATION DISTRICT

General Manager's Preliminary Finding

Electro Purification LLC

2/20/18

A handwritten signature in black ink, appearing to read "Kirk Holland", followed by the date "2/20/18".

Kirk Holland, P.G.

Interim General Manger

DESCRIPTION OF APPLICATION

Applicant: Electro Purification, LLC

Application Type: Production Permit in the Middle Trinity Management Zone

Request: Applicant requests approval of a Historical Middle Trinity Production Permit to withdraw 912,500,000 gallons per year (2.5 million gallons/day) for wholesale public water supply.

PRELIMINARY FINDING

An application for a permit to produce 2.5 million gallons per day (MGD) of groundwater from the Middle Trinity Aquifer in central Hays County was submitted by Electro Purification LLC (EP) on July 13, 2017. Pursuant to District Rule 3-1.4.A.10 applicants are required to conduct an aquifer test and must submit a Hydrogeological Report pursuant to District Rule 3-1.4.D that provides findings and conclusions addressing the response of an aquifer to pumping over time. Pursuant to District Rule 3-1.4.G this information is submitted to support the applicant's production volume request and is evaluated by the General Manager to assess the potential of the proposed production to cause "unreasonable impacts".

The District has reviewed the applicant's submitted hydrogeological report and completed a series of evaluations of the report. These evaluations are compiled in the following three technical memos (also attached).

1. **Technical Memo 2017-1010** [*Hydrogeologic Setting and Data Evaluation: 2016 Electro Purification Aquifer Test, Cow Creek Well Field: Hays County, Texas Parameter Estimation for the EP Well Field, Hays County*](#)
2. **Technical Memo 2018-0213** [*Aquifer Parameter Estimation for the EP Well Field, Hays County*](#)
3. **Technical Memo 2018-0219** [*Evaluation of the Potential for Unreasonable Impacts from the EP Well Field, Hays County, TX*](#)

Through a comprehensive review, the District has developed a projection of impacts based on the application of the best available science, 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 has the potential to cause unreasonable impacts to existing wells.