

NOTICE OF OPEN MEETING

Notice is given that a **Regular Meeting** of the Board of Directors of the Barton Springs/Edwards Aquifer Conservation District will be held at the **District office**, located at 1124 Regal Row, Austin, Texas, on **Thursday, December 13, 2018**, commencing at **6:00 p.m.** for the following purposes, which may be taken in any order at the discretion of the Board.

Note: The Board of Directors of the Barton Springs/Edwards Aquifer Conservation District reserves the right to meet in Executive Session at any time during the course of this meeting to discuss any of the matters listed on this agenda, as authorized by the Texas Government Code Sections §551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices), 551.087 (Economic Development), 418.183 (Homeland Security). No final action or decision will be made in Executive Session.

1. **Call to Order.**
2. **Citizen Communications (Public Comments of a General Nature).**
3. **Routine Business**
 - a. **Consent Agenda.** *(Note: These items may be considered and approved as one motion. Directors or citizens may request any consent item be removed from the consent agenda, for consideration and possible approval as a separate item of Regular Business on this agenda.)*
 1. Approval of Financial Reports under the Public Funds Investment Act, Directors' Compensation Claims, and Specified Expenditures greater than \$5,000. **Not for public review**
 2. Approval of minutes of the Board's November 8, 2018, Regular Meeting. **Not for public review at this time**
 3. Approval of the Interlocal Agreement with the Hays Trinity Groundwater Conservation District related to construction of a monitor well in the Trinity Aquifer. **Pg. 15**
 4. Approval of the First Amendment to the Master Technical Services Agreement with INTERA Incorporated. **Pg. 21**
 5. Approval of Master Technical Services Agreement Work Order Number 1, Revision 1 with INTERA Incorporated related to the groundwater and water well management system – the database. **Pg. 23**
 6. Approval of Master Technical Services Agreement Work Order Number 4 with INTERA Incorporated related to the litigation support and expert witness testimony. **Pg. 27**

- b. General Manager's Report.** *(Note: Topics discussed in the General Manager's Report are intended for general administrative and operational information-transfer purposes. The Directors will not take any action unless the topic is specifically listed elsewhere in this agenda for consideration.)*

1. Standing Topics.

- i. Personnel matters
- ii. Upcoming public events of possible interest
- iii. Aquifer conditions and status of drought indicators

- 2. Special Topics.** *(Note: Individual topics listed below may be discussed by the Board in this meeting, but no action will be taken unless a topic is specifically posted elsewhere in this agenda as an item for possible action. A Director may request an individual topic that is presented only under this agenda item be placed on the posted agenda of some future meeting for Board discussion and possible action.)*

- i. Review of Status Report Update – at directors' discretion. **Pg. 30**
- ii. Update on certain projects and activities of individual teams.
- iii. Update on activities related to the Travis County ILA. **Pg. 35**
- iv. Update on Board committee activity.
- v. Update on various development activity over aquifer recharge and contributing zones.
- vi. Update on activities related to area roadway projects.
- vii. Update on the State Office of Administrative Hearings Proposal for Decision on the City of Dripping Springs TPDES permit application. **Pg. 39**
- viii. Update on the State Office of Administrative Hearings proceedings for the Needmore Water LLC permit application.

4. Presentation.

Presentation by the District's financial auditor on the FY 2018 Annual Financial Audit Report.

5. Discussion and Possible Action.

- a. Discussion and possible action for finalizing November 6, 2018 general elections including presentation of Certificate of Election to newly-elected directors; completion of statement of officer; administering oath of office to directors; and approval of bond. **Pg. 42**
- b. Discussion and possible action related to the receipt and approval of the FY 2018 Annual Financial Audit report provided by the District's financial auditor. **NBU**
- c. Discussion and possible action on an update from Sledge Law Group on the 86th Legislative Session. **NBU**

- d. Discussion and possible action related to approving the District's FY 2018 Annual Report including Appendix B and submitting it to the TCEQ. NBU
- e. Discussion and possible action on the six-month review and employment of the General Manager. Pg. 52
- f. Discussion and possible action related to the annual election of the officers of the Board of Directors. NBU

6. Directors' Reports.

Directors may report on their involvement in activities and dialogue that are of likely interest to the Board, in one or more of the following topical areas:

- Meetings and conferences attended or that will be attended;
- Board committee updates;
- Conversations with public officials, permittees, stakeholders, and other constituents;
- Commendations; and
- Issues or problems of concern.

7. Adjournment.

Please note: This agenda and available related documentation, if any, have been posted on the District website, www.bseacd.org. If you have a special interest in a particular item on this agenda and would like any additional documentation that may be developed for Board consideration, please let staff know at least 24 hours in advance of the Board Meeting so that we can have those copies made for you.

The Barton Springs/Edwards Aquifer Conservation District is committed to compliance with the Americans with Disabilities Act (ADA). Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 512-282-8441 at least 24 hours in advance if accommodation is needed.

Item 1

Call to Order

Item 2

Citizen Communications

Item 3

Routine Business

a. Consent Agenda

(Note: These items may be considered and approved as one motion. Directors or citizens may request any consent item be removed from the consent agenda, for consideration and possible approval as a separate item of Regular Business on this agenda.)

- 1. Approval of Financial Reports under the Public Funds Investment Act, Directors' Compensation Claims, and Specified Expenditures greater than \$5,000.**
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- 6. Approval of Master Technical Services Agreement Work Order Number 4 with INTERA Incorporated related to the litigation support and expert witness testimony.**

**INTERLOCAL AGREEMENT RELATED TO
CONSTRUCTION OF A MONITOR WELL IN THE TRINITY AQUIFER**

This Interlocal Agreement is entered into by and between the Barton Springs/Edwards Aquifer Conservation District (BSEACD), and the Hays Trinity Groundwater Conservation District (HTGCD) (collectively the Districts). In this Agreement, the Districts are sometimes individually referred to as District or Party.

WHEREAS, each District is a political subdivision of the State of Texas created under Article XVI, Section 59 of the Texas Constitution, and operates pursuant to the provisions of the Texas Water Code and each District's respective enabling act; and

WHEREAS, the Districts desire to and are authorized to enter into this Agreement pursuant to Texas Interlocal Cooperation Act, § 791.001, *et. seq.* of the Texas Government Code; and

WHEREAS, each District has authority under the Texas Interlocal Cooperation Act, its respective enabling act, and Chapter 36 of the Texas Water Code, including, but not limited to §§ 36.106, 36.107, 36.109, and 36.158 to enter into and perform the function under this Agreement; and

WHEREAS, each District manages a portion of the Trinity Aquifer in Hays County; and

WHEREAS, there is an increasing demand in developing the Cow Creek formation of the Trinity Aquifer; and

WHEREAS, each District recognizes the need and benefit of a monitor well for use in groundwater investigations and data collection in the Trinity Aquifer in Hays County.

NOW, THEREFORE, in consideration of the foregoing and the mutually acceptable terms and conditions of the Parties in this Agreement, the Districts agree as follows:

**ARTICLE 1
PURPOSE**

The purpose of this Agreement is to fund and construct a monitor well in the Cow Creek formation of the Trinity Aquifer to collect hydrogeologic and specific well information in Hays County within HTGCD approximately two miles west of the Electro Purification LLP Well Fields

**ARTICLE 2
OBLIGATIONS AND RIGHTS OF HTGCD**

- 2.1 HTGCD will construct a well to monitor the Cow Creek formation of the Trinity Aquifer. The location of the monitor well will be mutually agreed upon by the Districts. The well will generally be located within HTGCD approximately two miles west of EP's well field.
- 2.2 HTGCD will acquire the necessary ownership interest in property to construct the monitor well.
- 2.3 HTGCD will contribute \$50,000 to the construction of the monitor well.
- 2.4 HTGCD will monitor and collect data from the monitoring well. Specifically, HTGCD will monitor water levels on a continual basis if a pressure transducer has been installed in the well. Otherwise, manual measurements will be made on at least a monthly basis.
- 2.5 HTGCD will share monitor well data with BSEACD quarterly unless BSEACD has declared drought conditions. During periods of BSEACD declared drought, HTGCD will share data with BSEACD monthly, or at the request of BSEACD.

**ARTICLE 3
OBLIGATIONS OF BSEACD**

- 3.1 BSEACD will provide \$10,000 funding to HTGCD for construction of the monitor well as follows:
- a. Within thirty (30) days of the Effective Date, BSEACD shall pay HTGCD ten thousand dollars (\$10,000) for the construction of the monitor well.
- 3.2 If HTGCD is unable to or does not otherwise complete the construction and initiate data collection of the monitor well by December 31, 2019, unless extended (construction and monitoring deadline) HTGCD shall return the monies paid by BSEACD within thirty (30) days of the construction and monitoring deadline. The Districts may extend the December 31, 2019 construction and monitoring deadline.

**ARTICLE 4
TERM AND TIME OF PERFORMANCE**

- 4.1 The Effective Date of this Agreement shall be the date last executed by the Districts below. The term of the Agreement shall continue from the Effective Date until the Districts determine a mutually agreed upon end date.

**ARTICLE 5
NOTICE**

5.1 Except as may be otherwise specifically provided in this Agreement, all notices, demands, requests, or communications related to non-compliance issues required or permitted hereunder shall be in writing and shall either be (i) personally delivered against a written receipt, or (ii) sent by registered or certified mail, return receipt requested, postage prepaid and addressed to the Districts at the addresses set forth below, or at such other addresses as may have been theretofore specified by written notice delivered in accordance herewith:

BSEACD: Barton Springs Edwards Aquifer Conservation District
Attn: Alicia Reinmund-Martinez, General Manager
1124 Regal Row
Austin, TX 78748
(512) 282-8441
(512) 282-7016 (fax)
Email: areinmund@bseacd.org

WITH COPY TO: Bill Dugat
Bickerstaff, Heath, Delgado, Acosta
3711 South MoPac Expwy, Bldg. 1, Suite 300
Austin, TX 78746
(512) 472-8021
bdugat@bickerstaff.com

HTGCD: Rick Broun, General Manager
PO Box 1648
Dripping Springs, TX 78620

WITH COPY TO: _____

**ARTICLE 6
DISPUTE RESOLUTION**

6.1 Negotiation. The Districts will attempt in good faith to resolve promptly through negotiation any claim or controversy arising out of or relating to this Agreement. If a controversy or claim should arise, the Districts agree to each select a Representative and to have those Representatives meet at least once to attempt in good faith to resolve the dispute. For such purpose, any District may request the others to meet within ten (10) days, at a mutually-agreed-upon time and place. The Districts shall, within ten (10) days after the Effective Date of this Agreement, each designate to the other their respective Representatives, who shall be an

executive-level individual with authority to settle disputes subject to approval of the District's governing body. Each of the Districts may change the designation of its Representative, but shall maintain at all times during the term of this Agreement a designated Representative and shall ensure that the other Districts are notified of any change in the designation of its Representative.

6.2 Mediation. If the dispute has not been resolved within sixty (60) days after the first meeting of the designated Representatives (or such longer period of time as may be mutually agreed upon), any of the Districts may refer the claim or controversy to non-binding mediation conducted by a mutually-agreed-upon party qualified to perform mediation of disputes related to the subject matter of this Agreement (herein referred to as the "Mediator") by sending a written mediation request to the other District. In the event that such a request is made, the Districts agree to participate in the mediation process. The Districts and the Mediator may join in the mediation any other party necessary for a mutually acceptable resolution of the dispute. Should the Mediator ever be unable or unwilling to continue to serve, the Districts shall select a successor Mediator. The mediation procedure shall be determined by the Mediator in consultation with the Districts. The fees and expenses of the Mediator shall be borne equally by the Districts.

6.3 Litigation. If the dispute is not resolved within thirty (30) days after the commencement of mediation, or if no mediation has been commenced within ninety (90) days after the first meeting between Representatives (or such longer period of time as may be mutually agreed upon), any of the Districts may commence litigation to resolve the dispute in any Texas state court of competent jurisdiction, or in the United States District Court for the Western District of Texas, Austin Division, to the extent said Court shall have jurisdiction over the matter.

ARTICLE 7 MISCELLANEOUS

7.1 Not-to-Exceed; Budget Out. Under no circumstances shall BSEACD's obligation exceed the amount cited in Section 2.1, above, nor shall HTGCD's obligation exceed the amount cited in Section 3.1, above, unless otherwise agreed in writing by the Districts. Notwithstanding any other provision of this Agreement, if the BSEACD or HTGCD Board of Directors fails to appropriate or budget funds to meet the terms and conditions cited herein, then the non-appropriating entity shall not be obligated to fulfill the its obligations under this Agreement.

7.2 Entire Agreement. This Agreement represents the entire and integrated agreement between HTGCD and BSEACD and supersedes all prior negotiations, representations or arguments either written or oral. No official, representative, agent, or employee of the Districts has any authority to modify this Agreement, except pursuant to such express authority as may be granted by the respective Board of Directors. The recitals set forth above are incorporated herein.

7.3 Lawful Authority. The execution and performance of this Agreement by HTGCD and BSEACD have been duly authorized by all necessary laws, resolutions or corporate action, and

this Agreement constitutes the valid and enforceable obligations of HTGCD and BSEACD in accordance with its terms.

7.4 Amendments. No amendment, modification or alteration of the terms hereof shall be binding unless the same shall be in writing and dated subsequent to the date hereof and duly executed by the Districts hereto.

7.5 Independent Parties. It is understood and agreed between the Districts that HTGCD and BSEACD, in executing this Agreement, and in performing their respective obligations, are acting independently, and not in any form of partnership or joint venture.

7.6 Construction. The captions and headings contained in this Agreement are solely for convenient reference and will not be deemed to affect the meaning or interpretation of any provision or paragraph hereof. All references in this Agreement to any particular gender are for convenience only and will be construed and interpreted to be of the appropriate gender. For the purposes of this Agreement, the term "will" is mandatory. Should any provision in this Agreement be found or deemed to be invalid, this Agreement will be construed as not containing such provision, and all other provisions which are otherwise lawful will remain in full force and effect, and to this end the provisions of this Agreement are declared to be severable.

7.7 Conflict with Applicable Law. Nothing in this Agreement shall be construed so as to require the commission of any act contrary to law, ordinance or administrative executive or judicial regulation, order or decree, or amendment thereof, contrary to which the Districts have not legal right to contract, the latter shall prevail, but in such event the affected provision or provisions of this Agreement shall be modified only to the extent necessary to bring them within the legal requirements and only during the time such conflict exists.

7.8 No Waiver. No waiver by a Party of any breach of any provision of this Agreement shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision hereof.

7.9 Public Information Act. BSEACD and HTGCD are governed by the Texas Public Information Act (the "Act"), Chapter 552 of the Texas Government Code. This Agreement and all written information generated under this Agreement may be subject to release under the Act.

7.10 Additional Documents. The BSEACD and HTGCD covenant and agree that they will execute such other and further instruments and documents as are or may become necessary or convenient to effectuate and carry out the terms of this Agreement.

7.11 Compliance with Laws. In performing this Agreement, the Districts will comply with all local, state and federal laws.

7.12 Counterparts. This Agreement has been executed by the Districts in multiple originals or counterparts each having full force and effect.

**ARTICLE 8
LIABILITY**

8.1 To the extent allowed by Texas law, BSEACD and HTGCD agree that each entity is responsible for its own proportionate share of any liability for its negligent acts or omissions.

Hays Trinity Groundwater Conservation District:

By: *Linda Kaye Riser*
Linda Kaye Riser
Exec. Dir. - HTGCD

Date: 11-14-18

Barton Springs Edwards Aquifer Conservation District:

By: _____
Blayne Stansberry
Board President

Date: _____

ATTEST:

By: _____
Blake Dorsett
Board Secretary

Date: _____

APPROVED AS TO FORM:

By: _____
William D. Dugat III
Attorney for BSEACD

Date: _____

**FIRST AMENDMENT TO MASTER TECHNICAL SERVICES AGREEMENT BSEAC.M002.SVCS
BETWEEN Barton Springs Edwards Aquifer Conservation District and INTERA Incorporated.**

This AGREEMENT ("Agreement") is made as of 14 December 2018 by INTERA Incorporated ("INTERA"), a Texas Corporation and Barton Springs Edwards Aquifer Conservation District (CLIENT).

WITNESSETH:

INTERA and the CLIENT are parties to a Master Technical Services Agreement (the "MTSA") entered into as of 12 October 2017 pursuant to which INTERA is to provide certain services to the CLIENT and

INTERA and the CLIENT wish to amend the MTSA as expressly provided in this FIRST Amendment, and except as so expressly provided herein, for the MTSA to remain in full force and effect according to its terms.

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter set forth, the parties agree as follows:

ARTICLE A: AMENDMENTS

A.1: TERMS AND CONDITIONS are amended as follows:

ARTICLE 2. TERM is replaced in its entirety with the following:

"The term of this Agreement will commence on 12 October 2017 and will continue until 31 December 2020 unless sooner terminated as provided in this agreement."

A.2: Attachment A, MASTER RATE SCHEDULE is replaced by the attached Rate Schedule (Attchmnt 1) and will be effective for all Work Orders placed after 31 December 2018. Work Orders issued prior to 31 December 2018 will continue at the old rates.

ARTICLE B. EFFECTIVENESS

This FIRST Amendment is effective as of 1 January 2019. Except as expressly set forth in this FIRST Amendment, the MTSA remains unchanged and in full force and effect.

ARTICLE C. COUNTERPARTS AND EXECUTION

This FIRST Amendment may be executed in any number of counterparts, all of which taken together shall be deemed to constitute one and the same document. This FIRST Amendment may be executed and delivered by facsimile and/or by electronic mail.

IN WITNESS WHEREOF, the parties have caused this FIRST Amendment to be executed by their duly authorized representatives:

**Barton Springs Edwards Aquifer Conservation District
Barton Springs Edwards Aquifer Conservation District**

INTERA Incorporated

By: _____
Name: Blaine Stansberry
Title: Board President
Date: 13 December 2018

By: _____
Name: Neil Deeds
Title: Vice President
Date: 13 December 2018

ATTEST:

By: _____
Name: Tammy Raymond
Title: Deputy Board Secretary
Date: 13 December 2018

APPROVED AS TO FORM:

By: _____
Name: William O. Dugat, III
Title: Attorney
Date: 13 December 2018

Attachment 1 to the FIRST Amendment to MTSA BSEAC.M002.SVCS

INTERA 2019 / 2020 Labor Hourly Billing Rates

Labor Category	Rate (\$USD/hr)
Principal Engineer/Scientist I	250.00
Principal Engineer/Scientist II	225.00
Principal Engineer/Scientist III	210.00
Senior Engineer/Scientist I	195.00
Senior Engineer/Scientist II	180.00
Senior Engineer Scientist III	165.00
Senior Engineer/Scientist IV	150.00
Engineer/Scientist I	140.00
Engineer/Scientist II	130.00
Engineer/Scientist III	120.00
Engineer/Scientist IV	110.00
Senior Technician	115.00
Technician	72.00
Engineer/Scientist Intern	76.00
Senior Technical Editor	115.00
Technical Editor	82.50
Senior CAD/Graphics Specialist	87.00
CAD/Graphics Specialist	76.00
Project Associate	75.00

There is a 15% mark up on other direct costs such as subcontractors, vendors, travel and equipment. Mileage is reimbursed at the current IRS standard mileage rate.

Attachment A: MASTER TECHNICAL SERVICES AGREEMENT – WORK ORDER

PROJECT NUMBER/ID: BSEACD.M001.SVCS

WORK ORDER NO: 1, rev1

1.0 SCOPE OF SERVICES

OVERVIEW

INTERA will develop a web-based groundwater and water well management system for the District named DripDrop (Digital Repository and Interactive Portal for District Records and Operations), which is custom-designed by INTERA to enhance the current data and workflows of the Barton Springs/Edwards Aquifer Conservation District (the "District"). We identified DripDrop's basic functional requirements using input District staff as part of the RFP and incorporated them into the work plan described below. We have selected commonly-used core technologies, such as PostgreSQL, Apache, and Python, so that DripDrop will be reliable over the long term with minimal cost to the District. We will only use open source technologies to ensure the District will not have to pay license fees. The District will be able to transfer maintenance to staff or a 3rd party at the District's discretion.

DripDrop will be composed of several core components and a collection of application modules. The core components consist of standard low-level technologies: an enterprise geospatial database backend (PostgreSQL) for data storage and retrieval, a geospatial server (Geoserver) for spatial analysis, and a web server (Apache) for serving content to the user. The application modules, which will be designed and built by INTERA to meet the current and future needs of the District, consist of web applications for desktop and mobile users. These application modules will facilitate data entry, data evaluation, visualization, and online payments and generally support the desired functionality identified by the District in Attachment A of the RFP. These are also included as an appendix to this work order below. Based on our meeting with District staff, we have outlined the proposed modules and their functions below.

Management and Administrative

- Assign and edit user permissions
- Detailed access to database objects
- Provides Management and Admin interface to data for bulk management and administration
- Includes interface with outside firm (e.g., PayPal) to securely process fees

Web Mapping

- Mapping interface for staff and public use that is capable of being accessed on both desktop and mobile interfaces and displays geospatial layers specified by the District such as wells and aquifers.
- Staff interface will have access to all spatially enabled data and analysis capabilities
- Public interface will have more limited access to protect user data and facilitate a simpler interface as directed by the District
- Spatial layers within the web mapping module will include at least aerial imagery, basemap layers such as USGS topographic maps, reference layers such as roads and political boundaries, District management zones and hydrogeological zones, surface geology, and data from the GAMs
- Module will be used to automatically evaluate the aquifer formation for each well based on the surface geology and GAM surfaces. As new geologic information becomes available, these surfaces and aquifer assignments can be updated if directed by the District.
- Will be used to generate custom cross-sections showing aquifer formations and well completions
- Will include link to access non-spatial data for individual wells such as well reports, geophysical logs, pictures, or water quality analysis results
- Will connect to and display third-party data sources specified by the District during Phases 1 and 2. These are likely to include TWDB, TDLR, TCEQ, and USGS databases and county appraisal districts.

Well Data

- The main interface for adding, editing, and removing District data
- Will include all data associated with wells in the District. This includes but is not limited to owner, contact information, location, well construction, water levels, water quality, groundwater production, and classification.
- Will access and sync with outside databases specified by the District during Phases 1 and 2 such as the TWDB groundwater database, TWDB submitted drillers reports database, and TCEQ databases. We anticipate the sync will update daily since most of these databases are available as online downloads and not as web services.
- Will handle well data of many different types in many different formats (PDFs, videos and images of logs, well construction diagrams, downhole videos, or any other files deemed relevant by the District).
- Search functions for identifying wells meeting specific criteria
- Web forms will be used for most functions
- Will have capabilities to import/export all well data and other District data housed within the system

Well Registration, Permitting, and Production Reporting

- Well drillers and owners will be able to register a well, apply for a permit and view/edit information as needed
- District staff will be able to track, review and approve permit applications through a desktop and/or mobile interface
- District rules, such as well location, will be incorporated into the module to help applicants site wells and remain in compliance
- District staff will be able to view and modify contact information directly in the interface (through a behind-the-scenes link to the Well Data module)
- Well owners will be able to submit meter readings/production reports for verification and approval by District staff.
- If directed by the District during Phases 1 and 2, will include on-the-fly quality control such as performing all unit conversions, comparing water use to previous readings, and handling meter rollovers.
- District staff will be able to send out mass, customized notifications to well owners (e.g. drought declarations/compliance)
- District staff will be able to easily query, view, and follow up on Wells that are out-of-compliance
- An interface for facilitating permit renewals and viewing/displaying certificates
- Tracks permit amendments, pumping targets, primary use, and special provisions

Attachment A: MASTER TECHNICAL SERVICES AGREEMENT – WORK ORDER

Permit Compliance and Other Analysis Tools

- Tracking of investigations, violations, enforcement actions, special permit provisions, curtailments, etc.
- Includes scripts/processes defined during Phases 1 and 2 that automatically run against the database to check permit compliance, enforce and log quality assurance, and drought compliance management. This will work in conjunction with the Custom Queries, Reports, and Exports module, but also supports contextual information that can be displayed throughout the DripDrop user interface.

Field Data and Services

- Mobile application/device for field collection
- Enter hydrological data collected by the District as defined during Phases 1 and 2. We anticipate these will include water level measurements, water quality lab results, and aquifer test data.
- Facilitate regular activities of District field staff (e.g. well inspections)
- Will have background quality assurance processes defined by the District during Phases 1 and 2 (e.g., ensuring mobile device GPS location is near stored well location)
- If determined necessary by the District during Phases 1 and 2, will contain ability to take and store pictures to document field activities or issues

Custom Queries, Reports, and Export Tools

- Common summaries needed for District Board meetings and annual reports
- Water production report showing usage by time-period and water use type
- Report on new well registrations and permits for user-specified time-period
- Customized District reports defined during Phases 1 and 2. We anticipate these will include annual usage letters, delinquent payments, drought compliance, water level trends vs. DFCs, water use vs. MAGs, and Habitat Conservation Plan tracking.
- "Smart" lookups and dynamic query builders for easy lookup boxes, search boxes, and dropdown menus. These will be embedded throughout the online application.

WORK PLAN

Phase 1 – Planning and Needs Analysis.

The District has already put time and resources into formalizing a list of basic functional requirements, which were included as attachments to the RFP. This provides INTERA with a great starting point for an initial round of interviews with the District. In Phase 1 we will hold a kickoff meeting with the District to overview the project scope, schedule, roles and processes (e.g. communication frequency and points-of-contact). We will then interview District staff, either individually or in small groups, to work through specific modules relevant to their work. These discussions will include input from District staff on what works well with the existing system and what can be improved. This will help clearly define the overall goals of the project and ensure that both INTERA and District staff are on the same page regarding later phases.

The kickoff meeting and on-site interviews will be used to develop an outline of the functional requirements of the database. In coordination with the District we will also finalize a decision on the options for the database backend and hosting. The hosting solutions include options such as hosting by INTERA, on-site hosting by the District, or cloud-based hosting solutions. Hosting requirements include CPU storage and connectivity and specifications for housing the applications and data. This will guide development of the data management system prototype in Phase 2. We estimate Phase 1 will be completed within 2 weeks of notice to proceed.

Phase 2 – Design.

In this phase, INTERA will review the District's current database system in detail, set up the server, install basic software dependencies (PostgreSQL, Python, etc.) and develop prototypes of the desktop, mobile and mapping interfaces. Through the pre-proposal meeting, supporting materials made available for this RFP, and discussions with District staff, we have a good understanding of the structure of the District's current database system and how it is used. The focus of the evaluation during Phase 2 will be the data itself – identifying data structures and types to guide system design. We will also perform an initial migration of District data for use during development.

District staff will have the opportunity to explore the prototype modules and interfaces. Following deployment of the prototype and a review period, we will meet with District staff to discuss the design and solicit feedback on how to ensure that it best meets the needs of the District. We will also review on a conceptual level the design of the data management system, how users interact with it, and how the different parts relate to one another. These discussions will create a more complete understanding of needs and expectations by both INTERA and the District. As part of developing the functional requirements, INTERA will provide a clear range of options for the District with respect to any functionality/cost tradeoffs.

At the end of Phase 2, INTERA will provide the detailed data management system design and functional requirements for all modules. We will also develop a work plan, project schedule and level-of-effort/cost breakdown for Phases 3 through 5 reflecting the detailed design. We estimate Phase 2 will be completed 2 months following Phase 1. We will not proceed to Phase 3 until directed to do so by the District following review and approval of the functional requirements.

Phase 3 – Development and Testing.

This phase involves finalizing all modules consistent with the design and functional requirements defined in Phase 2. It includes designing the data structures, developing the database objects (tables, schemas, procedures, triggers, etc.), developing non-database objects (files, documents, pictures, etc.) and developing the module code. Our Quality Assurance (QA) Technical Lead will then oversee the testing of each module by individuals not involved in its development to ensure it is operating properly and consistently with District requirements. We anticipated using a District staff member for this "alpha" testing phase to provide feedback from the District's perspective and reduce costs. This phase includes development of both the front end (user interface) and back end of the data management system. We estimate this will be completed 5 months following the end of Phase 2.

Phase 4 – Migration and Deployment (Implementation).

In Phase 4, we will load the District's data and deploy all modules for use by the District. Unlike the alpha system testing in Phase 3, this deployment will be for all District staff and will be the point when the data management system "goes live." We will also launch the system backups and security features defined in coordination with the District during Phases 1 and 2 at this stage. We estimate this will be completed within 2 weeks of the end of Phase 3. It is critical that District staff are able to use the system as soon as it is online and available. For this reason, Phase 5 – Documentation and Technical Support will overlap with Phase 4.

Attachment A: MASTER TECHNICAL SERVICES AGREEMENT – WORK ORDER

Phase 5 – Documentation and Technical Support (Maintenance)

This phase includes training in the use of the new system for District staff, documentation, as-needed technical support, and maintenance of the system.

- **Training:** Immediately prior to deployment, INTERA will hold an on-site meeting and training session with District staff. The purpose of this meeting will be to orient staff to the data management system so that it can be used as the “current” version as soon as it is deployed. This training meeting will also introduce staff to documentation and serve as an opportunity to either train staff on maintenance or set a formal maintenance schedule.
- **Documentation:** We will develop four forms of documentation: in-place contextual help, a User Guide, a Developer Manual, and In-Code Documentation. In-place help is comprised of tool tips, form feedback such as error notices, and supplementary text. The User Guide is a more comprehensive overview of the product and how it is used. The User Guide will be developed for the core framework, functionality modules, and data migration tools. The core framework documentation will cover the description of components and basic management of the system. Each functionality module will contain detailed documentation of its design, purpose, and operating procedure with accompanying pictures/screenshots to assist District staff. The Developer Manual is aimed at programmers tasked with maintaining or extending the code. This is the primary document that would be used to facilitate the transition of code maintenance to a third-party developer. In-Code documentation refers to supplementary, low-level documentation embedded in the application code itself. The User Guide and Developer Manual are delivered both as a stand-alone PDF and a collection of searchable webpages within the application for easy access by users with sufficient account privileges. To limit costs to the District, we anticipate using a District staff member for up to 2 weeks to assist with development and/or review of documentation.
- **Technical Support and Maintenance:** While DripDrop is designed to be a stand-alone system, INTERA will provide continued support and maintenance on an hourly basis at the rates shown in the Master Services Agreement at the direction of Client. This includes software upgrades, security patches, and any enhancements or functionality extensions. Dependent software upgrades, security patches and bug fixes will be at no additional cost to Client for a period of 1 year following initial deployment. For these purposes, a “bug” is defined as a response of the system after it is deployed that is different from the reasonable expectation of the user based on the functional requirements defined in Phases 1 and 2 above. A “bug” differs from an enhancement or functionality extension in that it ties back to meeting the previously defined functional requirements and will not typically require any changes to the user interface. Technical support refers to the person-to-person training and troubleshooting that occurs after deployment. INTERA has a staff of six full-time programmers and will respond to all technical support inquiries within 1 business day either by phone, email or in-person. Maintenance refers to ongoing security upgrades, patches and other activities needed to keep the system operating as-designed. These are included for the first year. Enhancements and functionality extensions beyond the functional requirements defined in Phases 1 and 2 will be billed at the hourly rates shown in the Master Services Agreement.
For the purposes of section 8.3 (“Intellectual Property”) of the Master Technical Services Agreement provision, “joint ownership” includes the right of one owner to create derivative works and otherwise to exploit the jointly-owned property for all purposes, royalty-free and without any obligation for an accounting by one owner to the other. At all times the District will own the data stored within the system developed under this scope of work.

2.0 TERM

The term of this Work Order will commence on 12 October 2017 and will continue until **30 June 2019** unless sooner terminated by the Client and as provided in the Master Agreement

3.0 COSTS

The total cost for DripDrop is not to exceed \$100,000 without written consent of the District. Note that this cost statement does not include the cost of hosting, which will be the responsibility of the District.

PHASE	TASK/DESCRIPTION	ESTIMATED DURATION	COST (\$)
1	Planning and Needs Analysis	2 weeks	\$6,000
2	Design	2 months	\$13,000
3	Development and Testing	6 months	\$66,000
4	Migration and Deployment	2 weeks	\$7,000
5	Documentation and Support	1 month	\$8,000
	Ongoing Maintenance and Technical Support		As needed
TOTAL		10 months	\$100,000

Attachment A: MASTER TECHNICAL SERVICES AGREEMENT – WORK ORDER

4.0 DESIGNATED REPRESENTATIVES

The Services and Goods in this Work Order shall be performed ~~in~~ accordance with the terms and conditions set forth in the Master Technical Services Agreement made as of the 10/12/2017 and amended December 13, 2018 by the Client and INTERA.

This Work Order ~~is was originally~~ agreed and entered into on 10/12/2017.

Barton Springs/Edwards Aquifer Conservation District

Printed Name: Vanessa Escobar

Address: 1124 Regal Row

Austin, TX 78748

Phone: 512-282-8441

Email: vescobar@bseacd.org

INTERA Incorporated

Printed Name: Wade Oliver

Address: 52 Sugar Creek Center Blvd, Ste. 375

Sugar Land, TX 77479

Phone: 281-560-4562

Email: woliver@intera.com

5.0 AUTHORIZATION

This Work Order is agreed to and entered into on 13 December 2018.

Barton Springs/Edwards Aquifer Conservation District

INTERA Incorporated

By:

Blayne Stansberry
Board President

Printed Name:

ATTEST:

By:

Blake Dorsett
Board Secretary

Date:

APPROVED AS TO FORM:

By:

William D. Dorset II
William D. Dorset II
Attorney for BSEACD

Date: December 5, 2018

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Attachment A: MASTER TECHNICAL SERVICES AGREEMENT – WORK ORDER

PROJECT NUMBER/ID: BSEACD.M001.SVCS

WORK ORDER NO: 4

1.0 SCOPE OF SERVICES

This work order for Barton Springs/Edwards Aquifer Conservation District is for litigation support and expert witness testimony. This could include, but is not limited to support, communication and coordination with the District or other organizations, hydrological analysis, depositions, written testimony, and in-person meetings or field visits. INTERA will not proceed with any items unless directed to do so by the District.

2.0 TERM

The term of this Work Order will commence on 1 January 2019 and will continue until 31 December 2020 unless sooner terminated by the Client and as provided in the Master Agreement.

3.0 COSTS

INTERA shall be compensated for work performed on a Time and Materials basis. Most work under this Work Order will be completed at the hourly rates specified in the Master Agreement. Work during deposition and in-person testimony will be completed at the hourly rates specified below. Costs incurred by INTERA will not exceed \$20,000 without the prior written consent of Client.

INTERA Labor Category	Deposition & Testimony- Hourly Rate
Principal Engineer/Scientist I	\$290
Principal Engineer/ Scientist II	\$265
Principal Engineer/ Scientist III	\$250
Sr. Engineer/Scientist I	\$235
Sr. Engineer/Scientist II	\$200
Sr. Engineer/Scientist III	\$185
Sr. Engineer/Scientist IV	\$165
Engineer/Scientist I	N/A
Engineer/Scientist II	N/A
Engineer/Scientist III	N/A
Engineer/Scientist IV	N/A
QA Engineer I	N/A
Sr. CAD/Graphics	N/A
CAD/Graphics	N/A
Sr. Technician	N/A
Technician	N/A
Sr. Project Analyst	N/A
Project Analyst	N/A
Project Associate	N/A
Sr. Technical Editor	N/A
Technical Editor	N/A
IT	N/A
Sr. Computer Programmer	N/A
Computer Programmer I	N/A
Computer Programmer II	N/A
Engineering/Scientist Intern	N/A

Attachment A: MASTER TECHNICAL SERVICES AGREEMENT – WORK ORDER

4.0 DESIGNATED REPRESENTATIVES

Barton Springs/Edwards Aquifer Conservation District

Printed Name: Alicia Reinmund-Martinez

Address: 1124 Regal Row

Austin, TX 78748

Phone: 512-282-8441

Email: areinmund@bseacd.org

INTERA Incorporated

Printed Name: Wade Oliver

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Sugar Land, TX 77479

Phone: 281-560-4562

Email: woliver@intera.com

5.0 AUTHORIZATION

The Services and Goods in this Work Order shall be performed in accordance with the terms and conditions set forth in the Master Technical Services Agreement made on 12 October 2017 between the Client and INTERA.

This Work Order is agreed to and entered into on _____.

Barton Springs/Edwards Aquifer Conservation District

INTERA Incorporated

By: _____
Blayne Stansberry
Board President

Printed Name: _____

ATTEST:

By: _____
Blake Dorsett
Board Secretary

Date: _____

APPROVED AS TO FORM:

By: Bill Dugat III
William D. Dugat III
Attorney for BSEACD

Date: December 5, 2018

Item 3

Routine Business

- b. General Manager's Report.** *(Note: Topics discussed in the General Manager's Report are intended for general administrative and operational information-transfer purposes. The Directors will not take any action unless the topic is specifically listed elsewhere in this agenda.)*

1. Standing Topics.

- i. Personnel matters and utilization
- ii. Upcoming public events of possible interest
- iii. Aquifer conditions and status of drought indicators

2. **Special Topics.** *(Note: Individual topics listed below may be discussed by the Board in this meeting, but no action will be taken unless a topic is specifically posted elsewhere in this agenda as an item for possible action. A Director may request an individual topic that is presented only under this agenda item be placed on the posted agenda of some future meeting for Board discussion and possible action.)*

- i. Review of Status Report Update – at directors' discretion.
- ii. Update on certain projects and activities of individual teams.
- iii. Update on activities related to the Travis County ILA.
- iv. Update on Board committee activity.
- v. Update on various development activity over aquifer recharge and contributing zones.
- vi. Update on activities related to area roadway projects.
- vii. Update on the State Office of Administrative Hearings Proposal for Decision on the City of Dripping Springs TPDES permit application.
- viii. Update on the State Office of Administrative Hearings proceedings for the Needmore Water LLC permit application.

Status Report - Temporary Formatting

STATUS REPORT UPDATE FOR DECEMBER 13, 2018 BOARD MEETING Prepared by District Team Leaders

GENERAL MANAGEMENT TEAM

Summary of Significant Activities

- **Meetings, Training, Presentations, and Conferences:**
Meetings: EP hearing protestants meetings including with TESPAs, TxDOT Oak Hill Parkway RFP meeting with the COA, Save Barton Creek Association annual meeting, Center for BioDiversity Mural ceremony; Presentations: Guadalupe Basin Coalition 3rd Hill Country Water Summit, Conferences: Colorado River Alliance Tour; Teleconference calls: Kirk Holland and the COA regarding HCP ILA, and GCD General Managers.
- **Ongoing Special Projects, Committees, and Workgroups:**
Continue conversations with the COA on the Interlocal Agreement to coordinate the implementation of HCP activities, attendance TWCA Groundwater Committee legislation and participation in the TAGD Legislative Committee conference call, attendance at Regional Water Quality Working Group, and discussions with COA and TXDOT on Oak Hill Parkway project.
- **Routine Activities and Day-to-Day operations:**
Provided general oversight of staff activities and oversight of day-to-day operations; approved admin documents; prepared agendas and backup for Board meeting and Rules Committee meeting; prepared GM report and assigned tasks; held one Planning team meeting; served as liaison between Board and staff; Consultation with Attorney on: EP and Needmore permit application, December 13 meeting agenda. Other Activities: Consultation with Benefits and HR coordinator.

ADMINISTRATION TEAM

- **Accounts Receivable:**
December monthly and 2nd quarter billings mailed out on November 16th (due on Dec 5th and late on Dec 16th).
- **Annual Report / Appendix B of the District Management Plan:**
Preparing and formatting the annual report with Appendix B which has a new format. This includes compiling appendix B for the annual report which references the management plan. We are also incorporating the HCP into the reporting in these two documents in the future.
- **Audit Specific - MD&A:**
Prepared the Management Discussion and Analysis, a required component of the audit report. The MD&A provides an overview of the previous year of operations, contains useful information, and touches on the upcoming year and future projects.

- **Audit Specific – Montemayor:**
Audit began on November 13th; auditors were in District offices beginning the week of November 26th; and all fieldwork has been completed. Audit completed. Agenda item at the December 13 board meeting.
- **Conservation Credits Analysis, and Overpumpage:**
Analysis completed and was presented to Board at September 27 meeting, where they were approved. Now we will ask for camp scholarship donations from these permittees of their conservation credits. **UPDATE:** Current donations received: Slaughter Creek Acres \$86.72; Austin Water \$8,063.26; Goforth \$700; Texas LeHigh \$258.74 plus an additional \$1,200. **NEW DONATIONS:** Creedmoor \$924.93 and Centex \$1,359.67. New total to date is \$11,393.32.
- **Financial Reporting – Website:**
Transparency Star related. Most current, available financial reports are to be posted. Balance Sheet, Profit and Loss Statements, and Check Registers through October 2018 have been posted on the District website.

REGULATORY COMPLIANCE TEAM

- **Electro Purification Production Permit**
In mid-October, the ALJ requested briefs from all parties and she made a decision on party status. A hearing on the merits has been set for 9/19/19 to 9/27/19. Two ALJs have been assigned to conduct a one-day mediation on 1/14/19.
- **Needmore Water LLC Conversion to a Regular Permit**
At the 10/11/18, Board Meeting the Board remanded the matter back to SOAH. The ALJ has not yet provided a response on the matter. All the parties have filed response briefs related to the Board's remand request.
- **ASR Rule Making/Technical Workgroup**
Staff participated in a committee meeting in late November to discuss updates and to refine a few new ASR concepts. The staff expects to bring draft rule language before the Board in January 2019.
- **SH 45 SW/ Mopac Intersections Roadway Projects**
Staff is working on scheduling inspection visits at both roadway projects for mid-December.
- **Database Development Intera Contract**
Intera and staff are working through several workflow processes so that the backend framework of the database is functioning correctly. The front-end design is also being tested and refined.
- **Permits Authorized by General Manager**
Staff received the following applications that are currently under review:
 - Hays County for a Trinity well to produce 100,000 gpy for the purpose of fire use and roadway construction.

- Basix Holdings LLC to produce 1,600,000 gpy from an existing Trinity well for the purpose of irrigation (farm to table/ agricultural crops).
- **Drought Compliance - No Drought was declared on 10/11/18.**

EDUCATION TEAM

- **Travis County ILA - Neighborhood site visits and geology recon:**
Travis County ILA: Five weeks of site visits are complete. Throughout the five weeks of site visits (Oct. 30-Nov. 28) , staff had two days of field visits and three days of research/prep and recap/data entry each week. Staff visited 45 individual well owners and about 50 wells. We were able to measure water levels at 41 of the 50 wells and water quality at 39 of the 50 wells. Results letters were mailed to all participating well owners, an executive summary was shared with Travis Co. and the SWTCGCD Directors, and posted on the project website. www.bseacd.org/TravisCo
- **Neighborhood Site Visit programs - Presentation at the South Central Water Research Interest Group:**
On Tues., 12/4/18, Robin presented on the recent neighborhood site visit programs to a crowd of 80 water researchers. The presentation was well received. Compliments came from Travis Co. collaborator, Vicky Kennedy; long-time EAA Director, Carol Patterson; and incoming EAA Director & Hilliard Lane site visit participant, Rachel Sanborne.
- **Augmented Reality Water Quality Teaching Tool - Benthic macroinvertebrates:**
Augmented reality decks are being exceptionally well received. Decks are being distributed to staff, Directors, teachers and collaborators. The app is available through the App store & Google Play. In November the decks were used and promoted at the Science Mill Homeschool Day, Science Mill Science Night Benefit, and the Austin Discovery School endangered salamander mural media event. Details, demo sheets, and links to download the apps: www.bseacd.org/ar
- **Austin Cave Festival (Sat., Feb. 23, 2019) - Wildflower Center, City of Austin Wildlands, Watershed Protection, and Parks and Rec cosponsoring:**
The District has been a long-time supporter, sponsor, and organizer of Austin Cave Festival. It has transitioned from Village of Western Oaks to the Lady Bird Johnson Wildflower Center. Cave tours, hikes, cave simulator, vertical rope climbing, music, puppet shows, activities, and cave-related agencies will make it a memorable and exciting Saturday! Entry will be free.
- **9th Annual Central Texas Water Conservation Symposium (Thurs., Jan 31, 2019) - Integrated Water: Keeping Conservation at the Forefront:**
The District has been a proud sponsor of this symposium since it started 9 years ago. Presentations are geared toward providing conservation strategies, discussing successful programs, and sharing tips and tricks for elected officials, water operators, and program staff.
- **Internet Traffic Report - Page views and visits to the District Website:**
The District website had 2,812 total page views by 2,243 unique sessions--a slight decrease from last month. Top sites in order of number of views are the home page (168), Maps (168), Staff (132), Drought Status (91) and Board (86). The District Facebook page now has 726

likes (up 4 from last month) 'Likes' and responses to posts have been very positive. The most popular FB posts were about the Endangered Salamander Mural project (203) and Wildland Guided Hike opportunities (176 views).

AQUIFER SCIENCE TEAM

- **Dye Tracing:**
Technical summaries of the recent Onion Creek (contributing zone) are completed. A technical summary of the dye trace to Jacob's Well Spring is pending.
- **Central Hays County Groundwater Evaluation - Well and hydrogeology characterization:**
AS staff have prepared a technical memo stating that there is a potential for unreasonable impacts from pumping of the EP wells at the requested permit amount. Testing of the multiport well in Rolling Oaks is continuing as well as continued work enhancing the monitor well network in the EP area.
- **Antioch Cave - Onion Creek Recharge Enhancement Project:**
New equipment to control the Antioch valve were installed in March 2017. A new flow meter was installed in March 2018. The vault functioned as designed during the March 2018 rain event. City of Buda staff visited the Antioch system on November 2.
- **Water-Quality Studies - Sampling and analysis of groundwater and surface water:**
District staff have been collecting groundwater samples for several projects including for the TWDB and the Ruby Ranch ASR pilot project.
- **Saline Zone Studies - Saline Zone report for TWDB grant:**
Carollo Engineers completed a draft final report for the RFP grant, which was submitted to TWDB on October 31. Aquifer Science staff completed a report of the multiport well testing and sampling that is a part of the RFP grant report. A final stakeholder meeting was held on November 28. The final report was submitted to the TWDB and is available on the BSEACD website. The final report was accepted by TWDB in March.
- **Drought and Water-Level Monitoring - Drought status, monitor wells, and synoptic water level events:**
On July 12, the District's Board of Directors declared Stage II Alarm Drought. Owing to a very wet September and October, the Board declared an end to drought on October 11. **On 12/7/18, the Lovelady well had a level of 501.8 and is still rising. Flow at Barton Springs was 95 cfs.**
- **Information Transfer - Presentations, conferences, reports, and publications:**
Aquifer Science staff have completed and submitted for review two draft chapters about the Barton Springs segment for a memoir (book) about the Edwards Aquifer to be published in the Fall of 2018. **Two papers were presented by Brian Smith at the annual GSA meeting in Indianapolis that was held from Nov. 3-7.**
- **Aquifer Testing - Planning, participation, and review of aquifer tests:**

EP aquifer testing finished in January 2017. District staff received an application and hydrogeologic report from EP. Staff completed a technical review of EP's production application and produced three technical memos.

- **Travis County ILA - Hydrogeologic Atlas of Western Travis County:**
Travis County approved the ILA on 7/3/18 to contribute to studies producing databases and publications characterizing the hydrogeology of Western Travis County. Details are provided under the Education and Outreach section above.

AD HOC TEAMS

- **Technical Team - Current areas of discussion:**
Topics of discussion at the technical team meeting in October were drought status, water-level monitoring, Travis County studies, and ASR. **There was no tech team meeting in November.**
- **Planning Team - Strategic and tactical planning and discussion topics:**
Meetings held October 16 and 30, 2018.

UPCOMING ITEMS OF INTEREST:

- Edwards Aquifer hydrology and mapping discussion: December 19.
- District offices closed: December 24-26 and January 1.
- Next Board Meeting: January 10, 2019.



**Barton Springs
Edwards Aquifer**
CONSERVATION DISTRICT

MEMORANDUM

TO: TRAVIS CO. GROUNDWATER STUDY PARTNERS, STAKEHOLDERS, AND INTERESTED PARTIES

FROM: AQUIFER SCIENCE & PUBLIC INFO/EDUCATION TEAMS, BSEACD

SUBJECT: PRELIMINARY SUMMARY OF TRAVIS CO. NEIGHBORHOOD SITE VISITS

DATE: 12/6/2018

The scheduled 2018 Travis County Neighborhood Site Visits are complete. The District provided well owners a free well visit, a water level measurement (if possible), and screening for nitrates, pH (acidity), and total dissolved solids (TDS, "saltiness").

Throughout the five weeks of site visits (Oct. 30-Nov. 28), staff had two days of field visits and three days of research/prep and recap/data entry each week. Staff visited 45 individual well owners and about 50 wells. We were able to measure water levels at 41 of the 50 wells and water quality at 39 of the 50 wells (see summary table and attached map). The water levels in the summary table are not corrected for elevation change; they're meant to provide ranges measured in each area.

High levels of nitrates can indicate contamination by wastewater sources. Some of the samples contained low levels of nitrate, but all were well below the maximum concentration of 10 parts per million (ppm) deemed acceptable for drinking water by the Environmental Protection Agency (EPA).

Conductivity is a measure of how easily electricity can pass through water; the more dissolved particles in the water, the higher its (electrical) conductivity. Dissolved components in groundwater are naturally occurring compounds coming from the surrounding rocks--usually bicarbonate, boron, calcium, chloride, magnesium, potassium, sodium, and sulfate. Conductivity can be used to estimate Total Dissolved Solids (TDS, "saltiness"). The EPA sets Secondary Standards for contaminants that affect the aesthetic quality (taste, odor, clarity) of drinking water. The EPA Secondary Standard for drinking water is 500 ppm or less—we find Trinity wells frequently exceed this secondary standard. While EPA's Secondary Standards are generally not related to health concerns, those on

low-sodium diets may need to be aware if they are drinking water with high TDS and may choose to discuss results with their doctor.

Using the driller's logs (if available), geologic maps, and other information, staff estimated the primary aquifer for each well. Those aquifers generally include the Middle Trinity and the Lower Trinity aquifers. The Upper Trinity Aquifer is generally not a target for groundwater production in southwest Travis County. Generally, the Middle Trinity aquifer, when present, has shallower water levels and fresher water quality than the underlying Lower Trinity. However, in many areas the Lower Trinity appears to be the primary aquifer. The variety of water levels and water quality reveal the complexity of the aquifers and well completions in the area.

During visits, common concerns voiced by well owners included high Total Dissolve Solids, sediment and iron problems, as well as yield problems. For fact sheets and information on these topics and more, visit Texas A&M Agrilife's Texas Well Owner Network online: twon.tamu.edu/fact-sheets/. Please note: many of these fact sheets report ranges in milligrams per liter (mg/L); mg/L is equivalent to parts per million (ppm) referenced in this memo.

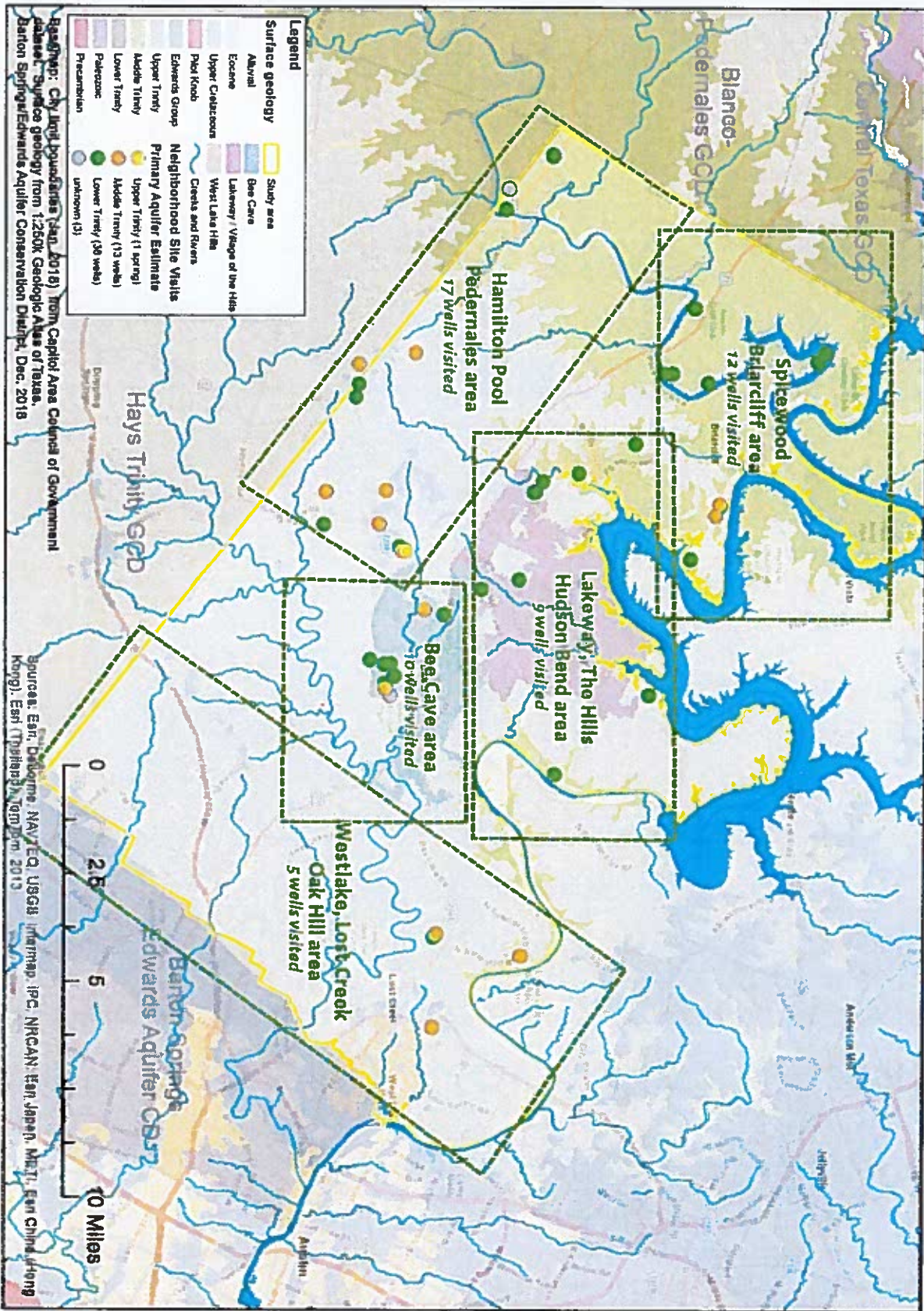
The District, along with other groundwater agencies, recommends that private wells be tested annually to ensure the water remains safe for consumption. Well owners were advised that if they ever notice a change in color, taste, or smell, they should have the well water analyzed by an accredited lab. As a private water system owner, they are the only person making sure their water is safe for consumption.

This data is the start of a year-long project that will include additional sampling, water level measurements, and geologic evaluations to better understand and document aquifer dynamics in southwestern Travis County.

Additional resources and links including the Shield Ranch real-time weather station link can be found on our Travis County GW Project Page: www.bseacd.org/TravisCo

Travis County Groundwater Study - Neighborhood Site Visit Summary

Wells by estimated primary aquifer



2018 Neighborhood Site Visit Summary

Area	Estimated primary aquifer (Number of measured wells*)	Total Well depth (feet)	Water level range (Depth to water, feet)	Conductivity range (microSiemens/cm)	Estimated Total Dissolved Solids range (TDS, ppm)
Hamilton Pool, Pedernales	Middle Trinity Aquifer wells (6)	Generally shallower than 550'	41' – 464'	1,010 – 2,910	645 – 1,860
Hamilton Pool, Pedernales	Lower Trinity Aquifer wells (8)	Generally deeper than 550'	164' – 323'	751 – 3,720	480 – 2,380
Spicewood, Briarcliff	Middle Trinity Aquifer wells (2)	Generally shallower than 300'	174' – 232'	609 – 913	390 – 584
Spicewood, Briarcliff	Lower Trinity Aquifer wells (10)	Generally deeper than 300'	36' – 247'	645 – 3,280	419 – 2,100
Lakeway, The Hills, Hudson Bend	Lower Trinity Aquifer wells (9)	Generally deeper than 400'	111' – 643'	1,470 – 3,200	938 – 2,050
Bee Cave	Lower Trinity Aquifer wells (6)	Generally deeper than 750'	602' – 708'	1,490 – 1,620	962 – 1,040
Westlake, Lost Creek, Oak Hill	Middle Trinity Aquifer wells (3)	Highly variable	24' – 451'	1,330 – 2,070	851 – 1,320
Westlake, Lost Creek, Oak Hill	Lower Trinity Aquifer wells (2)	Generally deeper than 750'	521' – 548'	1,480 – 1,610	948 – 1,030

*Wells with available well construction records

State Office of Administrative Hearings



Lesli G. Ginn
Chief Administrative Law Judge

November 16, 2018

General Counsel
Texas Commission on Environmental Quality
P.O. Box 13087
Austin Texas 78711-3087

**Re: SOAH Docket No. 582-18-3000; TCEQ Docket No. 2017-1749-MWD;
In Re: Application by The City of Dripping Springs for New TPDES Permit
No. WQ0014488003**

Dear General Counsel:

The above-referenced matter will be considered by the Texas Commission on Environmental Quality on a date and time to be determined by the Chief Clerk's Office in Room 201S of Building E, 12118 N. Interstate 35, Austin, Texas.

Enclosed are copies of the Proposal for Decision and the Proposed Order that have been recommended to the Commission for approval. Any party may file exceptions or briefs by filing the documents with the Chief Clerk of the Texas Commission on Environmental Quality no later than **December 6, 2018**. Any replies to exceptions or briefs must be filed in the same manner no later than **December 16, 2018**.

This matter has been designated **TCEQ Docket No. 2017-1749-MWD; SOAH Docket No. 582-18-3000**. All documents to be filed must clearly reference these assigned docket numbers. All exceptions, briefs and replies along with certification of service to the above parties shall be filed with the Chief Clerk of the TCEQ electronically at <http://www.tceq.texas.gov/epic/efiling/> or by filing an original and seven copies with the Chief Clerk of the TCEQ. Failure to provide copies may be grounds for withholding consideration of the pleadings.

Sincerely,

Craig R. Bennett
Administrative Law Judge

Enclosures
cc: Mailing List

STATE OFFICE OF ADMINISTRATIVE HEARINGS

AUSTIN OFFICE

300 West 15th Street Suite 504

Austin, Texas 78701

Phone: (512) 475-4993

Fax: (512) 322-2061

SERVICE LIST

AGENCY: Environmental Quality, Texas Commission on (TCEQ)

STYLE/CASE: CITY OF DRIPPING SPRINGS

SOAH DOCKET NUMBER: 582-18-3000

REFERRING AGENCY CASE: 2017-1749-MWD

**STATE OFFICE OF ADMINISTRATIVE
HEARINGS**

ADMINISTRATIVE LAW JUDGE

ALJ CRAIG R. BENNETT

REPRESENTATIVE / ADDRESS

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CITY OF DRIPPING SPRINGS

CITY OF DRIPPING SPRINGS

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TCEQ

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SAVE OUR SPRINGS ALLIANCE, INC.

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**SOAH DOCKET NO. 582-18-3000
TCEQ DOCKET NO. 2017-1749-MWD**

APPLICATION BY THE CITY OF DRIPPING SPRINGS FOR NEW TPDES PERMIT NO. WQ0014488003	§ § § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS
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**SOAH DOCKET NO. 582-18-3000
TCEQ DOCKET NO. 2017-1749-MWD**

APPLICATION BY THE	§	BEFORE THE STATE OFFICE
CITY OF DRIPPING SPRINGS	§	
FOR NEW TPDES PERMIT	§	OF
NO. WQ0014488003	§	
	§	ADMINISTRATIVE HEARINGS

PROPOSAL FOR DECISION

The City of Dripping Springs (Applicant or the City) has applied to the Texas Commission on Environmental Quality (TCEQ or Commission) for new Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014488003. The permit would authorize the discharge of up to 822,500 gallons per day (gpd) of treated wastewater into a small tributary, Walnut Springs, which flows into Onion Creek in Hays County, Texas. The TCEQ referred the application to the State Office of Administrative Hearings (SOAH) for a contested case hearing on twelve issues. After considering those twelve issues, in light of the evidence and arguments presented by the parties, the Administrative Law Judge (ALJ) recommends that the application be approved and the permit issued.

I. PROCEDURAL HISTORY

The City filed its application for a TPDES permit on October 20, 2015. The TCEQ's Executive Director (ED) completed technical review of the application and prepared an initial draft permit. The application was declared administratively complete on December 7, 2015. The Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) was published in the *Austin American-Statesman* on December 24, 2015, and in Spanish in the *Ahora Si* in Hays County, Texas, that same day.

The Commission granted requests for a contested case hearing at an open meeting on March 7, 2018, and referred this matter to SOAH on March 12, 2018. The Commission established a six-month deadline for the proposal for decision (from the date of the preliminary hearing) and referred twelve issues, which are set out in Section II below.

The preliminary hearing was held on May 21, 2018, in Austin, Texas. After determining that proper notice had been given and that TCEQ and SOAH have jurisdiction over this matter, the presiding ALJs designated many parties. Eventually all protesting parties except Save our Springs Alliance (SOS) settled and withdrew from the case. By the time of the hearing, only the following parties remained in this case: the City; the ED; SOS; and the TCEQ's Office of Public Interest Counsel (OPIC).

The hearing on the merits convened in Austin, Texas, on August 20, 2018, and concluded on August 22, 2018. The record initially closed on September 24, 2018, with the submission by the parties of their final closing arguments, but was re-opened for the parties to submit proposed findings of fact and conclusions of law. Thus, the record finally closed on November 12, 2018.

II. THE COMMISSION'S REFERRED ISSUES

As noted above, the Commission identified twelve issues in its order referring this case to SOAH for a contested case hearing. Those twelve issues are:

- A) Whether the draft permit contains sufficient provisions to prevent nuisance odors, protect the health of the requesters and wildlife in the area, and be protective of the requesters' use and enjoyment of their property;
- B) Whether the discharged effluent will violate the aesthetic parameters in 30 Texas Administrative Code § 307.4(b);
- C) Whether the draft permit will be protective of water quality and the uses of the receiving waters under the applicable Texas Surface Water Quality Standards;
- D) Whether the proposed discharge will comply with the applicable antidegradation requirements;
- E) Whether the draft permit is protective of groundwater in the area;
- F) Whether the draft permit should include a requirement for biomonitoring or Whole Effluent Toxicity testing;
- G) Whether the proposed treatment process can satisfy the effluent limits in the draft permit;

- H) Whether the modeling analysis of the proposed effluent discharge is sufficient;
- I) Whether the draft permit will protect against the creation of algal blooms;
- J) Whether the Commission should deny or alter the terms and conditions of the draft permit based on consideration of need under Texas Water Code (TWC) § 26.0282, and the general policy to promote regional or area-wide systems under TWC § 26.081;
- K) Whether the Applicant's compliance history raises issues regarding the Applicant's ability to comply with the material terms of the permit that warrant denying or altering the terms of the draft permit; and
- L) Whether the Applicant substantially complied with all applicable notice requirements.¹

Each of these issues is further discussed and analyzed under Section IV below. As the ALJ notes there, the evidentiary record in regard to each of these issues supports issuance of the requested permit.

III. BURDEN OF PROOF

This case arises under Senate Bill 709 (SB 709). SB 709 implemented significant changes to the contested case hearing process for permits such as the one sought in this case. Under SB 709, the TCEQ's draft permit and certain documents comprising the administrative record constitute a *prima facie demonstration* that the draft permit "meets all state and federal legal and technical requirements" and that a permit issued consistent with the draft permit "would protect human health and safety, the environment, and physical property."² Opposing parties have the opportunity to present evidence rebutting that *prima facie demonstration*.³ If opposing parties do so, the applicant and the ED have the opportunity to present additional evidence in support of the draft permit.⁴

¹ TCEQ's Interim Order of March 12, 2018, at 3-4.

² Tex. Gov't Code § 2003.047(i-1).

³ Tex. Gov't Code § 2003.047(i-2).

⁴ Tex. Gov't Code § 2003.047(i-3).

Under this analysis, there is no need to go beyond the administrative record and the prima facie presumption favoring issuance of the permit if the opposing parties present no evidence sufficient to raise a genuine concern the permit may not satisfy all applicable requirements. However, the ALJ does not believe that SB 709 shifts the burden of proof to protesting parties.

The language of SB 709 is somewhat confusing. It provides that a protesting party may rebut the prima facie demonstration by presenting evidence that “demonstrates one or more provisions in the draft permit violate a specifically applicable state or federal requirement.”⁵ If this is read as placing a burden of persuasion on protesting parties, then the demonstration they make would be dispositive (because it would show the permit “violates” a requirement). Then the only remedy would be to deny the draft permit or alter it in such a way as to make it compliant, and this is what the additional evidence from the ED and applicant would address. This does not appear to be the legislative intent. Rather, it appears the legislature intended for the additional evidence from the ED and the applicant to be considered for the purpose of demonstrating the draft permit would not violate applicable requirements.⁶ If so, then the protesting parties’ evidence would not actually prove the draft permit would “violate” a requirement. Rather, it would merely raise a genuine issue of fact as to whether the draft permit would do so. As such, SB 709 sets out a burden of production on protesting parties, not a burden of persuasion. This is how the ALJ construes the somewhat confusing language of SB 709.

As applied to this case, with regard to issues on which SOS has presented no controverting evidence at all to rebut the prima facie demonstration, the ALJ stops the analysis there. The lack of any controverting evidence on an issue means the prima facie demonstration controls and satisfies the City’s burden of proof.

⁵ Tex. Gov’t Code § 2003.047(i-2).

⁶ Tex. Gov’t Code § 2003.047(i-3) (“ . . . the applicant and the executive director may present additional evidence to support the draft permit.”) (emphasis added).

However, with regard to issues on which SOS presented controverting evidence, the ALJ generally did not conduct a linear analysis. Namely, he did not first determine whether the evidence is sufficient to rebut the prima facie demonstration, thus allowing additional evidence from the City or the ED to support the draft permit on the issue. Rather, in making his recommendation on an issue for which SOS has presented controverting evidence, the ALJ analyzed the evidence in the record regarding the issue and determined what the totality of the record, including the prima facie demonstration, shows regarding the issue. The approach used ultimately makes no difference in this case, as the ALJ concludes that the totality of the record clearly supports issuance of the permit in regard to every issue referred by the Commission. The manner of getting there is less significant.⁷

IV. DISCUSSION AND ANALYSIS

The Commission has referred twelve discrete issues to be addressed. However, many of the Commission's referred issues overlap and are intertwined. For example, SOS argues that nutrient loading from the effluent discharge will result in increased algal growth, which will also impact aquatic life in Onion Creek, a receiving stream. This argument implicates at least five different issues (A, B, C, D, and I). Thus, it was not always easy to segregate arguments and evidence by issue. The ALJ attempted to do so as much as possible, but for many issues the Commission will have to consider the entirety of the PFD when deciding them.

To assist the Commission, the ALJ briefly provides an overview of this case here and discusses the separate issues below. SOS is the only remaining party opposed to issuance of the permit. All other parties previously opposed to the permit have settled and withdrawn their opposition. The ED and OPIC both support issuance of the permit.

⁷ Technically speaking, the City correctly argues it has no duty to produce evidence on an issue at the hearing if no other party has first presented evidence to rebut the prima facie demonstration. And, when analyzing the evidence after the hearing, it would be acceptable for the ALJ to conduct a linear "burden-shifting" analysis that first analyzes the controverting evidence to see if it rebuts the prima facie demonstration before turning to the City's and ED's evidence to see if it sufficiently supports the draft permit on the issue. But, this would present a much longer and less readable PFD. Legally, the ALJ sees no requirement to discuss and analyze the evidence in such a linear fashion in the PFD, provided that his discussion of the evidence reaches the same outcome that would be reached under a strict burden-shifting analysis.

SOS contends that the proposed discharge is likely to result in significant nutrient loading—especially of phosphorus and nitrogen—which will lead to degradation of water quality in Onion Creek. This degradation will purportedly result in increased algae growth, a lowering of dissolved oxygen (DO) levels, and resulting sub-lethal or lethal harm to endangered salamander species in the area. SOS claims that the water quality of Onion Creek will be dramatically lowered, with the expected discharge changing Onion Creek's current clear condition and causing its trophic state to change.

After considering the totality of the record, the ALJ concludes that SOS's concerns lack a sufficiently reliable foundation. While SOS's experts are knowledgeable in their respective fields, their expertise does not extend to the applicable standards and rules related to wastewater permitting. Rather than demonstrating that the applicable Commission rules or processes were violated, SOS's experts essentially used alternative methodologies to try to demonstrate potential problems that may result from the expected discharge under the proposed permit. However, their testimony was frequently conclusory, speculative, and based upon limited and sometimes unreliable background sources.

In a nutshell, this case boils down to conflicting conclusions between SOS's experts and the City's and the ED's experts. After considering the totality of the record, the ALJ finds the testimony of the ED's and the City's experts to be more compelling and reliable. The City's and the ED's witnesses have extensive experience with the issues and analyses involved in this case, whereas SOS's experts lack that experience. For example, Lili Murphy, one of the ED's experts who reviewed the application and made revisions to the draft permit, is an aquatic scientist with more than 19 years of experience with the TCEQ. In her employment, she has reviewed more than 2,000 wastewater discharge permits. In contrast, SOS's experts lacked experience on the applicable water quality standards and models used for evaluating the potential impact of wastewater discharges.

Moreover, SOS's experts based much of their testimony not on their own experience, but on conclusions they drew from the reports and studies of others. Such is appropriate, but their

persuasive value is outweighed by the site-specific evaluations and modeling done by the City's and the ED's experts. The testimony of the City's and the ED's experts, along with other evidence in the record, establishes that the proposed permit will satisfy the applicable water quality standards and is expected to be fully protective of wildlife, water quality, and the other concerns identified by the rules and the Commission's referred issues. Accordingly, the ALJ recommends that the permit be issued. With that general understanding, the ALJ now turns to the specific issues referred by the Commission.

A. Whether the draft permit contains sufficient provisions to prevent nuisance odors, protect the health of the requesters and wildlife in the area, and be protective of the requesters' use and enjoyment of their property.

No parties presented arguments challenging the draft permit's ability to prevent nuisance odors or to ensure protection of the requesters' use and enjoyment of their property. Rather, the arguments under this issue related solely to the draft permit's ability to protect the health of humans and wildlife. Those arguments are discussed below.

1. SOS's Arguments

SOS contends that the draft permit will not protect wildlife in the area because it has the high probability of harming endangered salamander species.⁸ SOS primarily relies on the testimony of two biology professors from Texas State University, Dr. Caitlin Gabor and Dr. Westin Nowlin.⁹ Both witnesses testified that they anticipate the draft permit will present a danger to the Barton Springs salamander, which was listed as an endangered species in 1997. The Barton Springs salamander inhabits the springs in and around the Barton Springs pool, and the Barton Springs segment of the Edwards Aquifer is recharged by Onion Creek. As noted, the discharged effluent will flow first into Walnut Springs and then into Onion Creek. Accordingly,

⁸ SOS discusses two salamander species: the Austin Blind salamander and the Barton Springs salamander. However, the bulk of its arguments and evidence focuses on the Barton Springs salamander, so the ALJ focuses his discussion on that species. Ultimately, the ALJ concludes that neither salamander will be adversely affected if the draft permit is issued.

⁹ SOS's third expert, Dr. Ross, also presented some testimony related to this issue.

SOS asserts the discharged effluent will flow into the habitat of the Barton Springs salamander, thus impacting it.

Further, SOS alleges the Barton Springs salamander has been documented in springs issuing from the Trinity Aquifer within Onion Creek.¹⁰ Thus, even apart from the fact that Onion Creek recharges Barton Springs, SOS asserts the discharged effluent will impact the Barton Springs salamander. SOS alleges that the discharge allowed under the draft permit will add significant amounts of phosphorus and nitrogen to Onion Creek, thus increasing the growth of algal blooms in the stream. According to SOS, the growth will have lethal or sub-lethal effects on the salamander, including lowering DO levels to an unsafe level for the salamander.¹¹

TCEQ's implementation procedures (IPs) address endangered species and sensitive ecosystems,¹² and SOS asserts these provisions require the ED to do a more detailed analysis in a situation such as this where there may be an unusually sensitive aquatic ecosystem or where endangered species may be impacted. SOS alleges that the ED did not do any additional analysis even though it was called for under the IPs.

SOS also argues that the standards utilized by the ED are inadequate for measuring the impact upon endangered species. The ED used monthly or daily averaging to measure levels such as DO, which SOS contends can obscure short-term DO overloads or shortages that can harm sensitive species like salamanders. As such, SOS disagrees with the City and the ED that the minimum DO criterion of 5.0 milligrams a liter (mg/L) is adequate to protect the endangered salamanders, and argues that more analysis is needed regarding the DO fluctuations and likely impact of the effluent discharge. SOS presented evidence indicating that DO concentrations could drop below 2.0 mg/L, which can be lethal to salamanders.¹³

¹⁰ SOS Ex. 5 at 10 and attached Exhibit C; SOS Ex. 19; Ex. APP-4-02 at 80.

¹¹ SOS Ex. 5 at 11-12.

¹² Ex. ED-LM-3.

¹³ SOS Ex. 13 at 17.

In addition to the impact upon DO levels, SOS asserts the effluent discharge may increase phosphate levels up to 30 times the existing background concentration,¹⁴ thus creating a toxic condition for salamanders and other aquatic organisms. Dr. Nowlin's testimony focused to a great degree on the likelihood that total phosphorus (TP) would increase significantly under the proposed discharge. He stated that this increase would have significant harmful effects—including an increase in algae growth, a decrease in water quality, and a detrimental impact to the sustainability of aquatic life.¹⁵

SOS also takes issue with the flow rate used by the ED in its modeling. Under applicable modeling guidance, a harmonic mean flow is determined for all perennial streams and streams that are intermittent with perennial pools.¹⁶ In this case, the ED used a harmonic flow rate of 1.44 cubic feet per second (cfs) for Onion Creek.¹⁷ SOS contends this is well above the flow rates displayed in other TCEQ data for Onion Creek. Specifically, SOS cites to TCEQ data showing 30 years of flow data from four gaging stations on Onion Creek. For those four gaging stations, the harmonic mean flows are 0.79 cfs, 0.24 cfs, less than 0.10 cfs, and 0.61 cfs.¹⁸ SOS argues that using a higher flow rate in modeling results in greater apparent dilution of pollutants than will actually occur, resulting in the prediction of less harmful effects than will occur if the effluents are discharged and a lower flow rate exists in reality. SOS notes similar discrepancies in the flow rates used for Onion Creek in regard to other modeling done for the draft permit as well. With these unexplained differences in the flow rates used by the ED in the modeling, SOS argues that the draft permit has not been shown to protect human and wildlife health.

¹⁴ SOS Ex. 5 at 11; SOS Ex. 7 at 24-25.

¹⁵ SOS Ex. 13 at 10-17.

¹⁶ Ex. ED-LM-3 at 81. The harmonic mean flow is a measure of average flow in a water course calculated by applying a specific equation using individual flow measurements. 30 Tex. Admin. Code § 307.8(29). The use of the harmonic mean flow is intended to reduce the potential skewing effects of outlier data.

¹⁷ Administrative Record (AR), Tab G at 3, 10.

¹⁸ Ex. ED-LM-3 at 223.

2. The City's Arguments

The City disputes the reliability of the studies and data relied on by SOS in arguing the threat to wildlife posed by the discharge. The City points out that the proper permitting standards designed to ensure protection of wildlife have already been set by the state, and those standards are what govern—not studies that apply different standards or analyses. Thus, the City asserts that if the draft permit is shown to satisfy the Texas Surface Water Quality Standards (TSWQS), aquatic life will be protected.

The City also takes issue with the reliability of SOS's witnesses Dr. Gabor and Dr. Nowlin, pointing out that they both conceded they had reviewed only portions, and not the entirety, of the draft permit. Accordingly, the City argues that they are not in a position to testify as to its ability to satisfy applicable requirements because they are not familiar with all of its terms. The City also points to the fact that another of SOS's experts, Dr. Lauren Ross, admitted she was not a biologist or an expert in biology. As such, the City contends that her testimony on this and other issues related to biology is unreliable and not persuasive.

The City argues that Dr. Nowlin's opinions on the increased loading of phosphorus may not be relied upon because he testified that "one of the essential parts of [his] calculations relies on samples that [he] took . . . [to] the Aquatic Ecology Lab."¹⁹ That laboratory is not accredited by the National Environmental Laboratory Accreditation Program (NELAP).²⁰ TCEQ rules require that an environmental testing laboratory must be accredited according to NELAP if the laboratory provides analytical data used for a Commission decision relating to a permit (among other things).²¹ Thus, data from a non-accredited lab may not be relied upon by the Commission in deciding whether to issue a permit, unless certain exceptions apply.²² None of the exceptions apply to this case.

¹⁹ Transcript (Tr.) at 527; SOS Ex. 13 at 11.

²⁰ Tr. at 527.

²¹ 30 Tex. Admin. Code § 25.4(a)(1).

²² The exceptions are found in 30 Texas Administrative Code § 25.6.

The City's witness, Dr. James Miertschen, testified that a NELAP-certified lab would use only the level of quantification in its measurements. When applying those standards used by a NELAP-certified lab, he found that the background TP in Onion Creek averaged 0.049 mg/L,²³ which is more than double Dr. Nowlin's estimate that it was much less than 0.02 mg/L for the majority of the time. Thus, Dr. Nowlin's conclusions are not only improper because they come from a non-NELAP-certified lab, but they are also skewed because his methodology was not consistent with that used by NELAP-certified labs.

The City also contends that Dr. Ross's calculations were based on erroneous background data. Specifically, for her modeling, Dr. Ross determined background TP in Onion Creek to be .005 mg/L normally, and .044 mg/L for a storm event.²⁴ However, she obtained this background concentration from information supplied by the City of Austin, which was based on data from a single date of March 12, 2014.²⁵ She used this single data point rather than the 30 years of data contained in the TCEQ's database for Onion Creek.²⁶ The City argues this shows that her calculations are unreliable, as it was improper for her to base her opinions on modeling that relied on a single data sampling point, rather than years of data compiled by the TCEQ. Dr. Ross also did not look at any of the City's collected data regarding background concentrations in Onion Creek in forming her opinion.²⁷ Further, the City claims that she misconstrued the data collected by the City of Austin on which she relied, misunderstanding what was reflected by some of the data points that were below the practical quantification limit (PQL). Namely, the City's expert, Dr. Miertschen, testified that the values displayed as less than the PQL of 0.02 mg/L were estimates and not precise measurements, and Dr. Ross was mistaken to use the lower level of .008 mg/L (which was the level of detection, but which was not utilized to give

²³ Ex. APP-12 at 3. In its closing arguments, the City erroneously states the number as 0.49 mg/L, but the evidence reflects it as 0.049 mg/L.

²⁴ Tr. at 476.

²⁵ Tr. at 475.

²⁶ Tr. at 479.

²⁷ Tr. at 480.

precise measurements at amounts below 0.02 mg/L).²⁸ The City argues that this further erodes the reliability of Dr. Ross's testimony.

Similarly, the City challenges the reliability of Dr. Gabor, who based her opinions on the analyses by Dr. Ross and Dr. Nowlin. The City points out that Dr. Gabor performed no underlying calculations herself, but based her opinions on the calculations of Dr. Ross and Dr. Nowlin. Thus, if their calculations are unreliable, Dr. Gabor's testimony is necessarily unreliable as well.

The City also presents more detailed criticisms of the opinions of each of SOS's witnesses, but the ALJ will discuss those concerns more in the analysis section when discussing the evidence, rather than here.

3. The ED's Arguments

The ED asserts that the draft permit contains very stringent effluent limits—limits that are more stringent than those required under the Edwards Aquifer Rule²⁹ or those specific to Onion Creek and its tributaries in the Colorado River Watershed Rule,³⁰ which are among the most stringent effluent limits contained in any watershed rule in the state. According to the ED, these stringent effluent limits will ensure that both human health and aquatic wildlife will be protected from harm.

The ED disputes that its harmonic flow calculations were incorrect. First, the ED notes that SOS presented no evidence on this issue nor questioned the ED's witnesses at the hearing regarding the harmonic mean flow used. Accordingly, the ED contends the *prima facie* demonstration has not been rebutted. Regardless, the ED states that it based the harmonic flow rate on data from 2002 to 2012 collected from Surface Water Quality Monitoring (SWQM)

²⁸ See Tr. at 634-638.

²⁹ 30 Tex. Admin. Code § 213.6.

³⁰ 30 Tex. Admin. Code § 311.43.

station 12454, which is upstream of the of the point of discharge. The ED notes that when determining critical conditions, it uses a hierarchy of flow sources, including United States Geological Survey (USGS) gages both up and downstream of the outfall, upstream dischargers, and SWQM stations. In this case, none of the four gaging stations noted by SOS were upstream of the discharge point. In fact, the closest USGS gage is 20 kilometers downstream from the discharge point. In calculating the 1.44 cfs flow rate, the ED used the SWQM station data and removed zero flows.

The ED also explains the other flow rate calculations, noting that the most conservative values were generally used by the ED's staff in determining critical conditions. Under the circumstances, and with a lack of controverting evidence in the record, the ED asserts there is no basis for remanding this matter to the ED for further explanation of the flow rate calculations.

The ED notes that, because of the potential impact upon the endangered salamander species, the application was sent to both the United States Environmental Protection Agency (EPA) and the United States Fish and Wildlife Service (USFWS) for review.³¹ Although EPA initially objected to the application, it later withdrew its objections after the concerns it raised were addressed.³² Similarly, USFWS submitted comments, which were addressed by the ED.³³ The ED asserts that its analysis of the application was proper and ensures that discharges under the permit will not harm human health or wildlife.

4. OPIC's Arguments

OPIC asserts that the weight of the evidentiary record supports a finding that the draft permit will protect water quality and the use of the receiving water—and thus will protect humans and wildlife, including salamanders. Therefore, OPIC supports issuance of the permit.

³¹ Ex. ED-LM-1 at 14-15; Ex. ED-JC-1 at 10-12.

³² Ex. ED-JC-1 at 11.

³³ Ex. ED-JC-1 at 12.

5. The ALJ's Analysis

After considering the evidence and arguments presented, the ALJ finds the draft permit contains sufficient provisions to prevent nuisance odors, protect the health of the requesters and wildlife in the area, and be protective of the requesters' use and enjoyment of their property. No controverting evidence was presented regarding nuisance odors or the use and enjoyment of property. Therefore, the prima facie demonstration of the administrative record has not been rebutted and no further analysis is necessary on those issues. The ALJ's discussion is therefore limited to the draft permit's impact on the health of the requesters and wildlife in the area.

In regard to the ED's harmonic flow calculations, the ALJ finds that there is no basis for finding the ED's calculations incorrect. Under SB 709, the administrative record establishes a prima facie demonstration of the sufficiency of the draft permit, which would include the modeling and other calculations used to support it. SOS has presented no evidence to demonstrate that the flow calculations are wrong. Rather, it merely cites to other TCEQ data as being inconsistent and asserts that such inconsistency requires a remand for further explanation and justification. The ALJ disagrees. Under the legal framework of this case, it was incumbent on SOS to do more than merely identify concerns or supposed inconsistencies in the modeling. Instead, SOS was required to present evidence sufficient to rebut the prima facie demonstration. It has not done so on this issue. Therefore, the ALJ concludes the prima facie demonstration supports the ED's modeling. Moreover, in its closing arguments, the ED persuasively explained how the flow rate calculations were performed and the ALJ finds the ED's explanation sufficiently addresses SOS's concerns.³⁴

In regard to the danger presented to salamander species, the ALJ finds the evidence presented by SOS to be unreliable, whereas the evidence presented by the City and the ED satisfies applicable TCEQ criteria, is reliable, and demonstrates the permit will protect wildlife

³⁴ The ALJ recognizes that the ED's statements in closing briefing are not "evidence" per se. However, by not presenting controverting evidence on the issue, not questioning the ED's witnesses at the hearing on the issue, and not raising the issue until closing arguments, SOS negated the ED's ability to address this concern in the evidentiary record. Thus, the ALJ takes the ED's explanations in closing arguments as similar to judicial admissions by the ED.

species. Although not the exclusive basis of its arguments, much of SOS's evidence is based on its experts' opinion that the effluent discharges under the draft permit will increase nutrient loading in Onion Creek to unsafe levels, which also will bring DO levels down to unsafe levels, thus presenting harm to salamander species.

First, the ALJ notes the evidence indicates the permit will comply with the TSWQS, as the ED has implemented them through the IPs. The TSWQS are designed to ensure that the waters of the state will not be toxic to aquatic life. Thus, compliance with the TSWQS is generally protective of all aquatic life.

To the extent that overloading of TP or total nitrogen (TN) could be harmful to salamander species, the ALJ concludes that the evidence proffered by SOS is speculative and outweighed by the evidence offered by the City. In its closing arguments, SOS did not argue in detail that nitrogen levels could endanger salamanders, but at least one of its experts asserted that in her testimony.³⁵ However, the ALJ finds that there is no persuasive evidence in the record demonstrating this potential harm. The City's evidence indicates that nitrogen at permitted levels will be protective of salamander species. Of particular relevance, the Crow Study³⁶ specifically evaluated the response of salamanders to nitrogen. Two of the City's witnesses, Dr. Michael Forstner and Dr. Miertschen, reviewed the Crow Study and testified that it indicated that salamanders will not be sensitive to the concentrations of nitrate associated with the effluent authorized by the draft permit.³⁷ SOS argues that the Crow Study was based on a small sample size, looked only at lethal impacts (ignoring sub-lethal impacts), and had other limitations. While SOS's points may have some validity regarding the Crow Study's shortcomings, it—coupled with the testimony of Dr. Forstner and Dr. Miertschen—is still the most reliable evidence in the record regarding nitrogen's impact upon salamanders.

³⁵ SOS Ex. 5 at 11.

³⁶ Ex. APP-4-03

³⁷ Ex. APP-10 at 37; Ex. APP-4 at 10-12. For purposes of this PFD, nitrate and nitrogen are interchangeable terms.

In contrast, Dr. Gabor's limited opinion was conclusory and unsupported by specific data or studies indicating a genuine threat to salamanders from the nitrogen levels anticipated under the authorized discharges in the draft permit. In fact, one of the studies cited by SOS actually supports the conclusion that the additional nutrients associated with wastewater can be beneficial to aquatic life use in streams with low background nutrient levels. Specifically, the Mabe Report³⁸ concluded the following:

Benthic invertebrate ALU [aquatic life use] scores generally were High to Exceptional in study streams despite the influence of urbanization or wastewater. Reductions in ALU scores appeared related to low flow conditions and the loss of riffle habitats. *Benthic invertebrate ALU scores and several of the metrics used to compute composite ALU scores tended to increase with increasing total nitrogen concentrations.* These positive relations likely are caused by nutrient enrichment increasing productivity in what are naturally low nutrient streams.³⁹

The report goes on to discuss the positive impact of wastewater on aquatic life in providing "nutrient enrichment" and "consistently stable streamflow," which led to greater "species richness."⁴⁰ As such, the mere increase in TN does not automatically cause harm to aquatic life.

Given the weight of the evidence, especially the testimony of the City's and the ED's witnesses and the Crow Study, the ALJ concludes that the record demonstrates that the nitrogen levels expected under the draft permit will not be harmful to humans or aquatic life.

Next, the ALJ turns to the TP levels expected under the draft permit. This is where SOS's experts focused the bulk of their testimony. The draft permit limit for TP is 0.15 mg/L. Dr. Nowlin opined that at this discharge level, the ambient concentration of TP would more than triple, from .008 to .029 mg/L.⁴¹ Dr. Nowlin then cited studies which he claims indicate that a criterion of .02 mg/L or less is required to maintain natural algal assemblages not composed of

³⁸ SOS Ex. 7, attached Exhibit O.

³⁹ SOS Ex. 7, attached Exhibit O at 35 (emphasis added).

⁴⁰ SOS Ex. 7, attached Exhibit O at 36.

⁴¹ SOS Ex. 13 at 12.

weedy and nuisance algal species and to limit densities of invasive fishes.⁴² Dr. Nowlin continually used this .02 mg/L threshold in discussing the limit at which harm might likely occur from TP. Because he found that discharges of 0.15 mg/L TP would change the ambient concentration of TP in Onion Creek above the .02 mg/L threshold, he concluded there is the potential for significant increase in nuisance algae and a decrease in water quality, both of which will harm aquatic life.

The studies relied on by Dr. Nowlin do not fully support his position, however. For example, the King (2009b) report⁴³ cited by Dr. Nowlin simply identifies .02 mg/L TP as the point at which a biological response will occur “needing further investigation to establish thresholds for nutrient management.”⁴⁴ It does not conclusively establish that TP level as an absolute threshold of the types of harms expressed by Dr. Nowlin, but merely a point at which further investigation is needed. That investigation was conducted by both the City and the ED, and their experts determined that the level of TP will be protective of the existing aquatic life. The King (2009b) report also discusses a much higher level of TP at which the stream may begin to exhibit characteristics of “poor water quality.” Specifically, the report states that “Streams exceeding 200-500 µg/L [0.2 to 0.5 mg/L] may represent another threshold of biological response, with more consistent nuisance algal growth and additional losses of algal, macroinvertebrate and fish species and replacement with species associated with poor water quality.”⁴⁵ This threshold of 0.2 mg/L identified in the King (2009b) report is higher than the 0.15 mg/L limit for TP in the draft permit and much higher than Dr. Nowlin’s expected ambient level of .029 mg/L TP in Onion Creek with the anticipated discharges.

Thus, the King (2009b) report identifies two thresholds of biological response: (a) 0.02 mg/L TP, at which the stream may experience some changes that could impact aquatic life and result in a higher potential for algal growth, thus necessitating further investigation, and

⁴² SOS Ex. 13 at 12.

⁴³ Ex. APP-14.

⁴⁴ Ex. APP-14 at 73.

⁴⁵ Ex. APP-14 at 73.

(b) 0.20 mg/L TP, which is the point at which “more consistent nuisance algal growth” and aquatic life species “associated with poor water quality” are expected. The draft permit limit for TP is below this second threshold associated with expected nuisance algae and poor water quality, and the ambient concentrations of TP calculated by Dr. Nowlin in light of the draft permit’s TP limit are only slightly above the first threshold that necessitates further investigation. The City’s and ED’s experts conducted this further investigation and concluded that expected TP levels will not present a danger to aquatic life, and the ALJ finds their testimony reliable.

Lastly, the ALJ turns to DO levels. The City has presented voluminous compelling evidence that the DO levels required by the draft permit will protect aquatic life, including salamanders. The draft permit requires 6.0 mg/L minimum DO, a maximum 5-day carbonaceous biochemical oxygen demand (CBOD) of 5.0 mg/L, and an ammonium nitrogen limit of 1.2 mg/L. These standards were developed to maintain the existing Onion Creek DO standard of 5.0 mg/L even at the location of maximum potential impact, which is approximately 19 miles upstream of the edge of the Edwards Aquifer recharge zone.⁴⁶ The Barton Springs Edward Aquifer Conservation District’s Habitat Conservation Plan notes that “salamanders exposed to DO concentrations at or higher than 4.4 mg/L are not expected to be adversely affected.”⁴⁷ Given the distance to the Edwards Aquifer recharge zone from the maximum potential impact of the effluent discharge and the draft permit requirements designed to maintain DO levels at or above 5.0 mg/L, the evidence clearly indicates that DO levels are not expected to be impacted in a way detrimental to salamanders. This conclusion is supported by numerous expert witnesses.⁴⁸

Dr. Nowlin’s speculation that DO levels might drop at times below 2.0 mg/L is unsupported, and he provided no explanation or detailed support for this bare assertion.⁴⁹ He speculated it could happen, but even one of SOS’s other experts, Dr. Ross, testified that the DO

⁴⁶ Ex. APP-7 at 18.

⁴⁷ Ex. APP-7 at 18; Ex. APP-4-02 at 98-99.

⁴⁸ Ex. APP-4 at 8-9 (Dr. Forstner); Ex. APP-7 at 18 (Mr. Price); Ex. APP-9 at 12-14 (Mr. Callegari); Ex. ED-JC-1 at 15 (Mr. Centeno); Ex. ED-LM-1 at 16, 30 (Ms. Murphy).

⁴⁹ At the hearing, no party asked Dr. Nowlin about this and he provided no further justification for this assertion.

levels in the draft permit were acceptable.⁵⁰ Thus, the ALJ finds Dr. Nowlin's statement in this regard to be unpersuasive. Similarly, the ALJ finds no authority for Dr. Nowlin's contention that DO should be analyzed more frequently than the daily and monthly analysis that was done. There is no regulatory requirement for more frequent analysis and, beyond his speculation, the evidence does not indicate that such is necessary to ensure protection of the salamander species involved.

After considering the totality of the evidence, the ALJ concludes that the draft permit contains sufficient provisions to prevent nuisance odors, protect the health of the requesters and wildlife in the area, and be protective of the requesters' use and enjoyment of their property. The ED did the required analysis to ensure protection of the endangered salamander species, and the EPA subsequently withdrew its prior objections to the proposed permit. The draft permit limits satisfy the TSWQS, which are designed to protect aquatic life. The totality of the evidence simply does not justify a finding that the permit will present a danger to humans or aquatic life, and no evidence has been presented regarding nuisance odors or use and enjoyment of property.

B. Whether the discharged effluent will violate the aesthetic parameters in 30 Texas Administrative Code § 307.4(b).

SOS contends that the discharged effluent will violate the aesthetic parameters set out in the rule, primarily because it is likely to lead to significant algae growth. However, SOS addresses this issue most significantly in Sections D and I, related to antidegradation and the potential for creation of algal blooms. Therefore, the ALJ will address the issue in more detail there. However, as noted in those sections, the ALJ concludes that the evidence does not indicate that the effluent discharge will result in significant algae growth and, thus, will not violate the aesthetic parameters in 30 Texas Administrative Code § 307.4(b). The ED and OPIC agree with this conclusion.

⁵⁰ Ex. APP-13 at 65.

C. Whether the draft permit will be protective of water quality and the uses of the receiving waters under the applicable Texas Surface Water Quality Standards.

As noted by SOS in its briefing, this issue overlaps with and encompasses the matters identified in Issues A, B, D, E, and I. Therefore, rather than addressing this issue in detail in its briefing, SOS cites to its evidence and arguments on those other specific issues. By way of summary, SOS asserts that the draft permit will not be protective of water quality and will not protect uses of the receiving waters under the TSWQS because it would allow significant increases in nutrient pollutants to be discharged into Onion Creek, leading to reduced DO, algae blooms, and harm to existing aquatic communities. Further, SOS asserts the Tier 1 and Tier 2 antidegradation standards would be violated and aquatic communities and sensitive species, including endangered salamanders, would be harmed; thus, existing aquatic life uses would not be protected. Finally, SOS contends that groundwater would not be protected by allowing the discharge of up to 6 mg/L TN into Onion Creek, where dye tracing has shown it will flow, allegedly with limited dilution, directly into groundwater supplies used for both public and private drinking water wells.

In contrast, the City, ED, and OPIC all assert the draft permit will be protective of water quality and the uses of the receiving waters under the applicable TSWQS. Both the City's and the ED's expert witnesses clearly testified that the draft permit complies with the TSWQS. The City points out that only one of SOS's experts, Dr. Ross, indicated she was knowledgeable and an expert in the TSWQS, yet she applied the wrong version of the IPs for those standards. Thus, the City argues her testimony should be considered unpersuasive.

Because the concerns raised by SOS in regard to this issue are subsumed in other more specific issues, the ALJ does not analyze SOS's contentions here. Rather, the ALJ analyzes the stated concerns under the issues directly related to them. However, as noted in the other sections of this PFD related to those issues, the ALJ concludes that SOS's concerns lack sufficient evidentiary support and are outweighed by controverting evidence. Accordingly, after considering the totality of the evidence, the ALJ finds that the draft permit will be protective of water quality and the uses of the receiving waters under the applicable TSWQS.

D. Whether the proposed discharge will comply with the applicable antidegradation requirements.

1. The Parties' Arguments

The Commission's antidegradation policy is set out in 30 Texas Administrative Code § 307.5(b). Under that rule, Tier 1 requires that "existing uses and water quality sufficient to protect those existing uses must be maintained."⁵¹ Tier 2 requires that:

No activities subject to regulatory action that would cause degradation of waters that exceed fishable/swimmable quality are allowed unless it can be shown to the commission's satisfaction that the lowering of water quality is necessary for important economic or social development. Degradation is defined as a lowering of water quality by more than a de minimis extent, but not to the extent that an existing use is impaired. Water quality sufficient to protect existing uses must be maintained.⁵²

ED witness Lili Murphy testified that she performed both a Tier 1 and Tier 2 review for the proposed discharge.⁵³ Because Onion Creek is impaired in regard to sulfates, Ms. Murphy ensured in her Tier 1 review that the proposed discharge will not cause or contribute to the impairment.⁵⁴ The Tier 2 analysis was required because Onion Creek exceeds fishable or swimmable quality. In conducting her nutrient screening as part of the Tier 2 analysis, Ms. Murphy determined that a TP limit was needed and implemented one accordingly.⁵⁵ Otherwise, she concluded the proposed discharge complied with the applicable standards under Tier 1 and Tier 2 of the antidegradation requirements.⁵⁶

SOS argues that the ED's antidegradation analyses were not properly conducted and that the proposed discharge will violate both the Tier 1 and Tier 2 standards. SOS argues that Tier 1

⁵¹ 30 Tex. Admin. Code § 307.5(b)(1).

⁵² 30 Tex. Admin. Code § 307.5(b)(2).

⁵³ Ex. ED-LM-1 at 9-17.

⁵⁴ Ex. ED-LM-1 at 30.

⁵⁵ Ex. ED-LM-1 at 18.

⁵⁶ Ms. Murphy also recommended a TN limit to address concerns regarding protection of drinking water quality. Ex. ED-LM-1 at 18.

is violated because the evidence indicates that water quality sufficient to protect existing uses will not be maintained. But, SOS focuses the bulk of its arguments on Tier 2. SOS notes that Tier 2 prohibits a degradation of waters unless such is necessary for economic or social development. Degradation is defined as “a lowering of water quality by more than a de minimis extent.”⁵⁷ SOS asserts that degradation will occur because TP and TN loading of Onion Creek will increase significantly, *i.e.*, more than a de minimis amount, under the draft permit, and DO levels will be reduced significantly, again more than a de minimis amount. Therefore, SOS argues that degradation will occur, and this is only permissible upon a showing that such is necessary for important economic or social development—which has not been shown by the City in this case.

SOS also argues that the discharge will change the quality of Onion Creek from an “oligotrophic stream” with low nutrient concentrations, low algae growth, and high clarity, to a lesser quality trophic designation, based on the high nutrient loading that is likely to occur from the discharge.⁵⁸ According to SOS, this change is more than de minimis and thus must be evaluated as such under the TCEQ’s antidegradation policies.

The City asserts that the *prima facie* demonstration from the administrative record, as well as the testimony of the ED’s witness, Ms. Murphy, establishes that a proper antidegradation review was conducted and the proposed discharge will comply with the applicable antidegradation requirements. The City contends that SOS has presented no reliable evidence to the contrary, and simply arguing that Ms. Murphy’s analysis was incorrectly done is not enough to overcome the *prima facie* demonstration.

In regard to SOS’s evidence, the City points out that both Dr. Nowlin and Dr. Gabor admitted to lacking prior expertise with the TSWQS. Dr. Gabor testified that she had “not

⁵⁷ 30 Tex. Admin. Code § 307.5(b)(2).

⁵⁸ There are essentially three trophic states of streams recognized in the studies and literature: oligotrophic, mesotrophic, and eutrophic. These designations are intended to reflect the water quality in the streams (with eutrophic being the worst quality).

worked with the water quality standards to any significant degree.”⁵⁹ In her deposition, Dr. Gabor admitted she could not say what the TSWQS were, was not an expert on them, and had done no analysis to determine whether the permit would be compliant with the TSWQS.⁶⁰ She also stated in her deposition that she was not going to testify on whether the proposed discharge would comply with the applicable antidegradation requirements.⁶¹ However, after a break in the deposition and consultation with counsel for SOS, she reversed that statement and indicated that she would provide testimony related to that issue, even though she could not identify the applicable antidegradation requirements.⁶² Given this prior testimony from Dr. Gabor, the City asserts that her testimony on this issue is unreliable and should be given no weight, because she is clearly not an expert on the antidegradation requirements.

Similarly, Dr. Nowlin testified that he had “not worked in a significant way with the water quality and antidegradation standards.”⁶³ In his deposition, he testified that he was not an expert in the application of the TSWQS and was not going to testify whether the permit complied with the TSWQS.⁶⁴ But, like Dr. Gabor, he later modified his testimony and indicated that his testimony might address some of the antidegradation standards, even though he admitted he was not an expert in the Tier 2 assessment and could not testify as to how it should be conducted.⁶⁵ Given his statements, the City argues that his testimony is not reliable on this issue, because he also lacks the necessary expertise.

The City also argues that SOS’s only other expert, Dr. Ross, lacks the necessary expertise to address this issue. The City notes that Dr. Ross applied the wrong IPs (the implementation procedures) for the TSWQS. Specifically, in conducting her analysis and rendering an opinion, Dr. Ross applied the 2012 IPs, which have never been adopted. Rather, the 2003 and 2010 IPs

⁵⁹ SOS Ex. 5 at 11-12.

⁶⁰ Ex. APP-16 at 19.

⁶¹ Ex. APP-16 at 20.

⁶² Ex. APP-16 at 34-36.

⁶³ SOS Ex. 13 at 17.

⁶⁴ Ex. APP-15 at 16-17.

⁶⁵ Ex. APP-15 at 73.

are the applicable IPs, as they are the only ones that have been adopted.⁶⁶ Further, although Dr. Ross indicated she had expertise in regard to the TSWQS and the antidegradation analysis, the City points out that her past experience is limited to one project, for which she could not remember the details.⁶⁷ The City contends there is an insufficient basis to qualify her as an expert, especially because she did not apply the correct IPs. Based on this, the City asserts that her testimony lacks persuasive value. And, because all of SOS's experts allegedly lack the necessary expertise, their testimony on this issue allegedly is not reliable and does not rebut the prima facie demonstration.

In addition to the City, both the ED and OPIC conclude that a proper antidegradation analysis was performed. They argue that it shows that the proposed discharge will comply with the applicable antidegradation requirements.

2. The ALJ's Analysis

After considering the evidence and arguments, the ALJ finds the proposed discharge will comply with the applicable antidegradation requirements. In reaching this conclusion, the ALJ notes that SOS misinterprets the applicable antidegradation rule. SOS asserts that the increases in TP and TN and the change in DO are more than a de minimis amount. This, however, is not the standard. Rather, the standard for degradation is whether there is "a lowering of water quality by more than a de minimis extent."⁶⁸ The mere increase in TP or TN, standing alone, does not establish a lowering of water quality.⁶⁹ In fact, as discussed previously, some studies have shown that wastewater can have a beneficial effect on low-flow, low-nutrient streams by bringing more regularity to the flow and by increasing nutrients that can benefit aquatic life.

⁶⁶ Ex. ED-LM-1 at 7; Tr. at 498.

⁶⁷ Ex. APP-13 at 26.

⁶⁸ 30 Tex. Admin. Code § 307.5(b)(2).

⁶⁹ Certainly, increases of those nutrients may be the primary factor in lowering water quality (and a primary indicator of lower water quality), but a mere increase, standing alone without additional evidence of its specific impact, does not equate to a lowering of water quality.

Accordingly, it is not enough to show that TP or TN might be impacted by more than a de minimis amount; rather, it must be shown that those changes to TP and TN then result in a lowering of water quality by more than a de minimis amount. For example, if background TP is .002 mg/L and the discharge would raise that level to .006 mg/L, this would be a tripling of TP levels—which is clearly more than de minimis. But, the impact on water quality from such a change in TP may be negligible, because both .002 mg/L and .006 mg/L may be extremely low. As such, there would be no degradation under the rule, even though the change in TP level is arguably more than de minimis, because there is no significant (*i.e.*, more than de minimis) lowering in water quality. Or, the evidence could show that the addition of TN or TP might have beneficial effects on the water body. So, ultimately, the issue is whether the evidence demonstrates more than a de minimis lowering of water quality. The ALJ concludes that SOS's evidence does not make this showing.

SOS cites to the EPA's Water Quality Standards Handbook for the contention that any new discharges or expansion of a wastewater facility would presumably lower water quality.⁷⁰ However, such a broad generalization is not supportable. The determination of a lowering of water quality must be based upon evidence demonstrating such, not a presumption that a certain type of activity will *always* lower water quality. The ALJ construes that statement in the EPA handbook to be a generality and not a requirement that important economic and social development needs must be shown in every wastewater permit application (which would be the case if the ALJ were to read the handbook as SOS asserts it should be read). Thus, the ALJ finds that the evidence must first demonstrate a lowering of water quality that is more than de minimis before the Tier 2 requirement kicks in to show the existence of important economic and social development needs.

SOS has not presented evidence showing that the ED incorrectly applied the IPs in conducting the antidegradation review. None of SOS's experts have any meaningful experience with the TCEQ's antidegradation policies. Two of SOS's witnesses acknowledged their lack of experience, and one (Dr. Ross) stated that she was familiar with the policies from one prior case,

⁷⁰ SOS's Closing Argument at 13-14.

but could provide no details about that case or even its outcome.⁷¹ This limited experience does not establish Dr. Ross as an expert in the appropriate antidegradation review. The Commission has framed this issue as whether the proposed discharge “will comply with the applicable antidegradation requirements.” These requirements are set out by the TCEQ, and the ED’s expert, Ms. Murphy, is the witness most knowledgeable on them, having worked at the TCEQ for 19 years and reviewed more than 2,000 wastewater permits. While arguing with her approach generally, SOS’s experts do not point to any clear, specific errors in Ms. Murphy’s review. Rather, SOS’s experts attempted to conduct an alternative review to demonstrate there will be a lowering of water quality. The ALJ finds that analysis to be lacking, however.

Part of the analysis relied upon by SOS’s experts is based upon the assimilative capacity of Onion Creek. SOS notes that the TCEQ has used a 10% threshold in regard to assimilative capacity in its IP documents to determine whether there will be degradation. Namely, if a new discharge will use 10% or greater of the existing assimilative capacity of the stream, further evaluation is required.⁷² The IPs provide a method for calculating this 10% threshold, but go on to state that “[t]his screening procedure is not applicable to dissolved oxygen, pH, or temperature. The screening procedure for nutrients is explained in a previous chapter of this document in the section entitled ‘Nutrients.’”⁷³ Thus, the IPs do not apply the stated 10% assimilative capacity threshold analysis to DO, TP, or TN impacts, but rather use a different screening procedure.⁷⁴ SOS argues this 10% threshold should serve as a good measurement of what is considered “de minimis,” but the ALJ finds that such a conclusion is not warranted, as nothing in the Commission’s rules or guidance require it or apply it in the way SOS seeks to apply it. Therefore, SOS’s evidence regarding the impact of the proposed discharge on Onion Creek’s assimilative capacity for TN and TP is not relevant to the antidegradation analysis.

⁷¹ Contrary to SOS’s assertion, the ALJ does not see SOS’s experts’ lack of experience with the antidegradation policies as merely a lack of legal knowledge of a rule. Those policies represent practical environmental procedures.

⁷² Ex. ED-LM-3 at 63-64.

⁷³ Ex. ED-LM-3 at 64.

⁷⁴ Ex. ED-LM-3 at 26, *et seq.*

Moreover, the ALJ finds SOS's assertions regarding the trophic state of Onion Creek to be irrelevant to the analyses required in this case. The TCEQ's rules and IPs do not address a stream's trophic classification in the antidegradation policies.⁷⁵ In fact, the very use of trophic state designations is rather arbitrary. The evidence demonstrates that when the trophic state categorizations were developed, they were not based upon meeting certain defined standards, but were simply delineations based upon "thirds." Namely, the broad spectrum of water bodies that were studied were lumped together and then divided into three equal groups based upon their characteristics, with the delineations marked as oligotrophic, mesotrophic, and eutrophic in the original study underlying these designations.⁷⁶ The distinction between the stream at the highest end of the oligotrophic designation and the lowest end of the mesotrophic designation is not based upon specific differentiating characteristics, but simply where they fell in the overall spectrum of streams studied. If three more streams had been included in the data, all falling at the higher end of the overall range, the lowest mesotrophic stream would likely have been categorized as oligotrophic based not on any change in its characteristics, but simply where it fell in the spectrum of overall streams. The boundaries for the trophic categories were then based upon this division, and not upon specific defining characteristics. As such, the ALJ finds that the mere change in trophic state alone, based upon those categorizations, does not equate to a lowering of water quality necessitating a Tier 2 review.

Furthermore, the trophic boundary limits were actually based upon the mean levels of the identified nutrients. So, for example, the oligotrophic boundary of .025 mg/L of TP is the mean or "average" for the oligotrophic group.⁷⁷ Thus, even in the oligotrophic group, there will be streams with higher TP levels than .025 mg/L, as that level is not the maximum for the group, but simply the mean.⁷⁸ Therefore, even if Onion Creek does have ambient TP levels of

⁷⁵ Tr. at 602-03. While the TCEQ's screening procedures look at the potential for "eutrophication" (an excessive amount of nutrients in a water body), this is different from assigning a trophic state designation and evaluating for changes in trophic states generally.

⁷⁶ Tr. at 482-84.

⁷⁷ Tr. at 630-31.

⁷⁸ Tr. at 631.

.029 mg/L, this does not mean it automatically would no longer be considered oligotrophic, according to the original study underlying such classifications.

Even the guidance from the EPA discusses trophic state designations as simply guidance and a starting point for states to use when considering how to implement the Clean Water Act (CWA).⁷⁹ Texas has adopted its own methods for implementing the CWA, and EPA has accepted those methods; they do not include trophic state characterizations or analyses as part of the review. Therefore, the ALJ concludes that the alleged change in trophic state that SOS asserts will occur has not been adequately demonstrated to occur and, even if it had, is not a determinative consideration in evaluating whether the proposed discharge will comply with the applicable antidegradation requirements.

The ALJ also finds unpersuasive SOS's contention that Dr. Miertschen's own calculations showed more than a de minimis lowering of DO levels, thus demonstrating degradation. SOS points to the fact that Dr. Miertschen reported base line DO levels in Onion Creek between 6.89 mg/L and 8.42 mg/L, with a background DO level at critical temperature of 6.44 mg/L.⁸⁰ His DO modeling estimated a low, 24-hour average of 4.87 mg/L.⁸¹ SOS argues this change of more than 1.0 mg/L in DO levels is clearly more than de minimis and is a situation in which the TCEQ's guidance documents indicate "degradation is likely to occur," citing the TCEQ's own IPs.⁸²

However, the example cited in the TCEQ's documents is for a "water body that has exceptional quality aquatic life and a relatively unique and potentially sensitive community of aquatic organisms."⁸³ SOS concedes that Onion Creek is rated "high" and not exceptional; thus the example does not directly apply. Moreover, as noted previously in this PFD, even SOS's own expert, Dr. Ross, conceded that the DO limits in the draft permit are acceptable. While the

⁷⁹ Tr. at 484-85; SOS Ex. 7, attached Exhibit Q at iii and 27.

⁸⁰ AR, Tab C, Miertschen Technical Memorandum at 4.

⁸¹ AR, Tab C, Miertschen Technical Memorandum at 8.

⁸² Ex. ED-LM-3 at 66.

⁸³ Ex. ED-LM-3 at 66.

change in DO levels may be significant in SOS's opinion, they have not been shown to correlate to a lowering of water quality by more than a de minimis amount. Again, the evidence discussed in Section IV.A shows that the DO levels in the draft permit are protective of aquatic life, and any changes have not been demonstrated to constitute a *lowering of water quality* in a significant way, which is the focus of a Tier 2 antidegradation review.

Ultimately, the ALJ concludes that the ED conducted the proper analysis under the antidegradation requirements in the TCEQ rules. In contrast, SOS's experts do not have expertise on those requirements and did not conduct their analysis consistent with the Commission's antidegradation requirements and applicable IPs. After considering the persuasive evidence in the record, and the prima facie demonstration established under the law, the ALJ finds the proposed discharge will comply with applicable antidegradation requirements.

E. Whether the draft permit is protective of groundwater in the area.

SOS presented one witness directly on this issue, Dr. Ross, who testified regarding the connection between surface water and groundwater in the area. However, while she expressed concern about the possibility of contamination, she did not provide any analysis or supporting evidence demonstrating that groundwater will be negatively impacted by the discharged effluent.

In its closing arguments, SOS alleges that the draft permit will not protect groundwater in the area because it will allow discharge of TN up to 6 mg/L into a stream that has baseline TN levels of approximately 0.5 mg/L, and such stream is connected to wells supplying drinking water. Thus, SOS asserts that groundwater as a drinking water supply in Dripping Springs will be substantially degraded by TN concentrations in the wastewater, especially during times of low flow when the wastewater may provide most of the flow. SOS further notes that, in the event of spills, local drinking water supplies could be seriously contaminated. SOS concedes in its briefing that "drinking water standards for TN will likely not be violated,"⁸⁴ but it argues that

⁸⁴ SOS's Closing Argument at 24.

local water well quality will be significantly degraded if the draft permit is approved and implemented.

The City argues that no evidence has been offered on this issue to rebut the prima facie demonstration established by the administrative record. Moreover, the City cites the testimony of numerous witnesses and other significant evidence in the record as demonstrating that groundwater will be protected under the draft permit.⁸⁵ Further, the City notes the draft permit does not allow “spills,” so such an occurrence would violate the draft permit and should not be considered when analyzing whether “the draft permit is protective of groundwater in the area.”

Both the ED and OPIC contend the draft permit is protective of groundwater in the area. Both note that the effluent limits in the draft permit are more stringent than the effluent limits in the Edwards Aquifer rules and the local watershed rules. OPIC notes that the draft permit will protect surface water quality and, because the groundwater is recharged by the surface water, the groundwater will necessarily be protected as well.

Given the lack of controverting evidence on this issue, the ALJ concludes that the prima facie demonstration from the administrative record has not been rebutted. Thus, the administrative record demonstrates that the draft permit is protective of groundwater in the area. Moreover, there is significant evidence in the hearing record to demonstrate this as well.⁸⁶ Even SOS has conceded in its closing arguments that TN levels under the draft permit are not expected to exceed drinking water standards. Thus, the totality of the record clearly establishes that the draft permit is protective of groundwater in the area.

⁸⁵ See City’s Closing Statement at 41 for a detailed listing of the significant evidence on this issue.

⁸⁶ Ex. ED-JC-1 at 19-20; Ex. APP-5 at 9; Ex. APP-6 at 11-13; Ex. APP-8 at 5-7; Ex. APP-10 at 49-51.

F. Whether the draft permit should include a requirement for biomonitoring or Whole Effluent Toxicity testing.

The draft permit has a design flow of less than one million gpd and will not include any significant industrial contributors.⁸⁷ Therefore, biomonitoring or Whole Effluent Toxicity (WET) testing would not ordinarily be required.⁸⁸ SOS has presented no arguments and little evidence on this issue.⁸⁹ The limited evidence presented by SOS is sparse, unsupported, and does not rebut the prima facie demonstration of the administrative record. Therefore, the ALJ concludes that the record supports a finding that there is no need to include a requirement in the draft permit for biomonitoring or WET testing. The ED and OPIC agree with this determination.

G. Whether the proposed treatment process can satisfy the effluent limits in the draft permit.

SOS has presented no evidence or arguments on this issue. Because no evidence has been presented to rebut the prima facie demonstration of the administrative record, the ALJ concludes that the record supports a finding that the proposed treatment process can satisfy the effluent limits in the draft permit.⁹⁰ The ED and OPIC agree with this determination.

⁸⁷ Ex. ED-JC-1 at 21; Ex. APP-10 at 51-52.

⁸⁸ 30 Tex. Admin. Code § 307.6(e)(2)(A); Ex. ED-LM-3 at 102 (the IPs for TSWQS).

⁸⁹ In her prefiled testimony, Dr. Ross identified additional requirements that would apply if the draft permit allowed discharge of 1 million gpd (which it does not), and she opined it would be "important and protective to incorporate these requirements into" the draft permit. SOS Ex. 7 at 36-37. One of these requirements is WET testing. However, Dr. Ross offered no substantiating basis for her opinion other than it would provide additional protection. That something provides additional protection—without a foundational justification for why such additional protection is needed—is not a persuasive basis for requiring the additional protection. Further, in her deposition, Dr. Ross stated that she did not intend to testify on this issue. Ex. APP-13 at 79. Therefore, the ALJ concludes her testimony should be given limited weight.

⁹⁰ In addition to the administrative record's prima facie demonstration, the evidentiary record from the hearing also establishes that the proposed treatment process can satisfy the effluent limits in the draft permit. Ex. APP-3 at 5; Ex. ED-JC-1 at 21-24.

H. Whether the modeling analysis of the proposed effluent discharge is sufficient.

The ED's modeling analysis of the proposed effluent discharge was performed by James Michalk,⁹¹ using the QUAL-TX model. In its closing arguments, SOS argues that the City has not shown that Mr. Michalk's modeling was reliable and sufficient. However, SOS has presented no evidence that Mr. Michalk's modeling analysis or the QUAL-TX model itself are deficient and unreliable for modeling proposed effluent discharge.

In closing arguments, SOS contends it is not required to present evidence because the ALJ implicitly or explicitly rejected that requirement by denying the City's motion for partial summary disposition prior to the hearing. The ALJ disagrees with SOS on this point. The ALJ's ruling was a pragmatic one, finding that prudence and efficiency warranted denying the motion because it was raised in such close proximity to the hearing. The ALJ did not make a finding there was, in fact, an issue for which evidence was required from either the City or the ED at the hearing.⁹²

The draft permit creates a prima facie presumption that all applicable requirements are satisfied, warranting issuance of the permit. SOS offered no evidence to rebut this demonstration. Therefore, the ALJ finds the record establishes the modeling analysis of the proposed effluent discharge is sufficient. The ED and OPIC agree with this determination.

I. Whether the draft permit will protect against the creation of algal blooms.

This issue is addressed briefly under prior sections. However, the ALJ has reserved the bulk of the discussion of the potential for algal growth for this section.

⁹¹ Ex. ED-JC-1 at 24.

⁹² In fact, at the prehearing conference, the ALJ stated, "I am denying that motion not on its merits but more as a matter of procedural efficiency . . . I'm going to roll this issue into the arguments that the parties present in terms of their closing briefing and will address it in the final proposal for decision." Prehearing conference transcript at 5.

SOS argues that the significant increase in TP in Onion Creek from the effluent discharge will result in a drastic increase in algae growth. SOS points to photos taken by Dr. Miertschen showing algae in Walnut Springs from an unknown source as predictive for how Onion Creek will look if the draft permit is approved. Moreover, SOS notes that even Dr. Miertschen's QUAL2K modeling indicated there would be an order of magnitude increase in benthic (bottom) algae in Onion Creek below the discharge point. Despite this, Dr. Miertschen concluded that such algae growth will not impair aesthetic values of Onion Creek. SOS disagrees with this conclusion, faulting Dr. Miertschen's assumptions. For one, Dr. Miertschen assumed a baseline flow of 0.3 cfs, which is above the TCEQ's finding that critical low flows would be 0.12 cfs. This has the effect of diluting the TP levels in Dr. Miertschen's modeling, which also then results in a prediction of lower algae growth than would occur at the lower flow rate of 0.12 cfs. Moreover, SOS points out that Dr. Miertschen ran his model for only 30 days, whereas discharges under the draft permit would essentially be continuous for many years. Thus, SOS argues that Dr. Miertschen's analysis is flawed and does not accurately predict the potential for algae growth under the draft permit.

SOS's experts, Dr. Nowlin and Dr. Ross, both testified that .02 mg/L TP is the necessary limit to maintain the natural algal assemblages and to prevent weedy and nuisance algal species.⁹³ They base this conclusion upon studies performed by King and Taylor.⁹⁴ Because Dr. Nowlin predicts ambient TP as being at .029 mg/L with the wastewater discharge, he concludes that algae will grow to an unhealthy extent and become a nuisance.⁹⁵ Although he acknowledges that the discharge point is approximately 500 meters upstream from Onion Creek, he noted that the record was devoid of evidence showing the assimilative capacity of Walnut Springs to handle the phosphorus discharged. He concluded that, given the short distance and the relatively small size of Walnut Springs, phosphorus would reach Onion Creek.⁹⁶ Citing a City of Austin study, he opined that discharge of treated wastewater at the proposed location will lead to elevated

⁹³ SOS Ex. 13 at 13-14; SOS Ex. 7 at 23-24.

⁹⁴ SOS Ex. 7, attached exhibits S and T.

⁹⁵ SOS Ex. 13 at 12-15.

⁹⁶ SOS Ex. 13 at 14-15.

phosphorus concentrations up to six miles downstream from the discharge point and increase algal concentrations to eutrophic levels.⁹⁷

The City disputes the testimony of SOS's experts and asserts the only evidence directly addressing the potential for algae blooms was presented by the City's experts, especially Dr. Miertschen and Paul Price, an aquatic ecologist. Dr. Miertschen's QUAL2K modeling predicted nutrient concentrations and algal growth at critical low flow and temperature conditions and presuming a discharge at the full permitted effluent flow.⁹⁸ His modeling indicated that bottom algae growth will be approximately 44 milligrams of "Chlorophyll a" per square meter (mg Chl-a/m²) as an average value in the stream,⁹⁹ which, in his opinion, was "well below a visual threshold that would be deemed undesirable."¹⁰⁰

Mr. Price similarly opined he did not expect any visible algal blooms to be created from the discharges.¹⁰¹ He testified Onion Creek currently has low phosphorus levels because of local biological and geochemical processes that remove phosphorus from the water column in many Hill Country streams, and he noted these processes will continue to act upon the phosphorus levels in any effluent discharge.¹⁰² He opined that SOS's experts did not account for these local conditions and processes when they conducted their "simple dilution model" of expected phosphorus levels.¹⁰³ He testified a proper analysis must account for the local conditions and, when they are accounted for, there is not expected to be algal blooms created by the discharges.

The ED notes that the TSWQS address the potential for algal growth and are designed to ensure that nutrients from permitted discharges do not cause excessive growth of aquatic

⁹⁷ SOS Ex. 13 at 14-15.

⁹⁸ Ex. APP-10 at 27.

⁹⁹ Ex. APP-10 at 30.

¹⁰⁰ Ex. APP-10 at 32.

¹⁰¹ Ex. APP-7 at 23.

¹⁰² Ex. APP-7 at 12-14.

¹⁰³ Ex. APP-7 at 12-14, 26.

vegetation (such as algae).¹⁰⁴ The IPs for the TSWQS set out the TCEQ's procedures for ensuring compliance with the TSWQS. The ED's expert, Ms. Murphy, testified that she followed the IPs and performed nutrient screening to ensure that excessive algal growth would not occur.¹⁰⁵ As a result of her screening, she required a strict TP limit of 0.15 mg/L be added to the draft permit, and this limit is more stringent than that required by the Edwards Aquifer rule and the Colorado River Watershed rule. Ms. Murphy concluded that this strict TP standard, coupled with the TN standard, will protect against the creation of algal blooms.¹⁰⁶

OPIC supports the ED's position on this issue, finding that the ED properly considered the possibility of nutrient loading leading to algae growth and added a stringent limit for TP that is sufficient to prevent algal blooms.¹⁰⁷ Given the ED's nutrient screening and inclusion of a strict TP limit, as well as the other evidence in the record, OPIC asserts the weight of the evidence indicates the draft permit will protect against the creation of algal blooms.

After considering the evidence, the ALJ concludes that the draft permit is not expected to result in the creation of algal blooms. The various studies relied upon by SOS's experts do convincingly indicate that .02 to .025 mg/L TP is a point at which algae assemblage structures may be impacted and change. Below that range, the studies indicate that there will likely be synchronous declines in the frequency and cell densities of many algae species.¹⁰⁸ However, those studies present general parameters, and they recognize merely the possibility for change in algae frequency based upon TP levels above .02 mg/L. They do not, standing alone, mean that any ambient TP levels above .02 mg/L will automatically lead to algal blooms or nuisance algae.

As Mr. Price noted in his testimony, the changes that may occur (that are discussed by the studies) at issue in this case are relatively small, requiring a microscope to observe, and not

¹⁰⁴ 30 Tex. Admin. Code § 307.4(e).

¹⁰⁵ Ex. ED-LM-1 at 17-18, 32-33.

¹⁰⁶ Ex. ED-LM-1 at 32-33.

¹⁰⁷ Ex. ED-LM-1 at 32.

¹⁰⁸ SOS Ex. 7, attached exhibit T at 1, at summary point 3; SOS Ex. 7, attached exhibit S at 7.

observable in a natural setting.¹⁰⁹ While changes of this nature can still impact other aspects of aquatic life, this specific issue referred by the Commission addresses the potential for the creation of algal blooms—which are observable levels of algae that would be excessive and detrimental to aquatic life and create nuisance conditions. Given the relatively low predicted level of ambient TP and even using SOS's experts' simple calculations, the reports cited by those experts merely indicate that a closer evaluation is required.

In this case, the City's and the ED's experts conducted more detailed analyses and found that the expected TP levels would not lead to algae blooms. In contrast, SOS's experts simply relied upon the studies and opined that TP levels above .02 mg/L are expected to lead to algal blooms. Such is not persuasive in the face of the more detailed analyses and modeling done by the City's and the ED's experts specifically for the proposed discharge and water body involved.

Chlorophyll is a primary measure for algae.¹¹⁰ Dr. Miertschen analyzed the predicted mean benthic chlorophyll, and his modeling showed the anticipated levels to be a maximum of 50 mg/m². Dr. Ross accepted his calculations and relied on them in her testimony, and SOS offered a graph of his findings as an exhibit.¹¹¹ SOS argued that exceeding 20 mg/m² indicated that the water body was moving to the mesotrophic category. However, on rebuttal Dr. Miertschen pointed out that, according to the oligotrophic characterization study by Dodds, the highest level of chlorophyll for the oligotrophic group was 60 mg/m².¹¹² Thus, Dr. Miertschen concluded that Onion Creek, even with 50 mg/m² of chlorophyll, would still be within the oligotrophic group.¹¹³

Given the evidence, the ALJ concludes SOS's experts have not persuasively shown that algal blooms will occur due to the expected effluent discharges; they have merely shown a concern exists. The ED's and the City's experts addressed this concern by conducting site-

¹⁰⁹ Ex. APP-7 at 25-26.

¹¹⁰ Tr. at 284-85.

¹¹¹ SOS Ex. 9.

¹¹² Tr. at 632.

¹¹³ Tr. at 632-33.

specific analyses and lowering the TP limit for the draft permit. The additional analyses and modeling done, especially by Dr. Miertschen, demonstrates that algal blooms are not expected to be created, and the ALJ finds that evidence to be persuasive. Therefore, the ALJ finds the discharged effluent will not result in degradation of water quality or significant algae growth.

J. Whether the Commission should deny or alter the terms and conditions of the draft permit based on consideration of need under Texas Water Code § 26.0282, and the general policy to promote regional or area-wide systems under Texas Water Code § 26.081.

SOS contends the Commission should deny the permit because the City has failed to demonstrate a need for the treatment capacity sought. The City is currently discharging about 90,000 gpd of wastewater, but the draft permit would allow discharge of 822,500 gpd. SOS alleges that the City's own expert estimated that five-year growth projections would result in the City discharging 180,000 gpd—well below the 822,500 gpd allowed under the draft permit.¹¹⁴ Further, SOS notes that the City already has the permitted ability to treat up to 350,000 gpd of wastewater and then land-apply that treated sewage under a “no discharge” mandate.¹¹⁵

SOS notes that Section 402 of the CWA requires a five-year permitting cycle for state-delegated National Pollutant Discharge Elimination System (NPDES) permits as well as EPA permits, and that this five-year cycle is intentional and designed to encourage and facilitate the adoption of new technology as it becomes available. Given this, SOS argues the permitted amount should reflect the need during that time period—not the potential need decades in the future. SOS contends that there is simply no evidence warranting the discharge capacity sought to be permitted by the City in this case.

¹¹⁴ Tr. at 241. In actuality, the witness estimated flows could double to 180,000 gpd or even triple (which would take them to 270,000 gpd).

¹¹⁵ Tr. at 31.

The City disagrees with SOS's analysis and asserts that this five-year analysis was rejected by the Commission in a recent TPDES proceeding.¹¹⁶ There, the Commission specifically made findings that (1) authorizing only the additional capacity needed in the next five years would put the applicant in a continuous cycle of applying for permit amendments; (2) waiting too long to expand discharge capacity can be detrimental to water quality; (3) planning and building capacity to treat and discharge wastewater well ahead of the need for it is prudent; and (4) where additional discharge capacity would be needed in the future, the requested increases in discharge flow were warranted.¹¹⁷ Thus, the City argues that the draft permit should not be limited to just those flows that are expected in the next five years.

The City also has agreements to cancel some developers' wastewater treatment permits if this permit is issued. Specifically, the Arrowhead Development will receive wastewater treatment from the City if this permit is issued, and Hays County Development District No. 1 has agreed to cancel its wastewater discharge permit and will be receiving treatment services from the City going forward.¹¹⁸ Given this, as well as future projected growth needs in the City and surrounding area, the City argues that it should be granted the discharge capacity it seeks.

In regard to this issue, OPIC and the ED both assert the draft permit should not be denied or altered based on the consideration of need. The ED has determined that the draft permit would comply with the regionalization policy set out in Texas Water Code § 26.081, and that there is a demonstrated need for the facilities and discharge rates sought by the City.¹¹⁹

After considering the evidence and arguments, the ALJ finds the Commission should not deny or alter the terms and conditions of the draft permit based on consideration of need under

¹¹⁶ *Application of New Braunfels Utilities to Amend TPDES Permit No. WQ001023200*, TCEQ Docket No. 2015-0840-MWD, SOAH Docket No. 582-16-0149.

¹¹⁷ *Application of New Braunfels Utilities to Amend TPDES Permit No. WQ001023200*, TCEQ Docket No. 2015-0840-MWD, Final Order at 7, FOFs 55-58 (Feb. 1, 2017).

¹¹⁸ Ex. APP-9 at 24.

¹¹⁹ Ex. ED-JC-I at 25-26.

Texas Water Code § 26.0282 or the general policy to promote regional or area-wide systems under Texas Water Code § 26.081.

First, in regard to regionalization, granting the permit will actually encourage the statute's goals. Texas Water Code § 26.081 provides:

. . . it is necessary to the health, safety, and welfare of the people of this state to implement the state policy to encourage and promote the development and use of regional and area-wide waste collection, treatment, and disposal systems to serve the waste disposal needs of the citizens of the state and to prevent pollution and maintain and enhance the quality of the water in the state.

The City is seeking additional capacity so it can handle expected growth in the area, and also so it can assume existing wastewater treatment obligations from other entities with wastewater discharge permits. This is exactly the concept envisioned by the statute—a primary wastewater treatment facility and provider in the area, rather than numerous different permitted facilities. Thus, the draft permit clearly is consistent with regionalization goals.

In regard to need, the ALJ agrees that the evidence does not indicate that the City “needs” the full amount of discharge capacity it is currently seeking. The City is not likely to utilize that capacity within the next five years. The City's original projections in its preliminary engineering report indicated that slightly more than 500,000 gpd would be needed by 2022.¹²⁰ This is clearly much less than the 822,500 gpd allowed in the draft permit. But, the ALJ does not construe the statute as requiring a clear demonstration of need for the precise capacity being sought. Texas Water Code § 26.0282 provides:

In considering the issuance, amendment, or renewal of a permit to discharge waste, the Commission may deny or alter the terms and conditions of the proposed permit, amendment, or renewal based on consideration of need, including the expected volume and quality of the influent and the availability of existing or proposed areawide or regional waste collection, treatment, and disposal systems

¹²⁰ AR, Tab C at 693.

This statute does not require an applicant to demonstrate a precise need amount; rather, it allows the Commission to deny or alter a permit based on considerations of need.

As the ALJ reads the statute, it allows the Commission to consider need as a factor in determining whether to issue or alter a permit. For example, if there is a highly-demonstrated and urgent need, this might justify loosened permit requirements if permissible. Alternately, if there is a demonstration of a complete lack of need or a limited need, this might justify outright denial or tightening of permit requirements where permissible. But, the statute does not require any demonstration that the permitted amount is designed to precisely satisfy an existing or anticipated need before a permit will be issued. Rather, it is a more generalized analysis.

As noted by the City, the Commission has previously recognized that it is prudent to engage in longer-term planning for wastewater needs. Where it is anticipated that additional discharge capacity will be needed in the future, it is appropriate to grant increases in discharge flow beyond those immediately needed.¹²¹ In this case, the evidence establishes that the wastewater treatment needs in and around the City have been growing and are expected to continue to grow significantly in the coming years. While such needs may not currently exist or be anticipated in the next five years, the ALJ concludes it is prudent for the Commission to grant the draft permit so the City can prepare for and anticipate expected future needs, especially within the confines of regionalization. Issuing the permit with the expanded capacity encourages regionalization because it creates a wastewater treatment facility permitted and able to handle future needs in the area, thus limiting the likelihood that other entities will need or attempt to obtain a wastewater treatment permit to handle those needs.

Therefore, the ALJ recommends the Commission not deny or alter the draft permit based on consideration of need under Texas Water Code § 26.0282 or the general policy to promote regional or area-wide systems under Texas Water Code § 26.081.

¹²¹ *Application of New Braunfels Utilities to Amend TPDES Permit No. WQ001023200*, TCEQ Docket No. 2015-0840-MWD, Final Order at 7, FOFs 55-58 (Feb. 1, 2017).

K. Whether the Applicant's compliance history raises issues regarding the Applicant's ability to comply with the material terms of the permit that warrant denying or altering the terms of the draft permit.

SOS has not presented any evidence or arguments on this issue, and both OPIC and the ED have determined that the City's compliance history is acceptable and does not warrant denying or altering the draft permit. As noted previously, the legal framework of SB 709 provides a prima facie presumption that all standards are met with the issuance of the draft permit. Further, the evidence demonstrates that the City's compliance history is satisfactory.¹²² Therefore, the ALJ finds that both the affirmative evidence in the record, as well as the lack of any controverting evidence on this issue, supports a finding that the City's compliance history raises no concerns regarding its ability to comply with the material terms of the draft permit that warrant denying or altering the terms of the draft permit.

L. Whether the Applicant substantially complied with all applicable notice requirements.

Under Commission rules, an applicant for a waste discharge permit must include in the required notice of application and preliminary decision (NAPD) "a general description of the location of each existing or proposed discharge point and the name of the receiving water."¹²³

SOS contends that the City failed to provide sufficient notice because it did not provide an adequate description of the proposed discharge point in the public notices. SOS asserts that the alleged failure to adequately identify the proposed discharge point deprived members of the public of the ability to meaningfully participate in the hearing and protect their interests. The notices in issue described the discharge point as:

- The discharge route is from the plant site via pipe to Walnut Springs; thence to Onion Creek. (the NORI)¹²⁴

¹²² Ex. APP-1 at 7-8.

¹²³ 30 Tex. Admin. Code § 39.551(c)(4)(B).

¹²⁴ AR, Tab A at 4-5, 57-58.

- The treated effluent will be discharged to Walnut Springs; thence to Onion Creek in Segment No. 1427 of the Colorado River Basin.” (the NAPD and Notice of Hearing)¹²⁵

SOS points out that neither description gives an address for the discharge point, a description of the specific discharge point, or a distance or direction of the discharge point from the wastewater treatment plant site. SOS contends the discharge point is actually over a mile away from the treatment plant, and thus may affect residents who might not realize the permit’s impact on them given the treatment plant’s distance from them. In fact, when reviewing the permit, USFW staff requested clarification of the discharge point because they could not find the location on a map.¹²⁶ Given that those officials could not determine the discharge point, SOS asserts an ordinary member of the public would not be able to either, thus rendering the notices clearly deficient.

In response, the City notes that the rules require only a “general description of the location” of the discharge point, not a specific address. The City points out that the notices identify that the discharge will occur into Walnut Springs, a small tributary that flows into Onion Creek, and that “Walnut Springs” is a term used on USGS Quadrangle maps as the proper name for the receiving stream.¹²⁷ The City asserts that this adequately satisfies the requirement that a “general description” of the discharge point and the receiving stream be provided in the notice.

Both the ED and OPIC agree the City has complied with all applicable notice requirements. The ED points out the precise outfall location will be on property owned by Development Solutions CAT LLC, and both the NORI and NAPD were mailed directly to that entity. Further, the precise coordinates of the outfall location were provided by the City in the application materials and could be readily reviewed by anyone wishing to do so.¹²⁸

¹²⁵ AR, Tab A at 101-103.

¹²⁶ SOS Ex. 16.

¹²⁷ AR, Tab C at 669.

¹²⁸ AR, Tab C at 622.

After considering the evidence and arguments presented, the ALJ concludes that the City has substantially complied with all applicable notice requirements. First, the rules require only a “general description” of the discharge point and an identification of the receiving water. In this case, the City provided notice that the discharge would travel by pipe to Walnut Springs, and then into Onion Creek. Although the segment of Onion Creek identified is large, that is irrelevant, as the City identified that Onion Creek would be a receiving waterbody at the precise point that Walnut Springs flowed into it.

Moreover, Walnut Springs is an identified tributary on USGS maps.¹²⁹ It is relatively short in length and is known in the Dripping Springs area, as the record shows that a bridge that spans it is named the Walnut Springs Creek Bridge, and the developers for the Caliterra Subdivision identified Walnut Springs in the Concept Plan for the subdivision. The area of the discharge point has few natural descriptors that would have made any description more specific.¹³⁰ Although the City could have used the precise coordinates in the notice, they likely would have not been more helpful to average citizens. Moreover, those precise coordinates were available in the application materials, and the notices advised interested persons where they could access those application materials. There is no evidence that anyone was misled by the description of the discharge point, or that anyone would have participated in the hearing but chose not to because they misunderstood where the discharge point was.

Under the circumstances, the ALJ finds the description given by the City of the discharge point in the various notices satisfies the applicable notice requirements. The City provided a general description of the discharge point and clearly identified the receiving waters. Accordingly, the ALJ finds that the City substantially complied with all applicable notice requirements.

¹²⁹ Tr. at 235; AR, Tab C at 669.

¹³⁰ See SOS Ex. 17.

V. TRANSCRIPT COSTS

The City argues that SOS should bear 100% of the transcript costs because it was the sole reason a hearing was necessary. The City points out that it settled with all other parties, and argues that SOS was unwilling to discuss any reasonable settlement possibilities. In contrast, SOS argues that the relevant factors set out in the applicable rule support the City bearing all of the transcript costs. Neither the ED nor OPIC may be assessed transcript costs, so the costs may be apportioned only among the City and SOS.

The Commission's rules require consideration of the following factors in assessing transcription costs:

- (A) the party who requested the transcript;
- (B) the financial ability of the party to pay the costs;
- (C) the extent to which the party participated in the hearing;
- (D) the relative benefits to the various parties of having a transcript;
- (E) the budgetary constraints of a state or federal administrative agency participating in the proceeding;
- (F) in rate proceedings, the extent to which the expense of the rate proceeding is included in the utility's allowable expenses; and
- (G) any other factor which is relevant to a just and reasonable assessment of costs.¹³¹

Both the City and SOS participated in the hearing and requested a copy of the transcript. The City ordered a rush copy of the transcript, causing additional costs to be incurred, whereas SOS did not. The City has more resources than SOS, as SOS is a small non-profit. However, both parties have the financial ability to cover the costs associated with the transcript. All parties benefitted equally from having a transcript, although the City certainly has more at stake in this proceeding.

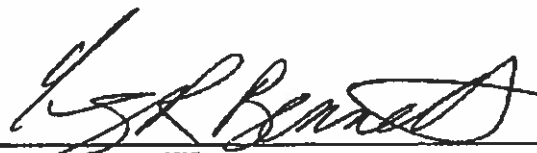
¹³¹ 30 Tex. Admin. Code § 80.23(d).

After considering the relevant factors, the ALJ recommends that SOS be required to reimburse the City the sum of \$1,000 for transcript costs. The City has spent \$7,447.30 for transcript costs,¹³² while SOS has spent approximately \$1,400.¹³³ This means that currently, the City has borne approximately 85% of the transcript costs while SOS has borne approximately 15%. The City's costs should be higher since it ordered a rush copy of the transcript. But, it should not have to bear as high a percentage as it has thus far. A reimbursement adjustment of \$1,000 will result in the City bearing approximately 72% of the transcript costs and SOS bearing approximately 28% of those costs. Given the City's deeper financial resources, the ALJ finds this is a fair allocation.

VI. CONCLUSION

In conclusion, the ALJ determines that the evidentiary record has demonstrated satisfaction of all applicable requirements and supports issuance of the permit sought. The ALJ further recommends that the Commission adopt all Findings of Fact and Conclusions of Law in the Proposed Order on these issues. The ALJ recommends that the Commission not adopt the parties' proposed Findings of Fact and Conclusions of Law which the ALJ did not include in the Proposed Order, based on the reasoning set out in the Proposal for Decision.¹³⁴

SIGNED November 16, 2018.



CRAIG R. BENNETT
ADMINISTRATIVE LAW JUDGE
STATE OFFICE OF ADMINISTRATIVE HEARINGS

¹³² See Exhibit A to Applicant's Closing Statement.

¹³³ SOS's Closing Argument at 39.

¹³⁴ 30 Tex. Admin. Code § 80.252(d).



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**AN ORDER
GRANTING THE APPLICATION BY
THE CITY OF DRIPPING SPRINGS FOR TEXAS POLLUTANT DISCHARGE
ELIMINATION SYSTEM PERMIT NO. WQ0014488003;
TCEQ DOCKET NO. 2017-1749-MWD;
SOAH DOCKET NO. 582-18-3000**

On _____, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the application of the City of Dripping Springs for a new Texas Pollutant Discharge Elimination System Permit in Hays County, Texas. A Proposal for Decision (PFD) was issued by Craig R. Bennett, Administrative Law Judge with the State Office of Administrative Hearings, and considered by the Commission.

The following are the only remaining parties to the proceeding: the City of Dripping Springs; the Executive Director of the TCEQ; Save our Springs Alliance; and the Office of Public Interest Counsel.

After considering the PFD, the Commission makes the following findings of fact and conclusions of law.

I. FINDINGS OF FACT

Application and Draft Permit

1. The City of Dripping Springs (City or Applicant) filed an application (Application) for a new Texas Pollutant Discharge Elimination System (TPDES) permit with the Texas Commission on Environmental Quality (TCEQ or Commission) on October 20, 2015.
2. The Application requests authorization to treat and discharge treated wastewater into a small tributary, Walnut Springs, which flows into Onion Creek in Hays County, Texas.
3. TCEQ's Executive Director (ED) declared the Application administratively complete on December 7, 2015.
4. The ED completed the technical review of the Application and prepared a draft permit (Original Draft Permit).
5. The Original Draft Permit proposed to authorize a daily average flow not to exceed 0.399 million gallons per day (MGD) in the Interim I phase, 0.4975 MGD in the Interim II phase, and 0.995 MGD in the Final phase.
6. On July 13, 2018, the ED completed an update to the technical review of the Application and prepared a revised draft permit that is the current subject of this case.
7. On July 23, 2018, the City moved to amend the Original Draft Permit and incorporate the terms of the amended draft permit into the Final Permit. The Administrative Law Judge (ALJ) granted the motion.
8. The amended draft permit (Draft Permit) made changes to the Original Draft Permit that included, among other things, a limit on the authorization to discharge in the Final Phase to .8225 MGD.

Notice and Jurisdiction

9. The Notice of Receipt of Application and Intent to Obtain Water Quality Permit (NORI) was published on December 24, 2015, in the *Austin American-Statesman*, a newspaper of general circulation in Hays County, the county in which the proposed facilities will be located. The NORI was published on December 24, 2015, in Spanish in the *Ahora Si*, a newspaper regularly circulated in Hays County, Texas.
10. After the ED completed the initial technical review of the Application, the Combined Notice of Public Meeting and the Notice of Application and Preliminary Decision (NAPD) was published on October 6, 2016, in the *Dripping Springs Century News*, a newspaper of general circulation in Hays County, and on October 11, 2016, in the *Austin American-Statesman*, a newspaper of general circulation in Hays County, Texas.
11. A public meeting was held on November 10, 2016, at the Dripping Springs Ranch Park in Dripping Springs, Hays County, Texas.

12. The public comment period ended at the close of the public meeting.
13. TCEQ received public comments on the Application, and the ED prepared a Response to Comments, which was filed with the Chief Clerk on October 31, 2017.
14. The ED filed a Final Decision Letter on November 8, 2017.
15. On March 12, 2018, the Commission issued an interim order granting requests for hearing on the Application filed by Alfred Albert, LLC; Richard & Sarah Beggs; Holton Burns; Reed Burns; Michelle Oyler; Jeff Root; RPC Investments; Umari Partners LP; Protect Our Water (POW); Save Barton Creek Association (SBCA); and Save Our Springs Alliance (SOS). In addition, the Commission referred the City of Austin's hearing request to the State Office of Administrative Hearings (SOAH) for a determination on whether the City of Austin qualified as an affected person. Finally, the Commission referred the Application to SOAH for an evidentiary hearing on the following twelve issues:
 - A. Whether the Draft Permit contains sufficient provisions to prevent nuisance odors, protect the health of the requesters and wildlife in the area, and be protective of the requesters' use and enjoyment of their property;
 - B. Whether the discharged effluent will violate the aesthetic parameters in 30 Texas Administrative Code § 307.4(b);
 - C. Whether the Draft Permit will be protective of water quality and the uses of the receiving waters under the applicable Texas Surface Water Quality Standards (TSWQS);
 - D. Whether the proposed discharge will comply with the applicable antidegradation requirements;
 - E. Whether the Draft Permit is protective of groundwater in the area;
 - F. Whether the Draft Permit should include a requirement for biomonitoring or Whole Effluent Toxicity Testing;
 - G. Whether the proposed treatment process can satisfy the effluent limits in the Draft Permit;
 - H. Whether the modeling analysis of the proposed effluent discharge is sufficient;
 - I. Whether the Draft Permit will protect against the creation of algal blooms;

- J. Whether the Commission should deny or alter the terms and conditions of the Draft Permit based on consideration of need under Texas Water Code (TWC) § 26.0282, and the general policy to promote regional or area-wide systems under TWC § 26.081;
- K. Whether the Applicant's compliance history raises issues regarding the Applicant's ability to comply with the material terms of the permit that warrant denying or altering the terms of the Draft Permit; and
- L. Whether the Applicant substantially complied with all applicable notice requirements.

16. Notice of the preliminary hearing at SOAH was published on April 6, 2018.

Proceedings at SOAH

- 17. The preliminary hearing was held at SOAH before ALJs William Newchurch and Laura Valdez on May 21, 2018.
- 18. At the May 21, 2018 preliminary hearing, the City filed the Administrative Record. At that time, the ALJs admitted numerous exhibits to establish jurisdictional requirements and address party standing issues and admitted the following as parties to this proceeding: AlfredAlbert, LLC; Richard & Sarah Beggs; Reed Burns; RPC Investments; Umari Partners LP; POW; SBCA; and SOS.
- 19. By order dated May 23, 2018, the ALJs granted party status for Barton Spring Edward Aquifer Conservation District and Hays Trinity Groundwater Conservation District and denied party status for the City of Austin.
- 20. The City supplemented the Administrative Record on June 14, 2018, and July 23, 2018.
- 21. Between July 6, 2018, and July 27, 2018, all protesting parties except SOS settled with the City and moved to withdraw as parties to this proceeding.
- 22. As of August 1, 2018, all protesting parties except SOS had been withdrawn from this proceeding, leaving only the following as parties to the contested case hearing: the City, the ED, TCEQ's Office of Public Interest Counsel (OPIC), and SOS.
- 23. The evidentiary hearing was held on August 20-22, 2018, with ALJ Craig R. Bennett presiding. All parties appeared through their respective representatives. The record closed on November 12, 2018, after the parties submitted written closing arguments and proposed findings of fact and conclusions of law.

Background Facts

24. The City is a Type A General Law City located in Hays County, Texas.
25. The City provides wastewater service to customers both inside and outside of its city limits.
26. The City currently operates a wastewater treatment plant (WWTP) and disposal site at 23127 Ranch-to-Market Road 150, Dripping Springs, Texas.
27. The City proposes to, and if issued the Draft Permit would allow the City to, construct a new WWTP, upgrade the existing WWTP, and abandon the subsurface drip irrigation requirement from its existing Texas Pollutant Discharge Elimination System (TPDES) permit.
28. If the Draft Permit is issued, the treated effluent will be discharged to Walnut Springs; and then to Onion Creek in Segment No. 1427 of the Colorado River Basin.
29. The unclassified receiving water use is minimal aquatic life use for Walnut Springs.
30. The designated uses for Segment No. 1427 are high aquatic life use, public water supply, aquifer protection, and primary contact recreation.
31. The Draft Permit, if issued, will allow three phases of operation as follows: (1) Interim I phase, which would allow 0.399 MGD to be discharged; (2) Interim II phase, which would allow 0.4975 MGD to be discharged; and (3) Final Phase, which would allow 0.8225 MGD to be discharged.
32. The Draft Permit, if issued, will impose the following effluent limitations:
 - The effluent limitations in the Interim I phase of the draft permit, based on a 30-day average, are: 5 milligrams per liter (mg/L) five-day carbonaceous biochemical oxygen demand (CBOD₅); 5 mg/L total suspended solids (TSS); 1.9 mg/L ammonia-nitrogen (NH₃-N); 0.15 mg/L total phosphorus (TP); 6 mg/L total nitrogen (TN); 126 colony forming units (CFU) or most probable number (MPN) of *Escherichia coli* (*E. coli*) per 100 milliliters (mL). In addition, for the Interim I phase, the Draft Permit requires that the effluent shall contain a minimum dissolved oxygen (DO) level of 6.0 mg/L and shall be monitored once per week by grab sample.
 - The effluent limitations in the Interim II phase of the draft permit, based on a 30-day average, are: 5 mg/L CBOD₅; 5 mg/L TSS; 1.7 mg/L NH₃-N; 0.15 mg/L TP; 6 mg/L TN; and 126 CFU or MPN of *E. coli* per 100 mL. In addition, for the Interim II phase, the Draft Permit requires that the effluent shall contain a minimum DO level of 6.0 mg/L and shall be monitored once per week by grab sample.

- The effluent limitations in the Final Phase of the draft permit, based on a 30-day average, are: 5 mg/L CBOD5; 5 mg/L TSS; 1.2 mg/L NH3-N; 0.15 mg/L TP; 6 mg/L TN; and 126 CFU or MPN of E. coli per 100 mL. In addition, for the Final Phase, the Draft Permit requires that the effluent shall contain a minimum DO level of 6.0 mg/L and shall be monitored once per week by grab sample.
33. The ED forwarded the draft permit to the United States Environmental Protection Agency (EPA) on September 6, 2016.
 34. The EPA sent the TCEQ an interim objection to the draft permit on December 1, 2016.
 35. The ED responded to EPA's interim objection on June 1, 2017.
 36. The EPA withdrew its objection on June 30, 2017.

Nuisance Odors

37. Bottom algae resulting from the proposed discharge will not rise to a nuisance level of growth and will not, therefore, cause nuisance odors should it perish and decay.
38. The CBOD5 limits in the Draft Permit serve to prevent nuisance odors.
39. The phosphorus limits in the Draft Permit serve to prevent nuisance odors.
40. The City has agreed by contract that it will incorporate covered headworks in its design for the WWTP, and such covered headworks will prevent nuisance odors.
41. The very stringent effluent limitations that are imposed by the Draft Permit will prevent nuisance odors.

Health of Humans and Wildlife

42. The TSWQS are developed to maintain the quality of surface waters in Texas so that it supports public health and enjoyment and protects aquatic life, consistent with the sustainable economic development of the State of Texas.
43. The TSWQS are designed to assure that waters of the state will not be toxic to aquatic life.
44. The TSWQS are designed to assure that drinking water quality specified in the federal Safe Drinking Water Act will be maintained.
45. As long as the TSWQS are satisfied, public health is ordinarily protected.
46. As long as the TSWQS are satisfied, aquatic life is ordinarily protected.

47. The Draft Permit incorporates some of the most stringent effluent limits of any permit issued in the State of Texas.
48. The effluent limits for CBOD5, ammonia-nitrogen, and minimum effluent DO were evaluated to ensure that instream DO concentrations will be maintained above the criteria applicable to Walnut Springs and Onion Creek, and are among the most stringent limits for these constituents assigned to any TPDES permit in the state.
49. The Draft Permit includes the most stringent TP limit of any municipal wastewater permit in the state, and also includes a TN limit that is one of the most stringent nitrogen-related effluent limits for any permit in the state.
50. The Draft Permit requires the effluent to be disinfected using ultraviolet (UV) light, which will preclude the formation of disinfection byproducts of chlorination.
51. To ensure the effluent is properly disinfected, the Draft Permit includes an effluent limit for E. coli of 126 CFU or MPN per 100 mL.
52. The effluent limits included in the Draft Permit are more stringent than those required under the Edwards Aquifer Rule (30 Texas Administrative Code § 213.6) and under the requirements specific to Onion Creek and its tributaries in the Colorado River Watershed Rule (30 Texas Administrative Code § 311.43), which are among the most stringent effluent limits prescribed by any watershed rule in the state.
53. The evidence does not indicate the discharges to be released, if approved as outlined in the Draft Permit, would negatively impact the Barton Springs salamander (*Eurycea sosorum*), Austin Blind salamander, or any other wildlife or endangered species.
54. Based on laboratory studies, salamanders exposed to DO concentrations at or higher than 4.4 mg/L are not expected to be adversely affected.
55. Barton Springs salamander abundance is highest when DO is between 5 to 7 mg/L.
56. The Draft Permit requires 6.0 mg/L minimum DO level, which protects salamanders.
57. Human health and wildlife are protected by the following requirements of the Draft Permit: (a) the requirement for UV disinfection; (b) the limit for coliform bacteria; (c) the CBOD limit; (d) the DO minimum level requirement; (e) the prohibition of discharge of floating solids or visible foam in other than trace amounts; (f) the prohibition on the discharge of visible oil; (g) the limit for TSS; (h) the TP limit; and (h) the TN limit.
58. Human health and wildlife are protected because the Draft Permit (a) does not allow the City to create or maintain a nuisance interfering with a landowner's use and enjoyment of his or her property; (b) has quantitative limits that are protective; (c) has disinfection requirements protective of potential contact with bacteria and other pathogens; and (d) has monitoring requirements providing an additional level of protection.

Use and Enjoyment of Property

59. Nitrogen and phosphorus limits included in the Draft Permit will preclude the excessive accumulation of algae; therefore, there should not be any interference with the use and enjoyment of property.
60. Use and enjoyment of property are protected by numerous provisions of the TCEQ's rules, including 30 Texas Administrative Code §§ 305.122(d) and § 305.125(16), which are incorporated into the Draft Permit.
61. Use and enjoyment of property are also protected because issuance of the permit does not authorize any injuries to persons or property, an invasion of other property rights, or any infringement of state or local statutes or regulations.
62. Use and enjoyment of property are also protected because the Draft Permit does not limit the ability of an individual to seek legal remedies against the City regarding any potential trespass, nuisance, or other causes of action in response to activities that may result in injury to human health or property or that may interfere with the normal use and enjoyment of property.
63. The facts noted previously demonstrating that issuance of the Draft Permit will not present a danger to human health or wildlife also demonstrate that the use and enjoyment of property will not be negatively impacted by issuance of the Draft Permit.

Aesthetic Parameters [30 Tex. Admin. Code § 307.4(b)]

64. The aesthetic parameters of 30 Texas Administrative Code § 307.4(b) are assured through narrative criteria and permit limits.
65. In this case, maintenance of the TSWQS will satisfy the aesthetic parameters of 30 Texas Administrative Code § 307.4(b).
66. Application of a QUAL2K model demonstrates that there will be no nuisance algae associated with the proposed discharge, so aesthetic parameters will be satisfied.

Texas Surface Water Quality Standards

67. The TSWQS are one of the primary mechanisms for the TCEQ to protect surface water quality in regards to human health, aquatic life, terrestrial life, and the aquatic environment.
68. The TSWQS include specific numeric and general narrative water quality criteria to protect the designated and existing uses of receiving waters.

69. The TCEQ's 2010 Procedures to Implement the TSWQS (RG-194) (IPs) set forth the procedures TCEQ uses when applying the TSWQS for permitting actions under the TPDES program to assure compliance with the TSWQS.
70. Because the proposed discharge is directly to an unclassified water body, the Application was reviewed by TCEQ staff in accordance with 30 Texas Administrative Code § 307.4(h) and (l) and applicable IPs.
71. The ED assessed Walnut Springs as intermittent and assigned a minimal aquatic life use with an associated DO criterion of 2.0 mg/L when water is present in the channel.
72. According to Appendix A of the TSWQS, Onion Creek in Segment 1427 of the Colorado River Basin has the designated uses of primary contact recreation, public water supply, aquifer protection, and high aquatic life use with an associated DO criterion of 5.0 mg/L.
73. The ED applied the appropriate IPs in developing the Draft Permit.
74. By applying the IPs, the ED established effluent limits that would satisfy the TSWQS and assure that the permit limits would be protective of aquatic life use.
75. The TSWQS are satisfied as shown by (a) the ED's application of appropriate review procedures; (b) extremely stringent limits incorporated into the Draft Permit; and (c) the ED's QUALTX water quality modeling.
76. The Draft Permit will be protective of water quality and the uses of the receiving waters under the applicable TSWQS.

Antidegradation Requirements

77. The ED completed an antidegradation review for the Draft Permit's proposed discharge in accordance with the TSWQS, specifically 30 Texas Administrative Code § 307.5, and the appropriate IPs.
78. An antidegradation review ensures that a proposed discharge does not impair the uses or degrade the water quality of the receiving waters.
79. Total dissolved solids (TDS) screening is not required for this Draft Permit because the TDS antidegradation procedures are only applicable to domestic dischargers that have an average permitted flow of 1 MGD or greater, industrial major facilities, and industrial minor facilities on a case-by-case basis. The proposed discharge does not satisfy any of these criteria to trigger TDS screening.
80. As part of the Tier 1 antidegradation review, permits for discharges to listed water bodies are evaluated to determine that the proposed discharge will not allow an increase in the loading of a listed pollutant that will cause or contribute to the violation of water quality standards.

81. **Onion Creek Segment 1427 is listed as an impaired water body on the state's inventory of impaired water bodies.**
82. **Because Onion Creek is listed as impaired for sulfates, the ED screened the proposed discharge for sulfates to ensure the discharge would not cause or contribute to the impairment.**
83. **The ED concluded through its antidegradation review that that the proposed discharge would not cause or contribute to the impairment of Onion Creek.**
84. **As part of TCEQ's Tier 1 antidegradation review, the ED determined the designated DO criterion for Onion Creek to protect those uses by referencing the TSWQS, specifically, 30 Texas Administrative Code § 307.10(1), Appendix A-Site-specific Uses and Criteria for Classified Segments.**
85. **The ED included DO criteria in the Draft Permit that will protect the existing uses of Onion Creek.**
86. **The purpose of a Tier 2 antidegradation review is to protect and maintain the water quality of water bodies that exceed fishable/swimmable quality.**
87. **The ED conducted a Tier 2 antidegradation review consistent with the TSWQS and the IPs, concluded that a TP limit was needed, and imposed a TP limit in the Draft Permit that will protect and maintain the water quality of water bodies that exceed fishable/swimmable quality downstream of the discharge.**
88. **The antidegradation requirements have been satisfied because (a) DO will be maintained at concentrations that support a healthy aquatic life community; (b) a phosphorous limit has been imposed to assure that the proposed discharge will protect and maintain the water quality of water bodies that exceed fishable/swimmable quality downstream of the discharge; (c) the ED performed Tier 1 and Tier 2 reviews in accordance with the TSWQS and the IPs; and (d) the City's supplemental QUAL2K modeling analysis shows minimal algal growth.**
89. **A Tier 1 antidegradation review confirmed that existing water quality uses will not be impaired by issuance of the Draft Permit, and that numerical and narrative criteria to protect existing uses will be maintained.**
90. **A Tier 2 review confirmed that no significant degradation of water quality is expected in Onion Creek, which has been identified as having high aquatic life uses, such that the existing uses will be maintained and protected.**
91. **The proposed discharge will comply with the applicable antidegradation requirements.**

Groundwater

92. Groundwater in the area of the proposed discharge will be protected by (a) compliance with TSWQS and 30 Texas Administrative Code chapter 213, Subchapter A; (b) effluent requirements that are more stringent than the Edwards Aquifer Recharge Rule; (c) effluent requirements that are more stringent than the rules pertaining to Onion Creek and its tributaries found at 30 Texas Administrative Code § 311.43(a), (d) the existing karst ability to clean water; (e) dilution, evapotranspiration, and other natural processes; and (f) dispersion, sorption, microbial degradation, and chemical processes.
93. Protection of surface water by complying with the TSWQS also protects groundwater.
94. The Draft Permit is protective of groundwater in the area of the proposed discharge.

Biomonitoring or Whole Effluent Toxicity Testing

95. As set out in the IPs, major domestic wastewater facilities are those that have a design flow of 1 MGD or greater or an EPA-approved pretreatment program with significant industrial users discharging into the collection system.
96. The Draft Permit only allows a design flow of less than 1 MGD, and the WWTP will not include any significant industrial contributors. Thus, biomonitoring or Whole Effluent Toxicity (WET) testing is not required.
97. The record does not demonstrate a need for biomonitoring or WET testing.

Proposed Treatment Process Ability to Satisfy the Effluent Limits

98. No party provided any evidence to challenge whether the proposed treatment process can satisfy the effluent limits in the Draft Permit.
99. The liquid stream treatment process proposed by the City is preliminary treatment followed by four-stage Bardenpho secondary treatment with external carbon addition, tertiary filtration with chemical addition, and final disinfection.
100. The proposed four-stage Bardenpho treatment process is biological nutrient removal and will be used for ammonia and nitrogen removal.
101. The proposed four-stage Bardenpho treatment process, coupled with external carbon addition, will be able to achieve the effluent ammonia and TN concentrations required by the Draft Permit.
102. Phosphorus will be removed by chemical (alum) precipitation and tertiary effluent media filtration. This process can achieve effluent TP concentrations required by the Draft Permit.

103. The proposed secondary and tertiary treatment process in tandem can achieve the CBOD and TSS concentration required by the Draft Permit.
104. The four-stage Bardenpho process proposed by the City is capable of reducing TP concentrations in the final effluent to at or below the Draft Permit limits for phosphorous.
105. The proposed treatment process can satisfy the effluent limits in the Draft Permit.

Modeling Analysis

106. The ED conducted QUALTX modeling for the proposed discharge consistent with its usual practice and in accordance with the IPs.
107. The City conducted QUAL2K modeling for the proposed discharge and also conducted the same QUALTX modeling done by the ED.
108. The QUALTX modeling results for the proposed discharge confirmed that predicted DO levels would be maintained in Onion Creek.
109. The QUAL2K modeling showed that the effluent would not harm water quality.
110. The modeling analysis of the proposed discharge is sufficient.

Algal blooms

111. Although QUAL2K modeling was not required for processing the Application, the QUAL2K model predicts nutrient concentrations and algal growth at critical low flow and temperature conditions and presuming a discharge at the full permitted effluent flow.
112. With the proposed discharge in place, the model results indicate that bottom algae growth will be approximately 44 milligrams of Chlorophyll a per square meter (mg Chl-a/m²) as an average value in the stream, with the location of this reading being at the end of the free-flowing reach below Caliterra Pond or at the beginning of the pooled reach below that point.
113. The predicted benthic chlorophyll-a level of 44 mg Chl-a/m² within one short reach of Onion Creek is well below a visual threshold that would be deemed undesirable.
114. The Draft Permit will protect against the creation of algal blooms.

Need

115. Hays County has experienced tremendous growth over the last 10 years with its population increasing by more than 60 percent.
116. The Dripping Springs area has seen significant growth as well.

117. Numerous developments are already underway in the area with more subdivision projects approved and contemplated.
118. To address this growth, it is beneficial to have sufficient wastewater infrastructure in place and available capacity to commit to newcomers.
119. The City has already made commitments for much of the available wastewater capacity.
120. The City has had to impose additional requirements on new developments because it does not yet have the permit sought by the Application.
121. Authorizing only the additional capacity the City will need five years from now would put the City in a continuous cycle of applying for permit amendments, which is neither necessary nor reasonable.
122. The City evaluated projected wastewater flows and showed that it will need as much as 1 MGD of wastewater capacity by the year 2028.
123. The City has demonstrated its need for the additional proposed discharge allowed by the Draft Permit.

General Policy to Promote Regional or Area-Wide Systems

124. Granting the Draft Permit will allow the City to provide wastewater service to existing and future residents in the area.
125. Granting the Draft Permit will reduce the need for other entities to seek wastewater treatment capacity in the Dripping Springs area, thus promoting regionalization.

Compliance History

126. The City's compliance history is satisfactory.
127. No additional oversight based on the City's compliance history is warranted.
128. The City's compliance history does not raise issues regarding the City's ability to comply with the material terms of the Draft Permit that warrant denying or altering the terms of the Draft Permit.

Notice Requirements

129. TCEQ rules require that the notice provides a general description of the location of each existing or proposed discharge point and the name of the receiving water.
130. The NORI described the discharge route as being "from the plant site via pipe to Walnut Springs; thence to Onion Creek."

131. The NORI provides a general description of the proposed discharge point and the name of the receiving water.
132. The NAPD and the Notice of Hearing describe the discharge route by stating "The treated effluent will be discharged to Walnut Springs; thence to Onion Creek in Segment No. 1427 of the Colorado River Basin."
133. The NAPD and Notice of Hearing provided a general description of the proposed discharge point and the name of the receiving water.
134. United States Geological Survey Quadrangle maps use Walnut Springs as the proper name for the receiving stream.
135. The City substantially complied with all applicable notice requirements.

Transcription Costs

136. Pursuant to 30 Texas Administrative Code § 80.23(d)(3), the ALJ shall include in the PFD a recommendation for the assessment of costs.
137. Kennedy Reporting (Kennedy) personnel attended and prepared a transcript of the hearings.
138. The total costs for Kennedy's transcription and reporting services was \$7,447.40, exclusive of costs incurred by individual parties. The City has paid this total cost.
139. Both the City and SOS participated in the hearing and requested a copy of the transcript.
140. The City ordered a rush copy of the transcript, causing additional costs to be incurred, whereas SOS did not order a rush copy.
141. The City has more resources than SOS, as SOS is a small non-profit. However, both parties have the financial ability to cover the costs associated with the transcript.
142. All parties benefitted equally from having a transcript, although the City has more to benefit from this proceeding.
143. It is reasonable and appropriate for SOS to reimburse the City \$1,000 for transcript costs.

II. CONCLUSIONS OF LAW

1. TCEQ has jurisdiction over this matter. Tex. Water Code chs. 5, 26.
2. SOAH has jurisdiction over this hearing process and the authority to issue a proposal for decision with findings of fact and conclusions of law. Tex. Water Code §§ 5.311, 26.021; Texas Gov't Code ch. 2003.
3. Notice of the Application and the hearing were properly provided to the public and to all parties. Tex. Water Code §§ 5.115, 26.028; Tex. Gov't Code §§ 2001.051-.052; 30 Tex. Admin. Code §§ 39.405, .551.
4. The Application is subject to the requirements in Senate Bill (SB) 709, effective September 1, 2015. Tex. Gov't Code § 2003.047(i-1)-(i-3).
5. The City's filing of the Administrative Record established a prima facie case that (i) the Draft Permit meets all state and federal legal and technical requirements; and (ii) a permit, if issued consistent with the Draft Permit, would protect human health and safety, the environment, and physical property. Tex. Gov't Code § 2003.047(i-1).
6. Except in regard to exceptions that do not apply to this case, TCEQ rules prohibit the use of analytical data in permitting decisions unless the samples are tested at a lab that is accredited by the National Environmental Laboratory Accreditation Program (NELAP). 30 Tex. Admin. Code § 25.4(a)(1).
7. The Draft Permit contains sufficient provisions to prevent nuisance odors.
8. The Draft permit contains sufficient provisions to protect the health of the requesters and wildlife in the area.
9. The Draft Permit contains sufficient provisions to protect the requesters' use and enjoyment of their property.
10. The discharged effluent under the Draft Permit will not violate the aesthetic parameters in 30 Texas Administrative Code § 307.4(b).
11. The Draft Permit will be protective of water quality and the uses of the receiving waters under the applicable TSWQS. 30 Tex. Admin. Code ch. 307.
12. The proposed discharge under the Draft Permit will comply with the applicable antidegradation requirements. 30 Tex. Admin. Code § 307.5(b).
13. The Draft Permit is protective of groundwater in the area.
14. The Draft Permit should not include a requirement for biomonitoring or WET testing.
15. The City's proposed treatment process can satisfy the effluent limits in the Draft Permit.

16. The modeling analysis of the proposed effluent discharge under the Draft Permit is sufficient.
17. The Draft Permit will protect against the creation of algal blooms.
18. The terms and conditions of the Draft Permit do not need to be altered based on consideration of need under Texas Water Code § 26.0282 or the general policy to promote regional or area-wide systems under Texas Water Code § 26.081.
19. There are no concerns with the City's compliance history that warrant denying or altering the terms of the Draft Permit.
20. The City has substantially complied with all applicable notice requirements.
21. Requiring SOS to reimburse the City \$1,000 of the reporting and transcription costs for the hearing on the merits is a reasonable allocation of costs. Except for this reimbursement, requiring all parties to bear their own associated costs for the reporting and transcription of the hearing on the merits is a reasonable allocation of costs. 30 Tex. Admin. Code § 80.23(d).

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, IN ACCORDANCE WITH THESE FINDINGS OF FACT AND CONCLUSIONS OF LAW, THAT:

1. The application of the City of Dripping Springs for Texas Pollutant Discharge Elimination System Permit No. WQ0014488003 is granted.
2. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief, if not expressly granted herein, are hereby denied.
3. The effective date of this Order is the date the Order is final, as provided by Texas Government Code § 2001.144 and 30 Texas Administrative Code § 80.273.
4. TCEQ's Chief Clerk shall forward a copy of this Order to all parties.
5. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any provision shall not affect the validity of the remaining portions of this Order.

ISSUED:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Jon Niermann, Chairman For the Commission

Item 4

Presentations

Presentation by the District's financial auditor on the FY 2018 Annual Financial Audit Report.

Item 5

Board Discussions and Possible Actions

- a. Discussion and possible action for finalizing November 6, 2018 general elections including presentation of Certificate of Election to newly-elected directors; completion of statement of officer; administering oath of office to directors; and approval of bond.**

STATEMENT OF ELECTED/APPOINTED OFFICER

(Pursuant to Tex. Const. art. XVI § 1(b), amended 2001)

I, **Blayne Stansberry**, do solemnly swear, that I have not directly or indirectly paid, offered, promised to pay, contributed or promised to contribute any money or thing of value, or promised any public office or employment for the giving or withholding of a vote at the election at which I was elected or as a reward to secure my appointment or confirmation, whichever the case may be, so help me God.

UNDER PENALTIES OF PERJURY, I DECLARE THAT I HAVE READ THE FOREGOING STATEMENT AND THAT THE FACTS STATED THEREIN ARE TRUE.

Date

Affiant's Signature

Director, Precinct 2
Position to which Elected/Appointed

Barton Springs/Edwards Aquifer
Conservation District

In the Name and by the Authority of

The State of Texas

OATH OF OFFICE

I, **Blayne Stansberry**, do solemnly swear that I will faithfully execute the duties of the office of **DIRECTOR, PRECINCT 2**, of the Barton Springs/Edwards Aquifer Conservation District, of the State of Texas, and will to the best of my ability preserve, protect, and defend the Constitution and laws of the United States and of this State, so help me God.

Affiant

SWORN TO and subscribed before me by _____ on this 13th day of December, 2018.

Signature of Person Administering Oath

Printed Name

Title



In the name and by the authority of

The State of Texas

THIS IS TO CERTIFY, that Blayne Stansberry was duly elected for purposes of the November 6, 2018 election, pursuant to the Order Cancelling Election issued on September 13, 2018, cancelling the election that was scheduled to be held on November 6, 2018 for Director Precinct 2 of the Barton Springs Edwards Aquifer Conservation District.

In testimony whereof, I have hereunto signed my name and caused the Seal of the Barton Springs/Edwards Aquifer Conservation District to be affixed at the District office this the 13th day of December, 2018.

**Signature of Presiding Officer of
Canvassing Authority**

STATEMENT OF ELECTED/APPOINTED OFFICER

(Pursuant to Tex. Const. art. XVI § 1(b), amended 2001)

I, **Craig Smith**, do solemnly swear, that I have not directly or indirectly paid, offered, promised to pay, contributed or promised to contribute any money or thing of value, or promised any public office or employment for the giving or withholding of a vote at the election at which I was elected or as a reward to secure my appointment or confirmation, whichever the case may be, so help me God.

UNDER PENALTIES OF PERJURY, I DECLARE THAT I HAVE READ THE FOREGOING STATEMENT AND THAT THE FACTS STATED THEREIN ARE TRUE.

Date

Affiant's Signature

Director, Precinct 2
Position to which Elected/Appointed

Barton Springs/Edwards Aquifer
Conservation District

In the Name and by the Authority of

The State of Texas

OATH OF OFFICE

I, **Craig Smith**, do solemnly swear that I will faithfully execute the duties of the office of **DIRECTOR, PRECINCT 5**, of the Barton Springs/Edwards Aquifer Conservation District, of the State of Texas, and will to the best of my ability preserve, protect, and defend the Constitution and laws of the United States and of this State, so help me God.

Affiant

SWORN TO and subscribed before me by _____ on this 13th day of December, 2018.

Signature of Person Administering Oath

Printed Name

Title



In the name and by the authority of

The State of Texas

THIS IS TO CERTIFY, that Craig Smith was duly elected for purposes of the November 6, 2018 election, pursuant to the Order Cancelling Election issued on September 13, 2018, cancelling the election that was scheduled to be held on November 6, 2018 for Director Precinct 5 of the Barton Springs Edwards Aquifer Conservation District.

In testimony whereof, I have hereunto signed my name and caused the Seal of the Barton Springs/Edwards Aquifer Conservation District to be affixed at the District office this the 13th day of December, 2018.

**Signature of Presiding Officer of
Canvassing Authority**

Item 5

Board Discussions and Possible Actions

b. Discussion and possible action related to the receipt and approval of the FY 2018 Annual Financial Audit report provided by the District's financial auditor.

Item 5

Board Discussions and Possible Actions

c. Discussion and possible action on an update from Sledge Law Group on the 86th Legislative Session.

Item 5

Board Discussions and Possible Actions

- d. Discussion and possible action related to approving the District's FY 2018 Annual Report including Appendix B and submitting it to the TCEQ.**

Item 5

Board Discussions and Possible Actions

- e. Discussion and possible action on the six-month review and employment of the General Manager.**

Summary Performance Evaluation of the General Manager

Evaluation Period

General Manager

Date of Evaluation

Overall Skills Evaluation

€ Does Not Meet Expectations	€ Meets Expectations	€ Exceeds Expectations
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Achievement of Annual Objectives (Not applicable)

€ Did Not Achieve/Make Substantial Progress	€ Achieved/Made Substantial Progress
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A summary on the following page provides a record of the overall assessment of the general manager’s performance over the past year including: 1) a general assessment of the skills relevant to the job of General Manager, and 2) an assessment of progress made towards achieving the annual objectives established for the General Manager.

I. Core Duties, Responsibilities, and Relevant Skills

In assessing the performance of the General Manager, the Board will consider whether the General Manager did not meet, met, or exceeded expectations for the following duties and relevant skills:

- a) Overarching Duties: Implement Board-established Policies: Provide Internal and External Leadership: Serve as Advocate/Liaison Between Board and Staff
- b) Programmatic Planning and Execution
- c) Stakeholder Relationship Development and Communication
- d) Financial Administration of District

II. Progress Towards Achievement of Objectives for the General Manager

In assessing the performance of the General Manager, the Board will consider whether the General Manager did or did not make substantial progress towards achieving the Board-approved Objectives for the Fiscal Year (see attached).

Part I - Core Duties, Responsibilities, and Relevant Skills

Relevant Skill 1.a:	Implement Board-established Policies , Provide Internal and External Leadership, Serve as Advocate/Liaison Between Board and Staff		
Evaluation:	€ Does Not Meet Expectations	€ Meets Expectations	€ Exceeds Expectations
Comment:			

Relevant Skill 1.b:	Staff Management and Development		
Evaluation:	€ Does Not Meet Expectations	€ Meets Expectations	€ Exceeds Expectations
Comment:			

Relevant Skill 1.c:	Programmatic Planning and Execution		
Evaluation:	€ Does Not Meet Expectations	€ Meets Expectations	€ Exceeds Expectations
Comment:			

Relevant Skill 1.d:	Financial Administration of District		
Evaluation:	€ Does Not Meet Expectations	€ Meets Expectations	€ Exceeds Expectations
Comment:			

General Comments:

Part II – Objectives Assessment

Objective		
Evaluation:	€ Did Not Achieve/Make Substantial Progress	€ Did Achieve/Make Substantial Progress
Comment:		

Objective		
Evaluation:	€ Did Not Achieve/Make Substantial Progress	€ Did Achieve/Make Substantial Progress
Comment:		

Objective		
Evaluation:	€ Did Not Achieve/Make Substantial Progress	€ Did Achieve/Make Substantial Progress
Comment:		



SIGNATURE PAGE

Employee's Comments (Optional): *(May attach additional sheet)*

Employee's Signature

Date

I have received a copy and discussed this appraisal with my supervisor. I am aware of the appeal process and understand that I may include detailed comments of my own concerning this appraisal.

Board President's Signature

Date

Item 5

Board Discussions and Possible Actions

- f. Discussion and possible action related to the annual election of the officers of the Board of Directors.**

Item 6

Director's Reports

Directors' Reports.

Directors may report on their involvement in activities and dialogue that are of likely interest to the Board, in one or more of the following topical areas:

- **Meetings and conferences attended or that will be attended;**
- **Committee formation and updates;**
- **Conversations with public officials, permittees, stakeholders, and other constituents;**
- **Commendations; and**
- **Issues or problems of concern.**

Item 7

Adjournment