

State Office of Administrative Hearings

Kristofer S. Monson
Chief Administrative Law Judge

November 27, 2023

VIA E-FILE TEXAS

Mary Smith
General Counsel
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. F, Room 4225
Austin Texas 78753

RE: SOAH Docket Number 582-22-1990.TCEQ; TCEQ Docket No. 2021-1391-WR; Application of San Antonio Water System for Water Use Permit No. 13098

Dear Ms. Smith:

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.

Please find attached the Proposal for Decision and 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 January 22, 2024. Any replies to exceptions or briefs must be filed in the same manner no later than February 2, 2024. The ALJs understand the parties will be filing a request for an extension of these deadlines and are unopposed to it.

This matter has been designated TCEQ Docket No. 2021-1391-WR; SOAH Docket No. 582-22-1990. 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://www14.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.

CC: Service List

**BEFORE THE
STATE OFFICE OF ADMINISTRATIVE
HEARINGS**

**APPLICATION OF SAN ANTONIO WATER SYSTEM FOR
WATER USE PERMIT NO. 13098**

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**BEFORE THE
STATE OFFICE OF ADMINISTRATIVE
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**APPLICATION OF SAN ANTONIO WATER SYSTEM FOR
WATER USE PERMIT NO. 13098**

PROPOSAL FOR DECISION

The San Antonio Water System (SAWS or Applicant) seeks approval from the Texas Commission on Environmental Quality (TCEQ or Commission) of its Application for Water Use Permit No. 13098 (Application). The draft water use permit, Permit No. 13098 (Draft Permit),¹ would allow SAWS to use the bed and banks of the Medina River, Salado Creek, Comanche Creek, Leon Creek, Medio Creek, San Antonio River, San Antonio River Basin, Guadalupe River, and Guadalupe River Basin to convey 260,991 acre-feet (AF) per year, less carriage losses, of groundwater-based return flows for subsequent diversion from a reach on

¹ Ex. ED-3.

the Guadalupe River, for municipal, agricultural, industrial, mining, and instream purposes in Bexar, Calhoun, Goliad, Karnes, Refugio, Victoria, and Wilson counties.

Guadalupe-Blanco River Authority (GBRA) and Union Carbide Corporation (UCC) (collectively, Protestants) argue that the Application should be denied or alternatively that the Draft Permit should be amended to protect their senior water rights. The Office of Public Interest Counsel (OPIC) recommends that the Draft Permit should be issued, but with a modification of the accounting plan, followed by a technical review of those modifications. The Commission's Executive Director (ED) supports the issuance of the Draft Permit.

The Administrative Law Judges (ALJs) find that although SAWS has generally met the requirements for issuance of Permit No. 13098, additional special conditions are necessary to protect Protestants' water rights that were granted based on the use or availability of the return flows SAWS seeks to divert. SAWS's accounting plan should also be amended to incorporate travel times and to account for any losses between GBRA's saltwater barrier and the proposed diversion reach.

I. PROCEDURAL BACKGROUND

The Application was filed on December 30, 2013. The TCEQ Commissioners considered Protestants' hearing requests in this matter on February 9, 2022. By Interim Order dated February 14, 2022, the Commission referred GBRA's request to the State Office of Administrative Hearings (SOAH) to hold a contested case hearing on the application.

ALJ Rebecca S. Smith convened a preliminary hearing via the Zoom videoconferencing platform on May 4, 2022. After taking evidence and hearing argument, ALJ Smith found that GBRA and UCC are affected persons and admitted them as parties but denied INV Nylon Chemical Americas, LLC's (INVISTA) request for party status. ALJ Smith admitted ED Exhibit AR-1 (the Administrative Record), SAWS Exhibit A, GBRA Exhibits A-F, UCC Exhibits A-E, and INVISTA'S Exhibits A-E for the purpose of determining affected party status. Additionally, ALJ Smith overruled SAWS's objection to jurisdiction and determined that jurisdiction was established.

On May 19, 2022, ALJ Smith convened a prehearing conference via Zoom videoconference to discuss the scheduling order.² ALJ Smith, joined by ALJ Heather D. Hunziker, later issued an order granting Protestants' motion to align GBRA and UCC as parties, and allocating burden of proof, which stated:

It is Applicant's burden, as part of its direct, prefiled case . . . to prove that Water Use Permit 13098, as drafted, includes all necessary special conditions pursuant to Texas Water Code § 11.042(b), including all special conditions necessary to support and protect water rights that were granted based on the use or availability of wastewater discharged by Applicant.³

Additionally, ALJs Smith and Hunziker held a second prehearing conference on March 2, 2023, at which they heard argument on Protestants' Motion for

² The conference on the scheduling order was later memorialized, and the procedural schedule set, in SOAH Order Memorializing Preliminary Hearing and Setting Procedural Schedule (May 26, 2022).

³ SOAH Order Granting Motion to Align Parties and Allocate Burden of Proof (December 2, 2022).

Summary Disposition or, Alternatively, to Remand (First MSD);⁴ and the ALJs held a third prehearing conference on April 21, 2023, to announce rulings on Protestants' second motion for summary disposition (Second MSD),⁵ as well as the parties' cross-objections and cross-motions on evidence.⁶

ALJs Smith and Hunziker co-presided at the hearing on the merits held April 25-27, 2023, at SOAH's Austin Office. SAWS was represented by attorneys Jim Mathews, Ben Mathews, and Jennifer Windscheffel; GBRA was represented by attorneys Samia Broadaway, Kevin Jacobs, Molly Cagle, and Joseph E. Cole; UCC was represented by attorneys Kevin Jordan, Caroline Carter, Amir Halevy, and Carlos Moreno; the ED was represented by Staff attorney Ruth Takeda; and OPIC was represented by Staff attorneys Eli Martinez and Jessica M. Anderson.

II. APPLICABLE LAW

Water rights permit applications are generally governed by Chapter 11 of the Texas Water Code and Chapters 295 and 297 of Title 30 of the Texas Administrative Code. In particular, SAWS's proposed use of bed and banks for downstream diversion and reuse of return flows is governed by Texas Water Code section 11.042 (Section 11.042). This statute provides, in relevant part, as follows:

Sec. 11.042. DELIVERING WATER DOWN BANKS AND BEDS.
(a) Under rules prescribed by the commission, a person, association of

⁴ The March 2, 2023 conference was memorialized in SOAH's Order Denying Motion for Summary Disposition (March 3, 2023).

⁵ Protestants' Motion for Summary Disposition (March 24, 2023).

⁶ The April 21, 2023 conference was memorialized in SOAH's Order Denying Protestants' Second Motion for Summary Disposition; and Addressing Evidence Objections and Motions to Strike (April 24, 2023).

persons, corporation, water control and improvement district, water improvement district, or irrigation district supplying stored or conserved water under contract as provided in this chapter may use the bank and bed of any flowing natural stream in the state to convey the water from the place of storage to the place of use or to the diversion point of the appropriator.

...

(b) A person who wishes to discharge and then subsequently divert and reuse the person's existing return flows derived from privately owned groundwater must obtain prior authorization from the commission for the diversion and the reuse of these return flows. The authorization may allow for the diversion and reuse by the discharger of existing return flows, less carriage losses, and shall be subject to special conditions if necessary to protect an existing water right that was granted based on the use or availability of these return flows. Special conditions may also be provided to help maintain instream uses and freshwater inflows to bays and estuaries. A person wishing to divert and reuse future increases of return flows derived from privately owned groundwater must obtain authorization to reuse increases in return flows before the increase.

Among other information, TCEQ's rules require an application to convey groundwater-based effluent in bed and banks to contain "the date of initial discharge of the groundwater into the watercourse or stream, if applicable, and any related records of discharge periods, points, amounts and rates."⁷ The applicant is also required to provide "the estimated amount of water that will be lost to transportation, evaporation, seepage, channel or other associated carriage losses from the point of discharge to the point of diversion."⁸

⁷ 30 Tex. Admin. Code § 295.112(b)(5).

⁸ 30 Tex. Admin. Code § 295.112(b)(6).

III. EVIDENCE

SAWS presented the testimony of three witnesses: Gregg Eckhart; Kirk Kennedy; and Robert Brandes, Ph.D. Protestants presented the testimony of four witnesses: Brian Perkins, P.E.; Tim Finley, P.E.; Samuel K. Vaugh, P.E.; and Herman Settemeyer, P.E. The ED presented the testimony of Kathy Alexander, Ph.D.

A. SAWS AND THE BASIS FOR THE APPLICATION

SAWS is a public utility owned by the City of San Antonio (City) with responsibility for, among other things, the City's water supply and distribution, its wastewater, and its water reuse systems.⁹ SAWS was created in 1992 to consolidate existing systems that had previously been operated by various entities.¹⁰ It operates an integrated public water system that distributes potable water, primarily from groundwater, to its customers.¹¹ SAWS Senior Resource Analyst Gregg Eckhardt testified that from 2017 through 2022, "the proportion of groundwater in SAWS's water supply ranged from a minimum of 90.81% to a maximum of 98.43%, metered on a daily basis."¹²

⁹ SAWS Ex. 1 (Eckardt Direct) at 6.

¹⁰ SAWS Ex. 1 (Eckardt Direct) at 6.

¹¹ SAWS Ex. 1 (Eckardt Direct) at 6-7.

¹² SAWS Ex. 1 (Eckardt Direct) at 7.

Starting around the 1890s, San Antonio directed its citizens' wastewater to irrigation farms.¹³ The City outgrew the irrigation farms, and in approximately 1901, it began directing the wastewater to a large wetlands area, known as Mitchell Lake, which it used as both a holding pond and a source of water for irrigation.¹⁴

San Antonio built its first wastewater treatment plant, the Rilling Road Plant, in 1930 or 1931. Around 1937, the City constructed a canal that connected the Rilling Road Plant directly to the San Antonio River.¹⁵ Discharge from the Rilling Road Plant through that canal into the San Antonio River began in 1940.¹⁶ A chart of the monthly average discharges of effluent to the river is shown in SAWS Exhibit 12. The monthly average discharges range from the lowest amount of 2.7 million gallons per day (MGD) in May 1940 to a high of 28.2 MGD in January 1947.

SAWS's current system is more complex. After supplying its customers with treated water, SAWS then collects the wastewater the customers generate and conveys it to four water recycling centers.¹⁷ In those centers, the wastewater is processed and then the treated effluent is either directly reused in SAWS's recycled water system or discharged as effluent return flow to the San Antonio River Basin.¹⁸

¹³ Hearing Transcript (Tr.) Vol. 1 at 57; Prot. Ex. 604 at 12.

¹⁴ Tr. Vol. 1 at 58-59, 71.

¹⁵ Tr. Vol. 1 at 58.

¹⁶ SAWS Ex. 1 (Eckardt Direct) at 17. The Application states that discharge began in January 1950. The ALJs find Mr. Eckhardt's testimony about how that error came about to be credible and decline to find any intent to mislead.

¹⁷ SAWS Ex. 1 (Eckardt Direct) at 8.

¹⁸ SAWS Ex. 1 (Eckardt Direct) at 8.

SAWS's direct reuse program is significant and has a design capacity of 35,000 AF per year.¹⁹ Some of SAWS's effluent is subject to existing bed and banks authorization. San Antonio City Public Service Energy has a bed and banks authorization (CA 19-2162) to divert effluent (50,000 AF) discharged by SAWS.²⁰ Additional authorizations to divert effluent for indirect reuse total 2,122 AF per year.²¹ According to Mr. Eckhardt, SAWS currently has at least 50,000 AF per year of surplus groundwater-based return flows.²²

Mr. Eckhardt envisioned the idea of a bed and banks authorization as “a means for SAWS to maintain control over its privately owned groundwater-based return flows after discharge.”²³ He noted that “our community has invested billions of dollars in developing and billions more in treating” the return flows.²⁴

Mr. Eckhardt described the purpose of the Application. “Through the Application, SAWS seeks to convey and subsequently divert and reuse its privately owned groundwater-based return flows discharged from the outfalls identified in the Application.”²⁵ SAWS is not seeking authorization for its surface water-based return

¹⁹ SAWS Ex. 1 (Eckardt Direct) at 10.

²⁰ SAWS Ex. 1 (Eckardt Direct) at 10.

²¹ SAWS Ex. 1 (Eckardt Direct) at 11. These additional authorizations are CA 19-4768; Water Use Permits 12054, 13129, and 13355; and Permit to Use Bed and Banks 5705.

²² SAWS Ex. 1 (Eckardt Direct) at 11.

²³ SAWS Ex. 1 (Eckardt Direct) at 11.

²⁴ SAWS Ex. 1 (Eckardt Direct) at 12.

²⁵ SAWS Ex. 1 (Eckardt Direct) at 18.

flows and does not seek authorization for discharges that are made to Mitchell Lake.²⁶

In particular, the authorization sought is to use the bed and banks of the Medina River, Salado Creek, Comanche Creek, Leon Creek, Medio Creek, and the San Antonio River in the San Antonio River Basin as well as the Guadalupe River in the Guadalupe River Basin, to convey up to 260,994 AF of groundwater-based return flows per year originating from the four wastewater treatment plants identified above.²⁷ The proposed diversion is from a reach in the Guadalupe River Basin.²⁸ The proposed purposes are municipal, agricultural, industrial, mining, and instream purposes in Bexar, Calhoun, Goliad, Karnes, Refugio, Victoria, and Wilson counties.²⁹

B. THE RIVERS, THE BASINS, AND THE EDWARDS AQUIFER

The Application concerns effluent discharged into the San Antonio River. The San Antonio River flows into the Guadalupe River; downstream from the confluence, it is known as the Guadalupe River.³⁰ The Guadalupe River flows into the San Antonio Bay System. Protestants' witness Mr. Perkins testified that the

²⁶ SAWS Ex. 1 (Eckardt Direct) at 18.

²⁷ SAWS Ex. 1 (Eckardt Direct) at 18; ED Ex. 3 at 37.

²⁸ SAWS Ex. 1 (Eckardt Direct) at 18.

²⁹ SAWS Ex. 1 (Eckardt Direct) at 18.

³⁰ Prot. Ex. 100 (Perkins Direct) at 5.

watersheds for the two rivers are connected and that the interaction between the two rivers is one of the unique features of the area.³¹

Protestants' witnesses refer to the Guadalupe River Watershed and the San Antonio River Watershed collectively as the "GSA basin."³² The ED's witness Dr. Alexander refers to the basins separately as "the Guadalupe and San Antonio River Basins."³³ Similarly, the Draft Permit refers to them as the "San Antonio and Guadalupe River Basins."³⁴

Dr. Alexander testified that, for purposes of water rights permitting and administration, the San Antonio and Guadalupe River Basins are not considered together.³⁵ She testified that the two basins were adjudicated separately, and that although they are included in one model for water availability determinations, the two basins are reviewed and permitted separately.³⁶

The Edwards Aquifer, a large karst limestone aquifer, underlies and transects part of the two basins.³⁷ Because of its karst nature, water easily moves in and out of the Edwards Aquifer. Mr. Perkins testified that springflow from the Edwards Aquifer

³¹ Prot. Ex. 100 (Perkins Direct) at 5.

³² Prot. Ex. 100 (Perkins Direct) at 2.

³³ Ex. ED-1 (Alexander Direct) at 4, 16, 18.

³⁴ Ex. ED-3 at 37.

³⁵ Ex. ED-1 (Alexander Direct) at 24.

³⁶ Ex. ED-1 (Alexander Direct) at 24-25.

³⁷ Prot. Ex. 100 (Perkins Direct) at 5.

contributes to the base flow of the rivers in both the San Antonio and Guadalupe Watersheds, including both the Guadalupe and San Antonio Rivers.³⁸

The Edwards Aquifer is also the source of the groundwater SAWS pumps, and thus the source of the groundwater-based effluent at issue. The Edwards Aquifer is regulated by the Edwards Aquifer Authority (EAA) and the pumping of groundwater from the aquifer is also subject to a distinct permitting system set out in the Edwards Aquifer Authority Act (EAA Act).³⁹

C. THE PROTESTANTS AND THEIR WATER RIGHTS

GBRA was created by the legislature in 1933, and it manages water resources within its ten-county district, which spans from the upper reaches of the Guadalupe and Blanco Rivers and follows the Guadalupe River to San Antonio Bay on the Gulf Coast.⁴⁰ GBRA also has a pending application before TCEQ for a new appropriation of 189,00 AF of water rights in the portion of the basin below the confluence of the Guadalupe and San Antonio Rivers (Lower Basin), with a storage right of up to 200,000 AF.⁴¹

UCC, which is a wholly owned subsidiary of Dow Chemical, uses water from the Guadalupe River at its chemical plant facility in Seadrift, Texas, where it

³⁸ Prot. Ex. 100 (Perkins Direct) at 5.

³⁹ Prot. Ex. 100 (Perkins Direct) at 6.

⁴⁰ Prot. Ex. 100 (Perkins Direct) at 3.

⁴¹ Prot. Ex. 100 (Perkins Direct) at 15.

manufactures a variety of plastic products.⁴² Protestants’ witness Mr. Finley, emphasized that water is an essential part of chemical plants, and that without reliable water the Seadrift facility could not function.⁴³ Although the amount of water the Seadrift facility uses varies from year to year, its approximate annual usage is 15,000 AF.⁴⁴ Mr. Finley expects the facility’s water needs to increase in the future.⁴⁵

GBRA and UCC co-own six water rights in the Lower Basin, with priority dates ranging from 1941 to 1952.⁴⁶ GBRA also owns CA-5484, which allows for impoundment by a saltwater barrier. In addition, GBRA holds water rights in the Upper Basin, which is the uppermost part of the basin, and the Mid Basin, which is the portion below the confluence of the Guadalupe River and the San Marcos River.⁴⁷

The six co-owned water rights in the Lower Basin, as shown by certificate of adjudication (CA) are as follows:⁴⁸

Certificate of Adjudication Number	Permit Number	Priority Date(s)	Date Initially Granted	AF
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⁴² Prot. Ex. 200 (Finley Direct) at 2, 3.

⁴³ Prot. Ex. 200 (Finley Direct) at 4-5.

⁴⁴ Prot. Ex. 200 (Finley Direct) at 5.

⁴⁵ Prot. Ex. 200 (Finley Direct) at 5.

⁴⁶ Prot. Ex. 100 (Perkins PF Direct) at 6; Prot. Ex. 102.; Prot. Ex. 200 (Finley Direct) at 5.

⁴⁷ Prot. Ex. 100 (Perkins Direct) at 10.

⁴⁸ Note that some CAs have multiple permit numbers. Prot. Exs. 102-09.

18-5173	1319	February 3, 1941	April 16, 1942	2,500
18-5174	1362	June 15, 1944	April 27, 1945	1,870
	1624	June 15, 1944	June 2, 1952	
18-5175	1564	February 13, 1951	May 10, 1952	940
18-5176	1592	June 21, 1951	December 3, 1951	9,944
18-5177	1375	January 3, 1944; January 26, 1948	July 31, 1945	32,614
	1420	January 3, 1944; January 26, 1948	September 30, 1947	
	1764	January 3, 1944; January 26, 1948	June 17, 1955	
	1375A	January 3, 1944; January 26, 1948	March 27, 1957	
18-5178	1614	January 7, 1952; May 5, 1954; January 11, 1957; July 8, 1964; September 6, 1968	March 31, 1952	106,000

In his testimony, Mr. Finley expressed concern that the Draft Permit in its current form would reduce the reliable supply of water available to surface water rights, including UCC's, on the Guadalupe River and its tributaries.⁴⁹

D. WATER RIGHTS PERMITTING AND THE ADJUDICATION PROCESS

Texas water law treats surface and groundwater differently. Surface water is permitted by a prior appropriation system, under which first in time is first in right.⁵⁰ Water rights under the prior appropriation system are assigned a priority date, which is “an indication of a water right’s seniority in the prior appropriation system.”

⁴⁹ Prot. Ex. 200 (Finley Direct) at 10.

⁵⁰ Prot. Ex. 300 (Vaugh Direct) at 4.

Additionally, according to Mr. Vaugh, “a more senior water right is entitled to take all of its authorized water before a junior priority water right can make any diversion.”⁵¹

The history of Texas permitting of surface water rights was discussed at length at the hearing. Protestants’ witness Mr. Finley testified that in the 1940s and 1950s, the flow of the river was measured by stream gages; and the determination of whether additional water could be appropriated was based on that measured flow and historical pumping information.⁵² According to Mr. Finley, at that time, regulating entities were only looking at how much water was in the river, not whether it came from effluent.⁵³ His opinion is that any water rights that were issued based on gaged flow that had effluent return flows in them would have been issued based on the availability of return flows.⁵⁴

1. Permits 1554 and 1614

A significant amount of testimony addressed two permits, Permit 1554 and Permit 1614. Permit 1554 was a 1951 permit that granted the two permittees, G.B. Bancroft and R.F. Kelly, the right to use up to 40,000 AF per year of the City’s effluent from its wastewater treatment plants for irrigation.⁵⁵ According to the terms

⁵¹ Prot. Ex. 300 (Vaugh Direct) at 4.

⁵² Prot. Ex. 200 (Finley Direct) at 8.

⁵³ Prot. Ex. 200 (Finley Direct) at 8.

⁵⁴ Prot. Ex. 200 (Finley Direct) at 8.

⁵⁵ SAWS Ex. 1 (Eckardt Direct) at 31; SAWS Ex. 16.

of the permit, the water would be “delivered into the river by said city.”⁵⁶ The permit provided that the permittees were not permitted to divert any part of the normal or flood flow.⁵⁷ SAWS witness Dr. Brandes testified that Permit 1554 could not have been granted based on that source of supply if that same source of supply had already been the basis for previously granting Protestants’ water rights, because that would have constituted double permitting, which has never been allowed in Texas.⁵⁸ Permit 1554 was canceled in 1963.⁵⁹

In 1952, during Permit 1554’s existence, UCC’s Permit 1614, which is currently recognized under Protestants’ CA 18-5178, was issued. Dr. Brandes also testified that, based on the hearing testimony for Permit 1614, the independent engineers performing a water availability analysis on behalf of the application subtracted from the Goliad gage flow an amount called “San Antonio’s actual discharge” based on a previous permit that allowed for that amount of water to be diverted.⁶⁰ He testified this analysis, called for purposes of this hearing the Lockwood Report, meant that “San Antonio’s sewage effluent was assumed to be unavailable for purposes of Union Carbide’s Application [for Permit 1614].”⁶¹ Thus,

⁵⁶ SAWS Ex. 16; SAWS Ex. 21 (Brandes Direct) at 15.

⁵⁷ SAWS Ex. 16.

⁵⁸ SAWS Ex. 21 (Brandes Direct) at 23.

⁵⁹ Prot. Ex. 300 at 26:8-9; Prot. Ex. 400 at 14:31.

⁶⁰ SAWS Ex. 21 (Brandes Direct) at 20.

⁶¹ SAWS Ex. 21 (Brandes Direct) at 21.

in his view, Union Carbide's application for Permit 1614 was based on the assumption that San Antonio's effluent would not be available.⁶²

According to Protestants' witness Mr. Perkins, Dr. Brandes's testimony about the Lockwood Report misses key facts about context.⁶³ He testified that Permits 1319, 1362, 1375, and 1420 were all granted before Permit 1554. At that time, no Texas statute authorized a bed and banks transport of discharged, groundwater-based effluent from place of discharge to place of use.⁶⁴ Therefore, the effluent became state water upon discharge and was part of the gaged record in the stream, which the Texas Board of Water Engineers used in making their permit decisions.⁶⁵ After Permit 1554 was issued, there was a need to account for the volume considered appropriated by it, so the Lockwood Report provided a conservative method by just assuming the entire amount of San Antonio's discharged effluent was removed from the stream, even though there were limitations in Permit 1554, such as the ability for junior appropriators to complain to the Board and receive the right to water that would have been diverted by Permit 1554.

2. Water Rights Adjudication Process

In his testimony, Protestant witness Mr. Settemeyer described the water rights adjudication process, which was underway when he joined TCEQ's

⁶² SAWS Ex. 51 at 22.

⁶³ Prot. Ex. 100 (Perkins Direct) at 18.

⁶⁴ Prot. Ex. 100 (Perkins Direct) at 18.

⁶⁵ Prot. Ex. 100 (Perkins Direct) at 18-19.

predecessor agency in 1975, the Texas Water Rights Commission (TWRC).⁶⁶ Once adjudication of water rights claims for a segment was found to be in the public interest, TWRC would order an investigation and report on water use in each segment. A report of that investigation would be produced. Following that, TWRC would hold adjudication hearings for each entity claiming a water right. The TWRC would enter a preliminary determination, followed by a final determination if the preliminary determination was contested. Judicial review could follow. After completion of the process, TWRC would enter CAs for all entities with recognized water rights. The final decree became final and conclusive as to all existing and prior rights in the adjudicated stream.⁶⁷ Each CA was granted a priority date so that the state could administer water during shortages.⁶⁸

According to Mr. Settemeyer, adjudications were based on use during a ten-year look-back period, not availability.⁶⁹ He amended his testimony on cross examination to state that the water rights holder did not need to have actually used that amount, so long as the holder had made a diligent effort to develop the water and established an intention to develop it in the future.⁷⁰ There was no prohibition

⁶⁶ Prot. Ex. 400 (Settemeyer Direct) at 4. This adjudication process was part of implementing the Water Rights Adjudication Act of 1967. Prot. Ex. 400 (Settemeyer Direct) at 4.

⁶⁷ Prot. Ex. 400 (Settemeyer Direct) at 5, citing Texas Water Code section 11.322(d).

⁶⁸ Prot. Ex. 400 (Settemeyer Direct) at 7.

⁶⁹ Prot. Ex. 400 (Settemeyer Direct) at 7-8.

⁷⁰ Tr. Vol. 2 at 162.

on over-allocating state water,⁷¹ and he disagreed with Dr. Brandes’s testimony to the contrary.⁷²

E. THE WATER AVAILABILITY MODEL

As discussed above, appropriating surface water rights relies on modeling, in particular the water availability model (WAM). Dr. Alexander is the Senior Policy and Technical Analyst for TCEQ’s Water Availability Division and she described the WAM as “a dataset that includes geospatial, hydrology, and water rights information for a river basin.”⁷³ The WAM system includes two separate components: the actual datasets and the Water Rights Analysis Package, a suite of computer models that serves as “the modeling engine used to process the WAM datasets for a river basin and generate output for both river flows and water rights.”⁷⁴

Following the passage of Senate Bill 1 in 1997,⁷⁵ Protestants’ witness Mr. Vaugh’s employer, HDR, contracted with TCEQ’s predecessor agency, then the Texas Natural Resource Conservation Commission (TNRCC), to develop a

⁷¹ Prot. Ex. 400 (Settemeyer Direct) at 8.

⁷² Prot. Ex. 400 (Settemeyer Direct) at 9.

⁷³ Ex. ED-1 (Alexander Direct) at 17.

⁷⁴ Ex. ED-1 (Alexander Direct) at 17.

⁷⁵ Senate Bill 1, (1997 Tex. Sess. Law Serv. Ch. 1010), enacted in 1997, made significant changes to Texas water law and water planning, including adding Texas Water Code section 11.042(b). *See* ED Ex. 1 (Alexander Direct) at 9; *see also* Prot. Ex. 300 (Vaugh Direct) at 6 (stating that Senate Bill 1 codified indirect reuse).

WAM for the Guadalupe and San Antonio Basins⁷⁶ Mr. Vaugh testified that to develop a WAM:

you begin with the stream gage flows, add in the historical surface water diversions—i.e., people pumping water out of the river—and subtract the historical wastewater discharges—i.e., wastewater being placed into a river. Naturalized flows for the GSA WAM reflect adjustment of gaged streamflow for historical surface water diversions and any wastewater discharges with due accounting for channel losses in the rivers and tributary streams.⁷⁷

As part of that process, Mr. Vaugh needed to obtain historical data submitted for the original Guadalupe and San Antonio WAM so that he could adjust for changes in springflows based on changes in Edwards Aquifer pumping.⁷⁸ To accomplish that, Mr. Vaugh met with Thomas Koch, who had consulted with one of SAWS's predecessor entities, and obtained Mr. Koch's notebooks of San Antonio's discharge records. Mr. Vaugh testified that HDR used those records of discharges in developing the naturalized flows for the WAM.⁷⁹ HDR delivered the WAM in 1999 with a series of eight simulations, called runs, based on different assumptions. One of those runs, Run 3, "assumes full authorized diversion amounts for perpetual water rights, full consumptive reuse of all effluent not explicitly required to be discharged, and authorized reservoir capacity."⁸⁰ Run 3 is the run TCEQ now typically uses to

⁷⁶ Prot. Ex. 300 (Vaugh Direct) at 15.

⁷⁷ Prot. Ex. 300 (Vaugh Direct) at 16.

⁷⁸ Prot. Ex. 300 (Vaugh Direct) at 16.

⁷⁹ Prot. Ex. 300 (Vaugh Direct) at 16-17.

⁸⁰ Prot. Ex. 300 (Vaugh Direct) at 17.

evaluate water rights applications.⁸¹ On cross examination, Mr. Vaugh agreed that San Antonio's return flows, as they are not required to be discharged, are not in the current WAM used for water rights permitting, although they were in earlier ones.⁸²

Dr. Alexander testified that she was involved in updates TCEQ made to HDR's model to resolve inconsistencies, meet TCEQ's needs, and incorporate updated springflows. The updated model is what TCEQ uses to review water rights applications in the Guadalupe and San Antonio River Basins.⁸³

There was testimony that the WAMs used before 1999 were different. Mr. Vaugh, in particular, testified that an appendix to a TCEQ report showed that the March 1983 WAM for the Guadalupe River and San Antonio River included San Antonio's effluent in its preferred run.⁸⁴ He also pointed to a memorandum written by Todd Chenoweth, the Section Manager for the TNRCC Water Rights Permitting and Availability Section, which stated, "The adjudication for the San Antonio River basin relied on historical discharges to that basin. Thus, these assumed return flows were available to be appropriated to other water rights applications."⁸⁵ Mr. Vaugh called Mr. Chenoweth's statement a matter of historical fact, not a matter of agency policy.⁸⁶

⁸¹ Prot. Ex. 300 (Vaugh Direct) at 17.

⁸² Tr. Vol. 2 at 234.

⁸³ Ex. ED-1 (Alexander Direct) at 4.

⁸⁴ Prot. Ex. 300 (Vaugh Direct) at 19-20.

⁸⁵ Prot. Ex. 300 (Vaugh Direct) at 22; Prot. Ex. 312.

⁸⁶ Prot. Ex. 300 (Vaugh Direct) at 22.

F. THE APPLICATION'S ACCOUNTING PLAN

One disputed aspect of the Application is its accounting plan, which was first submitted on March 17, 2021.⁸⁷ An accounting plan is a tool for determining volumes available for diversion by quantifying daily discharges, subtracting volumes as appropriate for volumes an applicant is not requesting or entitled to divert, and applying conveyance loss coefficients.⁸⁸ The ED found SAWS's accounting plan to be adequate.⁸⁹ The accounting plan takes the authorized discharges of return flows from the outfalls and adjusts that amount downward to account for the surface-water-derived effluent that is not part of the Application;⁹⁰ water diverted under the water rights that are expressly issued based on the use or availability of the return flows;⁹¹ and conveyance loss coefficients from the WAM.⁹² It is the last of these three adjustments—the subtraction to account for channel or carriage losses that is most in dispute.

SAWS witness Mr. Kennedy performed the carriage loss calculations in the Application. When the Application was filed, Mr. Kennedy had TCEQ's 2013 WAM

⁸⁷ SAWS Ex. 1 (Eckardt Direct) at 5.

⁸⁸ SAWS Ex. 1 (Eckhardt Direct) at 22.

⁸⁹ SAWS Ex. 8 at 40066.

⁹⁰ According to Mr. Eckhardt, this subtraction is made on a daily basis based on information from SAWS's operations database. SAWS Ex. 1 (Eckardt Direct) at 23.

⁹¹ The accounting plan as currently submitted does not account for water diverted under Protestants' water rights. SAWS Ex. 6.

⁹² SAWS Ex. 1 (Eckardt Direct) at 23.

and the associated data files for the Guadalupe and San Antonio Rivers.⁹³ He used 2013 WAM RUN 3's carriage losses to total the carriage loss factors between where the discharge points were located and a WAM control point at the mouth of the Guadalupe River, which is slightly downstream of SAWS's proposed diversion point.⁹⁴ His summary of these losses was submitted to TCEQ in 2013.⁹⁵

In response to challenges from Protestants, Mr. Kennedy prepared a travel times memo (Kennedy Memo), calculating the travel time for discharges flowing between SAWS's discharge points and its proposed point of diversion.⁹⁶ He agreed that the accounting plan did not specifically identify travel time, but that it could be "easily determined" and applied in the plan.⁹⁷ He estimated that the travel time rate was 2.3 feet per second or 38 miles per day, and that the time of travel from the discharge points to the proposed diversion point was either six or seven days, depending on the discharge point's location.⁹⁸ He testified that the travel times could be used in the accounting plan without having to develop a new one.⁹⁹ He also recalculated the channel losses, using the 2021 version of TCEQ's WAM, and his recalculations show slightly higher carriage losses and include channel losses in the

⁹³ SAWS Ex. 17 (Kennedy Direct) at 5. Mr. Kennedy testified that TCEQ's WAM models consider the San Antonio River and the Guadalupe River to be one basin. Tr. Vol. 1 at 145.

⁹⁴ SAWS Ex. 17 (Kennedy Direct) at 6.

⁹⁵ SAWS Ex. 17 (Kennedy Direct) at 6; SAWS Ex. 19.

⁹⁶ SAWS Ex. 17 (Kennedy Direct) at 10; SAWS Ex. 14.

⁹⁷ SAWS Ex. 17 (Kennedy Direct) at 10.

⁹⁸ SAWS Ex. 17 (Kennedy Direct) at 10-11.

⁹⁹ Tr. Vol. 3 at 164.

reach downstream of the Goliad gage.¹⁰⁰ From the testimony, there is no estimate of channel losses for the distance between GBRA’s saltwater barrier and the diversion reach. According to Mr. Vaugh, following the updated Kennedy Memo, his only remaining disagreement with the accounting plan is the lack of accounting for the carriage losses from the saltwater barrier to the actual point of diversion.¹⁰¹

In contrast to Mr. Vaugh, Protestants witness Mr. Finley testified that, although he has not done the calculations to determine carriage loss, he noted that “for carriage losses, the assumptions in an accounting plan will be based on averages, not daily reality. For example, in an extreme drought day with low river flow and high evaporation, carriage losses can easily be four times the average.”¹⁰²

G. TCEQ’S PROCESS FOR REVIEWING THE APPLICATION

Dr. Alexander’s primary area of expertise is in water rights permitting programs.¹⁰³ She described how TCEQ processes applications for authorization to use the beds and banks of a watercourse to convey groundwater-based return flows for subsequent diversion and use.¹⁰⁴ This process changed in 2006, in response to a Commission interim order in the City of Bryan’s bed and banks permitting case (*City of Bryan*).¹⁰⁵ That interim order responded to a motion by the Cities of Bryan and

¹⁰⁰ Tr. Vol. 1 at 142; SAWS Exs. 14, 17 at 13.

¹⁰¹ Tr. Vol. 2 at 227.

¹⁰² Prot. Ex. 200 (Finley Direct) at 12.

¹⁰³ Ex. ED-1 (Alexander Direct) at 1, 2.

¹⁰⁴ Ex. ED-1 (Alexander Direct) at 10.

¹⁰⁵ Ex. ED-1 (Alexander Direct) at 13:23-31; Tr. Vol. 3 at 17:3-23.

College Station to overturn the ED's decisions to return their applications for bed and banks permits under Section 11.042(b).¹⁰⁶ In the interim order, the Commissioners stated that applications under Section 11.042(b) do not involve state water and directed the ED not to process the cities' applications under statutes and rules applicable to requests for appropriation of state water.¹⁰⁷

For the Application, Staff performed three technical reviews: an environmental review, a conservation review, and a hydrology review.¹⁰⁸ Dr. Alexander performed the hydrology technical review. This review was a two-step process. First, she checked to see whether any water rights were explicitly granted based on the specific return flows SAWS requested in the Application. To do this, she reviewed every water right in the San Antonio and Guadalupe River Basins to see if those return flows from the outfalls specified in the Application were previously permitted to another water right by searching the plain language of each permit for explicit references to those return flows.¹⁰⁹ She determined that three water rights, all owned by SAWS or based on contracts with SAWS, had been explicitly granted based on these return flows.¹¹⁰

¹⁰⁶ SAWS Ex. 3 at 39899 (Application Attachment 2: *An Interim Order Concerning the Motion to Overturn Filed by the City of Bryan and the City of College Station Regarding the Executive Director's Decisions to Return Application Nos. 5912 and 5913 pursuant to 30 Texas Administrative Code 281.18 Without Prejudice to their Re-Submission, TCEQ Docket Nos. 2006-1832-WR and 2006-1831-WR*).

¹⁰⁷ Ex. ED-1 (Alexander Direct) at 13; SAWS Ex. 3 at 39899-39901.

¹⁰⁸ Ex. ED-1 (Alexander Direct) at 16; ED Ex. 11.

¹⁰⁹ Ex. ED-1 (Alexander Direct) at 16; Tr. Vol. 3 at 22:14-33; Ex. ED-11 at 366.

¹¹⁰ Ex. ED-1 (Alexander Direct) at 16:33-17:5; Ex. ED-11 at 366.

The second step is to check for water rights that were not explicitly based on use or availability. As Dr. Alexander testified:

It is possible that individual water rights could have been granted based on the fact that some portion of the historical discharges were in the river at the time those water rights were granted. Water availability determinations have been done differently over time based on the available technology. Water rights for new appropriations of water granted after the adjudication may have been granted based on a model that included some level of return flows.¹¹¹

Thus, the second step is Staff's method to determine whether special conditions are necessary to protect water rights that were granted based on the use or availability of the return flows.¹¹²

Dr. Alexander described her process for the second step. She first obtained SAWS's discharge data, both the data provided in the Application and updated data because of the gap in time between the Application and the review.¹¹³ She then reconciled that data to calculate the return flows.¹¹⁴

Having calculated the return flows, she then performed two simulations. In the first one, she added the current level of SAWS return flows—93,291 AF or 83.3

¹¹¹ Ex. ED-1 (Alexander Direct) at 17.

¹¹² Ex. ED-1 (Alexander Direct) at 17.

¹¹³ Ex. ED-1 (Alexander Direct) at 18.

¹¹⁴ Ex. ED-1 (Alexander Direct) at 18.

MGD—into the model and allowed all water rights to access those return flows.¹¹⁵ She then calculated the volume reliability of water rights—in other words, the percentage of the total target demand actually supplied—in the San Antonio and Guadalupe River Basins.¹¹⁶

Dr. Alexander performed a second simulation in which other water rights could not call on those return flows. In other words, in the second simulation, it was assumed that only SAWS could divert their return flows and that other water rights were granted based on the use or availability of those return flows. She then calculated the volume reliability of the water rights under those assumptions.¹¹⁷ Dr. Alexander explained that step two was really just a screening tool to determine whether the results indicate a “practical impact,” such that “further review of historical information on individual water rights,” including Protestants’, was necessary.¹¹⁸ She testified that Staff uses annual volume reliability as a metric because it would be almost impossible to determine at any given time how a water right holder would use a particular water right.¹¹⁹ She found that 158 water rights, including Protestants’, were negatively affected, and that the average impact across all the water rights was less than 1%.¹²⁰

¹¹⁵ Ex. ED-1 (Alexander Direct) at 18. Dr. Alexander noted that this current level of discharged return flows “exceeds the volume of return flows that were historically in the river.” Ex. ED-1 (Alexander Direct) at 18.

¹¹⁶ Ex. ED-1 (Alexander Direct) at 18.

¹¹⁷ Ex. ED-1 (Alexander Direct) at 18.

¹¹⁸ Ex. ED-1 (Alexander Direct) at 20; Tr. Vol. 3 at 23:10-14, 24:1-16.

¹¹⁹ Ex. ED-1 (Alexander Direct) at 19.

¹²⁰ Ex. ED-1 (Alexander Direct) at 19; Ex. ED-11 at 367.

The following table details the impact on annual volume reliability by percentage for the Protestants’ water rights identified by:¹²¹

Water Right Number (WAM ID)	Modeled Authorized Amount and Use	Priority Date	% Impact on Volume Reliability
C5173_1	1,250 irrigation	2/3/1941	0
C5173_2	1,250 industrial	2/3/1941	0
C5174_2	935 irrigation	6/15/1944	-0.75
C5174_3	935 industrial	6/15/1944	-0.52
C5175_1	470 irrigation	2/13/1951	-0.96
C5175_2	470 industrial	2/13/1951	-0.7
C5176_1	3,315 irrigation	6/21/1951	-1.11
C5176_2	3,314 municipal	6/21/1951	-1.2
C5176_3	3,315 industrial	6/21/1951	-1.2
C5177_1	10,763 industrial	1/3/1944	0
C5177_2	10,763 irrigation	1/3/1944	-0.01
C5177_3	11,089 municipal	1/3/1944	-0.44
C5177_4	10,000 industrial	1/3/1944	-0.52
C5177_5	4,316 municipal	1/26/1948	-0.85
C5177_6	4,316 irrigation	1/26/1948	-0.96
C5178_1	30,525 municipal	1/7/1952	-1.25
C5178_2	30,525 industrial	1/7/1952	-1.66
C5178_3	44,950 irrigation	1/7/1952	-3.08

After performing the second step, Dr. Alexander testified that she had two reasons for concluding that Protestants’ water rights were not based on the use or availability of San Antonio’s return flows. The first reason is that the volume of assumed return flows that were used in the model was much greater than the volume that would have been in the river when Protestants’ rights were granted. Thus, in

¹²¹ Ex. ED-1 (Alexander Direct) at 19-20.

the first simulation, Protestants' water rights were taking more water than would have been available when their water rights were granted, even assuming their water rights were granted based on SAWS return flows. This makes the comparison artificially high.¹²²

The second reason is based on what the parties have called the ED's 5% "rule of thumb." Dr. Alexander testified that when conducting the second step as set out above, Staff uses a 5% rule of thumb as a screening tool to determine whether further review of historical information on water rights is necessary. In other words, if the second step shows less than a 5% impact, taking into consideration the accuracy of the data and the underlying model assumptions such as a water rights holder consistently taking the same amount, then Staff views the application as not having a practical impact. Dr. Alexander testified that the same analysis has been performed for the eleven authorizations for groundwater-based return flows issued since 2006.¹²³ Regarding the Application, Dr. Alexander stated that the 5% rule demonstrated that there would be no practical impact on Protestants' water rights and further analysis was unnecessary.

¹²² Ex. ED-1 (Alexander Direct) at 18-20; Tr. Vol. 3 at 24:22-25:9, 27:4-23.

¹²³ Ex. ED-1 (Alexander Direct) at 20.

IV. ARGUMENTS AND ANALYSIS

A. DOES THE APPLICATION COMPLY WITH 30 TEXAS ADMINISTRATIVE CODE SECTION 295.112?

1. Evidence and Arguments

Protestants argue that the Application is defective because it includes the incorrect date of initial discharge.¹²⁴ Applications for a permit under Section 11.042(b) must contain, among other things, “the date of initial discharge of the groundwater into the watercourse or stream, if applicable, and any related records of discharge periods, points, amount and rates.”¹²⁵ Protestants note that the Application states that discharge began in 1950, but Mr. Eckhardt later found records indicating that discharge began in 1940.

SAWS argues that the error in the date was an oversight and points to testimony from Dr. Alexander that changing the date would not change her analysis.¹²⁶ Neither the ED nor OPIC raised any concern with the Application’s original, incorrect date.

2. ALJs’ Analysis

It is undisputed that the Application incorrectly dated the initial discharge of the groundwater returns that are the subject of the Application. The ALJs do not

¹²⁴ Prot. Closing at 4, Prot. Proposed Findings of Fact 83-93.

¹²⁵ 30 Tex. Admin. Code § 295.112(b)(5).

¹²⁶ SAWS’s Reply at 2-4; Tr. Vol. 3 at 137.

find that this was an intentional effort to mislead. Nor do the ALJs find that this error was such a material defect that the Application must be denied. The correct information has been provided to the parties, including the ED, even if the actual Application has not been amended. The ALJs have considered the revised date in their analysis, and the ED has not requested a remand to reconsider the Draft Permit in light of the corrected date of initial discharge.¹²⁷

B. DOES THE DRAFT PERMIT CONTAIN THE SPECIAL CONDITIONS NECESSARY TO PROTECT EXISTING WATER RIGHTS THAT WERE GRANTED BASED ON THE USE OR AVAILABILITY OF THE RETURN FLOWS SAWS SEEKS TO DIVERT?

Under Section 11.042(b), it is mandatory that the Draft Permit protect existing rights granted based on the use or availability of the return flows SAWS seeks to reuse.¹²⁸ SAWS's Chief Executive Officer, Mr. Puente, who was a legislator in the debates that produced Section 11.042(b), explained that "the drafting of the words and the debate on the words of 11.[042]" resulted in a "balancing" of the interests of indirect-reuse applicants and downstream senior water rights holders by making special conditions mandatory, rather than permissive, coupled with TCEQ

¹²⁷ Nor do the ALJs recommend that TCEQ accept Protestants' suggestion that "[d]enial is appropriate in light of SAWS's conceded and uncorrected misstatement of the date of initial discharge in its application and failure to provide all required information, documents, and data in order to deter similar conduct by future applicants." (Prot. Proposed Conclusion of Law 52). This proposed conclusion of law's overly technical use of the word "uncorrected" ignores that the information has since been provided and does not provide a legal basis on which the Commission may decide to deny an application in order to deter similar conduct by future applicants. In their First MSD, Protestants argued that this power was suggested by 30 Texas Administrative Code section 305.66(a)(4), a TCEQ rule that, in addition to explicitly not applying to the Application, suggested that full disclosure must occur in either the application or the hearing process. (First MSD at 9). The ALJs do not find that section supports the proposed conclusion of law.

¹²⁸ Section 11.042(b) ("The authorization . . . shall be subject to special conditions if necessary to protect an existing water right . . . ") (emphasis added).

discretion to add protections beyond that minimum level when appropriate.¹²⁹ Conversely, TCEQ’s issuance of permits under Section 11.042(b) is not mandatory, but discretionary.¹³⁰

1. Were Protestants’ water rights granted based on the use or availability of the return flows SAWS seeks to divert?

a) Protestants’ Position

Protestants assert that their permits were based on the *availability* of the return flows SAWS seeks to divert and that their CAs were granted based on *use* of that water.¹³¹ They note that, at least as early as 1939 or 1940, San Antonio was discharging 10.7 MGD of effluent to the San Antonio river.¹³² Protestants’ Lower Basin water rights consist of permits “to appropriate public waters of the state of Texas,” with priority dates after that, ranging from 1941 to 1952.¹³³ At that time, San Antonio’s discharged effluent would have been present in the Guadalupe River,

¹²⁹ Prot. Ex. 500 (Puente depo.) at 25:8-17, 36:11-24, 39:8-40:19.

¹³⁰ Section 11.042(b) (“person who wishes to discharge and then subsequently divert and reuse the person’s existing return flows derived from privately owned groundwater must obtain prior authorization from the commission The authorization *may* allow for the diversion and reuse by the discharger of existing return flows”) (emphasis added).

¹³¹ Prot. Closing at 4-18; Prot. Reply at 2-7.

¹³² Prot. Closing at 3, 13; Prot. Ex. 607 at 1 (10.7 MGD of effluent to the river in 1940). *See* SAWS Ex. 1 (Eckhardt Direct) at 17:10-11 (discharges in 1940); SAWS Ex. 33 (Lockwood Report) at SAWS 039014 (Table 2) (discharges in 1939); Prot. Ex. 300 (Vaugh Direct) at 22:32-33 (discharging “by 1940, if not earlier”); *see also* SAWS Ex. 12 (discharges in 1940); Tr. Vol. 1 at 59:4-62:12 (Mr. Eckhardt dating the initial discharge to 1940 and testifying that, from 1930, the Rilling Road plant discharged to Mitchell Lake, which discharged to the San Antonio River via stormwater overflow); *cf.* Prot. Ex. 600 at SAWS 006129, 006144 (discharges to Mitchell Lake in 1930s via stormwater overflow); Prot. Ex. 604 at SAWS 026350 (flood-related discharges and sewage irrigation in 1930s).

¹³³ Prot. Ex. 110 (Permit 1319) at GBRA_000001; *see also* Prot. Exs. 111-120 (Permits 1362, 1375, 1375A, 1420, 1564, 1592, 1614, 1623, 1624, and 1764).

below the point where the San Antonio River empties into it.¹³⁴ Protestants conclude that, at every time relevant to their Lower Basin water rights, San Antonio was discharging effluent to the watercourse, making it available for appropriation.¹³⁵

Protestants' expert Mr. Settemeyer testified that Protestants' Lower Basin permits were granted between 1941 and 1952, and Protestants' CAs were issued based on those permits.¹³⁶ Protestants point out that, under the Adjudication Act, CAs were granted to "statutory appropriators" who had "made a beneficial use of water within the limitations of a permit lawfully issued" by TCEQ's predecessors.¹³⁷ Specifically, the Texas Water Commission examined claimants' use of state water during a ten-year lookback period between approximately 1972 to 1982 (Lookback

¹³⁴ See Prot. Ex. 100 (Perkins Direct) at 5:3-9 (San Antonio River is a tributary flowing into the Guadalupe River), 18:33-19:7 (at the time of permitting, Protestants' permits had San Antonio's historically discharged effluent available to them, as confirmed by gaged records); Prot. Ex. 300 (Vaugh Direct) at 23:19-20 (whatever was in the river at the gage was available to all water rights downstream).

¹³⁵ See Prot. Ex. 300 (Vaugh Direct) at 32:28-32. See also Ex. ED-1 (Alexander Direct) at 17:11-13; Prot. Ex. 312 at GBRA_005320 (given the inclusion of return flows in availability models, "it is likely that some downstream water rights were authorized or established based on the existence of upstream return flows"); Prot. Ex. 200 (Finley Direct) at 8:11-9:10 ("any of the water rights that were issued based on gage flows that had effluent return flows in them would have been issued based on the availability of return flows."); Prot. Ex. 625 at GBRA_005322 ("In granting some water rights permits in the past, the Commission's water availability analysis included upstream return flows."); Prot. Ex. 300 (Vaugh Direct) at 19:3-21, 23:2-7 (Protestants' rights "were granted based on the availability of state water in the Guadalupe River at the time of granting, and that available state water included San Antonio's effluent discharges."); Prot. Ex. 400 (Settemeyer Direct) at 10:7-13. Protestants also cite the following finding in a previous Commission water rights permitting order adopting the proposal for decision: "Return flows, once returned to a state watercourse, are unappropriated flows available for appropriation." Prot. Ex. 303 (An Order Granting in Part the Amended Application by the Brazos River Authority for Water Use Permit No. 5851 and Approving its Water Management Plan; TCEQ Docket No. 2005-1490-WR; SOAH Docket No. 582-10-4184 (September 16, 2016) (Order Granting BRA Permit)) at GBRA_007766 (FOF 164).

¹³⁶ Prot. Ex. 400 (Settemeyer Direct) at 15:30-37; see also Prot. Ex. 1 at GBRA_007835 (table of Protestants' water rights permits with their priority dates, dates of initial grant, and corresponding CAs).

¹³⁷ See Prot. Ex. 122 at 3.

Period), and issued CAs based on the “perfected” amount of such use.¹³⁸ Mr. Settemeyer stated that “adjudication was effectively a re-granting of GBRA and UCC’s water rights, following proof of actual use and future projected use of state water, up to the volume of the original permits.”¹³⁹ Thus, Protestants argue, their *use* of that state water determined the extent to which their prior rights were recognized and incorporated into their certificates of adjudication.¹⁴⁰

Protestants argue that, as a matter of law, San Antonio’s effluent discharged during the Lookback Period became state water subject to appropriation upon entering the state watercourse;¹⁴¹ and, when Permit 1554 was cancelled in 1963, the volume of state water (previously San Antonio effluent) that it assumed to be appropriated was available for all senior water rights holders.¹⁴² Therefore, Protestants argue, their CAs were granted based on the actual, beneficial use of state water (during the Lookback Period) that included flows with origins as SAWS effluent.¹⁴³ In support, Protestants note that the Texas Water Commission

¹³⁸ See Prot. Ex. 400 (Settemeyer Direct) at 6:1-2, 6:27-7:7; *accord*, e.g., *City of Marshall v. City of Uncertain*, 206 S.W.3d 97, 103 (Tex. 2006) (noting that “many river basins in the state were overappropriated because the rights recognized [via the CA process] were based upon historic use rather than water availability”).

¹³⁹ Prot. Ex. 400 (Settemeyer Direct) at 15:25-28.

¹⁴⁰ Prot. Closing at 5-6.

¹⁴¹ Prot. Closing at 5 (citing *City of San Marcos v. Tex. Comm’n on Env’t Quality*, 128 S.W.3d 264, 275 (Tex. App.—Austin 2004, pet. denied) and Tex. Water Code § 11.021(a)); Prot. Ex. 300 (Vaugh Direct) at 32:28-32; Prot. Ex. 400 (Settemeyer Direct) at 10:7-13; *see also* Prot. Ex. 300 (Vaugh Direct) at 19:3-21, 23:2-7.

¹⁴² Prot. Closing at 16-17; Prot. Ex. 200 (Finley Direct) at 10:4-5 (“Permit 1554 was canceled in the 1960s, so it was not part of any consideration during the adjudication of water rights that happened thereafter”); Prot. Ex. 300 (Vaugh Direct) at 33:13-16; Prot. Ex. 400 (Settemeyer Direct) at 15:1-28 (as soon as Permit 1554 was cancelled that water was available to new and existing appropriators, so San Antonio’s effluent could be diverted and was used during the Lookback Period); *see* Prot. Ex. 619 at 5.

¹⁴³ Prot. Closing at 6; Prot. Reply at 2-3; Prot. Ex. 300 (Vaugh Direct) at 22:28-29:2; Prot. Ex. 400 (Settemeyer Direct) at 15:1-28; *see also* Prot. Ex. 300 (Vaugh Direct) at 33:13-20.

determined that the “state waters subject to this adjudication” comprise “all flows of the various streams in the Lower Guadalupe River Segment,” excepting only water used for domestic or livestock purposes.¹⁴⁴

Protestants contend that the determination that their rights were granted based on use of state waters that included SAWS’s historic return flows is res judicata that binds this proceeding, having been conclusively determined in the Texas Water Commission’s October 13, 1982 *Final Determination of Claims of Water Rights in the Lower Guadalupe River Segment, Guadalupe River Basin, and a Portion of the Lavaca-Guadalupe Coastal Basin* (Final Determination of the Lower Guadalupe) and affirmed by the appellate court.¹⁴⁵

b) SAWS’s, the ED’s, and OPIC’s Positions

SAWS and the ED argue that Staff’s two-step hydrology review to determine whether any water rights were granted based on the use or availability of the return flows requested in the Application conclusively ruled out Protestants’ water rights.¹⁴⁶ Dr. Alexander personally oversaw Staff’s analysis and testified extensively

¹⁴⁴ Prot. Closing at 5. See Prot. Ex. 122 at 2.

¹⁴⁵ *In re Adjudication of Water Rights of Lower Guadalupe River Segment*, 730 S.W.2d 64 (Tex. App.—Corpus Christi-Edinburg 1987, writ ref’d n.r.e.); Prot. Closing at 6-7; Prot. Second MSD at 20-22. See Prot. Ex. 122.

¹⁴⁶ See ED Closing at 8-10.

on the topic.¹⁴⁷ She said that step two of their analysis applied TCEQ’s WAM to determine whether there were water rights that could *potentially* have been granted based on the use or availability of SAWS’s return flows, by comparing the volume reliability of water rights under two different modeled simulations and looking for a marked impact on such reliability for downstream water rights.¹⁴⁸ Staff concluded that its finding of 158 water rights negatively impacted by the Application, with an average impact of less than 1% when all SAWS’s discharged return flows were diverted, did not indicate that any water rights had been granted based on the use or availability of the return flows SAWS seeks to divert, aside from the water rights identified in step one.¹⁴⁹

The ED conceded that Protestants presented evidence supportive of Protestants’ water rights having been adjudicated based upon permits issued when San Antonio’s historic effluent was present;¹⁵⁰ however, the ED argued that these facts were not enough to prove that Protestants’ water rights were based on the use or availability of SAWS return flows.¹⁵¹ Instead, the ED characterized Protestants’

¹⁴⁷ Throughout her prefiled testimony and in her hydrology review memo analyzing the Application, Dr. Alexander repeatedly referred to use *and* availability. *See, e.g.*, Ex. ED-1 (Alexander Direct) at 17:7-8, 17:21-24, 20:1-3, 24:17-20, 26:3-7, 28:10-13, 28:13-15; Ex. ED-11 at 366. Dr. Alexander testified that her use of “and” instead of “or” was inadvertent and something she overlooked, and that it made no difference to the ED’s analysis of the Application. Tr. Vol. 3 at 63:23-25, 66:16-17, 64:10-12, 135:22-36:3. *See generally, King v. Paxton*, 576 S.W.3d 881, 893-94 (Tex. App. — Austin 2019, pet. denied) (“The Legislature’s use of the disjunctive word ‘or’ is significant when interpreting statutes.”) (quoting *City of Lorena v. BMTP Holdings, L.P.*, 409 S.W.3d 634, 642 (Tex. 2013)).

¹⁴⁸ Ex. ED-1 (Alexander Direct) at 18:1-19:14; Tr. Vol. 3 at 23:4-14, 24:1-16; Ex. ED-11 at 366-67.

¹⁴⁹ Ex. ED-1 (Alexander Direct) at 19:20-20:16; Ex. ED-11 at 367.

¹⁵⁰ ED Closing at 11 (citing Prot. Exs. 102, 110-121, 306, 604, 607-614).

¹⁵¹ ED Closing at 11.

rights as having possibly “benefitted for several years from historic return flows without explicit authorization.”¹⁵²

OPIC argued that the determination in this case must rely on water availability models to attempt to extrapolate whether, at the time Protestants’ rights were granted, Applicant’s return flows were a necessary basis for their issuance.¹⁵³

Dr. Alexander testified that the current models used to grant new appropriations do not include any level of return flows; however, she conceded that “water availability determinations have been done differently over different time based on the available technology” and “individual water rights could have been granted based on the fact that some portion of the historical discharges were in the river at the time the water rights were granted.”¹⁵⁴ Nevertheless, she opined: “[j]ust because those return flows were in the stream, that doesn’t prove that the water—a water right would have been granted based on them, that would be—that information would be found in the documents supporting the granting of that water right.”¹⁵⁵ Dr. Alexander further explained, “[i]n cases where the discharges being requested were historically discharged into the river, [Staff] use the [WAM] to determine whether special conditions are necessary to protect water rights that were granted based on the use and availability of the applicant’s return flows.”¹⁵⁶

¹⁵² ED Reply at 2.

¹⁵³ OPIC Reply at 6.

¹⁵⁴ Ex. ED-1 (Alexander Direct) at 19:13–24.

¹⁵⁵ Tr. Vol. 3 at 35:4-9.

¹⁵⁶ Ex. ED-1 (Alexander Direct) at 17:20-24.

SAWS expert Dr. Brandes testified that “the mere existence of return flows in a stream does not provide TCEQ documentation that the decision to grant those rights was based on the use or availability of return flows.”¹⁵⁷ As an example of water rights not based on the use or availability of return flows even though they arose after the return flows were already in the river, he cited the approximately 60 appropriative water rights issued for diversions from the Brazos River downstream of the City of Bryan’s effluent outfalls that were not given special protective provisions in the *City of Bryan* permit.¹⁵⁸ Conversely, Dr. Brandes highlighted Permit No. 1554 as an example of a permit explicitly based on return flows—specifically, San Antonio’s effluent return flows that had been contracted to private parties for irrigation use.¹⁵⁹

SAWS additionally points out that, in 1949, San Antonio contracted to sell all the treated effluent from its wastewater disposal facilities to G. B. Bancroft and R. F. Kelley for 25 years; and, in 1951, Messrs. Bancroft and Kelley were issued Permit 1554, granting them a water right for San Antonio’s effluent purchased through their contract with the City.¹⁶⁰ SAWS argues that Permit 1554 specifically identified San Antonio’s effluent delivered to the San Antonio River as the source of supply.¹⁶¹ SAWS goes further, arguing that, because Texas law prohibited the double

¹⁵⁷ SAWS Ex. 21 (Brandes Direct) at 40138:15-22.

¹⁵⁸ SAWS Ex. 21 (Brandes Direct) at 40138:6-39:2.

¹⁵⁹ SAWS Ex. 21 (Brandes Direct) at 40145:8-47:2.

¹⁶⁰ SAWS Ex. 21 (Brandes Direct) at 40143:5-14, 40145:1-6. *See also* SAWS Ex. 15; SAWS Ex. 16 at 040088.

¹⁶¹ SAWS Ex. 21 (Brandes Direct) at 40146:7-47:15. *Compare with* SAWS Ex. 16 at 40088. SAWS’s expert Dr. Brandes also testified that San Antonio’s effluent was available, unappropriated water prior to 1951. Tr. Vol. 3 at 206:12-14.

permitting of appropriative water rights, as testified to by Dr. Brandes,¹⁶² the effluent appropriated through Permit 1554 could not have been the basis for Protestants' water rights in the period prior to the granting of Permit 1554 in 1951, because then the issuance of Permit 1554 would have constituted double permitting.¹⁶³

A further SAWS argument is that UCC's Permit 1614 was granted based on the Lockwood Report, which was submitted in support of that permit application.¹⁶⁴ According to SAWS, the Lockwood Report assumed that San Antonio's effluent return flows were not available as a source of supply, due to the previous permitting

¹⁶² SAWS Ex. 21 (Brandes Direct) at 40151:1-53:6 (“Based on my experience, such double permitting of appropriative water rights has never been allowed in Texas. . . . In essence, until an existing water right is cancelled, its authorization cannot be infringed upon by the issuance of a new water right based on the same source of supply. It is my understanding that these provisions date back to the early Irrigation Act of 1913.”). SAWS also cites *Lower Colo. River Auth. v. Tex. Dep’t of Water Res.*, 689 S.W.2d 873, 876 (Tex. 1984) (*Stacy Dam*) (“Basically, our decision is that the article prohibits “double permitting” or the stacking of appropriated waters on appropriated waters.”) and Prot. Ex. 616 at 39072 (Vernon’s Texas Revised Civil Statutes, 1936, Title 128 (Water), Art. 7474 – Forfeiture of rights: “and, provided further, that if a permit for the use of such water has been issued, or is issued, under this Act or under the Act approved April the 9th 1913, such water shall not be subject to new appropriation until the permit is cancelled by the board in whole or in part”). SAWS Reply at 19. Protestants’ expert Mr. Settemeyer disputes this notion and Protestants argue that no such explicit prohibition existed until *Stacy Dam* was decided in 1984. Prot. Ex. 400 (Settemeyer Direct) at 8:25 (“there was no prohibition on over-allocating state water during the [1982] adjudication”), 9:9-16 (*Stacy Dam* “was decided in 1984, after many rivers in Texas had been adjudicated, including the San Antonio River and the Lower Guadalupe River Segment.”); Protestants also cite *City of Marshall*, 206 S.W.3d 97 at 102-03 (recognizing that, even after the adjudication process, “many river basins in the state were overappropriated”) and *Stacy Dam*, 689 S.W.2d at 881-82 (“Because of . . . the possibility of erroneous assumptions about the inflow amounts to the rivers, overappropriation may exist. These circumstances may make any river overappropriated, particularly during a drought period . . .”).

¹⁶³ SAWS Closing at 4, 28; SAWS Reply at 16.

¹⁶⁴ SAWS Closing at 3-4.

of the use of that effluent to third parties who had contracted with San Antonio;¹⁶⁵ and the Lockwood Report found, nevertheless, that adequate water supply for UCC's needs could be provided, with 98% reliability, without San Antonio's effluent.¹⁶⁶ From this, SAWS infers that San Antonio's effluent was not available when Permit 1614 was issued and/or was not the basis of that permit.

In a correlated argument, SAWS argues that Protestants' CAs cannot have granted them any rights that did not already exist in their underlying water rights, therefore, the CAs similarly fail as bases for claiming the Draft Permit should include protective special conditions under Section 11.042(b).¹⁶⁷ SAWS points to Texas Water Code section 11.303(k) and Mr. Settemeyer's acknowledgement that Protestants' CAs did not fundamentally change or increase their appropriative right.¹⁶⁸

¹⁶⁵ See SAWS Ex. 33 at 39002; Ex. ED-1 (Alexander Direct) at 26:1-5 (the Lockwood Report "clearly indicates that San Antonio's return flows were excluded from the analysis"). Protestants' expert Mr. Vaugh views the Lockwood Report differently, pointing out that the report only assumed San Antonio's *historical* effluent permitted for reuse to other parties under Permit 1554, up to 25,000 AF, was unavailable, whereas the City's *actual* effluent at the time exceeded 50,000 AF per year. Mr. Vaugh interprets this as confirmation that San Antonio's effluent *was* part of the identified source of supply for the permit. Prot. Ex. 300 (Vaugh Direct) at 23:12-24, 33:23-29. As a minor point, although SAWS suggests that San Antonio's *effluent itself* was unavailable for appropriation due to prior permitting, both the Lockwood Report and Permit 1554 referred to *an amount of river water equivalent to San Antonio's effluent*. See SAWS Ex. 16 at 40088 ("the Board of Water Engineers . . . grant this permit . . . to divert, appropriate and use from the source of supply hereinafter described, an *amount of the unappropriated public waters of the State of Texas* to consist of waters purchased by the applicants from the City of San Antonio") (emphasis added), 40093-94; SAWS Ex. 31 at 40230; see also Prot. Ex. 100 (Perkins Direct) at 19:8-10 (with Permit 1554 came "the concept of granting an appropriation of state water equivalent to a certain volume effluent discharged by San Antonio").

¹⁶⁶ SAWS Ex. 21 (Brandes Direct) at 40149:9-50:7. Cf. SAWS Ex. 31 at 40230; SAWS Ex. 33 at 38999-39002.

¹⁶⁷ SAWS Closing at 31-32; SAWS Reply at 19-20.

¹⁶⁸ Tr. Vol. 2 at 152:13-53:3 (Mr. Settemeyer). Texas Water Code section 11.303(k) states: "Nothing in this section shall be construed to recognize any water right which did not exist before August 28, 1967."

Finally, SAWS and the ED argue that, per the Commission’s interim order in *City of Bryan*, bed and banks applications that involve exclusively groundwater-based return flows do not involve state water and must not be processed under statutes and rules applicable to state water.¹⁶⁹ They maintain that, since *City of Bryan*, TCEQ has treated all bed and banks applications requesting authorization to divert and reuse such flows as not involving state water as a matter of law; and they contend that Staff has consistently processed such post-*City of Bryan* applications solely under Section 11.042(b) and TCEQ’s bed and banks authorization rules—not under statutes and rules applicable to state water.¹⁷⁰

c) ALJs’ Analysis

OPIC succinctly phrased the dilemma in this case: “the administrative process responsible for drafting [permit] language has historically been inconsistent—rendering the practices by which water rights have been processed, considered, and written over previous decades as neither unvaryingly uniform nor comprehensively articulated.”¹⁷¹

As a preliminary matter, it should be noted that the ED, SAWS, and Protestants all recognize CAs as “water rights” of the type potentially protected by

¹⁶⁹ SAWS Ex. 3 at 39984; SAWS Closing at 9; Ex. ED-1 (Alexander Direct) at 13:23-31; Tr. Vol. 3 at 17:3-23; *accord* SAWS Ex. 3 at 39900-01.

¹⁷⁰ SAWS Closing at 2-3, 9-10, 23; ED Closing at 3-4, 8; ED Reply at 8-9. *See* Tr. Vol. 3 at 16:24-18:5, 87:7-17, 87:25-88:15; Ex. ED-1 (Alexander Direct) at 9:31-15:23, 20:23-21:2, 22:19-26; *see also* SAWS Ex. 21 (Brandes Direct) at 40135:1-8. Protestants respond that “the rule embodied” in Staff’s application review procedure is invalid rulemaking in contravention of the Administrative Procedure Act. Prot. Closing at 36-40; Prot. Reply at 14-15.

¹⁷¹ OPIC Reply at 5.

Section 11.042(b). Staff expert Dr. Alexander listed three CAs as such water rights.¹⁷² SAWS identified its own CAs as such water rights in the Application.¹⁷³ Protestants argued this explicitly in their briefing.¹⁷⁴ The Texas Supreme Court has stated, as a basic explanation, “[w]ith limited exceptions, water rights in Texas are currently recognized in [CAs] or permits.”¹⁷⁵ Moreover, TCEQ’s own definition of CA indicates it represents a water right, and CAs are included in the water rights referenced in TCEQ’s definition of “permit.”¹⁷⁶

None of the Protestants’ CAs contain language explicitly indicating that they were issued based on the use or availability of effluent;¹⁷⁷ however, that does not

¹⁷² Ex. ED-1 (Alexander Direct) at 17:1-4. *See also* Ex. ED-1 (Alexander Direct) at 27:13-14 (“I agree that the underlying permits are no longer valid and were cancelled when the water rights were adjudicated.”).

¹⁷³ SAWS Ex. 3 at 39893. *See also* Tr. Vol. 1 at 172:17-23 (SAWS expert Dr. Brandes identifying CAs as Protestants’ “current water right”).

¹⁷⁴ *See, e.g.*, Prot. Reply at 2-3; Prot. Ex. 400 (Settemeyer Direct) at 7:31-32 (“Following the adjudication, a person who was issued a CA would look only to that CA. The CA superseded and supplanted all prior permits.”), 15:25-28 (adjudication “was effectively a re-granting of GBRA and UCC’s water rights, following proof of actual use and future projected use of state water, up to the volume of the original permits”); Tr. Vol. 2 at 233:2-16 (Protestants’ expert Mr. Vaugh referring to CAs as “the existing rights” and contrasting that with the “ancestor permits”).

¹⁷⁵ *City of Marshall*, 206 S.W.3d 97 at 99 n.2. *See also Pape Partners, Ltd. v. DRR Family Props. LP*, 645 S.W.3d 267, 274 (Tex. 2022) (“[T]he Legislature has used *water rights adjudication* as a term of art for the commission’s process of allocating the rights to the water of a particular source in a manner that is consistent with the public interest. Adjudication is shorthand for the commission’s decision to issue water-rights permits . . . known as certificates of adjudication.”) (emphasis in original); Prot. Ex. 103 (CA 18-5173) at GBRA_007837 (“This certificate of adjudication . . . supersedes all rights of the owners asserted in [the adjudication proceeding].”).

¹⁷⁶ 30 Tex. Admin. Code § 297.1(10) (“Certificate of adjudication—An instrument evidencing a water right issued to each person adjudicated a water right. . . .”); 30 Tex. Admin. Code § 297.1(38) (“A permit also means any water right issued, amended, or otherwise administered by the commission unless the context clearly indicates that the water right being referenced is limited to a certificate of adjudication, certified filing, or unadjudicated claim.”).

¹⁷⁷ Prot. Exs. 103-109.

mean that they *were not* granted based on it.¹⁷⁸ Therefore, the relevant question, raised by Protestants, is did Protestants *actually use* SAWS’s return flows during the Lookback Period?

The Final Determination of the Lower Guadalupe made determinations based on rights holders’ actual, beneficial use of the water;¹⁷⁹ it was subject to rehearing, exceptions, and final judicial resolution;¹⁸⁰ and it was, in fact, affirmed on appeal.¹⁸¹ Under Water Code section 11.322(d), that determination is “final and conclusive as to all existing and prior rights and claims to the water rights” and “binding on all claimants to water rights outside the adjudicated stream or segment of a stream.” Therefore, the ALJs find that Protestants used the available state water during the Lookback Period, and that such use was the basis of their CAs.

Whether the water Protestants used during the Lookback Period included SAWS’s return flows merits deeper consideration. Throughout Texas history, water

¹⁷⁸ See, e.g., Prot. Ex. 400 (Settemeyer Direct) at 8:15-21 (““If a water right was limited to appropriating only the volume of state water that was discharged as effluent, then the CA said so. . . . However, if the CA was based on the use of whatever state water was in the source of supply—including effluent—that was not specifically included within the terms of the CA.”).

¹⁷⁹ Prot. Ex. 122 at 2-3. See Prot. Ex. 400 (Settemeyer Direct) at 5:39-6:3, 6:27-7:7 (in the adjudication, permittees had to demonstrate their actual, beneficial use of the water from the stream, in the amount permitted, during the critical period; otherwise, no CA would be issued); see also *City of Marshall*, 206 S.W.3d 97 at 103 (noting that the rights recognized via the adjudication process were based upon historic use).

¹⁸⁰ Tex. Water Code §§ 11.316-.322.

¹⁸¹ *In re Adjudication of Water Rights of Lower Guadalupe River Segment*, 730 S.W.2d 64 (Tex. App.—Corpus Christi-Edinburg 1987, writ ref’d n.r.e.).

rights have at times been granted based on the availability or use of return flows.¹⁸² Protestants' Exhibit 617, which states "WHEREAS the [Texas Water Rights Commission] finds that sewage effluent, when discharged into a public stream assumes the character of unappropriated public waters," is an example of one such permit, granted in 1968.¹⁸³ And Staff of TCEQ's predecessor agency acknowledged as recently as 2001 that "the adjudication for the San Antonio River basin relied on historical discharges to that basin" and "these assumed return flows were available to be appropriated to other water rights applicants;" and even noted, "these [downstream] water rights have grown to rely on these return flows."¹⁸⁴

That understanding was supported in a 2004 decision, *City of San Marcos v. Texas Commission on Environmental Quality*, regarding the city's bed-and-banks permit for groundwater-based effluent that was pending when Section 11.042(b)

¹⁸² See Ex. ED-1 (Alexander Direct) at 17:11-16; Tr. Vol. 3 at 134:23-35:2 (Dr. Alexander: "I think no one has not acknowledged that there were permits that were granted using models that had return flows in them or their - the return flows in the stream."); Ex. ED-4 at 44 ("Challenges [to municipal effluent reuse] arise, in part, because in the past the Commission has issued some permits based on the existence of return flows being in the river. In the adjudication process, some claims were established based on return flows being in the stream."); Prot. Ex. 200 (Finley Direct) at 8:11-9:10 ("any of the water rights that were issued based on gage flows that had effluent return flows in them would have been issued based on the availability of return flows."); Prot. Ex. 300 (Vaugh Direct) at 19:3-21, 23:2-7 (Protestants' rights "were granted based on the availability of state water in the Guadalupe River at the time of granting, and that available state water included San Antonio's effluent discharges"), 32:28-32, 33:20-29, 34:14-19 ("Water rights have been granted throughout Texas history based on the availability of return flows, or their use, without explicitly referencing effluent."); Prot. Ex. 400 (Settemeyer Direct) at 10:7-13; Prot. Ex. 403 at 5327-28, 5330; Prot. Ex. 625 at GBRA005322 ("In granting some water rights permits in the past, the Commission's water availability analysis included upstream return flows."); Prot. Ex. 312 at GBRA_005319-20 ("At least some of the [Commission's] prior [WAMs] assumed a return flow factor for municipal water rights. The adjudication for the San Antonio River basin relied on historical discharges to that basin."). Although not precedential, the ALJs also consider persuasive the Commission's previous finding in the Order Granting BRA Permit that "Return flows, once returned to a state watercourse, are unappropriated flows available for appropriation." Prot. Ex. 303 at GBRA_007766 (FOF 164).

¹⁸³ Prot. Ex. 617 at 1.

¹⁸⁴ Prot. Ex. 312 (Chenoweth Memo) at GBRA_005320.

became effective.¹⁸⁵ In *City of San Marcos*, the Third Court of Appeals: (1) concluded “that there is no common-law right by which the City can retain ownership over its wastewater effluent after discharging it into a state watercourse;” (2) sustained the environmental non-profit appellant’s attack on the validity of the permit on the grounds that “the water it authorizes the City to withdraw from the river . . . is not the City’s water but, instead, the state’s water, to which the City has no right absent a surface water-right appropriation;” and (3) rendered judgment ordering the city’s application to be denied.¹⁸⁶ The *City of San Marcos* court specifically held: “the Commission erred in its interim order by concluding that the City’s effluent remains private groundwater when it is discharged into a state watercourse.”¹⁸⁷

Similarly, in *Edwards Aquifer Authority v. Day*, the Texas Supreme Court stated: “[W]hen the water owner has not obtained the required authorization for such transportation [of groundwater discharged into a watercourse], the water in the natural watercourse becomes state water;”¹⁸⁸ although the court noted that, generally, surface water in natural watercourses is state water, whereas groundwater is privately owned.¹⁸⁹ Accordingly, the Commission’s 2016 order in TCEQ Docket Number 2005-1490-WR, SOAH Docket Number 582-10-4184, determined that groundwater-based return flows, once discharged into a watercourse, become available for appropriation by others, subject to termination in the event the

¹⁸⁵ *City of San Marcos v. Tex. Comm’n on Envtl. Quality*, 128 S.W.3d 264 (Tex. App.—Austin 2004, pet. denied).

¹⁸⁶ *City of San Marcos*, 128 S.W.3d at 266, 270, 278-79.

¹⁸⁷ *City of San Marcos*, 128 S.W.3d at 279.

¹⁸⁸ *Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814, 823 (Tex. 2012).

¹⁸⁹ *See Edwards Aquifer Auth.*, 369 S.W.3d 814 at 822-23.

discharger is granted authorization to use its own return flows pursuant to Section 11.042(b) or (c).¹⁹⁰ And, in 2016, the Fourteenth Court of Appeals affirmed a Commission order finding that the City of Lubbock's treated wastewater effluent was not surplus water subject to appropriation by other water rights holders in the Brazos river, and the diversion would not constitute a new appropriation of water, *because it was permitted under a bed-and-banks permit*.¹⁹¹

The preponderant evidence indicates that San Antonio's effluent discharged during the Lookback Period became available, unappropriated water upon entering the watercourse.¹⁹² The same finding can also be made based on the Final Determination of the Lower Guadalupe itself.¹⁹³ San Antonio's discharged effluent was no longer appropriated after Permit 1554 was canceled in 1963.¹⁹⁴ Therefore, coupled with the final determination that Protestants *actually used* the water they

¹⁹⁰ Prot. Ex. 303 (Order Granting BRA Permit) at 7766 (Finding of Fact 164), 7777 (Conclusion of Law 16), 7797 (paragraph 5.A.3).

¹⁹¹ *R.E. Janes Gravel Co. v. Texas Comm'n on Envtl. Quality*, 522 S.W.3d 506, 517 (Tex. App.—Houston [14th Dist.] 2016) (pet. Denied).

¹⁹² Tex. Water Code § 11.021(a) (“The water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake . . . is the property of the state.”). *See City of San Marcos*, 128 S.W.3d 264 at 275 (“Once return flows are given back to a watercourse, they become part of the normal flow.” (quoting *Domel v. City of Georgetown*, 6 S.W.3d 349, 360 (Tex. App.—Austin 1999, pet. denied)); *see also* Tr. Vol. 3 at 206:12-14 (Dr. Brandes agreed that San Antonio's effluent was available water between 1941 and 1951); Prot. Ex. 300 (Vaugh Direct) at 33:13-29; Prot. Ex. 400 (Settemeyer Direct) at 15:1-28.

¹⁹³ Prot. Ex. 122 at 2. (“all flows of the various streams in the Lower Guadalupe River Segment are state waters subject to this adjudication except water being used for domestic or livestock purposes.”)

¹⁹⁴ *See* Tr. Vol. 1 at 174:2-13 (SAWS expert Dr. Brandes agreeing that Permit 1554 was canceled in 1963 and that, during the Lookback Period, he was aware of no permit in effect that specifically included language regarding San Antonio's effluent); Prot. Ex. 200 (Finley Direct) at 10:4-5 (“Permit 1554 was canceled in the 1960s, so it was not part of any consideration during the adjudication of water rights that happened thereafter”); Prot. Ex. 300 (Vaugh Direct) at 33:13-16; Prot. Ex. 400 (Settemeyer Direct) at 15:1-28 (as soon as Permit 1554 was cancelled that water was available to new and existing appropriators, so San Antonio's effluent could be diverted and was used during the Lookback Period); Prot. Ex. 619 at 5.

were allocated during the Lookback Period and that such use was the basis of their CAs, the ALJs find that Protestants' CAs were granted based on the actual use of flows with origins as SAWS effluent.¹⁹⁵ In short, Protestants' water rights were granted based on the use of the return flows SAWS seeks to divert.¹⁹⁶

2. Would the Draft Permit result in adverse impacts to Protestants' water rights that were granted based on the use or availability of the return flows SAWS seeks to divert, such that special conditions are necessary?

a) Protestants' Position

Protestants argue that their water rights would be severely impacted by the Draft Permit, with impacts to daily and monthly volume reliability, interruptability, firm yield, and financial costs.¹⁹⁷

Mr. Finley opined that SAWS "seeks to appropriate not just a significant amount of the flow of the San Antonio River, but the *majority* of the flow of the San Antonio River in drier months."¹⁹⁸ Mr. Perkins testified that Protestants would see a reduction in reliability of their water rights, resulting in the need for additional infrastructure and facility upgrades, higher costs to water ratepayers, and likely

¹⁹⁵ Prot. Ex. 300 (Vaugh Direct) at 33:13-16, 33:23-29; Prot. Ex. 400 at 15:1-28.

¹⁹⁶ Because the ALJs find that Protestants' CAs were granted based on the use or availability of the return flows in question, further analysis of the underlying permits that the CAs superseded is not necessary.

¹⁹⁷ Prot. Closing at 18-19.

¹⁹⁸ Prot. Ex. 200 (Finley Direct) at 12:32-34.

greater environmental impacts.¹⁹⁹ He added that it would affect GBRA's ability to develop new water supplies that are in the Regional and State Water Plans and meet current contractual demands.²⁰⁰ Mr. Vaugh criticized Staff's analysis of water rights impacts, opining that "TCEQ chooses to ignore" the Draft Permit's impacts on water rights in the Guadalupe River Basin upstream of the San Antonio River confluence, and that it "relies on overly simplistic measures of impacts" by citing a "rule of thumb" that reductions in volume reliability of less than 5% are not significant enough to warrant further investigation.²⁰¹ He pointed out that the 158 water rights Staff identified as being negatively impacted by the Draft Permit, including Protestants', were all located only within the San Antonio watershed and the portion of the Guadalupe *downstream* of the confluence.²⁰²

Mr. Vaugh analyzed the Draft Permit's impact on volumes of state water Protestants could divert during a drought of record and found minimum yearly reductions in volume of 18-35%, causing some of their water rights that were previously 100% reliable to become interruptible.²⁰³ More specifically, during a year matching the drought of record, the Draft Permit would reduce the volume reliability for Protestants' previously firm municipal components by 25-35%.²⁰⁴

¹⁹⁹ Prot. Ex. 100 (Perkins Direct) at 16:17-22; *see generally* Prot. Ex. 100 (Perkins Direct) at 16-17.

²⁰⁰ Prot. Ex. 100 (Perkins Direct) at 16:26-32; *see generally* Prot. Ex. 100 (Perkins Direct) at 16-17.

²⁰¹ Prot. Ex. 300 (Vaugh Direct) at 34:38-35:9.

²⁰² Prot. Ex. 300 (Vaugh Direct) at 35:36-36:16. Mr. Vaugh further concludes that Staff ignored 134 additional water rights he found to be impacted along the Guadalupe River and its tributaries *above* the confluence. The ALJs refrain from discussing non-parties' water rights.

²⁰³ Prot. Ex. 300 (Vaugh Direct) at 35:26-32, 37:17-20; Prot. Ex. 317.

²⁰⁴ Prot. Ex. 300 (Vaugh Direct) at 38:3-15; Prot. Ex. 317.

Protestants alleged that Staff’s use of an annualized basis and “rule of thumb” percentage to set a threshold impact were “inappropriately blunt,” arbitrary, and illegitimate.²⁰⁵ To that end, Mr. Vaugh used TCEQ’s model to chart monthly impacts, instead of just yearly, as Staff had done; and he found that, in a year matching the drought of record, the Draft Permit would cause at least one month during which Protestants’ currently-firm municipal components will be unable to divert.²⁰⁶ Taking Staff’s monthly modeling results as bases, Mr. Vaugh then analyzed the Draft Permit’s daily impacts on Protestants’ ability to divert water under their water rights. He found that the daily firm reliability, or yield, of Protestants’ aggregated water rights decreased by 94% and all their currently-firm municipal components were reduced to zero—a 100% reduction.²⁰⁷ Finally, Mr. Vaugh found that the reliability of five of Protestants’ seven industrial components, which are currently 100% reliable, would be reduced by 20-30% on a monthly basis;²⁰⁸ and, on a daily basis, those impacts would be 100%.²⁰⁹

Addressing the Draft Permit’s economic consequences, Mr. Finley stated that “[w]ithout a reliable water supply, [UCC’s] Seadrift Facility cannot function” and will have to shut down; and, “[e]ven a one percent impact on UCC’s water rights could mean several days a year that the Seadrift Facility is without water.”²¹⁰ He

²⁰⁵ Prot. Closing at 19, 31.

²⁰⁶ Prot. Ex. 300 (Vaugh Direct) at 38:33-37; Prot. Ex. 317.

²⁰⁷ Prot. Ex. 300 (Vaugh Direct) at 39:1-13; Prot. Ex. 318.

²⁰⁸ Prot. Ex. 300 (Vaugh Direct) at 39:36-40:3; Prot. Ex. 317.

²⁰⁹ Prot. Ex. 300 (Vaugh Direct) at 39:36-40:3; Prot. Ex. 318.

²¹⁰ Prot. Ex. 200 (Finley Direct) at 5:3-4, 10:31-36.

estimated that the “cost of shutting down the plant for a single day is approximately one million dollars (\$1,000,000).”²¹¹ Mr. Finley added that, “[i]f water shortages become chronic . . . UCC may also have to invest in an on-site water storage facility,” at an estimated cost of “\$150 million or more.”²¹²

Finally, Protestants argue that Dr. Alexander found an average reliability impact on their water rights of approximately 0.85%;²¹³ and such negative effects constitute “adverse impact” as defined in TCEQ rules and injury as understood by staff of TCEQ’s predecessor.²¹⁴

b) ED’s Position

As Dr. Alexander testified, “ED staff uses a 5% rule of thumb in making a determination on whether the results indicate a practical impact.”²¹⁵ The ED argues that Staff’s use of a 5% threshold in its analysis of the Application’s impact on existing water rights is reasonable based on the program’s technical experience and

²¹¹ Prot. Ex. 200 (Finley Direct) at 10:31-32.

²¹² Prot. Ex. 200 (Finley Direct) at 10:38-11:3.

²¹³ See Ex. ED-1 (Alexander Direct) at 19:20-24 (Table 3).

²¹⁴ Prot. Closing at 19-20, citing 30 Tex. Admin. Code § 297.45(d) (defining “adverse impact” as including “the possibility of depriving an appropriator of the equivalent quantity or quality of water that was available with the full, legal exercise of the existing water right before the change,” as well as “otherwise substantially affecting the continuation of stream conditions as they would exist with the full, legal exercise of the existing water right at the time [that] the appropriator’s water right was granted”) and Prot. Ex. 312 (Chenoweth Memo) at 5320 (“Any reduction in reliability will be considered an ‘injury’ for purposes of these reuse applications.”).

²¹⁵ Ex. ED-1 (Alexander Direct) at 20:16-17.

expertise, consistent with agency practice.²¹⁶ Notably, the highest impact to the volume reliability of Protestants' water rights that Dr. Alexander found was 3.08%.²¹⁷

Regarding Protestants' claims about the Draft Permit's economic impacts, Dr. Alexander testified that TCEQ does not have authority under Water Code Chapter 11 or other applicable water rights regulations to consider economic consequences of a permit as part of the water rights permitting process.²¹⁸ As to Protestants' concerns about Staff's use of volume reliability to determine impacts, she responded that such an analysis (based on the annual amount authorized) is appropriate because Protestants' water rights authorize an annual amount rather than a specific use pattern.²¹⁹

c) SAWS's Position

SAWS argues that Protestants' claims of adverse impacts to their water rights are not legally relevant, based on the lack of reference to impacts in Section 11.042(b), as compared to 11.042(c). Additionally, SAWS argues that Protestants' claims of adverse impacts to their water rights are baseless, given the evidence of Protestants' firm water supply compared to their water needs²²⁰—essentially saying that Protestants already need to construct an off-channel storage

²¹⁶ Ex. ED-1 (Alexander Direct) at 20:23-21:2.

²¹⁷ Ex. ED-1 (Alexander Direct) at 19-20 (Table 3, CA 5178).

²¹⁸ Ex. ED-1 (Alexander Direct) at 25: 22-26.

²¹⁹ Ex. ED-1 (Alexander Direct) at 25: 27-32.

²²⁰ SAWS Reply at 23-24.

project, so that impact would not be due to the Draft Permit. To this end, Dr. Brandes testified that, based on the Lockwood Report, Protestants have known since 1952 that the water supply available to meet their joint needs was only 98% reliable.²²¹ Also relatedly, SAWS elicited testimony from Mr. Perkins that Protestants' Lower Basin rights total 172,501 AF but their firm supply is only approximately 8,870 AF;²²² GBRA's 2022 obligation to UCC and other customers is approximately 43,000 AF;²²³ GBRA needs to construct a lower-basin off-channel storage project regardless of the decision on the Draft Permit;²²⁴ and Protestants have discussed UCC's participation in the off-channel storage project.²²⁵

d) ALJs' Analysis

SAWS's argument that Section 11.042(b) does not allow for consideration of adverse impacts is unavailing. Section 11.042(b) requires special conditions if they are "necessary to protect an existing water right;" therefore, the permitting authority must have some basis for parsing necessity. Whether that basis is described as "impact" is semantic for, as Oliver Wendell Holmes, Jr., said, in pointing out that legal practitioners should read the law with the ends in mind, "[w]e must think things not words, or at least we must constantly translate our words into the facts for

²²¹ See SAWS Ex. 21 (Brandes Direct) at 40150:5-7.

²²² SAWS Ex. 35 (2021 South Central Texas Regional Water Plan) at 5.2.16-2 to 5.2.16-3.

²²³ Tr. Vol. 2 at 88:18-22 (Perkins).

²²⁴ Tr. Vol. 2 at 101:25-02:3 (Perkins).

²²⁵ Tr. Vol. 2 at 100:21-01:3 (Perkins).

which they stand, if we are to keep to the real and the true.”²²⁶ How else, but impacts, would one demonstrate necessity?

Staff considered impact in its determination of whether water rights were issued based on the use or availability of the return flows at issue in this case. Staff’s use of a “rule of thumb” 5% threshold as the level of decreased annualized volume reliability that will impose a practical impact on affected rights may be reasonable for Staff’s initial analysis of the Application. However, Protestants successfully rebutted Staff’s impact analysis with evidence that even a 1% impact could translate to severe impacts on the reliability of Protestants’ water rights;²²⁷ and neither SAWS nor the ED presented evidence that overcame this rebuttal. The ED’s own expert, Dr. Alexander, found that some of Protestants’ water rights would be negatively affected by the Draft Permit; found an average reliability impact on Protestants’ specific water rights of approximately 0.85%; and found impacts to the volume reliability of Protestants’ water rights as high as 3.08%. The preponderant evidence demonstrates the Draft Permit would have adverse impacts on Protestants’ water rights.²²⁸

In conclusion, the ALJs find that Protestants’ exercise of their rights would be negatively impacted by SAWS’s proposed diversions; therefore, special conditions to protect those rights are necessary under Section 11.042(b).

²²⁶ Oliver Wendell Holmes, Jr., *Law in Science and Science in Law*, 12 Harv. L. Rev. 443, 460 (1899).

²²⁷ See, e.g., Prot. Ex. 300 (Vaugh Direct) at 34:20-40:20; Prot. Exs. 317, 318.

²²⁸ See 30 Tex. Admin. Code § 297.45(d); Prot. Ex. 312 (Chenoweth Memo) at 5320. The ALJs are not considering any alleged economic impact and agree with the ED that is outside the scope of this hearing.

3. Are the Draft Permit's special conditions adequate to protect Protestants' existing water rights that were granted based on the use or availability of the return flows SAWS seeks to divert?

a) Special Conditions in the Draft Report

Staff recommended special conditions be included in the Draft Permit to protect existing water rights granted based on the use or availability of the return flows SAWS seeks to divert.²²⁹ However, Staff identified only rights owned by SAWS or based on contracts with SAWS as rights to be protected;²³⁰ Staff did not find any of Protestants' water rights to have been granted based on the use or availability of that water.²³¹ And, although Staff also found 158 other water rights (including Protestants') negatively impacted by the Application, Staff found that the average impact on them was less than 1% and concluded that any possible impact would be mitigated by the accounting plan.²³²

The special conditions set forth in the Draft Permit are:

- 5.A: Requiring SAWS to implement measures to avoid entrainment or impingement of aquatic resources at the diversion structure.²³³
- 5.B: Conditioning diversions on the availability of discharges.²³⁴

²²⁹ Ex. ED-11 at 368-69.

²³⁰ Ex. ED-1 (Alexander Direct) at 16:33-17:5; Ex. ED-11 at 366.

²³¹ Ex. ED-1 (Alexander Direct) at 20:1-3; *see* Tr. Vol. 3 at 35:10-14.

²³² Ex. ED-1 (Alexander Direct) at 19:20-22:1; Ex. ED-11 at 367.

²³³ Ex. ED-3 at 40; *see* Ex. ED-11 at 361.

²³⁴ Ex. ED-3 at 40.

- 5.C and D: Requiring diversions be made in accordance with SAWS's approved accounting plan.²³⁵
- 5.E: Requiring prior authorization for reuse in excess of current TPDES permit limits.²³⁶
- 5.F: Requiring a permit amendment for any change to the location or number of diversion points, with the attendant possibility of additional special conditions.²³⁷
- 5.G: Requiring SAWS to install and maintain measuring devices that account for diversions within 5% accuracy.²³⁸
- 5.H and I: Requiring SAWS to allow the South Texas Watermaster (Watermaster) reasonable access to inspect measuring devices and records, and to contact the Watermaster prior to diversion.²³⁹

b) The ED's and SAWS's Positions

The ED and SAWS assert that the Draft Permit is adequately protective of all existing water rights that were granted based on the use or availability of the return flows SAWS seeks to divert. Dr. Alexander specifically noted that the accounting plan would mitigate any possible impacts.²⁴⁰ She additionally found:

[T]he application is subject to the requirements and orders of the [Watermaster]. The Watermaster actively manages water rights on a daily basis in accordance with the prior appropriation doctrine and

²³⁵ Ex. ED-3 at 41.

²³⁶ Ex. ED-3 at 41.

²³⁷ Ex. ED-3 at 41.

²³⁸ Ex. ED-3 at 41.

²³⁹ Ex. ED-3 at 41.

²⁴⁰ Ex. ED-1 (Alexander Direct) at 21:24-28; Ex. ED-11 at 367.

protects senior water rights in times of shortage. Therefore, existing water rights should not be affected by the application.²⁴¹

SAWS's expert, Dr. Brandes, testified that the special conditions in the Draft Permit provide sufficient protection for the six water rights that he found to be granted based on the use or availability of San Antonio return flows, which did not include Protestants'.²⁴²

c) Protestants' Position

Protestants' experts, Messrs. Perkins, Finley, and Vaugh, testified that the Draft Permit does not contain the special conditions needed to protect Protestants' water rights.²⁴³ Messrs. Finley and Vaugh opined that, without a priority date in the permit, the Watermaster could not protect Protestants' senior water rights from SAWS's diversion of 260,991 AF outside of the priority, under the Draft Permit.²⁴⁴ Mr. Vaugh also disagreed with Dr. Alexander's position that any impacts on existing water rights would be mitigated by the accounting plan.²⁴⁵

²⁴¹ Ex. ED-11 at 367.

²⁴² Tr. Vol. 1 at 167:19-168:13.

²⁴³ Prot. Ex. 100 (Perkins Direct) at 22:28-32; Prot. Ex. 200 (Finley Direct) at 13:34-14:8; Prot. Ex. 300 (Vaugh Direct) at 40:33-35.

²⁴⁴ Prot. Ex. 300 (Vaugh Direct) at 41:8-15; Prot. Ex. 200 (Finley Direct) at 12:37-40.

²⁴⁵ Prot. Ex. 300 (Vaugh Direct) at 41:17-25.

Protestants' experts proposed the following as possible, protective special conditions:²⁴⁶

- a priority date or, alternatively, subordinating diversions to Protestants' Lower Basin water rights;²⁴⁷
- a flow restriction that would allow SAWS to exercise its permit rights only if a certain amount of water was flowing;
- allowing SAWS only to reuse its future incremental return flows, not those historically discharged;
- protecting the amount of effluent discharged by SAWS and historically available at GBRA's diversion points when water rights were initially issued in the 1940s and 1950s and during the Lookback Period; and
- a requirement to provide notice to Protestants on future amendments to the Draft Permit, including changes to the accounting plan.

d) ALJs' Analysis

Because Protestants' water rights were not previously acknowledged to be based on the use or availability of the return flows at issue here, the special conditions currently in the Draft Permit were not aimed at protecting them. The accounting plan likewise offers Protestants cold comfort—because Staff did not find Protestant's water rights to have been granted based on the use or availability of the return flows SAWS seeks to divert, it fails to account for them.

²⁴⁶ Prot. Ex. 100 (Perkins Direct) at 22:35-23:14; Prot. Ex. 200 (Finley Direct) at 13:15-16, 13:34-14:8; Prot. Ex. 300 (Vaugh Direct) 8:1-3; *see also* Prot. Ex. 300 (Vaugh Direct) at 5:16-20.

²⁴⁷ Dr. Alexander conceded that: (1) before *City of Bryan*, TCEQ policy was to give all bed and banks permits a priority date; (2) including a priority date in a bed and banks permit could provide protection for senior water rights; and (3) TCEQ could decide to put a priority date on the SAWS permit. Tr. Vol. 3 at 87:9-21, 89:7-9.

The ALJs find that SAWS failed to carry its burden to show that the special conditions in the Draft Permit as currently written are adequate to protect Protestants' existing rights from the negative impacts SAWS's proposed diversions would cause. Accordingly, the ALJS recommend that special conditions to protect Protestants' water rights be added to the Draft Permit. The ALJs do not have sufficient evidence in the record to set out the details of those conditions, but note that the following conditions proposed by Protestants' experts appear appropriate: (1) a restriction that would allow SAWS to exercise its rights under Permit 13098 only if a certain amount of water was flowing at the saltwater barrier; and (2) protection of the amount of water equivalent to San Antonio's return flows historically available at the diversion points during the Lookback Period.

C. ACCOUNTING PLAN ISSUES

Section 11.042(b) provides for an authorization for diversion and reuse "less carriage losses." Similarly, TCEQ's rules provide that an application for a bed and banks permit to convey groundwater-based effluent must include "the estimated amount of water that will be lost to transportation, evaporation, seepage, channel or other associated carriage losses from the point of discharge to the point of diversion."²⁴⁸ The method and calculation of carriage losses is subject to the review and approval of the ED.²⁴⁹

²⁴⁸ 30 Tex. Admin. Code § 295.112(b)(6).

²⁴⁹ 30 Tex. Admin. Code § 295.112.

Protestants make several arguments that SAWS's accounting plan is insufficient. Many of their arguments address the accounting plan, standing alone, and omit the 2022 Kennedy Memo that addresses travel times. As Mr. Vaugh testified, these travel times could be implemented into the accounting plan.²⁵⁰ Although Protestants argue that the revisions to the accounting plan "have not actually been incorporated into the accounting plan itself,"²⁵¹ the ALJs find that argument to be about form, not substance. SAWS has presented the Kennedy Memo as something it intends to follow in using the accounting plan. The parties all agree that travel times have been calculated; where they are found is not significant.

Protestants and OPIC also argue that the accounting plan fails to account for any losses between GBRA's saltwater barrier and the proposed diversion reach.²⁵² They also argue, citing Mr. Finley's testimony, that the accounting plan systemically underestimates carriage losses during times of drought because it uses an average carriage loss amount.

SAWS argues, pointing to Mr. Kennedy's rebuttal testimony, that the WAM shows that there are no channel losses between the saltwater barrier and a downstream control point and between the saltwater barrier and the last control point in the WAM.²⁵³ SAWS represented at hearing that it would be willing to make

²⁵⁰ See Tr. Vol. 2 at 27:14-21.

²⁵¹ Prot. Closing at 22.

²⁵² Prot. Closing at 22.

²⁵³ Tr. Vol. 3 at 162-63.

changes to its accounting plan, although a document with the specifics of those changes was not admitted into evidence.

The ALJs agree with Protestants and OPIC that SAWS's accounting plan needs to account for losses between the saltwater barrier and the diversion reach. Rather than serve as a basis for denial of the Application, it appears that the ED could review proposed changes to the accounting plan. The ALJs recommend that the Commission instruct that changes be made to: (1) account for those additional losses, if any; and (2) incorporate the Kennedy Memo into the accounting plan itself.

D. DOES THE DRAFT PERMIT VIOLATE THE EDWARDS AQUIFER AUTHORITY ACT?

Protestants argue that the Commission should decline to issue the Draft Permit based on language in the EAA Act.²⁵⁴ In particular, Protestants point to section 1.34(b) of the EAA Act, which states that “[w]ater withdrawn from the aquifer must be used within the boundaries of the [EAA].” All of Bexar County is within that territory, but the other counties where the diverted water is proposed to be used are outside of it.²⁵⁵ Protestants do not specifically argue that the EAA Act prohibits the issuance of the Draft Permit, but instead argue that the Commission should “decline to exercise its discretion under § 11.042(b) in a manner that allows SAWS to circumvent or violate that statutory prohibition.”²⁵⁶

²⁵⁴ Prot. Closing at 46.

²⁵⁵ EAA Act § 1.04.

²⁵⁶ Prot. Closing at 46.

The ALJs do not find that the EAA Act creates an impediment to the issuance of the Draft Permit, nor do they recommend that the Commission decline to issue it based on the language of the EAA Act. Even if the Commission were to have jurisdiction to consider violations of the EAA Act,²⁵⁷ the ALJs note that its section 1.34 is entitled Transfer of Rights, and most of the section discusses the lease or severance of Edwards Aquifer water rights.²⁵⁸ It does not address a bed and banks permit for groundwater-based return flows. The ALJs do not recommend finding that section 1.34 of the EAA Act has any bearing on the Application or the Draft Permit.

V. TRANSCRIPT COSTS

The Commission may assess reporting and transcription costs to one or more of the parties participating in a proceeding, and when doing so, must consider the following factors:

- the party who requested the transcript;
- the financial ability of the party to pay the costs;
- the extent to which the party participated in the hearing;
- the relative benefits of the various parties of having a transcript; and
- any other factor which is relevant to a just and reasonable assessment of costs.²⁵⁹

²⁵⁷ Protestants do not argue that the Commission, which does not oversee groundwater, has this jurisdiction.

²⁵⁸ EAA Act § 1.04(d), (e).

²⁵⁹ 30 Tex. Admin. Code § 80.23(d)(1).

Additionally, the Commission will not assess reporting or transcription costs against the ED or OPIC because they are statutory parties who are precluded by law from appealing the Commission's decision.²⁶⁰

SAWS indicated that it incurred transcript costs totaling \$6,753.35 and argues those costs should be allocated in thirds—one-third to it, one-third to GBRA, and one-third to UCC. SAWS argues that both GBRA and UCC had multiple attorneys participating in the hearing and that each Protestant retained expert witnesses. SAWS argues that the parties equally benefitted from a transcript and that no evidence suggests that either GBRA or UCC is unable to pay one-third of the transcript costs.²⁶¹

Protestants only addressed this issue in their proposed findings of facts and conclusions of law. They proposed that the Commission find all costs should be assessed against SAWS because the hearing was only necessary because the Application failed to comply with the statute and rules.²⁶²

In considering the factors in 30 Texas Administrative Code section 80.23(d)(1), the ALJs find that no party requested the transcript, because it was required by SOAH based on the anticipated length of the hearing. No evidence suggests that any of the parties involved in this matter are unable to pay transcript costs. All sides extensively participated in the hearing and used the transcript in their

²⁶⁰ 30 Tex. Admin. Code § 80.23(d)(2); *see* Tex. Water Code §§ 5.228, .273, .275, .356.

²⁶¹ SAWS Closing at 35.

²⁶² Prot. Prop. Findings of Fact 312-15.

briefing, although the ALJs note that GBRA and UCC were aligned and jointly filed a closing brief and a reply. Contrary to Protestants' arguments, a protestant's disagreement with the merits of an application is not one of the relevant factors and will not be considered in assessing costs.

The ALJs recommend that the transcript costs be assessed half to SAWS and half to Protestants to be divided between them. Given their alignment and joint briefing, the ALJs conclude that the benefit of the transcript was shared between them and therefore it is more appropriate for them to be jointly responsible for half the transcript's cost, rather than separately responsible for one-third of the cost.

VI. CONCLUSION AND RECOMMENDATION

The ALJs find that (1) Protestants' water rights encompassed in CAs 18-5173, 18-5174, 18-5175, 18-5176, 18-5177, and 18-5178 were granted based on the use or availability of the return flows SAWS seeks to divert; (2) although SAWS has generally met the requirements for issuance of Permit No. 13098, additional special conditions are necessary to protect those water rights; (3) SAWS's accounting plan should be amended to incorporate the Kennedy Memo and to account for any losses between GBRA's saltwater barrier and the proposed diversion reach; and (4) the transcription costs for the should be born equally between SAWS and the Protestants.

Accordingly, the ALJs recommend that the Commission adopt the attached Proposed Order approving the Application with ALJs' recommended modifications. The Proposed Order contains additional findings of fact and conclusions of law that

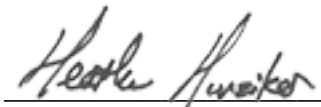
are not discussed in this PFD because they are not contested. The ALJs recommend that all findings of fact and conclusions of law proposed by the parties that are not contained in the Proposed Order be denied.

Signed November 27, 2023.



Rebecca S. Smith

Presiding Administrative Law Judge



Heather D. Hunziker

Co-Presiding Administrative Law Judge

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AN ORDER GRANTING THE APPLICATION BY SAN ANTONIO WATER SYSTEM FOR WATER USE PERMIT NO. 13098; TCEQ DOCKET NO. 2021-1391-WR; SOAH DOCKET NO. 582-22-1990

On _____, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the application of San Antonio Water System (SAWS) for Water Use Permit No. 13098. A Proposal for Decision (PFD) was presented by Administrative Law Judges (ALJ) Rebecca S. Smith and Heather D. Hunziker with the State Office of Administrative Hearings (SOAH), who conducted an evidentiary hearing concerning the application on April 25-27, 2023.

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. SAWS is a public utility owned by the City of San Antonio (the City) with responsibility for, among other things, the City's water supply and distribution, its wastewater, and its water reuse systems.
2. SAWS was created in 1992 to consolidate existing systems that had previously been operated by various entities.

3. SAWS operates an integrated public water system that distributes potable water, primarily from groundwater, to its customers. From 2017 through 2022, the proportion of groundwater in SAWS's water supply ranged from a minimum of 90.81% to a maximum of 98.43%, metered on a daily basis.
4. On December 30, 2013, SAWS filed its Application (the Application) with the Texas Commission on Environmental Quality for a bed and banks authorization pursuant to Texas Water Code section 11.042(b) (Section 11.042(b)).
5. The Application seeks to convey and subsequently divert SAWS's privately owned groundwater-based return flows.
6. SAWS is not seeking authorization for the return flows based on surface water and does not seek authorization for discharges made to Mitchell Lake, wetlands originally set up as a holding pond and a source of water for irrigation.
7. In the Application, SAWS seeks authorization to use the bed and banks of the Medina River, Salado Creek, Comanche Creek, Leon Creek, Medio Creek, and the San Antonio River in the San Antonio River Basin as well as the Guadalupe River in the Guadalupe River Basin, to convey up to 260,994 acre-feet (AF) of groundwater-based return flows per year.
8. The return flows originate from nine outfalls at four wastewater treatment plants:
 - a. Discharge Point No. 1 (Steven M. Clouse WRC Outfall 001), located at Latitude 29.235827° N, Longitude 98.416244° W, on the Medina River;
 - b. Discharge Point No. 2 (Steven M. Clouse WRC Outfall 002), located at Latitude 29.461615° N, Longitude 98.468752° W, on the San Antonio River;
 - c. Discharge Point No. 3 (Steven M. Clouse WRC Outfall 003), located at Latitude 29.446454° N, Longitude. 98.480740° W, on the San Antonio River;

- d. Discharge Point No. 4 (Steven M. Clouse WRC Outfall 004), located at Latitude 29.484730° N, Longitude 98.416819° W, on Salado Creek;
 - e. Discharge Point No. 5 (Steven M. Clouse WRC Outfall 005), located at Latitude 29.420978° N, Longitude 98.485352° W, on the San Antonio River;
 - f. Discharge Point No. 6 (Steven M. Clouse WRC Outfall 006), located at Latitude 29.275560° N, Longitude 98.428978° W, on the San Antonio River;
 - g. Discharge Point No. 7 (Leon Creek WRC Outfall 001), located at Latitude 29.275319° N, Longitude 98.513008° W, on Comanche Creek;
 - h. Discharge Point No. 8 (Medio Creek WRC Outfall 001), located at Latitude 29.398847° N, Longitude 98.668031° W, on Medio Creek; and
 - i. Discharge Point No. 9 (Salado Creek WRC Outfall 001), located at Latitude 29.275560° N, Longitude 98.428978° W, on the San Antonio River.
9. The Application, as initially filed, identified a single diversion point from the Guadalupe River describing it by longitude and latitude and providing a United States Geological Survey map showing the location.
 10. This proposed diversion point is approximately 214 to 247 river miles from SAWS's points of discharge.
 11. By letter dated February 29, 2016, SAWS amended the Application to request a diversion reach commencing at its originally proposed diversion point and extending downstream approximately 7.38 miles to Guadalupe Bay.
 12. SAWS's proposed purposes for the water include municipal, agricultural, industrial, mining, and instream purposes in Bexar, Calhoun, Goliad, Karnes, Refugio, Victoria, and Wilson counties.

13. The Application states that records from the City's first wastewater treatment plant indicate the discharges to the San Antonio River commenced in January 1950. This date is incorrect. Later-discovered records showed that the City's discharges into the San Antonio River began in 1940.
14. Regardless of whether SAWS should have been aware of the earlier date, the evidence does not support a finding that SAWS intentionally provided an incorrect date of initial discharge on the Application.
15. SAWS provided additional responses to requests for information and fees on July 8, 2014; August 8, 2014; February 29, 2016; and March 29, 2016.
16. The Application was declared administratively complete by TCEQ staff and accepted for filing with the Office of the Chief Clerk on May 9, 2016.
17. TCEQ's Executive Director (ED) conducted a technical review of the Application, including an environmental review, a conservation review, and a hydrology review.
18. The ED issued Draft Permit No. 13098 (Draft Permit) in March 2021.
19. The Draft Permit would authorize SAWS to use the bed and banks of the Medina River, Salado Creek, Comanche Creek, Leon Creek, Medio Creek, and the San Antonio River, in the San Antonio River Basin, as well as the Guadalupe River, in the Guadalupe River Basin, to convey up to 260,991 AF of groundwater-based return flows per year, for subsequent diversion and use for municipal, agricultural, industrial, mining, and instream purposes in Bexar, Calhoun, Goliad, Karnes, Refugio, Victoria, and Wilson counties.
20. The Draft Permit would authorize SAWS to divert its groundwater-based return flows from a reach on the Guadalupe River, in the Guadalupe River Basin, with the upstream point being at Latitude 28.478432° N, Longitude 96.862858° W, and the downstream point being at Latitude 28.447519° N, Longitude 96.785611° W, in Calhoun County.
21. The Draft Permit specifies the maximum combined diversion rate is 161,878 gallons per minute (360.53 cubic feet per second).

22. The groundwater-based return flows authorized to be conveyed via the bed and banks of a State watercourse in the Draft Permit do not have a priority date.
23. The Draft Permit contains several special conditions, including Special Condition 5.B, which specifies that diversion authorization is conditioned on the availability of the Applicant's discharges, and Special Condition 5.C, which specifies that SAWS shall divert and use return flows only in accordance with the most recently approved accounting plan. Special Condition 5.D specifies that SAWS may divert only the actual daily amount of groundwater-based return flows discharged, less the estimated losses, after accounting for travel times between the discharge and diversion points, and less any groundwater-based return flows diverted under Applicant's other authorizations, when those authorizations are being used.

Procedural History

24. On August 17, 2021, TCEQ mailed notice of the Application to all downstream water right holders of record in the Guadalupe and San Antonio River Basins.
25. The Commission granted the hearing request of the Guadalupe-Blanco River Authority (GBRA) and referred this matter to SOAH on February 14, 2022.
26. On May 4, 2022, a preliminary hearing was held. Ruth Takeda and Aubrey Pawelka represented the ED. Jim Mathews and Benjamin Mathews represented SAWS. Molly Cagle and Samia Broadaway represented GBRA. Kevin Jordan, Ken Ramirez, Carlos Moreno, and Ryan Bates represented Union Carbide Corporation (UCC). Eli Martinez represented OPIC. UCC's request for party status was granted, and INV Nylon Chemical Americas, LLC's request for party status was denied. ALJ Smith overruled SAWS's objection to jurisdiction and determined that jurisdiction was established.
27. On April 27, 2023, ALJs Smith and Hunziker convened the hearing on the merits at SOAH's Austin office. SAWS was represented by attorneys Jim Mathews, Ben Mathews, and Jennifer Windscheffel; GBRA was represented by attorneys Samia Broadaway, Kevin Jacobs, Molly Cagle, and Joseph E. Cole; UCC was represented by attorneys Kevin Jordan, Caroline Carter, Amir Halevy, and Carlos Moreno; the ED was represented

by Staff attorney Ruth Takeda; and OPIC was represented by Staff attorneys Eli Martinez and Jessica M. Anderson. The record closed on September 28, 2023, with the filing of the parties' reply briefs.

Protestants' Water Rights

- 28. The San Antonio River flows into the Guadalupe River; downstream from the confluence, it is known as the Guadalupe River.
- 29. GBRA was created by the legislature in 1933, and it manages water resources within its ten-county district, which spans from the upper reaches of the Guadalupe and Blanco Rivers and follows the Guadalupe River to San Antonio Bay on the Gulf Coast.
- 30. Most of GBRA's district is within the Guadalupe River watershed.
- 31. UCC, which is a wholly owned subsidiary of Dow Chemical, uses water from the Guadalupe River at its chemical plant facility in Seadrift, Texas, where it manufactures a variety of plastic products.
- 32. GBRA and UCC (collectively, Protestants) co-own six water rights in the portion of the San Antonio and Guadalupe River Basins below the confluence of the rivers (Lower Basin), with priority dates ranging from 1941 to 1952, shown in the table below.

Certificate of Adjudication Number	Permit Number	Priority Date(s)	Date Initially Granted	AF
18-5173	1319	February 3, 1941	April 16, 1942	2,500
18-5174	1362	June 15, 1944	April 27, 1945	1,870
	1624	June 15, 1944	June 2, 1952	
18-5175	1564	February 13, 1951	May 10, 1952	940
18-5176	1592	June 21, 1951	December 3, 1951	9,944
18-5177	1375	January 3, 1944; January 26, 1948	July 31, 1945	32,614
	1420	January 3, 1944; January 26, 1948	September 30, 1947	

	1764	January 3, 1944; January 26, 1948	June 17, 1955	
	1375A	January 3, 1944; January 26, 1948	March 27, 1957	
18-5178	1614	January 7, 1952; May 5, 1954; January 11, 1957; July 8, 1964; September 6, 1968	March 31, 1952	106,000

The Edwards Aquifer

33. The Edwards Aquifer (EA) underlies and transects part of the Guadalupe River Basin and the San Antonio River Basin.
34. The EA is a large, karst limestone aquifer. Because of its karst nature, water easily moves in and out of it, contributing to the base flows of both the Guadalupe and San Antonio Rivers.
35. The EA is the source of the groundwater SAWS pumps, and thus the source of the groundwater-based effluent at issue.
36. The EA is regulated by the EA Authority and the pumping of groundwater from the EA is also subject to a distinct permitting system set out in the EA Authority Act.

Water Rights Adjudication

37. In Texas, surface water is permitted by a prior appropriation system, under which first in time is first in right.
38. Water rights under the prior appropriation system are assigned a priority date, which is an indication of a water right's seniority in the prior appropriation system.
39. In the 1970s and 1980s, existing water rights claims were adjudicated, and Certificates of Adjudication (CAs) were issued. Each CA was given a priority date.

40. Once adjudicated, permits and other water rights underlying the CAs were superseded by them, becoming defunct.
41. Adjudication was based on use—either actual use of the water or a diligent effort and intent to develop it—during an approximately ten-year lookback period.
42. The final adjudication decree was conclusive as to all existing and prior rights in the adjudicated stream.
43. The six water rights co-owned by Protestants were all adjudicated and assigned CAs.
44. TCEQ’s Water Availability Model (WAM) considers the San Antonio River and the Guadalupe River to be one basin.
45. The WAM run currently used by TCEQ for water rights permitting in the San Antonio River Basin and Guadalupe River Basin does not include San Antonio’s return flows.
46. Previous versions of the WAM used before 1999 included San Antonio’s return flows.
47. At the time Protestants’ CAs 18-5173, 18-5174, 18-5175, 18-5176, 18-5177, and 18-5178 were adjudicated, San Antonio’s effluent discharge flowed in the Guadalupe River and was part of the water used by Protestants during the lookback period.

Review of Applications Under Section 11.042(b)

48. In 2006, TCEQ changed its process of reviewing applications under Section 11.042(b) for authorization to use the bed and banks of a watercourse to convey groundwater-based return flows for subsequent diversion and use.

49. This change was brought about in response to the Commission's December 2006 interim order regarding applications by the Cities of Bryan and College Station for bed and banks permits under Section 11.042(b).
50. In the *City of Bryan* interim order, the Commissioners stated that applications under Section 11.042(b) do not involve state water and required the cities' applications not to be processed under statutes and rules applicable to state water.
51. ED Staff follows a two-step process for determining whether water rights were granted based on the use or availability of an applicant's groundwater-based return flows.
52. Dr. Kathy Alexander, the Senior Policy and Technical Analyst for TCEQ's Water Availability Division, followed that two-step process in reviewing the Application.
53. In the first step, Dr. Alexander checked to see whether any water rights were explicitly granted based on SAWS's return flows by reviewing every water right in the San Antonio and Guadalupe River Basins to see if those return flows from the outfalls specified in the Application were previously permitted to another water right.
54. Based on that first step, Dr. Alexander determined that three water rights were granted based on the use or availability of SAWS's return flows, all of which are owned by SAWS or based on contracts with SAWS.
55. For the second step, Dr. Alexander performed two simulations. In the first, she entered SAWS's current level of return flows into the model and allowed all water rights to access the return flows. She then calculated the annual volume reliability of the water rights in the river basins. In the second simulation, she assumed that none of SAWS's return flows were available. She calculated the annual volume reliability under that simulation. She then determined the percent impact on the annual volume reliability between the two simulations.
56. The percent impact on the annual volume reliability of Protestants' water rights that Dr. Alexander found ranged from 0% to -3.08%.

57. Based on the ED's 5% rule of thumb, Dr. Alexander determined that the second step of the analysis showed no practical impact on Protestants' water rights and that further review of historical information was unnecessary.

Accounting Plan

58. The Application contains carriage loss calculations performed by SAWS witness Kirk Kennedy in 2013.
59. In making the calculations in the Application, Mr. Kennedy used the 2013 WAM.
60. Mr. Kennedy's calculations were used to calculate conveyance loss in the accounting plan SAWS submitted to the ED on March 17, 2021 (Accounting Plan).
61. The Accounting Plan takes the authorized discharges of return flows from the outfalls and adjusts that amount downward to account for the surface-water-derived effluent that is not part of the Application; water diverted under the water rights that are expressly issued based on the use or availability of the return flows (not including Protestants'); and conveyance loss coefficients from the WAM.
62. In response to concerns raised by Protestants, Mr. Kennedy prepared a travel times memo, calculating the travel time for discharges flowing between SAWS's discharge points and its proposed point of diversion.
63. Mr. Kennedy also recalculated channel losses using the 2021 WAM.
64. SAWS has not calculated the channel losses for the distance between GBRA's saltwater barrier and the diversion reach.
65. The data from Mr. Kennedy's travel time memo should be implemented in SAWS's Accounting Plan to account for the distance between the saltwater barrier and the diversion reach.

Protection of Protestants' Water Rights

66. Protestants' CAs 18-5173, 18-5174, 18-5175, 18-5176, 18-5177, and 18-5178 were granted based on the use or availability of the return flows SAWS seeks to divert.
67. When analyzed monthly, or annually in a year matching the drought of record, even a 1% annual impact on volume reliability could have serious negative consequences for Protestants' ability to exercise their water rights.
68. The special conditions contained in the Draft Permit do not protect Protestants' water rights that were based on the use or availability of the return flows SAWS seeks to divert.
69. Special conditions in Permit No. 13098 are necessary to protect Protestants' water rights encompassed in CAs 18-5173, 18-5174, 18-5175, 18-5176, 18-5177, and 18-5178.

Transcription Costs

70. No evidence was presented about the parties' ability to pay transcription costs.
71. All parties participated extensively in the hearing on the merits.
72. All parties used the transcript in their briefs. Protestants were aligned and jointly filed a closing brief and a reply.
73. It is reasonable for the transcription costs to be born equally between SAWS and Protestants.

II. CONCLUSIONS OF LAW

1. TCEQ has jurisdiction over this matter. Tex. Water Code chs. 5, 11.
2. SOAH has jurisdiction to conduct a hearing and to prepare a Proposal for Decision in contested cases referred by the Commission. Tex. Gov't Code chs. 2001, 2003.

3. Notice was provided in accordance with Texas Water Code section 5.115; Texas Government Code sections 2001.051 and .052; and 30 Texas Administrative Code section 295.161.
4. The Commission may grant a permit allowing for the discharge and subsequent diversion and reuse of existing return flows derived from privately owned groundwater, less carriage losses. Such a permit shall be subject to special conditions if necessary to protect an existing water right that was granted based on the use or availability of these return flows. Tex. Water Code § 11.042(b).
5. SAWS has the burden of proof to establish compliance with the necessary statutory and regulatory requirements. 30 Tex. Admin. Code § 80.17(a).
6. Special conditions are needed to protect Protestant's Lower Basin water rights that were granted based on the use or availability of the groundwater-based return flows that SAWS seeks to divert. Tex. Water Code § 11.042(b).
7. Section 1.34(b) of the Edwards Aquifer Authority Act does not affect the granting of the Application or the issuance of the Draft Permit.
8. No transcript costs may be assessed against the ED or OPIC because TCEQ's rules prohibit the assessment of any cost to a statutory party who is precluded by law from appealing any ruling, decision, or other act of the Commission. Tex. Water Code §§ 5.275, .356; 30 Tex. Admin. Code § 80.23(d)(2).
9. Factors to be considered in assessing transcript costs include: the party who requested the transcript; the financial ability of the party to pay the costs; the extent to which the party participated in the hearing; the relative benefits to the various parties of having a transcript; the budgetary constraints of a state or federal administrative agency participating in the proceeding; and any other factor which is relevant to a just and reasonable assessment of the costs. 30 Tex. Admin. Code § 80.23(d)(1).
10. Considering the factors in 30 Texas Administrative Code section 80.23(d)(1), a reasonable assessment of hearing transcript costs is for SAWS to be assessed half of the transcription costs and for GBRA and UCC to jointly be assessed half of the transcription costs.

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. SAWS's Application is GRANTED, but special conditions to protect Protestant's water rights encompassed in CAs 18-5173, 18-5174, 18-5175, 18-5176, 18-5177, and 18-5178 are to be added to the Draft Permit. Additionally, the ED is to require SAWS to amend its Accounting Plan to incorporate the Kennedy travel time memorandum and to account for the distance between the saltwater barrier and the diversion reach.
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 section 2001.144 and 30 Texas Administrative Code section 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