

**600 Congress Avenue, Suite 1300
Austin, TX 78701**

February 24, 2015

VIA EMAIL AND CERTIFIED MAIL

Jeff Tate, Section Manager - Water
Texas Commission on Environmental Quality (TCEQ)
2309 Gravel Drive
Fort Worth TX 76118-6951

Ron Ellis, Manager, Water Rights Permitting Section
James Sallans, Staff Attorney
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Mr. Richard Franchek
Locke Lord, LLP
2200 Ross Avenue, Suite 2200
Dallas, TX 75201

Re: Water Rights Permit No. 5383A

Gentlemen:

We are writing you on behalf of The City of Farmers Branch and of a number of its residents who live in the vicinity of Farmers Branch Creek, following up on complaints we filed with the DFW Regional Office of the TCEQ in late August and early September regarding the Town of Addison's failure to comply with its water use permit, No. 5383A, and agency rules. The purpose of this letter is both to provide comments to the TCEQ concerning the few areas on which we disagree with the agency's investigation report and to note on the record our opposition to Addison's proposed amendment request and our desire to have the opportunity to

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contest it. On behalf of our clients, we request too that we be timely provided copies of any correspondence between Addison and the TCEQ concerning this matter so that we may remain a part of this conversation that we initiated. We request too an opportunity to meet with you to discuss our concerns and invite representatives of Addison to participate.

By way of background, in response to our complaints, the Region conducted an investigation and, on January 20, 2015, Mr. Tate, on behalf of the Region, issued the investigation report, No. 1198885, as well as a notice of enforcement, confirming that Addison had been guilty of a number of violations. On December 19, 2014, Mr. Ellis had sent a letter to Addison, clarifying the agency's interpretation of certain provisions of its permit. In a January 29, 2015 letter to Mr. Ellis, Addison's counsel indicated its desire to amend the permit in two regards and to discuss the need for notice and a hearing regarding those amendments.

We concur with the conclusions in Mr. Ellis's December 19, 2014 letter to Addison, confirming that: (1) Permit No. 5383A does not authorize Addison to use the Woodbine Aquifer as an alternate source of water and that any such change in that alternate source would require a permit amendment; and (2) "Special Condition 6.B. requires that Addison supplement the reservoirs with its alternate source with *a minimum of 5.82 acre-feet of groundwater per year*" and that "[i]f inflows occur above Reservoir 2 in an amount greater than Addison is authorized to impound under the service portion of its permit, subject to downstream service and supplier water rights, these inflows must be passed through below Reservoir 1 to ensure that no state water is used." This letter also requested that Addison notify Mr. Ellis of its plans to address concerns the TCEQ raised, which Addison did in its January 29 letter.

We concur not only with Mr. Ellis's December 19, 2014 letter, we generally concur also with the agency's January 20, 2015 inspection report, but we do have some differences of opinion on certain aspects and request that the agency reconsider its conclusions regarding them. We have asked our consultant, TRC, to summarize our technical comments, which they have done in Exhibits A and B. In this letter, we provide our legal comments.

Our disagreement with the investigation report relates primarily to its conclusion that the makeup water the town is required to supply should be based on evaporative losses from only Reservoir 2 and not from both reservoirs -- Reservoir 2, which Addison newly constructed, and Reservoir 1, which Addison modified, pursuant to its permit amendment.

Special Conditions 6. A. and B. of the permit state:

6. A. This amendment does not allow Permittee to impound State water in Reservoir No. 2 or additional State water in Reservoir No. 1. Permittee shall provide and maintain suitable outlets in good working condition in the reservoirs to pass all inflows of State

water downstream and maintain the reservoirs full.... (Emphasis added).

6. B. Permittee shall maintain and operate an alternate source of water with sufficient production to ensure no State water is used as a result of this amendment. To account for potential use of State water due to evaporation, Permittee shall supplement the reservoirs with water from the groundwater well in the amount of a minimum of 5.82 acre-feet per year.... (Emphases added).

Special Condition 6. A. requires that Addison "pass all inflows of State water downstream..." Under the permit, Addison may not take State water at any time; the burden is on it to ensure that it does not. Addison has failed to comply with this requirement.

TRC and Addison's consultant agreed on a method for calculating the amount of make-up water required to account for evaporation from the reservoirs and water features operated by Addison. However, the consultants could not agree on whether evaporation must be calculated for both reservoirs or only the newer one. TRC concluded that both reservoirs must be included, and Addison took the position that only the newer reservoir should be included.

The permit references reservoirs plural and so does the November 18, 2010 TCEQ memorandum regarding the permit. Physically, if both reservoirs are not part of the evaporation calculation, it is not possible to make sure the water coming in at the top of the upper reservoir makes it over the dam at the lower reservoir and into the Creek.

The amended permit uses the plural throughout, e.g., reservoirs, referring to both Reservoir 1 and Reservoir 2. For example (underline added), "...pass all inflows of State water downstream and maintain the reservoirs full", and "To account for the potential use of State water due to evaporation, Permittee shall supplement the reservoirs with water from the groundwater well in the amount of a minimum of 5.82 acre-feet per year, and this water shall be released over the weir in Reservoir 1." In other words, in order to pass all inflows of state water and release them downstream of Reservoir 1, the evaporation losses from both reservoirs must be made up with groundwater. There can be no losses from Reservoir 1 that are not made up. Similarly, the TCEQ December 19, 2014 letter to Addison states: "The permit requires Addison to use its alternate source to maintain both reservoirs full..." and "If inflows occur above Reservoir 2...these inflows must be passed through below Reservoir 1 to ensure that no state water is used."

Addison has not hesitated to use the 2,300 gallons per minute (GPM) pumps to pump sufficient water to keep the water features and waterfalls in the Park operational, but objects to using the 35 GPM pumps to pump sufficient water to make up for evaporation from both reservoirs and to keep the Creek flowing on a daily basis. We estimate that the cost to pump sufficient make-up water would be less than \$5000 a year to pump from the Woodbine and less than \$13,000 a year

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to pump from the Trinity.

The agency has suggested that "...the amount of evaporative losses should be replaced in a reasonable amount of time..." It is not clear, but the ensuing discussion seems to suggest, that the agency believes that monthly is reasonable, because of its reference to the months in which Addison was deficient. We strongly disagree that monthly true-ups are reasonable. Losses should be replaced continuously and reconciled on a daily, or at most weekly, basis.

We provided Addison representatives an easy method developed by TRC for making a daily calculation as to evaporation losses so the makeup water could be calculated in a few minutes. It is not a difficult or expensive process to provide daily, continuous flow to maintain the Creek and the health of the Creek and its ecosystem. The only question in the debate with Addison should be how much water to pump, not whether it is necessary to pump on a daily basis.

A monthly calculation and makeup of flow is not reasonable, because flow could be greatly diminished or cease for most of the month, then dramatically increase over a few days as they make up for multiple days of insufficient water. Pumping based on monthly flows conceivably could actually cause flooding if make-up water were released at one time. A monthly calculation and makeup of flow does not allow the maintenance of a healthy Creek ecosystem, which has been evident when Addison has failed to deliver water on a daily basis, resulting in flow stopping all together downstream of Vitruvian, stagnant pools, odors, and adverse impacts on dissolved oxygen concentrations in the Creek.

As TRC notes in Exhibit B, Addison's discharge of water from the Woodbine, which concededly does not meet Texas Surface Water Quality Standards (WQS), "under both the conditions of the maximum monthly flow and the long term average flow (based on the TWDB period of evaporation record) would result in violations of the WQS under critical conditions," in particular, regarding TDS, Cl and SO₄. A discharge in violation of water quality standards would be a violation as well of Permit Special Condition 6E. The use of the Woodbine would result in concentrations of constituents that could again have an adverse impact on the Creek ecosystem and adversely affect aquatic life and wildlife downstream from the Vitruvian.

As noted, we concur that any changes Addison proposes to make regarding its alternate source of water and riparian buffer would trigger the need for a permit amendment, with corresponding public notice and opportunity for contested case hearing. As noted too, we oppose any such amendment and request that we be notified of any such amendment request and be provided an opportunity to respond and request a contested case hearing by both the City of Farmers Branch and the downstream landowners.

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As noted, we request a meeting with the agency to discuss our concerns. We invite Addison to participate in that meeting. We are addressing this letter as well to counsel for Addison and request that he copy us on any correspondence with the TCEQ, as we have copied them.

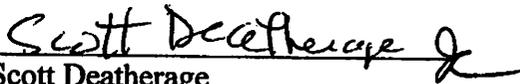
Sincerely,

Representing
City of Farmers Branch



Jeff Civins
Haynes and Boone, LLP
600 Congress Ave., Suite 1300
Austin, Texas 78701
(512) 867-8477
Jeff.Civins@haynesboone.com

Representing
Concerned Citizens of Farmers Branch



Scott Deatherage
Gardere Wynne Sewell LLP
Thanksgiving Tower
1601 Elm Street, Suite 300
Dallas, Texas 75201
(214) 999-4979
sdeatherage@gardere.com

Enclosures

EXHIBIT A

2/11/15

Comments on TCEQ Investigation Report Re Addison
James Machin

Investigation Report

1. pp. 3-4: First sampling round 9/9/2014, SO₄ exceeded WQ standard of 60 mg/L at both Res 1 and Res 2 outflows (range = 104-111 mg/L). A violation was noted. Second sampling round 10/8/2014, there were no exceedances (except for groundwater). In general, a few isolated samples that do not show violations do not determine compliance. To determine compliance, either a long-term record of sampling is required, or more commonly, an analysis is done of critical conditions per TCEQ Implementation Procedures.
2. pp. 4-5: The report states that evaporative losses should not include a forced evaporation factor. That results from heating of water as it flows over concrete structure in the water features. Not including that is debatable, as this slightly increases evaporation for a distance downstream, which could include the creek below the reservoirs. However, there is no mention of enhanced evaporation, which is attributable to spray from the water features themselves. That evaporation occurs within the reservoirs and should be included. TRC's analysis concluded that losses attributable to enhanced evaporation are equivalent to an additional surface area of 0.08 acres, which should be added to the total acreage used in calculating evaporation losses. The total effective area to be used should be $2.43 + 0.63 + 0.08 = 3.14$ acres.
3. p. 5: "...the amount of evaporative losses should be replaced in a reasonable amount of time..." It is not clear, but the ensuing discussion seems to suggest that monthly is reasonable (they mention the months where they were deficient). Losses should be replaced continuously and reconciled on a daily, or at most weekly, basis. Monthly is not reasonable, as flow could be greatly diminished or cease for most of the month, then dramatically increase over a few days as they make up for the multiple days of insufficient pumping.
4. p. 5: It is stated that the "bald cypress" is genus *Cryptomeria*. If that is true, that is a Japanese Cedar, which is in the Cypress family but is not native to the U.S. Bald Cypress is *Taxodium distichum*, which is native to the southeast U.S., but not to north central Texas.
5. p. 5 item 2: The report states that the permit does not require the maintenance of a continuous daily flow of groundwater. The permit requires that all inflows of state water be passed. That means a continuous daily flow, as the inflows are continuous. Cessation or reduction of flow because of impoundment would have an environmental impact downstream. In order to pass all inflows, a continuous discharge of groundwater is required to make up the losses.
6. p. 5 item 2: The report states that only evaporative losses from Reservoir 2 are required to be made up. The amended permit requires that all inflows be passed and that no state water be impounded. The amended permit uses the plural throughout, i.e. reservoirs, referring to both Reservoir 1 and Reservoir 2. For example (underline added), "...pass all

inflows of State water downstream and maintain the reservoirs full”, and “To account for the potential use of State water due to evaporation, Permittee shall supplement the reservoirs with water from the groundwater well in the amount of a minimum of 5.82 acre-feet per year, and this water shall be released over the weir in Reservoir 1.” In other words, in order to pass all inflows of state water and release them downstream of Reservoir 1, the evaporation losses from both reservoirs must be made up with groundwater. There can be no losses from Reservoir 1 that are not made up. Similarly, the TCEQ December 19, 2014 letter to Lea Dunn at Addison states, “The permit requires Addison to use its alternate source to maintain both reservoirs full...” and “If inflows occur above Reservoir 2...these inflows must be passed through below Reservoir 1 to ensure that no state water is used.”

7. p. 5 item 5: The report states that their sampling did not substantiate that water from the Woodbine Aquifer fails to meet Texas Surface Water Quality Standards. Their sampling and the multiple samples collected by TRC all showed exceedances of one or more standards (total dissolved solids, chlorides, and sulfates). As for the commingled discharge meeting the standards, see no. 1 above.
8. p. 6 items 7 and 8: The report side-steps addressing environmental impacts. The illegal impoundment of state water, cessation of flows, and numerous days of inadequate groundwater pumping were well documented by aerial photographs, citizens, City of Farmers Branch employees, and the TRC report. It is clear that these items will all cause adverse environmental impacts downstream.
9. p. 6 item 8: TCEQ recommends additional study downstream in the creek. We concur with this, but note that the past actions resulting in environmental impacts have caused damage that cannot be precisely determined.

Attachment 3 of 3

1. pp. 59-86 (end) table:
 - a. Evaporative loss vs. groundwater pumped table is for 2.43 acres. Should be 3.14 acres as discussed in no. 2 above.
 - b. Groundwater pumped is incorrect for the starting months. The first recorded value on the meter was 222,000 gal. on 7/26/2012 (Stacy Wright, Farmers Branch). There is no evidence any water was pumped prior to that date, so that is the assumed starting point. The last value recorded in August 2012 was 732,200 on 8/24/2012. The difference is 510,200 gal., which is assumed to be the August pumping. The table shows about 41,500 for July and 622,200 for August, or a total of 663,700, which is 153,500 more than was actually pumped.
 - c. Groundwater pumped values are shown as “adjusted to monthly basis.” That is not explained and appears to be slightly erroneous, as discussed below. Previous spreadsheet analysis provided by TCEQ used the last recorded meter values in each month, which is reasonable.
 - d. The sum of groundwater pumped for the 25 months (Aug 12 – Aug 14) is shown as 15.8M gallons, which is more than the records indicate. The actual pumping records indicate 15.2M gallons.
 - e. The table only shows a deficit in one month: April 2014 (269,300 gal.) for 2.43 acres. Using the correct pumping values, there were deficits in two months: February 2014 (11,000 gal.) and April 2014 (345,000 gal.) for 2.43 acres. For

3.14 acres, there were deficits in six months: August 2012 (118,200 gal.), October 2012 (24,700 gal.), April 2013 (20,900 gal.), January 2014 (40,400 gal.), February 2014 (67,300 gal.), and April 2014 (449,600 gal.).

- f. TRC's daily analysis of evaporation (3.14 ac) vs. pumping showed approximately 44% of the days in the range 7/26/2012 – 7/24/2014 had deficient pumping.
- g. Although daily data were presented, the analysis was done on a monthly basis. It should be done on a daily, or at most weekly, basis. As stated above, monthly is not reasonable, as flow could be greatly diminished or cease for most of the month, then dramatically increase over a few days as they make up for the multiple days of insufficient pumping.

EXHIBIT B

2/12/15

Addison Groundwater Discharge Water Quality Evaluation
James Machin

Addison is discharging groundwater from the Woodbine Aquifer into Farmers Branch Creek to make up evaporation losses under their water right no. 5383A. The quality of that groundwater does not meet Texas Surface Water Quality Standards (WQS). The water right requires that the commingled groundwater and surface water not violate the WQS. I have performed an evaluation of the discharge of this water in terms of the potential to violate the WQS.

The TCEQ Procedures to Implement the Texas Surface Water Quality Standards (RG-194) has a screening procedure to determine permit limits for total dissolved solids (TDS), chlorides (Cl), and sulfates (SO₄) for proposed discharges. The original water rights application indicated that the Trinity Aquifer would be used and presented data showing significantly better water quality, so TCEQ did not go through the screening procedure at that time.

I inquired with TCEQ as to the classification of Farmers Branch Creek above Dam 1. They consider it an intermittent stream with perennial pools. Using the procedure for that type of water body, I determined that the discharge of Woodbine groundwater under both the conditions of the maximum monthly flow and the long-term average flow (based on the TWDB period of evaporation record) would result in violations of the WQS under critical conditions. The quality of the groundwater used was the average of the three samples collected by TRC in February 2014. Violations of TDS, Cl, and SO₄ WQS would occur without permit limitations. In other words, the permit limitations could not be met by Woodbine water without treatment.

Results of the analysis as compared to raw groundwater concentrations are summarized in the table below.

	Raw Groundwater Concs.	Long-term Average	Maximum Month
Groundwater flow, gpm	n/a	9.26	22.03
TDS limit, mg/L	2170	1938	1152
Chlorides limit, mg/L	573	408	226
Sulfates limit, mg/L	436	177	115