December 16, 2024

Office of the Chief Clerk of the TCEQ
Attn: Agenda Docket Clerk
Office of the Chief Clerk (MC – 105)
P.O. Box 13087
Austin, Texas 78711

In the matter of the application by Douglas T. Harrison for TPDES No. WQ0016211001 TCEQ Docket No. 2024 – 1723 – MWD

Kira Olson's reply to responses by ED, Doug Harrison, OPIC

In addition to already demonstrating within my previous request for a contested case hearing that I and my family are "affected parties" who have a justiciable interest related to a legal right, duty, privilege, power or economic interest affected by the application":

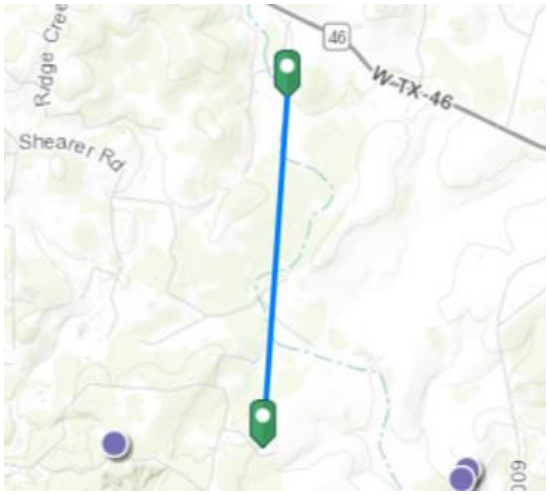
- "Given the sizeable discharge of up to 600,000 gallons per day sought by the applicant, OPIC finds that their proximity to the Facility and its discharge increases any likelihood that they may be affected by its operation in a way not common to members of the general public. Further, as their properties are near the Facility, a reasonable relationship exists between the interests they seek to protect and the applicant's regulated activity – a relevant factor under 30 TAC § 55.201 (c)(3). As mentioned by OPIC referring to residents within 2 miles of the Facility.
- Prove to myself and my family that my location will not be affected by this activity during a non-eventful year as well as during times of flood. The arbitrary numbers that the ED and Harrison have stated to exclude "affected parties" for mileage away from the Facility are careless and not in line with protecting the citizens of Texas/endangered species/wildlife/domestic animals/farms/caves… from increasing numbers of pollutants in our water. "OPIC notes that there are no specific distance limitations applicable to who may be considered an affected person for purposes of this application".

On behalf of my family and myself I would like to request a contested case hearing as an affected party in regard to the application by Douglas T. Harrison for TPDES Permit No. WQ0016211001

- According to the TPDES permit application (WQ00162211001), up to 600,000 gallons per day of treated effluent will be discharged to West Fork Dry Comal Creek, thence to Dry Comal Creek, where it will flow until it enters the Comal River in the town of New Braunfels. It is unlikely that discharge will be filtered or diluted before entering the Edwards Aquifer Recharge Zone (EARZ) and therefore will likely degrade the quality of the water entering the EARZ. This is supported by scientific modeling in a recent study by the Southwest Research Institute Study commissioned by the City of San Antonio Parks and Recreation Department, the Edwards Aquifer Protection Program, and the San Antonio River Authority in Bexar County on Helotes Creek (October 2020).

- The Harrison wastewater treatment facility is sited in the contributing zone, its discharge point is located just 2,000 feet upstream from the recharge zone boundary. Discharging effluent into a dry creek so close to the recharge zone means that the effluent will reach the recharge zone undiluted much of the time. During periods of flooding that are characteristic of the Texas Hill

Country, contaminated water will flow for over 10 miles across the recharge zone. Our well is located approximately within 2 miles of the facility as shown below.



- EARZ is a very environmentally sensitive area due to numerous karst features (caves, sinkholes, dissolved fractures, etc.) in the limestone which allows for water to drain into the recharge zone without being filtered. A detailed geologic assessment of the area would most likely identify the presence of many sensitive karst features that are the gateway for this treated effluent to enter the aquifer system. There are known caves and sinkholes directly adjacent and on the property. As such, the wastewater will negatively impact the quality of the water in the aquifer. There is not a clear boundary between the Edwards and the Trinity Aquifers, therefore having a strong possibility of contaminating nearby wells including our own well, situated south of the wastewater treatment facility. This area is prone to flash flooding and as such any flooding that may occur in the vicinity of the wastewater treatment plant (it is near the 100-year floodplain) has the potential to flush untreated discharge into the drainage area.

- The wastewater plant is oversized for the size of the development. A nearby subdivision, Meyer Ranch, had a similar number of homes proposed so the original wastewater treatment plant only had a capacity of 390,000 gallons which is much less that the 600,000 gallons proposed for Harrison Ranch. Precedent was set in Meyer Ranch (also a high density on the EARZ) where they changed the permit from the TPDES to 100% beneficial reuse after litigation in 2016. It includes provisions for 100% beneficial reuse and groundwater monitoring for runoff As such, it should be requested to convert to a land application permit (The Grove, Vintage Oaks) or 100% beneficial reuse as indicated above for Meyer Ranch and NOT a TPDES as requested for Harrison Ranch.

- The Dry Comal Creek and Comal River are essential natural resources in this geographic area, supporting economic development and recreation in New Braunfels, as well as agriculture operations throughout the area. The Dry Comal Creek was listed as having impaired water quality issues dating back to 2010, and the proposed permit application only adds to the challenges facing these invaluable and irreplaceable resources. The Edwards Aquifer provides drinking water for over 2 million people that live in and around San Antonio. I urge you to consider the cumulative impact this will have on our Hill Country and ask you to deny this permit application.

- Based upon the status of permits approved by TCEQ, it would be a negligent act by TCEQ to knowingly allow for over 1400 families to be located adjacent to a 1500-acre quarry. A quarry which would endanger the health and safety of these families is also not appropriate for this area for reasons stated in another case. https://www.stop3009vulcanquarry.com/wp-content/uploads/2024/10/2024.09.20-PHCE-PHCEF-Petition-for-Judicial-Review-of-Vulcan-WPAP-File-Stamped-1.pdf

October 7, 2024

Addendum for Request for Contested Case Hearing for Olson Family as affected party.

The proposed Harrison Wastewater Treatment Facility (WWTF) is sited on the 500+ acre Harrison properties in Comal County. According to the new TPDES permit application (WQ0016211001), up to 600,000 gallons per day of treated wastewater will be discharged into the West Fork of Dry Comal Creek, where it will flow for 28.6 miles until it enters the Comal River in the town of New Braunfels. The Harrison properties straddle the boundary between the Edwards Aquifer Contributing Zone (CZ) and Recharge Zone, a state-recognized, environmentally sensitive area.

The RZ is where the highly porous and permeable Edwards Limestone is exposed at the surface, allowing surface water to rapidly enter directly into the Edwards Aquifer with little to no filtration through faults, fractures, and karstic features like caves and sinkholes. This makes the uniquely prolific Edwards Aquifer very vulnerable to groundwater pollution.

Although the Harrison WWTF is sited in the CZ, its discharge point is located just 2,000 feet upstream from the RZ boundary. Discharging effluent into a dry creek so close to the RZ means that the effluent will reach the RZ undiluted much of the time. During periods of flooding that are characteristic of the Texas Hill Country, contaminated water will flow for a distance of over 10 miles across the RZ. The presence of 3 significant caves on or near the southern boundary of the Harrison property is proof of this area's karstic nature. The caves have been mapped and their details are recorded in the Texas Speleological Survey's cave database. A detailed Geologic Assessment of the area would most probably identify the presence of many more sensitive, karst features.

Because of the close proximity of the Harrison WWTF to the Recharge Zone, PHCE Foundation offers the following Suggestions and/or Alternatives:

TCEQ reduced the allowable potassium concentration for Harrison's permit, but it left the wastewater discharge rate at 600,000 gpd, which we believe is, at a minimum, 2 times higher than necessary.

Reduce the total permitted flow.
The 600,000 gallons per day discharge rate in the plants Final Phase is significantly higher than other Wastewater Treatment Facilities (WWTF) in the immediate area. The closest is the Meyer Ranch WWTF (WQ0015314001) located 2.2 miles to the east. Like the Harrison properties, the Meyer Ranch subdivision straddles the CZ/RZ boundary and lies within the Dry Comal Creek drainage basin. The plant there is authorized to discharge treated domestic wastewater at a daily average flow not to exceed 390,000 gallons per day in the Final Phase. Full build out at final phase is 1600 homes.

Consider Beneficial Reuse
At Meyer Ranch, the TPDES was negotiated to 100% Beneficial Reuse to the benefit of all stakeholders.

Harrison filed for a Chapter 210 Beneficial Reuse of treated wastewater, but did not specify the percentage. He should consider authorization of 100% Beneficial Reuse.

Consider converting to a Land Application Permit
The next closest WWTF to the Harrison site is located 4 miles to the east. It is located within Dry Comal Creek drainage basin and is located entirely in the RZ. It is operated by SJWTX (WQ1532001) in the Vintage Oaks Grove subdivision. This permit is a "no-discharge" Texas Land Application Permit (TLAP), which does not allow any discharge to groundwater or a surface water body of any effluent. The treated effluent is collected in a lined holding pond on site and then used for irrigation of landscaping and grassy buffer areas.

Monitoring Wells
Include at least 2 water-quality monitoring wells. The permit holder should sample groundwater for total dissolved solids (TDS), chloride, sulfate, calcium, magnesium, nitrate nitrogen, orthophosphate phosphorus, and e coli.

Reduce lot density and increase development buffers
The discharge rate could be reduced by increasing the average lot size and removing lots located within the 100- year floodplain. This would have the advantage of reducing the amount of impervious cover and decreasing storm water runoff generated.

I respectfully request a Contested Case Hearing with affected party status in the name of myself and family on permit #WQ0016211001. I urge you to consider the cumulative impact that Harrison's WWTF will have on the Hill Country environment and our community.

Thank you,

Kira Olson
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Bulverde, TX 78163

In addition to my personal concerns, the inconsistencies/concerns cited below should be considered in for a denial of this permit.

According to TCEQ's own instructions for TPDES permits, whoever has overall responsibility for the operation of the facility must apply for the permit as a co-applicant with the facility owner (30 TAC §305.43). Mr. Harrison is listed as the owner of the facility in Section 9 of the permit, which is not accurate. SJWTX, Inc. appears to be the one who will be operating the plant according to the SPIF. Because SJWTX, Inc. will be operating the facility, they should be listed on the application. Otherwise, who would be held responsible for carrying out the standards of the permit? This application is inadequate and should be denied.
(For reference - TCEQ Instructions for completing a TPDES permit
https://www.tceq.texas.gov/downloads/permitting/wastewater/forms-tools/10053ins.doc)

Douglas Harrison is the only applicant on this permit listed as the facility owner, but Mr. Harrison is the landowner. There is no operator listed on this permit. However, SJWTX, Inc. (CN602969396) is listed as the permittee on the SPIF.

If SJWTX, Inc. (dba Canyon Lake Water Supply Company and dba Texas Water Company) is the operator of this facility, this permit should not be granted based on SJWTX's repeated history of not meeting permit guidelines or the Texas statutes meant to protect the health and safety of the surrounding community and local ecosystem. Non-compliance history with permits at other facilities SJWTX owns and/or operates include:

1. Vintage Oaks at the Vineyard WWTP (RN107867194)
    - On October 28, 2021, SJWTX, Inc. dba Canyon Lake Water Service Company was fined $46,000 for violating 30 TAC Chapter Section 305.125(1), 30 TAC Section 26.212(a)(1) for exceeding effluent limits defined in the permit.
    - During a TCEQ investigation conducted on January 21, 2020, SJWTX, Inc. was found to exceed the following effluent limits in the last five years:
        - CBOD5 = 42 mg/L (limit 10mg/L) on 12/12/18
        - Ammonia nitrogen = 82.6 mg/L (limit 5 mg/L) on 12/1/18
        - Phosphorus = 18.7 mg/L (limit 2 mg/L) on 7/6/19

2. Too much of these nutrients can lead to eutrophication, harming or killing aquatic plants and animals, reducing biodiversity, and making the water unsuitable for human consumption or recreational activities. Eutrophication can lead to issues that may conflict with the following chapters of Tex. Admin Code:
    - 217 - This chapter sets out the requirements for domestic wastewater facilities. Section 10, in particular, specifies the permissible concentrations of CBOD5, ammonia nitrogen, and phosphorus in the treated effluent.
    - Chapter 307 - This chapter sets out the water quality standards for surface water in Texas. Section 5, in particular, specifies the permissible concentrations of CBOD5, ammonia nitrogen, and phosphorus in surface water.
    - Chapter 213 - This chapter sets out the limits for wastewater discharges into the Edwards Aquifer, a primary source of drinking water for Texas. Section 4, in particular, specifies the permissible concentrations of CBOD5, ammonia nitrogen, and phosphorus in any discharge into the aquifer.
        - If there is an active issue, it would also mean this facility may be non-compliant with Edwards Aquifer Permit #13001261. Therefore, TCEQ should investigate this matter immediately for the health and safety of the surrounding community's groundwater supply.
    - Chapter 307, Subchapter C, Division 4 - This section sets out the rules for regulating the discharge of pollutants from domestic wastewater facilities. Section 307.44, in particular, requires such facilities to develop plans to minimize the discharge of pollutants, including CBOD5, ammonia nitrogen, and phosphorus.

3. TCEQ received 33 complaints dating back to 2019 about odor issues from the facility. Even though 28 of the 33 complaints were made after the enforcement order in October 2021, all open cases have been closed by TCEQ investigations to date.

4. SJWTX TAPATIO SPRINGS WWTP (RN102362175) had three violations in the last 12 quarters.
    - Two moderate violations

        - Failure to demonstrate that the retention of treated or untreated wastewater is adequately lined to control seepage as required by Special Provision 19 of this permit - 30 TAC Chapter 305, Subchapter F 305.125(1)).
        - Failure to properly operate and maintain the facility and all of its systems of collection, treatment, and disposal (30 TAC Chapter 305, Subchapter F 305.125(5)).
    - One minor violation
        - Failure to annually calibrate the flow measurement device ((30 TAC Chapter 305, Subchapter F 305.125(5)).

5. Bulverde 46 WRC WWTP (RN102806924) had six moderate violations in the last five years.
    - Failed to provide equipment to determine application rates and to maintain accurate records of the volume of effluent applied to the irrigated land. Specifically, the disposal site is divided into several zones, and since the application of wastewater is not uniformly applied across the zones, the Respondent was incorrectly calculating the irrigation application rates using the total volume of applied wastewater and the total acreage of all zones within the disposal site (30 TAC Chapter 305, Subchapter F 305.125(1))).
    - Failure to prevent unauthorized discharge of wastewater ((2D TWC Chapter 26, SubChapter A 26.121(a)(1) ; 30 TAC Chapter 305, SubChapter F 305.125(1) ; 30 TAC Chapter 305, SubChapter F 305.125(4)).
    - Failure to maintain and operate the treatment facility in order to achieve optimum efficiency of treatment capability (30 TAC Chapter 305, Subchapter F 305.125(1)).
    - Failure to monitor the effluent for each parameter included in the permit ((30 TAC Chapter 305, Subchapter F 305.125(1)).
    - Failure to properly analyze the pH of the effluent samples ((30 TAC Chapter 319, Subchapter A 319.11(a)).
    - Failed to notify the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility as soon as possible. Specifically, the Respondent began utilizing a Miox disinfection system to produce chlorine for their chlorine contact chamber without prior notification ((30 TAC Chapter 305, Subchapter F 305.125(1); 30 TAC Chapter 305, Subchapter F 305.125(7); 30 TAC Chapter 305, Subchapter F 305.126(b)).
        - This may also qualify as a violation of TWC Sec. 26.034, which requires the approval of disposal system plans.
        - Does previous TCEQ modeling and standards still apply to different treatment technology that did not go through the official review process?

Given the lack of any compliance history by Mr. Harrison, and the ongoing compliance issues at other facilities operated by SJWTX, including documented violations for failure to properly operate and maintain the facility and all of its systems of collection, treatment, and disposal, TCEQ should look to deny this application as described by TWC Section 26.0281. Additionally, the application does not adequately list SJWTX as the operator of the facility, as they are only listed in the SPIF. Without an operator listed on the permit application, who will be responsible for complying with the permit standards and terms once the permit is fully approved?

The application should not be considered administratively complete for the following reasons:

1. The operator/owner of the facility is not listed on the application. Douglas Harrison is listed as the landowner and facility owner, while no operator is listed. SJWTX, Inc. dba Canyon Lake Water Services Company, not Douglas Harrison, is only listed as the Permittee on the Supplemental Permit Information Form (SPIF). If Mr. Harrison will not be involved in the operations of the facility and he does not employ or contract with any operators, then the requirements that the holder of a permit must employ a treatment plant operator and that the person performing process control activities holding a valid license issued by the commission under Chapter 37 cannot be met.
2. The SPIF lists the location description of the project as "The proposed WWTF will be located approximately 0.34 miles due South of the intersection of FM3351 and Ammann Rd. in Bulverde, in Comal County, TX." This does not match the facility location description matched in the permit, which states "The proposed WWTF will be located approximately .3 miles South of the intersection of State Highway 46 and Harrison Rd. in Bulverde, Comal County, TX. These conflicting locations are 21 miles apart and the application should be denied due to an inaccurate description of the location of the facility as defined by Chapter 26 of the Texas Water Code.

Has TCEQ ensured that the proposed activity will not jeopardize the continued existence of any listed species or destroy or adversely modify any designated critical habitat? Failure to comply with ESA regulations can result in legal consequences, enforcement actions, and penalties.

Attached is an official species list, which is a letter from the local U.S. Fish and Wildlife Service field office that assists in the evaluation of potential impacts of this project. It includes a list of species that should be considered under Section 7 of the Endangered Species Act (ESA), a project tracking number, and other pertinent information from the field office.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

The ESA protects endangered and threatened species and their habitats by prohibiting the “take” of listed animals and the interstate or international trade in listed plants and animals, including their parts and products, except under federal permit. It is unlawful for a person to take a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF. You can view an online version of the information used to create the letter here: https://ipac.ecosphere.fws.gov/project/YUKSUZFZ2BB2PMTYT24KZLQXZU/index

30 Texas Administrative Code Chapter 309 Subchapter B establishes minimum standards for the location of domestic wastewater treatment facilities.

30 TAC §309.11 defines the following:

3. "Active geologic processes" are "any natural process which alters the surface and/Accor subsurface of the earth, including, but not limited to, erosion (including shoreline erosion along the coast), submergence, subsidence, faulting, karst formation, flooding in alluvial flood wash zones, meandering riverbank cutting, and earthquakes.
4. "Aquifer" is "a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs."
5. "Erosion" is "the group of natural processes, including weathering, deterioration, detachment, dissolution, abrasion, corrosion, wearing away, and transportation, by which earthen or rock material is removed from any part of the earth's surface."

In July 2020, the City of San Antonio Parks and Recreation Department, the Edwards Aquifer Protection Program, and the San Antonio River Authority commissioned a study by the Southwest Research Institute to create a flow model for how discharge from a TDPES on the Edwards Aquifer contributing and recharge zones in Bexar County, which is experiencing similar development pressures. They presented an integrated hydrologic transport representation
that provides the means to simulate solute transport and evaluate the scenarios needed for wastewater disposal facility evaluation in the Contributing Zone that should be considered. You can find this modeling at bit.ly/EAPPmodel.

There is a cave on the Harrison property and more caves on surrounding properties. Also, the location of the facility is in the Edwards Aquifer Contributing Zone (about 2000 feet from the Edwards Aquifer Recharge Zone). A map of these features can be found at bit.ly/harrisongeomap.

The commission should not issue a permit for a new facility unless it finds that the proposed site, when evaluated in light of the proposed design, construction, or operational features, minimizes possible contamination of water in the state. The Edwards Aquifer is the primary source of drinking water for two million people in the San Antonio area, so contamination of this resource would have a resounding impact far beyond the Harrison Tract site. In making this determination, the commission should consider the following factors before issuing the permit under rule 30 TAC §309.12:

(1) active geologic processes.
(2) groundwater conditions such as groundwater flow rate, groundwater quality, length of the flow path to points of discharge, and aquifer recharge or discharge conditions.

(3) soil conditions such as stratigraphic profile and complexity, hydraulic conductivity of strata, and separation distance from the facility to the aquifer and points of discharge to surface water in the state; and
(4) climatological conditions.

Evaluation of the site to ensure water in the state is protected should include, but not be limited to the following analyses:

Hydrogeological Survey: A hydrogeological survey is required to evaluate the groundwater resources near the wastewater facility. This survey will provide information on the characteristics of the aquifer, including its depth, extent, quality, and recharge rates.

Soil Analysis: A soil analysis is performed to determine the capacity of the soil to absorb and treat wastewater discharged from the facility. This analysis evaluates the soil's texture, structure, permeability, moisture, and nutrient content.

Geologic Evaluation: A geologic evaluation assesses the geologic characteristics of the area where the wastewater facility will be located. This evaluation will identify any geological hazards, such as unstable or reactive soils, karst formations, or fault lines.

Stormwater Analysis: A stormwater analysis determines the impact of runoff from the wastewater facility on the environment. This analysis assesses the potential for erosion and sedimentation, as well as the potential for contaminant transport to surface waters.

Fate and Transport Modeling: Fate and transport modeling is a process used to predict the behavior of wastewater contaminants in the environment. This modeling evaluates the potential for groundwater contamination, as well as the concentration and fate of pollutants in surface water bodies.

Caves are formed by the active geological processes of erosion and dissolution. Erosion occurs when natural forces, such as water, wind, and ice, wear away the surface of rocks and soil. Dissolution occurs when certain types of rocks, such as limestone or dolomite, are dissolved by water containing carbon dioxide, forming caves.

The dissolution process is responsible for the formation of most caves. When rainwater seeps through the ground, it absorbs carbon dioxide from the soil and becomes slightly acidic. This acidified water can dissolve minerals from the rock, creating small openings in the ground. Over time, these openings can become larger, eventually leading to the formation of caves.

Erosion also plays a role in the formation of caves. The movement of water and other natural forces can wear away the surface of the rock, creating cracks and crevices that may eventually become caves. Erosion can also contribute to the widening and shaping of existing caves.

FEMA (Federal Emergency Management Agency) has regulations related to floodplain management that apply to wastewater in a flood zone.

The FEMA regulations require that wastewater treatment facilities and systems be designed and constructed to withstand flooding and other natural disasters. This includes ensuring that the facilities are

located and designed to prevent contamination of water supplies and minimize the impact of flooding on public health and safety.

The FEMA regulations also require that wastewater treatment facilities and systems be located outside of the 100-year floodplain, if possible. If it is not possible to locate the facility outside of the floodplain, the facility must be designed to survive the 100-year flood with minimal damage and downtime.

In addition, FEMA regulations require that wastewater treatment facilities and systems be designed and constructed to minimize the release of hazardous substances in the event of a flood. Any emergency response plans for the facility must also take into account the potential impact of floods and ensure that proper measures are taken to protect public health and safety.

It is important for businesses that operate wastewater treatment facilities or systems in flood zones to comply with FEMA regulations to ensure the safety of the public and the environment.

As noted in the Notice of Receipt of Application, Intent to Obtain Water Quality Permit, Notice of Application, and Preliminary Decision for TPDES Permit for Municipal Wastewater, the proposed discharge route is from the plant site to West Fork Dry Comal Creek, thence to Dry Comal Creek, thence to the Comal River in Segment No. 1811 of the Guadalupe River Basin.

According to the 2022 Texas Integrated Report, a TCEQ review summarizing the condition of Texas' surface waters, both Dry Comal Creek and Comal River are flagged as impaired waterbodies; meaning both these waterbodies' effluent limitations are not stringent enough to implement water quality standards.

In 2010, Dry Comal Creek (Segment 1811A_01) was listed as impaired for bacteria in water (recreation use), and in 2016 Comal River (Segment 1811_01) was listed as impaired for bacteria in water (recreation use) as well. To address these high bacteria levels, the Dry Comal Creek and Comal River Watershed Protection Plan (WPP) was developed to implement best management strategies (BMPs) to improve the water quality and quantity across this watershed area. You can read the WPP at https://bit.ly/ComalWPP.

The location of the facility is in the Edwards Aquifer Contributing Zone (about 2000 feet from the Edwards Aquifer Recharge Zone). There is a cave on the Harrison property and more caves on surrounding properties. It is very likely if an Olympic-sized swimming pool of sewage is discharged into the area a day, at least some of it would end up in the aquifer due to erosion and dissolution. A map of these features can be found at https://bit.ly/harrisongeomap. Comal Springs that feed the headwaters of the Comal River is water from the Edwards Aquifer.

In July 2020, the City of San Antonio Parks and Recreation Department, the Edwards Aquifer Protection Program, and the San Antonio River Authority commissioned a study by the Southwest Research Institute to create a flow model for how discharge from a TDPES on the Edwards Aquifer contributing and recharge zones in Bexar County, which is experiencing similar development pressures. They presented an integrated hydrologic transport representation that provides the means to simulate solute transport and evaluate the scenarios needed for wastewater disposal facility evaluation in the Contributing Zone that should be considered. You can find this modeling at https://bit.ly/EAPPmodel.

Dry Comal Creek and Comal River are essential natural resources for this geographic area and public water supplies. Supporting economic development, three surface primary contact recreation, and

agriculture operations throughout the area. The approval of this permit as-is will most likely result in the degradation of these three bodies of water in violation of and supported by the WPAP and EAPP modeling. A tier 2 anti-degradation review should be conducted on this project to ensure it will not increase pollution on Dry Comal Creek and the Comal River to ensure further impairment of these surface bodies of water. Rule 30 TAC §307.5 states that discharges that cause pollution authorized by the Texas Water Code, the Federal Clean Water Act, or other applicable laws must not lower water quality to the extent that the Texas Surface Water Quality Standards are not attained.

The Edwards Aquifer is the primary source of drinking water for two million people in the San Antonio area. Contamination of this resource would have a resounding impact far beyond the Harrison Tract site. TCEQ has a duty under TWC 26.401 to ensure discharges of pollutants, disposal of waste, or other activities subject to regulation by state agencies be conducted in a manner that will maintain present uses and not impair potential uses of groundwater or pose a public health hazard.

Respectfully,

Kira Olson
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