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February 12, 2024

Laurie Gharis, Chief Clerk
Texas Commission on Environmental Quality
Office of the Chief Clerk, MC 105
P.O. Box 13087
Austin, Texas 78701-3087

Via TCEQ Online Comment Form

RE: Request for Contested Case Hearing regarding Application by Municipal Operations, LLC for TPDES Permit No. WQ0016171001.

Dear Ms. Gharis:

Greater Edwards Aquifer Alliance ("GEAA") and the City of Grey Forest ("Grey Forest") (collectively, "Requestors") maintain their request for a contested case hearing regarding the above-referenced Application by Municipal Operations, LLC ("Applicant") and provide the following information as a supplement to their initial comments on the Application, dated May 9, 2023. The Executive Director's Response to Comments ("RTC") did not resolve issues previously raised by Requestors. GEAA and Grey Forest may be contacted through my office at the address and telephone number indicated below.

I. GEAA is an "Affected Person."

The Purposes of GEAA include seeking to protect and preserve the Edwards Aquifer and Trinity aquifers, their springs, watersheds, and the Texas Hill Country that sustains these aquifers. In forwarding this purpose, GEAA seeks to ensure protection of the water quality in Hill Country streams. GEAA's membership includes persons who own property in the close vicinity to the proposed treatment plant and would be affected by odors from the plant in a way that is unique from the general public.

For example, Wade and Ward Saathoff are members of GEAA who would otherwise have standing to request a hearing in their own right as a consequence of their property ownership near the proposed facility. Wade and Ward Saathoff live and own property at 20654 Low Bluff Rd,

approximately 300 feet south of the proposed facility. The Saathoffs spend extensive time outside at their property walking, hiking, exploring, ranching, hunting, and swimming and fishing in Chiminea Creek. The Saathoffs are concerned that enjoyment of their property will be harmed by odors from the proposed discharge facility. They are also concerned about contamination of water wells on their property.

Chrystal Galm Woodcock is also a member of GEAA who would otherwise have standing to request a hearing in her own right as a consequence of her property ownership within one mile of the proposed facility. Ms. Woodcock lives at 20915 Sams Ranch Rd, approximately .8 miles south of the proposed facility. Helotes Creek also runs approximately 50 yards from her home and approximately 1.2 miles downstream of the proposed discharge. She has enjoyed the natural beauty of Helotes Creek on her property since she was a child when the property was owned by her grandparents. Several times per week, Ms. Woodcock walks along the creek to enjoy its natural beauty. Several times per month, Ms. Woodcock and her 15-year-old daughter enjoy walking the creek bed to look for fossils, arrowheads, and deer antler sheds. Nearly every day that the creek is flowing and weather permits, Ms. Woodcock and her daughter swim, tube, and wade in the Creek. Ms. Woodcock spends time outside daily enjoying her property, barbequing, and doing yardwork, and she is concerned that enjoyment of her property will be harmed by odors from the proposed discharge facility. Ms. Woodcock also has a water well approximately 70 yards from the Creek and is concerned about groundwater contamination.

Shawn and Sam Galm are also members of GEAA who would otherwise have standing to request a hearing in their own right as a consequence of their property ownership within one mile of the proposed facility. The Galms live at 20851 Sams Ranch Road, approximately one mile southeast of the proposed facility. Helotes Creek also runs through their property, approximately 1.3 miles from the discharge point. Mr. and Mrs. Galm—along with their children, grandchildren, neighbors, and friends—swim in the Creek downstream of the proposed facility, picnic along the creek, and enjoy its natural beauty. Mr. and Mrs. Galm are concerned that the discharge from the proposed facility will affect the crystal-clear nature of the stream. The Galms also have a water well approximately 30 yards from the Creek and are concerned about groundwater contamination.

Jane Sams is also a member of GEAA who would otherwise have standing to request a hearing in her own right as a consequence of her property ownership within one mile of the proposed facility. Ms. Sams lives at 21035 Sams Ranch Road, approximately .8 miles south of the

proposed facility. Ms. Sams frequently gardens, does yardwork, and enjoys time on her back porch and is concerned that enjoyment of her property will be harmed by odors from the proposed discharge facility. Helotes Creek also runs adjacent to her property, approximately 1.2 miles downstream of the proposed discharge. Ms. Sams has a water well and water storage tank approximately 100 yards from the Creek and is concerned about groundwater contamination.

II. The City of Grey Forest is an "Affected Person."

Grey Forest is a municipality located approximately two miles downstream of the discharge point, with jurisdiction over matters related to the issues raised by the application. The effluent will be discharged directly into Helotes Creek, which is a central feature of the City and source of pride for its residents. The City's primary roadway is Scenic Loop Road. Helotes Creek crosses Scenic Loop Road twice north of the City, once within the City, and four times to the south of the City. The pristine, clear water of the Creek meanders through the heart of Grey Forest. The area surrounding the Creek has multiple caves, sinkholes, and sinking streams, with large rifts, cracks, and faults in the creek feeding directly into the Edwards Aquifer with no filtration.

Helotes Creek "is oligotrophic and possibly slightly mesotrophic which suggests that the stream and watershed have been marginally impacted by wastewater discharges." *Comparative Evaluation of Wastewater Disposal Practices in the Contributing Zone of the Edwards Aquifer*, Southwest Research Institute at 1 (excerpted at Attachment A).[1] Modeling from the Southwest Research Institute study indicates that if a "TPDES facility were to be installed in the Helotes Creek watershed and . . . the cumulative amount of wastewater disposed was substantially increased, the trophic state of Helotes Creek would be further degraded and likely classified as mesotrophic or fully eutrophic." *Id.* at 3.

Grey Forest has jurisdiction over matters related to the issues raised by the application. The City has authority to abate nuisances pursuant to Texas Local Government Code § 217.002. This authority includes the authority to abate any nuisance that would result from the contamination of Helotes Creek. Critical elements of the Grey Forest Water System facilities are housed less than a mile and a half from the Guajolote tract, including two wells in Bexar Shale and in the Trinity Glenrose/Cow Creek areas, storage tanks, and a double booster system. Grey Forest Water System has continually maintained a Superior Water Rating. Out of concern for contamination of the Grey

[1] *See* full study here: https://aquiferalliance.org/wp-content/uploads/2020/11/Final_Report_revised_102220.pdf.

Forest Water System and the approximate 90% of Grey Forest households reliant upon it for water, the City passed a Resolution (2022-28R) opposing the issuance of the proposed permit. Concerns include but are not limited to E. coli and pharmaceuticals flushed in the new development and other groundwater contaminants such as pesticides, herbicides, fertilizers, and motor oil.

An element of the City's concern as to water quality impacts includes potential contamination from per- and polyfluoroalkyl substances ("PFAS"). In the Executive Director's Response to Public Comment #21, TCEQ states that it has "not investigated the potential effects of emerging contaminants, which includes Pharmaceuticals and PFAS, in effluent" and that "[n]either the TCEQ nor the EPA has promulgated rules or criteria limiting emerging contaminants in wastewater." While EPA has not set effluent guidelines for PFAS, TCEQ should take measures to address these contaminants including monitoring of effluent, influent, and biosolids produced by the treatment process.

In addition to water quality impacts on Grey Forest Water System, the City is also concerned about the quality of water entering a key aquifer recharge area. Furthermore, Grey Forest Utilities, a municipally owned gas utility company, has planned infrastructure near the proposed facility that could be impacted by the Applicant's use of chlorine as a disinfection method.

Degradation of Helotes Creek would also impact City residents' extensive use and enjoyment of Helotes Creek. The City owns and maintains 28 acres along Helotes Creek as park property, known as the "Scenic Loop Playground Club Park." This park is the largest single piece of property within the City and is located approximately 2.25 miles downstream of the proposed discharge. All of the Scenic Loop Playground Club Park property was reserved for use by the original developer in 1929 and is held in trust by the City for the perpetual "sole use, enjoyment, and benefit of the owners both present and future" within the original Scenic Loop Playground development, now known as the City of Grey Forest. As a service to the citizens of the City of Grey Forest, the City preserves and maintains this property pursuant to its authority under Texas Local Government Code § 331.001(a).

Because this 28-acre park property was intended as recreational space for the Scenic Loop Playground, City residents use it as such and have for the last 100 years. Residents, property owners, and their families and children swim, wade, fish, tube, kayak, and hike on extensive walking trails along the Creek and play along the Creek downstream of the proposed discharge.

Above: Mayor Amanda Waldrop and her son and nephew fishing on Helotes Creek, approximately three miles downstream of the proposed discharge in 2017.

Above: Mayor Amanda Waldrop's nephew showing off a fish caught approximately 3 miles downstream of the proposed discharge in 2021.

Above: Children tubing on Helotes Creek approximately 2.9 miles downstream of the proposed discharge in 2021.

Residents frequently use a dammed area of the Creek approximately three miles downstream of the proposed facility as a swimming hole and have since the 1950s.

Above: Mayor Amanda Waldrop's son swimming in Helotes Creek in a swimming hole approximately three miles downstream of the proposed discharge on August 10, 2021.

Throughout Scenic Loop Playground Club Park and along Helotes Creek are historically significant dams, weirs, and bathhouses built by the Work Progress Administration. The park also includes a dog park, community center, and baseball field. Helotes Creek also crosses over Sherwood Tail, another landmark of the City frequently used by its residents for hiking and walking. Furthermore, the diverse population of wildlife in the City depends on the Creek for water, food, and shelter.

Approximately one third of all City residents own property that abuts the Creek and use the Creek for recreational activities as described above, including fishing, kayaking, and swimming. Over half the homes in Grey Forest abut park property through which Helotes Creek and Lee Creek run. (Lee Creek converges with Helotes Creek within the corporate city limits of Grey Forest.) Many of these homeowners use their own personal water wells. Furthermore, all residents must drive over Helotes Creek to enter or leave the City, including over multiple low water crossings that may be subject to flooding from the proposed discharge.

City-owned Madla Park is also located approximately .25 miles from the Creek. This historic and beautiful park is a central feature of Grey Forest, dating back to when the town was originally founded with a focus on preserving natural resources. For example, structures on the park site date to the late 1800's. City residents utilize extensive hiking and jogging trails in Madla Park that highlight the native Texas Hill Country environment with scenic views. Wildlife habitat in the park is actively maintained and enjoyed by residents. The park is also used for picnicking and community events.

III. Hearing Request

GEAA and Grey Forest reiterate their request that a contested case hearing be held regarding the Application based on the above information and because the Executive Director's RTC did not resolve issues previously raised by the Requestors. GEAA and Grey Forest request a contested case hearing for the following issues: identification and notice to adjacent landowners, protection of surface water quality and groundwater, protection of wildlife (including endangered and threatened species), compliance with odor control and abatement requirements, compliance with applicable location standards of Chapter 309 of the TCEQ Rules (including floodplain protection and protection against active geologic processes), identification of the operator of the plant, and compliance with Texas' regionalization policy.

IV. Conclusion

For these reasons, GEAA and the City of Grey Forest are affected persons and request a contested case hearing with regard to Municipal Operations, LLC's application for TPDES Permit No. WQ0016171001. Thank you for your attention to this matter. Please contact me with any questions.

Respectfully submitted,

/s/ Eric Allmon
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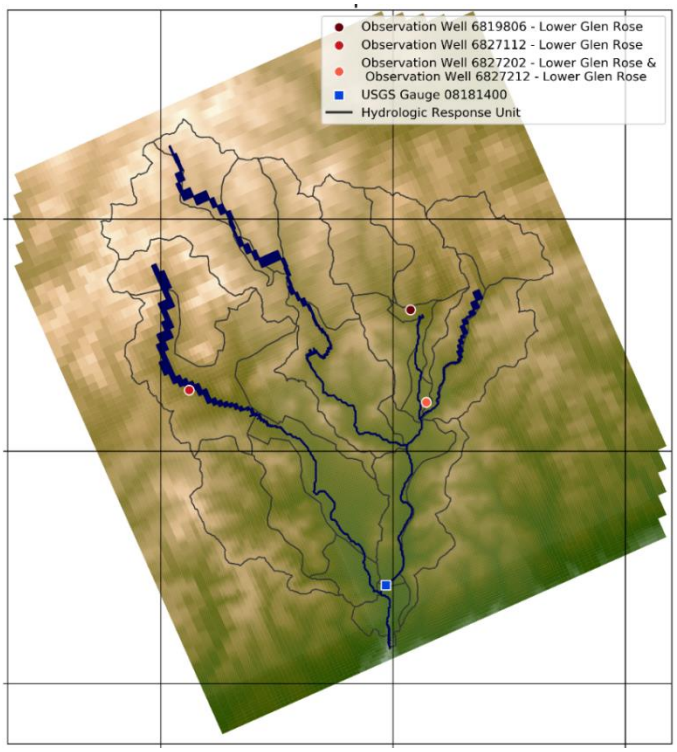
Counsel for Greater Edwards Aquifer Alliance and The City of Grey Forest

ATTACHMENT A

Comparative Evaluation of Wastewater Disposal Practices in the Contributing Zone of the Edwards Aquifer



Prepared for:

City of San Antonio, Parks and Recreation Department,
Edwards Aquifer Protection Program

and

San Antonio River Authority

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Southwest Research Institute®

San Antonio, Texas 78238-5166

July 2020

Executive Summary

The City of San Antonio Edwards Aquifer Protection Program (EAPP) was expanded when it was renewed in 2015 to provide funding for research and data acquisition on the Edwards Aquifer. As part of that program, Southwest Research Institute® (SwRI) was chosen to evaluate wastewater disposal in the recharge and contributing zones of the Edwards Aquifer using an integrated hydrologic model. The principal objective of the project was to compare the relative impact that different wastewater disposal facilities would have on the quality of water recharged to the Edwards Aquifer. Wastewater disposal facilities considered as part of the evaluation included on-site sewage facilities (OSSF), Texas Land Application Permit (TLAP), and Texas Pollutant Discharge Elimination Systems (TPDES).

A requirement of the EAPP research and data acquisition program was that funded projects must be located in Bexar County, Texas. Helotes Creek watershed, which is wholly contained in Bexar County, was selected as the study site for the SwRI project. Periphyton and sestonic sampling and analysis indicate that the current trophic state of the Helotes Creek watershed is oligotrophic and possibly slightly mesotrophic which suggests that the stream and watershed have been marginally impacted by wastewater discharges. An objective of the SwRI project is to determine the impact that different wastewater facility types would have on the trophic state of Helotes Creek watershed and the quality of water from the watershed that recharges the Edwards Aquifer.

Currently, OSSFs are the only type of wastewater disposal facility in the Helotes Creek watershed. Analysis of water samples from wells and surface-water bodies provide a measure of how the existing OSSFs have impacted local water quality. Numerical and analytical models were developed to estimate the impact that OSSF, TLAP, or TPDES wastewater facilities would have on water quality in Helotes Creek watershed and the quality of water from the watershed that recharges the Edwards Aquifer.

An integrated hydrologic model of Helotes Creek watershed was developed to generate surface-water/groundwater regimes of the study area. A transport model calculated transport rates and masses for different reservoirs predicated on flows simulated with the integrated hydrologic model. Total nitrogen was designated as the conservative constituent of interest in the transport simulations. These models were used to predict the impact to the quality of water recharged to the Edwards Aquifer from a variety of OSSF scenarios and from hypothetical TLAP and TPDES wastewater facilities in Helotes Creek watershed.

The integrated hydrologic model developed for Helotes Creek watershed incorporated all available information and data for the study site. Nonetheless, during development of the model, it became apparent that this information and data were insufficient to develop a robust comprehensive model of the study domain. Although this shortcoming limits the model when attempting to make detailed, high-resolution predictions of flow and transport in the Helotes Creek watershed, the model is shown to be useful and defensible when making comparative assessments in which the foundational conceptualizations are the same for the cases being compared.

A Base Case model was constructed to replicate, to the degree possible, mass loading from OSSFs currently present in Helotes Creek watershed. Mass loading for the Base Case was calculated using the transport model predicated on flows generated using the integrated hydrologic model. Mass loadings from eight alternative scenarios were then calculated using the same modeling assembly to evaluate the anticipated impact that various OSSF operational performances, a TPDES, and four different TLAP facilities within the Helotes Creek watershed would have on the quality of water recharged to the Edwards Aquifer.

Two locations in the watershed were considered for the location of the TLAPs, one in the less-developed upgradient northern portion of the watershed and one in the more-developed southern portion. The TPDES was placed in the southern portion of Helotes Creek watershed. OSSFs in the model were removed from the area proximal to the hypothetical wastewater disposal facilities. Mass loading from each TLAP system was predicated on the size of the land available at each site, 32 acres at the northern location and 13 acres at the southern location. Volumetric wastewater volumes discharged in the one TPDES and the four TLAP scenarios varied from 0.05 to 0.86 million gallons per day (MGD). Similarly, nitrogen loadings varied from 33.2 to 99.2 kg/d. Mass loadings assigned to the TLAP and TPDES facilities are consistent with comparably-sized facilities in Texas. Due to its greater acreage, mass loading disposal at the northern TLAP location (32 acres) was greater than loading at the southern location (13 acres), hence mass loading to recharge of the Edwards Aquifer was greater for scenarios that represented facilities at the northern location.

The size and capacity of the hypothesized wastewater facilities in the TLAP and TPDES scenarios were reasonable and consistent with possible residential development in the study area. Capacity of the TPDES and TLAP facilities was sufficient for upwards of 4,800 homes covering almost 1,800 acres. Residential developments of this size are conceivable within the 15,640 acres of the Helotes Creek watershed. Accordingly, the nitrogen mass load from the candidate wastewater disposal facilities represented in

these scenarios recharges the Edwards Aquifer at rates that are reasonable for this size and capacity of wastewater disposal facility.

As expected, the mass load in water recharged to the Edwards Aquifer is dependent on the mass load discharged to the environment, regardless of the wastewater disposal facility type. Modeling of the Base Case and eight scenarios demonstrates that the relative impacts of OSSFs, TLAP Subsurface Area Drip Dispersal Systems (SADDS), TLAP Surface Spray/Irrigation systems (SS), and TPDES practices vary depending on disposal type, mass loading, and location of the facilities. The scenarios with greatest impact on cumulative mass load to recharge of the Edwards Aquifer were the large, northern TLAP SS facility and the TPDES facility located in the southern portion of the Helotes Creek watershed. Model simulations illustrated that all scenarios, with the exception of the modest-sized TLAP SADDS, resulted in higher cumulative mass loading to the water recharged to the Edwards Aquifer relative to the Base Case indicating that in cases of failure of OSSF systems or increased development requiring a TLAP or TPDES, increased impacts to the quality of recharge to the Edwards Aquifer are to be expected.

Transport simulations support the argument that if either a TLAP or TPDES facility were to be installed in the Helotes Creek watershed and that the cumulative amount of wastewater disposed was substantially increased, the trophic state of Helotes Creek would be further degraded and likely classified as mesotrophic or fully eutrophic. Although eight scenarios were considered in the current project, evaluation of additional scenarios could provide further insight into the impact from other possible wastewater disposal facility types, locations, or number of units. Now that a transport/flow model assembly is developed and available, it would be informative to apply the model to the Edwards Aquifer contributing and recharge zones outside of Bexar County experiencing similar development pressures. Having the ability to quantitatively calculate the impact of wastewater disposal facilities in terms of mass loading on rivers and streams would greatly enhance the ability of the: 1) City of San Antonio to measure the impact from protecting lands in the contributing and recharge zones as part of the EAPP; and 2) Texas Commission on Environmental Quality to evaluate the impact of wastewater disposal into rivers and streams in the Edwards Aquifer contributing and recharge zones as part of its permitting processes.