

Proposal: Support the inclusion of Article VI Texas Water Development Board Rider 30, *Recycled Municipal Wastewater for Aggregate Production Operations*, in the final version of the Budget. [Page VI-74 of SB 1, as Passed 2nd House]

Rider: Article VI, TWDB, 30. Recycled Municipal Wastewater for Aggregate Production Operations. *Out of the amounts appropriated above, it is the intent of the Legislature that the Texas Water Development Board (TWDB) conduct and publish a study of the technical and economic feasibility of the use of recycled municipal wastewater and dry plant operations by aggregate production operations currently using Edwards and Trinity groundwater wells that includes:*

- a) *The groundwater savings that would result from aggregate production operations (APOs) switching from groundwater to recycled wastewater for their mining, processing, and dust suppression needs;*
- b) *The water savings that would result in APOs switching from wet processing to dry processing of their products;*
- c) *The cost, to the public and to the APOs, of using recycled municipal wastewater, as compared to the cost of groundwater withdraws for operators;*
- d) *The impact of recycled wastewater on APO machinery and production;*
- e) *The feasibility of connecting APOs to recycled wastewater supply sources in the most beneficial places, where APO activity and municipal wastewater production are high; and*
- f) *Potential funding strategies for building the infrastructure to connect APOs to municipal wastewater facilities.*

Rationale: Quarries in the Texas Hill Country are critical state-wide economic drivers and vital to the development and maintenance of Texas infrastructure. As Texas' population continues to grow, so too will the need for materials from Hill Country limestone quarries. While quarries are certainly not the main consumer of groundwater in Texas, they represent a unique opportunity within the region to conserve Trinity and Edwards aquifer water. Many quarries in the region are located in close proximity to an existing wastewater treatment plant.¹ If determined technically and economically feasible, certain quarries in Central Texas and elsewhere could replace the majority of their groundwater use with treated recycled wastewater.² Alternatively, quarries could adopt dry plant techniques to phase out the majority of water use altogether.³

Issue Example: In 2020, mining operations in Comal County used 3,966 acre-feet of water, 100% of which was groundwater from Edwards and Trinity aquifer wells. Mining accounted for 21% of county-wide groundwater use in 2020. In 2022, mining operations in Comal County used 6,310 acre-feet of water, 99% of which was groundwater and 1% of which was reuse water or brackish groundwater. Mining accounted for 27% of county-wide groundwater use and 15% of all county water use in 2022.⁴ To place this in perspective, the 6,245 acre-feet of groundwater used by mining operations in 2022 in Comal County was 806 acre-feet more than the annual 5,439 acre-feet of firm yield supply from Edwards Aquifer wells for New Braunfels Utilities (NBU). Water sourced from Edwards Aquifer wells makes up 27% of NBU's annual firm yield supply.⁵

Within the Edwards Aquifer Authority's boundaries as a whole, in 2023, aggregate production operations used 7,790 acre-feet of groundwater, roughly equivalent to 15,580 single-family households.^{6, 7}

Benefits:

- Municipal water service providers often provide recycled wastewater at a lower cost than the potable water supply. Depending on the cost of on-site pumping, an agreement with a local water utility could provide water for operations at a lower cost. Providers could also partner for the cost of reuse infrastructure in exchange for reduced APO pumping.
- Recycled wastewater is often considered a relatively drought-proof supply and water utilities often do not place restrictions on customers using recycled water during times of drought or shortage. Operations dependent on reuse water or dry plant techniques would be less likely to be curtailed in the event that groundwater pumping is required to be cut back under permitting requirements, ensuring continued economic viability.⁸
- Using reuse water or dry plant techniques can "free up" groundwater supplies, engendering goodwill with local communities and helping maintain the sustainability of both the quarry operations and water supplies.

¹ <https://storymaps.arcgis.com/stories/828fd0921b574ab88ede58ca550118ae>

² Recycled wastewater, reuse water, and reclaimed water are interchangeable terms for this purpose.

³ <https://www.citizen.org/article/public-citizen-urges-texas-legislature-to-rein-in-aggregate-pollution/>

⁴ https://www3.twdb.texas.gov/apps/reports/WU_REP/SumFinal_CountyReportWithReuse

⁵ https://www.nbutexas.com/wp-content/uploads/2021/10/2021-WRP-Update-Final_9.1.21-Reduced.pdf

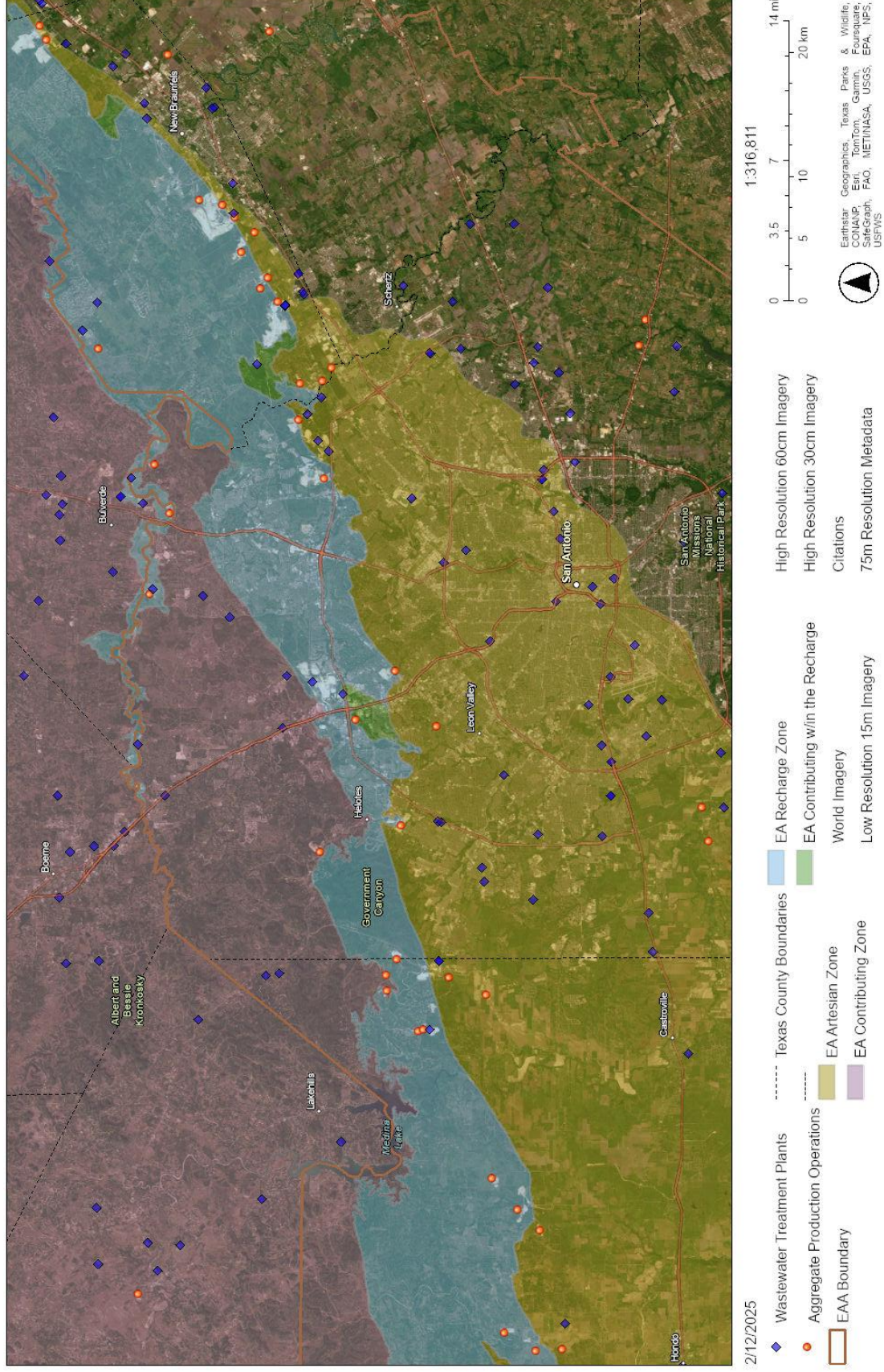
⁶ <https://www.watereducation.org/aquapedia/acre-foot>

⁷ Data pulled from 2023 Annual Groundwater Withdrawal Report submitted to the EAA – Open Records Requests

⁸ <https://twj-ojs-tdl.tdl.org/twj/article/view/7170/6509>



Quarries and WWTPs in the Edwards Aquifer Region



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