

Blanco Water Reclamation Task Force

Facilitated by



Updated Recommendations to the City of Blanco

March 8, 2022

The Blanco Water Reclamation Task Force

- Task Force established by Blanco City Council, Sept. 8, 2020
- Four representatives nominated by City of Blanco
- Four representatives nominated by Protect our Blanco
- Moderated by the Meadows Center for Water and the Environment as a consideration of the MOU with the City of Blanco

Mission:

The Blanco Water Reclamation Task Force will implement a collaborative stakeholder effort to provide viable solutions for water and wastewater management to the City of Blanco that both support responsible growth and ensure the health of the Blanco River.

Blanco Water Reclamation Task Force:

Historic Summary of Recommendations

1. Pursue a phased Texas Land Application Permit – *Revised*
2. Double the capacity of onsite storage ponds and maintain higher water quality – *Accepted*
3. Market that water and obtain agreements with more landowners – *Accepted*
4. Continue to support the Task Force with City representation and invest in Phase 2: A One Water Pathway for the City of Blanco – *Accepted*

More than \$150,000 in total cash and in-kind contributions from partners including: Protect Our Blanco, The Meadows Center, Wimberley Valley Watershed Association, National Wildlife Federation, Hill Country Alliance, Save Our Springs, Aqua Strategies, KIT Professionals

**Updated Task
Force
Recommendations:**

Provide a clear pathway to no discharge for Blanco with a flexible timeline. Capital infrastructure needs addressed as funding becomes available.

The City of Blanco should direct the City Engineer and staff to proceed with the following:

1. Begin work with Texas Commission on Environmental Quality (TCEQ) staff to complete a phased Texas Land Application Permit (TLAP) application utilizing existing plant infrastructure, storage ponds and city-owned lands to minimize potential for treated effluent discharge into the Blanco River.
2. The TLAP permit should include additional phases to capture increased treatment capacity as additional storage and/or suitable lands become available for utilization under the TLAP.

**Updated Task
Force
Recommendations:**

Expand coverage
under TLAP over
time and reduce need
for TPDES discharge

3. To cover the balance of wastewater produced in exceedance of the capacity of the TLAP, complete a phased Texas Pollutant Discharge Elimination System (TPDES) to **include water quality effluent limits that are protective of the nutrient-sensitive waters of the Blanco River**. Final Phase of TPDES may not exceed a daily discharge rate of 0.225 MGD.
4. Upon completion of any and all water use agreements for treated effluent, seek permit coverage first under the TLAP. If water use agreements do not meet statutory/permit requirements of the TLAP, seek coverage for beneficial reuse of the maximum amount available of treated effluent through Ch. 210 Authorizations.

**Updated Task
Force
Recommendations:**

**Additional Good
Faith Considerations**

The City of Blanco should commit via a permit clause, settlement agreement, interlocal agreement or other binding document to the following process for managing future wastewater treatment capacity demands:

- A. The TLAP will be considered the City's primary permit for treated effluent disposal with the TPDES permit utilized only as a secondary means of reuse/disposal.
- B. As annual reclaimed water use demands are established through Ch. 210 Authorization(s), the City shall seek expanded capacity for these authorizations under the TLAP using Beneficial Reuse Credits -- "Firm Demand"

**Updated Task
Force
Recommendations:**

**Additional Good
Faith Considerations**

C. Every reasonable effort will be made by the City to ensure that treated effluent will be directed to land disposal and/or distributed as reclaimed water under Ch. 210 Authorization(s) prior to considering discharge to the Blanco River. This includes a commitment to maintaining additional lands under reclaimed water-use agreements for the life of the permit term to supplement City-owned property and prevent a maximum amount of wastewater effluent from being discharged.

**Updated Task
Force
Recommendations:**

**Additional Good
Faith Considerations**

- D. Future development agreements associated with management of wastewater through the City of Blanco should guarantee 100% beneficial reuse or land disposal of treated effluent. Options may include decentralized wastewater regimes, provisions for additional land and storage for coverage under the city's TLAP, purple pipe for coverage under a 210 Authorization.

**Updated Task
Force
Recommendations:**

**Additional Good
Faith Considerations**

- E. Adopt enhanced monitoring and reporting requirements of all irrigation operations designed to improve the City's ability to demonstrate firm demand for reclaimed water under the TCEQ's rules regarding Beneficial Reuse Credits.
- F. Implement third-party monitoring of effluent quality and Blanco River quality by POB, Meadows Center, or other qualified consultant to monitor impacts of transitional period on the Blanco River.

Protect Our Blanco permit guidance

The City is
reporting less than
144,000 gpd
monthly average,
about 80%
of 0.180 MGD

POB proposes a 5-year permit in several phases that moves the City to 100% TLAP utilizing Reuse Credits:

Phase I, 0.180 MGD total capacity (43% TLAP / 57% TPDES)

- TLAP: Blanco is authorized to dispose of the first 78,000 gpd on 26 acres of land owned by the City via spray irrigation and must maintain at least 9 MG of storage.
- TPDES: Blanco is authorized to dispose of 102,000 gpd of via direct discharge.

Protect Our Blanco permit guidance

Phase II should be readily achievable with federal infrastructure funding and mostly eliminate the need to discharge except in very wet conditions.

Phase II, 0.195 MGD total capacity (60% TLAP / 40% TPDES)

- TLAP: Blanco is authorized to dispose of the first 120,000 gpd on 26 acres of land owned by the City via spray irrigation and must maintain at least 19.1 MG of storage (already committed in 2021).
- TPDES: Blanco is authorized to dispose of 75,000 gpd of effluent via direct discharge.

Phase III, 0.210 MGD total capacity (86% TLAP / 14% TPDES)

- TLAP: Blanco is authorized to dispose of the first 180,000 gpd on 60 acres of land owned by the City via spray irrigation (as in existing permit application) and must maintain at least 19.1 MG of storage.
- TPDES: Blanco is authorized to dispose of 30,000 gpd of effluent via direct discharge.

Protect Our Blanco permit guidance

**No expansion
anticipated for
Blanco's service
area that would
require greater than
0.225 MGD of
treatment capacity.**

Final Phase, 0.225 MGD total capacity (up to 100% TLAP w/ Reuse Credits)

- TLAP: Blanco is authorized to dispose of 225,000 gpd on 60 acres of land owned by the City via spray irrigation and must maintain at least 19.1 MG of storage WITH REUSE CREDITS of at least 20,000 gpd.
- The City cannot expand beyond 0.225 MGD until it has transitioned to a 100% TLAP. The City would convert the discharge route to a reclaimed water delivery route.

*Available provisions for expansion up to **0.360 MGD** via TLAP with 180,000 gpd of Firm Demand through reuse

Updated Task Force Recommendations:

Protect Our Blanco
permit guidance.

Water Quality Considerations

Under TLAP

City would take annual soil samples on area where it is land applying effluent, consistent with TCEQ requirements (e.g. pH, Electrical Conductivity, Nitrate-nitrogen, ammonium nitrogen, Total Kjeldahl Nitrogen (TKN), Total Nitrogen, Plant-available Phosphorus, and Plant-available Potassium.)

Under TPDES

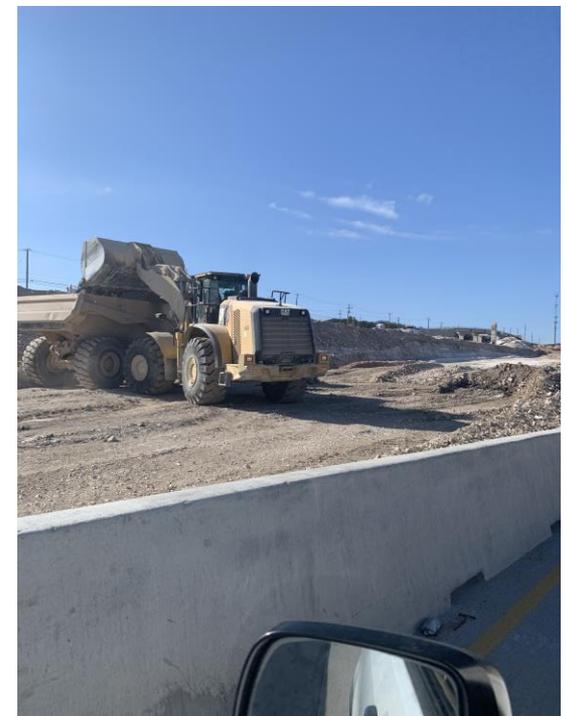
Any effluent discharged must meet TCEQ's standards in prior draft permit:

- CBOD (5-day): 5 mg/l
- Total Suspended Solids: 5 mg/l
- Ammonia Nitrogen: 1.9 mg/l
- Total Phosphorus: 0.15 mg/l
- *E. coli*: 126
- pH: 6.0-9.0
- Dissolved Oxygen: \geq 6.0 mg/l
- Chlorine residual: 0.1 mg/l

Next Steps:

Blanco Water Reclamation Task Force

- Continue Task Force technical support to the City of Blanco through drafting and approval of TLAP / TPDES permit
- Support funding from state SRF (Fed Infrastructure) and private donors
- Evaluate participation and consider restructuring of Task Force Membership
- Begin work on Phase II – A One Water Pathway for the City of Blanco



Hwy 281, twenty-five minutes south
of Blanco



March 2, 2022

Blanco River at 165