



Rio Grande Water Rights & Allocations

Water Supply & Storage System

In most of Texas, water is a flow resource. However, in the Rio Grande below Amistad Reservoir, surface water is a stock resource. This means that water accumulates in Amistad and Falcon reservoirs and is released on demand in accordance with water rights set by law (see below). Amistad and Falcon reservoirs are considered one system, with water frequently released from the upstream dam (Amistad) to replenish Falcon Reservoir and meet demands in the Lower Rio Grande. Releases of United States water held in storage at Amistad/Falcon are ordered by the Rio Grande Watermaster. The Rio Grande Watermaster program is part of the Texas Commission on Environmental Quality.

The Rio Grande Watermaster is responsible for allocating, monitoring and controlling the use of surface water in the Rio Grande Basin from Fort Quitman to the mouth of the Rio Grande, including that portion of the Nueces-Rio Grande Coastal Basin lying in Starr, Hidalgo, Cameron and Willacy Counties, but excluding the Pecos and Devils River watersheds. The jurisdiction covers 1,173 miles of the Rio Grande, 382 miles of U.S. tributaries, and approximately 1,600 water right accounts. *(See next page.)*



Uses & Distributions

Since the late 1960s, the U.S portion of the Rio Grande below Amistad has been a fully adjudicated river. Water rights belong and are distributed to domestic, municipal, industrial, and irrigation users based on two factors:

- the maximum volume assigned by law to each water right holder, by use; and
- priority of the use.

All water rights have an annual allowable maximum, but because the total legal demand for water always exceeds the supply, only the highest priority uses receive the full amount of their water right. Weighted priorities are:

- Domestic, municipal and industrial (DMI) uses (highest priority);
- operational; and
- carry-over balances for irrigation water accounts.

In order to provide for and protect this municipal-based priority system, the watermaster divides all U.S. waters held in storage at Amistad/Falcon into three distinct pools.

The highest priority is the pool of water reserved for all municipal uses. This is reestablished monthly to cover roughly one year's average municipal diversions, about 225,000 acre-feet (AF). The second highest priority pool, also reestablished monthly, is water held in reserve for operational uses to ensure delivery of water even in periods of low flow and drought. This amounts to 75,000 AF. The lowest priority pool is reserved for agricultural interests and consists of water left over after the Municipal and Operating (M&O) reserves have been reestablished. As a result, the irrigation reserve is directly affected by in-system losses that exceed inflows and the lack of water deliveries.

The priority-based system also requires that the allocation process treat municipal water

differently from irrigation. At the beginning of the calendar year, each municipal water right holder's account is replenished to its full amount. No leftover water is rolled over to the new year.

Agricultural accounts are replenished only when monthly inflows exceed losses and surpass the amount of water needed to reestablish the M&O reserves. However, agricultural users are allowed to carry over their remaining storage balances indefinitely. Irrigation accounts can best be described as a checking account: withdrawals can be made up to the amount of water held in storage for a given account; deposits are made only when overall system inflows exceed total system losses.

Water Leases & Sales

Water right holders within the Middle and Lower Rio Grande can sell their water rights or "wet water" (i.e., lease their rights for a certain period) to other users within the area. All sales must comply with certain rules.

For "wet water":

- Sales can only be approved between same-type use of water. (In other words, irrigation water can be sold only to another irrigation water right holder; municipal water can be sold only to another municipal water right holder.) Sales between incompatible water uses are not authorized.
- Accounts with existing water contract balances cannot sell water from their account. Resale of contract water is prohibited.
- Sales of water can be approved only if the seller's account has sufficient water to sell and the buyer's account will not exceed its authorized storage limit by the purchase(s).
- Purchased irrigation water is valid only for a 12-month period. Purchased municipal water expires the last Saturday of each year.

Agricultural water rights can be sold to other ag users or converted to DMI use. Class A ag water converts to DMI at 50 percent of its value; Class B converts at 40 percent.

Sales of both wet water and water rights must be approved by the TCEQ.

Watermaster Operations & Authority

Surveillance and enforcement are integral parts of the watermaster program. Watermaster deputies daily conduct surveillance of the Rio Grande to monitor diversion and water flow conditions.

The watermaster also grants authorization to divert water. This process involves several steps:

- The water right holder places an order with the watermaster for a certain amount of water for a certain date. The order must factor in the flow rate and sufficient time so that the water can be released and travel downstream to the user.
- Watermaster staff calculate total volume requested and check the account balances to ensure the owner has enough water in storage.
- Watermaster staff calculate the amount of water sufficient for all requested and approved uses and place a release order with the dam operator. Additional water is requested to cover delivery losses as the water travels downstream.
- Watermaster staff monitor diversions on a daily basis to ensure they are within the requested time frames and rates. Water rights holders also report amounts of water used, based on meter reading verified by watermaster staff.

Diverters are responsible for ensuring that their pumping facilities are capable of diverting the total amount of water requested. Once water is released from storage, the water rights holder will be charged for actual water used. If the total is less than that originally requested, a minimum of 90 percent of the water requested is charged so as to minimize losses that would affect all other users in the allocation process.

The watermaster also interacts daily with the International Boundary and Water Commission (IBWC) and the Comisión Internacional de Límites y Agua (CILA), the counterpart in Mexico. Daily flows are monitored by both countries and compared to documented demands. Future known demands are communicated and adjustments to respective release rates are made by both countries so as to minimize downstream impacts and water shortages.

All costs associated with the watermaster program are fully paid for by water right holders. For fiscal year 2005, budget and assessments total \$533,000.