



Functional Allocation Billing (FAB), A Modern Fair Billing System

What Is the Metro Wastewater Billing Framework?

The City of San Diego operates a regional Metro Wastewater System that provides wastewater treatment and disposal services for the City and twelve Participating Agencies across the region. Costs to operate, maintain, and invest in this shared system are allocated among users through a billing framework established under the Amended and Restated Agreement. The updated framework, known as **Functional Allocation Billing (FAB)**, modernizes how these shared costs are distributed so that they better reflect how the system is used today and how it must be maintained for the future.

Why Was the Framework Updated?

The prior billing approach, known as **Strength-Based Billing (SBB)**, was adopted in 1998 and relied almost entirely on annual wastewater flow and strength to allocate costs. Since then, several major changes have occurred:

- The wastewater system itself has evolved, including major investments in water reuse and advanced treatment.
- Wastewater flows and characteristics have shifted due to conservation, population changes, and new local treatment facilities.
- Significant portions of system costs, such as debt service, are fixed and driven by long-term capacity needs, not just year-to-year usage.

These changes made it necessary to update the billing framework so that costs remain equitable, transparent, and financially sustainable.

What Does the Updated Framework Do?

The FAB framework introduces a modern, engineering-based approach to allocating both operating and capital costs. It aligns costs with:

- **Actual system use** - how much wastewater is sent to the system and its pollutant strength characteristics, and
- **Capacity needs** - the infrastructure required to handle peak flows and long-term demand.

This dual perspective enables agencies to pay their fair share for both daily operations and the shared infrastructure that must be maintained for reliability and resilience.

Key Elements of the FAB Framework

Functional and Design-Based Cost Allocations

The **functional–design based cost allocation framework** is a widely used cost-of-service approach in the wastewater industry that recognizes two complementary drivers of system costs: (1) how facilities operate on a day-to-day basis, and (2) how infrastructure is designed and sized to reliably meet peak and long-term demands. By applying both perspectives, the framework assigns costs in a manner that reflects actual use of the system while also accounting for the capacity that must be built and maintained for all users.

- **Functional allocations** are used primarily for operating and maintenance costs and reflect day-to-day system operations and the associated cost drivers.
- **Design allocations** are used primarily for capital costs and reflect how facilities are sized to meet peak conditions and long-term capacity requirements.

Together, these approaches enable costs to be tied to both appropriate use and design factors for each agency

Fixed and Variable Charges

The FAB framework clearly separates costs into two components:

- **Fixed charges**, which recover capital investments and other costs that do not vary year to year. These are based on long-term capacity rights, including average flows and peak capacity needs.
- **Variable charges**, which recover operating costs (in addition to pre-2022 debt service) and are based on actual measured flows and wastewater strength each year.

This structure better aligns bills to the fixed costs of owning and operating the Metro system, improves cost predictability, and reduces volatility for participating agencies.

Recognition of Peak Capacity Needs

The updated framework explicitly accounts for incremental peak capacity and the system's ability to handle wet-weather and extreme flow events. Agencies are billed for their share of this capacity so that the costs of maintaining a system ready for peak events are equitably distributed.

Treatment of Advanced Water Purification Reject Streams

The framework introduces a specific billing component for reject streams from advanced water purification processes. These high-strength flows are allocated only to the facilities that handle them (Point Loma WTP and Pump Station 2) and billed to the agencies that produce them, improving transparency and fairness.

What Changes for Agencies?

Under the FAB framework:

- Bills are divided into fixed and variable components, providing greater stability and predictability.
- Agencies that reduce average flows through local reuse projects still contribute to the cost of maintaining regional capacity needed during peak events.
- Costs associated with unique waste streams are assigned directly to the agencies responsible for them.

Overall, the framework is designed to moderate impacts, avoid extreme year-to-year changes, and adapt over time as system conditions evolve.

Why This Matters

The updated billing framework serves as a long-term solution to Metro system billing by:

- Promoting equitable cost-sharing among all users.
- Providing a stable financial foundation for critical wastewater infrastructure.
- Adapting to changing dynamics in the Metro system and evolving usage and capacity needs of PAs.
- Encouraging responsible system use and investments that reduce peak demands.
- Aligning billing practices with widely accepted cost-of-service principles.

In short, the FAB framework modernizes how the region pays for wastewater services, balancing equity, transparency, and long-term system reliability.