

San Francisco Standard Water Balance and Audit – Phase II

Client: **San Francisco Public Utilities Commission (SFPUC)**

The results of the city wide standard water audit have shown that if real losses are valued at the retail cost of water it is economically feasible for SFPUC to reduce the volume of real losses further through implementation of a proactive leakage management policy (active leak detection and repair). However, since the volume of real losses is relatively small in the city of San Francisco it is necessary to have a targeted approach for detecting and repairing leaks. It is a well know fact that leakage is not evenly spread over the distribution system and field tests conducted in San Francisco confirmed this general knowledge. Therefore, it is paramount for SFPUC to have a targeted approach for reduction of real losses in order to achieve the desired results and to be able to utilize leak detection resources in the most effective manner. The second phase of the water audit, which commenced in January 2007, will disaggregate the distribution network into smaller zones utilizing existing reservoir supply areas.

This second phase of the water audit will disaggregate the distribution network into nine zones and WSO will prepare a standard water balance and component analysis of real losses for each zone. The project will serve to:

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| <ul style="list-style-type: none"> • Disaggregate the city of San Francisco distribution network into nine discrete distribution zones. • To assess the volume of real losses for each of the nine distribution zones. • Improve the confidence in the calculated real loss volumes. • Rank the nine distribution zones according to their volume of real losses. | <ul style="list-style-type: none"> • Prioritize active leak detection and repair campaigns. • Make the most efficient and economic use of leak detection resources. • Design a targeted active leak detection and repair policy. • The water saved through reducing real losses will help to avoid or reduce the need for demand restrictions during periods of droughts. |
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