

# Water Resource Planning and Accounting

## Salinas & Whale Rock

### Safe Annual Yield:

For Salinas and Whale Rock Reservoirs the term “safe annual yield” is used to define the quantity of water which can be withdrawn every year, under critical drought conditions. The safe annual yield available from Salinas and Whale Rock Reservoirs is estimated by simulating the operation of these two water supply sources over a historical period to determine the maximum level of demand that could be met during the most severe drought for which records are available.

### Nacimiento Reservoir Dependable Yield:

The “dependable yield” from Nacimiento Reservoir is the contractual amount of water that the City has rights to from Nacimiento Reservoir. This amount is 5,482 acre-feet per year

### Recycled Water Demand:

Annual recycled water demand is added to the City’s Total Water Supply each year. This number is projected to increase significantly as the majority of the City’s future development will occur within the Recycled Water Master Plan Area.

### Siltation:

The City will account for estimated safe annual yield losses at Salinas and Whale Rock Reservoirs through 2060 by deducting 500 acre feet of available water supplies to account for these future losses. The siltation rate will be updated as information becomes available from subsequent siltation analyses.

### Total Water Supply:

(Safe Annual Yield + Dependable Yield + Recycled Water Demand - Siltation)



### Primary Water Supply:

The amount of water needed to meet the General Plan build-out of the City. The quantity of water needed for the City’s primary water supply needs is calculated using the City’s maximum gpcd water use as regulated by State law (117 gpcd) and the City’s build-out population

(City Buildout Population x 117 gpcd x 365 days) / 325,851 gallons

### Reliability Reserve:

The reliability reserve was developed to provide a buffer for future unforeseen or unpredictable long-term impacts to the City’s available water resources such as loss of yield from an existing water supply source and impacts due to climate change. Reliability reserve is calculated using gpcd limit of 117 and 20% of the City’s current population.

20% of Current City Population x 117 gpcd x 365 days) / 325,851 gallons

### Secondary Water Supply:

The amount of water needed to meet peak water demand periods or short-term loss of City water supply sources. The City’s secondary water supply is identified as any water supply resources above those needed to meet the primary water supply and reliability reserve.

Total Water Supply - Primary Water Supply - Reliability Reserve

# Water Supply & Demand VS Population (1980-2017)

