

APPENDIX J: WATER DEMAND CALCULATIONS

Lancaster Travel Center Project Draft IS/MND

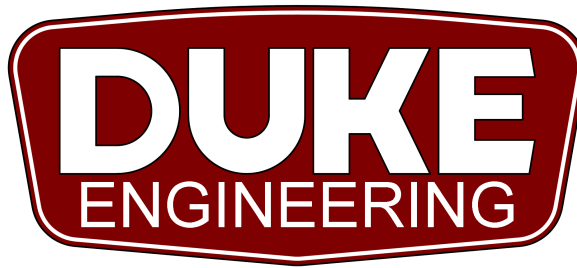


Lead Agency

City of Lancaster

44933 Fern Avenue
Lancaster, CA 93534

July 2026



June 9, 2026

LA County Water Works

RE: Water Demand Calculation for North Star Truck Stop Development

Per the LA County Waterworks request we have estimated the annual water demands for the proposed commercial buildings located off Ave H and 25th Street West. The proposed project consists of one commercial truck stop and two small QSR's. The proposed commercial buildings will consist of roughly 18 employees.

Demand Calculation:

Based on table E-1 within the commercial water use and total # of occupants including an allowance for guest, an estimate of the annual water demand was calculated at 127 Gallons per day per employee. This number takes into account the usage of each fixture for a duration of time based on the typical GPM for that fixture. As fixtures become more efficient the actual usage has a potential to decrease from the current estimated usage.

Yearly Water Usage = 2,286 Gal/ Da per * 365 days = 834,390 Gallons Per Year.
Yearly Landscaping Water Usage = 1,433,400 Gallons Per Year.
Total Yearly Water Usage = 2,267,790 Gallons or 6.9 -acre feet.

Given the conservative approach of the above estimate, the total annual water demand for the proposed project is estimated to be 2,267,790 gallons per year.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Duke", with a long horizontal line extending to the right.

Ryan Duke
Principle Engineer
RCE 79729