Farr West Engineering – How were rates determined?

- In determining the proposed residential water rates, we:
    - Included the proportional share of expenses driven by the number of Customers. This cost was $19.56 and is the same for all Customer classes.
    - Included a Base Demand Cost Component of $10.83 per user which is based on the average annual water use for the residential customer class. This charge varies depending on customer class and is $13.54 for commercial, $0.00 for Standby, and $6.17 for RV customers.
        - Three key assumptions made here:
            - Commercial customers use more water on average than residential customers,
            - Standby customers do not use any water, and
            - RV customers use less water than residential customers.
    - Included a Peak Demand Cost Component which is based on the customer classes proportional share of maximum system demands that the system incurs. This charge was $13.13 for Residential, $16.41 for Commercial, $0.00 for Standby, and $7.48 for RV.
        - Four key assumptions made here:
            - The system incurs expenses at a different rate to provide maximum day demands than they do to provide average day demands.
            - Commercial customers have the ability to drive max day demands (e.g., fire flow) at a greater rate than residential customers,
            - Standby customers do not use any water and therefore do not contribute to max day demands, and
            - RV customers drive max day demands at a lesser rate than residential customers.
    - Totaling all three unit costs results in a FY 22 residential water rate of $19.56 + $10.83 + $13.13 = $43.52
- The primary assumptions or justifications we used to determine the Standby rate was:
    - Standby users do not use water, therefore they should not be charged for expenses associated with producing water, supplying water, or employee salaries/benefits.
    - Standby users do benefit from having a viable and operating public water system which they can connect into should they develop their parcel or occupy an existing structure on that property. For this reason the Standby user pays their proportional share (2.7% total) of the following expenses:
        - Operation & Maintenance (36.85%)
    - 100 Standby customers
- The primary assumptions or justifications we used to determine the RV rate was:
    - RV users do not use water for outside irrigation and there are less people living inside of a RV which results in less water use.
    - 25 RV customers
    - We calculated City-wide outdoor average water use and reduced it to a per-person usage. This gave us a per-person, indoor water use value, city-wide. We then multiplied that volume of water by 2 persons using the assumption that the maximum number of people living inside an RV is limited at 2, while the 2019 U.S. Census tells us that there are 2.66 persons per household.
    - In total, this value tells us that RV customers use 57% of the water that a Single Family Residence does. This value influences the relationship between the Residential and RV unit costs for Base Demand and Peak Demand as stated earlier.