

# Sunflower Village Water Utility

## Future Rate Increase Exercise

Budget Category	Year 1	Year 2	Year 3
Total Revenue Requirements			
Total Revenues	\$590,000		
Revenue Surplus (Deficiency)	(\$15,000)		
% Revenue Increase Needed to Cover Costs	2.54%		

**Instructions:** Use the *Village of Sunflower Stats Sheet* and answer the questions below to fill in the table above.

1. Use the numbers from the forecast exercise to populate the *Total Revenue Requirements* row above (Hint: Use number from Total Expenses).

2. Assume no change in the *total water metered* and *number of accounts* and use the new charges from the *Base/Volume Charge Exercise* (problems 1 and 2) to fill in Year 2's total revenues.

3. Assume that in Year 3 the *total water metered* decreases by 5% and the *number of accounts* decreases by 2%. Using your new base/volume charges from the *Base/Volume Charge Exercise* (problems 1 and 2), calculate the total revenues for Year 3.

**Hint: Total Revenue =**

$$\begin{aligned} &\text{Annual volume charge revenue} = \text{Volume charge} \times (\text{Total Water Metered}/1,000) \\ &+ \\ &\text{Annual base charge revenue} = \text{Number of accounts} \times (\text{Base charge} \times 12 \text{ months}) \end{aligned}$$

Budget Category	Year 1	Year 2	Year 3
Total Revenue Requirements	\$605,000	\$618,480	\$648,296
Total Revenues	\$590,000	\$590,056	\$569,256
Revenue Surplus (Deficiency)	(\$15,000)	(\$28,424)	(\$79,040)
% Revenue Increase Needed to Cover Costs	2.54%	4.81%	13.88%

**Instructions:** Use the *Village of Sunflower Stats Sheet* and answer the questions below to fill in the table above.

1. Use the numbers from the forecast exercise to populate the *Total Revenue Requirements* row above (Hint: Use number from Total Expenses).

2. Assume no change in the *total water metered* and *number of accounts* and use the new charges from the *Base/Volume Charge Exercise* (problems 1 and 2) to fill in Year 2's total revenues.

Vol. charge (\$2.28) X water metered [140,000,000 / 1,000] = \$319,200 annual volume revenue  
\$319,200 X 0.94 collected = \$300,048  
**PLUS**  
Number of accounts (1,000) X (Base charge [\$25.71] X 12 months = \$308,520 annual base revenue  
\$308,520 X 0.94 collected = \$290,008  
**Total revenue = \$590,056**

3. Assume that in Year 3 the *total water metered* decreases by 5% and the *number of accounts* decreases by 2%. Using your new base/volume charges from the *Base/Volume Charge Exercise* (problems 1 and 2), calculate the total revenues for Year 3.

Vol. charge (\$2.28) X (Water metered [133,000,000 / 1,000]) = \$303,240 X 0.94 collected = \$285,047  
**PLUS**  
Number of accounts (980) X (Base charge [\$25.71] X 12 months) = \$302,350 X 0.94 collected = \$284,209  
**Total revenue = \$569,256**